

Operation of the STL300 vertical platform lift

Contents	Page
Declaration of conformity / compliance with the Machinery Directive.....	2
1 General.....	3
Rating plate	3
Sensitive surfaces	4
1.1 Technical data.....	5
1.2 Ambient conditions.....	5
1.3 Testing obligations.....	5
2. Intended purpose of use.....	5
2.1 Transport profiles.....	5
2.2 Inappropriate use.....	6
2.3 Operator qualification.....	6
2.4 Product description.....	6
2.5 General sketch of the platform lift.....	7
3 Safety.....	8
4 Operation.....	10
4.1 Main switch.....	10
4.2 Deep discharge protection and charging.....	10
4.3 Checking the load.....	10
4.4 Battery charger.....	10
4.5 Fetching and sending the platform lift.....	11
4.6 Travelling with the platform lift.....	12
4.6.1 Travelling with the platform lift using the external control unit.....	12
4.6.2 Door at the top station.....	13
4.7 What to do in the event of an unexpected standstill.....	14
4.7.1 Hand wheel operation.....	14
4.7.2 Evacuation	15
4.7.3 Electrical emergency operation (optional).....	16
5 Options / extras.....	17
5.1 Folding seat.....	17
5.2 Emergency call.....	17
5.3 Acoustic/visual signal.....	17
5.4 Hand-held radio transmitter.....	17
6 In the event of a malfunction.....	18
7 Acoustic warning signals.....	18
8 Services performed on your platform lift at a glance.....	19

! Important !

Please read the operating instructions before using the lift.
Also make sure that every user of the lift has read and understood the operating instructions.
No rights whatsoever may be derived from these operating instructions.



EU Declaration of Conformity

The manufacturer

LIPPE Lift GmbH
Weststrasse 48, 32657 Lemgo,

hereby declares on its sole responsibility that the following product

Vertical platform lift / type STL300

Serial number:

conforms to all relevant harmonising legal regulations of the following European Union product directives:

2006/42/EC Machinery Directive

2014/53/EU Radio Equipment Directive

Harmonised standards and technical specifications that were partly/wholly applied:

EN 81-41 (2010) EN ISO 12100 (2010)

EN 60204-1 (2009) EN ISO 13850 (2007)

Specific details according to the Radio Equipment Directive 2014/53/EU:

The product was brought onto the market in accordance with article 17 (2) a) of the Radio Equipment Directive

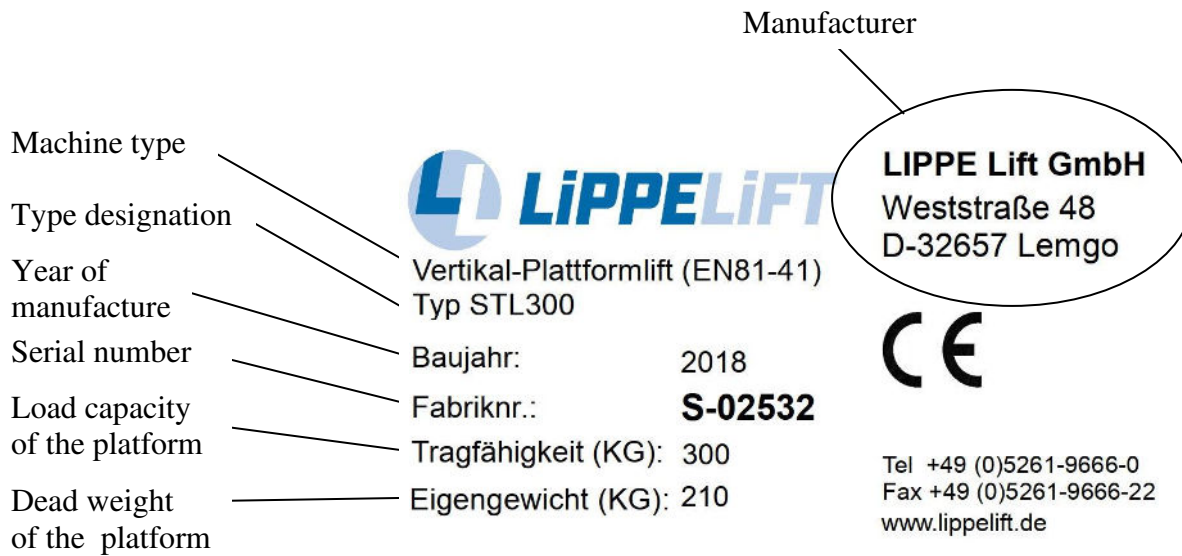
Responsible for the documentation: LIPPE Lift GmbH (Documentation Department)
Weststrasse 48, D-32657 Lemgo

Lemgo, 12/01/2019

F.-W. Müller (Managing Director)

1. General

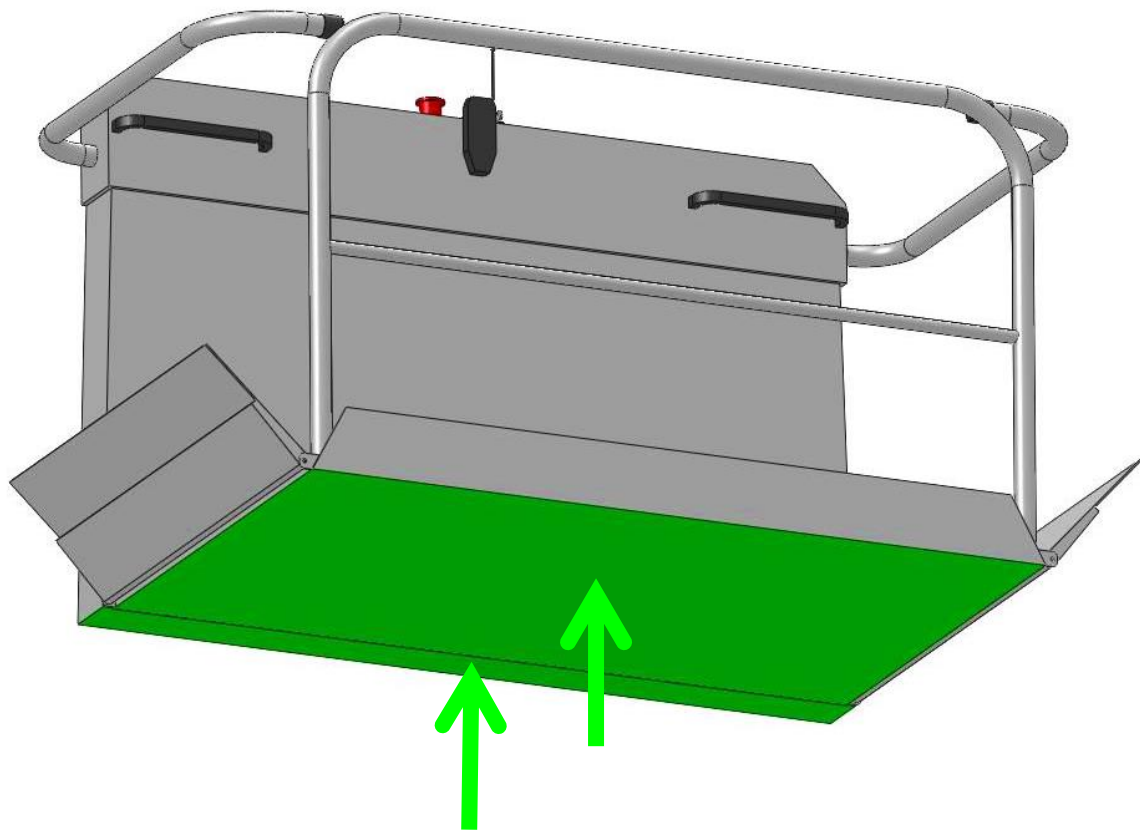
The rating plate provides the most important information about the platform lift.



Field for details of the importer/dealer

--

The STL300 is equipped with sensory surfaces. Here is an overview:



↖ = direction-related power-off (the lift can travel in the opposite direction)

If one of the direction-related switching surfaces (green) is activated, the platform stops moving and an acoustic warning signal is activated. After two seconds, the platform drives without any command for 1.5 seconds in the opposite direction and stops. Only then is the acoustic warning signal deactivated. The 'release drive' phase can be aborted only by the activation of another switching surface, a safety switch or the emergency stop.

After the 'release drive' is finished, a travel command contrary to the last active travel command must be given in order to resume travel.

If the switching surface under the balcony (optional) is activated, the platform stops and an acoustic warning signal sounds. After two seconds, the platform drives without any command for 1.5 seconds in the opposite direction and stops. Only then is the acoustic warning signal deactivated.

If the door of the upper station is opened when the lift is moving, the platform stops and a warning signal sounds. Once the door has been closed again the journey can be resumed by giving a new travel command.

1.1 Technical data:

Permissible load capacity:	max. 300 kg
Continuous sound pressure level:	< 70 dB (A)
Vibrations:	< 0.5 m/s ² (measurement inaccuracy $\pm 3\%$)
Speed:	approx. 0.08 m/s
Platform voltage:	24 V DC
Battery charger voltage:	230 V AC (55 W)

1.2 Ambient conditions:

Temperature range:	-20 °C to +60 °C
Rel. humidity:	max. 100%

1.3 Testing obligations

Whether or not the STL300 is subject to an obligatory test depends on the respective national regulations and is the user's responsibility. These regulations must be checked and adhered to. In Germany, a test is obligatory for systems with a lifting height of $\geq 3\text{ m}$.

In each case, proof must be provided and documented in accordance with EN81-41 (6.3) before the first use.

The STL300 is to undergo maintenance in accordance with the maintenance instructions at least once per year. We recommend that you take out a service contract with your dealer.

2. Intended purpose of use

The STL300 platform lifts are intended for the transport of wheelchair users and/or people with reduced mobility.

The platform travels between fixed access points along a straight, permanently installed, vertical rail. The platform is guided vertically between the stations by the running rail.

The lift may only be operated by persons who have read and understood these operating instructions.

2.1 The following transport profiles are foreseen:

1. Transport of one person sitting in a wheelchair
2. Transport of one person sitting on the folding seat.
3. Transport of one person standing on the platform, provided that there is sufficient headroom and that the person has sufficient standing stability and can hold the hand grips securely.
4. Transport of an additional person, provided that there is sufficient room on the platform and that the permissible load capacity is not exceeded.

A usage profile of 10 start-ups per hour is foreseen (with distances covered of max. 3 m for each start-up). In the case of longer distances covered, the number of start-ups should be reduced accordingly (and linearly).

The STL300 may be only operated if danger due to falling objects (such as flowerpots) is ruled out.

2.2 Inappropriate use must be prevented, e.g.:

- Exclusive use for loads (if, in rare cases, loads such as shopping or beverage crates are transported, it is essential to ensure that the load is sufficiently stable and that the permissible loading capacity is not exceeded).
- Loads that protrude beyond the surface area of the opened base may in general not be transported (e.g. large pieces of furniture).
- The STL300 is not a toy (children).
- Operation in potentially explosive atmospheres

2.3 Operator qualification:

The operator of the platform lift must have unrestricted mental abilities. Operators with seriously impaired vision may be transported only with an attendant, and the attendant must issue the drive commands. Furthermore, the operator must have read and understood the operating instructions.

2.4 Product description

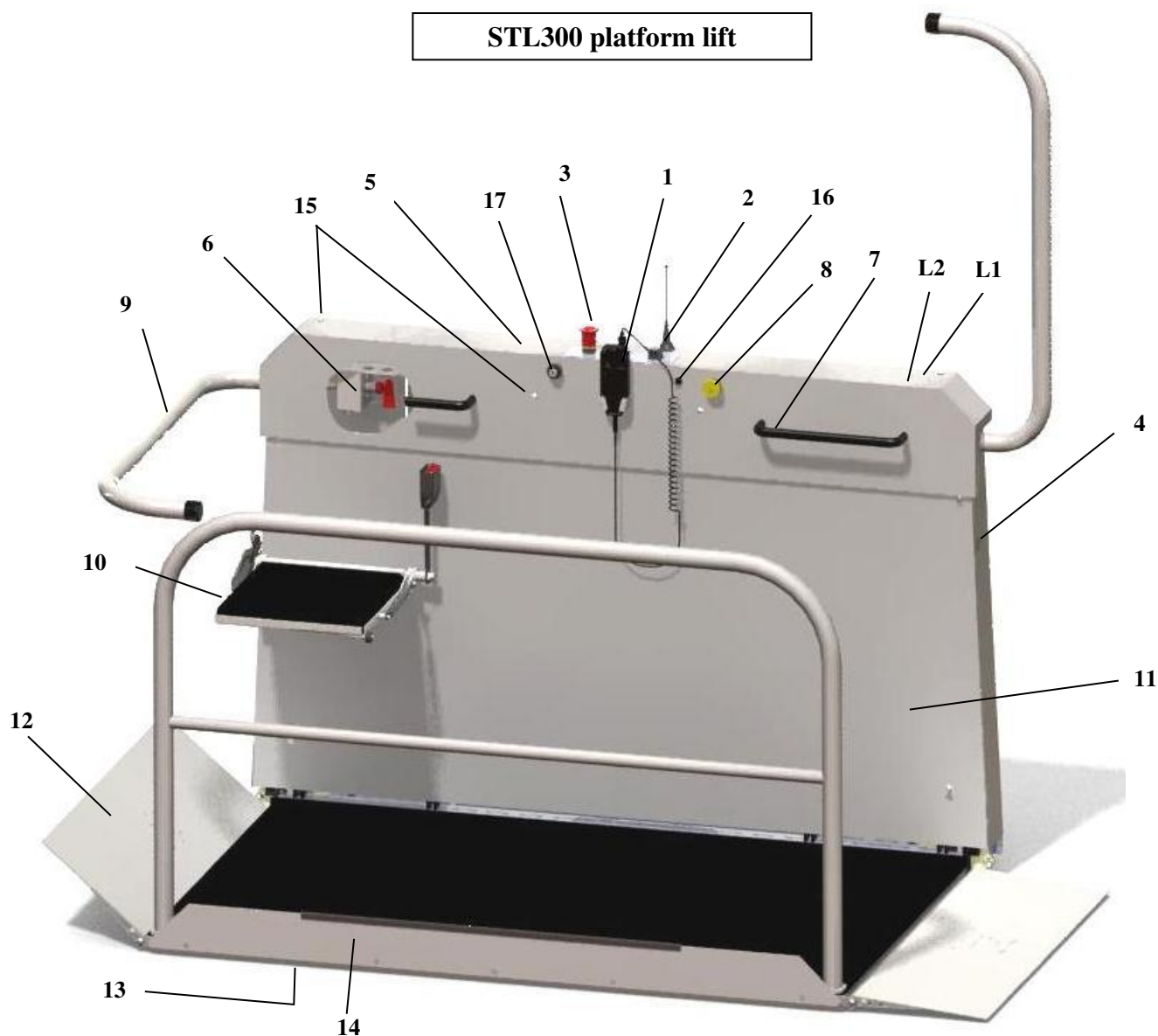
Our products combine the requirements for moving between storeys with outstanding integration in the familiar environment in an appropriate way. The drive unit of the STL300 will be painted according to your wishes in a colour from the extensive RAL colour pallet. The track is made of anodised aluminium and is not painted. It does not need to be lubricated, as a result of which undesirable soiling is ruled out.

The permissible load capacity is 300 kg (the measuring point for this is the centre of the base of the platform).

The continuous sound pressure level is less than 70 dB (A).

We recommend that you take out a service contract. This guarantees the technically optimum condition of your STL300 through regular maintenance. The maintenance interval is at least once per year.

STL300 platform lift



Item	Designation
1	Control unit
2	Key switch
3	Emergency stop button
4	Blanking plug
5	Platform hood
6	Main switch (located inside)
7	Handle
8	Emergency call
9	Left-hand safety barrier
10	Folding seat (option)
11	Cover for motor / controller
12	Left-hand drive-on ramp
13	Contact base
14	Safety board
15	Fixing screw for hood on left side
16	Fuse for the charging current
17	Key switch for emergency operation (option)
L1	Indicator lamp – main switch ON
L2	Indicator lamp – load capacity exceeded

3. Safety and special instructions

Attention! Although your lift meets the latest safety regulations, it is essential that you observe the following safety instructions:



Put the lift into operation only after reading the operating instructions and adhere to the operating instructions.



Never exceed the permissible load capacity.
(Residual danger: breakage/failure of the brakes)



Operate the lift only when seated (exceptions: see transport profile).



Do not use the lift in the case of fire.



Do not allow loosely hanging articles of clothing to get near to the running rail and the platform when the lift is moving.
(Residual danger: trapping of loose clothing, etc.)



Never place your hands near the running rail when the lift is moving.
(Residual danger: crushing)



Be sure to observe the track in the direction of travel when travelling.
(Residual danger: crushing)



Do not remove, cut through, deform, or use undue force to operate parts of the lift, cladding parts or operating elements.



Do not push the barriers with undue force, neither while travelling nor when raising or lowering them.
(Residual danger: falling from the platform)



Stop the drive command immediately if there are obstacles or articles in or on the track or platform or in the driving area.
(Residual danger: crushing)



Do not remove any labels or signs belonging to the lift.



Have repairs carried out exclusively by specialists.



Do not allow any parts of the body, wheelchair or loads to protrude beyond the base of the platform.



Do not make any unnecessary movements on the platform, such as rocking or swinging.

(Residual danger: falling from the platform)



In the case of interior and exterior installations, brief or permanent flooding of the lift is forbidden.



Remove dirt from the lift with a little polish or a damp cloth, not with a water jet.



The load-bearing equipment and track must be sufficiently well lit by daylight or electric lighting. The electric lighting must be independent of timer circuits. Minimum 50 lux at the entry and exit points or in accordance with the national employee protection regulations.

4.1 Main switch

The main switch (red key) is located inside the platform, behind the cover (*p.7/item 6*). The key can be removed by turning it anti-clockwise, thus interrupting the electricity supply. (See 4.7.1 regarding the opening of the cover). The main switch must be actuated by technical personnel.

4.2 Deep discharge protector and charging

The STL300 platform lifts are equipped with automatic battery chargers. Charging takes place automatically when the platform lift drives into a charging station. The batteries do not require any care.

All STL300 platform lifts are equipped with an acoustic deep discharge protector. This acoustic signal generator is intended to protect the batteries against deep discharge.

If the battery voltage drops below 22 V, a beep sounds at intervals of approx. 5 seconds. In this case you should drive immediately to the next charging station – if possible the lower charging station – and allow the lift to charge up there for several hours (this takes place automatically in the charging station). The beep stops after proper charging. The sound can be turned off by pressing the emergency stop button; this has no influence on the charging process.

4.3 Checking the load

The STL300 platform lift is equipped with an overload protector (acoustic and visual). On overload the orange lamp on the hood goes out (*p.7, item L2*). In addition, the internal beeper emits a continuous tone. This is based on the entire load being in the centre of the base of the platform. Reduce the weight if the overload protector is triggered. It may be sufficient just to shift the weight towards the running rail.

4.4 Battery charger (indicator lamps)

The indicator lamps on the battery charger indicate the respective condition of the battery charger. A distinction must thereby be made between the different versions of the battery charger.

The meaning of the different colours or indicator lamps is shown on the battery chargers. The fitter will explain them to you in detail again during the instruction.

Note: An acoustic signal sounds if the lift, outside a station, is not charged 30 seconds after the last motor movement.

4.5 **Fetching and sending the platform lift**

Ensure before each trip that the acoustic and, if present, the visual (optional) warning signals work. The STL300 platform lift can be fetched from or sent to another station from any station. To do this, the key switch must be inserted in the external control unit, turned in the appropriate direction and held in this position. The platform lift does not react immediately, but after a delay time of approx. 2 seconds.

Note: The platform lift moves only in the closed state, i.e. the safety barriers must be folded horizontally.

Attention:

In the case of a storey circuit (more than two stations) the platform lift is to be fetched or sent as follows: If the STL300 platform lift has arrived at one of the middle stations, it stops there and opens. If the platform lift is not supposed to stop (open) there, the drive control on the external control unit must be briefly released and then pressed again immediately so that the platform continues to drive.

Note: an LED is mounted on the radio transmitter for fetching/sending the platform lift.

GREEN: batteries are OK

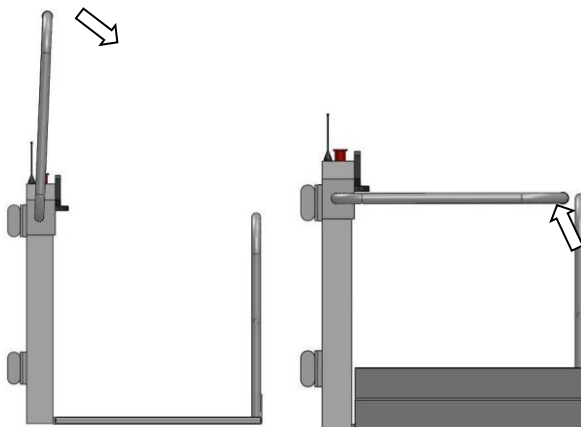
ORANGE: the battery power is diminishing; renew the batteries at your earliest convenience

RED: the battery power is very low; replace the batteries immediately

Automatic opening/closing

The safety barriers and ramps fold up/down electrically. This is performed by means of an UP or DOWN command issued from a station (*see also point 4.5*). The control button must be pressed and held (so-called jogging mode) until the folding procedure is complete.

Together with the safety barriers, the drive-on ramp also opens on the respective side, or on both sides as the case may be.



4.6 Travelling with the platform lift

Ensure before each trip that the acoustic and, if present, the visual (optional) warning signals work. The following control elements are located on the platform:

- | | | |
|-----------------|-----------------------------|--------------|
| a) Key switch | Function -I- and -0- | (p.7/item 2) |
| b) Control unit | Function UP and DOWN | (p.7/item 1) |
| c) Pushbutton | EMERGENCY STOP (red button) | (p.7/item 3) |

- ⇒ After driving or stepping onto the platform, insert the key and turn it to position -I-:
 - ! The safety barriers close electrically if the button is pressed in the desired direction of travel and held down. Once the barriers are closed, the platform lift starts to move.
- ⇒ Upon reaching the destination station:
 - ! The platform lift stops automatically (the respective position is set during the installation).
 - ! Press and hold the button until the safety barrier has fully opened.
- ⇒ If the STL300 platform lift has more than two stations (storey circuit), proceed as follows:
 - ! If the platform lift has reached one of the middle stations, it stops there and raises the safety barriers. If the platform lift is not supposed to stop (open) there, then briefly release the control element and press it again immediately so that the platform lift continues to drive.

4.6.1 Travelling with the platform lift using the external control unit

The loaded STL300 platform lift can also be driven by an accompanying person using the external control unit. It must be ensured that no third person can suddenly get/jump into the path of the lift.

Condition: driving area is 100% in view!!!!

Otherwise, the operation is the same as described in *Fetching and sending* (4.5).

4.6.2 Door at the top station

The top station is secured by a door. This door can only be opened when the platform is at a standstill at the top station and the platform will only drive if the door is closed.

There are two possibilities to open the door:



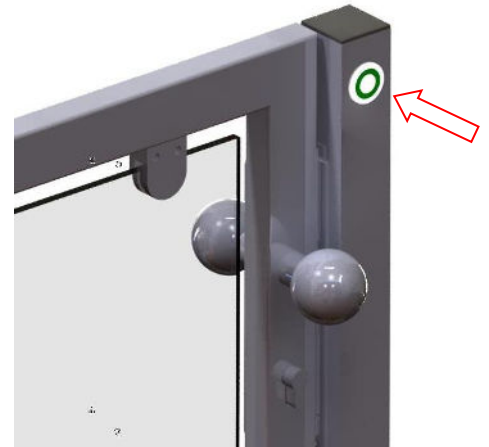
4.6.2.1 Manual door

In the case of the manual door, actuate the button to unlock the door and at the same time open the door manually.

4.6.2.2 Automatic door

In the case of the automatic door, actuate the button for about 2 seconds and the door will open automatically.

Make sure that the swivelling range of the door is free!



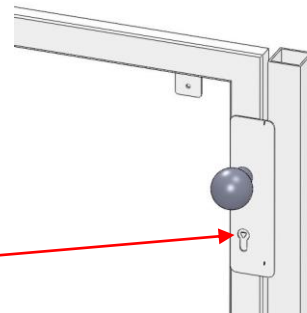
The door closes automatically either after a preset time or when the button is actuated again.

4.6.2.3 Emergency unlocking

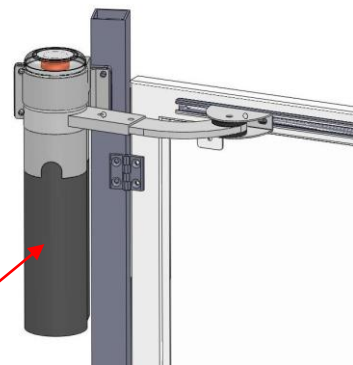
The door can also be unlocked manually in case of a malfunction.

In the case of the manual door the lock can be unlocked with the triangular key supplied (metal) and the door opened.

Triangle



In the case of the automatic door, you must first decouple the motor from the door drive. To do this, push the flap on the front side of the motor upwards and turn the pin according to the picture on the motor. Then unlock the lock with the triangular key (plastic) and open the door manually. Open the door only when the door drive is decoupled, as otherwise the gearbox will be damaged!



Motor unlocking device

4.7 What to do in the event of an unexpected standstill

We recommend that you carry a functioning mobile telephone with you so that you can alert family members, neighbours or rescue forces.

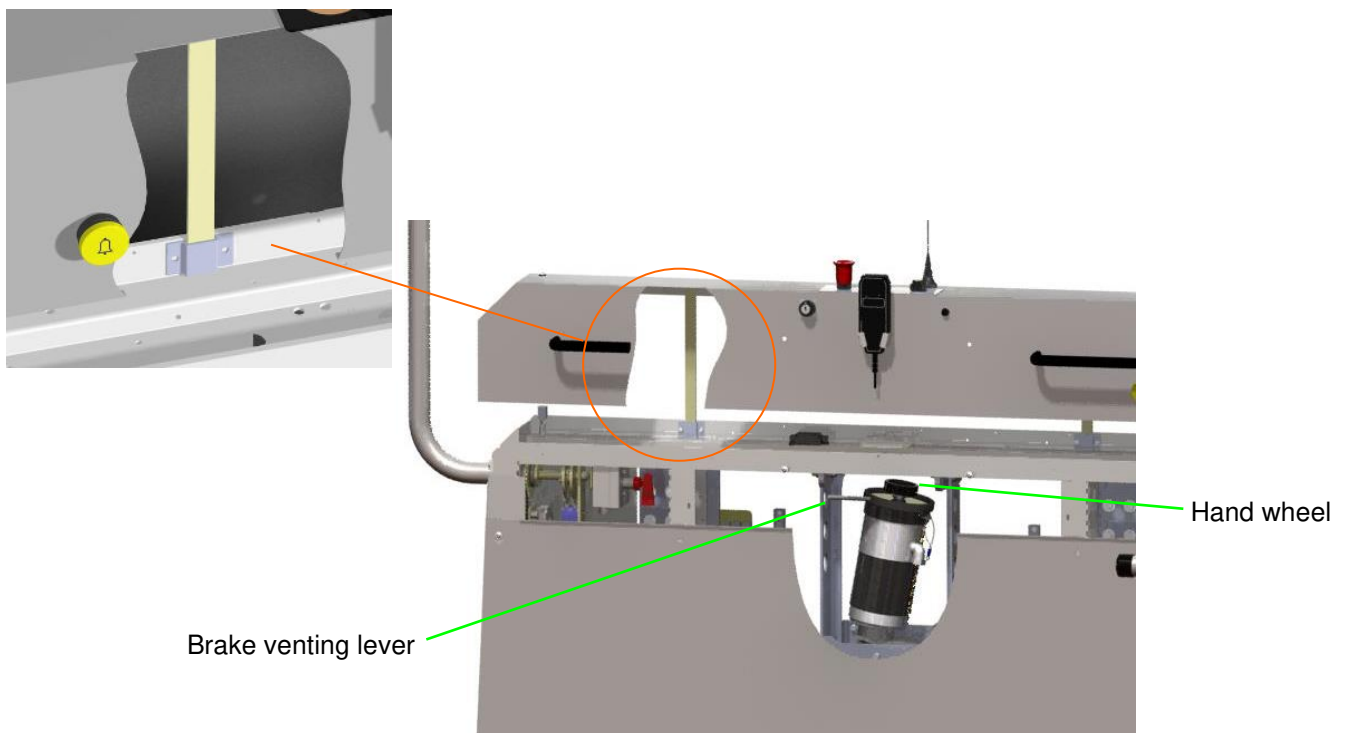
4.7.1 **Hand wheel operation / only by technical personnel**

The STL300 platform lift can also be operated manually. Manual operation must be performed by technical personnel! The procedure is as follows:

- Press the EMERGENCY STOP button (*p.7/item 3*) on the platform.
- Undo and remove the fixing bolts (*p.7/item 15*) on the hood (tool is supplied in the envelope).
- The platform hood (*p.7/item 5*) is to be raised and secured against falling down by means of the insertable arms.
- The brake venting lever must be pushed upwards and the hand wheel on the end of the motor shaft must be turned simultaneously.

In doing so, the direction of travel should always be towards the lower station (less energy expenditure when turning the hand wheel). The respective direction of rotation is indicated directly on the hand wheel.

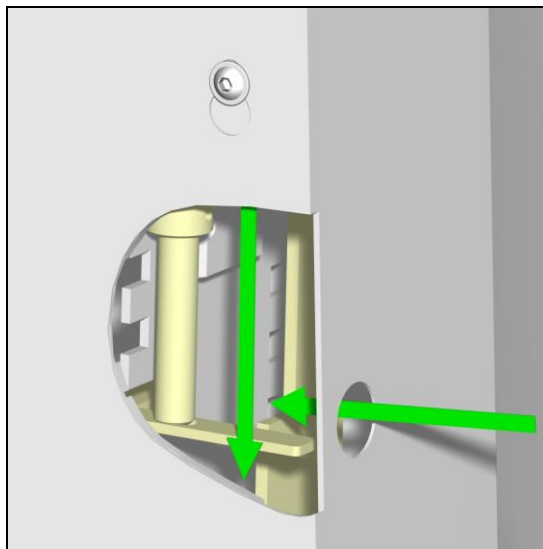
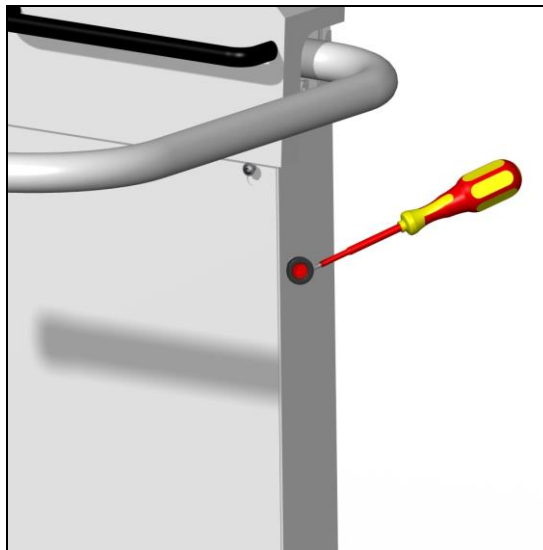
Note: If the cause of the standstill is not clear, it should be assumed that the safety arrester has been triggered and that its safety switch has led to the lift switching off. **The safety arrester may only be reset by technical personnel.** In this case, proceed as described above, but first turn the hand wheel in the UP direction (until the lift has moved approx. 5 cm along the rail), after which the hand wheel can be turned in the DOWN direction.




4.7.2 Evacuation / only by technical personnel

Proceed as follows in order to help the operator out of the lift:

- Press the EMERGENCY STOP button (*p.7/item 3*) on the platform.
- Remove the blanking plug (for the emergency unlocking) on the side of the cladding using a screwdriver or similar.
- Press the lever shown in the lower picture downwards and hold it using a suitable tool. The safety barrier can then be raised manually. The drive-on ramp also opens at the same time.
- The operator can now be rescued.



4.7.3 Electrical emergency operation (optional feature)

To activate the electrical emergency operation you need the second, red-marked key. Insert the key into the cylinder provided (p.7/item 17; marked with ) and turn the key.

Here, too, it is compulsory to hold the key the entire time in the activated position. On activation the lift drives downwards at a much slower speed (only downwards). During this journey all switches, safety contacts and switching surfaces are disabled, therefore particular attention must be paid to the environment. Since the switches for the station position are also disabled, this position must be approached somewhat carefully, because the barrier only opens within a certain range. If you drive beyond this range the barrier is locked again. The platform may be damaged if you drive past the lower station*.

It is best to stop about 10 cm before the station and then to drive section by section (2 – 3 cm) in the downward direction. After each section, try to push the barrier upwards on the side to which you wish to exit in order to open it. If the range has been reached in which the barrier can be opened, leave the platform and inform your customer service.

* A small plastic ramp can be screwed to the running rail to avoid driving past the station(s). This interrupts the electrical emergency operation. It makes sense for this to be the bottom station and possibly another preferred station (if there are more than two stations).

If the electrical emergency operation does not function (a possible reason could be a defective motor or energy supply), see 4.7.1 -> hand wheel operation.

If the emergency operation has been actuated beyond the station that you were approaching and the barriers cannot be opened, the lift must be moved manually upwards a little as described in 4.7.1 until the barrier can be opened.

5 Options / extras

Depending upon requirements, the STL300 platform lifts are also equipped with the following extras.

5.1 Folding seat

All of our platform lifts can be equipped or retrofitted with a folding seat if desired (*p.7/item 10*). The folding seat is intended as a seat for non-wheelchair users who wish to use the platform lift. When folded up, the seat lies against the platform wall to save space. The folding seat is equipped with a seat belt, which must be fastened while travelling if the user is not able to hold on to the barrier or the hand grip with a hand.

5.2 Emergency call

All platform lifts must be equipped with an emergency call system.

There are further versions in addition to the standard internal beeper:

- A gong, which is activated wirelessly. The transmitter, which is powered by a separate battery, is located on the platform hood and relays the emergency call signal to the gong (wireless). The range lies between 40 m (in non-built-up areas) and at least 10 m (in built-up areas).
- *The best method of making an emergency call is, however, still with a mobile telephone.*

5.3 Visual warning signal

A visual signal (flashing orange light on the hood) is activated each time the stair lift motor moves. This increases safety in publicly accessible areas. The repetition frequency of the signal is approx. 1 second.

5.4 Hand-held radio transmitter

If you have ordered a handheld radio transmitter, additional instructions for the operation of the transmitter will be attached to these operating instructions.

6. In the event of a malfunction

Malfunction	Possible cause	Remedial action
Lift does not function at all	Is the key on the control unit set to -I- and are the others set to -0- or removed?	Set the key switches correctly (see 4.5 or 4.6)
	Are all EMERGENCY STOP buttons unlocked?	Unlock the EMERGENCY STOP switch (<i>p.7/item 3</i>) by turning or pulling (depending on the design)
	Is the main switch for the lift set to -I-?	Turn on the main switch (see 4.1)
	Batteries defective or deep discharged	Replace the batteries (technical personnel)
	Safety arrester has triggered	Inform technical personnel
Lift does not start when platform is occupied	Are the safety barriers in the horizontal position?	Actuate the safety barriers again or move them slightly up or down
	Are the switching surfaces (<i>p.4</i>) freely movable?	Slightly move the switching surfaces. Drive in the <u>opposite direction</u> .
	Is the door closed?	Close the door
	Load capacity exceeded	Reduce weight

If you cannot repair the error yourself in this way, please inform your customer service.

7. Acoustic warning signals

Duration [sec.]	Pause [sec.]	Reason	Remedial action
0.1	5.0	Low battery voltage (see also 4.4)	Drive to the charging station and charge the batteries
0.1	0.5	Acoustic drive warning	-----
0.1	0.25	Drive free (<i>see page 4 for description</i>)	-----
2x briefly	4.0	Overtemperature of motor/electronics Or defective fuse	It is possible to resume driving after a cooling down period of approx. 5 min. (If cooling is insufficient, the cooling period is extended by a further 5 min.)
3x briefly	4.0	Faulty electronics/motor	Inform customer service
Continuous tone	----	Emergency call by means of beeper on the platform Or overload	Release the emergency call button. Shift centre of gravity closer to the running rail or reduce the weight

Note: The acoustic warning signal can be suppressed by pressing the emergency stop button; the charging procedure is maintained (exception: continuous tone).

8. Services performed on your STL300 platform lift at a glance

Installed on:		Serial no.:	
Installed by:		TÜV acceptance on:	
No.	Date	Service performed	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			