Operating Instructions

for inclined wheelchair lifts
HIRO 320, HIRO 350, HIRO 360, HIRO 370
Straight and turning platform lift systems





1. Contents



1.	Con	tents	Page 2	
2.	Mea	ning of symbols and glossary of terms	Page 4	
3.	War	ranty	Page 5	
4.	Gen	eral safety instructions	Page 6	
5.	Summary of HIRO inclined lifts			
	5.1	HIRO 320 — turning platform lift system	Page 9	
	5.2	HIRO 350 — straight platform lift system	•	
	5.3	HIRO 360 — turning lowerable platform lift system	•	
	5.4	HIRO 370 — turning lowerable platform lift system	_	
	5.5	Platform components and accessories	Page 13	
	5.6	Safety devices	_	
6.	Ope	eration of HIRO inclined lifts		
	6.1	Requirements for initial operation	Page 17	
	6.2	Key-operated systems	Page 19	
	6.3	Calling the wheelchair lift and riding (lift with key-operated platform control and remote	е	
		control)		
		6.3.1 Call platform - from downstairs	Page 21	
		6.3.2 Riding upstairs	Page 24	
		6.3.3 Call platform - from upstairs	Page 28	
		6.3.4 Riding downstairs	Page 30	
	6.4	Calling the wheelchair lift and riding (lift with ON/OFF key)	Page 34	
		6.4.1 Call platform - from downstairs	Page 34	
		6.4.2 Riding upstairs	Page 36	
		6.4.3 Call platform - from upstairs	Page 43	
		6.4.4 Riding downstairs	Page 45	
	6.5	Mounting and dismounting the wheelchair lift at intermediate stops	Page 52	
	6.6	Deactivating the system	Page 54	
	6.7	Display	Page 55	
	6.8	Maintenance and cleaning instructions	Page 56	
7.	Dea	ling with faults		
	7.1	Emergency operation	Page 57	
		7.1 Moving the platform: Model with hand wheel	Page 57	
		7.1 Moving the platform: Model with electrically operated emergency control	Page 59	
		7.2 Manually lowering the HIRO 360 and HIRO 370 platform lift system	Page 60	
	7.2	Emergency evacuation	Page 61	
	7.3	Battery change	Page 64	
	7.4	Troubleshooting in case of malfunctions	Page 65	
8.	Maiı	ntenance	Page 72	
9.	Ass	embly and disassembly	Page 73	

1. Contents



10.	Disposal	Page 74
11.	Technical data	Page 75
12.	EC Conformity Declaration	Page 76

Please keep these instructions for further reference!

2. Meaning of symbols and glossary of terms



Key to symbols



Caution! Risk of personal injury!



Attention! Risk of material damage!



Advice



Multi-floor systems

Glossary (list of technical terms)

Platform control: Control unit in lift with key switch and command buttons.

Remote control: Battery-operated radio transmitter unit with control buttons and indicator light.

Two different models of the remote control unit are available: one with and one without a key -switch (see Section 6.2, "Key-operated systems", on page 19).

The remote control can be fitted to the wall.

Turning: Platform lift systems are called "turning lift systems" if the travel path of the

platform has either curves to the right or to the left side.

Straight: Platform lift systems are called "straight" if the travel path of the platform has

neither curves to the right nor to the left side.

A curve in the travel path e.g. when changing from inclined to horizontal travel is

nevertheless possible.

3. Warranty



Warranty

For a correct use following terms apply:

- The platform lift system may only be used according to the contractual and legal provisions.
- Only one person may ride the platform lift system. It should never be used by more than one person at a time.
- The lift system is only for conveying a person in a wheelchair. In the special version with a folding seat it is also permissible to convey a seated person. Standing persons are not allowed to be conveyed.
- The lift is not designed for conveying goods or objects.
- The maximum load may not be exceeded.
- The platform lift system is not a toy.

The function and safety of the equipment is only guaranteed if:

- the system is correctly used and properly operated, i.e. as described in these instructions. Pay special attention to the safety advice.
- the system is kept in a safe operational state.
- the regular maintenance works are carried out by HIRO LIFT or by a representative authorised by HIRO LIFT.
- repairs are carried out by HIRO LIFT or by a representative authorised by HIRO LIFT.
- constructional changes, conversions or a possible reconstruction of the system are carried out by HIRO LIFT or by a representative authorised by HIRO LIFT.
- only spare parts are used that the manufacturer has expressly designated for this system.
- the system is operated on the site stated in the contract. Any warranty is excluded if the system is removed and built up again at a new place.

Warranty is no longer granted if manipulations or works are carried out by non-authorised persons. Authorised persons are HIRO LIFT employees or authorised representatives of HIRO LIFT.

4. General safety instructions



General safety instructions

Please read these safety instructions carefully before you operate or use this platform lift system. Please observe these safety instructions!

- Everyone who uses the wheelchair lift or turns the key to prepare the lift for operation must be familiar with the platform lift system and have been briefed on its use.
- The operator of the system must ensure that the wheelchair lift is only used by persons who have been briefed.
- The operator of the system is responsible for the safe and proper use of the wheelchair lift.
- The operator and all persons who use the wheelchair lift must read and understand these operating instructions in advance.
- Persons who are not able to read or understand the operation instructions may only use the system together with an instructed person.
- Beside the advice in these instructions pay attention to the special signs on the system.
- A second person, who is not dependent on the platform lift system, always has to be instructed in its use. This person acts as the so-called "qualified person" in accordance with the German Health and Safety at Work Act (Betriebssicherheitsverordnung) and must be able to assist if problems arise.
- The system should only be used if an instructed attendant is present.
- The attendant is responsible that the wheelchair with its user is placed on the platform so that crushing or other injuries are avoided.
- If the system is operated without an attendant, the rider should carry with him a cell phone or similar.
- The wheelchair lift may only be operated via remote control if the person with the remote control unit can see that the entire travel path is clear. If some sections of the travel path cannot be seen, mirrors or similar aids must be installed to rectify this.
- Before operating the wheelchair lift for the first time, ensure that the remote control units are installed at locations where the entire path of the wheelchair lift can be seen by the person operating the remote control.
- Multi-floor systems may not be operated via a portable or stationary remote control. Exceptions: if all parts of the travel path can be observed by technical means.
- Do not allow the system to touch metal objects (e.g. tinsel) as this may cause a short-circuit.
- In models with round tubular rails, always keep the rails dry and clean. Do not treat them with grease, oil or other lubricants.
- In model HIRO 350Z, the toothed drive rack must be regularly lubricated with grease. Contact the HIRO LIFT service department.
- An outdoor inclined platform lift is subject to a risk of slipping during rain.
- For outdoor inclined platform lifts, the lift itself as well as its access must be kept free from ice and snow. Otherwise there is a risk of slipping.
- Some outdoor lift models are fitted with a rail heating system and with a safety catch heating system. These heating systems must be switched on and be functional at all times during winter and when the ambient temperature is below 5° C (41° F).
- When outdoor lifts are used, it must be ensured that the humidity does not exceed a value of 80 percent.
- Lift systems which are designed as indoor lifts must under no circumstances be used outdoors, i.e. in locations where they are exposed to the weather.

4. General safety instructions



- When indoor lifts are used, it must be ensured that the humidity does not exceed a value of 80 percent and the ambient temperature is 5° C (41° F) or above.
- Only use wheelchairs that fit the size of the platform.
- Only use wheelchairs with footrests so that the feet do not protrude from the platform. Feet or footrests must not be allowed to block the access ramps.
- All safety devices, such as the emergency stop button for example, must be checked regularly. The same applies to the fuses and the main switch.
- When switching off the main switch the charging system and its components are still under electric power.
- Accidents and damage in connection with this system must be reported.
- Do not use the wheelchair lift in the event of fire, not even for rescuing persons or for fire-fighting purposes.

Before using the lift...

- Before using the lift the user must have a good view of the travel path.
- During operation of the system no persons, animals or objects must be in the travel path.
- Do not place any objects on the rails or in the area of the travel path.
- Only enter or leave the platform lift at the landings.
- The load on the platform must not protrude from the platform nor block the access ramps or safety barriers.
- Before the platform is moved in an opened state ensure that the access ramps have returned to their travel position, (i.e. folded upward at an angle of 45 degrees).
- Please pay special attention to loose clothing or accessories (e.g. scarves). Keep them out of the path
 of travel.
- Ensure that there are no obstructions to the movement of the safety barriers.
- Inclined wheelchair lifts HIRO 320, HIRO 350 and HIRO 370:
 The wheelchair brakes must be applied when the wheelchair is on the platform.
- Only for HIRO 360 inclined wheelchair lifts:

 The wheelchair must be wheeled enterthe platform through
 - The wheelchair must be wheeled onto the platform through the opening with its large wheels. The wheelchair brakes must not be applied.
- Always check, and if necessary correct, the position of the wheelchair and its user after reaching the platform. Make sure that the safety barriers and the access ramps can be moved easily. With HIRO 320, HIRO 350 and HIRO 370 inclined platform wheelchair lifts, the wheelchair brakes must be applied again after correction.

While the lift is moving...

- Avoid any crushing or shearing hazards while the lift is moving.
- Do not leave the platform during travel.
- Persons or objects adjacent to the platform must maintain sufficient distance to the platform during travel. Otherwise there is a risk of being crushed by the movable parts of the inclined lift.
- The wheelchair user must fasten his seat belt during travel.
- The access ramps must be in their travel position (i.e. folded upward at an angle of 45 degrees).

4. General safety instructions



After using the lift...

- After using the lift the keys must be removed and stored safely. Care must be taken to ensure that unauthorised persons, such as children, cannot gain access to the keys.
- To keep the stairs clear, always fold away the platform after use. The wheelchair lift should always be parked at a charging station where it least obstructs the stairs.



5.1 HIRO 320 — turning platform lift system

- A Top access
- B Bottom access
- C Platform
- D Remote control
- E Top charging station
- F Rails

- G Magnets
- H Actuating cam for emergency limit switch
- I Guard cam
- J Current collector cam/charging bar

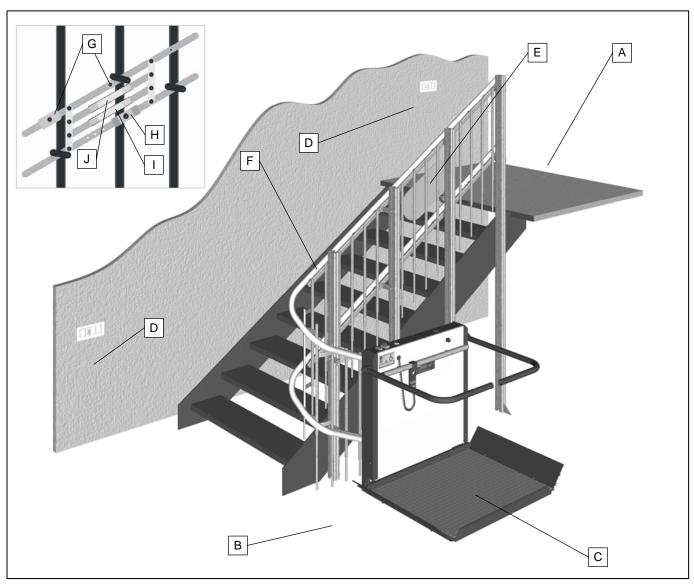


Fig. 5.1: Platform lift system — Model 320



5.2 HIRO 350 — straight platform lift system

- A Top access
- B Bottom access
- C Platform
- D Remote control
- E Top charging station
- F Bottom charging station
- G Guide rails

- H Magnets
- I Contact cam for emergency limit switch
- J Current collector cam/charging bar

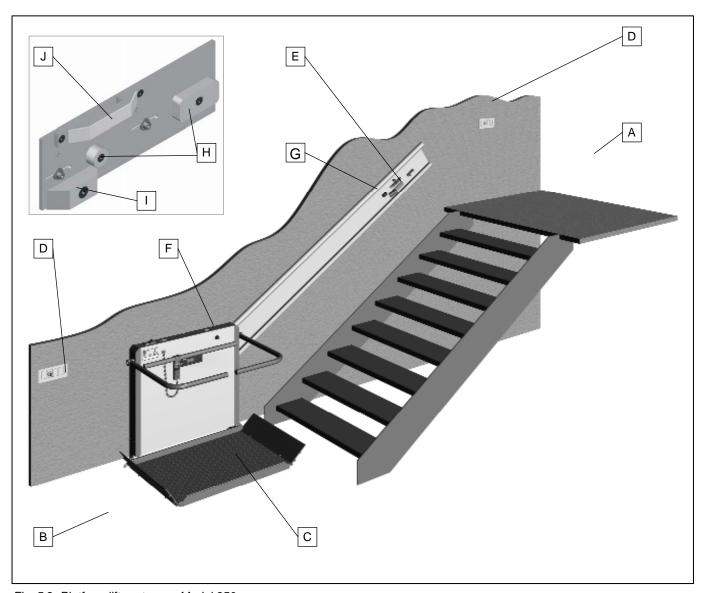


Fig. 5.2: Platform lift system — Model 350



5.3 HIRO 360 — turning, lowerable platform lift system

- A Top access
- B Bottom access
- C Platform
- D Remote control
- E Top charging station
- F Bottom charging station
- G Rails

- H Magnets
- I Contact cam for emergency limit switch
- J Guard cam
- K Current collector cam/charging bar

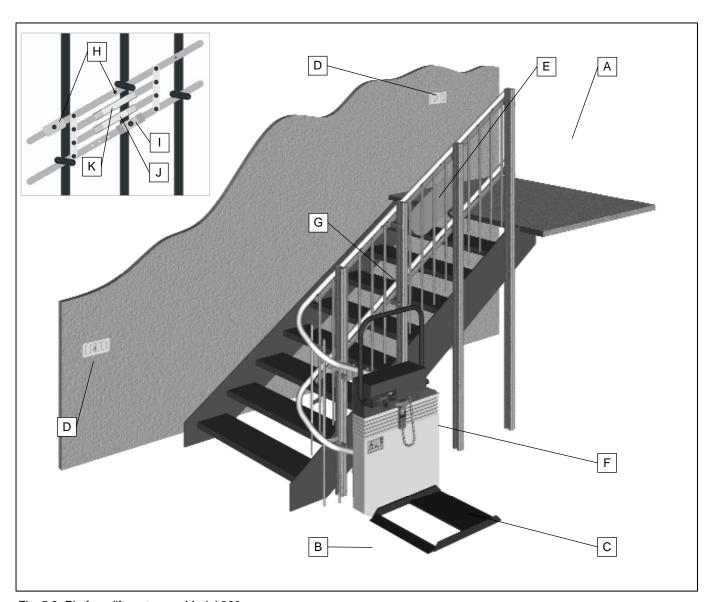


Fig. 5.3: Platform lift system — Model 360



5.4 HIRO 370 — turning, lowerable platform lift system

- A Top access
- B Bottom access
- C Platform
- D Remote control
- E Top charging station
- F Bottom charging station
- G Rails

- H Magnets
- I Contact cam for emergency limit switch
- J Guard cam
- K Current collector cam/charging bar

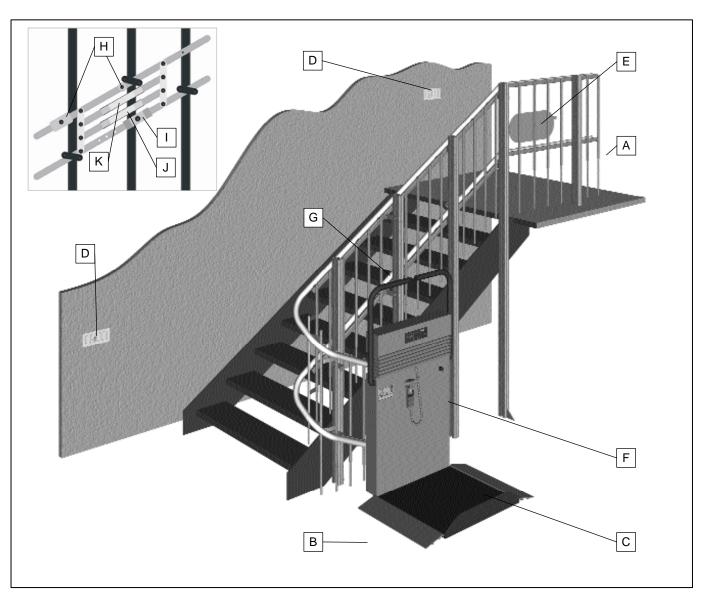


Fig. 5.4: Platform lift system — Model 370



5.5 Platform components and accessories

- A Platform with contact tray
- B Access ramps with safety contact
- C Safety barriers
- D Main switch and fuses
- E Type plate
- F Platform control
- G Display
- H Emergency stop button

- I Emergency button (optional)
- K Key switch for lifts with
 - ON/OFF key switch.
- L Lateral collision guard

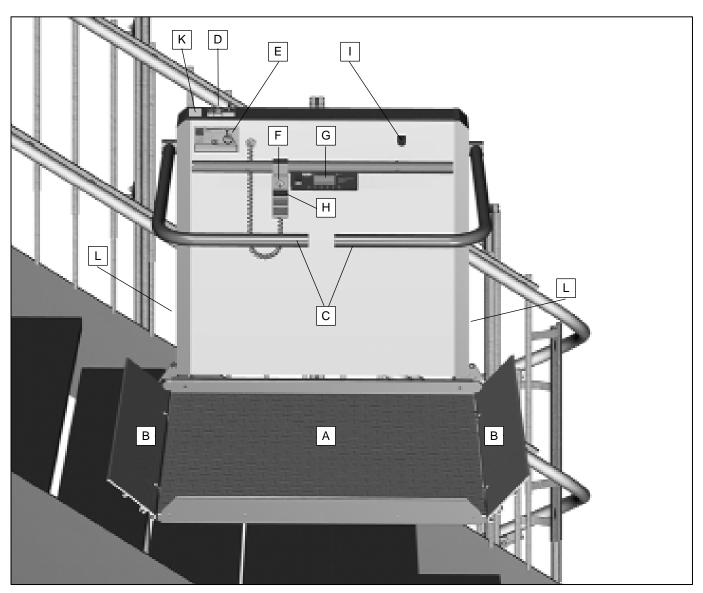


Fig. 5.5: Platform components



Α1 Remote control (key-operated) mounting (key operated) A2 Remote control (model without key switch) G Key switch for stationary Control light (LED) В remote control С Key switch remote control Н Charging device Wall mounting for remote control D Accessories for emergency evacuation: Е Operation key Hand wheel (for some types of lift) E2 ON/OFF key (for certain lifts) J Allen key E3 Key for electrically operated emergency Torx screwdriver K control facility (for certain lifts) L Square key F Stationary remote control for wall M Eye bolt

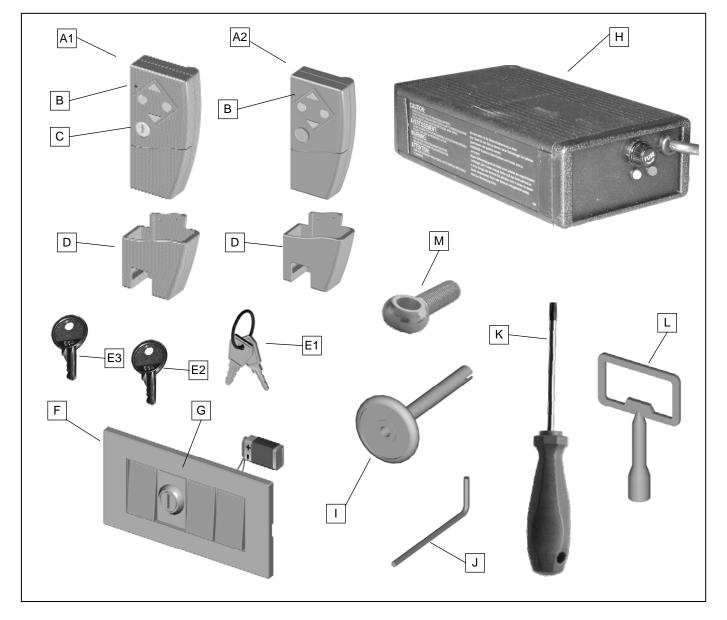


Fig. 5.6: Components of platform (not to scale)



The design of the individual components, such as the remote control unit or the charging device, can vary. The functions remain the same, however.



5.6 Safety devices

HIRO platform lifts are equipped with a whole range of safety features to ensure safe use of the systems:

Emergency stop button

In case of emergency you may push the emergency stop button any time. As soon as this button is pushed, all movements of the system are stopped. After actuation the button remains locked in place. In order to move the wheelchair lift again, the emergency stop button must be pulled out again.

Contact tray

The platform floor is equipped with a contact tray. The movement of the platform is stopped as soon as the contact tray meets an obstruction, e.g. a bag put on the stairs.

The safety contact is released by reversing the direction of travel.

Lateral collision guard/contact strip

During travel the movement of the platform is stopped as soon as the side walls meet an obstruction. The safety contact is released by reversing the direction of travel.

Access ramps with safety contact

During travel the movement of the platform is stopped as soon as the access ramps meet an obstruction. This function is only activated when the access ramps are in their travel position (i.e. folded upward at an angle of 45 degrees). The safety contact is released by reversing the direction of travel.

Safety barriers

The platform lift system is equipped with safety barriers that open and close automatically and protect the user during travel.

Safety catch

Some of the wheelchair lifts have a safety catch device, which is fitted to the back of the housing on the lower set of rollers behind the seat. This is activated automatically if the lift travels too fast. With some of the wheelchair lifts, the design of the system makes it impossible for the lift to travel too fast. In this case a safety catch device is not necessary.

Emergency limit switch

The emergency limit switch is located on the back of the housing. This switches the system off if the platform travels beyond the end stop in the event of a fault. Additionally both ends of the track have bumpers that prevent the platform from travelling beyond the stop.

Dead man's control

The lift can only be moved with permanent commands. When the command buttons are released the system stops automatically.



Control priorities

The platform control for the lift overrides the remote control. If the wheelchair lift is being operated via the platform controls, operation via remote control is not possible.

Compact design

When the platform is folded away, its compact construction offers almost unrestricted use of the available space.

Key switch/access control systems

The wheelchair lift system can only be set in operation via the key switch or in special cases via alternative access control systems (see Section 6.2 "Key-operated systems", page 19).

Battery operation

Since the platform is powered by rechargeable batteries, it can still be used if there is a power failure.

Charging control

In order to prevent the rechargeable batteries from discharging, the platform lift system is equipped with a warning device. If the platform does not return to a charging station after a set time, a warning signal will be given.

Excess current cut-out

The barrier motors and the platform floor motor cut out automatically if they are inhibited (e.g. by an obstruction) by means of overcurrent detection.

Rail heating system

Some outdoor lifts are fitted with a rail heating system to prevent the rails from icing over.

Safety catch heating system

All outdoor lifts with a safety catch device are fitted with a safety catch heating system to prevent the safety catch from icing over.

Overload switch

An overload switch prevents the lift system from being used if the load is too high or is unevenly distributed.



6.1 Requirements for initial operation



Caution!

Before use or initial operation all users must be familiar with the operation of the system. They have to be specially aware of the dangers which can occur through incorrect use of the system!

- The mains plug of the power pack is connected to a socket. An uninterrupted power supply is guaranteed.
- The main switch and the fuses on the lifting device have to be switched on.

Functions.

Main switch (A): Power supply to platform

F1 (B): Motor fuse F2 (C): Charging fuse

- The batteries are fully charged.
- The emergency stop button is not pressed.

The platform lift is installed and ready for operation.

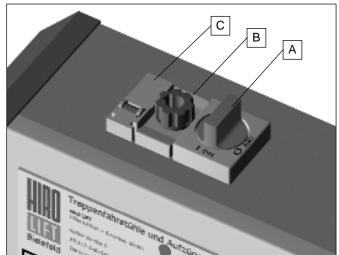


Fig. 6.1: Main switch and fuses for lifts with key-operated platform controls and remote controls

In the case of wheelchair lifts with ON/OFF key there are two key switches on the lift, whose function will be described later (see Section 6.2, page 19 and Section 7.1.2, page 59):

ON /OFF switch (E) with key (F)
Electrically operated emergency control facility (G)
Main switch (A)

Motor fuse (B)

Charging fuse (C)

Emergency operation (D)



In the case of lifts with ON/OFF key switch, the key switch for ON/OFF may be located in a laterally reversed position to the ones shown in fig. 6.2, depending upon the lift model.

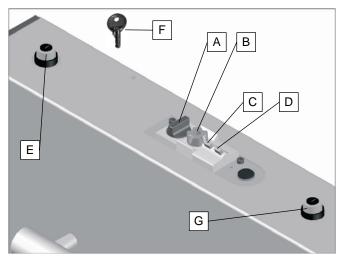


Fig. 6.2: Main switch, fuses and key switch for ON/OFF and electrically operated emergency control facility for lifts with ON/OFF key switch





As an example, the following pages show the operation of a HIRO 320 inclined wheelchair lift with a turning platform lift system. Attention will be drawn to differences to other models.

Depending on the site and due to technical changes your system may be different to the pictures. For example a different number of charging stations may be available or the operating controls may vary depending on customers' wishes.



The assignment of functions to the buttons on the remote control may differ from the ones shown in these instructions, as the assignment of functions can vary widely to meet customers' wishes.

Please familiarise yourself with your system before initial operation!

The platform lift has to be operated at least once a week.



6.2 Key-operated systems

There are two different types of key-operated system available:

1. 1. Wheelchair lift with key-operated platform control and remote control

The platform controls and the remote control units have a key switch that can be turned to the "ON" or "OFF" positions.

The key can only be removed when it is in the "OFF" position.

The wheelchair lift can only be operated via remote control if the key has been removed from the platform controls.

2. 2. Wheelchair lift with ON/OFF key switch (no key switch for remote control)

This key-operated system functions as follows:

- The lift system is fitted with a key switch which can be turned to the positions "ON" and "OFF". The key can be removed in both positions.
- The remote control is not fitted with a key switch.

When the key (A) on the key switch (B) is turned to the "ON" position:

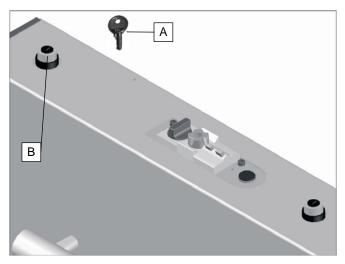
- the wheelchair lift can be operated with the platform controls, whether the key has been removed or not.
- the wheelchair lift can neither be called nor dispatched using the remote controls (which have no key switch).



Advice!

When the platform controls are being used, it is not possible to call or send the lift via the remote control.

Please note that after you have finished Fig. 6.3: Key switch for lifts with ON/OFF key using the platform controls there is a delay of a few seconds before the wheelchair lift will respond to the remote controls.





When the key (A) on the key switch (B) is turned to the "OFF" position:

- the wheelchair lift cannot be set in motion using the platform controls, whether you have removed the key or not.
- the wheelchair lift can be neither called nor dispatched using the remote controls (which have no key switch).



Advice!

This type of key operation simplifies matters, since there are only two basic operating conditions: either the wheelchair lift is switched on and can be operated, or the wheelchair lift is switched off and cannot be operated.



Caution!

You may only use the stationary or portable remote control if you have a clear view of the entire travel path of the wheelchair lift. If some sections of the travel path cannot be seen, mirrors or similar aids must be installed to rectify this.



Caution!

Always put the remote control unit back in its wall mount when not in use. The operator of the system must ensure that unauthorised persons, such as children, etc., cannot use the wheelchair lift. Otherwise, the lift must be switched off.



Caution!

The operator of the system is responsible for the safe and proper use of the lift. Everyone who uses the wheelchair lift must be instructed in its use and be familiar with the system. The operator of the system must ensure that the lift is only used, or can only be used, by persons who have been briefed.

This is particularly important, because the wheelchair lift is ready for use if the key has been set to the ON position and then removed.



Advice!

As a special version, alternative access control systems such as transponder systems, code keypads, fingerprint readers or similar systems instead of a removable key are possible. Appropriate sensor areas or panels are located on the lift and on the wall. Please refer to the separate documentation supplied by the manufacturer concerned for usage instructions.



6.3 Call and dispatch the lift (lift with key-operated platform controls and remote control)

6.3.1 Call platform - from downstairs

You are at the bottom of the stairs and you want to go up. The wheelchair lift is not at the bottom landing, however, but at a charging station in the middle or at the top of the stairs.

You will therefore have to call the lift down first using the remote control unit.



Caution!

Before every travel make sure that the travel path is free. When using the remote control, the entire travel path must be in clear view.

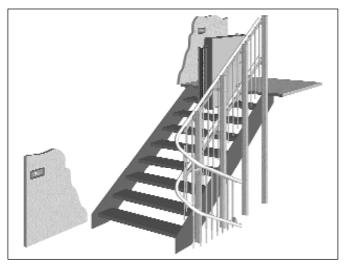


Fig. 6.4: Platform at the top landing, folded

- Insert the key (A) into the stationary remote control (fig. 6.5) or into the portable remote control (fig. 6.6).
- Turn the key (A) to the ON position.
 In the ON position the key (A) cannot be removed.
- Push the DOWN button (B) to travel the platform lift downstairs.

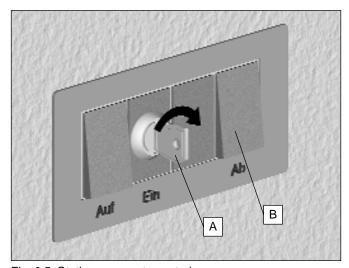


Fig. 6.5: Stationary remote control





The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.

As soon as the DOWN button is released, the platform stops.

• Hold the DOWN button (B) until the platform stops automatically at the bottom landing.

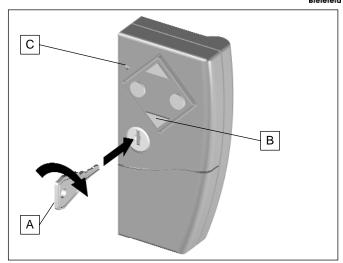


Fig. 6.6: Portable remote control



Special case



Multi-floor systems:

You are at the bottom landing and you want to call the platform lift by means of the remote control.



Caution!

If multi-floor systems are operated with the stationary or portable remote control, the travel path must be completely visible at all times.

Push the DOWN button and hold it until the platform lift has reached the top landing.
 The safety barrier and the access ramp open automatically to let you enter the platform.



Be aware that the platform lift stops automatically at the centre landing for approx. 2 seconds, but then it travels on automatically.

If you release the DOWN button during this time period and push it again, the safety barrier and the access ramp will open. In order to move the platform to the bottom landing, release the DOWN button and push it again. Then the reverse function begins, which means that the safety barrier and the access ramp close again.

Special case

HIRO 360/370 inclined wheelchair lift:

The above mentioned procedures apply as well to the HIRO 360/370 inclined wheelchair lift. But in addition the platform is lowered automatically before the safety barrier and access ramp open.



6.3.2 Riding upstairs

The platform is folded and standing at the bottom landing.

- Insert the key into the stationary remote control (fig. 6.5) or into the portable remote control (fig. 6.6).
- Turn the key to the ON position. In the ON position the key cannot be removed.

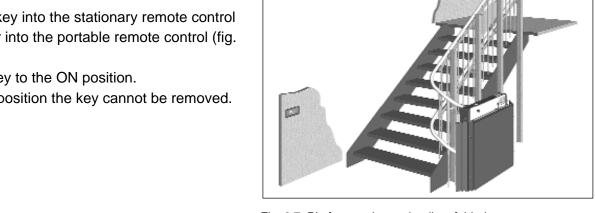


Fig. 6.7: Platform at the top landing, folded

Push the DOWN button to unfold the platform.

The platform with the contact tray unfolds. The safety barriers and the access ramps block the entrance.

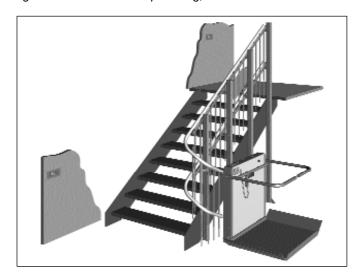


Fig. 6.8: Platform at the bottom landing, unfolded

- Hold the DOWN button until safety barrier and access ramp have opened completely.
- Then release the button and enter the platform.

Depending on system or landing type one or both access ramps will open.

• Remove the key from the remote control unit.

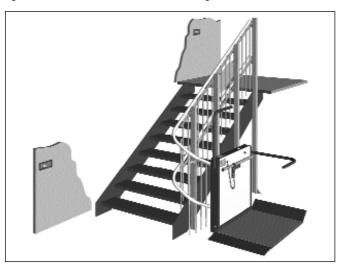


Fig. 6.9: Platform at the bottom landing, ready to enter





Caution!

To avoid injuries, always put the wheelchair correctly onto the platform.

On the platform the wheelchair has to be secured against rolling (exception: HIRO 360 inclined wheelchair lift).

Make sure that the safety barriers and the access ramps can be moved easily. Feet or footrests must not block the access ramps.

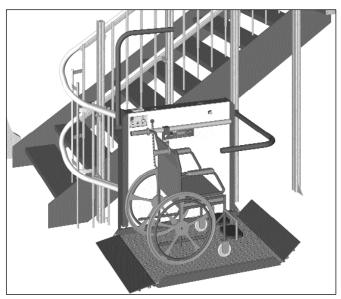


Fig. 6.10: Platform at the bottom landing with wheelchair

- Enter the platform.
- Secure the position of the wheelchair by putting on the brakes.

Special case

HIRO 360 inclined wheelchair lift:

• Enter the platform so that the large back wheels stand in the opening of the platform.



For a ride on the HIRO 360 inclined wheelchair lift, the brakes of the wheelchair must not be put on.



Fig. 6.11: Correct wheelchair position for HIRO 360 inclined lift



- Insert the key into the platform control.
- Turn the key to the ON position.
- Push the UP button (A) on the platform control.

First the safety barrier and the access ramp close. They block the exit as a result. Then the platform starts to move.



If the lift is overloaded, or the load is very unevenly distributed, when it leaves the bottom landing, then the overload switch will be triggered within the first 15 cm of travel. The lift will stop automatically and it will only be possible to return the lift to the bottom landing. After remedying the cause (too heavy or unevenly distributed load), the lift can be operated as usual.

- Hold the UP button (A) until you have reached the desired position.
- Keep the UP button (A) pressed until the safety barrier and the access ramp unblock the exit.

Now you may leave the platform.

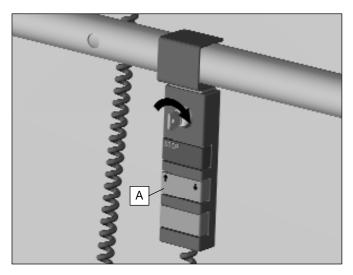


Fig. 6.12: Platform control

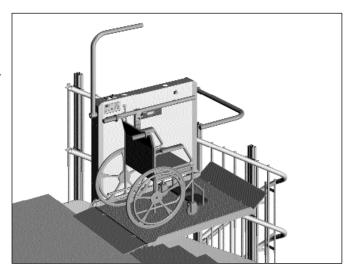


Fig. 6.13: Platform at the top landing, ready to leave



You have finished your ride and no longer need the platform.

- Turn the key on the platform controls to the OFF position.
- Remove the key.



It is important that you remember to remove the key, because the wheelchair lift cannot be operated via remote control when the key in the platform control is set to the ON position.

The platform must now be turned back to the travelling position so that it does not block the stairs.

- Insert the key (A) into the stationary or portable remote control unit.
- Turn the key (A) to the ON position.
- Push the DOWN button (B) and hold it until the platform has folded.
- Release the button immediately after the folding action, because otherwise the platform will travel upstairs.

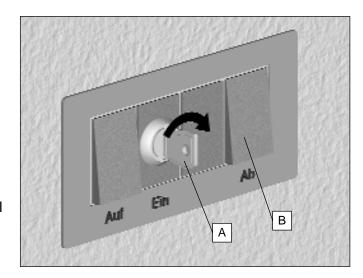


Fig. 6.14: Stationary remote control



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.
- Remove the key from the remote control unit.

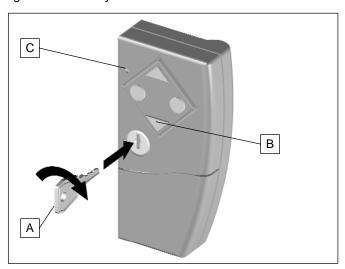


Fig. 6.15: Portable remote control



6.3.3 Call platform - from upstairs

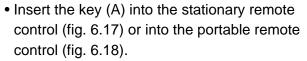
You are at the top of the stairs and you want to go down. The wheelchair lift is not at the top landing, however, but at a charging station in the middle or at the bottom of the stairs.

You will therefore have to call the lift up first using the remote control unit.



Caution!

Before every travel make sure that the travel path is free. When using the remote control, the entire travel path must be in clear view.



- Turn the key (A) to the ON position.
 In the ON position the key (A) cannot be removed.
- Push the UP button (B) to travel the platform lift upstairs.

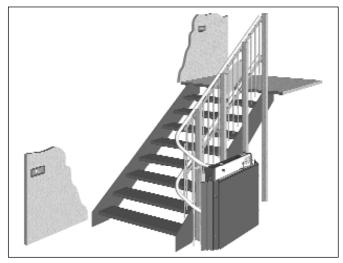


Fig. 6.16: Platform at the top landing, folded

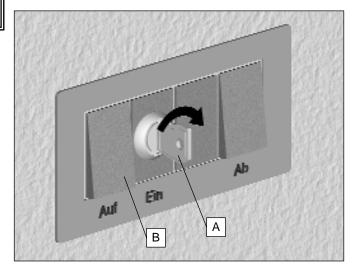


Fig. 6.17: Stationary remote control



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.

As soon as the UP button is released, the platform stops.

• Keep the UP button (B) pressed until the platform stops automatically at the top landing.

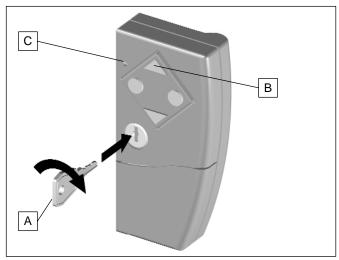


Fig. 6.18: Portable remote control



Special case



Multi-floor systems:

You are at the top landing and want to call the platform lift by means of the remote control.



Caution!

If multi-floor systems are operated with the stationary or portable remote control, the travel path must be completely visible any time.

• Push the UP button and keep it pressed until the platform lift has reached the top landing. The safety barrier and the access ramp open automatically to let you enter the platform.



Be aware that the platform lift stops automatically at the centre landing for approx. 2 seconds, but then it travels on automatically.

If you release the UP button during this time period and push it again, the safety barrier and the access ramp will open. In order to call the platform to the top landing, release the UP button and push it again. Then the reverse function begins, which means that the safety barrier and the access ramp close again.

Special case

HIRO 360/370 inclined wheelchair lift:

The above mentioned procedures apply as well to the HIRO 360/370 inclined wheelchair lift. But in addition the platform is lowered automatically before the safety barrier and access ramp open.



6.3.4 Riding downstairs

The platform is folded and standing at the upper landing.

- Insert the key into the stationary remote control (fig. 6.17) or into the portable remote control (fig. 6.18).
- Turn the key to the ON position.
 In the ON position the key cannot be removed.

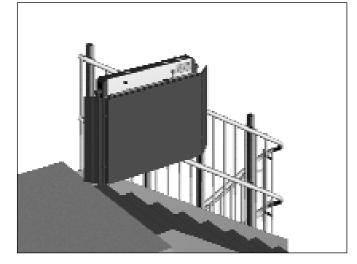


Fig. 6.19: Platform at the top landing, folded

• Push the UP button to unfold the platform.

The platform with the contact tray unfolds. The safety barriers and the access ramps block the entrance.

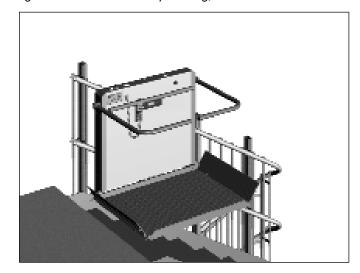


Fig. 6.20: Platform at the top landing, unfolded

- Keep the UP button pressed until the safety barrier and the access ramp have opened completely.
- Release the button.

Depending on the system or landing type one or both access ramps and safety barriers will open.

• Remove the key from the remote control unit.

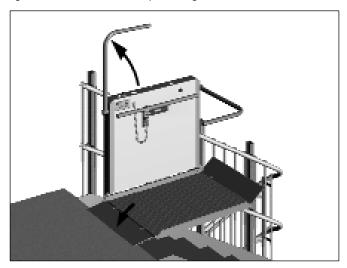


Fig. 6.21: Platform at the top landing, ready to enter





Caution!

To avoid injuries, always put the wheelchair correctly onto the platform.

On the platform the wheelchair has to be secured against rolling (exception: HIRO 360 inclined wheelchair lift).

Make sure that the safety barriers and the access ramps can be moved easily. Feet or footrests must not block the access ramps.

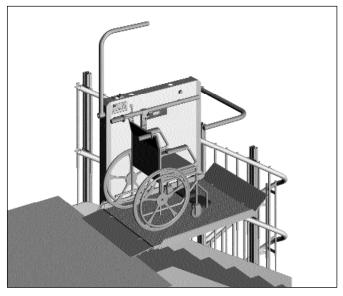


Fig. 6.22: Platform at the top landing with wheelchair

• Enter the platform.



At the top landing and at intermediate landings, overloading or very uneven distribution of the load will be detected as soon as the platform floor is subjected to a load. It will be impossible to operate the lift in this case. After remedying the cause (too heavy or unevenly distributed load), the lift can be operated as usual.

• Secure the position of the wheelchair by putting on the brakes.



Fig. 6.23: Correct wheelchair position for HIRO 360 inclined lift

Special case

HIRO 360 inclined wheelchair lift:

• Enter the platform so that the large back wheels stand in the opening of the platform.



For a ride on the HIRO 360 inclined wheelchair lift, the brakes of the wheelchair must not be put on.



- Insert the key into the platform control.
- Turn the key to the ON position.
- Push the DOWN button (A) on the platform control.

First the safety barrier and the access ramp close. So they block the exit.

Then the platform starts to move.

- Keep the DOWN button (A) pressed until you have reached the desired position.
- Keep the DOWN button (A) pressed until the safety barrier and the access ramp unblock the exit.

Now you may leave the platform.

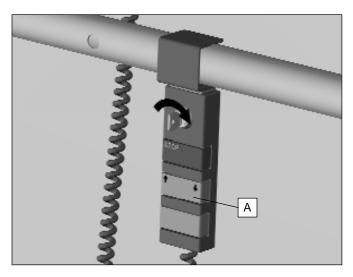


Fig. 6.24: Platform control

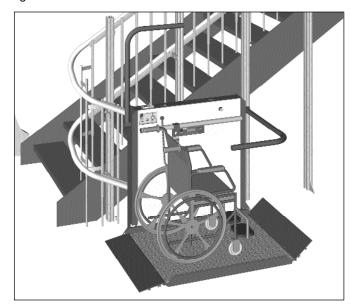


Fig. 6.25: Platform at the bottom landing, ready to leave



You have finished your ride and no longer need the platform.

- Turn the key on the platform controls to the OFF position.
- Remove the key.



It is important that you remember to remove the key, because the wheelchair lift cannot be operated via remote control when the key in the platform control is set to the ON position.

The platform must now be turned back to the travelling position so that it does not block the stairs.

- Insert the key (A) into the stationary or portable remote control unit.
- Turn the key (A) to the ON position.
- Push the UP button (B) and keep it pressed until the platform has folded.
- Release the button immediately after the folding action, because otherwise the platform will travel upstairs.

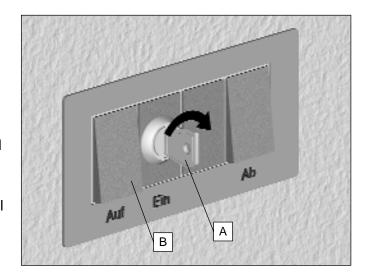


Fig. 6.26: Stationary remote control



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.
- Remove the key from the remote control unit.

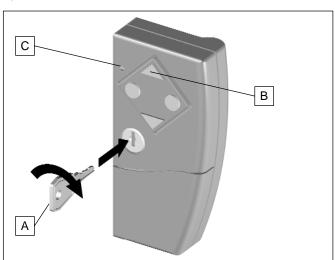


Fig. 6.27: Portable remote control



6.4 Calling the wheelchair lift and riding (lift with ON/OFF key)

6.4.1 Call platform - from downstairs

You are at the bottom of the stairs and you want to go up. The wheelchair lift is not at the bottom landing, however, but at a charging station in the middle or at the top of the stairs.

You will therefore have to call the lift down first using the remote control unit. To do this, the key switch must be set to the ON position.



Caution!

Before every travel make sure that the travel path is free. When using the remote control, the entire travel path must be in clear view.

 Push the DOWN button (B) to travel the platform lift downstairs.

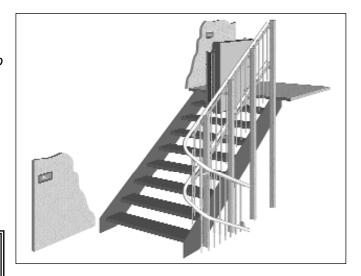


Fig. 6.28: Platform at the top landing, folded

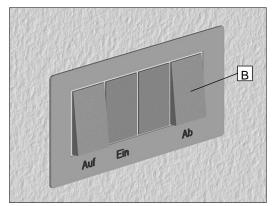


Fig. 6.29: Stationary remote control unit with no key switch



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.

As soon as the DOWN button is released, the platform stops.

 Hold the DOWN button (B) until the platform stops automatically at the bottom landing.

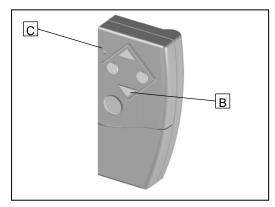


Fig. 6.30: Portable remote control unit with no key switch



Special case



Multi-floor systems:

You are at the bottom landing and you want to call the platform lift by means of the remote control.



Caution!

If multi-floor systems are operated with the stationary or portable remote control, the travel path must be completely visible at all times.

Push the UP button and hold it until the platform lift has reached the bottom landing.
 The safety barrier and the access ramp open automatically to let you enter the platform.



Be aware that the platform lift stops automatically at the centre landing for approx. 2 seconds, but then it travels on automatically.

If you release the DOWN button during this time period and push it again, the safety barrier and the access ramp will open. In order to move the platform to the bottom landing, release the DOWN button and push it again. Then the reverse function begins, which means that the safety barrier and the access ramp close again.

Special case

HIRO 360/370 inclined wheelchair lift:

The above mentioned procedures apply as well to the HIRO 360/370 inclined wheelchair lift. But in addition the platform is lowered automatically before the safety barrier and access ramp open.



6.4.2 Riding upstairs

The platform is folded and standing at the bottom landing.

- Insert the key into the key switch, if it is not already inserted.
- Turn the key to the ON position.

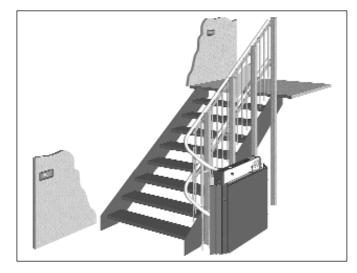


Fig. 6.31: Platform at the bottom landing, folded

• Push the DOWN button on the remote control to unfold the platform.

The platform with the contact tray unfolds. The safety barriers and the access ramps block the entrance.

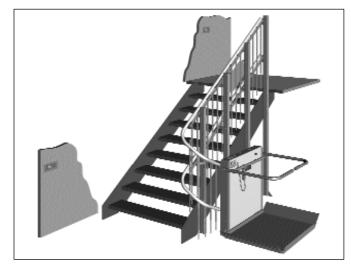


Fig. 6.32: Platform at the bottom landing, unfolded

- Hold the DOWN button until safety barrier and access ramp have opened completely.
- Release the button.

Depending on the lift system or landing type one or both access ramps and safety barriers will open.

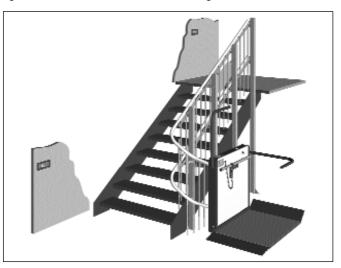


Fig. 6.33: Platform at the bottom landing, ready to enter





Caution!

To avoid injuries, always put the wheelchair correctly onto the platform.

On the platform the wheelchair has to be secured against rolling (exception: HIRO 360 inclined wheelchair lift).

Make sure that the safety barriers and the access ramps can be moved easily. Feet or footrests must not block the access ramps.

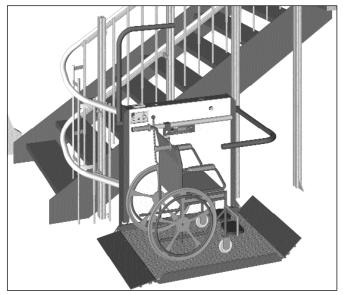


Fig. 6.34: Platform at the bottom landing with wheelchair

- Enter the platform.
- Secure the position of the wheelchair by putting on the brakes.

Special case

HIRO 360 inclined wheelchair lift:

• Enter the platform so that the large back wheels stand in the opening of the platform.



For a ride on the HIRO 360 inclined wheelchair lift, the brakes of the wheelchair must not be put on.



Fig. 6.35: Correct wheelchair position for HIRO 360 inclined lift

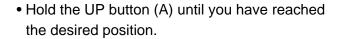


• Push the UP button (A) on the platform control.

First the safety barrier and the access ramp close. They block the exit as a result. Then the platform starts to move.



If the lift is overloaded, or the load is very unevenly distributed, when it leaves the bottom landing, then the overload switch will be triggered within the first 15 cm of travel. The lift will stop automatically and it will only be possible to return the lift to the bottom landing. After remedying the cause (too heavy or unevenly distributed load), the lift can be operated as usual.



 Keep the UP button (A) pressed until the safety barrier and the access ramp unblock the exit.

Now you may leave the platform.

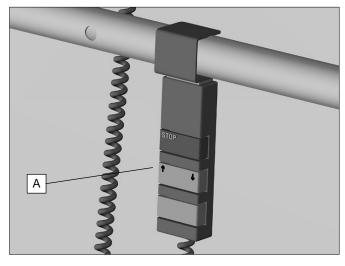


Fig. 6.36: Platform control

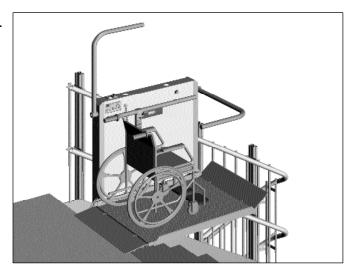


Fig. 6.37: Platform at the top landing, ready to leave



When you arrive at the top landing, there are two options:

Option 1: Leaving the wheelchair lift ready for use.

Option 2: Switching off the platform lift.

Option 1: Leaving the wheelchair lift ready for use

The platform must now be turned back to the travelling position so that it does not block the stairs.

- Push the DOWN button (B) on the stationary or portable remote control and keep it pressed until the platform has folded.
- Release the button immediately after the folding action, because otherwise the platform will travel upstairs.

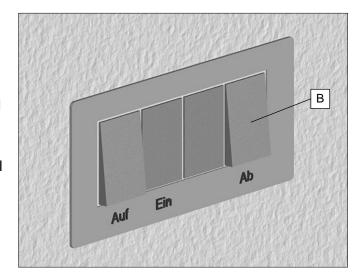


Fig. 6.38: Stationary remote control unit with no key switch



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.

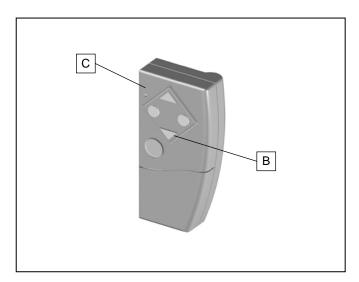


Fig. 6.39: Portable remote control unit with no key switch

The platform remains ready for use. The following safety instructions must be observed!





Caution!

The wheelchair lift can still be set in motion using either the platform controls or the remote controls, since the key switch is still set to the "ON" position.

The operator of the system is responsible for the safe and proper use of the lift. Everyone who uses the lift must be instructed in its use and be familiar with the system. The operator of the system must ensure that the lift is only used, or can only be used, by persons who have been briefed.



Attention!

When the platform is not in use, it must always be connected to a charging station in order to prevent the batteries from discharging.



Caution!

Always put the remote control unit back in its wall mount when not in use. The operator of the system must ensure that unauthorised persons, such as children, etc., cannot use the lift. Otherwise, the lift must be switched off.



Option 2: Switching off the platform

The platform must now be turned back to the travelling position so that it does not block the stairs.

- Push the DOWN button (B) on the stationary or portable remote control and keep it pressed until the platform has folded.
- Release the button immediately after the folding action, because otherwise the platform will travel upstairs.

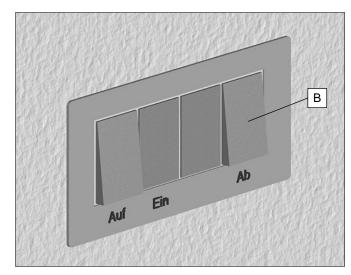


Fig. 6.40: Stationary remote control unit with no key switch



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.

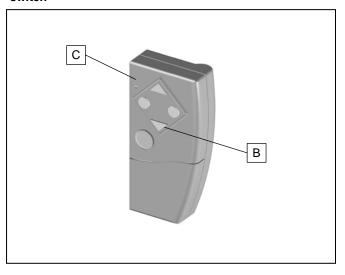


Fig. 6.41: Portable remote control unit with no key switch



Attention!

When the platform is not in use, it must always be connected to a charging station in order to prevent the batteries from discharging.

The platform can now be switched off.

- Insert the key into the key switch and turn it to the OFF position.
- Remove the key.





Caution!

When the wheelchair lift is not in use, the key must be kept in a safe place to ensure that unauthorised persons, such as children, cannot use the lift.



If the key switch is set to the OFF position, the wheelchair lift cannot be operated, whether the key has been removed or not.



6.4.3 Call platform - from upstairs

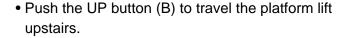
You are at the top of the stairs and you want to go down. The wheelchair lift is not at the top landing, however, but at a charging station in the middle or at the bottom of the stairs.

You will therefore have to call the lift up first using the remote control unit. To do this, the key switch must be set to the ON position.



Caution!

Before every travel make sure that the travel path is free. When using the remote control, the entire travel path must be in clear view.



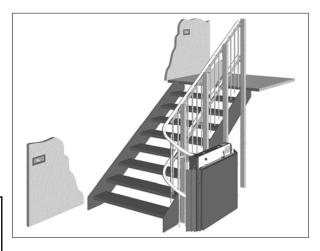


Fig. 6.42: Platform at the bottom landing, folded

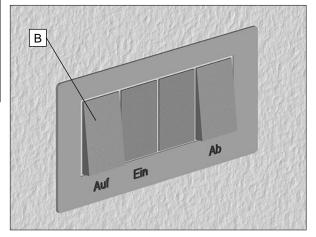


Fig. 6.43: Stationary remote control unit with no key switch



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.

As soon as the UP button is released, the platform stops.

• Keep the UP button (B) pressed until the platform stops automatically at the top landing.

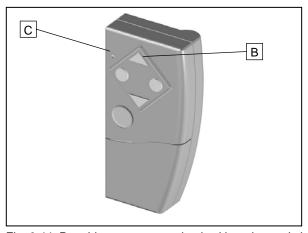


Fig. 6.44: Portable remote control unit with no key switch



Special case



Multi-floor systems:

You are at the top landing and want to call the platform lift by means of the remote control.



Caution!

If multi-floor systems are operated with the stationary or portable remote control, the travel path must be completely visible any time.

• Push the UP button and keep it pressed until the platform lift has reached the top landing. The safety barrier and the access ramp open automatically to let you enter the platform.



Be aware that the platform lift stops automatically at the centre landing for approx. 2 seconds, but then it travels on automatically.

If you release the UP button during this time period and push it again, the safety barrier and the access ramp will open. In order to call the platform to the top landing, release the UP button and push it again. Then the reverse function begins, which means that the safety barrier and the access ramp close again.

Special case

HIRO 360/370 inclined wheelchair lift:

The above mentioned procedures apply as well to the HIRO 360/370 inclined wheelchair lift. But in addition the platform is lowered automatically before the safety barrier and access ramp open.



6.4.4 Riding downstairs

The platform is folded and standing at the top landing.

- Insert the key into the key switch, if it is not already inserted.
- Turn the key to the ON position.

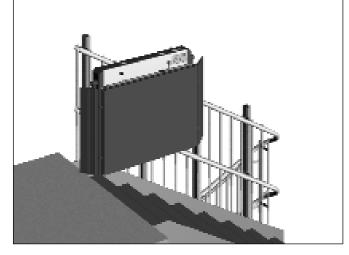


Fig. 6.45: Platform at the top landing, folded

• Push the UP button to unfold the platform.

The platform with the contact tray unfolds. The safety barriers and the access ramps block the entrance.

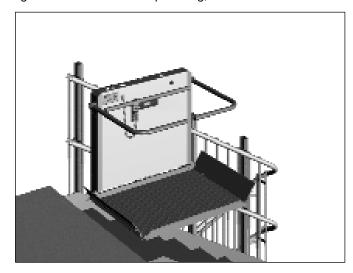


Fig. 6.46: Platform at the top landing, unfolded

- Keep the UP button pressed until the safety barrier and the access ramp have opened completely.
- Release the button.

Depending on the lift system or landing type one or both access ramps and safety barriers will open.

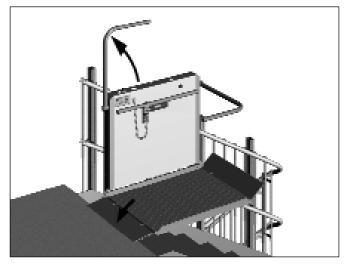


Fig. 6.47: Platform at the top landing, ready to enter





Caution!

To avoid injuries, always put the wheelchair correctly onto the platform.

On the platform the wheelchair has to be secured against rolling (exception: HIRO 360 inclined wheelchair lift).

Make sure that the safety barriers and the access ramps can be moved easily. Feet or footrests must not block the access ramps.

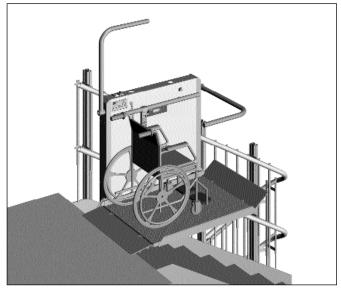


Fig. 6.48: Platform at the top landing with wheelchair

• Enter the platform.



At the top landing and at intermediate landings, overloading or very uneven distribution of the load will be detected as soon as the platform floor is subjected to a load. It will be impossible to operate the lift in this case. After remedying the cause (too heavy or unevenly distributed load), the lift can be operated as usual.

 Secure the position of the wheelchair by putting on the brakes.

Special case

HIRO 360 inclined wheelchair lift:

• Enter the platform so that the large back wheels stand in the opening of the platform.



For a ride on the HIRO 360 inclined wheelchair lift, the brakes of the wheelchair must not be put on.



Fig. 6.49: Correct wheelchair position for HIRO 360 inclined lift



• Push the DOWN button (A) on the platform control.

First the safety barrier and the access ramp close. They block the exit as a result. Then the platform starts to move.

 Keep the DOWN button (A) pressed until you have reached the desired position.

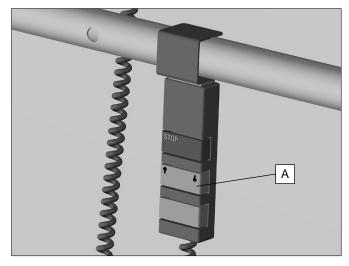


Fig. 6.50: Platform control

 Keep the DOWN button (A) pressed until the safety barrier and the access ramp unblock the exit.

Now you may leave the platform.

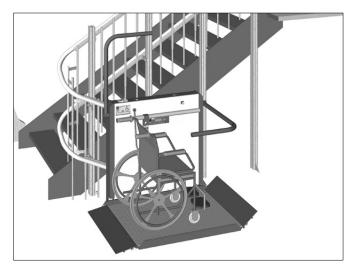


Fig. 6.51: Platform at the bottom landing, ready to leave



When you arrive at the top landing, there are two options:

Option 1: You can leave the wheelchair lift ready for use.

Option 2: You can switch off the platform lift.

Option 1: Leaving the wheelchair lift ready for use

The platform must now be turned back to the travelling position so that it does not block the stairs.

- Push the UP button (B) on the stationary or portable remote control and keep it pressed until the platform has folded.
- Release the button immediately after the folding action, because otherwise the platform will travel upstairs.

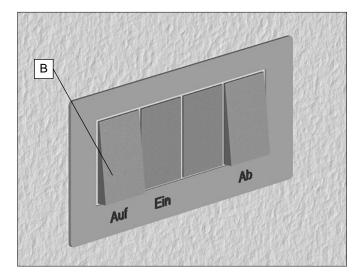


Fig. 6.52: Stationary remote control unit with no key switch



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.

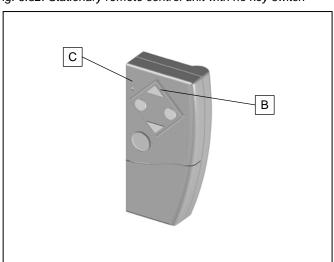


Figure 6.53: Portable remote control unit with no key switch

The platform remains ready for use. The following safety instructions must be observed!





Caution!

The wheelchair lift can still be set in motion using either the platform controls or the remote controls, since the key switch is still set to the "ON" position.

The operator of the system is responsible for the safe and proper use of the lift. Everyone who uses the wheelchair lift must be instructed in its use and be familiar with the system. The operator of the system must ensure that the lift is only used, or can only be used, by persons who have been briefed.



Attention!

When the platform is not in use, it must always be connected to a charging station in order to prevent the batteries from discharging.



Caution!

Always put the remote control unit back in its wall mount when not in use. The operator of the system must ensure that unauthorised persons, such as children, etc., cannot use the wheelchair lift. Otherwise, the lift must be switched off.



Option 2:

Switching off the platform

The platform must now be folded away so that it does not block the stairs.

- Push the UP button (B) of the stationary or portable remote control and keep it pressed until the platform has folded.
- Release the button immediately after the folding action, because otherwise the platform will travel upstairs.

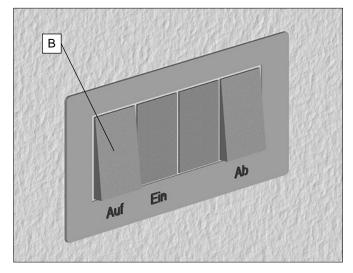


Fig. 6.54: Stationary remote control unit with no key switch



The buttons on the remote control have two pressure points:

- If the button is pressed lightly, the LED (C) lights up but the command is not yet carried out.
- The LED (C) only starts to flash and the command is only carried out when the button is pressed firmly.

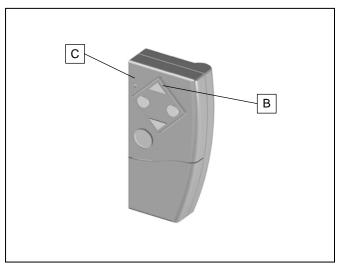


Fig. 6.55: Portable remote control unit with no key switch



Attention!

When the platform is not in use, it must always be connected to a charging station in order to prevent the batteries from discharging.

The platform can now be switched off.

- Insert the key into the key switch and turn it to the OFF position.
- Remove the key.





Caution!

When the wheelchair lift is not in use, the key must be kept in a safe place to ensure that unauthorised persons, such as children, cannot use the lift.



If the key switch is set to the OFF position, the wheelchair lift cannot be operated, whether the key has been removed or not.



6.5 Enter and leave the lift at intermediate stops



Platform lift systems, e.g. systems extending over several floors, may have additional landings between the top and bottom end landing.



At the top landing and at intermediate landings, overloading or very uneven distribution of the load will be detected as soon as the platform floor is subjected to a load. It will be impossible to operate the lift in this case. After remedying the cause (too heavy or unevenly distributed load), the lift can be operated as usual.

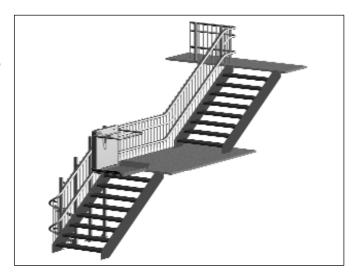


Fig. 6.56: Intermediate stop

Situation 1: You are on the moving platform lift and want to get off at a stop in between.

When the UP or DOWN button on the platform control (depending on travel direction) is pushed, the platform stops automatically at an intermediate landing for approx. 2 seconds.

- Release the button during this time period.
- Push the button again and hold it until the safety barrier and the access ramp open and unblock the exit of the platform.

Now you may leave the platform.



If you release the button while the safety barrier and the access ramp open and then you push the button again, the reverse function begins, that means that the safety barrier and the access ramp close again.

To move the platform further in one direction, the button must be pushed permanently, i.e. without releasing it.



Situation 2: You are at an intermediate landing and want to ride upstairs or downstairs. To enter the platform, you need to call it first by means of the remote control.



If you have a lift with ON/OFF control, the lift system must be switched on (key switch in ON position).

If you have a lift with key-operated remote control, the remote control must be switched on (key in key switch in ON position)

- Push the DOWN button (if the platform lift is above the intermediate landing) or the UP button (if the platform lift is below the landing in between) on the stationary or portable remote control and hold the respective button pressed.
 - During the travel the platform stops automatically at the landing in between for approx. 2 seconds.
- Release the button during this time period.
- Now push the DOWN button and keep it pressed until the safety barrier and access ramp open and let you enter the platform.



If you release the button while the safety barrier and access ramp open, and then you push the button again, the reverse function begins, that means that the safety barrier and the access ramp close again.

To move the platform further in one direction, the button must be pushed permanently, i.e. without releasing it.

Special case

HIRO 360/370 inclined wheelchair lift:

The above mentioned procedures apply as well to the HIRO 360/370 inclined wheelchair lift. But in addition the platform is lowered automatically before the safety barrier and access ramp open.



6.6 Deactivation of the system

If the platform lift is not used for a longer period of time, e.g. when you go on vacation for a few weeks, the system can be deactivated.

• Turn the main switch on the platform to the OFF position.



Attention!

When switching off the main switch, the charging system and its components are still under electric power.

To cut off the power supply to the system:

 Pull the mains plug of the battery charger out of the socket.



Attention!

If the mains plug is pulled out but the main switch on the platform is still set to the ON position, the batteries will discharge.

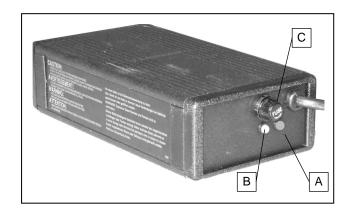


Fig. 6.57: Charging device

Indicators on the charging device:

A Red LED: mains voltage

Lights up when the mains plug is connected to a socket.

If the LED is not on, this means that the power supply is interrupted.

B Charging current LED

Lights up yellow if the batteries are charging.

Lights up green if the batteries are fully charged.

Flashes green, if there is no electrical connection between the batteries and the charging device.

C Fuse



If you want to deactivate the system for longer than 6 months, it is recommended to remove the rechargeable batteries.

If you have an outside lift with rail heating system, please switch this off.



6.7 Display

The electronic control unit of the HIRO platform lift system shows the respective operating state on its display. When the F buttons are pressed, the saved information will be displayed.



Fig. 6.58: Display of system control

Button functions:

- Buttons F1 to F3 are allocated directly to three different menus. One push of the button calls up a menu directly. Another push of the button scrolls through the submenus of the information group.
- F1: General lift data, such as the loading capacity, company service number, etc.
- F2: Operating state data, such as battery voltage, charging current etc.
- F3: Fitter's data (only relevant for service personnel)
- F4: DOWN button

After pressing the F1, F2 or F3 button, you can press this button to scroll backwards through the menu items.

F5: UP button

After pressing the F1, F2 or F3 button, you can press this button to scroll forwards through the menu items.

F6: Enter button

This button has no function for the user.



6.8 Maintenance and cleaning instructions



Caution!

To prevent the platform lift from slipping, the rails must always be kept dry and clean. The rails must not be treated with grease or other lubricants.

- Keep the travel path and the platform clean.
- If you have a lift with rails, clean these with spirit or acetone.
- Clean plastic parts with common cleansing agents.

For outdoor systems:

- Always keep the rails clean. Remove any dirt, such as bird droppings or foliage.
- Clean the surface of varnished parts regularly with common cleansing agents.
 Repair any damage.
- Make sure that no bushes or other plants protrude into the travel path. Cut them, if necessary.
- Keep the system free from snow and ice. If not in use, it is recommended to protect the system with a cover.
- Some outdoor lift models are fitted with a rail heating system and with a safety catch heating system. These heating systems must be switched on and be functional at all times during winter and when the ambient temperature is below 5° C (41° F).

For the HIRO 350Z model:

- The upper surfaces of the rails must be cleaned at regular intervals. Remove any dirt and dust with a cloth or vacuum cleaner.
- The toothed drive rack must be regularly greased. Contact the HIRO LIFT service department.



7.1 Emergency operation

In case of emergency, the wheelchair lift can be moved to the nearest stop using either a hand wheel or an electrically operated emergency control facility, depending on the model of lift. Emergency operation of both models is described below:

7.1.1 Moving the platform: Model with hand wheel

In case the platform lift cannot be operated with the platform or remote control, it must be moved to a landing with the hand wheel.



Caution!

This procedure may only be carried out by persons who have received appropriate instruction.

Never move the wheelchair lift with the hand wheel unless the main switch is set to off. The hand wheel must always be removed after use.



Depending on the model the platform can have different versions.

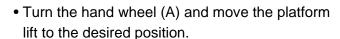
Version 1:

- Set the main switch to OFF.
- Insert the hand wheel (A) into the respective opening.
- Pull the brake release lever (B) to release the motor brake.

Keep the brake release lever pulled.



If the brake release lever (B) is not pulled, the platform is very difficult to move.



- Let go of the brake release lever (B).
- Remove the hand wheel (A).
- Turn the main switch to the ON position.
 The wheelchair lift is then switched on again.

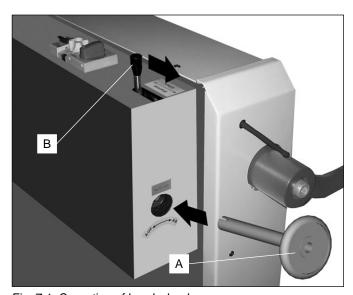


Fig. 7.1: Operation of hand wheel



Version 2:

- Set the main switch to OFF.
- Insert the hand wheel (A) into the respective opening.
- Pull the brake release lever (B) to release the motor brake.

Keep the brake release lever pulled.



If the brake release lever (B) is not pulled, the platform is very difficult to move.

- Turn the hand wheel (A) and move the platform lift to the desired position.
- Let go of the brake release lever (B).
- Remove the hand wheel (A).
- Turn the main switch to the ON position.
 The wheelchair lift is then switched on again.



Depending on the model the arrangement of the brake release lever (B) and the respective opening for the hand wheel (A) may vary.



This model has a brake release ball (A) instead of a brake release lever.

- Unscrew the oblong metal cover using the Torx screwdriver supplied (see page 14).
- To release the motor brake, rotate the brake release ball (A).
- Pull the brake release ball upward.
- Before inserting the hand wheel (B), remove the plug.



The angle at which the hand wheel must be inserted may vary depending upon the gradient of the guide rails.

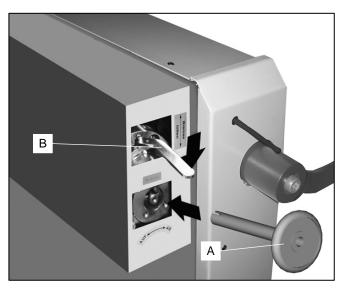


Fig. 7.2: Operation of hand wheel

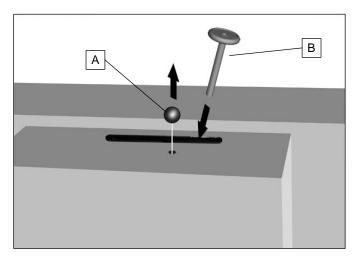


Fig. 7.3: HIRO 350 — Release motor brake



7.1.2 Moving the platform: Model with electrically operated emergency control

In case the platform lift cannot be operated with the platform control or remote control, it must be moved to a landing with the electrically operated emergency control facility.



Caution!

This procedure may only be carried out by persons who have received appropriate instruction.

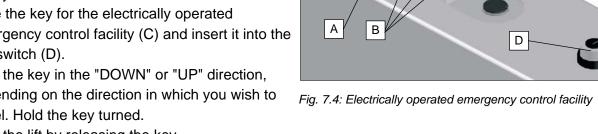
When you activate the emergency lowering procedure, all the safety devices of the system are deactivated.

Be prepared for a sudden jerky start when the emergency lowering system is activated and the lift starts to move.

Pay attention to the way the wheelchair lift moves: under no circumstances should you continue travelling if you hear loud creaking noises or the lift moves sluggishly. Contact HIRO LIFT's service department.

If your model of lift has a swivel rail, do not carry out the procedure described below

- Make sure that the main switch (A) is switched on and the fuses (B) are pushed in. Otherwise it will not be possible to move the wheelchair lift using the electrically operated emergency control facility.
- Take the key for the electrically operated emergency control facility (C) and insert it into the key switch (D).
- Turn the key in the "DOWN" or "UP" direction, depending on the direction in which you wish to travel. Hold the key turned.
- Stop the lift by releasing the key.
- Remove the key.





Caution!

Keep the key in a safe place to prevent unauthorised persons from using the wheelchair lift.



7.1.3 Manually lowering of HIRO 360 and HIRO 370 platform lift systems

In case the platform of these models cannot be lowered with the platform control or remote control, it must be lowered by means of the square key.



Caution!

The platform may be lowered manually only if the main switch is switched off. After the operation with the square key it has always to be removed from the device. The hand wheel must always be removed after use.

The system is not at its planned destination.



If you have a HIRO 360 type lift, carry out steps 1 and 2 one after the other. If you have a HIRO 370 type lift, carry out step 2 only.

Step 1:

• Push the guard (A) on the back of the platform and keep the guard (A) pressed.

Step 2:

- Insert the square key (A) into the respective opening on the platform.
- Lower the platform by turning the square key (A).

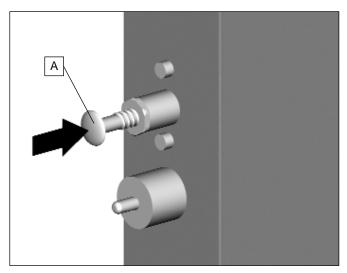


Fig. 7.5: Bypass the guard in the case of HIRO 360

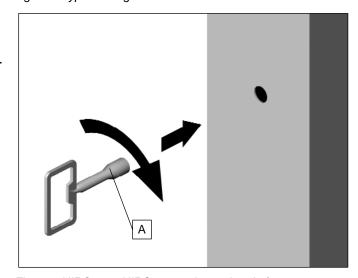


Fig. 7.6: HIRO 360, HIRO 370 — lower the platform



7.2 Emergency evacuation

In case a person in a wheelchair is on the platform and the platform cannot travel to a landing, an emergency evacuation has to be carried out.

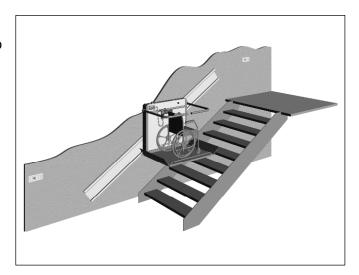


Caution!

Before an emergency evacuation, the system has to be switched off at the main switch. To avoid injuries, an emergency evacuation must always be carried out up the stairs, i.e. in upward direction.

An emergency evacuation can only be carried out by a second person, who has to get the user of the lift from the platform.

Before an emergency evacuation it is recommended to move the platform lift manually to a landing (see Section 7.1, page 57 to 60).



(3

Depending on the model the platform can have three different safety barrier versions.

Version 1:

- Loosen the safety barrier by unscrewing the respective Allen screw (A).
- Remove the safety barrier and put it in a place where it will not obstruct the emergency evacuation procedure.
- Wheel the person in the wheelchair off the platform.

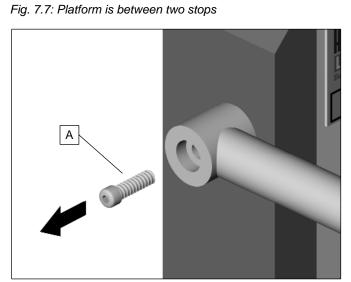


Fig. 7.8: Loosen safety barriers — Version 1



Version 2:

- Loosen the safety barrier by unscrewing the respective Allen screws (A).
- Remove the safety barrier and put it in a place where it will not obstruct the emergency evacuation procedure.
- Wheel the person in the wheelchair off the platform.

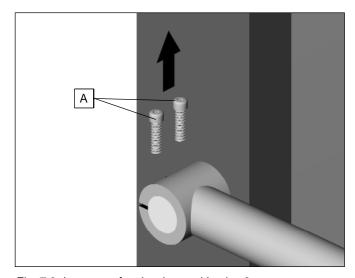


Fig. 7.9: Loosen safety barriers — Version 2

Version 3:

- Loosen the safety barrier by unscrewing the respective Allen screw (A).
- Insert the eye bolt (B) in place of the Allen screw until the safety barrier starts to disengage from the cone.
- Hold on to the safety barrier and unscrew and remove the eye bolt again.
- Remove the safety barrier and put it in a place where it will not obstruct the emergency evacuation procedure.
- Get the person in the wheelchair from the platform.

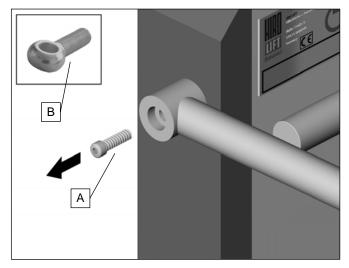


Fig. 7.10: Loosen safety barriers — Version 3



Caution!

After an emergency evacuation, the lift is no longer in running order and must no longer be used.

Since the safety barrier is a safety device, after an emergency evacuation the system may only be put into operation again by HIRO LIFT or by an authorised representative of HIRO LIFT.

The platform must now be folded away so that it does not block the stairs. after the emergency evacuation. Proceed as follows:



- Lower the remaining safety barrier so that it lies flat on the lifting device.
- Fold the platform floor up.
- Secure the platform floor by inserting the Allen key (A) into the respective opening to the side of or below the platform.

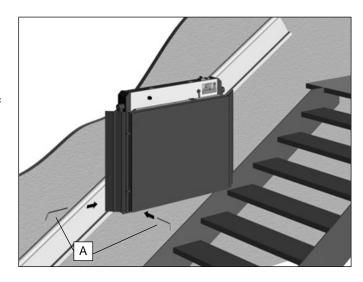


Fig. 7.11: Fold and secure the platform



7.3 Change of battery

Portable remote control:

- Remove the cover (A) from the housing of the remote control.
- Take out the old battery.
- Put a new battery (9V block battery) into the housing.
 - Make sure that the poles of the battery are the right way round.
- Close the cover (A) of the housing.



- Remove the cover (A) from the housing of the remote control by means of a screwdriver.
- Unscrew the two screws (C) and take out the button unit (B).
- Take out the old battery.
- Plug a new battery (9V block battery) into the socket (D).
 - Make sure that the poles of the battery are the right way round.
- Install the battery together with the button unit (B).
- Tighten both screws (C).
- Fix the cover (A) to the housing.

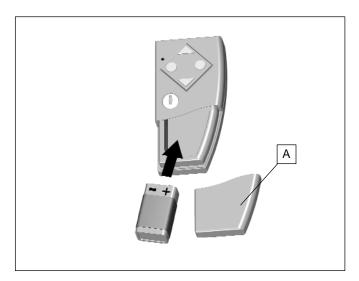


Fig. 7.12: Changing the battery of the portable remote control unit

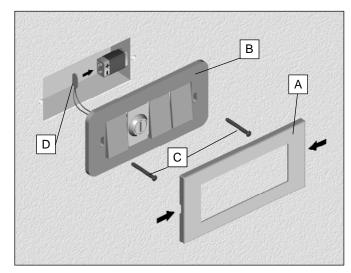


Fig. 7.13: Changing the battery of the stationary remote control unit



7.4 Troubleshooting in case of malfunctions

Malfunctions are indicated by a corresponding message shown on the display of the system's control unit.



Tip: To simplify fault finding, always check the message on the display before you do anything else.

To do so, the view must be switched to display the current error:

Press the F3 button. If necessary so often until the message "Safety circuit" appears.

Next, give an "UP" or "DOWN" command. If an error is found, this will be shown in the display.

Example: The emergency stop button is pushed.

In the display the following message appears (often after the message "Actual fault" or "Safety circuit"):

Safety stop

The tables on the next few pages list the most frequent causes of malfunctions.



Problem: The lift does not react when the platform controls are operated.

Cause	Message in the display	Solution	
The main switch is not switched on.	-	Switch the main switch ON (see page 17).	
The fuses are not connected.	-	Switch on or push in the fuses (see page 17).	
The emergency stop button is pushed.	Safety stop	Pull out the emergency stop button.	
For wheelchair lifts with key-operated platform controls and remote controls: The key switch of the platform control unit is not in the ON position.	-	Insert the key into the platform control and turn it to the ON position (see page 26).	
For wheelchair lifts with ON/OFF key switch: The key is not turned to the ON position.	/Key OR Lift OFF	Insert the key into the key switch and switch it to the ON position. (See page 19)	
For special lifts with alternative access control systems	/Key OR Lift OFF	Contact HIRO LIFT's service department.	
The rechargeable battery of the platform lift is not charged or it is discharged.	OR Low voltage detect	Contact the HIRO LIFT service department.	
The platform lift has stopped during the up travel.	Hill sens. Pan.	The upper access ramp has switched off, because there is an obstruction in the way. Remove the obstruction.	
The platform lift has stopped during the down travel.	Valley sens. pan OR Under cont. area	The lower access ramp or lower contact tray has switched off, because there is an obstruction in the way. Remove the obstruction.	
The platform lift does not start or it stops during travel.	Valley arm	The safety barrier for bottom landing (lower safety barrier) is not in a horizontal position, because there is an obstruction in the way of the barrier. Remove the obstruction.	
The platform lift does not start or it stops during travel.	Hill arm / seat	The safety barrier for top landing (upper safety barrier) is not in a horizontal position, because there is an obstruction in the way of the barrier. Remove the obstruction.	



The platform has travelled beyond the end stop and can no longer be moved.	Final limit	For wheelchair lifts with manually operated emergency control: Depending on the landing (top or bottom) the platform has to be moved against the travel direction into the stop (see page 57). For wheelchair lifts with electrically operated emergency control: Depending on the landing (top or bottom) the platform has to be moved against the travel direction into the stop with the aid of the electrically operated emergency control (see page 59).
For wheelchair lifts with safety catch: The platform lift has stopped during the down travel.	Safety gear	Release the safety catch by moving the wheelchair lift upwards at least 5 cm using the hand wheel. (See pages 15 and 57).
Fault in the drive unit	K21/K31/GMM	Contact HIRO LIFT's service department.
The platform lift has stopped during travel.	Enctrack fault ENCODER	Contact HIRO LIFT's service department.
The platform lift is in an incorrect position.	Bypass switch	Contact HIRO LIFT's service department.
The platform does not move the safety barriers or does not move off	Drive release	Error in the programme sequence Contact HIRO LIFT's service department.



Problem: The lift does not react when the remote controls are operated.

Cause	Message in the display	Solution
The main switch is not switched on.	-	Switch the main switch ON (see page 17).
The fuses are not connected.	-	Switch on or push in the fuses (see page 17).
The emergency stop button is pushed.	Safety stop	Pull out the emergency stop button.
For wheelchair lifts with key-operated platform controls and remote controls: The key switch of the remote control unit is not in the ON position.	-	Insert the key into the remote control and turn it to the ON position (see page 21).
For wheelchair lifts with key-operated platform controls and remote controls: The key is in the platform control and in ON position.	-	Remove the key from the platform control.
For wheelchair lifts with ON/OFF key switch: The key is not turned to the ON position.	Lift OFF	Insert the key into the key switch and switch it to the ON position. (See page 19)
For special lifts with alternative access control systems	Lift OFF	Contact HIRO LIFT's service department.
The battery in the remote control unit is empty.	-	Change battery in the remote control unit. (See page 64).
The rechargeable battery of the platform lift is not charged or it is discharged.	– OR Low voltage detect	Contact the HIRO LIFT service department.
The platform floor does not unfold completely.	Under cont. area	The contact tray on the floor has switched itself off. There is an obstruction under the platform. Remove the obstruction.
The platform lift has stopped during the up travel.	Hill sens. Pan	The upper access ramp has switched off, because there is an obstruction in the way. Remove the obstruction.
The platform lift has stopped during the down travel.	Valley sens. pan OR Under cont. area	The lower access ramp has switched off, because there is an obstruction in the way. Remove the obstruction.



The platform has travelled beyond the end stop and can no longer be moved.	Final limit	For wheelchair lifts with manually operated emergency control: Depending on the landing (top or bottom) the platform has to be moved against the travel direction into the stop with the aid of the hand wheel (see page 57). For wheelchair lifts with electrically operated emergency control: Depending on the landing (top or bottom) the platform has to be moved against the travel direction into the stop with the aid of the electrically operated emergency control (see page 59).
For wheelchair lifts with safety catch: The platform lift has stopped during the down travel.	Safety gear	Release the safety catch by moving the wheelchair lift upwards at least 5 cm using the hand wheel. (See pages 15 and 57).
Fault in the drive unit	K21/K31/GMM	Contact HIRO LIFT's service department.
The platform lift has stopped during travel.	Enctrack fault ENCODER	Contact HIRO LIFT's service department.
The platform lift is in an incorrect position.	Bypass switch	Contact HIRO LIFT's service department.
The platform does not move the safety barriers or does not move off	Drive release	Error in the programme sequence Contact HIRO LIFT's service department.



Problem: The platform lift only moves slowly

Cause	Message in the display	Solution
The rechargeable batteries are nearly empty.	-	Move the wheelchair lift to a charging station to recharge the batteries.
The incremental encoder is defective.	Encoder error OR Enctrack fault ENCODER	Contact the HIRO LIFT service department.
The monitoring function is not working.	Error turning control	Contact the HIRO LIFT service department.

Problem: The warning signal sounds intermittently

Cause	Message in the display	Solution
The platform lift is not at a charging station.	-	Move the platform lift to a charging station.
The platform lift is at a charging station.	-	Check whether the mains plug of the charging device is connected.
The charging fuse is not on.	-	Switch the charging fuse on (see page 17).
The charging device is defective.	-	Check the charging device.
The mains plug of the charging device is not connected.	-	Plug in the mains plug of the charging device.

Problem: The rollers squeak

Cause	Message in the display	Solution
There is dirt on the travel path.	-	Clean the travel path with spirit or acetone.
The rollers are dirty.	-	Contact the HIRO LIFT service department.



Problem: The lift is tilted.

Cause	Message in the display	Solution
The tilt control system is defective.	-	Turn the main switch off.
		Contact HIRO LIFT's service department.

Problem: Overload

Cause	Message in the display	Solution
The lift does not leave the landing or only travels 15 cm and then stops.	Overload	If the lift is overloaded, or the load is very unevenly distributed, when it leaves the bottom landing, then the overload switch will be triggered within the first 15 cm of travel. The lift will stop automatically and it will only be possible to return the lift to the bottom landing. After remedying the cause (too heavy or unevenly distributed load), the lift can be operated as usual. At the top landing and at intermediate landings, overloading or very uneven distribution of the load will be detected as soon as the platform floor is subjected to a load. It will be impossible to operate the lift in this case. After remedying the cause (too heavy or unevenly distributed load), the lift can be operated as usual. In both cases, a visual and acoustic overload signal is emitted.

8. Maintenance



Maintenance

All systems described in these operating instructions are custom made and adapted to the requirements of the site in question as well as to customer's needs.

The type and frequency of maintenance depend on the special design of the system.

The terms of maintenance are agreed upon for every single system in a special service contract between HIRO LIFT and the customer.

The maintenance works must be carried out by HIRO LIFT or an authorized and trained representative of HIRO LIFT.

The minimum requirements with regard to servicing intervals are as follows, unless other requirements have been contractually agreed:

- for private indoor systems: maintenance once a year
- for public systems and for outdoor systems: maintenance every 6 months

9. Assembly and disassembly



Assembly and disassembly

The lift system is equipped with modern and highly specific technology. The following must be observed in order to ensure proper, error-free operation:

Installation:

The assembly and installation of the entire lift system, including all the system components, must be carried out by HIRO LIFT or by an authorised and trained representative of HIRO LIFT.

This also applies to any later conversion work carried out to the lift system or to individual system components.

Lift systems which are designed as indoor lifts must under no circumstances be installed and used outdoors, i.e. in locations where they are exposed to the weather.

Disassembly:

The lift system may only be disassembled by experts who can demonstrate that they are appropriately qualified. To ensure that your lift is properly disassembled, you can commission HIRO LIFT to carry out the work.



Disposal



Dispose of old batteries from the remote control at the respective collecting points.

To ensure proper disposal of the lift, you can return the lift to HIRO LIFT. Otherwise ensure that the lift is disposed of according to national regulations.



Technical data for the HIRO 320/350/360/370

Туре	HIRO 320	HIRO 320P	HIRO 320Ö	HIRO 350T	HIRO 350Z	HIRO 360	HIRO 370
Drive	Motor: 24 V / 650 W n = 2000 rpm l = 60:1	2 geared motors, 24 V / 650 W each I = 59:1 n ₀ =47 rpm	Motor type 1: 2 geared motors, 24 V / 750 W each n = 1800 rpm l = 60:1 Motor type 2: 2 geared motors, 24 V / 370 W each n = 1500 rpm l = 60:1 Motor type 3: Motor: 24 V / 750 W n = 1500 rpm l = 60:1	Motor: 24 V / 650 W n = 1800 rpm l = 56:1	3 or 4 geared motors, 24 V/ 280 W each I = 59:1 n ₀ =47 rpm	Motor: 24 V / 650 W n = 2000 rpm l = 60:1	Motor: 24 V / 650 W n = 2000 rpm I = 60:1
Battery performance for	12 V – 12 Ah or 12 V – 15 Ah	12 V – 12 Ah or 12 V – 15 Ah	12 V – 12 Ah or 12 V – 15 Ah	12 V – 12 Ah or 12 V – 15 Ah	12 V – 12 Ah or 12 V – 15 Ah	12 V – 12 Ah or 12 V – 15 Ah	12 V – 12 Ah or 12 V – 15 Ah
Charging device	24 V / 3-6 Amp	24 V / 3-6 Amp	24 V / 3-6 Amp	24 V / 3-6 Amp	24 V / 3-6 Amp	24 V / 3-6 Amp	24 V / 3-6 Amp
Climb angle	0° to 70°	0° to 65°	0° to 50° (Drive version 1 and 2): 0° to 70° (Drive version 3):	20° to 45°	0° to 55°	0° to 70°	0° to 70°
Loading capacity	225 kg to 300 kg see type plate	225 kg to 300 kg see type plate	225 kg to 300 kg see type plate	225 kg to 300 kg see type plate	up to 300 kg see type plate	150 kg	225 kg to 300 kg see type plate
Remote control frequency	868.3 MHz	868.3 MHz	868.3 MHz	868.3 MHz	868.3 MHz	868.3 MHz	868.3 MHz
Airborne noise emitted during operation	< 70 dB (A)	< 70 dB (A)	< 70 dB (A)	< 70 dB (A)	< 70 dB (A)	< 70 dB (A)	< 70 dB (A)



The accompanying documentation which you have received includes the EC Certificate of Conformity. It includes the basic contents given below.

> HIRO LIFT Hillenkötter + Ronsieck GmbH 2 +49 (05 21) 9 65 52-0 · 1 +49 (05 21) 9 65 52-51 Internet: www.hiro.de Email: info@hiro.de

Founded: 1897 Tradition and Progress

EC Conformity Declaration

(Original EC Conformity Declaration)

in accordance with the EC Machinery Directive 2006/42/EC, Appendix II A in accordance with the EMC Directive 2004/108/EC

The manufacturer or distributor

HIRO LIFT

Hillenkötter + Ronsieck GmbH

Meller Strasse 6

33613 Bielefeld, Germany

hereby declares that the following product

Product designation:

Stair lift

Functional description:

Stair lift with lifting device in the form of a platform

Model designation: Type designation:

HIRO 320

Serial number:

Trade name:

HIRO 320 with traction drive

complies with the regulations of the above-mentioned directive(s), including the amendments applicable at the time of the declaration.

The above-mentioned product meets the safety objectives of the Low Voltage Directive 2006/95/EC.

The following harmonised standards and/or own standards/specifications (or parts/clauses of these) were applied:

DIN 81-40 Safety rules for the construction and installation of lifts

- Special lifts for the transport of persons and goods - Part 40: Stairlifts and inclined lifting platforms intended for persons with impaired mobility

ISO 9386-2 Power-operated lifting platforms for persons with impaired mobility-Rules

for safety, dimensions and functional operation-Part 2: Powered stair lifts for seated, standing and wheelchair users moving in an inclined plane

Person responsible for documentation:

Dipl. Ing. Andreas Beckmann

Meller Strasse 6 33613 Bielefeld, Germany

Person responsible:

Name

Riolofold Location: Date: 01.01.2010

(Dipl. Ing. Andreas Beckmann)

Signature

Design engineer

Director: Dr.-Ing. Wilfried Hein Bielefeld district court HRB 30119 VAT No.: DE 123 998 426

Dresdner Bank Bielefeld 2 026 260 (Bank code 480 800 20) Sparkasse Bielefeld 62 007 422 (Bank code 480 501 61) Postgiroamt Hannover 78 57-301 (Bank code 250 100 30)

Your notes	

Your notes	

Your notes	

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HIRO LIFT Hillenkötter + Ronsieck GmbH

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