

FLOW

User Manual



 **access**
Business Development Division

A Division of ThyssenKrupp Access Ltd.

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Version 2.0

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Table of contents

1.	Introduction	5
1.1	Manual	5
1.2	Symbols	5
1.3	Intended use	5
2	Safety	6
2.1	Safety warnings	6
2.1.1	User	6
2.1.2	Stairs and chairlift	6
2.1.3	Maintenance.....	7
3	Description	8
3.1	Chairlift	8
3.2	Controls	8
3.2.1	Armrest control unit.....	8
3.2.2	Call-and-park stations	9
3.2.3	Electronic lowering device / Main switch.....	10
3.3	Optional features	12
3.3.1	Attendant control station	12
3.3.2	Swivel seat.....	13
3.3.2.1	Manual swivel seat	13
3.3.2.2	Automatic swivel seat	13
3.3.3	Leg belt for disabled persons	14
4	Use.....	15
4.1	Unfolding the seat and sitting down.....	15
4.2	Travelling with the chairlift.....	16
4.3	Emergency stop.....	16
4.4	Standing up and folding the seat	17
4.5	Resetting the chairlift.....	17
5	Maintenance	18
5.1	Cleaning the chairlift.....	18
5.2	Replacing the batteries	18
5.2.1	Armrest control unit (RF models only)	18
5.2.2	Call-and-park stations	19
5.3	Maintenance timer	19

6	Signals.....	20
6.1	Signals on motor housing	20
6.2	Signals on armrest control unit	20
6.3	Signals on call-and-park station.....	21
7	Technical data	22
8	EC Declaration of conformity.....	23
9	Contact	24

1. Introduction




1.1 Manual

The manual describes all equipment that is available for the Flow2 chairlift. Not all features may be available for the model installed in your home.

The terms “left”, “right”, “front” and “rear” are used to identify specific parts of the chairlift. The reference point is always your position as user, sitting on the chairlift.

The terms “parking point” and “charging point” commonly refer to the same item. When the action of parking is referred to, the term “parking point” is used. When the action of charging is referred to, the term “charging point” is used.

1.2 Symbols

	WARNING	“WARNING” means that injury or death is possible if the instructions are not obeyed.
	CAUTION	“CAUTION” means that damage to equipment is possible if the instructions are not obeyed.
	NOTE	“NOTE” is used to give additional information.

1.3 Intended use

The chairlift has been designed to transport one mobility-impaired person up and down the stairs. The chairlift can be used for straight stairs and curved stairs. The chairlift is intended for indoor use only.

The chairlift operates with an electric motor that is powered by rechargeable batteries in the motor housing. The batteries are charged at the charging points at the top and bottom of the stairs or at intermediate floors. As an option, the batteries can also be charged at any additional charging point.



NOTE

RF models only: The armrest control unit uses 2 C/R14 batteries which must be replaced from time to time. Refer to section 5.2 “Replacing the batteries”.

The chairlift can be operated in two ways:

- While you are seated on the chairlift, use the armrest control unit in one of the armrests.
- If the chairlift is not in the required place, use the call-and-park stations at the top and bottom of the stairs.

2 Safety

2.1 Safety warnings

ThyssenKrupp Accessibility BV is not responsible for injury or damage caused by not obeying the safety warnings in the manual.

2.1.1 User

- Before you use the chairlift, read the manual carefully. Only use the chairlift if you know the safety warnings and the operating instructions.
- An authorised technician will demonstrate how the chairlift operates. Do not hesitate to ask the technician all your questions. Before you use the chairlift, make sure that you understand all procedures.
- Keep the manual near the chairlift for easy reference. Save the phone number of the service centre in or near your phone.
- The chairlift is only intended for use by adults who have fully read and understood the manual.
- Minors and users with an intellectual disability can only use the chairlift under supervision.
- Keep children away from the chairlift. Do not let children play with the chairlift.
- Do not use the chairlift for the transport of more than one person at the same time.
- Do not use the chairlift when your weight is more than the maximum permitted weight: 125 kg (275 lbs).

2.1.2 Stairs and chairlift

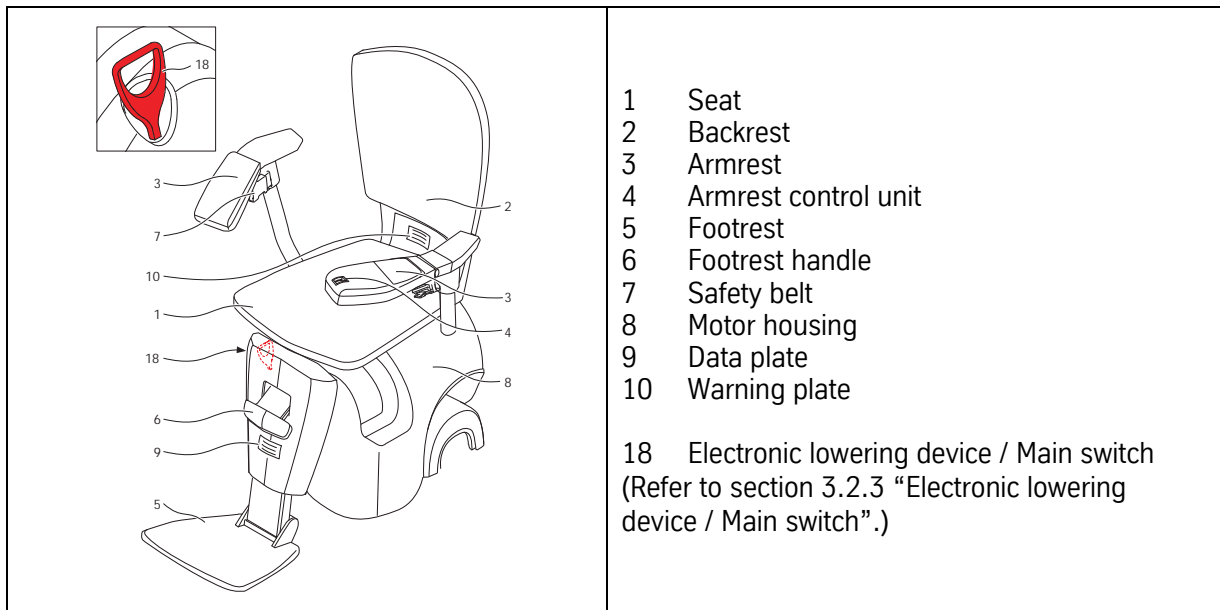
- Do not use the chairlift in case of fire or near explosive materials.
- Keep water and moisture away from the chairlift.
- Do not use the chairlift to transport animals. Keep animals away from the stairs and the chairlift.
- Do not use the chairlift to transport goods. Keep goods away from the stairs and the chairlift.
- Before use, inspect the stairs and the chairlift. Only use the chairlift when the stairs are free of obstacles. Make sure that there are no obstacles on the rail.
- Make sure that loose clothing cannot become caught in the moving parts of the chairlift.
- Do not stand, but always sit on the seat.
- Always wear the safety belt.
- Remain seated upright during the ride. Do not lean back or forward. Do not make any unnecessary movements.
- Keep your arms and hands on the armrests.
- Keep your feet on the footrest. Do not let your feet protrude outside the footrest.
- Do not get off the chairlift on the stairs, not even in case of a breakdown. Only get off the chairlift at the parking points.
- Carefully fold or unfold any parts of the chairlift.
- Do not physically force the chairlift to start moving.
- Park the chairlift at a parking point to make sure that the batteries remain charged. The chairlift stops when it arrives at a parking point. If you do not park the chairlift at a parking point, a continuous sound indicates that the batteries can become empty.
- Report unusual sounds or vibration to your supplier immediately.
- The joystick is also an emergency device: In case of an emergency, remove the joystick from the armrest control unit. The chairlift will not operate when the joystick is removed from the armrest control unit.
- Keep the mains cable connected to the wall outlet to make sure that the batteries remain charged and the chairlift is ready for use.

2.1.3 Maintenance

- Only carry out maintenance which is described in the manual. Refer to chapter 5 "Maintenance".
- An authorised technician must carry out maintenance and repair which is not described in the manual.
- Do not disassemble or repair the chairlift yourself. Have chairlift parts repaired and replaced by an authorised technician.
- Do not modify the chairlift in any way.
- Do not remove stickers, labels, data plates and warning plates from the chairlift.
- If you think that the chairlift has a defect which can cause injury or death, do not use the chairlift and immediately contact ThyssenKrupp Accessibility BV.
- For North America: Do regular tests and inspections according to "ASME A18.1 - 2005: Safety Standard for Platform Lifts and Stairway Chairlifts".

3 Description

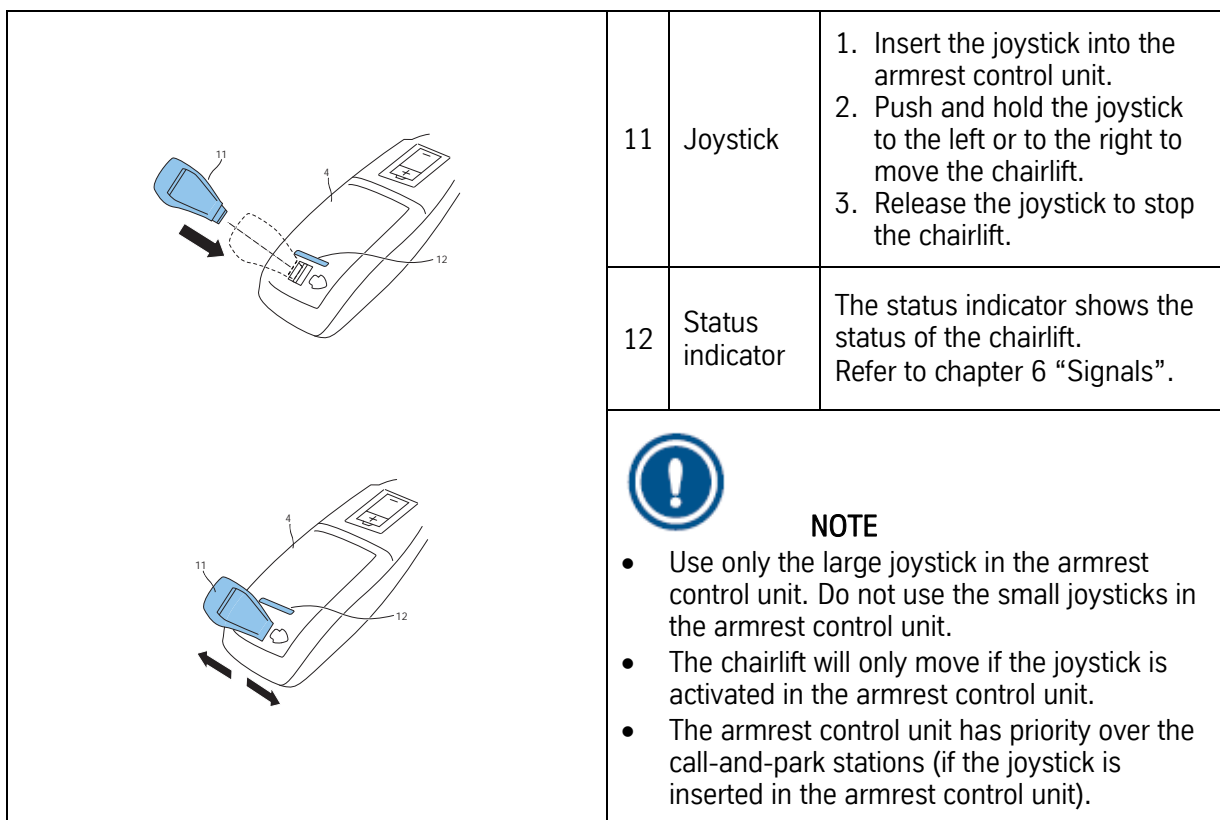
3.1 Chairlift



3.2 Controls

3.2.1 Armrest control unit

Use the armrest control unit to move the chairlift while you are seated in the chair. The armrest control unit is mounted on the armrest that is closest to the bottom of the stairs.



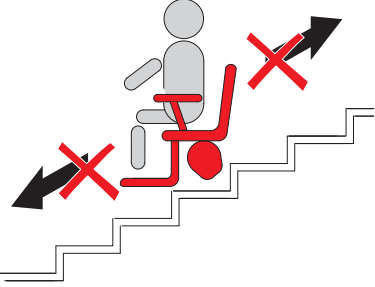

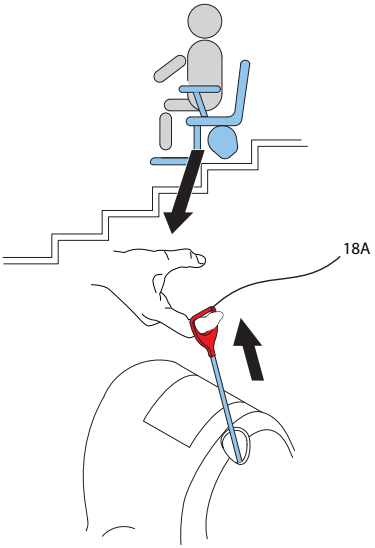
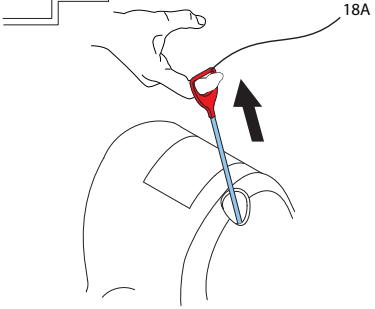


3.2.2 Call-and-park stations

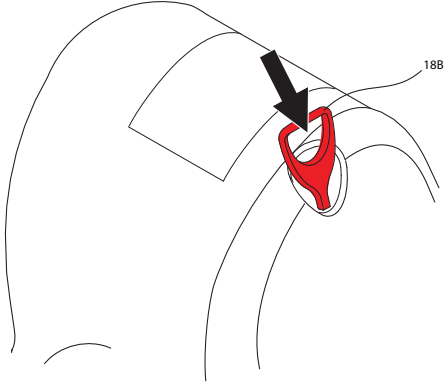

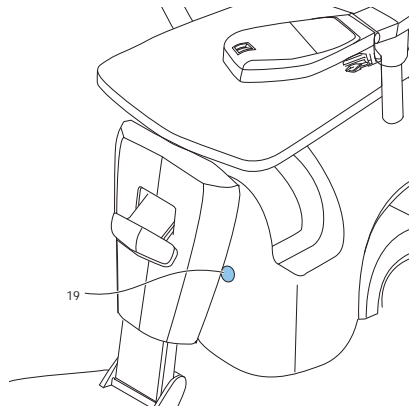

Use the call-and-park stations to move the chairlift while you are not seated in the chair. The call-and-park stations are located at the top and the bottom of the stairs. As an option, the call-and-park stations can also be located at intermediate floors with a parking point.

	13	Call-and-park station	
	14	Key	Insert the key into the call-and-park station.
	15	Call button	<ol style="list-style-type: none"> 1. Push and hold the button to move the chairlift to you. 2. After the chairlift stops, release the button.
	16	Park button	<ol style="list-style-type: none"> 1. Push and hold the button to move the chairlift to the nearest parking point. 2. After the chairlift stops, release the button.
	17	Status indicator	The status indicator shows the status of the chairlift. Refer to chapter 6 "Signals".
<div data-bbox="810 1093 906 1189"> </div> <div data-bbox="995 1167 1066 1200"> <p>NOTE</p> </div> <div data-bbox="804 1200 1402 1368"> <ul style="list-style-type: none"> • The chairlift will only move if the key is placed in the call-and-park station. • The armrest control unit has priority over the call-and-park stations (if the joystick is inserted in the armrest control unit). </div>			

3.2.3 Electronic lowering device / Main switch

The electronic lowering device and the main switch are the same item with two different functions.

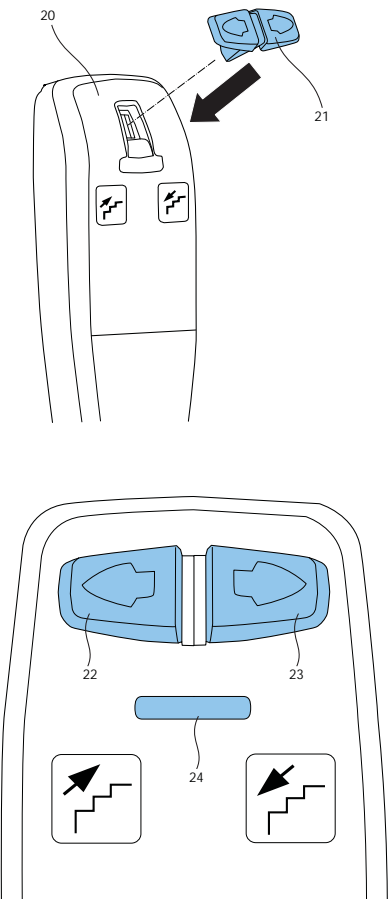
    	<p>18 A</p>	<p>Electronic lowering device</p>	<p>Use the electronic lowering device to let the chairlift descend if a malfunction occurs and the chairlift stops halfway along the rail.</p> <ol style="list-style-type: none"> 1. Pull and hold the electronic lowering device to activate the descent system. 2. Hold the electronic lowering device until the chairlift has arrived at the parking point. 3. Release the electronic lowering device to stop the chairlift. <div data-bbox="970 1149 1074 1240">  </div> <p>CAUTION</p> <ul style="list-style-type: none"> • Do not apply force when pulling the electronic lowering device. • Hold the electronic lowering device until it is fully located in the motor housing.
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	18 B	Main switch	<p>Use the main switch to switch the chairlift off when it is not used for two weeks.</p> <ol style="list-style-type: none"> 1. Push the main switch to switch off the chairlift. 2. Pull the main switch to switch on the chairlift. <div data-bbox="973 459 1077 548">  </div> <p>CAUTION</p> <ul style="list-style-type: none"> • Do not apply too much force when pushing or pulling the main switch. • Use only the main switch to switch the chairlift on or off. Do not remove the mains plug from the wall socket.
	19	Status indicator	<p>The status indicator shows the status of the chairlift. Refer to chapter 6 “Signals”.</p> <div data-bbox="742 1019 845 1108">  </div> <p>CAUTION</p> <ul style="list-style-type: none"> • Only use the electronic lowering device in case of an emergency (e.g. when the batteries in the armrest control unit are empty).

3.3 Optional features

3.3.1 Attendant control station

The attendant control station can be used to let an attendant move the chairlift while the user is seated in the chair.

	20	Attendant control station	
	21	Key	Press and hold the buttons to raise or lower the lift while the user is seated in the chair.
	22	Ascend button	Press and hold the buttons to raise the lift while the user is seated in the chair.
	23	Descend button	Press and hold the buttons to raise or lower the lift while the user is seated in the chair.
	24	Status indicator	The status indicator shows the status of the chairlift. Refer to chapter 6 “Signals”.

3.3.2 Swivel seat

To sit down and stand up safely and easily, the chairlift can be installed with a manual or an automatic swivel seat.

3.3.2.1 Manual swivel seat

Before you sit down or stand up, you can turn the chair to face the landing at the top floor level. With the manual swivel seat, you can turn the chair 70° while the chairlift is at a landing. You cannot move the chairlift until the chair is back into the ride position (i.e. at a 90° angle with the stairs).



WARNING

Before you sit down or stand up, lock the swivel seat.

	25	Manual swivel seat	<ol style="list-style-type: none">1. Pull up the handle to unlock the seat.2. Turn the seat to face the landing at the top floor level.3. Push down the handle to lock the seat.
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3.3.2.2 Automatic swivel seat



The chairlift is equipped with the patented ASL technology. “ASL”, standing for “Advanced Swivel and Leveling”, makes the chair rotate while travelling up and down the stairs. The technology offers the user maximum comfort. The swivels of the chair are individually programmed in such a way that the user is always in the best possible seating position. The simultaneous movement of the swivel and leveling module keeps the chair in a horizontal position, independent of the angle the rail is inclining or declining. Additional stops and swivel moments during the ride are avoided. The chair rotation at the bottom or top of the staircase makes it easier to get on and off the chairlift. With the ASL technology, the chairlift can be installed in small and narrow staircases while making sure that other persons can still walk the stairs. Remodeling works at the staircase are not necessary.

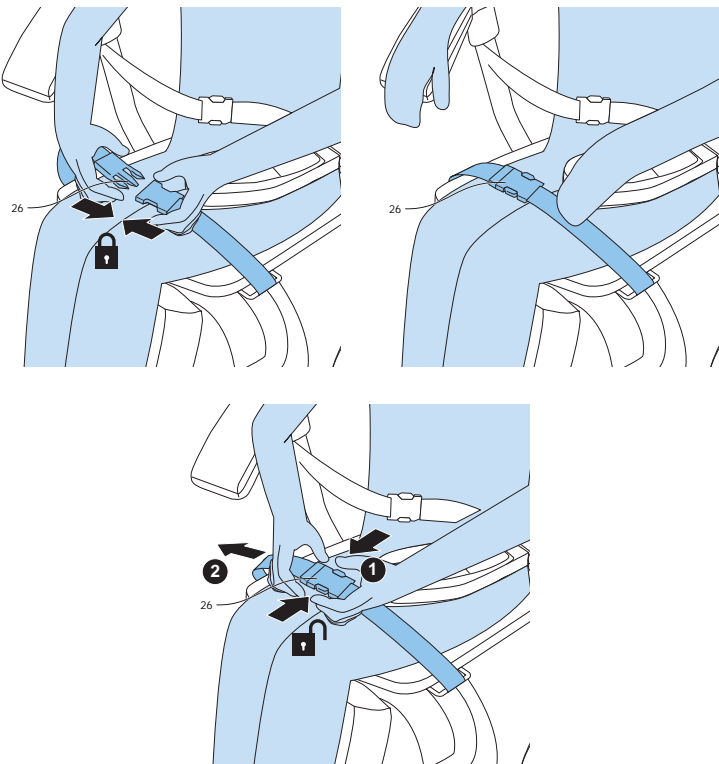
Before you sit down or stand up, the chair will automatically turn into the required direction when you control the chairlift with the armrest control unit or the call-and-park station. The chair can also turn backward when you go upstairs and forward when you go downstairs.

Examples:

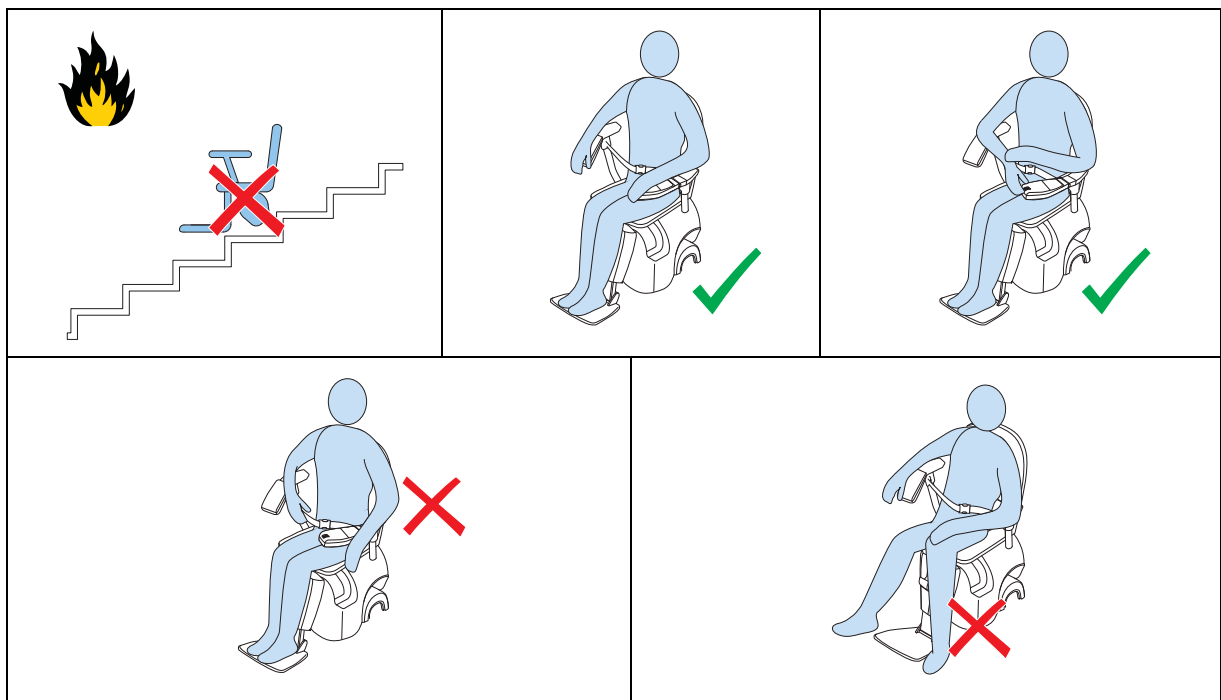
Sitting down	<ol style="list-style-type: none"> 1. Push the call button on the call-and-park station to park the chairlift and turn the chair into the required position. 2. Unfold the seat. 3. Sit down on the seat. 4. Fasten the safety belt. 5. Push and hold the joystick on the armrest control unit to the left or to the right to move the chairlift. The chair will turn back into the ride position and start moving.
Arriving at the top or the bottom of the stairs	<ol style="list-style-type: none"> 1. Push and hold the joystick on the armrest control unit to the left or to the right until you have arrived at the top or the bottom of the stairs. The chair will turn automatically. 2. When you hear an audio signal, release the joystick on the armrest control unit. 3. Release the safety belt. 4. Stand up from the seat. 5. Fold the seat. 6. Push the park button on the call-and-park station to park the chairlift at a parking point.

3.3.3 Leg belt for disabled persons

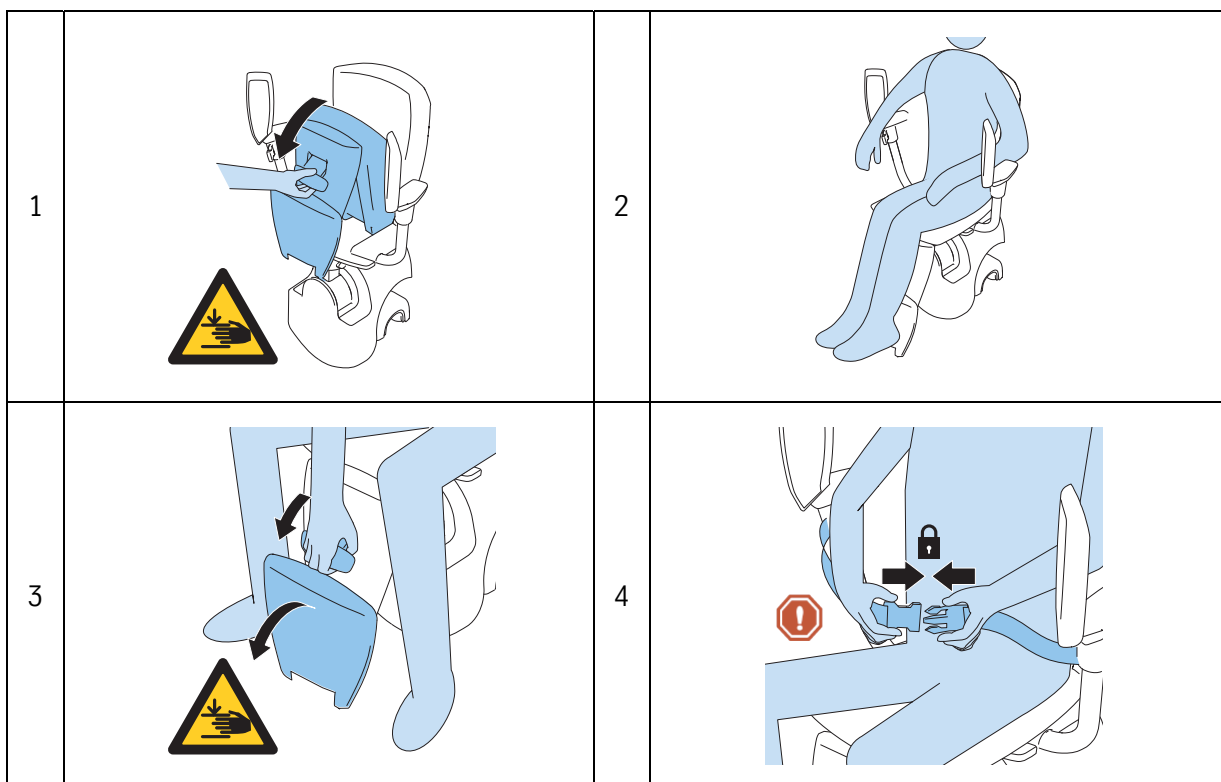
The chairlift can be equipped with a leg belt for disabled persons.

	26	Leg belt for disabled persons
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4 Use



4.1 Unfolding the seat and sitting down





4.2 Travelling with the chairlift



CAUTION

Do not remove the joystick from the armrest control unit for normal use. Only remove the joystick from the armrest control unit in case of an emergency. The chairlift will not operate when the joystick is removed from the armrest control unit.

1. Push and hold the joystick on the armrest control unit to the left or to the right to move the chairlift.
The status indicator on the armrest control unit shows the status of the chairlift.
Refer to chapter 6 "Signals".



NOTE

If you release the joystick, the chairlift will stop immediately. The status indicator on the armrest control unit goes off. You can start the chairlift again only after a short delay.

2. The chairlift will stop at all parking points. To start moving again, release the joystick and then push and hold it to the left or to the right to move the chairlift.
3. Release the joystick to stop the chairlift.

4.3 Emergency stop



WARNING

Do not get off the chairlift on the stairs, not even in case of a breakdown. Only get off the chairlift at the parking points.

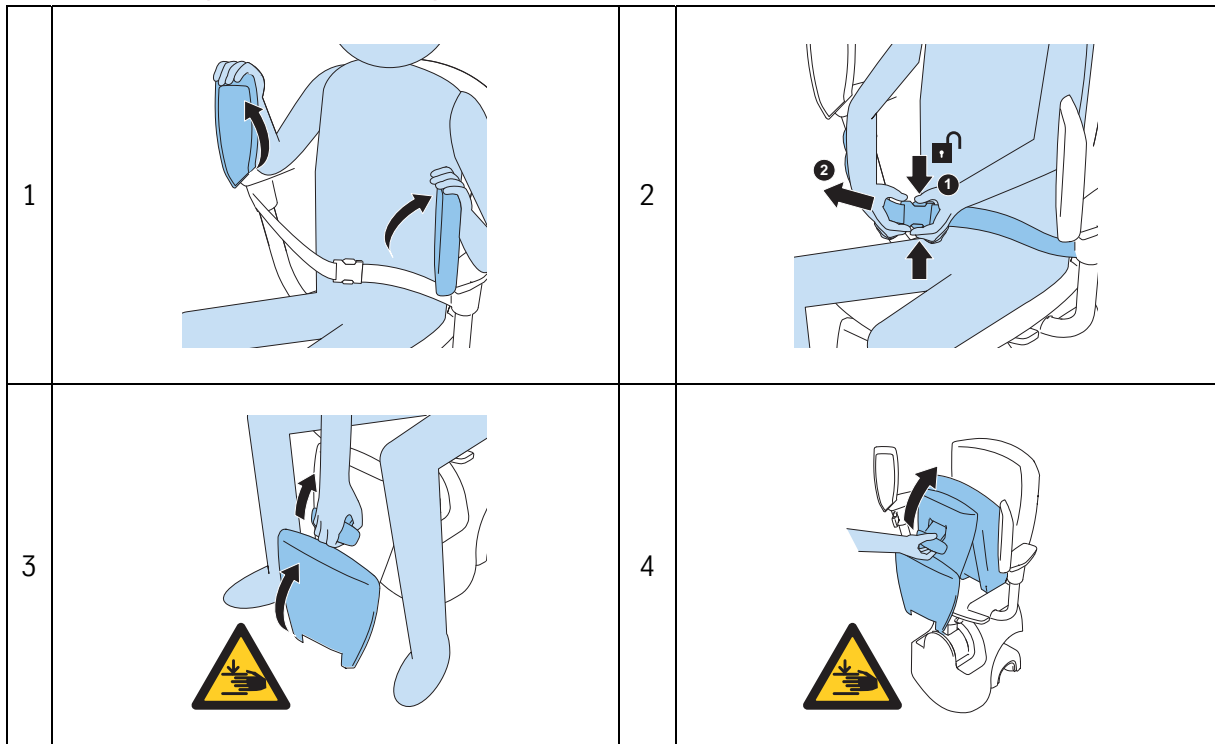


CAUTION

Do not remove the joystick from the armrest control unit for normal use. Only remove the joystick from the armrest control unit in case of an emergency. The chairlift will not operate when the joystick is removed from the armrest control unit.

- To stop the chairlift in case of an emergency, remove the joystick from the armrest control unit.
- To start the chairlift again, insert the joystick back in the armrest control unit

4.4 Standing up and folding the seat



4.5 Resetting the chairlift

Depending on the frequency of use, you must reset the chairlift once every 20 months. When the chairlift must be reset, the status indicator on the armrest control unit flashes green.

- To reset the chairlift, remove the joystick from the armrest control unit and insert it back into the armrest control unit again.

5 Maintenance

5.1 Cleaning the chairlift

- Regularly clean the chairlift – seat, backrest, armrest, footrest, safety belt, motor housing – with a soft, damp cloth. If necessary, use a mild detergent.
- Keep the armrest control unit and the call-and-park stations free of dirt.
- Regularly remove dust from the stairs and the rail with a vacuum cleaner.

5.2 Replacing the batteries



WARNING

- Replace the batteries in time to make sure that the chairlift does not come to a standstill unexpectedly.
- Only use the specified batteries.
- If necessary, contact the dealer to replace the batteries.

5.2.1 Armrest control unit (RF models only)

The armrest control unit uses 2 C/R14 batteries. After approximately 12 months (or sooner if used more than average), the chairlift will give a low-battery warning. Replace the batteries.

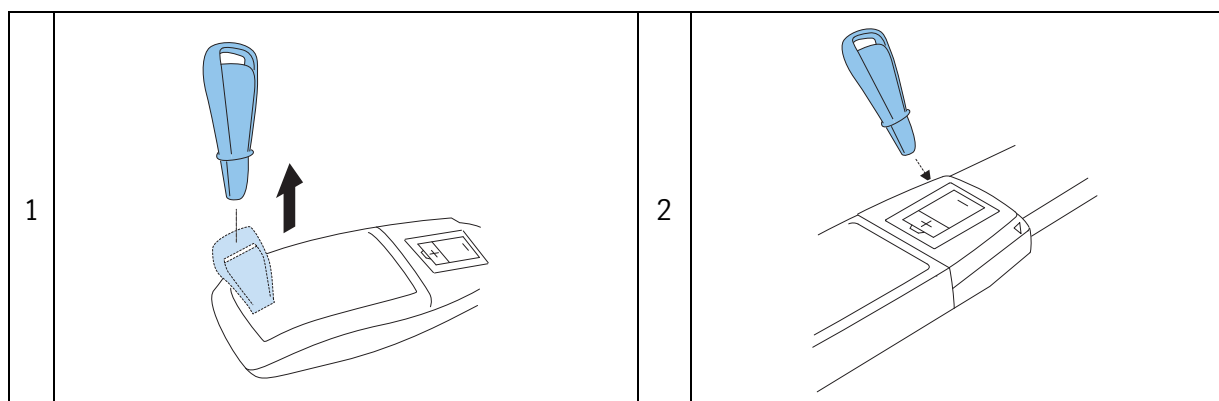
If the battery is low and you activate the joystick, the status indicator will flash green, then flash red (with fast intermittent beeps) and finally light green continuously. You can finish the ride with the chairlift. The chairlift will stop at a parking point. You can use the chairlift until the chairlift reaches the pre-programmed parking point.

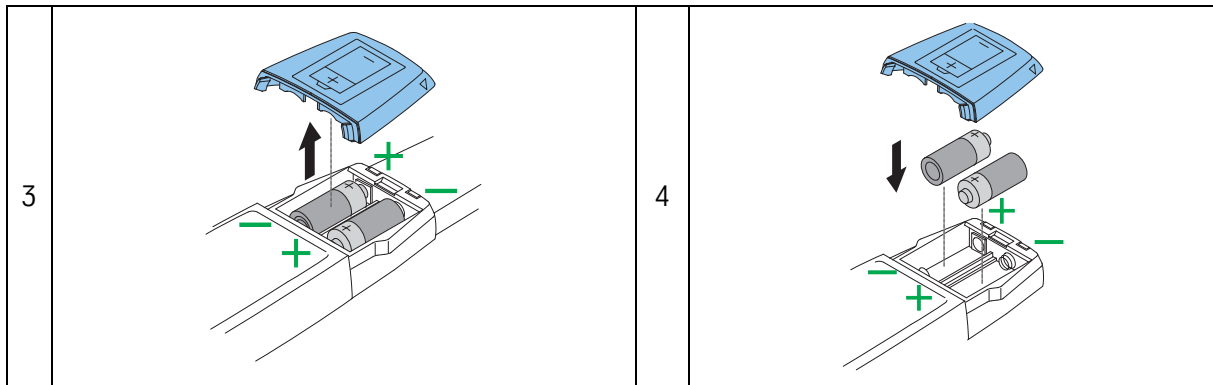
If you activate the joystick with the chairlift at the pre-programmed parking point, the status indicator will flash red (with fast intermittent beeps). You cannot further use the chairlift.



WARNING

- If the chairlift comes to a standstill halfway the stairs, immediately replace the batteries.
- The armrest opposite to the armrest with the armrest control unit contains spare batteries. When you replace the batteries, put new spare batteries in the spare-battery compartment.





5.2.2 Call-and-park stations

The call-and-park stations use 2 C/R14 batteries. After approximately 12 months, replace the batteries.

If the battery is low and you push one of the buttons, the status indicator will flash green, then flash red (with fast intermittent beeps) and finally light green continuously. You can finish the ride with the chairlift. The chairlift will stop at a parking point. You can use the chairlift until the battery is empty.

1. Open the cover of the battery compartment.
2. Replace the batteries.
3. Close the cover of the battery compartment.



WARNING

If the batteries are empty and if spare batteries are not available, do not get off the chairlift on the stairs, not even in case of a breakdown. Always use the electronic lowering device.



NOTE

After you replace the batteries, purchase new spare batteries as soon as possible.

5.3 Maintenance timer

The chairlift is equipped with a maintenance timer to guarantee optimum safety. After approximately 20 months (or sooner if used more than average), the maintenance timer will operate.

If you give a command using one of the controls, the status indicator will flash green, then flash red (with fast intermittent beeps) and finally light green continuously. The chairlift will start moving with a 1-second delay.

1. Remove the joystick from the armrest control unit.
2. Wait for at least 1 second.
3. Insert the joystick back into the armrest control unit.



CAUTION

If you do not do these steps after approximately 24 months of average use, a continuous beep will sound and the status indicator of the used control will flash red. You can finish the ride with the chairlift. The chairlift will stop at a safe place.

1. Remove the joystick from the armrest control unit.
2. Wait for at least 1 second.
3. Insert the joystick back into the armrest control unit.

6 Signals

6.1 Signals on motor housing

SIGNAL	MEANING	ACTION
Constant blue light	The chairlift is switched on.	---
No light	The chairlift is switched off.	Switch on the chairlift using the electronic lowering device.

6.2 Signals on armrest control unit

SIGNAL	MEANING	ACTION
Constant green light	The joystick has been operated and the chairlift is moving or will move.	---
Flashing green light	The flashing green light will change into a flashing red light within seconds. The batteries are empty.	Replace the batteries in the armrest control unit. Refer to section 5.2 "Replacing the batteries". If the situation occurs while the chairlift is moving, descend with the electronic lowering device.
Constant red light	Malfunction.	Switch the chairlift off and on again. If the chairlift does not respond, contact your supplier. If the situation occurs while the chairlift is moving, descend with the electronic lowering device.
Flashing red light	The chairlift is switched off.	Switch on the chairlift using the electronic lowering device.
Flashing red light + fast intermittent beeps	The chairlift has encountered an obstacle and has stopped.	Move the chairlift in the opposite direction to a parking point. Before you use the chairlift, make sure that the stairs are free of obstacles.
2-tone beeps during 3 seconds, repeated every 13 seconds	The chairlift is not on a charging point.	Move the chairlift to a charging point.
Constant orange light	Radio frequency interference by a foreign device.	Switch off the device that causes radio frequency interference and attempt to move the chairlift again.

6.3 Signals on call-and-park station

SIGNAL	MEANING	ACTION
Constant green light + slow beeps	The chairlift has been operated by another control unit earlier.	Wait as the chairlift is about to move in 10 seconds.
Flashing red light	The chairlift is already being operated from another control unit.	---

7 Technical data

Maximum permitted weight	125 kg (275 lbs)
Driving speed (nominal)	0,1 m/s (20 ft/min)
Sound pressure level	67 dB(A)
Electrical system	
Power supply	Class 2 Input: 230 V _{AC} , 0.35 A, 50 Hz Output: 35 V _{DC} , 1700 mA Input: 120 V _{AC} , 70 W, 60Hz Output: 35 V _{DC} , 1700 mA
Environmental conditions	
Ambient temperature	5 - 40 °C (41 - 104 °F)
Relative humidity	20 - 80%
Batteries (chairlift)	
Battery type	NP7-12LFR / NP7-12TFR: 12 V
Number of batteries	2
Charging time	16 hours
Capacity	10 journeys (125 kg (275 lbs), 1 floor height, vertical start downstairs, horizontal stop upstairs)
Batteries (armrest control unit)	
Battery type	C/R14: 1.5 V
Number of batteries	2 (+ 2 batteries in spare-battery compartment)
Batteries (call and-park station)	
Battery type	C/R14: 1.5 V
Number of batteries	2

8 EC Declaration of conformity

ThyssenKrupp Accessibility BV declares that:

the Flow2 chairlift (commercial name: Swing), with serial number 340000 to 999999,
complies with the relevant EC directives:

- Machine Directive 2006/42/EC
- Low Voltage Directive 2006/95/EC
- EMC Directive 2004/108/EC
- Radio Equipment Directive 1999/5/EC
- RoHS Directive 2011/65/EU

Authorized person to compile the file:	W.L.A. van Engelen ThyssenKrupp Accessibility BV
Notified Body	Liftinstituut BV Buikslotermeerplein 381 1025 XE Amsterdam (The Netherlands) EC-type examination certificate: NL06-400-1001-061-03 Rev.3
Harmonized standard	EN 81-40 2008
Other standards and specifications	EN 81-1/2A1 2006, EN 300-220-1V2.1.1 2006-04, EN 61001-3-2, EN 61001-3-3 A1 2001, EN 61001-6-1, EN 61001-6-3 A11 2004, EN-IEC 61508-1/7 2001, EN-IEC 60204-1 2006, ISO 9386-2 / ISO 14121-1 (Risk Assessment)

Krimpen aan den IJssel, 3 June 2013

Managing Director



H.R. Dreesch

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Bank: The Royal Bank of Scotland (RBS) Account: 49.77.69.395	CoC number: 24324608 VAT number: NL8000.57.788.B08
All our offers and agreements are subject to the General Terms and Conditions of the Dutch Association of Elevator and Escalator Engineering (Nederlandse Vereniging voor Lift- en Roltraptechniek) in Zoetermeer, as they were last registered at the Chamber of Commerce of The Hague.	

9 Contact

For information which is not in the manual, contact your dealer.

Phone number:

To support you as quickly as possible, please have the below details available when you contact our service department staff:

Name of user:

Phone number:

Installation number:

Type of chairlift:

Description of the problem:

.....
.....

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.....

.....
.....

.....
.....

.....
.....

Manufacturer

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