ETAC Balder

Owner's manual

12468 Owner's manual Balder, English
11-01-11

ETAC Balder

Please note that due to diversities and special requirements in some markets, there may be some additional information attached to or included in this document.

Content

1. INTRODUCTION 7
1.1. Purpose of the product 7
1.2. Making your chair ready for use 7
1.3. Individual labelling 7
1.4. Contact addresses if you require assistance 7
1.5. Use of hazard symbols 8
1.6. Available documentation 8
1.7. The environment 8

2. KEY DATA 9
2.1. Restrictions during normal use 9
2.1.1. Number of people 9
2.1.2. Surfaces 9
2.1.3. Descending slopes 9
2.2. Technical specifications 10

3. TECHNICAL DESCRIPTION 11
3.1. Function and operation 11
3.2. Physical structure 11
3.2.1. Joystick 12
3.2.1.1. Dolphin joystick 12
3.2.1.2. Joystick G90 13
3.2.2. Operating program 14
3.2.3. Wheelchair attachment points 14
3.2.4. Attendant control (optional extra) 15
3.2.4.1. Fitting / removal 15
3.2.5. Swing away for joystick (optional extra) 16

4. ADAPTING YOUR WHEELCHAIR 16
4.1. Adapting the armrests 16
4.1.1. Angle adjustment 16
4.1.2. Height adjustment 17
4.1.3. Adjusting the armrest pads 17
4.1.4. Adjusting the width between the armrests 17

Content

4.2. Adapting the footrest / foot supports 18
4.2.1. Length adjustment, electric footrests 18
4.2.2. Length adjustment, manual footrests 18
4.2.3. Angling the footrest plates 19
4.2.4. Foot support angling 19
4.2.5. Adjusting the width between the foot supports 20
4.2.6. Removing and pivoting out the foot supports 20
4.3. Adjusting the joystick 20
4.4. Adjusting the swing away for joystick (optional extra) 21
4.5. Adjusting the headrest (optional extra) 22

5. CHAIR OPERATION 22
5.1. Activation, normal operation and deactivation 22
5.1.1. Wheelchair activation 22
5.1.2. Deactivating the wheelchair 23
5.1.3. Operation 23
5.1.4. Operating the attendant control (optional extra) 23
5.2. General seat functions 24
5.2.1. Seat tilt 24
5.2.2. Seat back 24
5.2.3. Left footrest / length compensation 25
5.2.4. Right footrest / footrest angle 25
5.2.5. Seat raise 25
5.3. Stand up function 26
5.4. Interference 27
5.4.1. Checking the automatic fuse 28
5.4.2. Disconnecting the wheels 28

6. TRANSPORTING YOUR CHAIR 29
6.1. Securing the chair in a car 29
6.2. Using a clamp down unit (optional extra) 30
6.3. Transportation by air 31
6.3.1. Preparations prior to transportation by air 31

Content

7. STORAGE **31**

8. MAINTENANCE **32**

8.1. Maintenance – Overview 32
8.2. Maintenance procedures 32
8.2.1. Battery charging 32
8.2.2. Frame and body cleaning 33
8.2.3. Seat cleaning 33
8.2.4. Releasing the seat 33
8.2.5. Disconnecting the power 33
8.2.6. Fitting the batteries 33
8.2.7. Tyres 33

9. TROUBLESHOOTING **34**

10. OPTIONAL EXTRAS **35**

1. INTRODUCTION

1.1. Purpose of the product

Balder wheelchairs are multifunctional electric wheelchairs which are very comfortable and highly flexible in terms of functionality. Balder wheelchairs combine the qualities of an outdoor chair with the flexibility of an indoor model and are designed for daily use in all situations.

1.2. Making your chair ready for use

Before you start to use your chair, we recommend that you make sure your chair is adjusted to meet your own specific needs. Each chair comes with simple control and adjustment options to help you sit as comfortably as possible. Find out more about the control and adjustment options in the technical description.

1.3. Individual labelling

All Balder wheelchairs are labelled individually with their own unique serial number. This is located on the chassis, between the wheels.

Always quote the serial number of your chair if you require any assistance.

1.4. Contact addresses if you require assistance

Contact your local dealer or the Assistive Device Centre in your district if you need any assistance. See also the troubleshooting list in section 9.

1.5. Use of hazard symbols

All warnings must be heeded in order to avoid injury to people or damage to machinery or the environment. The following three hazard symbols will be used in this book.

DANGER
If you do not follow these instructions, staff WILL be seriously injured.

WARNING
If you do not follow these instructions, machinery WILL be seriously damaged.

NOTE
If you do not follow these instructions, staff MAY be injured or machinery or the environment MAY be damaged.

1.6. Available documentation

If you have problems reading this manual, it is also available in electronic format so that the text and pictures can be enlarged, etc. if so required. Contact your local dealer if you need an electronic copy.

1.7. The environment

These chairs must be sorted at source in accordance with applicable regulations on waste. Batteries and electronic equipment in particular must be taken into account.

2. KEY DATA

2.1. Restrictions during normal use

2.1.1. Number of people

All Balder wheelchairs are designed to transport one – 1 – person.
Never allow anyone else to ride with you, either behind you or on the footrests.

2.1.2. Surfaces

DANGER

Take care when using the wheelchair on uneven, wet or slippery surfaces (gravel, loose sand/earth, wet grass, etc.). These are conditions in which you could overturn or lose control of your chair.

Bear in mind that negotiating obstacles can involve a risk of overturning.

Remember that your chair is heavy. Do not travel in areas where there is a risk of the surface on which you are travelling collapsing.

Avoid travelling through water more than 7 cm deep. This may damage the electric motor and systems, as well as the battery.

When travelling on slopes in excess of 6 degrees, remember that this will affect the stability of the chair and there is a risk of the chair overturning.

2.1.3. Descending slopes

NOTE

When your vehicle drives downhill, the motor generates energy. This energy charges the battery. However, if the battery is already fully charged, it cannot accept the generated energy anymore. When this happens the battery voltage becomes too high, which can result in damage to either the controller or the batteries. The controller will try to prevent this damage and if needed it will ultimately force the vehicle to halt abruptly.

When you go downhill at a slower speed, the motor will generate less energy. The batteries will have more time to absorb this energy before they are fully charged. This will reduce the risk of a sudden halt, and it will extend the life of the batteries.

To have a smooth journey downhill:

- Select a drive profile that has a lower maximum speed
- If your vehicle has lights, turn them on. The lights will use energy, and as a result less energy will go to the batteries. This allows you to go downhill at a slightly faster speed than with the lights off.
- When the LEDs of the battery gauge start to flash as a warning that the batteries are overcharging, do not ignore this warning. Drive at a lower speed. If you do not slow down, you will damage the batteries. When your speed has been too fast for too long, the vehicle will halt to prevent more damage.
- If you often need to go downhill with fully charged batteries, ask your installer/technician/therapist to optimize the program values of your chair for your situation.

2.2. Technical specifications

Description	Balder Junior	Balder Junior Stand up	Balder Finesse	Balder Finesse Stand up	Balder Liberty
Width	64 cm	64 cm	64 cm	64 cm	65 cm
Length without foot support	88,3 cm	88,3 cm	88,3 cm	88,3 cm	83 cm
Length with foot support, fully retracted	113 cm	113 cm	113 cm	113 cm	110 cm
Seat width	30 - 35 cm	32,5 cm	40 - 48 cm	40 - 48 cm	40 - 48 cm
Seat depths	35 - 40 cm	37,5 cm	40 - 52,5 cm	40 - 52,5 cm	40 - 52,5 cm
Seat height	38 - 82 cm	38 - 82 cm	38 - 82 cm	38 - 82 cm	39,5 – 83,5 cm
Back height	40 - 42 cm	41 cm	44 - 62 cm	44 - 62 cm	44 - 62 cm
Height beneath chassis	7 cm	7 cm	7 cm	7 cm	8,5 cm
Axle spacing	61,5 cm	61,5 cm	61,5 cm	61,5 cm	52 cm
Weight	126 kg	130 kg	130 kg	140 kg	130 kg
Max. user weight	75 kg	75 kg	120 kg	100 kg	120 kg
Back angling	0° to 90°	0° to 90°	0° to 90°	0° to 90°	0° to 90°
Tilt	-15° to 45°	-15° to 15°	-15° to 45°	-15° to 15°	-15° to 45°
Foot support angling	0° to 90°	0° to 90°	0° to 90°	0° to 90°	0° to 90°
Batteries	A512/55A	A512/55A	A512/55A	A512/55A	A512/55A
Max. speed	7 km / h	7 km / h	7 km / h	7 km / h	8 km / h
Travel, up to	50 km	50 km	50 km	50 km	50 km
Front wheels, dimensions	3 x 8″	3 x 8″	3 x 8″	3 x 8″	2,8/2,5 x 4″
Rear wheels, dimensions	2,5 x 3″	2,5 x 3″	2,5 x 3″	2,5 x 3″	3,5 x 8″
Front wheels, air pressure	30 psi	Puncture-free	30 psi	Puncture-free	40 psi
Rear wheels, air pressure	50 psi	Puncture-free	50 psi	Puncture-free	30 psi

3. TECHNICAL DESCRIPTION

3.1. Function and operation

Balder wheelchairs are electric. The electric functions of this chair are controlled by joystick or function switch.

Balder Finesse and Balder Junior are available with a vertical function. See section 5.3.

3.2. Physical structure

DANGER
Do not remove or disassemble equipment which may affect the operation and/or functions of the chair. Contact authorised personnel if you require assistance.

The illustration shows the Balder Finesse, but the structure is also applicable to the Balder Junior and Balder Liberty. The Balder Finesse and Balder Junior are electric wheelchairs with front wheel drive, while the Balder Liberty has rear wheel drive.

Key:	
1. Neck support	5. Leg pads
2. Back	6. Footplates
3. Joystick	7. Battery (located beneath the chassis)
4. Seat	8. Armrests

3.2.1. Joystick

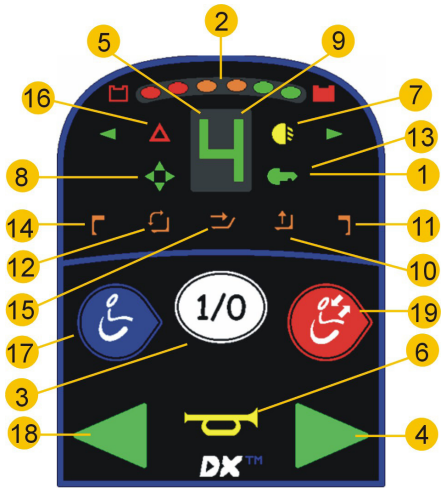
The chair is supplied with a programmable joystick. This joystick is programmed by the manufacturer depending on the specifications of the chair.

3.2.1.1. Dolphin joystick

1	System status / indicator lamp	(grønn)	9	Right footrest / footrest angle	
2	Battery indicator *)		10	Seat tilt	
3	On/off switch		11	Key function (sensor)	
4	Right indicator (accessory)		12	Left footrest / length compensation	
5	Program selection display		13	Seat back angle	
6	Horn		14	Hazard warning lights (accessory)	
7	Lights (accessory)		15	Program selector	
8	Seat raise		16	Left indicator (accessory)	

*) 3 red, 4 yellow and 3 green LEDs will be on when the battery is at full capacity. These will gradually go out as the remaining battery capacity is reduced.

3.2.1.2. Joystick G90



1	System status / indicator lamp		11	Right footrest / footrest angle	
2	Battery indicator *)		12	Seat tilt	
3	On/off switch		13	Key function (sensor)	
4	Right indicator (accessory)		14	Left footrest / length compensation	
5	Program selection display		15	Seat back angle	
6	Horn		16	Hazard warning lights (accessory)	
7	Lights (accessory)		17	Program selector	
8	ECU Mode (accessory)		18	Left indicator (accessory)	
9	Light Mode (accessory)		19	ASK (seat functions, Lights, ECU)	
10	Seat raise		20		

*) 2 red, 2 yellow and 2 green LEDs will be on when the battery is at full capacity. These will gradually go out as the remaining battery capacity is reduced.

3.2.2. Operating program

This chair is preprogrammed with five different default operating programs. The illuminated display shows the program or function that you are using.

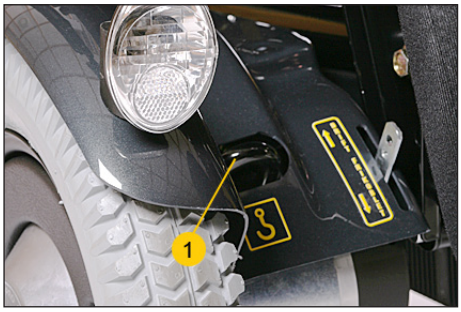
The operating program is selected by pressing the program selector switch.

The various operating programs are as follows:

1. An operating program in which emphasis is placed on quiet movements and low speed, a typical program which can be used where there is not much space and precise movement is important.
2. An operating program very like program 1, but with slightly faster reactions to joystick movements.
3. An operating program defined according to average values. This program is ideal the first time you use the chair.
4. Programs which are intended to be used as standard once you have learned how the chair reacts and feel secure in all situations. This program is created to allow rapid feedback to your control operations, maximum speed and rapid application of the motor brake.
5. This program is designed for outdoor operation and gives maximum forward propulsion without being too sensitive to minor corrections.

3.2.3. Wheelchair attachment points

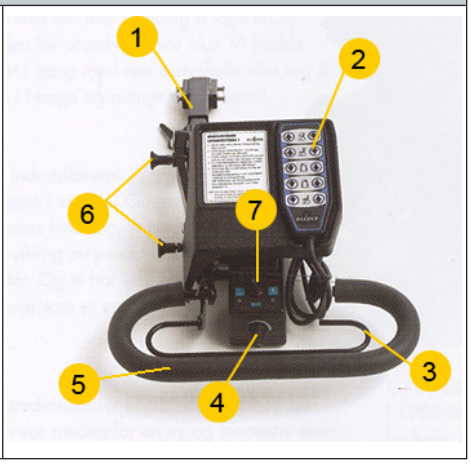
There are attachments on the wheelchair – 2 in front (1) and 1 ring (2) at the rear. These are indicated by means of symbols as shown in the illustration.

Foran	Bak
	

For securing the wheelchair during transportation, see section 1.

3.2.4. Attendant control (optional extra)

All Balder chairs are available with attendant control. This guide describes a standard attendant control. See also section 5.4.1 for more information.

Attendant control:	
1. Fixing bracket 2. Panel for electrical functions 3. Ring for moving the wheelchair forwards or backwards. 4. Speed regulator 5. Ring for turning the chair 6. Switches for changing the attendant control angle 7. Rotary switch for selecting whether the user or the escort is to control the chair	

3.2.4.1. Fitting / removal

If the chair is fitted with a removable attendant control, this can be attached/removed as follows.

Attendant control:	
Fitting: 1. Place the attendant control in the groove (1) at the back of the chair. 2. Tighten the stop screw (2). 3. Connect the cables for the joystick and control panel. 4. Change the angle of the attendant control by pulling out the switches (3) and adjusting it. Release the switches when the required angle has been attained. Removal: 1. Remove by loosening the stop screw (2). 2. Disconnect the cables to the joystick and control panel. 3. Pull the attendant control out of the groove (1).	

3.2.5. Swing away for joystick (optional extra)

Swing away for joystick:	
All Balder chairs are available with swing away (1) for the joystick. The swing away makes the positioning and accessibility of the joystick more flexible. See section 4.4 for a description of the fitting and adjustment of this.	

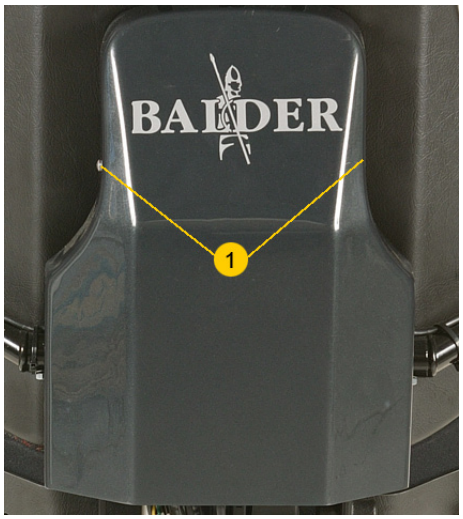
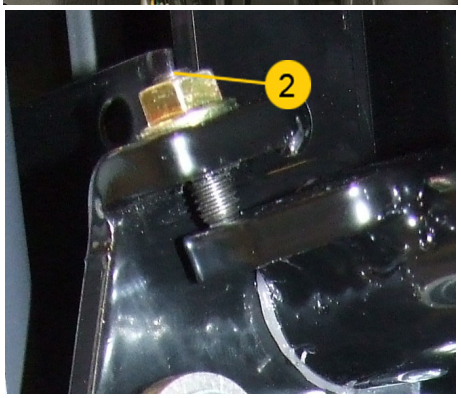
4. ADAPTING YOUR WHEELCHAIR

Before starting to use your wheelchair, it is important to make sure that it is adjusted to suit you so as to ensure optimum comfort. You will be helped with this when your chair is delivered. If you want to change your chair settings afterwards, you can do this by contacting either your supplier or other suitable staff.

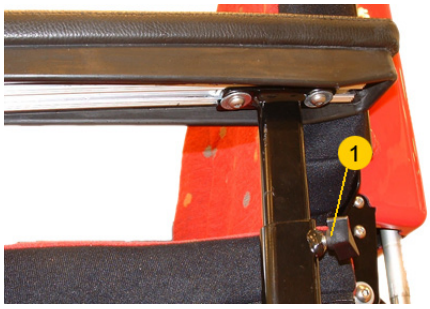
4.1. Adapting the armrests

For optimum comfort, it is important that you find the ideal position between resting and supporting your arms without restricting your freedom of movement.

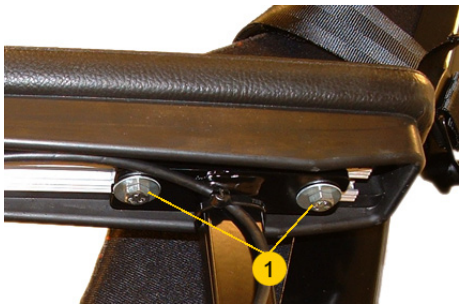
4.1.1. Angle adjustment

Balder Finesse and Liberty:	
1. Undo the screws (1) on the back cover. 2. Remove the back cover. 3. Loosen the nut and adjust the screw (2) to change the angle of the armrest tubes, and also the height. 4. Do the same for the armrest on the other side. 5. Tighten the screws, place the back cover (1) in position.	 

4.1.2. Height adjustment

Balder Junior:	
1. Undo the locking screw (1) beneath the armrest. 2. Push the armrest up or down to adjust the height. 3. Tighten the locking screw (1).	

4.1.3. Adjusting the armrest pads

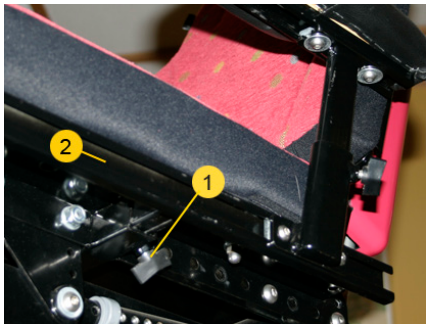
Balder Finesse and Liberty:	
1. Undo the screws (1) so that the pad is loosened from the fixing bracket. 2. Push the pad into the required position. 3. Tighten the screws (1).	

Balder Junior	
1. Undo the screws (1) so that the cushion is loosened from the fixing bracket. 2. Push the pad into the required position. 3. Tighten the screws (1).	

4.1.4. Adjusting the width between the armrests

NOTE

Balder Junior only.

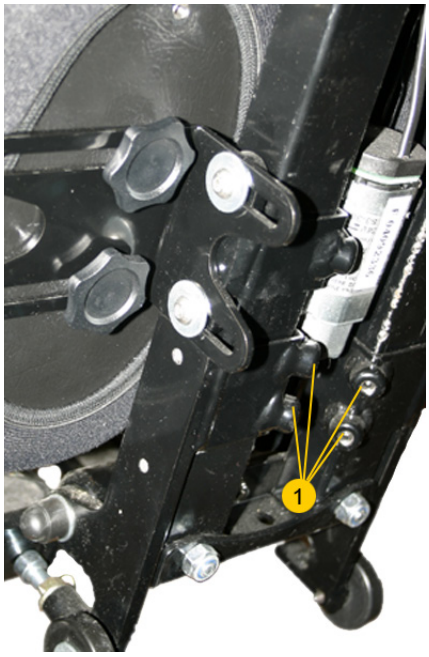
Balder Junior	
1. Loosen the locking screw (1). 2. Adjust the bracket (2) which holds the armrest at the required width. 3. Tighten the locking screw (1). 4. Do the same for the other armrest.	

4.2. Adapting the footrest / foot supports

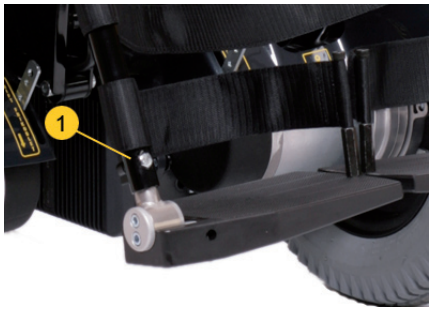
All Balder chairs can be supplied with different types of footrest, both manual and electric. The type of footrest selected is dependent on – among other things – what other equipment or functions the chair has. See the description for the type of footrest with which your chair is fitted.

Adjustment is best carried out with the knee at an angle of 90 degrees, as this will give the most correct relationship between the length and angle of the footrest.

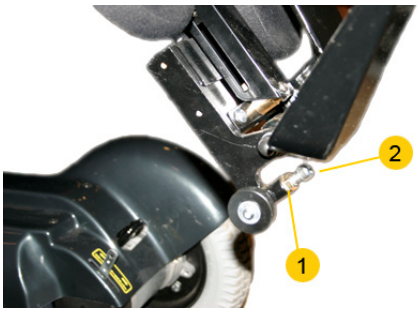
4.2.1. Length adjustment, electric footrests

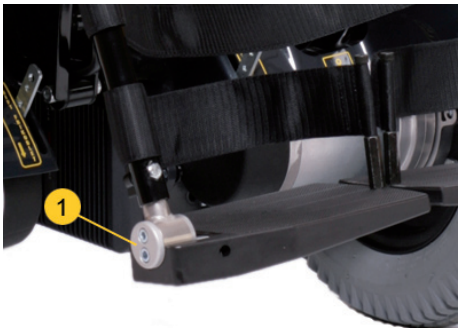
Electric footrests	
1. Loosen the setting screws (1) at the back of the brackets for footrest plates. 2. Adjust to the required height. 3. Tighten the setting screws (1). 4. Test the footrest function once the footrests have been adjusted by moving them to their outermost positions. The illustration shows a footrest with electric tilt and length compensation, but this procedure is the same for all electric footrests.	

4.2.2. Length adjustment, manual footrests

Manual footrests	
1. Remove the lock screw (1). 2. Adjust the lower part of the foot support (2) to the required position. 3. Put back the locking clip (1). 4. Repeat the same procedure for the other foot support.	

4.2.3. Angling the footrest plates

Electric footrest:	
1. Loosen the nuts (1). 2. Turn the adjusting screw (2) counterclockwise for a steeper angle, or clockwise for a less steep angle. 3. Tighten the nut (1).	

Manual footrests	
1. The angle of the footrest plate is adjusted undoing the screws (1) on the respective footrest plates and moving the footrest plate to the required position.	

4.2.4. Foot support angling

Electric footrest:
The angle of electric foot supports is adjusted using a joystick. See section 5.2.4 on the use of the joystick.

Manual footrests	
1. Remove the locking clip (1) beneath the seat. 2. Move the foot supports (2) to the correct position. 3. Tighten the locking clip (1). 4. Repeat the same procedure for the other foot support.	

4.2.5. Adjusting the width between the foot supports

Manual footrest:	
1. Loosen the attaching screw (1). 2. Move the foot supports sideways. 3. Tighten the attaching screw (1). 4. Repeat the same procedure for the other foot support.	

4.2.6. Removing and pivoting out the foot supports

NOTE

Applicable to manual foot supports.

- The foot support can be pivoted out by lifting it up from the attaching bracket and pivoting it out.
- The foot support can be lifted off by lifting it up and off the attaching bracket.

4.3. Adjusting the joystick

For optimum comfort, it is important for the joystick to be positioned correctly in relation to the arm of the user.

Balder Finesse, Liberty and Junior:	
1. Undo the screws (1 and 2). 2. Adjust the location of the bracket according to how far forward you want the joystick to sit on the armrest. 3. Tighten the screws (1 and 2).	

NOTE

You have to undo both screws in order to adjust the joystick forwards and back, but to angle merely undoing the screw (2) using a star grip is sufficient.

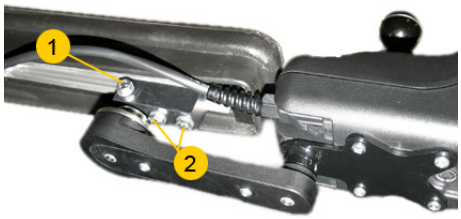
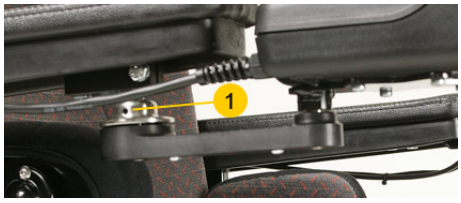
4.4. Adjusting the swing away for joystick (optional extra)

NOTE
You can lower the joystick by a maximum of 20 mm from its highest position.

NOTE
After adjusting it, you must check that the swing away for joystick can be pivoted without coming into contact with other elements of the chair, and that cables are able to move freely.

NOTE
When you adjust the stop point, you must make sure you do not remove the seal.

Tightening the swing away:	
1. Move the joystick carefully while tightening the hex screw (1). 2. Stop when you feel the joystick becoming fixed in position. **NOTE** Do not turn the adjusting screws so far that they bottom out.	

Height adjustment of the swing away:	
1. Clamp the joystick. 2. Loosen the screw (1). 3. Raise or lower the joystick. 4. Tighten the screw (1).	
Depth adjustment of the swing away:	
1. Clamp the joystick. 2. Loosen the screws (2). 3. Move the joystick / swing away to the required position. 4. Tighten the screws (2).	
Adjusting the stop point:	
1. Undo the two hex screws (1), one on either side. 2. Move the joystick / swing away to the required position. 3. Tighten the screws.	

4.5. Adjusting the headrest (optional extra)

To make the seat as comfortable as possible, it is important to set the headrest correctly.

Balder Finesse, Liberty and Junior:	
NOTE To achieve the correct depth, it is important for the height to be adjusted correctly in relation to the angle joint.	
1. Loosen the screw (1) and adjust the headrest to the correct height. 2. Move the headrest to the correct depth. 3. Tighten the screws (2) and (3) if the headrest seems loose. 4. Adjust the headrest pad by bending the pad to the required angle in order to achieve the required lateral stability.	

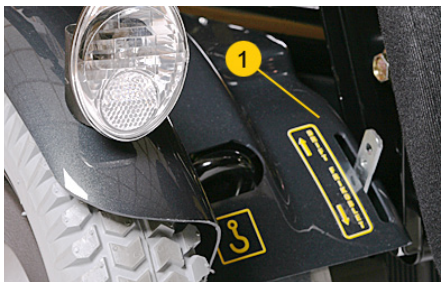
5. CHAIR OPERATION

DANGER

If the chair is exposed to direct sunlight or other heat sources, there may be a risk of burning.

5.1. Activation, normal operation and deactivation

5.1.1. Wheelchair activation

Action:	Balder Junior and Finesse	Balder Liberty
1. Make sure that the release handles are in Operation position (1). 2. Press the On/off switch (2). 3. Activate the key function (3) if the chair is fitted with this by moving the magnetic key over the key symbol on the joystick.		
	Dolphin joystick	Joystick G90

5.1.2. Deactivating the wheelchair

1. If the chair is fitted with a key function, move the magnetic key over the key symbol on the joystick to deactivate the display and wheelchair.
2. Switch off the power by pressing the On/off button.

5.1.3. Operation

DANGER
When travelling on slopes in excess of 6 degrees, remember that this will affect the stability of the chair and there is a risk of the chair overturning.

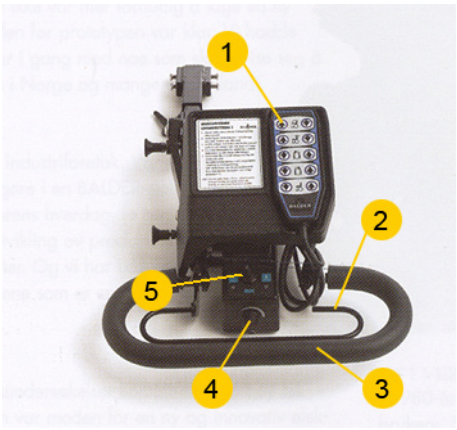
Never switch off the chair while it is moving, as this will result in an unpleasant abrupt stop.

NOTE
When you release the joystick, it will automatically return to the default position and the chair will stop.

NOTE
To make travelling in the chair as comfortable as possible, for as long as possible, do not focus on your hand and how it is moving.

1. Select an operating program by pressing the program selector switch.
2. Control the chair by moving the joystick. The more gently you move the joystick, the more slowly the chair will react.

5.1.4. Operating the attendant control (optional extra)

Attendant control:	
1. Use the panel (1) for the electrical functions such as seat raising, seat tilt and back angle. 2. Push the ring (2) down to move the chair forwards, and lift it up to move it backwards. 3. Pivot the wheelchair by moving the steering gear (3) to the right or left. 4. Control the speed by turning the potentiometer (4). 5. Use the rotary switch (5) to select whether the user or the escort is to control the chair	

5.2. General seat functions

DANGER
Due to the complex structure of the chair, there may be a risk of getting fingers, etc. caught in the chair in the event of unintentional use.

5.2.1. Seat tilt

Using the seat tilt function allows the user to adjust the angle of the entire seat unit; i.e. the back and seat will remain at the same angle to one another.

Dolphin joystick		Joystick G90	
1. Press the seat tilt button. 2. Move the joystick forwards and back to change the angle of the seat unit.		1. Scroll through to the seat functions using the ASK button. 2. Move the joystick to the right or left until the symbol shows on the display. 3. Move the joystick forwards and back to change the angle of the seat unit.	

5.2.2. Seat back

You change the angle of the back using the seat back function.

Dolphin joystick		Joystick G90	
1. Press the seat back angle button. 2. Move the joystick forwards and back to change the angle of the back.		1. Scroll through to the seat functions using the ASK button. 2. Move the joystick to the right or left until the symbol shows on the display. 3. Move the joystick forwards and back to change the angle of the back.	

5.2.3. Left footrest / length compensation

The Balder wheelchairs are available with different types of footrest. The function which the left footrest button operates will therefore depend on which footrest is supplied with your chair.

Dolphin joystick		Joystick G90	
1. Press the left footrest button. 2. Move the joystick forwards and back to change the position of the left footrest.		1. Scroll through to the seat functions using the ASK button. 2. Move the joystick to the right or left until the symbol shows in the display. 3. Move the joystick forwards and back to change the position of the left footrest.	

5.2.4. Right footrest / footrest angle

The Balder wheelchairs are available with different types of footrest. The function which the right footrest button operates will therefore depend on which footrest is supplied with your chair.

Dolphin joystick		Joystick G90	
1. Press the right footrest button. 2. Move the joystick forwards and back to change the position of the right footrest.		1. Scroll through to the seat functions using the ASK button. 2. Move the joystick to the right or left until the symbol shows in the display. 3. Move the joystick forwards and back to change the position of the left footrest.	

5.2.5. Seat raise

You change the height of the seat using the seat raise function.

Dolphin joystick		Joystick G90	
1. Press the seat raise button. 2. Move the joystick forwards and back to raise and lower the seat.		1. Scroll through to the seat functions using the ASK button. 2. Move the joystick to the right or left until the symbol shows on the display. 3. Move the joystick forwards and back to raise and lower the seat.	

5.3. Stand up function

Balder Finesse and Balder Junior are available with a stand up function. Read this section if it is applicable to your wheelchair.

DANGER
When in standing position, the wheelchair must only be used indoors and on a flat surface.

NOTE
The starting position is the position to which the chair will return when you switch back from standing position.

NOTE
It is important to adjust the footrest into the correct position before switching to standing position, as this function will not be available once the chair is in this position.

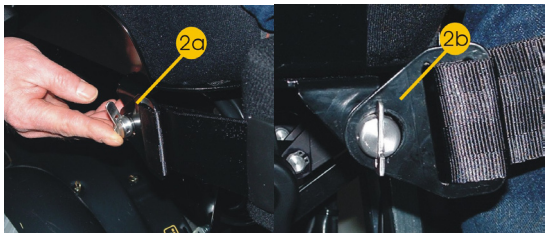
NOTE
If you use the stand up function from horizontal position, the abduction pad must not be put on until the legs are in the horizontal position.

NOTE
When the support legs are activated, the stand up function will stop for a moment to wait for the support legs to move into the correct position. If the support legs cannot be activated automatically, a green light will flash on the stand up function panel. In this instance, return to the starting position, move the chair slightly and try again.

NOTE
In standing position, only the back will be adjustable, to a restricted extent. The footrest, raise and tilt functions are disabled for safety reasons while the chair is in the upright position.

NOTE
The chair can be programmed so that the back cannot be operated or adjusted while the chair is in standing position.

NOTE
The fixings for the stand up function, knee brace cushion and chest belt, do not replace a safety belt in a car. Ensure correct fixing for use of the stand up function.

The stand up function:	
1. Move the seat and back to the required starting position (cf. sections 5.2.1 and 5.2.2) 2. Move the footrest to the required starting position (cf. sections 5.2.3 and 5.2.4) 3. Activate the seat raise function (cf. section 5.2.5). 4. Raise the seat until you are at the correct height. The correct height is indicated by a yellow light which comes on in the vertical function panel (1). 5. Push the lower part of the lock pin up, so that it sticks straight out (2a). Thread the buckle of the knee brace cushion into the fixing bracket. Push the lock pin back, so that it remains straight up, with the broadest part of the lock pin facing down. The lock pin is now in the lock position, and the knee brace cushion is ready for use of the stand up function (2b). The knee brace cushion must be tight below the knee. 6. Put on the breast belt (3) and tighten it 7. Activate the stand up function by holding down the stand up function switch (4). 8. Move the chair to the upright position, the support legs (5) will automatically be lowered when the seat angle exceeds 15 degrees. A green light (6) comes on when the support legs are activated.	 
Return to the starting position:	
1. Press and hold down the switch (7) to deactivate the standing position and return to the starting position.	

5.4. Interference

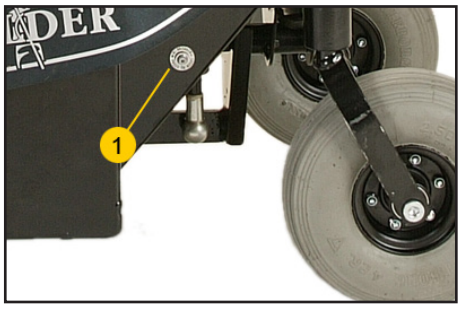
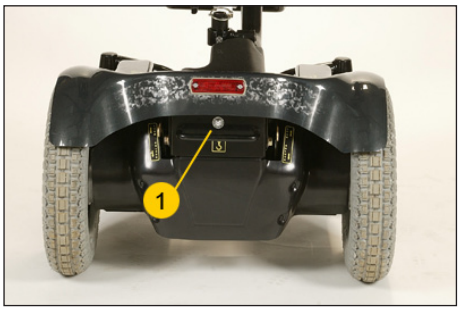
NOTE

When the chair is activated, it may affect electrical equipment which contains radio transmitters/receivers.

If the chair stops, check the automatic fuse as described in section 5.4.1Feil! Fant ikke referansekilden.. If you need to push the chair, the chair can be disconnected as described in section 5.4.2.

See also section 9, or contact your dealer if you require assistance.

5.4.1. Checking the automatic fuse

Junior and Finesse	Liberty
 The automatic fuse (1) is located on the chassis next to the left rear wheel.	 The automatic fuse (1) is located on the back of the chair.

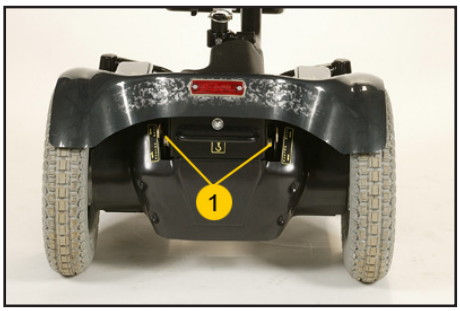
Push in the automatic fuse (1) if it has been tripped.

5.4.2. Disconnecting the breaks/drive motor

DANGER
The chair must not be disconnected on slope, as this may cause it to roll away!

NOTE
The chair should be switched off when disconnecting the breaks/drivemotors.

If you need to move the chair without using the electronics, the breaks/drive motors have to be disconnected

Junior and Finesse	Liberty
The disconnection switches are located at the front of the wheelchair.	 The disconnection switches are located at the back of the wheelchair.

Disconnect: Move the two switches (1) down until they lock in position.

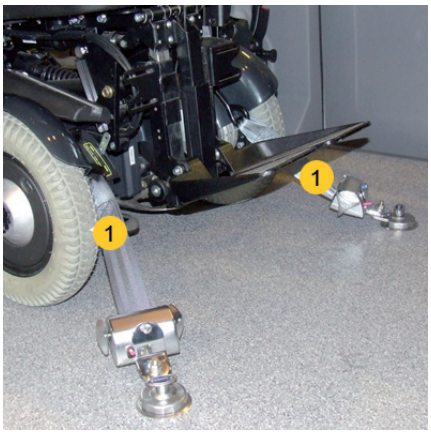
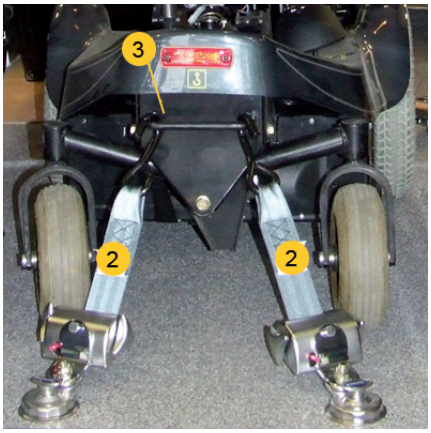
Connect for operation: Move the two switches (1) up until they lock in position.

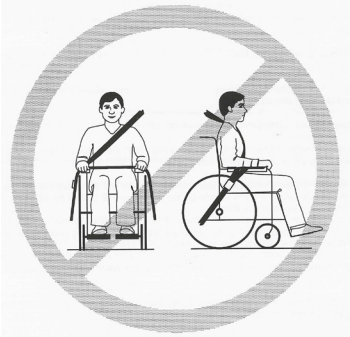
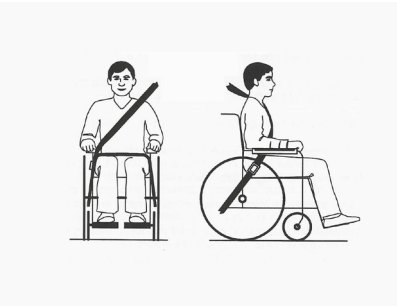
6. TRANSPORTING YOUR CHAIR

6.1. Securing the chair in a car

DANGER
Always make sure your chair is secured when you transport it. Always ensure that the attaching equipment you are using is approved for transporting your chair in a car.
To secure your chair during transportation, the fixing rings on the chair must be used as the attachment points for straps.

NOTE
The illustrations show the Q-straint strap system.

Manual straps:	
1. Attach and tighten the front straps (1) to the attachment points at the front of the wheelchair. There is one strap on either side. This is done when the chair is in the correct position. 2. Attach and tighten the rear straps (2) to the fixing ring (3) at the back of the wheelchair. 3. Check that the straps are tightened properly so that the chair does not move about. 4. Push down the locking catch to lock the chair in this position.	 

	MAKE SURE THAT ARMRESTS, WHEELS AND OTHER COMPONENTS DO NOT PREVENT BODY CONTACT. THERE MUST BE FULL BODY CONTACT WITH THE 3-POINT STRAP. 	MAKE SURE YOU ALWAYS USE THE ORIGINAL FIXING EQUIPMENT, IN ADDITION TO THE EQUIPMENT THAT HAS BEEN MOUNTED ON THE CHAIR. 

6.2. Using a clamp down unit (optional extra)

DANGER
The clamp down unit must be fitted by an approved installer and adjusted to suit the wheelchair in accordance with the description of fitting.

NOTE
If you fail to get out of the clamp down unit, a flashing red light will be displayed for 90 seconds after five attempts and the clamp down unit will remain inactive for this period in order to prevent the release solenoid overheating. The clamp down unit will be ready for use again after 90 seconds.

NOTE
There is a manual release. It is located down at the back of the chair, push the lever down while releasing the chair using the joystick or do it manually.

Attaching the chair to the spigot:

1. Roll the chair into the spigot (1).
2. When the chair is in the correct position, a green light (2) will appear in the car bracket panel.

Removing the chair from the sspigot:

1. To remove the chair, hold down the switch (4) on the switch panel until a green light starts flashing (2).
2. Move your hand to the joystick. A red light comes on when the chair is released (3).
3. Remove the chair from the spigot within three seconds. The indicator lamp (2) goes out once the character is free of the spigot

NOTE
If you do not remove the chair from the spigot within three seconds, or if you decide not to remove the chair, the chair will be locked back into the car bracket and the green light (2) will come on if the chair is in the correct position.

Repeat the process if necessary.

6.3. Transportation by air

NOTE
Balder wheelchairs are supplied in many specially adapted variants, so equipment may be fitted which has to be removed in addition to what is described here.

Balder wheelchairs are supplied as standard ex works with Sonnenschein dryfit gel batteries. These batteries are approved in accordance with IATA Dangerous Goods Regulations – Packing Instructions 806 and Special provision A67. The batteries must be labelled with IATA labels. This means that the batteries are approved for transportation by air. If a situation nevertheless occurs in which it is necessary to physically disconnect the power supply from the battery poles, see section 8.2.5 on battery removal.

6.3.1. Preparations prior to transportation by air

You have to make a few preparations prior to removing items in order to ensure that the chair takes up as little physical space as possible while being transported.

1. Use the electrical functions on the control panel and move the electric seat tilt so that the seat pad is more or less horizontal.
2. Move the electric back up to approx. 110 degrees to the seat pad.
3. Move the electric footrests upwards and inwards as far as possible without them catching on the floor.
4. Move the electric seat raise as far down as possible.
5. Switch off the electrical functions using the on/off button on the control panel.

7. STORAGE

WARNING
Never leave the batteries standing for a long time fully discharged. If the chair is to be stored for a period of time, the batteries must be fully charged once a month.

Your Balder wheelchair must be kept dry, protected from the elements and preferably kept indoors. If you store your chair for any length of time without it being used, the batteries must be disconnected.

8. MAINTENANCE

8.1. Maintenance – Overview

Activity	Frequency
Battery charging	8 hours a day
Recommended service interval	After every 2500 hours of use / once a year / as required
Frame and body cleaning	As required
Seat cleaning	As required

8.2. Maintenance procedures

8.2.1. Battery charging

WARNING
Never leave the batteries standing for a long time fully discharged. If the chair is to be stored for a period of time, the batteries must be fully charged once a month.

Do not leave the charger connected to the wheelchair is the power cable is not connected to the mains as this will cause the batteries to gradually become discharged.

NOTE
To ensure top performance from the batteries, we recommend that the chair be charged for eight hours a day. If this is not possible, you must ensure that the chair is fully charged at least once a week.

NOTE
We recommend that batteries to be discarded should be handed to a specialist centre in order to ensure that they are disposed of correctly.

NOTE
Only use the charger belonging to your wheelchair, and follow the user guide for the charger as regards how the batteries are to be charged. The charging point is the same for both types of joystick (Dolphin and Europa).

NOTE
There is no risk involved in leaving the charger connected to the wheelchair as long as the power is switched on. This will ensure that the batteries are charged fully and will maintain their charge.

When the batteries are to be charged:
1. Check that the chair is switched off. 2. Connect the charger cable to the charger contact (1) 3. Connect the power supply cable to the mains.
When the batteries are fully charged:
1. Disconnect the charger from the mains. 2. Disconnect the charger from the wheelchair (1)

8.2.2. Frame and body cleaning
The chair is cleaned using mild soapy water as required.

8.2.3. Seat cleaning
Cleaned as required; cf. the cleaning instructions sewn onto the seat pads.

8.2.4. Releasing the seat
If the power to the chair is switched off and you need to remove the chair body, the seat lift function can be released manually.

1. Pull the lock pin (1) out to the side, and a gas spring on the lifting arm will raise the seat unit. Bear in mind that this is a strong spring which will react quickly when the lock pin is removed. Place weight on the seat: this will allow the lock pin to be loosened more easily.
2. Remove the cover using six body screws on the main cover which covers all of the lower part of the wheelchair.
3. Lift off the main cover.

8.2.5. Disconnecting the power
1. Check that the chair is switched off.
2. Remove the battery shoes and isolate these so that they cannot come into physical contact with the battery poles (see the illustration).
3. Place the battery shoes in the cavity behind the batteries.

8.2.6. Fitting the batteries
1. Connecting the power: follow the instructions for removal, but in reverse order.
2. Fit the main cover.
3. Press the seat unit down while guiding the seat raise motor into the attachment device.
4. Check that the levers for disconnecting the drive motors are in Operation position. These are marked Operation – Disconnected.
5. Switch on the chair using the on/off switch on the control panel, then check that all the electrical functions work.

8.2.7. Tyres
Your Balder is fitted with either ordinary air-filled tyres or
puncture-free compact tyres.
Even with compact tyres, it is sensible to ensure that these are not worn or damaged to an unreasonable extent.

If your chair is fitted with air-filled tyres and you happen to sustain a puncture, contact authorised personnel. Avoid travelling in the chair when it has a punctured tyre.

See technical specifications, section 2.1.3

9. TROUBLESHOOTING

1	What do you do when the chair is completely dead?	• The chair is unpowered. • Fault in the electronics. • Fault in the electrics.	• Remove the charge contact. • Check that the on/off switch is set to On. • Check that the magnetic key is not activated. • Check that the switches for disconnecting the motor are in "Operation" position.
2	The chair can be moved but none of the electrical functions are working?.	• Fault in the electrics.	• Contact your dealer.
3	The chair will not accept a charge.	• Fault in the charger. • • Poor contact in the charge contracts / cable. • Fault in the electronics. • Defective batteries.	• Plug in the chair. • Make sure that the indicator lamp on the charger is on. • If the indicator on the charger is not on, there is a fault in the charger. • Contact your dealer.
4	The chair's indicator lamp flashes once, with two seconds' gap between flashes.	• The joystick has to be purged of data for the rest of the system.	• Leave the chair on for 10 seconds, switch it off for 10 seconds, then switch it on again. The chair should be ready for operation.
5	The chair's indicator lamp flashes twice, with two seconds' gap between flashes.	• The speed limited for the seat lift has been activated. • Fault in the electronics.	• Not a fault. Lower the seat height until it is below the speed reduction limit. • Contact your dealer.
6	The chair's indicator lamp flashes several times, with two seconds' gap between flashes.	• Fault in the joystick. • Fault in the electronics. • Fault in the cable.	• Count the number of flashes, then contact your dealer.
7	The chair is difficult to move.	• Incorrect operating program. • Incorrectly adjusted program.	• Select a different operating program. • Contact your dealer.
8	The speed of the chair is suddenly halved while it is moving.	• Seat position too high. • Fault in the speed limiter.	• Check the seat height as the chair is fitted with speed reduction.
9	Electric back function and electric tilt move forwards only.	• Not a fault. • Fault in the limiter switches and/or diodes.	• Raise the seat so that the limiter switches are not enabled. • Contact your dealer.
10	A part seems loose.	• Not tightened enough. • Threads stripped. • Incorrect assembly • Impact or vibration damage.	• Check fitting or tightening. • Tighten loose screws. • If you are not sure what is wrong or how you should fix it, contact your service partner.
11	Lift, tilt or back function moves in one direction only	• Fault on the tilt switch • Fault in the electronics. • Trap guard activated if this is mounted on your chair.	• Check whether there are any foreign bodies in the cover, and remove these. • Contact your dealer.

These points are intended to provide simple guidance. Contact your dealer for further assistance.

10. OPTIONAL EXTRAS

Below is a list of some of the optional extras available for Balder electric wheelchairs.

Item
Bag with the Balder logo, black
Bag with the Balder logo, small, black
Fixing bar for ruck-sack/bag F/L
Fixing bar for ruck-sack/bag Junior
Kneepads, removable (set), F/L
Thigh supports, removable (set), F/L
Support pads, knees/thighs, Balder Junior, 6x11 cm
Support pads, knees/thighs, Balder Junior, 6x20 cm
Support pads, back, Balder F/L, Comfort 1-3
Support pads, back, Balder F/L, Comfort 4-6
Support pads, back, Balder Junior, 6x11 cm
Attendant control 2
Attendant control with emergency stop function
Separate switch panel with all functions

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