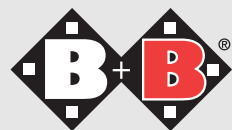


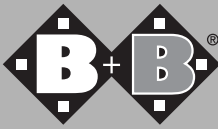
**Bischoff & Bischoff**  
Instruction manual

**Revolution**



Enjoy mobility.



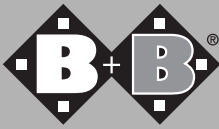


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## **1. Preliminary Remark**

Dear user,

You have chosen a quality wheelchair by Bischoff & Bischoff. We thank you for your trust.

The wheelchair was designed in a way to offer you many advantages and has considered all your needs. Due to its various adjustment features the Revolution wheelchair can be adjusted to body sizes of the users in seat width, seat height, seat depth or back height.

The Revolution wheelchair can be used by active users both indoors and outdoors.

Before you start using your new wheelchair for the first time, make sure you read the operating instructions carefully. It is a very important part of your wheelchair. Keep the operating instruction book ready to hand and when you pass on your wheelchair to someone else give it to him or her.

Repairs and adjustments require a special technical education and therefore can be carried out only by specialists which were authorised by Bischoff & Bischoff.

You have chosen a quality wheelchair by Bischoff & Bischoff. Thank you for your trust.

## 1.1 signs & symbols



Attention. This sign is used for very important parts concerning your safety. Please look at the operating instructions.



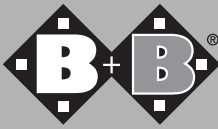
Important! Indicates very useful information on the respective matter.

## 2. Important safety measures

### 2.1. General safety measures

Before you start using your wheelchair please make sure that all parts are well secured. In order to avoid any falls and dangerous situations practice using your wheelchair on flat and clear ground. It is recommended to have a companion in this case.

The wheelchair must not be misused to transport more than one person or to carry any loads. Pay attention to its purpose. Never use the wheelchair under the influence of alcohol or other drugs which affect your attention or physical and mental perceptive faculty.



Please observe that by shifting the balance through body movements or by loading the wheelchair, the risk of tipping over can be increased. Please observe that the upholstered parts which have directly been in contact with sunrays are heated and can cause injuries on your skin. Therefore you should cover these parts or keep your wheelchair out of the reach of sunrays.

For rides outdoors you should wear leather gloves. They increase your grip and at the same time protect your hands from dirt and injuries.

Be careful when setting up your wheelchair and pay attention to your fingers. There is a danger of trapping your finger. Look at the chapter referring to unfolding your wheelchair.



Depended on the construction the distance between the frame, the seat pipe and the side parts as well as between the armrest does not fulfil the security requirements. There is a danger of trapping your fingers. In order to avoid any accidents do not touch these parts.

## **2.2. Brakes**

The brakes which work directly on the tyres can be used just as handbrakes, i. e. they should only be used when the wheelchair is in standing position and not to lower its speed.

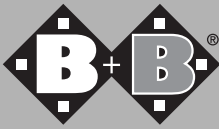
When braking down on fast rides or on long slopes using the grab wheels your fingers and palms get hot.  
Attention! Danger of burning!

## **2.3. Anti tipping wheels (optional)**

The anti tipping wheels prevent the wheelchair to tip over. Please observe that driving with anti tipping wheels on areas with stairs, hydraulic ramps and ramps is limited. Make sure there is enough space above, below and on both sides.

## **2.4. Tyres**

Always observe that the profile depth of your tyre is satisfactory (> 1 mm). If the profile depth is insufficient, it is no longer possible to assure safe performance of your wheelchair.



## **2.5. Obstacles**

To surmount obstacles (e.g. kerbstones, steps, etc.) please always use loading ramps.

Avoid driving against obstacles without braking or bumping down from higher levels.

## **2.6. Ascending slopes and downward slopes**

Please do always consider that on extreme adjustments of your drive wheel your wheelchair may tip over backwards at just a slight slope. Use your wheelchair with extreme adjustments only accompanied by another person. The stability of your wheelchair can be improved by shifting the drive wheel backwardly (also look at wheel-base extension)

## **2.7. Safety in vehicles**

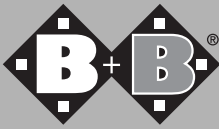
We have to point out that wheelchairs can not be used as a sitting accommodation in any vehicle. The user of a wheelchair has to take a seat in the vehicle and must not stay in the wheelchair.

## **2.8. Using public roads and streets**

The wheelchair was designed to use it indoors and outdoors. When using it in the road traffic you have to obey to the Road traffic regulations.

## **2.9. Purpose**

The wheelchair was exclusively designed to increase mobility and transport of people who have a walking disability according to the mentioned indications. The maximum weight capacity is 125 kg.



## **2.10. Indications**

Walking disability or distinct walking impairment due to:

- paralysis
- extremity loss
- extremity defect/deformation
- joint stiffness/damage (not on both arms)
- Other diseases

## **2.11. Contraindications**

- It is improper to use the wheelchair if there is
- a perception disorder/ perceptual disturbance
- a disturbance of equilibrium
- extremity loss on both arms
- joint stiffness/damage on both arms
- sitting incompetence
- reduced or insufficient eyesight

## **2.12. Responsibility**

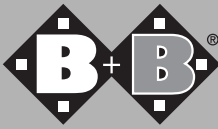
We can only ensure safety if the product is used under the given conditions and for the mentioned purposes.

Changes, enlargements, repairs and maintenance jobs can be carried out only by authorised people.

When using the wheelchair you must obey to all the operating instructions.

## **2.13. Declaration of Conformity**

The producer Bischoff & Bischoff certifies in its role as the producer its sole responsibility that the wheelchair Revolution corresponds to the 93/42 EWG directive.



## **3. Product and delivery overview**

### **3.1. Delivery check**

The wheelchair Revolution is delivered in a cardboard and is ready for use. After unpacking it keep the cardboard if it is possible. You may need it later for storage or for the return of the wheelchair.

The delivery and the introduction to the wheelchair are carried out by qualified and authorised medical companies.

The wheelchair Revolution is delivered adjusted. Adjustments can be only carried out by authorised people who follow the assembly instructions.

#### **Standard adjustments at the company**

seat width/seat depth/ back height 40/38/30 cm  
seat height at the front side/back 51/ 48 cm  
dress guard assembled/mounted  
camber 1 °

When dispatching the wheelchair by train or carriage it has to be checked immediately after arrival in the deliver- yman's presence to see whether some damage occurred during the transport. In the case that there has been some damage immediately contact our customer service (Tel: + 49 7248 9209-2).

Check the content for completeness and intactness. If there are irregularities and damages do not hesitate to call our customer service (Tel: + 49 7248 9209-2).

## 3.2. Scope of delivery

The content consists of the following main components:  
preassembled wheelchair see factory setting

- 1 footrest seat width 32 to 36 cm
- 1 footrest seat width 38 to 46 cm
- 1 seatbelt for seat depths 42 to 46 cm
- 1 calf belt
- 1 instruction manual
- 2 wheel lock
- 1 pair of push handles

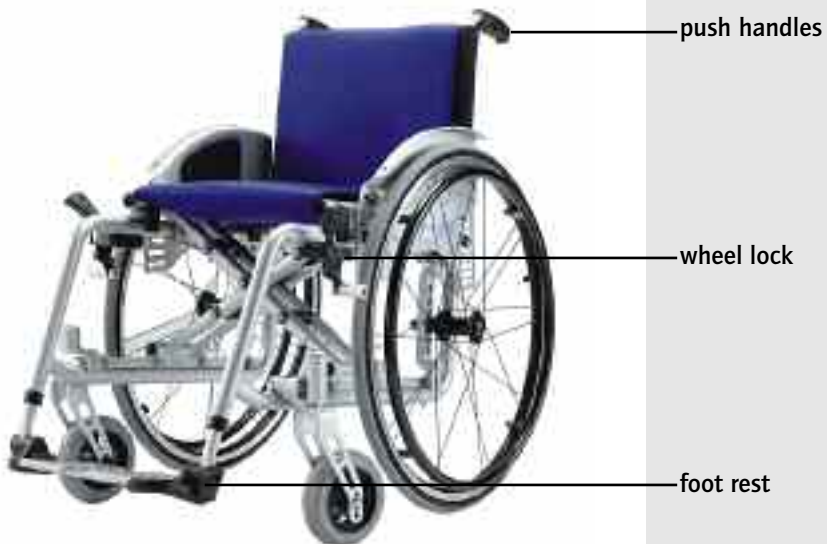
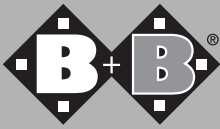


Fig. 1 Revolution R1



### **Revolution R2:**

The content consists of the following main components:  
preassembled wheelchair see factory setting

2 removable footrest for seat width 36 to 44 cm (assembled), for seat width 46 to 54 cm (attached)

1 calf belt

1 instruction manual

2 elbow lever brake

1 pair of push handles

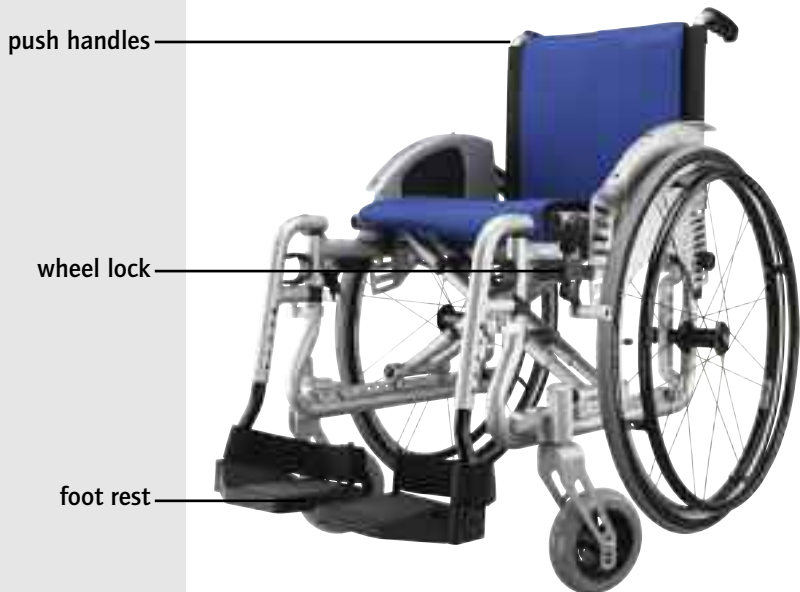


Fig. 2 Revolution R2

## 4. Use of the wheelchair

### 4.1. Setting up the wheelchair

- To unfold your wheelchair after unpacking it, stand on the side of it.
- Seize the armrest or the seat pipe with one hand on one side of the wheelchair and tilt it towards yourself.
- Push with your other hand the cross braces apart until the seat pipe is completely set in the plastic holder
- The seat cushion must be completely spread out.
- Use the handbrake on the left and on the right of the driving wheels.
- Now you can sit on your wheelchair.
- Flap down the foot rest.



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

## 4.2. Folding the wheelchair

To fold your wheelchair together first elevate the footrest.

- Stand next to the wheelchair.
- Take hold of the seat cushion at the front and back and pull it up. In order to load the wheelchair into your car you can remove the rear wheels gently over the full floating axle.



**Danger of trapping your finger!**

Be careful not to grasp the seat pipe

## **4.3. Getting on and off from the wheelchair from the side**

- Put the wheelchair as close as possible next to the present or future seating surface/seat.
- If you want to change seats from another wheelchair or undercarriage, first make sure to use the hand brakes
- Secure the Revolution wheelchair to avoid unwanted moving by using the brake lever on the left and right side of your wheelchair.
- The padded armrest should not be assembled for that.
- Swing the footrest upwards.
- Slip at the side to the other seat.
- Make sure you sit as back in your seat as you can.
- Finally swing back the footrest in the initial position.

## **4.4. Getting on and off the wheelchair from the front**

First swing the footrest up

Put the Revolution wheelchair as close as possible to the future sitting accommodation in frontal position.

If you want to change seats from another wheelchair or undercarriage, first make sure to use the hand brakes.

Now slip by turning your body on the seating surface.

Finally you swing the footrest again in the initial position.



Never climb on the footrest!  
Danger of tipping over!

## **4.5. How to surmount stairs and steps**



If there are high stairs or stairs with more than 3 steps 2 people must help carry the wheelchair.

- The helpers must only take hold of firmly mounted frame sections. (see lifting points)
- While ascending the stairs the helper behind the wheelchair pulls the wheelchair with the push handles over the stairs
- The helper who is at the bottom takes hold of the front frame pipes and stabilises the position. As he is doing so pushes the rear wheels of the wheelchair on the steps.

- When descending the stairs the helper who is below brakes by pressing the wheelchair straight onto the steps.
- The helper, who is above takes hold of the wheelchair at the push handles, secures the wheelchair and holds it in the right position. The wheelchair should roll step by step down the stairs



The holding points for transportation of the wheelchair are exclusively the frames and the push handles. The armrests mustn't be used for lifting the wheelchair under no circumstances.

## 4.6. Footrests (R1)

- The footrest is 8 times adjustable in 1, 5 cm gradation to the lower leg length.
- The angle of the footrest is adjustable in 10 gradations for  $\pm 25^\circ$ . ( Follow the assembly instructions)
- When getting on or off the wheelchair the footrest must be tilt up at the side.



Fig. 9



Fig. 10



Fig. 11



Fig. 12



Fig. 13

## 4.7. Legrests with foot plates (R2)

Both legrests are supplied with the foot plates attached. The foot plates on both legrests can be folded upwards.

### Attaching legrests

- Hold the legrests on the upper part such that this part points outwards
- Operate the handle for the quick-release axle and push the legrests with the guide profile into the hole in the frame (Fig.13).
- Now the legrest is simply folded forwards and locks automatically into place.



Before moving off, check for firm attachment of the legrests!



Fig. 14

### Removing the legrests

To transport your wheelchair as compact as possible, you can completely remove the legrests and foot plates (Fig. 14).

- Pull the handle, thus opening the locking device (Fig. 13).
- Swing the legrest 90° outwards and pull it upwards.

## Swinging away the legrests

To make it as easy as possible to get into and out of your B+B folding wheelchair, you can easily swing the legrests outwards or inwards if needed without having to remove them (Fig. 15).

- Pull the handle. This opens the locking device (Fig. 13).
- Now you can swing the legrests outwards or inwards.
- If necessary, fold the foot plates upwards first.

To return to the original position, simply swing the legrest forwards until it locks into place.

When standing up from the wheelchair, under no circumstances stand on the foot plates!



## Setting the legrest length

The length of the legrests can be adjusted in 4 20 mm steps up to a total of 80 mm.

- To do so, remove the Allen bolt (4 mm) and set the legrest as required (Fig. 16).
- Retighten the Allen bolt.

## Angle-adjustable foot plates

The angle of the foot plates can be adjusted:

- Unscrew the Allen bolt and adjust the foot plate to the required position by rotating the toothed ring.
- Retighten the Allen bolt.



Fig. 15

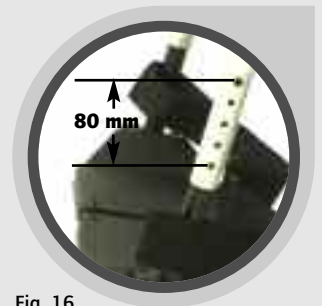


Fig. 16



Fig. 17



Fig. 18

## 4.8. Armrests (optional)

- The armrests are firmly/tightly fixed on the dress guard.
- The height of the armrests is carried by adjusting the dress guard. (Follow the assembly instructions)

## 4.9. Dress guard

- The side parts made of aluminium offer the simplest form of protection against dirt coming from the drive wheels. They are fixed on the front frame and at the back.
- The height of the dress guard must be adapted when changing the seat height. (Follow the assembly instructions)

## 4.10. Back rest cover

- A well adjusted back makes relaxed and permanent sitting easier and also reduces efficiently the danger of getting pressure marks. Pay attention to enough sag in the pelvic area.
- First completely remove the upholstery pad of the back covering. Remove the Velcro® fastener of the waistbands
- The belts are adjusted one by one starting with the lowest one.
- Place the upholstery again on the back covering.



Fig. 19

## 4.11. Push handles

- The sliding grips can be adjusted in height.
- They have to be put in a comfortable position for the accompanying person
- After that it may be necessary to adjust the back height and the back sag.  
(Follow the assembly instructions)

## 4.12. Handbrake

The Revolution wheelchair is equipped with a handbrake which can be used by the user of the wheelchair. It should be only used for parking. It is not suitable for braking during a ride! To brake you use your palms to make a weak pressure on the grab wheels.

After you have put the brakes on in this way, you use both brakes pulling the brake handle forward. The wheelchair has now been safely stopped.



The brake adjustment should be carried out by trained experts. However if you have enough experience you can do the job yourself. But consider that wrongly adjusted brakes can have life-threatening consequences.



Fig. 20



Fig. 21

- The distance between the pivot bolt and the outer tyre cover) at maximum open brake mechanism has to be  $x=15$  mm at the narrowest part.
- To adjust the distance you have to remove the two hexagon socket screws at the brake mounting (inside)
- Then you pull the brake system along the mounting in the correct position.
- Finally you have to tighten up again both hexagon socket screws.
- Make sure that the brake snaps in when you use the brake lever and that it does not snap back.

### **4.13. Ballance Point, seat angle and seat height**

The position of the drive wheel is a criterion for an easy, comfortable and pleasant drive.

- The drive wheels can be adjusted vertically to the adjustment of the seat height and seat angle.
- For optimal adjustment of the balance point the drive wheels can be adjusted in horizontal position.
- Using the wheelbase extension the stability against tipping over backwards is increased.  
(Follow the assembly instructions)

When the full floating axle is assembled in the lowest position (picture 22) you can achieve a horizontal seating surface with a frontal slope.

If the full floating axle is assembled in the highest position (picture 23) you achieve a strong backward seating surface. In this position the balance point is shifted backwards because of the sloping seat and as a result of this the wheelchair can more easily tip over. Use the anti-tip over rolls!

## 4.14. Front wheel steering axle

Having adjusted the rear wheel position you should check the correctness of the steering wheel position and if necessary you should readjust it.

- If possible the steering axle should stand vertically to the floor.
- This is the way directional stability and safe driveability can be achieved. (Follow the assembly instructions)

Picture 24: Steering wheel adaptor at positive seat angle

Picture 25: Steering wheel adaptor at negative seat angle



Fig. 22



Fig. 23

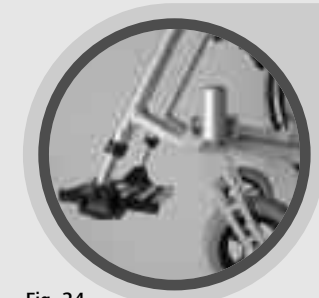


Fig. 24



Fig. 25

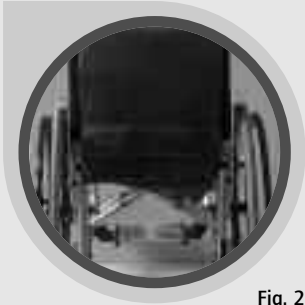


Fig. 26



Fig. 27



Fig. 28

## 4.15. Camber

Through a negative camber the stability of the wheelchair is increased especially when driving in bends.

The drive wheels can be adjusted to a negative camber.  
(Follow the assembly instructions)

Picture 26: Camber 0°

Picture 27: Camber 4°

## 4.16. Tipping aid (optional)

Thanks to the tipping aid the accompanying person can tip your wheelchair much easier to for example cross over a step. To do it you have to press down a lever with your foot. You keep your balance by holding the push handles

The tipping aid can be fastened on the frame on the right or left side .(Follow the assembly instructions)

## 4.17. Anti tipping rolls (optional)

The anti tipping rolls prevent that your wheelchair tips over. The wheel must have a distance/space of 3- 5 cm from the floor. The anti tipping rolls are especially recommendable for wheelchair drivers without any practice or for those wheelchair drivers who have amputated a leg.

The anti tipping rolls go in pairs and are fastened left and right on the frame. (Follow the assembly instructions)



Attention! The Anti tipping rolls must not be used as tipping aids.

## 4.18. Seat width, seat depth and back height



The adjustments of seat width, seat depth and back height should be carried out by trained experts. However if you are experienced enough, you can do the job yourself. (Follow the assembly instructions)



Fig. 29



Fig. 24

## 4.19. Seatbelt (optional)

A seatbelt can be ordered optionally and secures users who do not have enough hold/support in the wheelchair.

- The Revolution wheelchair can be equipped with a safety belt at the back pipe
- The belt is opened and closed with a fastening clip
- You can adjust the belt length with the moveable belt clip on the belt.

## 5. Technical data

### Measures / Dimensions and Weight

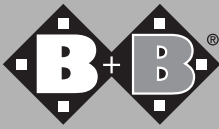
Maximum load (kg):	125
Seat width R1 (cm):	32/34/36/38/40* 42/44/46
Seat width R2 (cm):	36/38/40*/42/44/46/48 50/52/54
Seat depth R1 (cm):	36/38*/40/42/44/46
Seat depth R2 (cm):	38*/40/42/44
Frontal seat height (cm):	50-56 (gradation 1 cm)
Rear seat height (cm):	42-52 (gradation 2 cm)
Seat angle (°):	-3 (forward) + 17 (backwards)
Total width:	seat width + 19 cm
Total length (cm):	93/83 (with /without Footrest)

Total height (cm):	82 up to 97 (gradation 2,5 cm)
Backrest height (cm):	30 up to 45 (gradation 2,5 cm)
Lower leg length (cm):	45 up to 55,5 (gradation 1,5 cm)
Backrest angle (°):	5 (without adjustments)
Foot rest angle (°):	± 25 (10 levels)
Knee angle (°):	115
Camber (°):	0/1*/3/4
Armrest height (cm):	17 to 25
Armrest length (cm):	34
Unloaded weight (kg):	14, 0
Frame weight (kg):	10, 5
Dimensions (L/W/H) cm:	93/31/82 (in folded state )

## Wheels

Drive wheels (inch):	24 x 1 (750 k Pa)
Steering wheels (cm):	Ø 140 x 140 (puncture-proof tyres)

\* corresponds to the factory adjustments.ng



## **6. Maintenance**

### **instructions for the user**

#### **6.1. Cleaning**

- The frames of the wheelchair can be cleaned with a damp/moist cloth. If there is more dirt you can use a mild cleanser/detergent.
- The wheels can be cleaned with a damp brush made of synthetic bristles (do not use wire brushes)
- The seat and back upholstery can be washed in the washing machine at 40 °C. Use mild washing powder. For disinfection add a usual disinfectant to the rinse cycle which will kill all bacteria and germs at the washing temperature of 40 °C.

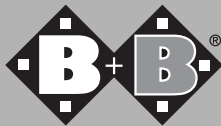


Do not use any pressure washers or steam cleaners.

## 6.2. Wheelchair check by the user

Before you use your wheelchair to have a ride check

- the intactness of the wheels. You should regularly check the profile depth of your wheels once a month. The profile should be at least 1 cm. Faulty or worn out wheels must be changed.
- the functional efficiency of the handbrake. When you pull your brake the wheelchair should be not movable. When the brakes are released then you should be able to move your wheelchair easily without any noise and directional stability. If you notice any unusual braking performance, inform at once your speciality retailer and withdraw the wheelchair from circulation.
- the intactness and cleanliness of the seat and back covering. If it is dirty you can clean it according to the cleaning instructions. If it is damaged, get in touch with your speciality retailer.
- the folding mechanism and all moveable parts on free movement and silent functioning. Squeaking sounds are a sign of partial damage and should be taken care of by the speciality retailer.
- the intactness of all screw joints/fitting/coupling and rivet connections.



## 7. Repair and maintenance instructions

It is recommended that the Revolution wheelchair is subjected to a performance test by the speciality retailer at least once a year. If there are malfunctions or defects, the wheelchair must be taken to the medical supply store or the speciality retailer to be overhauled and repaired. You can find a partner in your neighbourhood if you call our customer service: Tel.: + 49 7248 9209-2.



On request the speciality retailer will have the necessary information and documents at his disposal.

## 8. Disposal



If you decide not to use your Revolution wheelchair any longer and want it to be disposed, get in touch with your speciality retailer. If you want to deal with this matter on your own, inform yourself at resident waste management enterprises to find out the disposal rules of your place of residence.

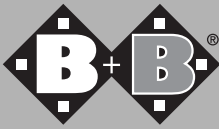
## 9. Passing on the wheelchair



When passing on the wheelchair please do not forget to hand over to the new user all the necessary technical documents which are important for a safe usage. The wheelchair must be checked and according to the maintenance plan has to be flawless.

## 10. Maintenance

A maintenance plan can be provided by our customer service.



## 11. Guarantee

Guarantee items refer to all defects of the product which can demonstrably be referred to material defect or manufacturing defect. If there are complaints you have to hand in a completely filled in certificate of guarantee. For our mobility wheelchair Revolution we offer a guarantee of 5 years for frame parts. We offer a 2 year guarantee for all the other parts.



Non-observance of the operating instructions as well as improper carried out maintenance jobs and technical changes, adaptations without the permission of the Bischoff & Bischoff company lead to guarantee loss and product liability in general.

If you have any questions our B & B customer service is ready to answer them. Tel.: + 49 7248 9209-2

## Guarantee-Certificate

---

### Vehicle:

Model description:

Model number:

Serial number:\*

(Has to be inscribed by the retailer)

### Dealer:

Date and Seal

\*Information sign can be found on the side frames.

**Bischoff & Bischoff GmbH**

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