





# Usage instructions Service booklet

NJ1 compact bike FREAK Compact bike



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The following instructions are intended for and may only be carried out by the rehabilitation specialist dealer or PRO ACTIV.



This document is available in PDF format at www.proactiv-gmbh.com for visually impaired people. Using the zoom function, the font can be increased as desired.



#### **Preface** 1

Dear Customer,

Congratulations on purchasing your new PRO ACTIV product. You have bought a quality product that has been specially customised to meet your requirements. We have put together some instructions about its proper and safe use in the following document. Please read these instructions before using the product.

The standard components are explained in these usage instructions. If you have individual solutions or non-standard components on your product, your rehabilitation specialist dealer or PRO ACTIV would be happy to deal with any questions you may have about using it.

The only difference between the NJ1 & FREAK compact bikes is the design of the frame (or in the frame sizes that can be selected). The operating instructions are therefore identical.

You can always download the latest version of the usage instructions as a PDF document in our download area at www.proactiv-gmbh.com.

If you have any further questions about this or any of our other products, we would be glad to be at your disposal.

Enjoy your trips and the best possible mobility. Your PRO ACTIV team

# Legend

The symbols used in these usage instructions have the following meanings:



Manufacturer



Warnings and safety instructions



Serial number

#### 3 Conformity/other information

## Classification

NJ1 & FREAK compact bikes (referred to as the "product" below) are classified as class I products.

#### 3.2 Conformity

As the manufacturer, PRO ACTIV Reha-Technik GmbH declares that the respective product is a class I product and meets the requirements of the EU Medical Devices Directive (2017/745).

If the product is adapted in a manner which has not been agreed by PRO ACTIV Reha-Technik GmbH, this declaration becomes void.

## Manufacturer



## PRO ACTIV Reha-Technik GmbH

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# Scope of delivery and testing the product on receipt

Delivery includes the product, configured as per the purchase order, with the usage instructions including the training/hand-over certificate and inspection lists. You can view the basic equipment in chapter "Technical specifications". As per your order, the product is equipped with additional recommended accessories, such as e.g., lighting and hip strap.

Please check that the delivery is complete after you have received your product.

The product is tested to ensure it is completely functional before shipping and packed in special boxes.

However, please check the product immediately upon receipt, preferably in the presence of the freight company, for any damage which may have occurred in transit. If you are of the



opinion that damage has occurred during transit, please do the following:

- 1. Record a statement of facts in the presence of the freight company - photo documentation of the packaged product and the unpacked product with detailed images of product damage
- 2. Preparation of a declaration of assignment - you assign all claims from this damage to the freight company.
- 3. Statement of facts/photo documentation, delivery note, and declaration of assignment are sent to PRO ACTIV.

Failing to observe these instructions, or reporting damage after acceptance, means that the damage cannot be acknowledged.

PRO ACTIV will subsequently review the damage and discuss the further procedure with you (shipment of replacement parts, returning the product to PRO ACTIV for a complete repair, etc.).

#### 5 Introduction

Before starting your first journey, familiarise yourself with these usage instructions, paying particular attention to all of the safety information and hazard warnings contained in them.

Allow your therapists and doctors to advise you, your carers, and assistants on how to use the product and what you are safe to do with the product based on your current ability.

Under no circumstances should you do anything with or in the product which you have not learnt to do and have not mastered.

You, your carers, and assistants should also seek advice from your therapists and doctors as well as the rehabilitation specialist dealer about the use and settings of your product as well as all the safety accessories available (e.g., hip belt).

You should always heed the advice provided by doctors, therapists and the rehabilitation specialist dealer on the necessary safety accessories.

⚠ If you are not sure how to handle the product or if technical faults occur, please contact your rehabilitation specialist dealer or PRO ACTIV before using it.

Never leave the product unattended.

Secure the product against unauthorised use and theft.

Mhen combining your product with equipment made by other manufacturers, make sure that the individual components and the unit made up of them still work appropriately. You can get information on the suitability of a combination from the manufacturer of the third-party components or from your rehabilitation specialist retailer.

The product contains small parts that may pose a choking hazard for children.

# Purpose and indication

This product offers persons who have difficulty walking or cannot walk the option of replacing walking by riding a muscle-powered compact bike to a technically feasible extent, with the aim of maintaining or increasing the active user's independent mobility to the greatest possible extent. The active crank movement of the arms extends the user's radius of action.

Indications: Walking impediment or limited ability to walk due to paralysis, limb loss, limb defect/deformation, joint contractions/joint damage, neurological and muscular diseases.

Contraindications: progressive muscle diseases, the course of which is accelerated due to fatigue of the arm and core muscles used (e.g. muscle dystrophies and atrophies) and accompanying epilepsy disorders (legal stipulations on freedom from seizures for a permit for use on public roads apply here).

In addition - for safety reasons - the product may only be operated by people who



- can move and coordinate their hands, arms, and head (when using the chin to operate the gears if manual function is unavailable) so that they can operate all control elements and conduct full, unrestricted steering movements during the trip.
- are physically and mentally capable and have the visual ability to safely operate the product in all operating situations and can meet the legal requirements for use on public roads. For children or people with mental, significant motor or visual impairments, the attendants can ensure the required traffic safety as a substitute and as a companion.
- have been trained in its use by the rehabilitation specialist dealer or PRO ACTIV.

# 7 Proper use

This compact bike is designed to be used outdoors on tarmac and adequately paved roads that ensure traction and stability of the product when driving and braking. When used indoors, there must be enough space for manoeuvring. Avoid driving in poor weather conditions (e.g., storms) since this can lead to incalculable risks. This product is characterised by the toolfree removable drive unit and the associated easier loading.

The maximum permitted load of the product in its standard design is 100 kg. The heavy-duty version (only applies to the NJ1 compact bike) and individual customisations can be designed for a higher load; this is then indicated on the rating plate. Please ensure that the load limit indicated on the ratings plate is not exceeded when transporting objects.

Proper use of the product is a basic requirement of safe operation. The product may generally be used only for applications that are listed and described in these usage instructions. This includes storage, transport, maintenance/inspection, and repair, as well as the safety information in each chapter of these usage instructions.

#### **Recommended equipment:**

Always use the safety pennon or warning flag, otherwise there is an easy risk of being overseen due to the very low sitting position.

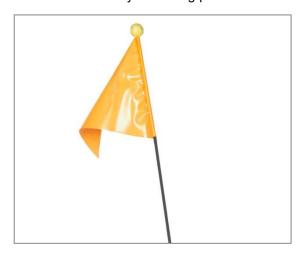


Figure 1: Safety pennon for improving safety in public traffic (fixing to the product frame)

#### Recommended equipment:

The hip strap prevents the user from slipping forwards (slipping in the riding direction) when travelling and thus offers safe retention in the product



Figure 2: Hip strap for better fixing of the user in the product

# 8 Technical specifications

## 8.1 Product weight

The total weight starts from 14.8 kg for the FREAK Compact bike and from 15.8 kg with the NJ1 Compact bike with the basic equipment.



## 8.2 Load weight

#### Maximum load weight:

Up to 100 kg payload

The heavy-duty version (only applies to the NJ1 compact bike) and individual customisations can be designed for a higher load; this is then indicated on the rating plate.

# 8.3 Ground clearance & turning circle

**Ground clearance:** from 9 cm for the FREAK Compact bike and from 11 cm for the NJ1 Compact bike

## **Turning circle:**

- approx. 6.5 m without manoeuvring (highly dependent has to how far the leg permits the stop of the steering angle)
- approx. 4 m with manoeuvring (highly dependent on the number of manoeuvres and has to how far the leg permits the stop of the steering angle)

# 8.4 Basic equipment and dimensions

In the basic equipment, the product comprises a chassis and the drive unit, leg rests, handles with switching brake fittings, chain shift or hub gears shift, infinitely adjustable backrest, mechanical service brake including handbrake locking mechanism and hydraulic disk brakes or back-pedal brake. In addition, a safety flag and a bell are provided on the product.

#### **Dimensions, FREAK Compact bike:**

Product width: 56 cm (depending on the tyre width)

Product height: approx. 75 cm (depending on the length of the bottom bracket support)

Product length: approx. 185 cm

Seat width: 35 cm Grip width: 40 - 53 cm Crank length: 155 - 195 cm

#### Dimensions, NJ1 Compact bike:

Product width: approx. 56 - 60 cm (depending on the seat width and the tyre width)

Product height: approx. 85 cm (depending on the length of the bottom bracket support)

Product length: approx. 210 - 220 cm (depend-

ing on the chassis length)
Seat width: 39 - 43 cm
Grip width: 40 - 58 cm
Crank length: 155 - 195 cm

# 8.5 Service life

The service life of the product is 6 years.

# 9 Rating plate and markings on the product

The **rating plate** is located on the bottom bracket and on the product frame (on the left side, just before the axle). The rating plate includes the precise model, the serial number and other technical specifications.

When contacting your rehabilitation specialist dealer or PRO ACTIV with regard to your product, please always have the serial number and year of construction on the rating plate at hand.

PR:\hctiv	Modell	
PRO ACTIV Reha-Technik GmbH Im Hofstätt 11 D-72359 Dotternhausen www.proactiv-gmbh.de	serial number  date of manufacture	
	max. Zuladungkg max. load	
CE MD I	max. Anhängelastkg max. towed capacity	

$\epsilon$	CE marking
	"Furopean conformi

MD Medical device

Manufacturer

Follow the usage instructions

Serial number





Date of manufacture

The product is labelled with **further symbols** (stickers):



Product not approved as a seat in motor vehicles



Product approved as a seat in motor vehicles; marking of the transport restraint system connections on the wheelchair or fastening points for wheelchair restraint systems

More detailed information about this can be found in chapter 24.2.

# 10 Commissioning and handover

The product will be handed over to you ready for use by a rehabilitation specialist dealer or a field representative or by a product consultant from PRO ACTIV.

Finally, you will be fully instructed in the use of the product based on the usage instructions included in delivery. You will be handed over a record of training and handover certificate as written proof. In addition, you will be handed the usage instructions and, if necessary, further accessories for your own use. It is recommended that you take along an assistant to the training so that, if required, they can assist you later when handling the product.

During the hand-over, the record of training (chapter 33) and the hand-over certificate including the associated check list (chapter 34) must be filled in. The rehabilitation specialist dealer should send the completed documents to PRO ACTIV for filing as a file by e-mail or in the form of a copy by fax or in the post.

# 11 Introduction to the product and the surroundings

During the initial commissioning of the product, drive at minimum speed and become accustomed to the driving characteristics of the product. Always adapt the speed and driving manoeuvres to match your own abilities, the external circumstances and the legal regulations. You will get a feel for how to use the product safely after a short time. Before driving up or down slopes or hills with the product, you should be proficient in the safe handling of the product on level ground. Get familiar with the braking distance at different speeds.

Get to know the environment in which you wish to use the product. Look out for obstacles and learn how to overcome or avoid them.

Get familiar with the road traffic regulations, since these must be observed when driving on public roads.

# 12 Safety instructions – prior to driving/use

Before every trip, check the condition of the wheels (e.g. visual inspection of the spokes and rims, check the tyres for damage, foreign bodies and crack formation). If you have any doubts about the serviceability of the product, stop using it. In this case, contact your rehabilitation specialist dealer or PRO ACTIV.

Check the tyre pressures at regular intervals. Ensure that you comply with the manufacturer's specifications which can be found on the tyres. When the tyre pressure is too low, it has a detrimental effect on the driving behaviour and the braking reaction of the product. Moreover, there is an increased risk of a flat tyre.

Before each trip, check the safe locking of the wheels and adaptation of the drive unit.

Secure the safety cord to the lever of the eccentric pin. The use without the safety cord attached is not permitted (see chapter 22).



Before starting your trip, check the functioning of the product's brake. If all existing brakes are not fully functional, no trips may be taken.

Check the stable condition of the seat and backrest upholstery at regular intervals and in case of doubt, have your rehabilitation specialist dealer assess its condition.

Always ensure that your feet cannot slip out off the leg rest and make contact with the drive wheel when using the product, if necessary by using a special fixation device (e.g., using the hook-and-loop straps included in the scope of supply).

Depending on the equipment, the product may have folding/closing mechanisms that pose a risk of crushing injuries (e.g. pinching your fingers). For this reason, please allow your rehabilitation specialist dealer to explain how to work these mechanisms and then have a go yourself under instruction.

If present, check the function of the front and rear lights as well as the effectiveness of the side and rear reflectors before every trip. Lights and reflectors must be clearly visible during the trip and must not be covered by objects.

To minimise the risk of suffering serious head injuries in the event of a fall, a helmet should always be worn when driving with the product.

When travelling, always carry a repair kit and tyre pump for repairs in event of punctured/flat tyre. An alternative to this is an emergency puncture repair spray that fills your tyre with a foam that hardens in the tyre.

# 13 Safety instructions – while driving/using

Please note that some parts of your product can become extremely hot in high ambient temperatures. This means that above 50°C,

the product may be damaged and above 40°C there is already the risk of burns for the user, which should not be underestimated, particularly for people with impaired sensitivity. For this reason, the product should not be exposed to such extreme temperatures. PRO ACTIV cannot accept any liability or provide any warranty for personal injury and material damage caused by such stresses. Similarly, there are also certain risks at extremely low temperatures.

Always hold onto the crank handles with both hands while driving, braking, and manoeuvring. If a driving situation requires you to take one hand off the crank handle, make sure the speed has been reduced to the minimum possible beforehand.

When driving in curves, reduce your speed to a minimum and if possible, lean your upper body towards the curve.

Do not ride parallel to slopes and inclinations due to the risk of tipping.

You may only drive on slopes where the product can be safely controlled by steering and braking of the product.

Do not stop on a steep slope, otherwise there is a risk of losing control of the product. If possible, do not turn on a slope or change your direction.

Do not attach objects (carrier bags, etc.) to the product. These could prevent safe operation of the product while driving.

Always switch on the lights on the product at twilight and in the dark as well as in bad lighting and weather conditions.

When driving in areas that are approved for pedestrians, keep to the maximum permitted speed (walking speed 6 km/h) and maintain sufficient lateral distance (at least the product width) from obstacles and other road users.



⚠ When driving on public areas, roads, paths, and spaces, the provisions of the road traffic regulations must be observed.

Avoid driving on unpaved or loose surfaces (e.g. on loose gravel, in sand, mud, snow, ice or through deep puddles of water).

When travelling on poorly maintained paths (e.g. coarse gravel, potholes), there is an increased risk of puncturing your tyres as well as tipping.

You must not make telephone calls while driving.

The product can affect other devices, for example theft protection barriers in department stores.

Always chack the tight fit of the eccentric pin and the securing cord.

When driving, never jerk the handlebar, as this could possibly cause the product to tip over sideways.

While driving, never grab onto the area of the wheel, in the area of the chain / sprockets / chain wheels or into other rotating parts; if you do you may cause injuries.

Only brake the product using the service brakes.

During long trips the brakes of the product may heat up. Therefore, do not touch the brakes immediately after the trip.

If the situation allows it, the speed should be reduced by carefully applying the service brake. Abrupt braking can cause the upper body to fall forwards which can thereby result in injuries or loss of vehicle control.

If the weight load on the drive wheel decreases (e.g. when driving on slopes) or when driving on loose/slippery surfaces, the braking action of the wheel may be considerably reduced. The driving style and speed should be

adjusted so that the product can be safely stopped at all times using the brakes.

Towing or using a trailer is not permitted.

Make sure that cables and lines are not kinked or tangled somewhere. This could cause them to be damaged which could lead to the brakes and gear shift not working correctly. In this case, the product must no longer be operated.

Smoking when using the wheelchair should be forgone, as the seat and back system may be damaged due to dropping ash.

# 14 Safety instructions regarding obstacles

Driving on steps and escalators with the product is forbidden.

The ground clearance is decisive with regard to negotiable obstacle heights. You will find ground clearance in chapter 8.3.

When driving over or passing obstacles, it is important that you avoid any product or body parts catching on the obstacle as this may lead to falls causing serious injuries to the user and third parties as well as damage to the product.

Always drive over curbs or other obstacles so that you cross them to the front or at right angles and at the minimum required speed. If you approach them at an angle or pass over an obstacle with just one rear wheel, there is an increased risk of tipping over to the side.

# 15 Safety instructions regarding dangerous locations and dangerous situations

The operator of the product determines the route to be driven themselves, taking the usage instructions, their driving knowledge, and physical abilities into consideration.



Personal driving skills are particularly important in the following dangerous locations that are provided as examples; the product user must use their judgement before driving in such locations:

- quay walls, landing and berthing locations, paths and locations close to water, unsecured bridges and dykes.
- narrow paths, slopes (e.g. ramps and driveways), narrow paths on a slope, mountainous routes.
- narrow and/or steeply sloping paths along main roads or near cliffs.
- routes that are covered in leaves, snow or ice.
- · ramps and lifting equipment on vehicles.

When driving in a curve or turning on hills or downward slopes, there may be an increased tendency to tip over to the side due to the changes in the centre of gravity. Avoid such driving manoeuvres. If these cannot be avoided, perform these driving manoeuvres with increased caution and only at a very slow speed. If necessary, the driving manoeuvre must not be performed or only with the help of an assistant.

Use particular caution when approaching stairs, edges, drops or other hazard areas.

When waiting in potential hazard areas (e.g. while waiting at a pedestrian crossing or at ramps), always hold the service brakes applied.

Extreme caution is needed when crossing main roads, intersections and level crossings. Rails in the road or level crossings must never be crossed when travelling parallel to them, as otherwise the wheels could become caught which would result in the product being unable to manoeuvre.

Before driving on ramps and lifting equipment for vehicles, ensure that they are wide enough so that you do not risk one of the

product wheels slipping off the ramp. When lifting or lowering a ramp or lifting equipment, the service brake of the product should be applied. Always keep the product in the middle of the ramp.

The grip of the tyres on the ground is reduced under wet conditions. There is an increased risk of slipping. Adjust your driving, braking and steering behaviour accordingly.

## 16 Functional elements

# 16.1 Bottom bracket support and crank

The following instructions are intended for and may only be carried out by a rehabilitation specialist dealer or PRO ACTIV

## 16.1.1 Seating position

The seating position and therefore the bottom bracket position and the crank length depend on the upper-body stability or the core musculature as well as the body size. A suitable adjustment will have been made during the consultation / measurement procedure.

The bottom bracket position should be selected as low as possible without the cranks being able to touch the user's thighs when they are turning. Moreover, the elbows should not be completely extended when the crank handles point completely forward away from the body and the shoulders should rest against the backrest.

With weak core musculature, the seating position and the crank length should normally be chosen so that the upper body remains still and always has a fixed contact with the backrest when operating the crank while driving. Rocking motion of the upper body or the head should be avoided where possible. For this, the correct setting of the backrest (see chapter 17) and the correct choice of the crank length as well as the bottom bracket position is decisive. If necessary, you should also use a hip strap or chest strap for stabilising.





Figure 3: Elbows are not stretched completely



Figure 4: Distance between the crank and the thigh

If you require a restraint system, a suitable system must be selected together with your doctor or therapist and/or defined and implemented by your rehabilitation specialist dealer. Various systems are available, such as chest straps or hip straps. Rehabilitation specialist dealers can also often create a customised system or adapt commercially available systems.

## **Recommended equipment:**

PRO ACTIV also offers restraint systems such as hip straps with belt and Velcro fastener and chest straps of various lengths.

#### 16.1.2 Bottom bracket position

When equipping the product with a **bottom bracket support that cannot be adjusted**, a subsequent adjustment of the bottom bracket position can only be achieved by exchanging the bottom bracket support.

The bottom bracket support can be exchanged by loosening the four M6 fixing screws (AF 5 mm) on the tip fork bridge and the four M6 fixing screws (AF 4 mm) on the bottom bracket housing. Then the new bottom bracket support with another length can be inserted and the 8 fixing screws tightened up to 7 Nm and secured with thread lock fluid. Finally, check the chain length and the cable lengths and adjust them if necessary.

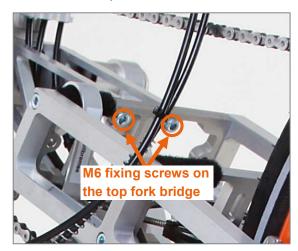


Figure 5: M6 fixing screws on the top fork bridge



Figure 6: M6 fixing screws on the bottom bracket housing

If your product is fitted with an **adjustable bottom bracket support (optional)**, the bottom bracket position can be adjusted in angle and height:



• The angle is adjusted at the top fork bridge. To do this, loosen the four M6 clamp screws (AF 5 mm), on the clamp slightly so that the bottom bracket support's angle can be adjusted using minimal force. The angle adjustment is continuous (as a guide, there is a 12° scale fitted). When you have finished adjusting the angle, tighten up the four M6 clamp screws (AF 5 mm) to 7 Nm torque and secure them with thread lock fluid.

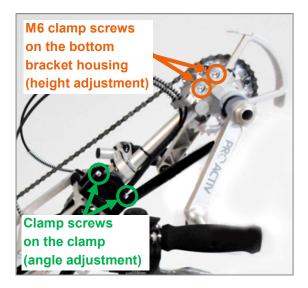


Figure 7: M6 clamp screws for angle and height adjustment of the bottom bracket position

 To adjust the height, two M6 clamp screws (AF 5 mm) must be loosened on the bottom bracket housing. Then the bottom bracket housing can be moved along the bottom bracket support to the desired position. Then tighten up the four M6 clamp screws (AF 5 mm) to 7 Nm torque and secure them with thread lock fluid.

For smaller adjustments to the height, infinitely variable adjustments of +/- 25 mm can be made on the bottom bracket support. To adjust the height, the two M6 clamp screws (AF 5 mm) must be loosened on the bottom bracket support. Then the bottom bracket support can be moved in its mount to the desired position. Then tighten the four M6 clamp screws (AF 5 mm) to 7 Nm torque and secure them with thread lock fluid.



Figure 8: M6 clamp screws for adjusting the height of the bottom bracket position

If you want to make a change to the bottom bracket position, please contact your rehabilitation specialist dealer or PRO ACTIV.

Please note that, after a large adjustment to the chain bottom bracket position, the lines and the cable lengths must be adjusted.

#### 16.1.3 Crank length and grip width

The **crank length** can be chosen from different lengths individually to suit the length of the arms and mobility of the user. Different widths of bottom bracket shafts and spacers between the pedal cranks and the rotary axles of the handles are available to adjust the **grip width**.

If you want to make a change to the crank length or grip width, please contact your rehabilitation specialist dealer or PRO ACTIV.

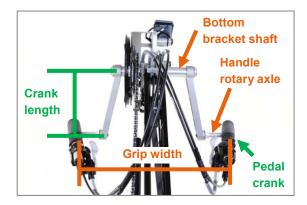


Figure 9: Crank length and grip width



# 16.2 Grips

The grips must be held firmly with both hands whilst driving and always held so that the cables and lines are oriented upwards.



Figure 10: Correct grip hold

The cables for the Rohloff hub gear are an exception for this. If the handles are held correctly they point forwards into the direction of travel.



Figure 11: Correct hold of the handle for the Rohloff hub gear

Always hold onto the crank handles with both hands while driving, braking, and manoeuvring. If a driving situation requires you to take one hand off the crank handle, make sure the speed has been reduced to the minimum possible beforehand.

# 16.3 Gear shift

#### 16.3.1 Derailleur

With the derailleur, the gears can only be changed while the crank is moving. Changing the gear with the cranks stationary is not possible. In general, the torque applied to the cranks should be reduced briefly while changing the gear so that the gear change can happen more quickly.

The gearshift control elements are normally designed so that they can be operated using thumb / index finger shift control (for mechanical gear systems) or buttons (for electronic Di2 gear systems). With the cassette at the bottom, switching to the next largest sprocket means a lower or easier gear and to the next smallest sprocket a larger or more difficult gear.



Figure 12: Cassette

With the **thumb / index finger shift control**, gear changes are achieved by:

- "Thumb shifter" operation by pressing in the direction of travel with the thumb
- "Index finger shifter" operation by pulling in the opposite direction of travel with the index finger or using the thumb to press against the direction of travel.

The mechanical gearshifts do not provide a display for the gear selected. There is only an orientation as to which sprocket is currently being used via a display above the handle.



In electronic Di2 gearshift, you can shift up or down by pressing the **button**.

On an electronic Di2 gearshift, gear changes are achieved by:

- Pressing the small button with your thumb to shift up.
- Pressing the large button with your thumb to shift down.



Figure 13: Buttons for shifting up and down

On an electronic gearshift with buttons, the current gear is shown on the gearshift display.



Figure 14: Displaying the current gear on the display

It is also possible to operate the gearshift by **shifting gears with your chin**. One of the two **buttons** of the Di2 button on the left in the direction of travel can be pressed to shift up; one of the two buttons of the Di2 button on the right in the direction of travel can be pressed to shift down. The current gear is always shown in the gearshift display.



Figure 15: Chin operation via buttons

For more information on derailleur gear systems, please see the instructions provided by the gear manufacturer.

# 16.3.2 Hub gear

The hub drive can be changed while driving and also when stationary. No crank movement is needed to change or only a small reduction in torque is needed while driving.

The **Rohloff** hub gear and **Shimano Nexus** hub gears are operated by **turning the grip shift**. The gear selected is shown in the display on the control element.



Figure 16: Shifting using the grip shift for the Rohloff hub gear





Figure 17: Shifting using the grip shift for the Shimano Nexus hub gear

The **Shimano Alfine** hub gear is shifted via a **thumb-forefinger switch fitting**. The shifting is achieved as follows:

- "Thumb shifter" operation by pressing in the direction of travel with the thumb
- "Index finger shifter" operation by pulling in the opposite direction of travel with the index finger or using the thumb to press against the direction of travel.

The gear selected is shown in the display above the handle.

With the **Shimano Alfine Di2** electronic hub gear, **two electronic buttons** are used for switching. Press one button to switch on. The drive switches off automatically if it is not operated after a while.

Use the Di2 button to change gears:

- Press the small button (right) with your thumb to shift up
- Press the large button (left) with your thumb to shift down

The gear engaged is shown on the display.

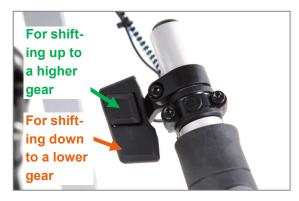


Figure 18: Buttons for shifting up and down



Figure 19: Displaying the current gear on the display

For more information on hub gears, please see the instructions provided by the gear manufacturer.

# 16.3.3 Charging the battery for Shimano electronic gearshifts

The rechargeable battery charge level of the electronic gearshift is also visible on the display. When the charge state is low (thus when only one rechargeable battery bar is shown), the rechargeable battery must be recharged.



Figure 20: Alfine Di2 electronic gearshift battery



For this purpose, the rechargeable battery is removed as follows: the flap on the side is opened and the push button is pressed-in (figure 21). Now the rechargeable battery can be pulled out along the retaining rail and charged using the charger included in the scope of supply. During the charging procedure, an orange lamp is visible (figure 22).

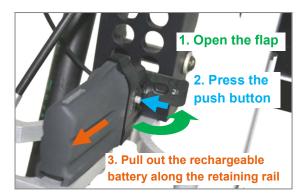


Figure 21: Remove the rechargeable battery for charging



Figure 22: Rechargeable battery and charger

The fully charged rechargeable battery (visible on the charger when the orange lamp goes out) is pushed back along the retaining rail until you can feel a slight resistance. When closing the flap on the side, the rechargeable battery is completely secured and is connected fixed. Now the gears are ready for use again.

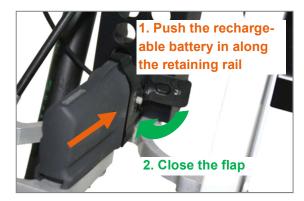


Figure 23: Reconnect the rechargeable battery after charging

## 16.3.4 Bottom bracket gearshift

The bottom bracket gearshift ("Mountaindrive" gear reduction for hills) is switched on by pressing the control buttons on the left and right of the bottom bracket. Here, you can choose between a 1:1 gear ratio (the left control button in the direction of travel) or a 2.5:1 gear ratio (the right control button in the direction of travel).

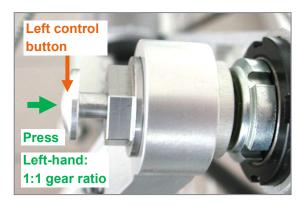


Figure 24: Left control button of the bottom bracket gearshift

The bottom bracket gearshift should be lubricated once or twice a year with the supplied original semi-fluid grease using the syringe. The semi-fluid grease is filled through the slotted screw.





Figure 25: Slotted screw to lubricate



Figure 26: Original semi-fluid grease in the syringe

For more information, please see the instructions provided by the manufacturer.

## 16.4 Brakes

Normally there is one disc and one rim brake fitted to the product.

Please note that the braking effect can be strongly reduced by one or all of the following conditions:

- Worn tyre profile
- Soiled and wet tyres
- · Wet, soiled, loose and uneven ground
- Dirt and wetness on the brakes and brake surfaces
- Changed weight load

## 16.4.1 Rim and disc brakes

The brakes are operated manually using the brake lever.



Figure 27: Brake lever

In the event of abrupt hard braking, there is a risk that you might fall forward with your upper body and thereby cause injuries to yourself.

With rim brakes: Please make sure that the braking surfaces on the rim and the brake pads on the rim breaks do not come into contact with oils or greases which could otherwise impair the braking effect.

With disc brakes: At regular intervals, check that the brake pads and discs are free from grease, oil or other contamination. In addition, check the thickness of the brake disc. The minimum thickness is printed on the brake disc. In addition, the brake pad thickness must be checked with a measuring calliper. The minimum pad thickness plus support material is 2.5 mm.

If equipped with V-brake rim brake as service brake: The setting screw on the brake lever of the V-brake rim brake must be well locked. In addition, this setting screw on the brake lever must always be checked for tightness.





Figure 28: Setting screw on the brake lever

You can find further information in the brake manufacturer's instructions.

#### 16.4.2 Back-pedal brake for hub drives

A back-pedalling brake is already integrated into the Shimano Nexus hub gears. This brake is operated by moving the cranks against the acceleration direction. The brake force applied is adjusted by the strength of the backwards movement of the cranks.

## 16.4.3 Parking brake

An **aluminium bracket** is attached to the bottom bracket support as a parking brake. With it, one of the two brakes can be used as a parking brake. For this purpose, the aluminium bracket is clamped over the grip and the brake lever while the brake lever is depressed.



Figure 29: Aluminium bracket as a parking brake

# 16.5 Lights

A light set with a separate rechargeable battery including a charger can also be selected as an option. The front lights are installed on the front of the product and the rear lights are generally installed on the back cross bar on the back of the coupled wheelchair. The lights are switched on and off using the respective actuation button on the lights.



Figure 30: Actuation button for the front lights



Figure 31: Actuation button for the rear lights

# 16.6 Bell

The bell can be actuated with the thumb or index finger without letting go of the handlebar.



Figure 32: Bell



# 16.7 Manufacturer instructions

You will be instructed about the functions and operation of the gears, brakes and other brand components during the hand-over / training. You can also get information later from the component manufacturers' enclosed usage instructions, or if needed, by asking your rehabilitation specialist dealer or PRO ACTIV.

In the download area of <a href="www.proactiv-gmbh.com">www.proactiv-gmbh.com</a> under the links "more documents >>", we have put together the most important documents. More extensive information can be found on the manufacturers' websites:

Shimano components:

https://si.shimano.com

Magura components:

www.magura.com/en/components/

Rohloff components:

www.rohloff.de/en/

Mountain Drive bottom bracket gearshift:

www.haberstock-

mobility.com/index.php/home-en.html

Sigma:

www.sigmasport.com/en/

Subject to changes to the links provided by the component manufacturers.

# 17 Backrest

Avoid falling into the seating and back system as the risk of changing the adjustment, falling or a defect is increased significantly.

The back system usually consists of either a sprung Body Contour cover or a filling plate. With both back systems, the slack cannot be adjusted. The Body Contour backrest upholstery has a springing effect and automatically forms a slack.

# 17.1 Angle adjustment of the backrest

For adjusting the angle of the backrest, open the clamp lever by turning counter-clockwise (a half to a complete rotation). Then the backrest can be moved forwards of backwards. The length of the backrest support changes during the movement of the backrest.

Once the desired angle of the backrest is set, hold the backrest in this position and then close the clamp lever again clockwise with a half to complete rotation.

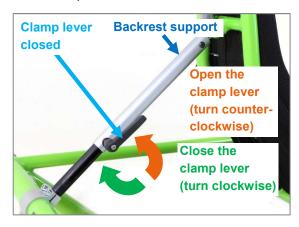


Figure 33: Angle adjustment of the backrest via the clamp lever

# Note:

If the clamp lever rests on the frame of the product when turning, you have the option of pulling the clamp lever out vertically to the rotary axle and to let go into another angled position via the integrated serration, and keep on turning.



Figure 34: Put the clamp lever in another angled position by pulling out

After every adjustment, check that the backrest is firmly attached in its position.



# 17.2 Longitudinal positioning of the backrest

The following instructions are intended for and may only be carried out by a rehabilitation specialist dealer or PRO ACTIV



Figure 35: Clamp for the longitudinal positioning of the backrest

The longitudinal positioning of the backrest (or distance for the backrest to the bottom bracket) can be carried out by undoing two M6 clamp screws (AF 5 mm) each on the right and left side of the product frame. After undoing a total of four M6 clamp screws (AF 5 mm), both clamps on the product frame can be moved to the desired position.

In doing so, take note:

- when the product is equipped with "Open belt system" seat cover, the backrest can be pushed forwards and backwards. when equipped with seat cover "Body Contour", the backrest can only be pushed backwards so that the distance between the backrest and the bottom bracket is increased.
- The clamps on the right and left side must be positioned at the same height of the product frame.



Figure 36: Longitudinal adjustment of the backrest via M6 clamp screws and clamps on the frame of the product

Once the desired longitudinal position of the backrest has been found, the four M6 clamp screws (AF 5 mm) are tightened to 7 Nm again and secured using screw locking fluid.

After an adjustment of the longitudinal position of the backrest, a check should be made if the seat system should be changed with regard to the new dimension.

# 18 Seat system

Avoid falling into the seating and back system as the risk of changing the adjustment, falling or a defect is increased significantly.

The seat system usually consists of either sprung Body Contour seat cover or a belt system.

With a seating system from **Body Contour** seat cover, there is no adjustment option. The Body Contour seat cover has a springing effect and when seating, automatically forms a slack.



Figure 37: Body Contour seat cover



The **belt system** can be subsequently adjusted. The slack of the seating surface can be changed using fleece hook-and-loop straps.



Figure 38: Open belt system with fleece hook-and-loop straps for adjusting the slack

For the "belt system" seating system: when adjusting the slack of the belt system, make sure that the slack does not protrude beyond the lower edge of the frame. Otherwise when overcoming obstacles, you may get caught the belt system and your bottom that may result in injury and damage to the belt system. The product may not be operated with damaged seating system.

#### Note:

Using a seat cushion on the seat system is mandatory. At cold temperatures, the seat cushion prevents lower abdomens from undercooling and protects against dirt and wetness. Moreover, the cushion ensures uniform pressure distribution for your bottom and absorbs impacts as well as vibrations.

# 19 Neck rest

# 19.1 Neck rest height adjustment

The following instructions are intended for and may only be carried out by a rehabilitation specialist dealer or PRO ACTIV

To adjust the height of the neck rest, two M6 clamp screws (AF 5 mm) have be loosened on the neck rest holding tube. Then the height of the neck rest holding tube can be adjusted.

Once the desired height has been found, the two M6 clamp screws (AF 5 mm) are tightened to 7 Nm again and secured using screw locking fluid.



Figure 39: Height adjustment of the neck rest via two M6 clamp screws on the neck rest holding tube

## 19.2 Neck rest angle adjustment

The angle adjustment of the neck rest is carried out via the quick release lever on the neck rest holding tube. Open the quick release lever and set the neck rest padding to the desired angle. Then close the quick release lever again.



Figure 40: Quick release lever closed



Figure 41: Quick release lever opened for adjusting the neck rest angle



After every adjustment, check that the neck rest is firmly attached in its position. If necessary the tension can be adjusted by turning the nut of the quick release lever clockwise until it reaches the end stop.



Figure 42: Nut of the quick release lever

# 20 Collision guard



Figure 43: Collision guard

# 20.1 Collision guard mount

To remove the collision guard, both M6 fixing screws (AF 4 mm) are undone on the right and left inlet. Now the collision guard can be removed from the inlet.



Figure 44: M6 fixing screws on the clamp on the axle tube

# 20.2 Mounting the collision guard



Figure 45: Inlet of the collision guard with several boreholes

For mounting the collision guard, the collision guard is pushed onto both inlets. In doing so, ensure for the correct position of the collision guard on the inlet as there are several boreholes on the inlet. Then both M6 fixing screws (AF 4 mm) are tightened to 7 Nm and secured with thread lock fluid (fig. 44).



# 20.3 Adjusting the length of the collision guard

The following instructions are intended for and may only be carried out by a rehabilitation specialist dealer or PRO ACTIV

When mounting running wheels with another tyre size, the length of the collision guard may have to be adapted. For this purpose, loosen both M6 fixing screws (AF 4 mm) on the right and left inlet (fig. 44). Now the collision guard can be pushed along the inlet and a different hole can be used for the fixing screws (fig. 45).

Once the correct position of the inlet has been found, both M6 fixing screws (AF 4 mm) are tightened to 7 Nm again and secured using screw locking fluid.

# 21 Wheels

# 21.1 Removing and attaching the running wheels



Figure 46: Locking knob of the quick-release axle in the middle of the wheel axle

To **remove the running wheels**, reach through the spokes around the wheel hub with your fingers. The wheels can be unlocked and removed by pressing and holding the locking knob at the centre of the wheel axle with your thumb.

To attach the running wheels, press the locking knobs and insert the wheels with quick release axle into the wheel bushings. When doing this, special attention should be paid to ensure that the locking knob springs out again after attaching the wheel, as otherwise the

wheels are not properly secured. You will know this if you can see the index groove.



Figure 47: Quick release axle with index groove

Before using the product, check if the running wheels are secured and that the quick release axles are locked.

# 21.2 Checking and setting the wheel tracking

The following instructions are intended for and may only be carried out by a rehabilitation specialist dealer or PRO ACTIV

Well adjusted wheel tracking significantly improves the easy running characteristics of the product. To **check** the tracking, proceed as follows:

Position the product on a flat surface and apply the parking brake.

Measure the axle heights (from the ground to the running wheel axle) and write this dimension on both tyres at front and back.





Figure 48: Drawing the axle height on the front and back of both tyres of the running wheels

Afterwards measure the distance between the running wheels front and back at the height of the axles along the markers. Ideally, the distance between both running wheels should be the same size at the front and back. In general, it can be said that the distance between the running wheels at the front and back may not be larger 5 mm. If this is not the case, the wheel tracking needs to be corrected.

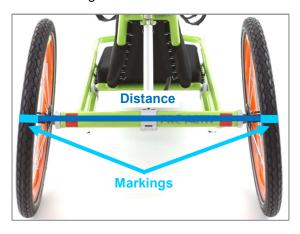


Figure 49: Distance between the markers on the tyres (at axle height), back

## To adjust the track proceed as follows:

 Loosen the aluminium locking nuts on both sides (AF 41 mm).



Figure 50: Drive wheel bushing and aluminium locking nut (rear view)

- Correctly adjust the track by turning the drive wheel bushing (AF 24 mm). Here it can be said that: If you turn the drive wheel bushings in the direction of travel, the track at the front will become narrower. The exact opposite occurs if you turn it opposite to the direction of travel; the track becomes wider.
- 3. Make sure that the distance at the front to the frame on the right and left is the same.

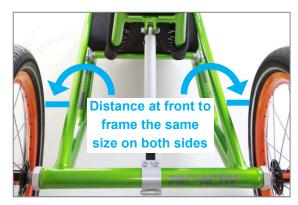


Figure 51: Distance at the front to the frame



4. Check by measuring the distance between the running wheels at the front and back again at the axle height (along the markers) so that the distance between the running wheels at the front than at the back is no more than 5 mm.

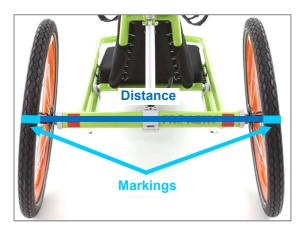


Figure 52: Distance between the markers on the tyres (at axle height), back

 Once all of the distances are correct, use an open-ended spanner (AF 24 mm) to hold the drive wheel bushing in position and tighten the aluminium locking nuts (AF 41 mm) to a tightening torque of 70 Nm.

# 21.3 Tyre pressure

Check the tyre inflation pressure at regular intervals as well as after extreme temperature effects. The **recommended tyre pressure is printed on the side of the tyre**. This should be observed.

Insufficient tyre pressure has a negative effect on the handling. Apart from that, there is an increased risk of a flat tyre.

If the pressure is too high, the tyre may burst. For this reason, product tyres may not be exposed to unusually high temperatures such as under glass in the summer.

When inflating the tyres, make sure that the prescribed air pressure is not exceeded.

To check or correct the tyre pressure, proceed as follows:

- Secure the product to prevent it rolling away.
- 2. The drive wheel is normally fitted with a car tyre valve. Unscrew the valve cap.



Figure 53: Valve with cap

- Place the valve attachment of the compressed air device or the compressor onto the valve and, if a clamp lever is available, secure the connection by applying the clamp lever.
- 4. Now check the tyre pressure. If the tyre pressure does not match the specifications, correct it.
- 5. Finally release the clamp lever (if present), pull the valve attachment off the valve and replace the valve cap.



Figure 54: Compressor



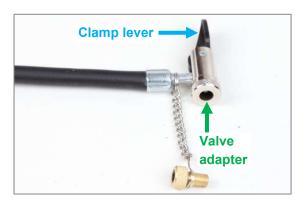


Figure 55: Valve adapter and clamp lever of the compressor

# 22 Adaptation and decoupling the drive unit

# 22.1 Safety instructions

The drive unit may only be adapted and detached on dry, stable and flat surfaces.

# 22.2 Terminology

The product comprises drive unit and product frame. The product frame is also designated as chassis. The insertion shaft is located on the adapter plate of the chassis.



Figure 56: Insertion shaft on the chassis adapter plate

The insertion shaft – the counter item for the insertion shaft – is located on the adapter plate of the drive unit.

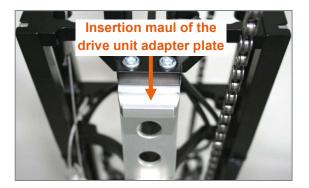


Figure 57: Insertion maul of the drive unit adapter plate

# 22.3 Adapting the drive unit

For adapting the drive unit to the chassis, first operate the parking brake. Hang the insertion maul of the drive unit adapter plate to the insertion shaft of the chassis adapter plate. In doing so, the drive wheel must be raised a little to allow the insertion maul of the drive unit to slip under the insertion shaft on the chassis.



Figure 58: Lifting the drive wheel





Figure 59: Insertion maul of the drive unit slips under the insertion shaft on the chassis

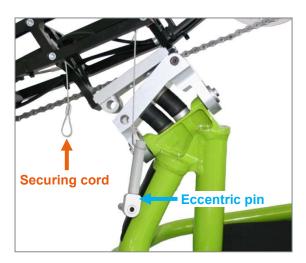


Figure 60: Insertion maul of the drive unit hung into the insertion shaft on the chassis, eccentric pin not inserted yet

Finally, the chassis is raised at the front or the drive unit is raised on the bottom bracket housing that the adapter plates of the drive unit and chassis can completely rest on top of each another. In doing so, make sure that the insertion maul and the insertion shaft stay in position.

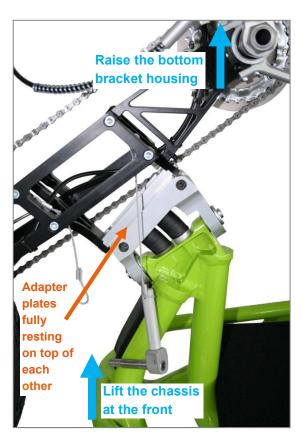


Figure 61: Adapter plates of the drive unit and chassis resting on top on one-another

Now the eccentric pin must be inserted on the left side in the direction of travel, and the lever of the eccentric pin must be turned upwards approx. 90° counter-clockwise. Finally, the securing cord is hung onto the lever of the eccentric pin.

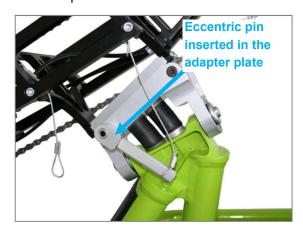


Figure 62: Eccentric pin inserted





Figure 63: Drive unit adapted completely

# 22.4 Decoupling the drive unit

For decoupling the drive unit from the chassis, first operate the parking brake. Then remove the securing cord from the lever of the eccentric pin and turn the lever of the eccentric pin clockwise by approx. 90°.

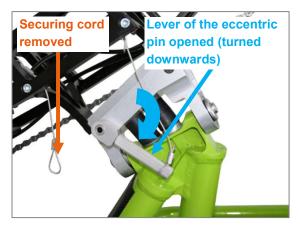


Figure 64: Lever of the eccentric pin opened and securing cord removed

Now the eccentric pin is removed from the adapter plates. For easier handling, raise the drive unit on the bottom bracket housing slightly in the process. After removing the eccentric pin, the chassis is lowered to the ground automatically.



Figure 65: Eccentric pin removed from the adapter plate, chassis lowered to the ground

Now lift the drive wheel a little and hang the insertion shaft of the drive unit adapter plate out of the chassis.



Figure 66: Lifting the drive wheel

Now the drive unit is separated from the chassis. This allows a favourable pack size for transporting the product.





Figure 67: Pack size: Chassis and drive unit separated and running wheels removed

# 23 Storage

Store the product on an easy-to-clean surface in a dry environment, preferably at room temperature from +15°C to +25°C.

For storage please also comply with the notes in other sections of these usage instructions and the component manufacturers' usage instructions included with delivery.

To avoid corrosion and therefore malfunctions or breakages of components, the product may not be exposed to any aggressive environmental influences (especially salt) or to any strong solar radiation. Because of the effect of salt water in the winter and the humidity on rainy days, it is not recommended to store the product in the garage.

If the product is not used or is stored over a longer period, if necessary, before using it again, we recommend having a rehabilitation specialist dealer give it a general function and safety check.

For the electronic Shimano gearshift: Unused rechargeable batteries should preferably be stored somewhere between 10°C and 20°C.

# 24 Transport

# 24.1 Securing handling of the product

When loading or transporting, the product can be held on the bottom bracket support and product frame.

# 24.2 Passenger transport in vehicles



When transporting in vehicles, it must be noted that the product is not approved for use as a seat in vehicles or disabled persons

transport vehicles. All vehicle occupants must only sit on the seats installed in the vehicle during the journey with the associated restraint systems.

The hip strap that may be fitted is not designed as a safety belt in motor vehicles and may not be used for this purpose.

# 24.3 Securing the product in a vehicle (without a person)

To reduce the weight when loading, individual components can be removed from the product and stored separately. In addition, the drive unit and the chassis can be separated from each other. The product and all associated components must be secured during transport so that they are not damaged and do not become a hazard to persons or other products. Before transport, check with your vehicle dealer about safely securing it using the existing fitted lashing rings or other securing devices. Suitable brackets are mostly available in the vehicle and are described in the operating manual of the vehicle.

When the product is in the transport vehicle, you or the person accompanying you should proceed as follows:

- 1. Operate the parking brake.
- Secure and safely stow any components from the product which have been previously removed.



- Objects that are installed to the product, but do not belong to the product, must be removed and securely stowed.
- Secure the product with lashing straps. To do this, use the existing securing devices in the vehicle.
  - After securing, the product may not roll, slip or tip over to the side any more.

The lashing straps used to secure the product in the transport vehicle may only be fitted to the components of the vehicle provided for that purpose, as well as to the frame and bottom bracket support of the product.

Do not transport the product on the front passenger seat. The product could slip and impede the driver.

When loading and securing, make sure that the cables and lines do not get tangled, become kinked or otherwise damaged. The product may not be used with damaged cables and/or lines.

#### 25 Malfunctions

In the event of malfunctions that cannot be repaired by yourself based on the usage instructions included in the scope of delivery, please contact your rehabilitation specialist dealer or PRO ACTIV directly.

Malfunctions must be repaired before any further use or, if they occur during the trip, it must be interrupted immediately.

All serious incidents that have occurred in connection with the product must be reported to the manufacturer and the responsible authority in the state in which the user resides.

# 26 Cleaning and care

Regular cleaning of the product is prescribed to prevent the components becoming clogged up due to dirt. In particular, the product should be carefully cleaned after every major use, e.g. summer or winter holidays.

To avoid corrosion and therefore malfunctions or breakages of components, the product may not be exposed to any aggressive environmental influences. If this cannot be avoided, the product should be cleaned immediately after such use and moving parts need to be greased. Regular cleaning prevents corrosion and increased wear.

In case the product becomes wet when using, please dry it after use.

Clean the quick release axles of the running wheels as well as the ball bearings and grease these with a little lubricating oil with high corrosion protection properties (e.g. Neoval MTO 300) approx. every 8 weeks in order to guarantee the reliable functioning.

Clean your product with water, solvent or neutral cleaning agents. Do not use any abrasive cleaning agents or aggressive, acidic cleaners when cleaning. Only use water and soap to clean the seat and backrest upholstery.

The drive wheel should be regularly cleared of contamination. It is recommended that you use a soft sponge or a soft brush.

The product must not be cleaned using steam or high pressure.

#### Recommended care:

If you need care products for your product, please contact PRO ACTIV.



## 27 Maintenance

# 27.1 General instructions

The product is not a maintenance-free device. Therefore, please observe the following instructions about maintenance.

If repairs are required or there are any defects in your product, in the interests of your own safety, you should contact your rehabilitation specialist dealer or PRO ACTIV before using it again and have the defect remedied. Screws and other elements need to be secured properly again after repairs.

For tyres with tread: As soon as there is one or more points with less than 1 mm of tread on the tyres of the product, the tyres must be changed as otherwise there is an increased risk of an accident.

For tyres without thread: As soon as there is one or more points where the tyre carcass or the puncture-proofing is visible on the product, the tyres must be changed as otherwise there is an increased risk of an accident.

When maintaining the brakes and the gear components, it is imperative that the usage instructions from the manufacturer which were included in delivery are followed.

Only manufacturer's original parts may be used when ordering spare parts.

Repairs and conversions to the product may only be carried out by your rehabilitation specialist dealer or PRO ACTIV.

Tightening torques and securing details for fastening elements as shown in the table in chapter 32 must be observed.

## 27.2 Service schedules

There is some maintenance work or checks which should be carried out by the user themselves at regular intervals (approximately every 4 weeks depending on the frequency of use):

- The chain should be cleaned and lubricated with chain oil (observe the manufacturer's instructions).
- Check the tyres for damage, foreign bodies and any cracks that form.
- Check the function and ease of running of the quick release axles on the running wheels.
- Check that the cable housings are seated tightly in the gear cable brackets.
- Cables and lines should be checked for kinks and crushing.
- · Check the brake pads.
- Check the tyre pressure and correct if needed (the tyre pressure should always be as printed on the tyre covers).

If you should discover any problems during these checks, please immediately contact your rehabilitation specialist dealer or PRO ACTIV. Service and repair work on the product may only be carried out by your rehabilitation specialist dealer or PRO ACTIV.

In addition to these maintenance tasks/checks by the user, PRO ACTIV has prescribed maintenance tasks to be carried out by the rehabilitation specialist dealer or PRO ACTIV for safe operation of the product and to minimise the risk to the user or third-parties.

The initial inspection is performed after running 200 kilometres or 5 months after delivery (whichever comes first). The maintenance schedule can be found in the inspection lists in chapter 35.

Subsequent inspections are then always performed after 1,000 kilometres running or a period of 1 year after the last inspection (whichever comes first). The maintenance schedule can be found in the inspection lists in chapter 35.



After extreme stresses, such as during holidays where the product was exposed to sand, sea water or snow, an additional deep clean and inspection by your rehabilitation specialist dealer is recommended.

To maintain the warranty validity, the performance of the maintenance tasks must be documented. Any faults identified during maintenance work must be rectified and documented as such before further use of the product.

Even if your product does not show any signs of wear, damage or malfunctions, the regular safety-related checks on your product must be carried out in accordance with the maintenance schedule.

# 27.3 Proof of maintenance

To provide proof of the maintenance, you can use the inspection lists in chapter 35. Always keep all receipts/service reports as proof, and have any service work that has not been carried out by the manufacturer documented.

Please bring these usage instructions/the service booklet along with you each time maintenance is performed.

## 28 Disposal and recycling

At the end of the service life, the product can be disposed of by PRO ACTIV or your rehabilitation specialist dealer in a proper, environmentally-friendly manner.

The disposal or recycling must be carried out by a waste disposal company or a municipal waste disposal centre.

Special guidelines may apply on-location with regard to the disposal or recycling. These must be clarified and considered when disposing (this may also include the cleaning or disinfection of the product before the disposal).

In the following text, you will find a description of the materials for the disposal and recycling of the product and its packaging:

Aluminium: frame, rims, leg rest

**Steel:** fixing points, quick-release / screwed axle, screws, nuts

**Plastic:** handles, clamp lever, tube plugs, tyres, bags for packing

Synthetic fibres and foam: padding, covers

Cardboard/paper: Packaging

#### 29 Re-use

If your product has been provided to you by your funding provider and you no longer require it, you should report this fact to your health insurance company or rehabilitation specialist dealer. Your product can then be simply and economically re-used.

Prior to each re-use, a technical safety check must be carried out on the product at PRO ACTIV or the rehabilitation specialist dealer. In addition to the instructions contained in chapter 26 (Cleaning and care), a thorough cleaning of the grips and all control elements must be carried out.

Before the product can be reused, it must be prepared with care. A disinfection agent that is suitable for medical products must be sprayed onto all surfaces that the user may come into contact with. A liquid, alcohol-based disinfectant for residue-free, quick disinfection (e.g. Exporit 4712) must be used for this, and the respective usage instructions for use of the disinfectant must be observed. In general, a complete disinfection cannot be guaranteed on the seams. We therefore recommend that you dispose of the seat and backrest upholstery.

These preparations will be performed by PRO ACTIV or the rehabilitation specialist dealer as part of the technical safety check. This safety-related check **must** be initiated by the funding provider.

Moreover, in event of wear or due to adaptation to the new user, components such as the seat and back system can be adjusted or replaced using the modular system. The backrest angle is infinitely adjustable as standard. The bottom bracket support is also often angle-adjustable and can then be optimally adapted to the new user.



# 30 Warranty

PRO ACTIV guarantees that the product was free of any defects at the time it was handed over. This warranty expires 24 months after the product was delivered.

Further information can be found in PRO ACTIV's general terms and conditions at <a href="https://www.proactiv-gmbh.com">www.proactiv-gmbh.com</a>.

The warranty shall be null and void if the product or a part needs to be repaired or replaced due to the following reasons:

- Normal wear on components such as grips, tyres, brakes, etc.
- The product has not been maintained and serviced in accordance with the maintenance schedule laid down by PRO ACTIV.
- The product or a part of the product has been damaged due to neglect, accident, or improper use.
- The product has been commissioned and used in non-compliance with these usage instructions.
- Repairs or other work have been carried out by non-authorised persons.
- Third-party parts have been installed or connected to the product or the product was otherwise modified.

Any modifications to the product which have not been expressly approved by PRO ACTIV will invalidate the warranty. Such modifications can lead to unforeseeable safety risks and are therefore not permitted.

# 31 Liability

As the manufacturer of the product, PRO ACTIV is not responsible for its safety if:

- The product is handled improperly.
- The product is not maintained in accordance with the maintenance schedule laid down by PRO ACTIV.
- The product is commissioned and used in non-compliance with these usage instructions.
- Repairs or other work are carried out by non-authorised persons.
- Third-party parts have been installed or connected to the product or the product has otherwise been modified.

Further information can be found in PRO ACTIV's general terms and conditions at <a href="https://www.proactiv-gmbh.com">www.proactiv-gmbh.com</a>.



# 32 Appendix: Tightening torques, securing details and tools

The following table shows the torques for shaft screws with a metric control thread (valid providing the drawing, assembly, or usage instructions do not state different values!):

	Tightening torque Ma in Nm depending on the screw strength			
Dimension	Strength 8.8 (e.g., cylinder head screw)	Strength 10.9 (e.g., oval head screw)		
M4	2.1	3.1		
M5	4.2	6.1		
M6	7.3	11		
M8	17	26		
M10	34	51		
M12	59	87		
M10 x 1	36	53		

Securing details: All screws on PRO ACTIV products should be secured with thread lock fluid "medium strength" (e.g. Weicon AN302-43), where there are no securing clamps on the screw connections present or there is a lubrication requirement with grease or copper paste.

In the following table you will find tools and care products for your PRO ACTIV product:

Tool		Order number
Special tool for setting the wheel position Open-ended spanner AF 22/24 mm + 41 mm		8000 900 025
Care kit for PRO ACTIV wheelchairs and handbikes Assembly paste (dosing syringe 10 g), Neoval oil (spray 100 ml), thread lock, medium strength (pen system 10 ml), surface cleaner (spray 150 ml), terminal grease (tube 50 ml)		8000 900 026
Assembly stands		8000 902 000



#### 33 Appendix: Medical product passport/record of training

Product specifications:		
Serial number: SN		
Customer data:		
Surname, forename:  Street:  Postcode, city:  Phone:  Paying organisation:		
Training carried out by:		
Rehabilitation specialist  PRO ACTIV Field Repres Product adviser	entative/	pilitation specialist dealer's signature
Record of training		
of the product listed and informe	ed about possible operator err	and-over certificate about the operation ors. I was/we were also advised about . The usage instructions were handed to
Instructor Name, date, signature		
Person being trained     Name, date, signature		
2. Person being trained Name, date, signature		
<b>3. Person being trained</b> Name, date, signature		

For minors, or persons who are not responsible for their actions, legal guardians/supervisors/responsible persons are to be trained in the use. This is confirmed by their signature. The data are recorded in the feedback system of PRO ACTIV Reha-Technik GmbH as the manufacturer of the above named product. It is managed in accordance with § 16 BDSG (German Data Protection Law).



### 34 Appendix: Hand-over certificate

### 34.1 Required compliance criteria to authorise use

Topics	Completed/ fulfilled	Remarks
The product is suitable for the customer based on their own judgement and the customer information received regarding the disability-related restrictions.		
The use intended by the customer is fully consistent with the intended use as described in the usage instructions (see chapter "Purpose and indication").		
The product's equipment is suitable to allow the customer safe use with maximum reduction of risks.		
The customer was informed about the current / applicable regulations in accordance with the road traffic regulations.		
The customer's driving ability was checked during a test drive in difficult driving situations and found to be appropriate (see the check list on the following page).		
The user, according to their own statements, or those of the legal representative or guardian and the assessment of the person providing the training, is able to meet the requirements of public traffic in full and to act accordingly. This ability to act, which is the basis for reducing the risk for the user and other road users to an acceptable level, is also completely achievable taking current illnesses/disabilities into full account.		
The customer was informed that in the event of a change in the driving capability, further use of the product must be assessed by a medical professional.		
The usage instructions - and explicitly all of the warning and safety instructions contained therein - were discussed during the training in detail and understood by the user. The user was then handed these operating instructions.		



#### 34.2 Check list for training the user

Topics	Completed/ fulfilled
Advised of the applicable legal regulations when driving on public roads.	
All mechanical function control elements were explained and their function demonstrated.	
Adaptation and uncoupling the drive unit to/from the chassis were demonstrated and then performed by the user themselves and/or an assistant.	
Use of the parking brake and the service brakes was demonstrated and then performed by the user themselves and/or an assistant.	
The operation and function of the gearshift has been demonstrated and then performed by the user themselves and/or an assistant.	
Adjustment of the backrest, the seating system and the neck rest was demonstrated and then performed by the user themselves and/or an assistant.	
Removal and installation of the collision guard – if fitted – was demonstrated and then performed by the user themselves and/or an assistant.	
Removal and installation of the running wheels was demonstrated and then performed by the user themselves and/or their assistant.	
The operation and function of the bell was demonstrated and then performed by the user themselves and/or an assistant.	
The operation of the lights – if fitted – has been demonstrated and then performed by the user themselves and/or an assistant.	
Test drive: Forward and - if necessary - backwards travel	
Test drive: Driving on level ground and uphill and downhill in the direction of travel	
Test drive: Emergency stop from maximum speed	
Information for care, cleaning and maintenance of the product has been provided and understood by the user and/or an assistant.	
Information on the wheels with regard to inflation pressure and tread depth and checking the quick release axles have been provided and understood by the user and/or assistant.	
Information on regular checks of the brakes has been provided and understood by the user and/or an assistant.	
Information on checking the gears including cables and lines and the maintenance of the chain has been provided and understood by the user and/or an assistant.	
The content of the usage instructions from PRO ACTIV and the other component manufacturers (if available) were completely worked through based on the product training and were understood by the user and/or the assistant.	

The use of the product is only permitted when all topics listed in "Required compliance criteria for those permitted to use" have been met by the user and all the points have been ticked off in the "Check list for training the user".



### 35 Appendix: Inspection lists

First name and last name of contact:

Initial inspection: After 200 km or 5 months			
Serial number: SN	OK/ carried out	not OK	resolved
Check that all screws/fastening elements are firmly seated			
Functional and safety check of all lights (if fitted), steering and adaptation of the drive unit to the chassis			
Functional and safety check of the brakes and, where necessary, replacement of the brake fluid, brake pads, brake cables and tyres on the product.			
Check, adjust / set, clean and oil the gear components			
Check the wheel track of the running wheels and that the drive wheel bearings are firmly seated (tightening torque 70 Nm)			
Check the spoke tension of the drive wheel and, if required, correct the tension/re-centre			
OK / carried out = OK   not OK = not OK   resolved = the fault was corrected			
Comments:			
Rehabilitation specialist dealer: Stamp:			

To maintain the warranty rights, the completed inspection list must be sent by e-mail or post to PRO ACTIV within four weeks of the inspection.

Date/signature



Serial number: SN		OK / carried out	not OK	resolved
Check that all screws/fastening elements are firmly seate necessary (particularly the following: M8x35 oval head so handle rotation axes on the cranks)	The state of the s			
Clean and oil/grease all pivot points and bearings				
Carry out a visual inspection of the frame and attachments for crack formations, deformations, etc.				
Carry out a functional and safety check of the brakes and sary, replace the brake fluid, brake pads, brake cables	, where neces-			
Check, adjust, clean, and oil the gear components including gearshift (if fitted)	ng bottom bracket			
Check the spoke tension of the drive wheel and, if require tension/re-centre	ed, correct the			
Functional and safety check of the running wheels and dr necessary, replacement of the tyres on the product	ive wheel, where			
Check the wheel track of the running wheels and that the ings are firmly seated (tightening torque 70 Nm)	drive wheel bear-			
Functional and safety check of the back and seating system including neck rest (if fitted)				
Functional and safety check of the leg rest				
Functional and safety check of all lights (if fitted), steering and adaptation of the drive unit to the chassis				
Test drive/functional test				
OK / carried out = OK   not OK = not OK   resolved = the fault w	as corrected			
Comments:				
Rehabilitation specialist dealer:	Stamp:			
First name and last name of contact:				
	Date/signature			



Serial number: SN		OK / carried out	not OK	resolved
Check that all screws/fastening elements are firmly seated ar necessary (particularly the following: M8x35 oval head screw handle rotation axes on the cranks)				
Clean and oil/grease all pivot points and bearings				
Carry out a visual inspection of the frame and attachments fo mations, deformations, etc.	or crack for-			
Carry out a functional and safety check of the brakes and, what sary, replace the brake fluid, brake pads, brake cables	here neces-			
Check, adjust, clean, and oil the gear components including to gearshift (if fitted)	bottom bracket			
Check the spoke tension of the drive wheel and, if required, of tension/re-centre	correct the			
Functional and safety check of the running wheels and drive necessary, replacement of the tyres on the product	wheel, where			
Check the wheel track of the running wheels and that the drive wheel bearings are firmly seated (tightening torque 70 Nm)				
Functional and safety check of the back and seating system including neck rest (if fitted)				
Functional and safety check of the leg rest				
Functional and safety check of all lights (if fitted), steering and the drive unit to the chassis	d adaptation of			
Test drive/functional test				
OK / carried out = OK   not OK = not OK   resolved = the fault was c	corrected			
Comments:				
Rehabilitation specialist dealer:  St  First name and last name of contact:	tamp:			
	ate/signature			



Serial number: SN		OK / carried out	not OK	resolved
Check that all screws/fastening elements are firmly seated a necessary (particularly the following: M8x35 oval head screw handle rotation axes on the cranks)				
Clean and oil/grease all pivot points and bearings				
Carry out a visual inspection of the frame and attachments for crack formations, deformations, etc.				
Carry out a functional and safety check of the brakes and, we sary, replace the brake fluid, brake pads, brake cables	here neces-			
Check, adjust, clean, and oil the gear components including gearshift (if fitted)	bottom bracket			
Check the spoke tension of the drive wheel and, if required, tension/re-centre	correct the			
Functional and safety check of the running wheels and drive necessary, replacement of the tyres on the product	wheel, where			
Check the wheel track of the running wheels and that the drive wheel bearings are firmly seated (tightening torque 70 Nm)				
Functional and safety check of the back and seating system including neck rest (if fitted)				
Functional and safety check of the leg rest				
Functional and safety check of all lights (if fitted), steering and the drive unit to the chassis	d adaptation of			
Test drive/functional test				
OK / carried out = OK   not OK = not OK   resolved = the fault was	corrected			
Comments:				
Rehabilitation specialist dealer:	tamp:			
First name and last name of contact:	ate/signature			



Serial number: SN		OK / carried out	not OK	resolved
Check that all screws/fastening elements are firmly seate necessary (particularly the following: M8x35 oval head so handle rotation axes on the cranks)	·			
Clean and oil/grease all pivot points and bearings				
Carry out a visual inspection of the frame and attachment mations, deformations, etc.	ts for crack for-			
Carry out a functional and safety check of the brakes and sary, replace the brake fluid, brake pads, brake cables	, where neces-			
Check, adjust, clean, and oil the gear components includi gearshift (if fitted)	ing bottom bracket			
Check the spoke tension of the drive wheel and, if require tension/re-centre	ed, correct the			
Functional and safety check of the running wheels and dr necessary, replacement of the tyres on the product	ive wheel, where			
Check the wheel track of the running wheels and that the ings are firmly seated (tightening torque 70 Nm)	drive wheel bear-			
Functional and safety check of the back and seating system including neck rest (if fitted)				
Functional and safety check of the leg rest				
Functional and safety check of all lights (if fitted), steering the drive unit to the chassis	g and adaptation of			
Test drive/functional test				
OK / carried out = OK   not OK = not OK   resolved = the fault w	as corrected			
Comments:				
Rehabilitation specialist dealer:	Stamp:			
First name and last name of contact:	Date/signature			



Serial number: SN		OK / carried out	not OK	resolved
Check that all screws/fastening elements are firmly seated an necessary (particularly the following: M8x35 oval head screws handle rotation axes on the cranks)				
Clean and oil/grease all pivot points and bearings				
Carry out a visual inspection of the frame and attachments fo mations, deformations, etc.	r crack for-			
Carry out a functional and safety check of the brakes and, who sary, replace the brake fluid, brake pads, brake cables	ere neces-			
Check, adjust, clean, and oil the gear components including be gearshift (if fitted)	oottom bracket			
Check the spoke tension of the drive wheel and, if required, of tension/re-centre	correct the			
Functional and safety check of the running wheels and drive necessary, replacement of the tyres on the product	wheel, where			
Check the wheel track of the running wheels and that the drivings are firmly seated (tightening torque 70 Nm)	re wheel bear-			
Functional and safety check of the back and seating system including neck rest (if fitted)				
Functional and safety check of the leg rest				
Functional and safety check of all lights (if fitted), steering and the drive unit to the chassis	d adaptation of			
Test drive/functional test				
OK / carried out = OK   not OK = not OK   resolved = the fault was c	orrected			
Comments:				
Rehabilitation specialist dealer:  St  First name and last name of contact:	amp:			
	ate/signature			



Serial number: SN	OK / carrie out		resolved
Check that all screws/fastening elements are firmly seated and represent the necessary (particularly the following: M8x35 oval head screws (for handle rotation axes on the cranks)			
Clean and oil/grease all pivot points and bearings			
Carry out a visual inspection of the frame and attachments for cramations, deformations, etc.	k for-		
Carry out a functional and safety check of the brakes and, where r sary, replace the brake fluid, brake pads, brake cables	eces-		
Check, adjust, clean, and oil the gear components including botton gearshift (if fitted)	n bracket		
Check the spoke tension of the drive wheel and, if required, correct tension/re-centre	t the		
Functional and safety check of the running wheels and drive wheel necessary, replacement of the tyres on the product	l, where		
Check the wheel track of the running wheels and that the drive whings are firmly seated (tightening torque 70 Nm)	eel bear-		
Functional and safety check of the back and seating system including neck rest (if fitted)			
Functional and safety check of the leg rest			
Functional and safety check of all lights (if fitted), steering and ada the drive unit to the chassis	ptation of		
Test drive/functional test			
OK / carried out = OK   not OK = not OK   resolved = the fault was correct	ed	·	
Comments:			
Rehabilitation specialist dealer: Stamp			
First name and last name of contact:  Date/si	gnature		



Serial number: SN		OK / carried out	not OK	resolved
Check that all screws/fastening elements are firmly seate necessary (particularly the following: M8x35 oval head so handle rotation axes on the cranks)	The state of the s			
Clean and oil/grease all pivot points and bearings				
Carry out a visual inspection of the frame and attachments for crack formations, deformations, etc.				
Carry out a functional and safety check of the brakes and sary, replace the brake fluid, brake pads, brake cables	, where neces-			
Check, adjust, clean, and oil the gear components including gearshift (if fitted)	ng bottom bracket			
Check the spoke tension of the drive wheel and, if require tension/re-centre	ed, correct the			
Functional and safety check of the running wheels and dr necessary, replacement of the tyres on the product	ive wheel, where			
Check the wheel track of the running wheels and that the ings are firmly seated (tightening torque 70 Nm)	drive wheel bear-			
Functional and safety check of the back and seating system including neck rest (if fitted)				
Functional and safety check of the leg rest				
Functional and safety check of all lights (if fitted), steering and adaptation of the drive unit to the chassis				
Test drive/functional test				
OK / carried out = OK   not OK = not OK   resolved = the fault w	as corrected			
Comments:				
Rehabilitation specialist dealer:	Stamp:			
First name and last name of contact:				
	Date/signature			

Your rehabilitation specialist dealer:





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