

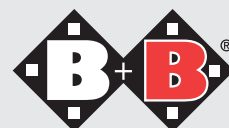
Bischoff & Bischoff

Instructions manual

Terra / Terra SX



Enjoy mobility.



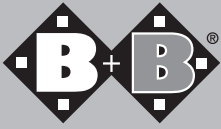
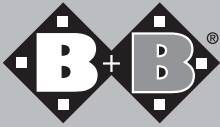


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1. Preliminary remark

Dear user:

You have chosen a top quality electric wheelchair from Bischoff & Bischoff. We thank you for your trust in us.

The electric wheelchair has been designed so that it offers you many advantages and meets your requirements. The wheelchair can be adapted to your individual body dimensions due to manifold setting possibilities and optimum adaptability with regard to the lower leg length, seat and back angles and due to the operating element that can be placed either on the right-hand side or on the left-hand side.

The electric wheelchair is suitable for use both indoors and outdoors.

Before operating your new electric wheelchair for the very first time, please read this manual carefully. This manual is a permanent and necessary part of the wheelchair. Please keep the instruction manual within reach and place it at the new user's disposal, if the wheelchair is transferred to another user.

Repair work and adjustments require specific technical training and, therefore, may only be carried out by specialist retailers authorised by Bischoff & Bischoff.

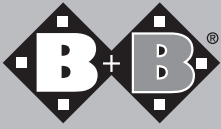
1.1 Signs and symbols



Caution! Indicates information that is particularly relevant to safety. Follow the instructions for use.



Important! Indicates information that is particularly useful in the respective context.



2. Important safety information

2.1 General safety information

In order to avoid toppling and dangerous situations, you should practice safe handling of your new wheelchair on a flat and familiar surface. In such case, an assistant is recommended.

Prior to using the wheelchair, please check whether all parts attached have been fastened properly.

The first attempts at moving the wheelchair should take place on a level and manageable surface. Familiarise yourself intensively with the braking and accelerating behaviour of the wheelchair when moving straight ahead and turning corners.

Please note that redistribution of weight due to body movements or loading the wheelchair can increase the risk of tipping over to the side or backwards.

The wheelchair may not be misused for transporting several persons or loads. Observe the specific function of the wheelchair.

When adjusting or readjusting the wheelchair beware of getting trapped with parts of your body.

Never use your wheelchair while under the influence of alcohol or other substances that may influence your ability to react or your physical and mental receptiveness.

By all means, use ramps to avoid obstacles. Should it be necessary to lift the wheelchair to overcome an obstacle, lift it without occupants only. To lift the wheelchair, only take hold of firmly attached frame parts.

Avoid wheeling against obstacles (steps, kerbs) at full speed.

Observe the anti-tilt features for stepped land, lifting plates and ramps. Make sure there is sufficient space upwards, downwards and to the sides.

The control system must always be switched off when getting in and out.

Observe the road traffic regulations when on the road.

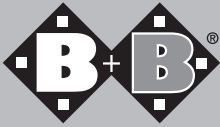
The lighting on the wheelchair must at all times be visible to other road users.

If possible, wear bright, noticeable clothes. You will then be seen better by other traffic participants.

Please note that padded parts can become hot in direct sunlight and lead to skin injury on contact. Therefore, cover these parts or protect the wheelchair from direct sunlight.



Please observe the enhanced danger of getting jammed when using the electric seat adjustment for the user, occupant and third parties.



2.2 Advice on EMC disturbances

Despite compliance with all the applicable EMC regulations and standards, it is possible that the electric wheelchair may be disrupted by other electrical devices (e.g. mobile phones, alarm systems in department stores) or that it may interrupt such devices. If you observe such behaviour, switch off either the external device or your electric wheelchair and move the wheelchair out of reach of the disturbance.

2.3 Braking

Braking until the wheelchair comes to a stop is effected by the automatic brake after having released the joystick.

No locking brake is available in pushing mode when the driving mechanisms are disconnected. To lock the wheelchair into place, you must connect the driving mechanisms again, but bring the wheelchair to a stop before performing such reconnection. In case of an emergency, reconnection is also possible while rolling, e.g. on sloping surfaces.

2.4 Safety in vehicles

Please note that the wheelchair may not be used as a seating accommodation in any vehicle. The user must transfer from the wheelchair to a vehicle seat.

The wheelchair must be secured against slipping by means of belt straps.

2.5 Participation in traffic

The wheelchair is designed for both indoor and outdoor use.

Please observe that you participate in public traffic and must comply with road traffic regulations.

Do not endanger other participants through careless driving, particularly on footpaths.

2.6 Purpose

The Terra electric wheelchair is designed for both indoor and outdoor use for people with impaired mobility.

Thus, it is sufficiently compact and manoeuvrable for indoor use and also capable of covering medium-sized distances and overcoming small obstacles outdoors. It is classified as category B in accordance with DIN EN 12184.

The maximum load is 120kg.

2.7 Indications

Inability to walk or severe walking disability as a result of

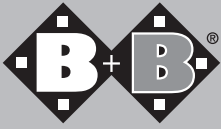
- paralysis,
- loss of limbs,
- meromelia/limb deformation,
- joint contractures,
- damage to joints (not on both arms),
- other ailments.

Use of an electric wheelchair is indicated, when the use of hand-operated wheelchairs is no longer possible due to the disability, but proper operation of an electric motor driven wheelchair is still possible.

2.8 Contraindications

The use of electric wheelchairs is not suited for persons

- with severe disturbances of equilibrium,
- with reduced or insufficient eyesight,
- with severe restrictions of the cognitive ability.



2.9 Declaration of conformity

As the manufacturer with sole responsibility, Bischoff & Bischoff declares that the Terra electric wheelchair conforms to the specifications of directive 93/42/EEC.

3. Product and delivery overview

3.1 Inspection of delivery

All B&B products are subjected to a proper final in-house inspection and provided with the CE mark.

The wheelchair is delivered in a special cardboard box. Please keep the cardboard box, if possible, after having unpacked the wheelchair. It may serve for storing the wheelchair at a later time or returning the product.

Generally, the wheelchair is delivered and induction training provided by qualified medical supplies shops.

If delivered by rail or a forwarding agent, the product is to be checked with regard to transportation damage (cardboard box) at once in the presence of the shipper. If damaged, please contact our customer service immediately (phone: +49 700/6000 7070).

Please check the content with regard to completeness and sound condition. In case of irregularities or damage, please contact our customer service (phone: +49 700/6000 7070).

3.2 Scope of delivery

Upon receipt, immediately check the content for completeness.

The content consists of:

- a covering box,
- an electric wheelchair (ready for use incl. 2 batteries),
- a charger,
- a tool kit,
- instructions for use.

3.3 Overview

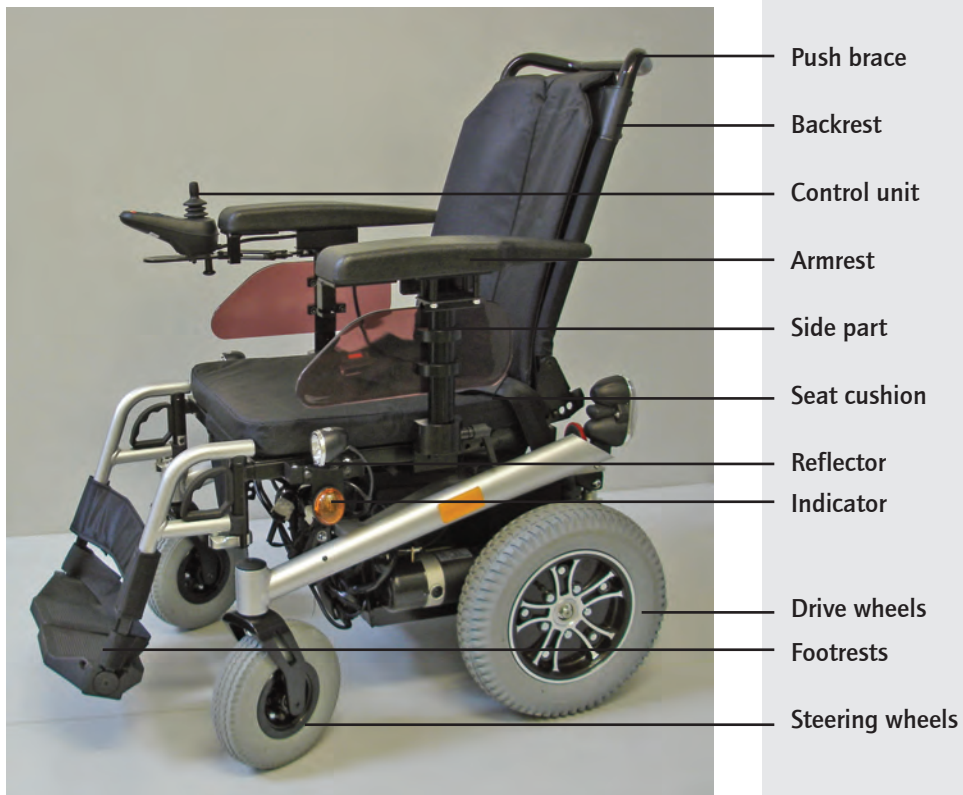


Fig. 1
Terra

3.4 Initial settings

Prior to using the wheelchair for the very first time, it must be adapted to your size. Only that way longer effortless rides in a physiologically correct position are possible.

In the following, the initial settings of the wheelchair are described. Those settings should be made in cooperation with a medical supplies shop.

3.4.1 Legrests

Lower leg length

- The lower leg length can be adjusted in the range of 47 to 55cm.
- For this, loosen the two hexagon socket screws.
- Adjust to the desired height.
- Tighten the screws again. Use Loctite medium strength for fixation.



Make sure that two screws are always used for secure fastening.

Foot plate angle

- The angle of the foot plate is adjustable in increments of 25°.
- Loosen the screw connection on the side of the foot plate.
- Adjust the foot plate to the desired angle.
- Tighten the screw again. Use Loctite medium strength for fixation.



Make sure that adjustments are only carried out within the marked area.



Fig. 2

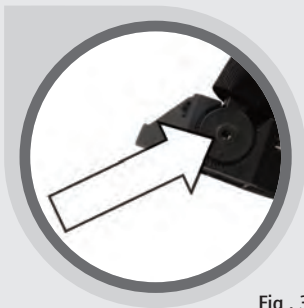


Fig. 3

3.4.2 Seat

Seat depth

- The seat depth is initially set to 45cm.
- You may reduce the seat depth to 40cm. Subsequently, you should use an adjusted new seat cushion.
- To adjust the seat depth, loosen the fasteners of the backrest, move the backrest forward and tighten the screws again.

Seat angle

- The initial setting of the seat angle is 1° backward.
- The seat angle can be set from -2° to +10° in steps of 3°.
- Release the front seat fastener.
- Take out the screws and adjust the seat to the desired angle.
- Place the screws into the nearest hole, then tighten them again.



Make sure that new locknuts are always used for secure fastening.



Fig . 4



Fig . 5

3.4.3 Backrest

The angle of the backrest of your electric wheelchair can be adjusted extremely easily and without great effort. In addition, you have the possibility to completely fold the backrest forwards.

- The backrest angle can be set from 90° to 120° in steps of 10°.
- Pull the linkage behind the back. Hold the backrest steady with the other hand at the same time.
- After releasing the linkage, the pins locate in the holes.

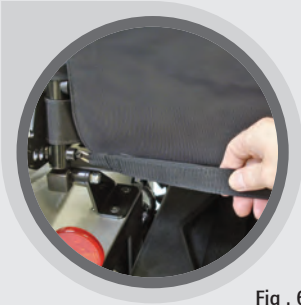


Fig . 6



Make sure that both pins, on the right and left-hand side, are completely in place.

3.4.4 Armrests

The armrests can be completely removed to get in and out from the side. In addition, the armrests can be adjusted in height. The armrests are moved sideways (see side parts) by adjusting the side parts.

Removing the armrests

- To remove the armrest, loosen the lever screw and remove the armrest in upward direction.
- When installing the armrest make sure that it is inserted as far as it will go and fixed again.



Fig . 7

Adjusting the height

- First, remove the armrest from its mount.
- Remove the check screw and screw it into the desired position of the armrest.
- The lowest borehole corresponds to the max. height adjustment of the armrest.



Fig . 8

3.4.5 Side parts

You can move the side parts sideways.

- Loosen the fastening screw underneath the seat and move the side part into the desired position.
- Tighten the screw again.



Make sure that the screw goes completely into the hole.

3.4.6 Control unit

The control unit can be mounted either on the right or left-hand side underneath the armrest in each case. In addition, the distance can be adapted to the lower arm length.

- Unscrew the toggle screw below the armrest and adjust to the required length.
- Tighten the toggle screw again.

3.4.7 Seat belt

The seat belt is secured on the side of the backrest.

- Adjust the belt length to match your requirements by positioning the buckle accordingly.
- Close the belt with the belt buckle.
- Open the belt by pressing the red button on the lock.



Fig . 9



Fig . 10

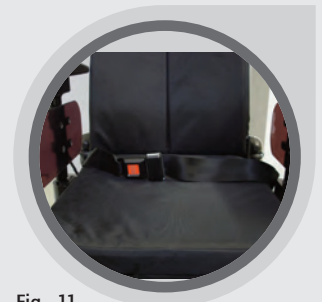


Fig . 11

4. Using the wheelchair

Having adapted the wheelchair to your personal needs, make yourself familiar with the functions of the control unit.

4.1 Function description of control system

The Terra model with lighting system is equipped with the VR2 joystick control with light.

The Terra SX model version without lighting system is equipped with the VR2 joystick control without light, and is only supplied for export (outside of Germany).

Both joystick controls are described below.

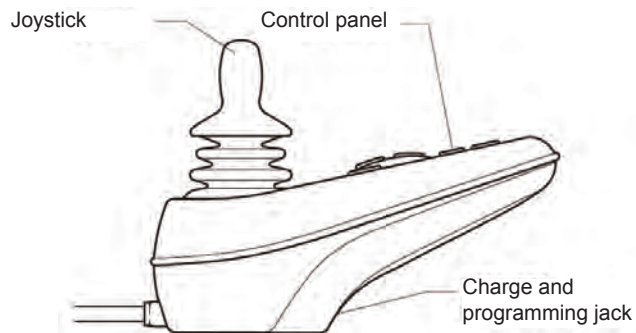


Fig . 13

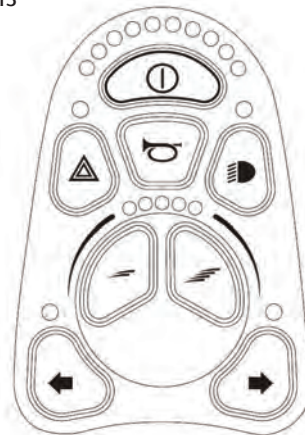


Fig. 14 (with lighting)

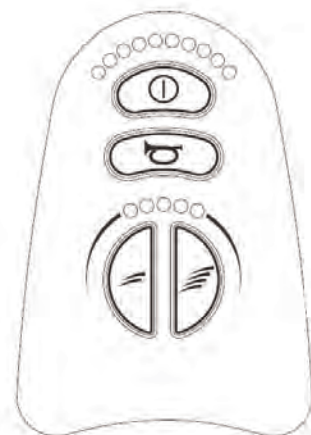


Fig. 15 (without lighting)

Battery status display

The charge condition can be seen in the battery status display. If the display is in the green range, sufficient charge is available. If the display is in the red range, only short rides are possible and the battery should be recharged. (See chapter "Charging process").

ON/OFF button

When the ON/OFF button is pressed, the wheelchair is switched into driving mode.

Driving stage display

The driving stage display indicates the pre-selected driving stage. Settings of 1 to 5 illuminated LEDs are possible. The driving stages indirectly indicate the maximum speed available when moving the joystick, i.e. driving stage 5 indicates maximum speed, while stage 1 indicates the lowest speed.

Driving stage setting

This setting is used to increase (right) or reduce (left) the driving stage, i.e. the maximum speed. The speed is controlled by operating the joystick.

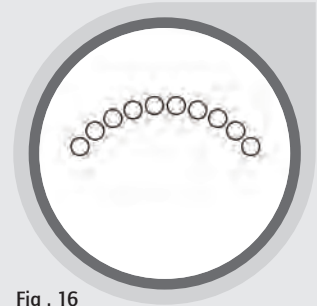


Fig . 16

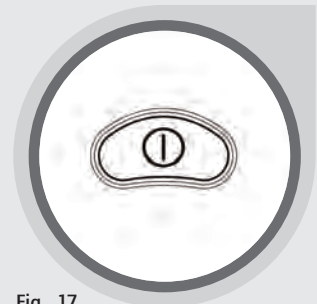


Fig . 17

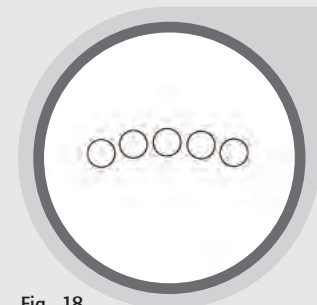


Fig . 18

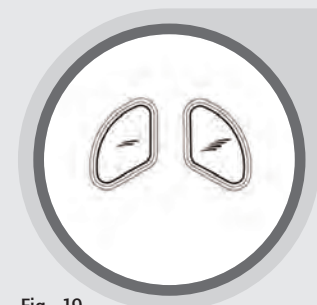


Fig . 19

Lighting – only for terra

Driving light

Use this button to switch on the lights on your wheelchair after dusk or when passing through dark routes such as a tunnel. You will then be seen better by other traffic participants.



Fig . 20

Hazard warning lights

Use this button to switch on the hazard warning lights in an emergency when the wheelchair is unfit to drive. All four indicators will then blink and signal other traffic participants that your wheelchair is unfit to drive.



Fig . 21

Indicators (left/right)

Use this button to activate the left or right-hand indicator of your wheelchair in order to signal other traffic participants that you wish to change the travel direction to the left/right. By pressing the button again, you will deactivate the indicator.

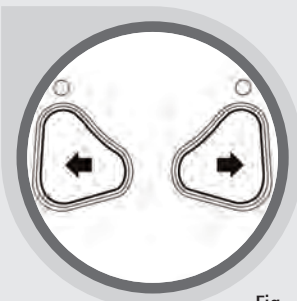
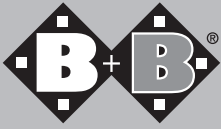


Fig . 22

Immobiliser

To protect your wheelchair against unauthorised use or theft, park the wheelchair in a locked room or activate the immobiliser.

- Press and hold the ON/OFF button until it beeps and then release it.
- Push the joystick in the direction of travel, in the opposite direction to travel and then into the neutral position. A beep sounds each time. Now the control unit is locked.
- Use the ON/OFF button to switch the control unit back on.
- Push the joystick in the direction of travel, in the opposite direction to travel and then into the neutral position. A beep sounds each time. Now the control unit is released.



4.2. Getting in and out

Getting in and out from the side

- Place the wheelchair and the current or future seating surface as close beside one another as possible.
- Should you wish to transfer from another wheelchair or indoor frame, ensure that this is secured by applying the locking brakes.
- Secure the Terra wheelchair against accidental rolling away by switching off the control unit by pressing the ON/OFF pushbutton (all items on the display disappear).
- Remove the armrest/side part.
- Fold the foot plates sideways or remove the legrests.
- Now slide sideways onto the other seating surface.
- Make sure you are sitting in the seat as far back as possible.
- Place the arm and legrests back into their original positions.

Getting in and out from the front

- Fold the foot plates upwards or remove the legrests.
- Place the Terra wheelchair and the current or future seating surface as close to the front of one another as possible.
- Should you wish to transfer from another wheelchair or indoor frame, ensure that this is secured by applying the locking brakes.
- Now slide onto the seating surface by twisting your body.
- Finally, place the legrests back into the original position.

4.3. Moving ahead with the wheelchair

Commissioning

Sit in the B&B wheelchair and place your legs on the footrests.

Make sure you are sitting as far back in the seat as possible. Ensure that no loose clothing, such as scarves, shirts and similar, hang down the sides of the wheelchair and risk being caught.

Make sure you are sitting comfortable and safe. When the ON/OFF button is pressed, the Terra wheelchair is switched into driving mode.

Now all the electric driving functions are available.

Driving functions

Your specialist retailer can individually adapt the values for speed, acceleration and deceleration to suit your needs, observing the statutory regulations.

Choose a lower driving stage to start with and increase this while moving ahead, if required.

Use the joystick to start driving. The joystick is used to increase the speed and change direction. If the joystick is in the centre position, the wheelchair is slowed down mechanically and secured against rolling away.

Driving straight ahead: To drive straight ahead, carefully push the joystick forward. The further forward you push the joystick, the faster the wheelchair becomes. When you let go of the joystick, the wheelchair automatically decelerates.

Driving backwards: To drive backwards, carefully push the joystick backward. The further backward you push the joystick, the faster the wheelchair becomes. When you let go of the joystick, the wheelchair automatically decelerates.

Turning corners: To change the driving direction, tilt the joystick to the left or right. This can also be done when the joystick is tilted to forwards or backwards, so while driving backwards or forwards.

4.4 Legrests

In order to facilitate getting in and out as easy as possible, you can fold the foot plates upwards or pivot the legrests towards the exterior or remove them in upward direction, respectively.

- To pivot the legrest to the exterior, open the locking device. (Fig. 23)



Fig . 23

- The legrest can be taken off completely in the "exterior position". (Fig. 24)
- To mount the legrest proceed in reverse order.
- Swing the legrest forward again until it clicks into place audibly.

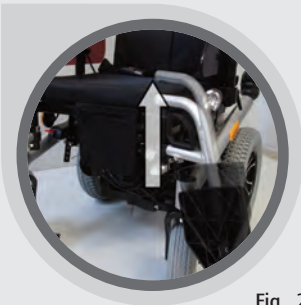


Fig . 24

4.5 Pushing mode

If you would like to push the wheelchair in certain situations, you must unlock the brakes. In freewheel mode, the wheelchair is easy to push.



Caution! As a result, the electromechanical brake is put out of operation.

- Pull the release lever in upward direction.
- A slight jerk tells you that the drive mechanisms are now unlocked.
- To engage simply pull the button upwards, it will click into place automatically.



For safety reasons, the motor drive is blocked in the pushing mode.

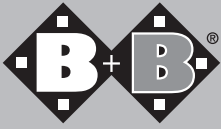


Caution! Danger of life!

The drive mechanisms may only be disconnected on an even surface.



Fig . 25



5. Technical data

Measurements and weights

Max. load (kg):	120
Seat width (cm):	41 - 50
Seat height (cm):	54
Seat depth (cm):	40 to 45
Seat angle (°):	-2 to +10
Backrest height (cm):	55
Backrest angle (°):	90, 100, 110, 120
Total length (cm):	106 incl. footrests
Total width (cm):	60.5
Empty weight (kg):	88.3 incl. batteries

Tyres

Drive wheels (mm):	3.00-8 (PU)
Steering wheels (mm):	2.80/2.50-4 (PU)

Electrics

Main fuse (A):	50
Battery:	2 x 12V/50Ah
Charger:	24VDC/4A (HP8204B)
Motor:	2x450W
Controller:	PG Drives VR2 with light (Terra) PG Drives VR2 without light (Terra SX)
Light and indicators:	conforms to the German Road Traffic Licensing Regulations (only Terra)

Driving characteristics

Speed (km/h):	6
Climbing capability (°):	12
Height of obstacles (mm):	50 (driving downhill)
Height of obstacles (mm):	50 (driving forwards)
Range (km)	32
Turning radius (cm):	120

Equipment

Framework:	powder-coated steel frame
Brake:	automatic braking system conforms to the German Road Traffic Licensing Regulations

Operating forces

Joystick:	approx. 1N
Pushbuttons on the control panel:	approx. 1N
Disconnecting the drive mechanisms:	> 60N

6. Advice on product care

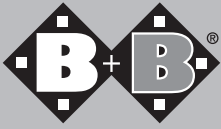
6.1 Cleaning and disinfection

Make sure your wheelchair is switched off before starting to clean it.

- The frame parts and coverings of the wheelchair can be wiped using a damp cloth. In case of heavy soiling, use a mild cleaning agent.
- To clean the wheels use a damp brush with plastic bristles (do not use a steel brush!).
- Use a damp cloth to remove dust and minor soiling off your seat, backrest and armrests. Do not use any aggressive cleaning agents, as they may affect the surface of the cloth. Cushions can be wiped with 40°C warm water and disinfected with a commercial disinfectant.
- Make sure that electric or electronic components do not come into contact with water!



Caution! Do not use a high-pressure or vapour cleaning device.



6.2. Check prior to use

6.2.1 Checking the brakes

Prior to each use, please check the operational reliability of the brakes.

Start up carefully and subsequently release the joystick. The wheelchair must come to a stop as usual.

While stationary, the mechanical brake must click into place audibly. Should you notice any unfamiliar braking behaviour, immediately inform your specialist retailer and do not use the wheelchair any longer.

The motor brake works correctly, when you cannot push the wheelchair if switched off.

However, if it is nevertheless possible, the electromechanical brake is defective. In such case, you may no longer use the wheelchair. Please contact your specialist retailer at once.

6.2.2 Checking the lighting system, indicators and horn

Prior to each use, please check the operational reliability of the lighting system, indicators and horn.

If, having operated the corresponding pushbutton, you do not notice any reaction of the unit just being checked, immediately inform your specialist retailer and do not use the wheelchair any longer.

6.2.3 Checking the tyres

Prior to each use, please check the sound condition of the tyres.

Regularly check the profile depth of the tyres once a month. The profile depth should measure at least 1 mm.

Defective or worn tyres must be replaced by a specialist retailer.

6.3 Batteries

Your wheelchair is equipped with maintenance-free batteries, with no fluid level checks being necessary. The batteries are also electronically protected against total discharge during use.

If the wheelchair is not used for a longer period of time, the batteries must be recharged every two months, otherwise, the batteries may be damaged by total discharge.

Prior to each use, check the charge status of the batteries by looking at the battery status display of your control unit. If only the red LEDs of the battery status display are illuminated, you should no longer take any long rides and connect the charger to the wheelchair at once.

We recommend to connect the charger to the wheelchair after each use.

6.3.1 Charging process

Initial operation:

To achieve max. charging capacity of the batteries, proceed as follows:

- Run down the factory-charged batteries up to 2 bars of the LED display.
- Then charge the batteries as described further below (approx. 16 hrs.).
- Run down the batteries up to 2 bars of the LED display again.
- Subsequently, the batteries will be charged as described.

Only use approved chargers (type as specified by the technical data or supplied by a specialist B&B retailer) to charge the batteries. Also observe the instructions for use of the charger.

- Prior to switching on the charger, please check whether the power supply is 230V.
- Switch off the wheelchair first.
- Connect the charger to the wheelchair. The charge jack is on the side underneath the control unit.
- Plug the mains plug of the charger into the mains socket (230V) and switch on the charger.
- The charge indicator of the charger shows the status of the charging process (Fig. 27).

- Red - charger is switched on
- Yellow - charging is in process
- Green - charging process completed (batteries charged)

- Pull the plug after the charging process is completed and disconnect the charger from the wheelchair.

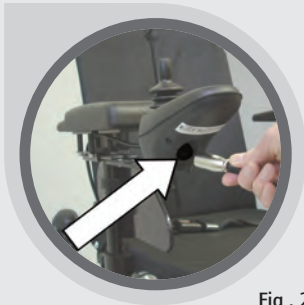


Fig . 26



Fig . 27

6.3.2 Exchanging the batteries

When work is performed on the batteries be extremely careful, avoid dealing with metallic tools, touching the battery terminals and observe the instructions given by the battery manufacturer.



Caution! This work should only be carried out by a specialist. Danger of life!

Only use batteries that are approved for your wheelchair (see section Technical Data).

Make sure your wheelchair is switched off before starting to exchange the batteries.

- First, remove the retaining strap for the battery cover.
- Loosen the screws of the battery compartment.
- Now you can pull out the battery compartment as far as it will go.
- Disconnect the battery cables. First the red one, then the black one. Make sure to use isolated tools and do not touch parts of the frame when disconnecting the cables.
- Carefully lift out the batteries using the handholds.
- Lift the new batteries into the designated space and connect the contacts. Observe the correct colour coding (red and black).
- Push the battery compartment back into the original position, mount the slide-in module and fasten the battery cover by means of the Velcro strap.



If the service life of the batteries has expired, i.e. sufficient charging no longer occurs, the batteries may not be disposed of with household waste. Old batteries will be taken back by a specialist retailer when buying new batteries who will then dispose of them properly.

7. Service notes for specialist retailers

We recommend having your whole wheelchair inspected by a specialist retailer once a year.

In case of faults and defects on your wheelchair, return it to your specialist retailer immediately for repair.

On request, B&B will provide specialist retailers with required information, documents and wiring diagrams for repair and service. A training programme for specialist retailers is available.

In case of queries, please contact the B&B Customer Service at phone No. +49 700/6000 7070.

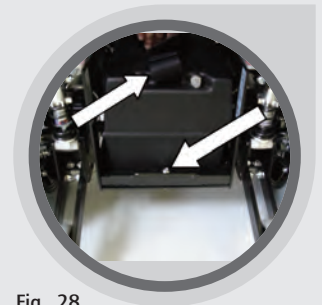


Fig . 28



Fig . 29

8. Disposal

If your wheelchair is not used any more and is to be disposed of, please contact your specialist retailer.



If you wish to dispose of the wheelchair yourself, please enquire at your local disposal companies about the applicable local regulations.

9. Transferring the wheelchair

When the wheelchair is transferred to another person, ensure that all technical documentation necessary for its safe use and the address of your specialist retailer are given to the new user.



The wheelchair must be checked in accordance with the servicing schedule and be in perfect working order.

10. Servicing

A servicing schedule can be made available to you by our customer service upon request.

11. Warranty

This warranty covers all defects in the wheelchair that are shown to be caused by material or production defects.

In the case of complaints, please return the product together with the warranty certificate completely filled in.



Caution! Non-observance of the instruction manual as well as servicing not carried out properly and in particular technical modifications and additions (fittings) without approval of Bischoff & Bischoff result in expiration of both the warranty and the product liability in general.

We assume a warranty of 5 years on frame parts for our wheelchair, whereas we assume a warranty of 2 years on all other mounting parts.

Warranty certificate

(Please note our general business terms and conditions)

Model: Terra/Terra SX

Serial number:*

(to be filled in by the specialist retailer)

Specialist retailer:

Date and stamp

*Indicator plates can be found on the side frame

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