HANDBOOK

MTB

English

Content

Dear Customer

We would like to thank you for your choice of a bike from our Company and thank you for your trust.

With this purchase you have a high-quality, environmentally friendly means of travel which will give you a lot of pleasure and at the same time promote your health.

Your cycle dealer is also very important to you for advice and final assembly. He is your point of contact for servicing, inspections, modifications and all types of repairs. Should you have any questions regarding our product please contact your cycle dealer. About this Owner's Manual

1 About this owner's manual

1.1 Owner's Manual

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Failure to observe the instructions contained in this Owner's Manual may result in dangerous riding situations, falls, accidents and material damage

- *Read through these instructions carefully before using your bicycle for the first time.*
- *All the bicycle parts are illustrated in the diagrams.*
- *Keep this Owner's Manual and pass it on with the bicycle if you ever sell it or give it as a present.*
- *It is your responsibility to check your bicycle and to have any necessary work done to it.*
- *If you do not understand many of the sections of this Owner's Manual consult your cycle dealer.*

1.1.1 Scope of Application

This Owner's Manual applies to:

Please take information specific to your bicycle from the Owner's Manual for your bicycle model.

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

- *This Owner's Manual is not suitable for learning to ride a bicycle.*
- *This Owner's Manual is not suitable for learning riding techniques.*

1.1.2 Accompanying documentation

- *Owner's Manual specific to your bicycle model.*
- *Parts Instructions*

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

- *Due to the large number of existing bicycle parts it is impossible to provide a totally exhaustive set of instructions valid for all.*
- *Please therefore always observe the accompanying parts instructions.*
- *Their instructions basically take precedence over any contrary instructions in the following text.*

1.2 Conventions

1.2.1 Symbol

!	**NOTE!** Draws your attention to items requiring your particular attention.
⚠	**WARNING!** Points out to you the possibility of slight personal injury and possible material damage.
⚠	**DANGER!** Points out to you the possibility of grave personal injury even leading to death.
♨	**RISK OF BURNS!** Temperature exceeds 45°C (temperature at which egg white sets) and can cause burns on humans.

1.2.2 Location indications

If this Owner's Manual states „right", „left", „front" or „back" this always means as seen when looking „in the direction of travel".

1.2.3 List of abbreviations

StVO	German Highway Code
StVZO	German Road Traffic Licensing Regulations
MTB	Mountain bike
HWK	Chamber of Trade

1.2.4 Definition of Terms

Specialist dealer/ specialist workshop	In Germany: In this Owner's Manual the term „specialist dealer" and/or „specialist workshop" indicates a dealer trained as a bicycle mechanic and/ or cycle mechanic authorised by the competent Chamber of Trade to operate a specialist workshop. Similarly the latter must be authorised by the manufacturer of this cycle to check and confirm correct assembly and roadworthiness of this cycle.
Correct tightening	The term „correct tightening indicates the state in which screw heads fit tight to the component over their entire surface.

Incorrect tightening	A loose screw can often be recognised by a projecting screw head.

Run-out	A radial lack of true on the rim is colloquially known as a „run-out".
Bar	conventional unit for air pressure
psi	pounds per square inch; American unit for pressure; 1 psi = 0.06897 bar
Nm	Newton meter; unit for torque

2 For your safety

2.1 Use your bicycle as intended

2.1.1 Who may use your bicycle?

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

The rider must be able to ride a bicycle, i.e. he must possess a basic knowledge of the use of a bicycle and have the necessary sense of balance required to control and steer a bicycle.

- The rider must have be of the correct physical size for this bicycle (please consult your dealer).
- The rider must be physically and mentally able to ride this bicycle on the public roads.

2.1.2 How may you ride your bicycle?

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Sit with your bottom on the saddle or ride out of the saddle, i.e. pedalling in a standing position.

- Hold the left handlebar grip with our left hand and the right hand handlebar grip with your right hand.
- Place your left foot on the left pedal and your right foot on the right pedal.
- Only use the bicycle as a pure means of travel.

2.1.3 Where may you ride your bicycle?

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

All bicycles by this manufacturer are classified into Categories. You will find your bicycle's Category in your Service Card. This is entered by your dealer on purchase (see also Chapter 4).

Roads and paths are classified as follows:

- Road: Asphalted
- Path: Sand, gravel or similar subsurface (e.g. forest pathway, field track)
- Prepared hiking trail: No or not many roots, sleepers, stones, ledges etc.
- Unprepared hiking trail: Roots, sleepers, stones, ledges etc.
- Bike park: Area specially designed for free riding, downhill, BMX and dirt bikes

Please note that all roads and paths may be damaged and/or have obstacles which may adversely affect your riding safety and damage your bicycle.

In such locations ride particularly slowly and carefully. Push or carry your bicycle over such subsurface if necessary.

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

From a technical standpoint the manufacturer approves use up to the following categories of roads and paths.

In the case of jumps and high speed there is basically a risk of falling. Only jump and ride at high speed when you have firmly mastered this riding technique.

- Touring: Paths, no jumps
- Cross-country: Paths, no jumps
- Marathon: Unprepared paths, no jumps
- All Mountain: Unprepared paths, jumps up to 0.5 metres in height
- EnduroUnprepared paths at high speed, jumps up to 1 m in height
- Freeride: Bike park
- Dirt bike/BMX: Bike park:
- Kids: Paths, no jumps
- Traveller: Paths, no jumps
- Countrylite: Paths, no jumps
- Speedlite: Road, exceptionally paths, if smooth firm subsurface, no jumps
- Road Racing: Paths, no jumps

Bikes of every category with racing wheel or tyres similar to racing wheel Roads, no jumps

Bikes in another Category may be fitted with a racing wheel or tyres similar to a racing wheel. This sort of tyre fit can be recognised by a maximum width of 28 mm, indicated for example by two numbers on the tyre such as 28-622 or 28-559.

Such bikes may only be used on asphalt roads.

Please consult your dealer.

2.1.4 In what condition must your bike be when you ride it?

Your new bike is an item of sports equipment and may not be used on public roads unless equipped to StVZO specification. In order to meet current StVZO requirements your bike must have the following equipment fit listed here in extract form.

!	Please take the full wording of the regulations for trips in Germany from the StVZO or consult your dealer. When using outside Germany please observe the traffic regulations prevailing in your country. For this please consult your dealer or the competent authority.

- Two independently operating brakes
- A bell
- Dynamo-powered lighting for front (white light) and rear (red light)

!	Racing bikes under 11 kg are exempt from the dynamo regulation. Racing bikes exempt from the dynamo regulation must carry battery-powered lighting in the daytime. For the duration of participating in races racing bikes are exempt from this regulation.

- White front reflector (often integrated into the front headlight) and a red reflector at the rear
- Two yellow reflectors each for the front and rear whhels; alternatively Tyres with reflective stripes on both sides
- Two yellow reflectors for both right and left pedals

!	All lighting components and reflectors must be officially approved. Approval can be recognised by a „K" marking, a wavy line and a multi-digit number. For regulation fitting of these parts please consult your dealer.

- Chainwheel guard

2.1.5 What you must not do

⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** Many cyclists like to modify their bikes and to custom them to their particular wishes. Saddles, handlebars, pedals, brakes, tyres and suspension elements -there are may possibilities for changing your bike subsequently. Working on bikes, including work which is assumed to be very simple, requires sound training, sound knowledge and a great deal of experience. Unprofessional work on your bike can lead to dangerous riding situations, falling, accidents and material damage. ■ Do not fit add-on parts to your bike which are not expressly approved for your model of bike. Excepted are bike computers and bottle holders if selected and fitted by the dealer. Please consult your dealer. ■ Have all fitting of parts, modifications, servicing and other work carried out only by your dealer.

2.2 Other hazards

2.2.1 Hazards caused by faulty final assembly

⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** Unprofessional final assembly of this bike can lead to dangerous riding situations, falling, accidents and material damage. Have correct final assembly and adjustment of the right seat position for you confirmed by your dealer. Use the printed form in this Owner's manual on.

2.2.2 Hazards caused by improper use

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Failure to observe the instructions contained in this Owner's Manual may result in dangerous riding situations, falls, accidents and material damage

- Use a helmet when riding.
- Ride anticipating situations and defensively.
- Do not ride under the influence of alcohol.
- Ride in such a way that you have your bike under control at all times so that you do not get into trouble if a dangerous situation arises suddenly.
- Always be aware that the effectiveness of brakes and dynamo can reduce in the wet.
- When riding a bike wear only suitable clothing which does not restrict operation of the bike and your vision.
- Only ride with tightly fitting leg clothing. Loosely fitting garments can catch on the bike and lead to heavy falls.
- In the dark and when visibility is bad wear clothing with reflecting stripes and ride with the light on.
- Only carry your luggage on suitable carrier systems. These are bike panniers or luggage carriers approved by the manufacturer. Please consult your dealer.
- Loading increases braking distance.
- Please note that many items of clothing and/or use of a rucksack can restrict your freedom of movement.

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

- Do not exceed the permissible overall weight limit – see Chapter 3.2.
  Determine the total weight by lifting your bike and standing on a calibrated scale in your complete riding clothing together with your bike.
- Please not the servicing and care instructions in Chapters 11 and 12.

2.3 Disposal

Dispose of your bike properly at the end of its life.

For this contact your dealer or a recycling centre.

3 Included with your bike and Technical Details

3.1 Technical data

Permissible total weight	Racing bicycle	115 kg
	MTB	115 kg
	Trekking bicycle:	140 kg
	Trekking bicycle fully equipped	140 kg
	Child's bike up to 16" (*)	30 kg
	Child's bike up to 20" (*)	105 kg
	BMX:	105 kg.

(*): 16" or 20" indicates the wheel size. This is indicated on the tyre Please consult your dealer.

4 Assembly and function

Your bike has the following features among others.

- Mountain bike: No equipment as per StVZO, derailleur gears, rim or disk brakes, wheels with 559 mm rim diameter.
- Special form: Dirt Series
  Equipment as per mountain bike but only one brake on some models, no brakes or gears only for the rear sprocket.set.
- Cross bike: No equipment as per StVZO, derailleur gears, rim or disk brakes, wheels with 622 mm rim diameter.
- Fitness bikes: No equipment as per StVZO, derailleur gears or hub gears, rim or disk brakes, wheels with 622 mm rim diameter.

!	Rim diameter is indicated on the tyre. Ask your dealer if you cannot discover the rim diameter

Mountain bikes and cross-country bikes come in the following models:

- No suspension
  With fixed fork and solid frame

- *Hardtail-Bike*
  with suspension forks and fixed frame

- *fullsuspension-Bike*
  with suspension fork and rear wheel suspension

On suspension bikes there are various suspension systems with differing numbers of links.

It is easy to count the links. The strut before the suspension element does not count as a link.

- *A derailleur gear, easily recognisable by a sprocket set on the rear hub and a crank wheel set with several chain rings or*
- *a hub gear, recognisable by a „fat" rear hub.*

These gears provide you with the optimum gear for any speed and amongst other things make climbing inclines easier.

You can find out the number of gears as follows:

- *Derailleur gears: Multiply the number of crank wheel sprockets at the front with the number of sprockets on the rear sprocket set. For example, 3 crank wheel sprockets x 9 rear sprockets = 27 gears.*
- *Hub gears: The number of gears is indicated by the highest number of gears shown on the gear selector.*

All bicycles by this manufacturer are classified into Categories. You will find your bicycle's Category in your Service Card. It is entered there by your dealer on purchase. These categories are described as follows:

- *Touring:*
  Hardtail from 80 to 100 mm front suspension travel,Sturdy, multipurpose bike for the leisure rider who prefers touring
- *Cross Country:*
  Hardtail/full suspension bike from 80 – 100 mm front suspension travel and rear weight-dependently suspension bikes for the ambitious racer
- *Marathon:*
  Hardtail/full suspension bike from 100 – 125 mm suspension travel front and rear. For long-distance racing and sport touring riders
- *All Mountain:*
  Full suspension bike 100 – 145 mm travel front and rear. Equally ridable uphill and downhill
- *Enduro:*
  Full suspension bike from 140 – 170 mm suspension travel front and rear. Emphasis here is downhill but still ridable uphill. PLEASE NOTE: Corresponding skill and experience are preconditions for use of this piece of sports equipment!
- *Freeride:*
  Fully suspension from 150 mm suspension travel plus front and rear.

Emphasis here is primarily on downhill and bike park suitability
PLEASE NOTE: Corresponding skill and experience are preconditions for use of this piece of sports equipment!

- *Dirt bike/BMX:*
  Hardtail with or without suspension fork of up to 100 mm front suspension travel.
  With this bike variant the emphasis is primarily on jumping
  PLEASE NOTE: Corresponding skill and experience are preconditions for use of this piece of sports equipment!
- *Kids:*
  Hardtail with or without suspension fork of up to 80mm front suspension travel.
  Sturdy, all-purpose children's bike.
- *Traveller:*
  Hardtail/trekking frame with up to 60 mm front suspension travel.
  Everyday use, fully equipped bicycle for swift progress on roads and paths.
- *Countrylite*
  Hardtail/trekking frame with up to 60 mm front suspension travel.
  Everyday use, fully equipped bicycle for swift progress on roads and paths.
- *Speedlite:*
  Hardtail/racing frame, rigid forks.
  For swift, comfortable progress.
- *Road Racing:*
  Hardtail/racing frame, rigid forks.
  For swift sporting progress on roads.

5 Before using for the first time

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

An unroadworthy bike can lead to dangerous riding situations, falling, accidents and material damage This same danger exists if you are not yet familiar with your new bike and its controls.

- *Familiarise yourself with this bicycle before you first ride it. In particular check with brake lever operates the front brake and which the rear – see Section 7.7.*
- *Modern brakes have a very powerful braking effect. Excessively strong operation of the brake levers can cause the respective wheel to lock and can therefore lead to a fall. Familiarise yourself slowly with the braking effect on your bike in a safe area of land.*

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

- *With new rim brakes and after replacing brake blocks the full braking effect only develops after a certain run-in period. Please note therefore your initially greater braking distances.*
- *Disk brakes need to be initially run in. Full braking efficiency only develops after the running-in process. Please note the enclosed brake manufacturer's running-in instructions.*
  A rule of thumb is: Ride 1 km with permanent razing brakes, following 2 hard braking procedures from a speed of approximately 30 KPH (19 miles per hour)

	■ If your bike is fitted with optional click-in pedals which firmly connect the shoe with the pedal: Practice using them by mounting and dismounting. Click-in pedals are not safety pedals.
	■ If after purchasing you remove the saddle support and front and/ or rear wheel for transportation please follow the appropriate instructions in Chapter 10.1 and 10.2.

1. Have your dealer confirm proper final assembly and the roadworthiness of your bike.
2. Have your dealer adjust the correct saddle position.

!	You can make fine adjustments and minor changes yourself as described in Chapter 6.2.2 „Adjusting the saddle position".

3. Only use this bike when your dealer has familiarised you with your bike's technical features in a briefing.
4. Seal you bike with aerosol wax polish, see Chapter 11.
5. Before using read Chapter 6.

6 Before every trip

⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** An unroadworthy bike can lead to dangerous riding situations, falling, accidents and material damage ■ Also consider the possibility that your bike may have fallen over when unattended or that someone might have tampered with it. ■ Check that your bike is roadworthy before every trip. ■ Memorise your bike's correct condition when new so that you will later be able to recognise deviations from the correct condition (photos you take yourself can be a valuable aid). ■ Contact your dealer immediately if you discover that your bike's condition is different from normal. ■ Only ride the bike again after it has been properly readjusted by the dealer.

1. Visually inspect the whole bike:
   - ■ Check all fixing screws for correct tightness (see Chapter 1.2.4)
   - ■ Check the entire bike for dents, ruptures, deep scratches and other forms of mechanical damage.

Contact your dealer if visual inspections shows defects of any description.

6.1 Check the wheels

!	Front and rear wheels are both called wheels.

A wheel consists of

- the hub,
- On the rear wheel hub only Sprocket or sprocket cassette,
- Brake disk, if fitted,
- Spokes
- Rim and the
- Tyre equipment, which in turn consists of

– Tyre casings,
– Tube and
– Rim tape insert.

Many bikes are fitted with tubeless tyre road wheels. On these tyres with no tube are fitted on special rims. A tube can also be fitted however.

On StVZO-equipped bikes ipment rim reflectors may be fitted.

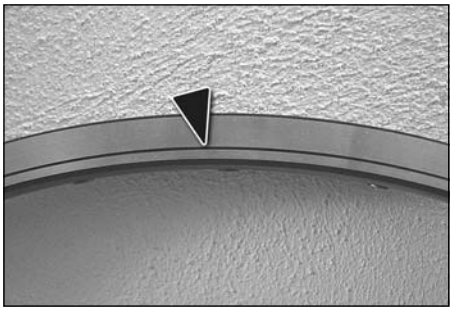
6.1.1 Check fitting

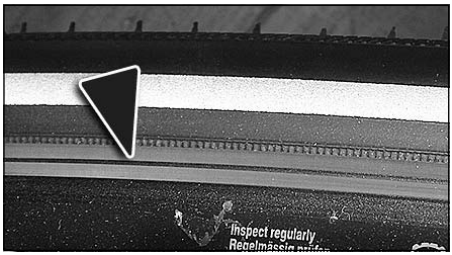
1. Shake both wheels at right angles to the direction of travel.
   - The wheels must not move in the forks.
   - There must be no audible creaking or rattling sounds.

Contact your dealer if this check shows defects of any description.

6.1.2 Check the rims

⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** Worn rims and/or substantial warping or run-outs may lead to hazardous riding situations, falling, accidents and material damage. Worn rims must be replaced and warping or run-outs repaired!
⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** With rim brakes: Dirty rims may reduce braking efficiency. Dirty rims must be cleaned immediately.





1. Check rims for wear:
   - Rims with wear indicators:
     Visual check
   - Rims without wear indicators:
     Visual check
   - Fingernail check:
     Run your fingernail across the rim shoulder. No scoring should be felt.
   - If the wear indicator is no longer visible or if the rim has discernible scoring the rim must be replaced.
2. Check rims for run-out:
   - Lift the bike up and spin first the front and then the rear wheel.
   - Note the distance between the rim and the brake shoes and on disk brakes the distance between the rim and the frame strut or fork leg.
     Maximum permissible deviation per revolution is 1 mm.
3. Check your rims for dirt, especially oil and grease.
   Dirty rims must be cleaned immediately (see Chapter 11)

6.1.3 Check tyres

1. Check the valve position:

!	Does not apply to tubeless tyres.

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

In the event of angled valve the base of the valve can rip off when riding which causes sudden loss of tyre pressure. This can lead to hazardous riding situations, falling, accidents and material damage.

Have the tyre seating corrected by a specialist workshop.
You can undertake this job yourself if you are familiar with fitting and removing the road wheels (see Chapter 10.1) and replacing the tyre and tube.

- Remove the valve nut.
- Check the valve position:
  The valves must point directly towards the centre axis of the road wheel.

2. Check the tyre pressure:

Determine your tyre type

!	Mountain bikes can be fitted with racing bike type tyres and racing bikes with trekking tyres. Rule of thumb: ■ Mountain bike tyres: Tyre width greater than 40 mm ■ Trekking / Cross-country and Fitness bike tires: Tyre width from 28 mm – 40 mm ■ Racing bike style tyres: Tyre width less than 28 mm ■ Consult your dealer to determine your tyre type.

Pressures:

- Mountain bike tyres: 2.0 – 3.5 bar
- Trekking bike tyres: 3.5 – 5.0 bar
- Racing bike tyres 6.0 – 10.0 bar

⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** Too low a tyre pressure leads to increased likelihood of punctures but mostly dangerous handling. The tyre can come off the rim on bends and cause wandering of the tyre on the rim. This can lead to hazardous riding situations, falling, accidents and material damage. Inflate your tyres to the correct pressure.

⚠	Many tyre pressures are given in „psi". Convert the pressure using the following table.

psi	30	40	50	60	70	80	90	100	110	120	130	140
bar	2,1	2,8	3,5	4,1	4,8	5,5	6,2	6,9	7,6	8,3	9,0	9,7

The actual permissible tyre pressure can be found in the tyre and rim manufacturer's instructions. The permissible tyre pressure is mostly embossed on the tyre wall. Please consult your dealer.

!	The higher your body weight the higher the tyre pressure needs to be.

Check the tyre pressure with a tyre pressure gauge. Simple gauges are often included with bicycle tubes and higher quality gauges are available from your dealer. How to use them is either in the instructions for used or you can have your dealer demonstrate this.

If pressure is too low: Increase the pressure by inflating with a suitable pump.

If pressure is too high: Release sufficient air via the valve and check the pressure again afterwards with a gauge.

!	Using a bicycle pump with a pressure gauge you can check the pressure whilst inflating the tyre. Let some air out of the tyre first and then increase the pressure to the desired level.

!	There are various types of valve. All valves can be fitted with a dust cap. After removing the cap you can place the pump head directly on the valve in the case of either a Schrader valve or the so-called Presta valve. On a racing bike valve you must first screw the little locking screw out of the valve until the stop and tighten it again after inflating the tyre. Get your dealer to demonstrate operation of the valves to you.

3. Checking your tyres for external damage and wear:
   - The tyre rubber must have the same pattern as the original over its entire surface.
   - The tyre canvas beneath the layer of rubber must not be visible.
   - There must be no bulges or tears.
4. Checking the fit of your tyres:
   - Lift the front or rear wheel and turn it by hand.
   - The tyre must be round when running. There must be no highs or lows.

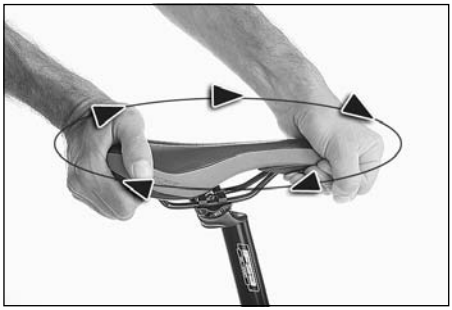
6.1.4 Other checks

1. Check your wheels for loose items such as, for example, pieces of branches, residues, loose spoke reflectors etc.
   - Remove these if this is possible without applying any great force.
   - Check if your wheels have been damaged by these loose items.
   - Tighten loose bicycle parts such as spoke reflectors, for example. If you find this is not possible contact your dealer immediately.
   - Please note that all reflectors are present as per StVZO (see Chapter 2.1.4), correctly secured and not obscured or dirty.

6.2 Check saddle and seat post

⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** If the seat post is not inserted far enough the seat post can come loose. This can lead to hazardous riding situations, falling, accidents and material damage. Note the correct seat post insertion distance. Please read Chapter 7.3 for information.
!	If you have the correct technical knowledge you can tighten this yourself. Please read Chapters 7.2, 7.3 and 10.2 for information.

1. Check the saddle and seat post for tightness:
   - Try to twist the saddle and seat post by hand.
     It should not be possible to twist the saddle and/or seat post.



- Try to move the saddle in its clamp with alternate up and down movements. It should not be possible to move the saddle.

If either the saddle and/or the seat post can be moved tighten them (see Chapters 7.2, 7.3, and 10.2.)

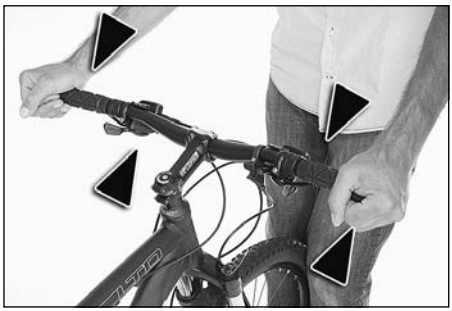
6.3 Handlebars, check stem

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Handlebars and stem are very important components in terms of your riding safety. Damage to them and mistakes during assembly can lead to very severe falls.

If you discover any faults with these parts or have doubts about them you must under no circumstances continue to use your bike. Contact a specialist workshop immediately.

1. Check the handlebar and stem assembly.
   - The stem must be parallel to the front wheel rim.
   - and the handlebars must be at right angles to it.
   - In the case of a shaft stem the „Max" or „Stop" or similar marking must not be visible.
   - Grip the front wheel between your legs.
   - Grip the handlebars at both ends.
   - Try to twist the handlebars in either direction by hand.
   - Try to twist the handlebars in the stem by hand.



   - It must not be possible to twist or slide any of the parts.
   - There must be no audible creaking or rattling sounds.

6.4 Check handlebar-mounted parts

1. Check the gear change lever, brake levers and grips for tightness:
   - Grip the front wheel between your legs.
   - Try to twist the brake levers by hand.

   - Try to twist the gear change levers by hand.
   - Try to pull the handgrips from the handlebars.
   - It must not be possible to twist or slide any of the parts.
   - There must be no audible creaking or rattling sounds.

6.5 Check the headset

1. Check your headset. The front wheel must swivel easily in both directions with no play:
   - Stand beside your bike and hold it with both hands by the handlebar grips.
   - Pull the front brake lever and keep the brake applied.
   - Push your bike forward and backward in short, jerky movements.
   - There should be no play in the headset: No clicking should be hear or felt. Creaking noises are also impermissible.
   - Lift the hold bike up so that the rear wheel is higher than the front wheel.

   - Move the front wheel by steering to the side and let it go again.

   - The front wheel must automatically return to its original position.
   - The front wheel must not lock in any position.

6.6 Check suspension fork

1. Check your suspension fork:
   - Pull the front brake lever and keep the brake applied.
   - Press with your body weight on the handlebars so that the suspension forks deflect.
   - The fork must spring easily up and down.
   - There must be no audible creaking or rattling sounds.

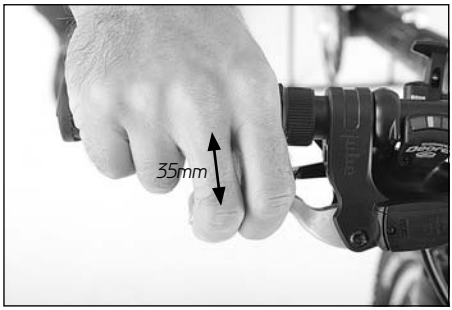
6.7 Check the rear wheel suspension

1. Check your rear wheel suspension:
   - Sit on your bike and activate the suspension in a standing position using up and down movements.
   - The rear of the bike must spring easily up and down.
   - There must be no audible creaking or rattling sounds.

6.8 Check the brakes

⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** Brake malfunctioning is a danger to life. Check your brake system particularly carefully.
!	When touring for several days brake disk, brake blocks and brake pads can wear a lot. When touring like this carry spare brake blocks and replacement pads with you. Only replace them yourself if you are familiar with this job. Please consult your dealer. If you cannot replace them yourself have them done by a trained specialist.

1. Checking the function of your brake system:
   - In a static position operate both brake levers until the brakes make firm contact.
   - Please note that in this position the minimum distance between the brake lever and the handlebar grip must be at least 35 mm.

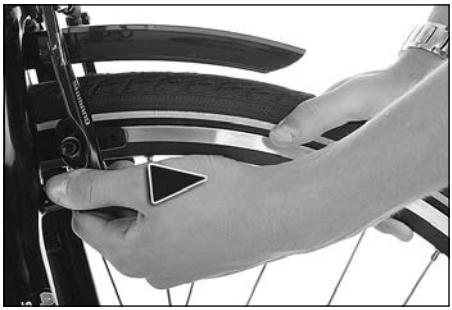


   - Try to push the bike with the brakes applied in this way.
     Both wheels must remain locked.

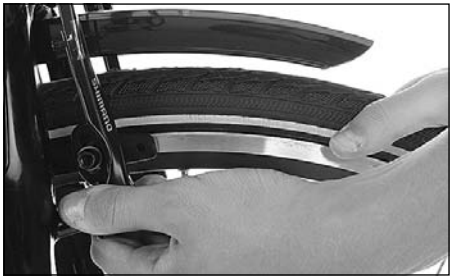
6.8.1 Check rim brakes and cable.

1. Check the brake cables and their clips:
   - The brake cables must not be damaged or corroded.
   - On cable brakes the brake cables must be securely clipped along their entire length.

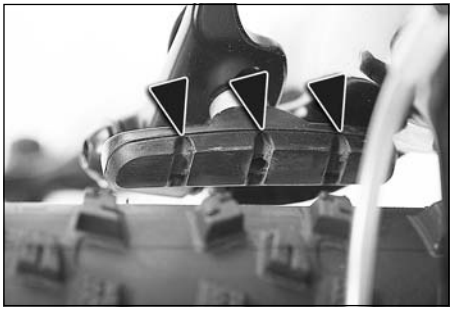
2. Check correct fixing and screw connections of the entire brake system:
   - Try to pull the brakes out of the sockets by hand.



   - It should not be possible to loosen the brakes from the sockets by hand. A small amount of play is normal.
3. Check operation of the brake shoes.
   - With the brake applied the brake shoes must be in contact with the rim shoulder along their entire length.



   - Under no circumstances must the brake shoes touch the tyre even when the brake is not applied.
4. Check the brake block wear.
   - Unhinge the brakes (see Chapter 10.1)
   - The brake blocks must not be worn down beyond the wear indicator.



5. Check centring of the brake shoes.
   - The brake shoes must be equidistant from the rim on both sides.

6.8.2 Check hydraulic rim brakes

1. Check correct fixing and screw connections of the entire brake system:
   - Try to pull the brakes out of the sockets by hand.
   - It should not be possible to loosen the brakes from the sockets by hand. A small amount of play is normal.

2. Check your brake system seals:
   - Operate each brake lever in a static position and hold the brake lever in that position.
   - Check the brake system from the brake lever along the lines to the brakes.
   - There must be no egress of hydraulic fluid at any point.
3. Check operation of the brake shoes:
   - With the brake applied the brake shoes must be in contact with the rim shoulder along their entire length.
   - The brake shoe must never touch the tyre – even if the brake is not applied.
4. Check the brake block wear.
   - The brake blocks must not be worn down beyond the wear indicator.

5. Check centring of the brake shoes.
   - The brake shoes must be equidistant from the rim on both sides.

6.8.3 Check hydraulic disc brakes

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Dirty brake disks may reduce braking efficiency.

Dirty brake disks must be cleaned immediately.

1. Pull the brake calliper alternately in all directions.
   - It should not be possible to move the caliper.
2. Check your brake system seals:
   - Operate each brake lever in a static position and hold it.
   - Check the brake system from the brake lever along the lines to the brakes.
   - There must be no egress of hydraulic fluid at any point.
3. Check brake disk for damage:
   - There must be no grooves, ruptures, deep scratches or other mechanical damage.
4. Lift the front or rear road wheel and turn it by hand:
   - The brake disk must only have a slight axial run-out.
5. Have the brake pad and brake disk wear checked at a specialist workshop (see here also Chapter 11):
   - The brake pads must not be worn down beyond the wear indicator.

- The brake disc must not be below the minimum thickness.
- You can find the minimum thickness in the accompanying component operating instructions.

6. Check your brake discs for dirt, especially oil and grease.
   - Dirty brake disks must be cleaned immediately (see Chapter 11)

!	When touring for several days brake disk, brake blocks and brake pads can wear a lot. When touring like this carry spare brake blocks and replacement pads with you. Only replace them yourself if you are familiar with this job. Please consult your dealer. If you cannot replace them yourself have them done by a trained specialist.

6.9 Check crank set and chain

1. Turn the right hand crank counter clockwise and note the chain rings and the pinion cassette.
   - The chain rings and pinions must have no axial run-out.
   - There must be no debris present. Remove the latter if this is easily possible.
2. Press the left crank in the position shown against the chain stay.

   - You should feel no play.
   - There must be no audible creaking or rattling sounds.
3. Check the chain for damage.
   - At no point on the chain should there be, for example, any damaged chain side fishplates, protruding rivet pins or seized and immobile chain links.
4. In a static position turn the right crank counter to the direction of drive and observe running of the chain at the gear change rollers on the change mechanism.
5. The chain must run smoothly over the change rollers and must not jump.

6.10 Other checks

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

An extended side stand can cause heavy falls.

Always retract the side stand before riding.

1. Check your side stand, if fitted.
   - Visually check screws and bolt fixture. The side stand must be securely fixed to the frame.
   - Always fold the side stand upwards before riding. The stand must also remain in this position during jolting.

7 Adjusting and Using your bike

You can perform some adjustments to your bike yourself. Only do these jobs yourself if you have the appropriate technical knowledge and experience and the right tools for the job.

7.1 Adjusting the adjustable stem (optional)

Many bikes are fitted with an adjustable stem, the height and angle of which can be adjusted. Only have adjustment carried out in a specialist workshop!

7.2 Adjust saddle position

Your saddle will be secured with one or two clamping bolts.

To adjust it you need a hexagonal socket of the right size and a torque wrench.

1. To adjust the horizontal position or inclination of your saddle:
   - loosen the clamping bolt(s) a few turns until the saddle can be easily turned and/ or in inclination angle adjusted.

- Move the saddle to the desired position.
- On saddle clamps with one bolt: Re-tighten the clamp bolt to a torque of 8 – 10 nm. When tightening please ensure that all loosened parts are positively interlocked.
- On saddle clamps with two bolts turn these alternately by one quarter to half a turn until the prescribed 5 – 6 nm torque is reached
- On many seat posts other tightening torques are prescribed. This can be read on the seat post. Please consult your dealer.

7.3 Adjust saddle height

On a gripper clamp with bolt you need a hexagonal socket and a torque wrench of the correct size.

For a quick-release clamp please see Chapter 7.8.

1. Loosen the clamp as described in Chapter 10.2.
2. Move the saddle and seat post to the desired position. Please note the instructions regarding seat post insertion distance in Chapter 10.2.
3. Clamp the seat post as described in Chapter 10.2.

7.4 Adjust suspension fork

1. Please read the instructions for adjusting your suspension forks from the suspension fork manufacturer's component instructions.

2. If your forks have a fixed adjustment mechanism as shown in the illustration, please read its instructions in the suspension fork manufacturer's component instructions.

!	*Suspension forks with elastomers and/or steel springs are only suitable for one overall weight range (= weight of rider + any luggage). This weight range is usually within 10 kg.* *Only the forks pre-tensioning can be adjusted by compressing the springs by means of an adjuster screw. This merely changes the initial breakaway torque of the forks. That is, with greater pre-tensioning the forks only deflect at higher operating forces.* *If the forks are pre-tensioned too much suspension travel is accordingly less.* *The weight range for which the suspension elements in your forks are suited can be found in the fork manufacturer's instructions and/or you can consult your dealer.* *If your total weight is outside this range have your dealer fit suspension elements matching your weight.*

7.5 Adjust rear suspension

(on full suspension bikes)

1. *Please read the instructions for adjusting your suspension/damper elements in the suspension fork manufacturer's component instructions. Please consult your dealer.*
2. *Adjust your suspension/damper element so that the bike when carrying the rider's weight deflects equally at the front and rear wheels.*

7.6 Using the gears

Shimano Dual Control

Shimano Rapidfire 2-Way-Release

Shimano Rapidfire 2-Way-Release

Shimano EZ Fire

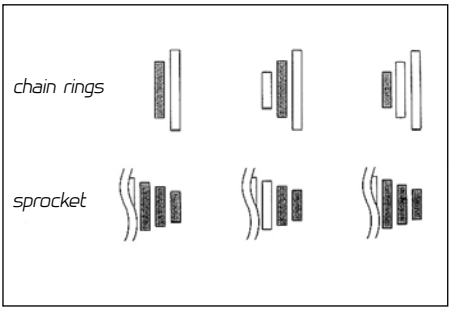
Shimano Rapidfire

Shimano Rapidfire

twist grip shift

1. Please determine on the basis of the illustrations, which gear shift system your bike has. If you are not sure which one it is please consult your dealer.
2. If your gear shift lever is not shown in the illustrations please take this from the accompanying gear shift lever manufacturer's instructions and/or consult your dealer.

!	On derailleur systems the gear is shifted by switching the chain to another sprocket. On the crank set these sprockets are called „chain rings" and on the rear sprocket cassette they are called „pinions".



3. Please observe the chain position prescribed as shown above.
   - To be avoided: largest chain ring + largest pinion
   - Smallest chain ring + smallest pinion

!	The left-hand lever operates the chain ring derailleur and the right-hand lever operates the gear shift.
△	**DANGER OF MATERIAL DAMAGE!** Incorrect operation of the gear shift levers can damage your gears. Never operate both levers or both gear shift switches at the same time! Please note that for the crank set (left-hand lever) and hub gears: Never shift under load!

7.6.1 Shimano Dual Control

On this shift system the brake lever is also the gear shift lever.

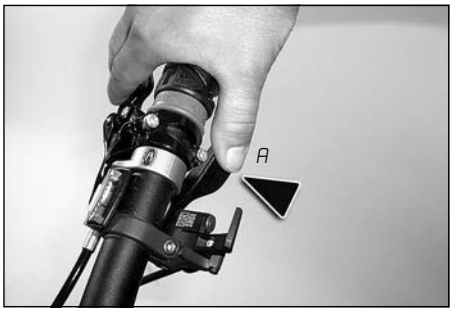
1. Here is how you shift to a larger sprocket:
   - In order to shift you must be pedalling.

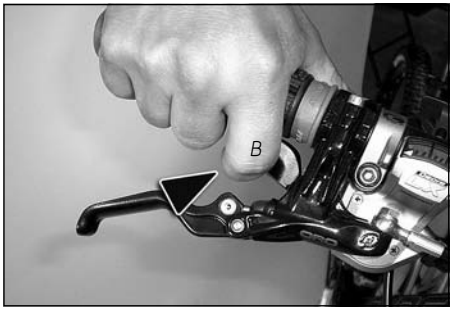
   - Press the brake lever down beyond the first stop and keep it depressed until the desired gear is selected.
   - For rapid shifting through several sprockets press the lever right down and keep it depressed until the desired gear is selected.
2. Here is how you shift to a smaller sprocket:
   - In order to shift you must be pedalling.
   - Press the brake lever up until you feel it engage and let it go again.

   - On many models there is an auxiliary lever.
   - Instead of operating the brake lever as described at 2. above you can also shift to smaller sprockets by depressing the auxiliary lever.

7.6.2 Shimano Rapidfire/ Shimano Rapidfire 2-Way-Release/ Shimano EZ Fire

On your gear-shift there are two levers. Lever A is for shifting to a larger chain ring or sprocket and lever B for shifting to a smaller one.

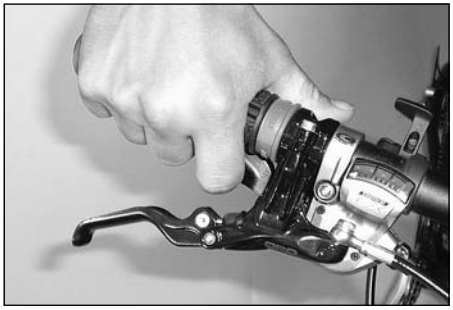




1. Here is how you shift to a larger sprocket:
   - In order to shift you must be pedalling.
   - Press the lever down with your thumb beyond the first stop and keep it depressed until the desired gear is selected.

- For rapid shifting through several sprockets press the lever right down and keep it depressed until the desired gear is selected.

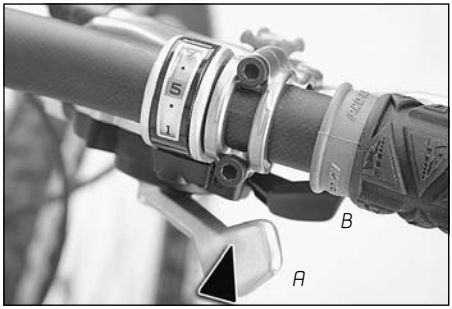
2. Here is how you shift to a smaller sprocket:
   - In order to shift you must be pedalling.
   - Depress (2-Way-Release only) or pull Lever B until you feel it engage and then release it again straight away.



7.6.3 SRAM gear shift

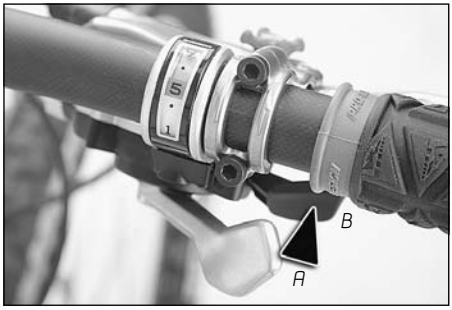
On your gear-shift there are two levers. Lever A is for shifting to a larger chain ring or sprocket and Lever B for shifting to a smaller one.

1. Here is how you shift to a larger sprocket:
   - In order to shift you must be pedalling.
   - Press the lever down with your thumb beyond the first stop and keep it depressed until the desired gear is selected.



- For rapid shifting through several sprockets press the lever right down and keep it depressed until the desired gear is selected.

2. Here is how you shift to a smaller sprocket:
   - In order to shift you must be pedalling.
   - Depress Lever B until you feel it engage and then let it go again straight away.



7.6.4 Twist grip shift

On your shift grip there is a ring which can be rotated in either direction. By turning this ring you shift into the next gear. Depending on the manufacturer you shift into a higher or lower gear in the one direction of rotation. You can find the precise functioning in the accompanying component instructions and/or consult your dealer.

1. Here is how you shift with hub gears:
   - Stop pedalling in order to shift.
   - Turn the rotating ring in the desired direction until the gear is selected.
2. Here is how you shift with derailleur gears: to a larger sprocket
   - In order to shift you must be pedalling.
   - Turn the rotating ring until the desired gear is selected.
   - For rapid shifting over several sprockets turn the rotating ring until the desired gear is selected.
3. Here is how you shift to a smaller sprocket:
   - In order to shift you must be pedalling.
   - Turn the rotating ring until the desired gear is selected.
   - For rapid shifting over several sprockets turn the rotating ring until the desired gear is selected.

7.7 Using the brakes

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Incorrect operation of the brakes can lead to hazardous riding situations, falling, accidents and material damage.

- Familiarise yourself with operation of the brakes.
- Ascertain which brake lever operates the front and which one operates the back brake
- Operate the respective brake lever several times in the static position. You can observe opening and closing action of the brake blocks or brake calipers on the respective disk or rim.

4. To operate the brake pull the lever in the direction of the handlebars.

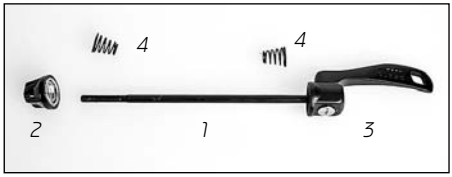
You will obtain the best braking effect if you operate both brake levers in a co-ordinated and balanced manner.

7.8 Operate the quick-release action

RISK OF BURNS!

Quick-release levers on disk brakes can become hot during riding.

Touch the quick-release lever very briefly with the bare finger.
If it feels hot let it cool down.



Legend:
1: Axle
2: Nut
3: Lever
4: Spring

Our bike hubs and possibly also your saddle stem may be have quick-releases fittings (often also referred to as „quick-release clamps" or simply „quick releases").

These quick-release fittings make possible rapid disassembly and assembly of these components without any tools. This can be by means of a

- long threaded axle on one side of which is
- a nut, and on the other side
- An eccentric lever.
- There is a little spring between the nut and hub and between the hub and the lever.
- The ends of the springs with the smaller diameter always face the hub.
- On saddle stem locking quick-releases instead of the nut there is a bolt head with an Allen key hexagon insert head.

To open the quick release

1. Push the eccentric lever away from the hub. It an now be rotated 180° around its axis.

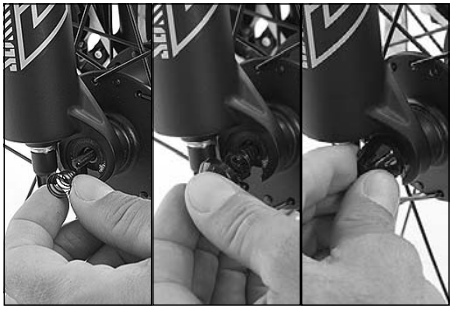
2. Turn the nut counter-clockwise until the wheel can be removed from the frame or front forks without any great effort. Should the nut come right off the screw please ensure that the little springs do not get lost.

3. On saddle stem quick release levers: To loosen instead of the nut turn the bolt with the Allen key head itself counter-clockwise.

Tightening: Reverse the procedure

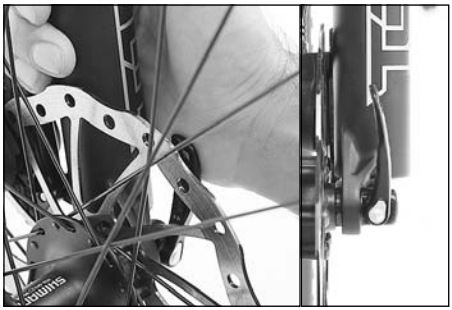
1. *If the quick release lever was completely removed then push it from the left (in the direction of travel) through the hub.*

2. *Place the springs and the nuts on the bolt. Turn the right end now protruding from the hub and the nut clockwise.*



3. *On seat post quick release levers: Instead of the nut turn the bolt with the Allen key head itself clockwise.*
4. *Tilt the eccentric lever so that it approximately forms the extension of the hub axis Hold the lever in this position.*

5. *Now turn the nut or the Allen key bolt head until the eccentric lever, when turned around its bearing more than 90° to meet slight resistance (it now forms an approximately straight line extension of the hub axis.*
6. *Now press the level through a further 90° until it reaches its end stop.*



RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Incorrect operation of the brakes can lead to hazardous riding situations, falling, accidents and material damage.

If the lever is pressed into its stop position the wheel is not secured tightly enough and can become displaced during riding or loosen.
There is a danger of falling.

- Open the lever again and turn the nut counter-clockwise again as necessary.

If the lever can only be moved when great force is applied or if it cannot be moved at into its stop position all (=90° to the hub axis), do not under any circumstances leave the lever in this position.
Because of the eccentric bearing it can loosen itself when the bike is ridden.
There is a serious danger of falling.

- Open the lever again and turn the nut counter-clockwise again as necessary.
- Check that the wheels are seated firmly as described in Chapter 6.1.1

SPECIAL TYPES:

Many wheels are secured with thruaxle or by a combinatin of thruaxle and quick-release lever. Please read their operation details in the accompanying fork manufacturer's instructions.

7.9 Using click-in pedals (optional)

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Click-in pedals are not safety pedals.
If an excessive release force is set it is possible not to be able to twist the shoes out of the pedal quick enough in an emergency situation.
If too soft a release force is set the shoe may possibly release from the pedal unintentionally when riding.
In either case there is an increased danger of falling and injury

- Familiarise yourself with use of the click-in pedals.
- Practice mounting and dismounting with the pedals when not moving. Sit on the saddle and hold tight onto a stable object with one hand. Click both shoes alternately in and out. Please consult your dealer.
- Familiarise yourself with the release on careful practice rides.
- Discover for yourself the optimum tightness setting.
- Practice mounting and dismounting at various release settings.
- You can find adjustment of the release setting in the accompanying component instructions and/or consult your dealer.

In unpredictable traffic situations and on difficult terrain it is often necessary to „click out" with one or even both shoes.

- Practice this with both feet alternately.
- When pedalling place your shoe centrally on the pedal so that you don't click in.
  If need be you can then support yourself with one or both legs on the ground.

With click-in pedals the shoe and pedal are firmly connected in a vertical direction. When pedalling you can not only push the pedal down but also pull it upwards. To be able to used a click-in pedal to the full you need shoes specially designed for the pedal system concerned and to which the pedal hooks supplied with the pedal can be affixed.

1. Have this fitting work done by your dealer.

2. To step into the pedal:

a) Bring the pedal to its lowest position.

b) Position yourself with the toe of the shoe pointing downwards and with the tip of the hook on the shoe in the front pedal insertion point.

c) When the tip of the hook is positioned correctly in the pedal push the whole surface of the foot sharply downwards until the clamping mechanism clearly and audibly engages.

The shoe is now firmly vertically connected with the pedal. Depending on the pedal system the shoe has sidewards freedom of movement.

3. To loosen your shoe from the pedal:
Twist your heel sharply away from the bike.

8 During riding

8.1 Troubleshooting

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

If you carry out maintenance procedures for which you are not authorised this may result in dangerous riding situations, falls, accidents and material damage.

Have all maintenance procedures not listed in the table below carried out only by the dealer.

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

If you notice any unusual handling, unusual noises or faults no listed in this Chapter this can lease to dangerous riding situations, falls, accidents and material damage.

Have anything you notice which is not listed in the following table checked immediately by your dealer and if necessary rectified.

8.1.1 Gears and Crankset

Problem	Possible causes	Corrective action
Gear does not shift or not correctly	Shift lever not operated correctly	Operate again
	Gear out of adjustment	Adjust in specialist workshop
	On steep incline too great a pressure on the pedal and/or pedalling too slowly	Repeat gear shift on flat terrain; Shift when static: Lift up rear wheel, turn crank in direction of drive until desired gear engages.
Crankset blocked after or during shifting	Chain jammed	Stop, operate gear shift in reverse, Lift rear wheel and turn crank against direction of drive. If crank cannot be moved, under no circumstances use force. Contact a specialist workshop immediately.
Unusual noises such as clicking or cracking noises, loud grinding and/or knocking	Damaged crankset/gear components.	Contact a specialist workshop immediately.
Uneven resistance when pedalling	Damaged crankset/gear components.	Contact a specialist workshop immediately.

Problem	Possible causes	Corrective action
Chain off	Incorrect shift operation (see Chapter 6.4) Gear out of adjustment or damaged Possible under unfavourable conditions	Stop, Lift the chain by hand onto the next sprocket, Lift the rear wheel, operate the crank in the direction of drive (only if possible with ease). If repair is not possible in this way contact a specialist workshop immediately.
Chain comes off after or during shifting	Incorrect shift operation (see Chapter 7.6) Gear out of adjustment or damaged Possible under unfavourable conditions	Stop, Operate the shift lever in the opposite direction, Lift the chain by hand onto the next sprocket, Lift the rear wheel, operate the crank in the direction of drive (only if possible with ease). If repair is not possible in this way contact a specialist workshop immediately.
Chain jumps off permanently.	Permanent incorrect operation of gear shift Gear out of adjustment or damaged	Only operate the gear shift as per instructions in Chapter 7.6 If operation is correct contact a specialist worlshop immediately.

8.1.2 Brakes

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

The brakes on your bike are amongst the most important components when it comes to your safety. Incorrectly functioning brakes can lead to dangerous riding situations, falling, accidents and material damage.

- At the slightest problem and if the braking effect falls off contact your dealer immediately.
- Only ride the bike again after it has been properly readjusted by the dealer.

Problem	Possible causes	Corrective action
Brakes do not function	Brake not correctly assembled	Correct assembly as per Chapter 10.1
	Brake damaged	Contact a specialist workshop immediately.
Reduced braking effect, brake levers have to be pulled too far.	Worn brake blocks or brake pads	Have brake blockes or brake pads replaced immediately in a specialist workshop.
	Brake cable stretched, worn or clamp/s damaged	Contact a specialist workshop immediately.
	On hydraulic brakes Brake system leaking	Contact a specialist workshop immediately.

8.1.3 Frame and suspension

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Frame and suspension faults may lead to hazardous riding situations, falling, accidents and material damage.

- At the slightest malfunction contact your dealer immediately.
- Only ride the bike again after it has been properly readjusted by the dealer.

Problem	Possible causes	Corrective action
Noises: Creaking, knocking, grinding or other.	Frame and/or suspension damaged	Contact a specialist workshop immediately.
Deficient suspension function	Suspension not adjusted correctly	Set and balance as per enclosed component instructions.
Deficient suspension despite correct setting	Suspension damaged	Contact a specialist workshop immediately.

8.1.4 Wheels and tyres

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Damage to wheels and tyres may lead to hazardous riding situations, falling, accidents and material damage.

- At the slightest malfunction contact your dealer immediately.
- Only ride the bike again after it has been properly readjusted by the dealer.

Problem	Possible causes	Corrective action
Wheels „hopping" up and down	■ Tyre damage ■ Defective spokes	Contact a specialist workshop immediately.
Noises: Creaking, knocking, grinding or other.	Debris caught in wheel	Remove debris Afterwards use your bike particularly carefully Have your bike checked by a specialist workshop for any consequential damage.
	Damage to wheel	Contact a specialist workshop immediately.
Spongy handling	Air pressure too low	Increase air pressure (see Chapter 6.1.3) If the same handling occurs again shortly after there is a slow puncture (see next line)
■ Increasingly spongly handling ■ Very unusual rolling characteristics (you can feel every stone)	Flat tyre	■ Replace tube and if necessary tyre and tape on tubeless systems ■ Replacing tyres Contact a specialist workshop (*) immediately. The bike must not be used until then. ■ (*): Changing the tube, tyre and rim tape can only be undertaken given the required experience. Have your dealer demonstrate this procedure to you and practice this job until you are familiar with it. For removing and refitting wheels see Chapters 7.8 and 10.2.

9 After falls or accidents

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Damage after a fall or accident may lead to hazardous riding situations, falling, accidents and material damage.

- After a fall or accident contact your dealer immediately.
- Only ride the bike again after it has been properly readjusted by the dealer.

After a fall basically you must renew all damaged bike components such as

- Handlebars
- Bar ends
- Handlebar stem
- and crank

.

All other bike parts must be checked by your dealer and if necessary replaced.

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

More and more bikes are fitted with carbon fibre components

- Carbon fibre components are very sensitive and if incorrectly fitted and if slightly damaged can lead to dangerous riding situations, falling, accidents and material damage.
- Please note all instructions regarding assembly, care, maintenance and checking these parts in accordance with the accompanying component servicing instructions.
- Only have assembly work on or to carbon fibre parts carried out in a specialist workshop.
- After damage and falls you must consult your dealer.
- Only use your bike again after he has replaced the damaged parts or assured you that you can continue to use the bike without any worries.

10 Transporting your bike

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

An unsuitable transportation system may damage parts of your bike which are important for safety and lead to dangerous riding situations, falls, accidents and material damage.

Only transport this bicycle inside your car.

This bike may only be transported inside a vehicle. Please note during transportation that the bike is secured and is not damaged by other packaging items for example.

For transportation you may remove the front and rear wheels and the saddle stem with saddle if these are fitted with quick releases. Only undertake this disassembly if you are sure that

you can reassemble these parts correctly. See Chapter 7.8.

If your road wheels are bolted to the frame (eg in the case of hub gears) consult your dealer

DANGER OF MATERIAL DAMAGE!

If your bike is inside a vehicle solar radiation can cause the tyres to burst or come away from the rim.

- Let the air out of the ttyres prior to transportation and fill them again after transportation (see Chapter 6.1.3).

10.1 Fit and remove wheels

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Incorrectly fitted wheels can lead to dangerous riding situations, falling, accidents and material damage.

- You must have your dealer demonstrate fitting and removing your wheels.
- Practice this job at least once under his supervision and control.
- Only remove and fit the seat post and saddle if you are sure you have mastered this job.

DANGER OF MATERIAL DAMAGE!

Hydraulic brakes must under no circumstances be operated after removing the wheel!

- If your bike has a disk brake use the mandatory transportation wedges supplied for that purpose for transporation following removal of the wheel.
- Remove these immediately prior to refitting the wheels.
  Please comply with the accompanying component instructions here.

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Rim brakes only:
When fitting and removing the brake blocks can get twisted.

- When fitting the wheels please note that the brake blocks are correctly positioned (see Chapter 6.8).
- If these are not correctly positions please contact a specialist workshop.

For transportation you may remove and later replace the wheels on your bike if these are fitted with quick releases.

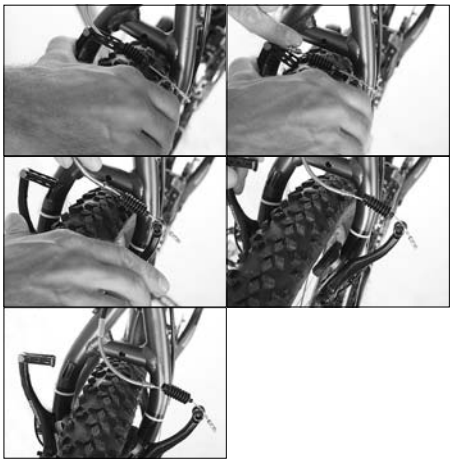
! If your bike has rim brakes please note that you do not change the position of the brake blocks with the tyre. This could happen especially in the case of large-volume tyres. If the tyre do not easily pass easily between the brake caliper blocks let a sufficient amount of air out of them. Then inflate the tyres afterwards to the correct pressure.

To remove your wheels. First remove the front wheel:

1. Open rim brake.

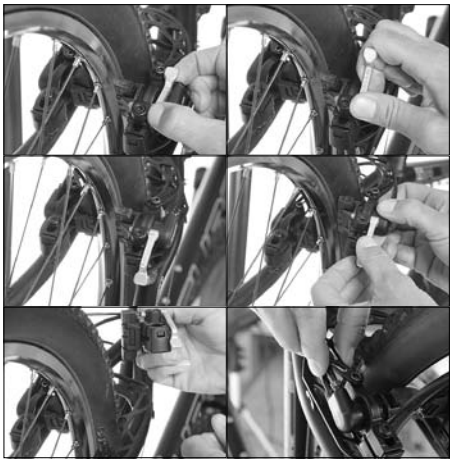
a) Cable-operated rim brake (e.g. Shimano):

- Press the brake shoes together with one hand and remove the cable guide from the yoke.



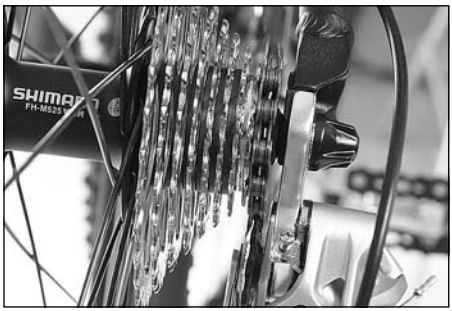
b) On Magura:hydraulic rim brakes:

- *Move the fixing lever over and remove the entire brake assembly including brake booster from the brake sockets.*
- *Please make sure not to lose any distance washers that may come loose.*



2. Shift the chain to the smallest sprocket on the rear wheel cassette (see Chapter 7.6)

- *Raise the rear of the bike, operate the shift lever concerned and turn the crank in the drive direction until the chain lies correctly on the smallest sprocket.*



3. On front wheel with hub dynamo (if fitted):

- *Remove the push-fit connector between the dynamo and cable.*

4. Loosen the wheel hubs.

- *Open the quick release on your road wheel (see also Chapter 7.8 Quick Releases)*
- *Turn the locknut enough to allow sufficient room on the axle.*

With other types of clamping.

- *Loosen the clamp as per the accompanying component instruction.*

5. Remove the wheels from the frame and forks.

- *Front wheel: Lift the bike up by the handlebars and withdraw the wheel from the front fork dropouts.*
- *Rear wheel: Lift the bike up slightly at the back and press the gear mechanism backwards. In this position push the rear wheel gently in the direction of the dropout openings.*

6. After removing place the bike carefully on its left hand side.

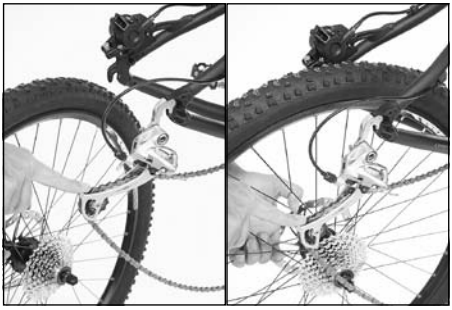
DANGER OF MATERIAL DAMAGE!

With no rear wheel the frame and/or the gear mechanism can become damaged.

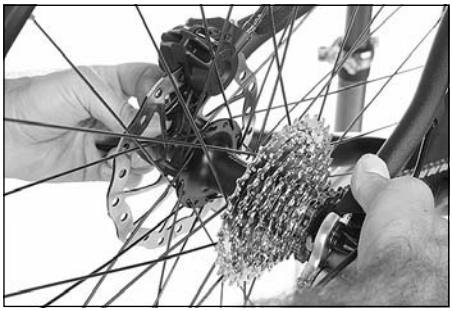
After removing the rear wheel lie the bike on its left side or use a suitable assembly stand.

To fit your wheels. Fit the rear wheel first.

1. a) Inserting the rear wheel:
   - Lift up the bike rear,
   - placing the rear whee under it so that the chain is over the smallest sprocket.



   - Carefully lower the rear of the bike until the axle is at the dropout stop on the right and left sides.



- Disk brakes: Insert the wheel so that the brake disk can be easily pushed between the brake pads.

b) Inserting the front wheel:

- Lift up the bike by the handlebars,
- Placing the front wheel under the front forks dropouts and
- Carefully lower the forks until the axle is flush at the dropout stops on the right and left sides.

2. Tighten the wheel hubs.

- When tightening with quick releases: see Chapter 7.8.

- With other types of clamping: Tighten the hubs as per the accompanying component instruction.

3. Close rim brakes

a) on cable brakes:

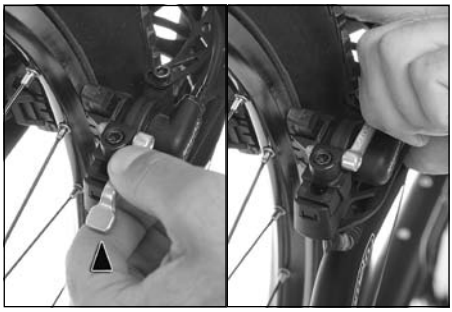
- Press the brake shoes together.

- Insert the cable in the yoke.

b) Hydraulic rim brakes:: Fitting is as removal only in reverse sequence.

- Insert any distance washers in the correct position and place the brake on the brake bosses.

- Swivel the locking lever so that the brake is fixed in place again.



4. Please ensure that the brake blocks correctly cover the rim shoulder when operated.

5. On front wheel with hub dynamo (if fitted):
   - Refit the push connector between the hub dynamo and the cable.
6. Check installation:
   - Operate the brakes.
   - If the brake block or brake touches the rim or the brake disks this can indicate incorrect seating of the hub in the dropouts.
   - In that case release the quick release, check and correct the hub seat and close the quick release again.
   - The brake (on rim brakes) must not be opened during this procedure. If there is no improvement after this please contact your dealer immediately.
   - Check that the lighting (if fitted) is working.
   - Ensure that the road wheels do not come into contact with either mudguards or carrier (if fitted).

10.2 Remove and replace seat post and saddle

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

An incorrectly fitted seat post can lead to dangerous riding situations, falling, accidents and material damage.

You must have your dealer demonstrate fitting and removing your saddle post.

Practice this job at least once under his supervision and control.
Only remove and fit the seat post and saddle if you are sure you have mastered this job.

For transportation you can remove your bike's seat post complete with saddle and replace it again afterwards.

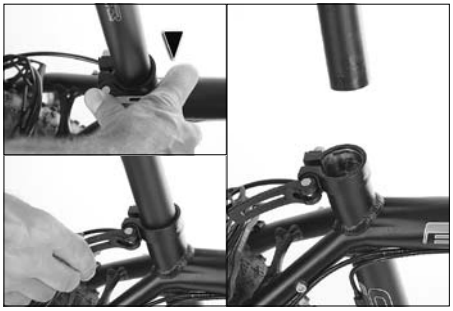
The seat post is held with a clamp in the frame seat tube and is tighted with either a quick release or a hexagon socket.

On carbon fibre seat posts special types may be fitted with two screws.

For clamping without a quick release a hexagon socket and a torque wrench of the appropriate size are required. Please also consult your dealer.

To remove your seat post:

1. Release the saddle clamp at the quick release as per Chapter 7.8 or by loosening the Allen screw with an Allen key.



2. Withdraw the seat with seat post from the frame.

To replace your seat post:

1. a) for metal seat post and seat tube:
   - Grease the seat post insertion area.

2. b) on carbon seat post and/or seat tube:
   - The clamp are must be free of grease or use an assembly paste suitable for carbon fibre components.
3. Push the saddle complete with seat post into the frame seat tube until the desired saddle height is obtained. In this position the lower end of the seat post must be a minimum of 3 cm below the lower edge of the top tube.

!	Do not rely on the marking on the saddle post. To check the correct insertion distance: ■ Hold a finger tip against the seat post when fitted directly above the clamp. ■ Keep your finger tip in this position and withdraw the seat post from the seat tube. ■ Hold the seat post laterally beside the seat tube so that your finger is again level and directly above the clamp. ■ In this position the lower end of the seat post must be a minimum of 3 cm below the lower edge of the top tube.

4. Turn the saddle so that the saddle points in the direction of travel.
5. Ensure that the clamp is flush in the grame and that the seat tube slots and the clamp are covered.
6. Close the quick release as per Chapter 7.8 or tighten the Allen screw with a torque wrench. Specified torque is 5 – 6 Nm

⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** An over-tightened carbon fibre seat post can break when riding and leade to dangerous riding situations, falling, accidents and material damage. Please observe assembly instructions and the specified torque in the accompanying component instructions.
!	Mark the correct position of your seat post with adhesive tape.

11 Cleaning and caring for your bike

RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!

Corrosion can damage components of your bike which are important for safety so that they are no longer secure. These components may then brake during riding and thus lead to serious falls.

Corrosion is caused, amongst other things, by

- salt (eg. due to salt spreading in winter)
- salty air luft (eg in coastal or industrial areas)
- perspiration.

Even so-called rust-free materials may be affected by this corrosion.

If your bike is exposed to corrosive substances the bike must be

- protected prior to any contact with these substances and
- cleaned and re-protected again after all contact with such substances.

DANGER OF MATERIAL DAMAGE!

Do not use steam washers. The high pressure water jet can damage your bike.

Good maintenance will increase the life of your bike and its components. Clean and maintain your bike regularly.

For wet cleaning use a gentle water jet or a bucket of water and a sponge.

There are many ways of washing a bike. A proven cleaning recommendation for a very dirty bike is as follows:

1. With a gentle water jet remove large items of debris such as soil, stones and sand etc.
2. Let the bike dry off somewhat.
3. Spray your entire bike with a suitable detergent.

! With many detergents and given a low level of soiling simply spraying and rinsing off after the specified time for them to work is sufficient.
You can remove stubborn dirt after the working time for example with a radiator paintbrush before rinsing off.

DANGER OF MATERIAL DAMAGE!

Cleaning, lubrication and preserving agents are chemical products.
Incorrect use can damage your bike.

Only use products expressly suitable for bikes.

- Ensure that these products do not attack either paint, rubber, plastic or metal parts etc. Consult your dealer.
- Follow the respective manufacturer's instructions.

4. Rinse the entire bike with a gentle water jet and allow it to dry.
5. Clean the chain.
   - Drip a suitable chain cleaner into a clean, spirit-free cotton cloth and wipe the chain down.
     When doing so slowly operate the crank against the direction of drive.
   - Repeat this process as often as possible with a clean area of the cloth until the chain is clean.
   - Allow the cleaner to evaporate for about an hour.

! If cleaner remains between the chain links the new grease will be immediately broken down and will be totally ineffective.

- Sparingly apply a lubricant suitable for bicycle chains to the chain links.

⚠	**DANGER OF MATERIAL DAMAGE!** Greases for motor cycle chains will gum up your bike chain and the drive chain components. Only use lubricants expressly approved for use with bike chains.
⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** If too much lubricant is used it can drip onto the rim and brake disk and contaminate them. This will reduce the effectiveness of the brakes ■ Remove excessive lubricant on the chain using a clean, dry and spirit-free cotton cloth. ■ Clean the rim and brake disk with a suitable degreasing agent. Please consult your dealer.
⚠	**RISK OF PERSONAL INJURY AND MATERIAL DAMAGE!** If wax polish spray or a preserving agent gets onto the rim or brake disks and/ or brake blocks the effectiveness of the brakes will be reduced. ■ Clean thes parts using a suitable degreasing agent. Please consult your dealer.

6. Clean any remaining very dirty parts by hand using a clean spirit-free cotton cloth using a suitable detergent.
7. Spray the entire bike with a suitable wax polish or similar preserving agent.
   Exceptions:
   - ■ Brake blocks or brake pads
   - ■ Rims in the case of rim brakes
   - ■ Brake disks
8. Polish your bike after the prescribed working time using a clean, spirit-free cotton cloth.
9. Clean the brake blocks, brake pads, rims (in the case of rim brakes) and brake disks by hand using a clean, spirit-free cloth using a suitabel degreasing agent.

!	Clean and lubricate your chaain as described after every ride in the wet and Every prolonged ride on a sandy subsurface and at least every 200 km.

Servicing schedule:

1. *Have servicing carried out at intervals prescribed only in a specialist workshop authorised by the manufacturer.*

Nature of inspection	**Normal use**	**Frequent sport, competition or use of a competitive nature**
1. Inspection	*after 200 km or 2 months whichever is sooner*	*after 100 km or 1 month whichever is sooner*
Subsequent inspections	*every 2000 km or 1 x per annum*	*every 500 km or every 2 months*
Check brake pads/brake blocks	*every 400 km*	*every 100 km*
Check brake disks	*every 400 km*	*every 100 km*
Check chain wear	*every 500 km*	*every 250 km*
Replace handebars and stem	■ *after a crash (see Chapter 9)* ■ *as indicated by component manufacturer or* ■ *every 5 years at least*	■ *after a crash (see Chapter 9)* ■ *as indicated by component manufacturer or* ■ *every 2 years at least*

!	*Under unfavourable conditions your chain can wear rapidly. Changing it early will extend the life of your sprockets.*

12 Storing your bike for a lengthy period

DANGER OF MATERIAL DAMAGE!

Incorrect storage of a bike can damage bearings and tyres and promote corrosion.

Please observe the following instructions.

1. Clean and maintain your bike as described in Chapter 11.
2. Only store your bike in dry and dust-free premises.
3. Use suitable bike stands (e.g. tripod, wall hooks). Please consult your dealer.
4. Stand your bike with one or both wheels on the floor
   - Lift your bike every 2-3 weeks and spin your wheels a couple of turns.
   - Operate the handlebars back and forwards a couple of times
   - Turn the crank by hand a couple of revolutions against the direction of drive.
5. When using again carry out a check as described in Chapter 6.

13 Guarantee and Warranty

- Guarantee claims are invalid

– in the case of faults and damage attributable to the fact that you have not complied with the instructions contained in this Owner's Manual.

– In the event of claims attributable to the fact that when replacing bike parts you used none of the original replacement parts specified in the Owner's Manual.

– in the event of modifications to the bike without the prior approval of the manufacturer.

Instructions by

Manufacturer:

Pending System GmbH&Co. KG
Ludwig-Hüttner-Str. 5-7
D-95679 Waldershof

Consultancy:

Andreas Zauhar, Dipl.-Ing. FH,
Officially approved for Munich and
Upper Bavaria Chamber of Trade and Industry and
Official expert in matters of bicycle damage
and evalution

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