



**POLYGON**

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BICYCLE  
OWNER'S  
MANUAL

The logo for Polygon Bikes, featuring the word "POLYGON" in a bold, white, sans-serif font. The letters are slightly shadowed, giving them a 3D appearance as if they are floating above a dark, jagged mountain range silhouette that spans the width of the page.

## Bicycle Owner's Manual

CONGRATULATION for bought Polygon Bikes. A bicycle is a great tool for transportation and recreation. We hope that you will ride it often and have a great deal of use and enjoyment from your purchase. This manual contains important safety, performance and maintenance information.

**IMPORTANT :** Read this manual before taking your first ride on your new bicycle, and keep this manual handy for future reference.

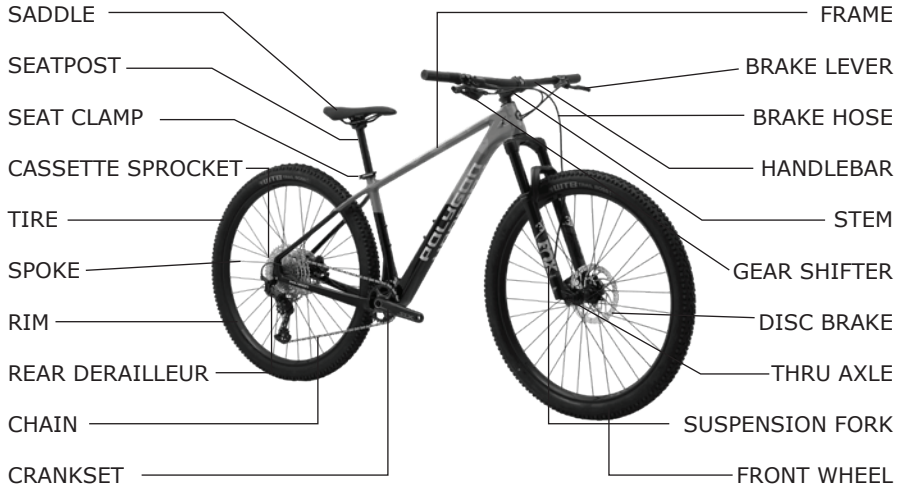
Additional safety , performance and service Information related to specific components such as suspension, pedals on your bicycle, and other accessories such as helmets or lights you've purchased. It also available as an additional information for safety, performance, and service. Make sure your dealer has given all the manufacture literatures that include with your bicycle and accessories. In case of conflict between the instructions and information provided in this manual, always follow the component manufacturer's instruction.

If you have any questions or do not understand something, take responsibility for your safety and consult with your dealer or the bicycle's manufacture

**NOTE :** This manual isn't intended for comprehensive use, service repair or service manual. Please see your dealer for all service, repairs, and maintenance related action. Your dealer also able to refers you to class- es, clinics or books for service or maintenance.

# BIKE ELEMENT

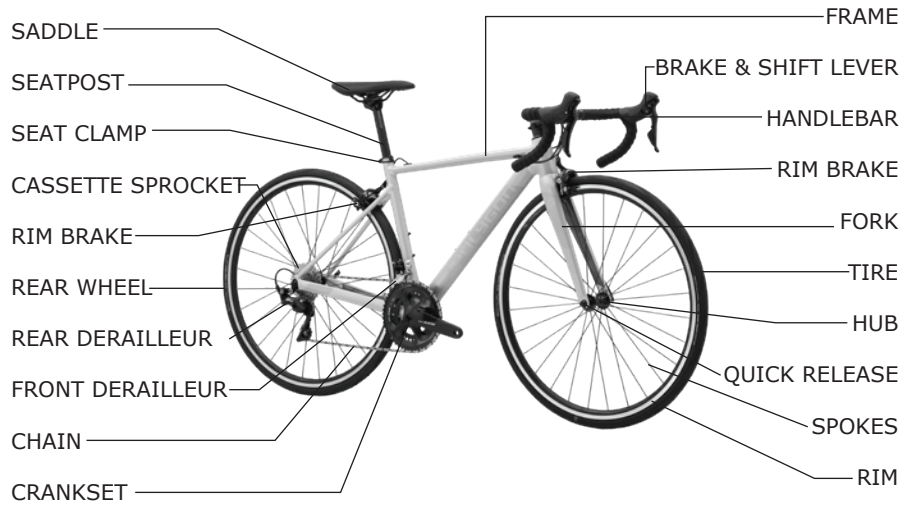
## Mountain Bike (Hardtail)



## Mountain Bike (Full Suspension)



## Road Bike



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## **GENERAL WARNING:**

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Like any other sports, bicycling involves in any risk of injuries and damage. Please remember to practice safety rules and take a responsible riding, also practice a proper maintenance action. Proper bike use and maintenance will reduce your risk of any injuries and damage in the future.

This Manual contains “Warnings” and “Danger” concerning the consequences of failure to maintain or inspect your bicycle and of failure to follow safe cycling practices.

The combination of the  safety alert symbol and the word **Danger** indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

The combination of the  safety alert symbol and the word **Warning** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or is an alert against unsafe practices.

Many of the Warnings and Danger say “you may lose control and fall”. Because any fall can result in serious injury or even death, we do not always repeat the warning of possible injury or death.

Because it is impossible to anticipate every situation or condition which can occur while riding, this Manual makes no representation about the safe use of the bicycle under all conditions. There are risks associated with the use of any bicycle which cannot be predicted or avoided, and which are the sole responsibility of the rider.

## A. Special note to parents

**⚠️ WARNING:** This manual covers both Adult and Juvenile, BMX and other types of youth-sized bicycles. And your child may be sold or may ride an adult-sized bicycle as well.

As a parent or guardian, you are responsible for the activities and safety of your minor child, and that includes making sure that the bicycle is properly fitted to the child; that it is in good repair and safe operating condition; that you and your child have learned and understand the safe operation of the bicycle; and that you and your child have learned, understand and obey not only the applicable local motor vehicle, bicycle and traffic laws, but also the common sense rules of safe and responsible bicycling. As a parent, you should read this manual, as well as review its warnings and the bicycle's functions and operating procedures with your child, before letting your child ride the bicycle.

**⚠️ WARNING:** Make sure that your child always wears a certified bicycle helmet when riding; but also make sure that your child understands that a bicycle helmet is for bicycling only, and must be removed when not riding. A helmet must not be worn while playing, in play areas, on playground equipment, while climbing trees, or at any time while not riding a bicycle. Failure to follow this warning could result in serious injury or death.

# PRE RIDE PREPARATION

NOTE: We strongly urge you to read this Manual in its entirety before your first ride. At the very least, read and make sure that you understand each point in this section, and refer to the cited sections on any issue which you don't completely understand. Please note that not all bicycles have all of the features described in this Manual. Ask your dealer to point out the features of your bicycle.

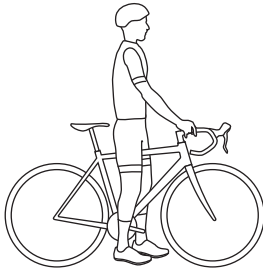


Figure 1.1: Correct ride height.



Figure 1.2: Adjusting seat height.



Figure 1.3: Check seat height.

## A. Bike fit

- For a bicycle with a standard straight top tube, there should be at least 25mm (1 in) of clearance between you and the top tube when you stand over your bike (Figure 1.1)
- For a step through and mountain bike frame, verify size using a corresponding standard top tube frame. Adjust your saddle to a comfortable height. Test that you have the right height by sitting on the saddle with your heel on the lower pedal (Figure 1.2) and your leg slightly bent (Figure 1.3). If your leg is bent more than slightly, your seat should be adjusted up. If you can't reach the pedal, your seat should be adjusted down.

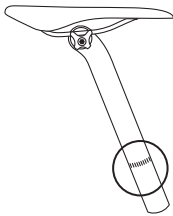


Figure 1.4

To avoid damage to the seatpost or bike frame, do not position the saddle beyond the minimum insertion line on the seatpost or seatmast (Figure 1.4). If you can't properly position your saddle, see your bike shop. Rear suspension bikes - When adjusting your saddle, consider the upward travel of your rear wheel in relation to your saddle position.



**⚠ WARNING:** With the seat post fully compressed, the saddle in the rearmost position, and a fully compressed rear suspension, the rear tire may interact with the saddle. To alleviate this, adjust your saddle up and forward.

Handlebar position is important for control and comfort. You point the handlebar and the bike follows. Special tools and training are necessary to align, adjust, and torque your stem, so only your bike shop should do this. Do not attempt to make the adjustments yourself as these changes may also require adjustments to the shift levers, brake levers, and cables.

**⚠ WARNING:** An incorrect headset and stem assembly, and incorrect torque can cause damage to the fork's steerer tube, possibly causing the tube to break. If the steerer tube breaks, you could fall.



Please learn and observe all the road rules while riding your bike on public roads, including ALWAYS wearing a certified helmet

The correct helmet should :

- be comfortable to the rider
- be of light weight
- have good ventilation for the head
- fit snugly
- Cover the forehead

Get to know your bike  
For the most possible enjoyment from your bicycle, familiarize yourself with:

- Brakes (levers or pedals)
- Shifting (if equipped)
- Suspension (if equipped) You will enjoy yourself more

## B. Safety checklist

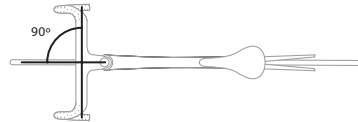


Figure 1.6: Proper alignment of handlebar and saddle.

### Check the handlebar

- Make sure the bar is at 90 degrees to the wheel (Figure 1.6).
- Check that the handlebar is twisted out of alignment and does not rotate in the stem.
- Make sure that no cables are pulled or caught when you turn the handlebar from side to side.

### Check the saddle and seat post

- Make sure the saddle is in line with the center of the bike (Figure 1.6).
- Check that the saddle rails or collar do not twist out of alignment, or move or tilt up and down.

**⚠ WARNING:** A wheel quick-release lever that is not correctly adjusted and closed can move and catch in spokes or a brake rotor. It may also allow the wheel to be loose or come off unexpectedly. This could cause loss of control, a fall, and may result in serious injury or death. Before every ride, make sure the quick-release is adjusted and

## Check the wheels

- Check rims and spokes for damage. Give the wheel a spin. It should spin straight through the fork (front) and chainstays (rear), and not contact the brake pads (rim brakes).
- Check that the axles are fully seated in the dropouts.
- Lift your bicycle and hit the top of the tire with a solid blow. The wheel should not come off, be loose, or move from side to side.

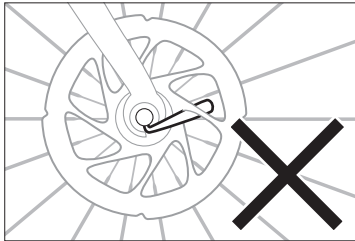


Figure 1.7: An incorrectly positioned quick release lever can interfere with the brake system.

- If your wheel is equipped with a quick-release, make sure the lever is properly closed and positioned: does not touch the fork or an accessory part (rack, fender, bags, etc.), and does not interfere with the spokes or disc brake system as the wheel rotates (Figure 1.7).

**⚠ WARNING:** Securely clamping the wheel with a quick release system takes considerable force. If the wheel is not properly secured, the wheel can become loose or fall off causing serious injury. The adjustment nut should be tightened enough that the closing force of the quick-release lever leaves an imprint in your palm. If the lever does not close properly, due to contact with the fork or accessory, reposition and close the lever. If the lever touches anything, it may not be closed. If you have a quick-release axle assembly (not a thru axle), and proper closure is not possible, remove the quick-release axle and place the lever on the opposite side of the bicycle. Adjust and close properly or contact your bike shop for replacement.

## Check the tires

- Use a tire pump with a gauge to the recommended pressure range. Do not exceed the pressure limit as stated on the side of the tire or rim; whichever is lowest.

**NOTE:** It is better to use a hand or foot pump than a service station pump or electric compressor. It might cause the tire to blow out.

## Check the brakes

- Make sure you can apply full braking force without the brake lever touching the handlebar while standing still. If the lever touches, your brakes may need an adjustment.
- Check the front wheel brake, it should work properly. Ride the bike at slow speed and apply the front wheel braking. The bike should stop immediately after.



Figure 1.8: Apply both brakes together. Using the front brake only could cause the bike to pitch forward.

**⚠ WARNING:** The rear wheel could lift up off the ground when the front wheel brake force applied too full or too sudden. This could lead you to lose control and fall. For more safety reason, apply braking for both brake at the same time. (Figure 1.8)

- For rim or disc brakes, repeat the process with the rear wheel brake.

- For coaster brakes, start with the back pedal crank slightly higher than horizontal. Apply pressure downwards on the back pedal. When you move the pedal downward, the brake should engage.

**⚠ WARNING** In wet condition or on slippery surface, the braking action can be dangerous and different to what you used to. Adapt your riding behavior appropriately and prepare for potential longer braking distance! If you are riding single speed or fixie type bicycle, familiarize your braking behavior before set out. Always aware that fixie's crank arms and pedals will always rotates while being used.

### Check the cables

- Make sure all cables and housings are properly secured to the frame or fork so that they cannot interfere with or get caught on moving parts.

Check reflector, lights and accessories positioned perpendicular with the rim.

- Make sure your front and rear lights and any other accessories are securely attached, properly positioned, and working properly.
- Position your lights parallel to the ground. Make sure your batteries are charged.

### Check your suspension (if applicable)

- Adjust your suspension for your use, and make sure that no suspension component can "bottom out" or be fully compressed.

### Check your pedals

- Make sure your pedals and shoes are clean and free of debris that could affect your grip or interfere with the pedal system.
- Grab your pedals and crank arm and wiggle to see if there's any looseness. Also spin the pedals to make sure they rotate freely.

### Puncture kit

The most important accessories for a successful cycle tour are a tyre pump and a small tool kit. The tool kit should include two plastic tyre levers, the most commonly used Allen keys, a spare tube, a tyre repair kit and a little cash. In this way you will be well prepared in the event of a puncture or some other mishap. Take your mobile phone with you, as well.

## LEGAL STIPULATION



Always find out about the national legal stipulations that apply to you, before riding in road traffic. They regulate the relevant approval requirements for road vehicles and the rules of the road.

The approval requirements for road vehicles are as follows:

- Lighting with white headlight and red rear light
- Lights must be fed by a fixed alternator/dynamo (6V,3W)
- High sound acoustic signaller (bell)
- Reflectors:

Front: white, large, may be integrated into the headlight

Rear: two red, one of them may be integrated into the rear light  
Wheels: two yellow reflectors per wheel, alternatively, white reflective rings in the sheath, rims or spokes

Pedals: one yellow reflector per pedal, one facing forwards and one facing backwards

- Special regulations for racing bikes: racing bikes of less than 11 kg may be fitted with battery-operated headlights and rear lights. They must be carried at all times when riding the bicycle. Bicycles over 11 kg must be fitted with dynamo-operated lighting. The lighting must bear an official inspection mark: A wavy line and a number.

Electrical construction elements may only be replaced with construction type tested parts, for instance, because of advanced technical development.



For riding in public road traffic, Austria applies the 146th Ordinance / Bicycle Ordinance. Printed in the Austrian Federal Journal.









In Switzerland, the prevailing regulations are contained in the Ordinances for Technical Requirements to Road Vehicles. Read Articles 213 and 218, accordingly.

# USE AS INTENDED

Accordance with the stipulations, bicycles are considered as one of transportation for single person. Carrying additional person on a bicycle only permissible within the frame work of the applicable national legislation; for example, tandems are exempt. When having loads on the bicycle, there are a device that must be fitted on the bicycle. You should consider the amount of weight to its maximum load capacity of the baggage carrier. Children may only be carried with a child seat or with purpose-built trailers.

**⚠ WARNING:** If you are using bicycle in extreme condition and applies more stress compared to standard Use Condition given, the bicycle or parts can be damage or broken. This could lead to decreasing control even fall. Do not ride to its extreme and over the bicycle limits. If you are not sure about the limits of your bicycle, please consult your bike shop.

Condition	Terrain	Weight limit	Bicycle type or definition
	Suitable for child riding. A child should ride under parent/s supervision. Rider should not ride near slopes, curbs, stairs, drop-offs, pools.	40kg (88lb)	Usually a bicycle with 12", 16", or 20" wheels; a child's tricycle; and includes a push bike  No quick-release wheel attachment systems
		136kg (300lb)	City Bikes – without suspension
	Riding on a paved surface where the tires are always on the ground.	125kg (275lb)	Road bicycle with drop-type handlebar Triathlon, time trial, or speed bicycle  Cruiser with large, 26" tires and swept-back handlebar or City bikes Road electric-assist bicycle with drop-type handlebar
		136kg (300lb)	Standard pedelec electric-assist bicycle (e-bikes)
		250kg (550lb)	Tandem
	Riding in smooth gravel roads and groomed trails with low-angle grades.  Not intended for jumps or drops	80kg (175lb)	Mountain or hybrid bike with 24" wheels
		125kg (275lb)	Gravel, Cyclocross, Touring bicycle: drop-type handlebar, knobby 700c tires, and cantilever or disc brakes
		136kg (300lb)	Hybrid or DuoSport bicycle with 700c wheels, tires wider than 28c, and flat handlebar  Standard pedelec electric-assist bicycle

	<p>Riding in Conditions class 2 and 3, plus rough trails, small obstacles, and smooth technical areas.</p> <p>Jumps should be no more than 24" (61 cm).</p>	80kg (175lb)	Mountain bike with 24" wheels
		136kg (300lb)	<p>Any mountain bicycle that does not have rear suspension is designed for condition on class 3. Any mountain bicycle with short-travel rear suspension is also designed for condition on class 3.</p> <ul style="list-style-type: none"> <li>• "Standard," "race," "cross-country," or "singletrack trail" mountain bicycle with wide, knobby 26", 27.5", or 29" tires</li> <li>• Short-travel rear suspension (3"/75mm or less)</li> </ul> <p>Mountain electric-assist bicycle</p>
	<p>Riding in Conditions class 2, 3, and 4; plus rough technical areas and obstacles of moderate height. Jumps should be no more than 48"/120cm.</p>	136kg (300lb)	<p>"Heavy-duty," "technical trail," or "all-mountain" mountain bicycle with wide, knobby 26", 27.5", or 29" tires, and medium-travel rear suspension (4"/100mm or more)</p>
	<p>Riding where you jump, ride at high speeds, ride aggressively on rougher surfaces, or complete jumps on flat surfaces.</p>	136kg (300lb)	<p>"Freeride," "jumping," or "gravity" bicycle with heavy-duty frames, forks, and components with long-travel rear suspension (7"/178mm or more) This type of use is very dangerous and puts large forces on a bicycle. Large forces can apply dangerous stress to a frame, fork, or the parts. If you ride in Condition Class 6 terrain, you should practice safety precautions such as more frequent bicycle inspections and more frequent replacement of equipment. You should also wear comprehensive safety equipment such as a full-face helmet, pads, and body armor.</p>

# BIKE SET UP

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## **A. Mounting the Pedals**

Your bicycle may not come with pedals. To attach your pedals, screw them into place and tighten with appropriate monkey wrench. The pedals must be screw in opposite directions, right pedal clockwise and the left pedal anti-clockwise. Use the correct torque tension to tighten the screws. Grease the threads area on the pedals before you fit them.

**⚠ Danger** If you use system or clipless pedals, ensure you carefully read the component manufacturer's instructions for use. Before going for a ride, practise stepping into the pedal and releasing the shoe from the pedal on a quiet stretch without traffic. Never practise in road traffic, Poorly releasing clipless pedals are a safety risk.

**⚠ Warning** With system or clipless pedals it is possible to set how much power they will need for the shoe to be released from the pedal. For your first rides, set the pedals with very low release tension! Use a suitable spray oil for maintenance and clean the system pedals at regular intervals.

## **B. Handlebars Adjustment**

The height of the handlebars compared to the saddle and the distance between saddle and handlebars determine how much your upper body will be inclined forward. Lowering the handlebars gives you a streamlined position and brings more weight to bear on the front wheel. However, it also entails an extremely forward leaning posture which is tiring and less comfortable, because it increases the strain on your wrists, arms, back, upper body and neck.

**⚠ Warning** Keep in mind that readjusting the position of the stem changes the position of handlebars, brake levers and shifters. Please be careful as the rider's response to steering and braking can be adversely affected.

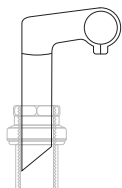


Figure (2.a)

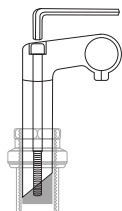


Figure (2.b)

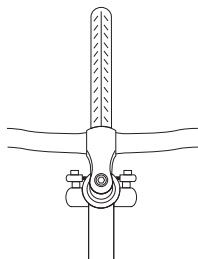


Figure (2.c)



Figure (2.d)

(2.a). Handlebars with conventional stems allow limited vertical adjustment. This is done by moving the stem up or down inside the fork steerer tube.

(2.b). Release the expander bolt by two to three complete turns. The stem should now turn freely inside the fork. If it does not release the bolt by tapping it gently with a rubber hammer. With Allen bolts, you need to stick the Allen key into its head first, as it is normally countersunk and therefore impossible to be hit directly. Now you can move the handlebar/stem-unit up and down as a whole. Be sure not to pull out the stem too far. The mark on the stem (end, min, max, stop, limit or the like) should always remain within the tube. Setting the stem to a lower position can only add to your safety!

(2.c). Realign the handlebars with the front wheel. Make sure the front wheel is in alignment with the handlebars and the stem. Retighten the expander bolt with a torque Wrench. Tighten carefully by approaching the prescribed maximum torque value in small steps (0.5 Nm increments) and check in between the proper fit of the component. Never exceed the maximum torque value indicated by the manufacturer! You will find the prescribed values directly on the components and/or in the POLYGON manual book.

(2.d). Make sure the stem is firmly fixed by taking the front wheel between your legs and trying to turn the handlebars and stem relative to the wheel. If there is movement, you have to increase the torque value. Do not exceed the maximum torque value. If the handlebars are still too high or too low, you can replace the stem. This can be quite a big job, as it may mean taking off and remounting all the fittings on the handlebars. Ask your dealer for advice about the different types of stems.

### C. Stem Adjustment

Adjust the tilt of the front part of adjustable stems (3.a). Some design use bolts on the sides of the joint (3.b), others have bolts coming from above or below, and others again are equipped with additional locking mechanisms or adjusting bolts. Ask your POLYGON dealer to explain to you both function and adjustment of your stem or, still better, let him do that work.



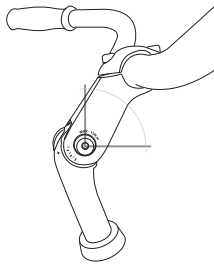


Figure (3.a)

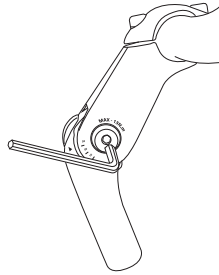


Figure (3.b)

**Note** that the bolted connections of adjustable stems and handlebars have to be tightened to the specified torques. Otherwise the handlebars or stem may come loose or break. Use a torque Wrench and observe the minimum and maximum torque values! You will find the prescribed values directly on the components and/or in the POLYGON manual book.

#### Stems for threadless systems - Aheadset®

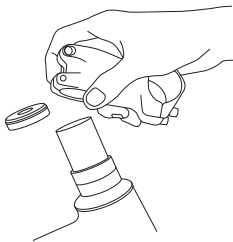


Figure (3.c)



Figure (3.d)



Figure (3.e)

In the case of POLYGON bikes with Aheadset® headsets the stem also serves to adjust the bearing preload. If you change the position of the stem, you have to readjust the bearing play.

The vertical setting range is determined by the intermediate rings, also referred to as spacers (3.c). In the case of flip-flop stem models (3.d) the stem can be mounted the other way round to achieve a different handlebar height. For modifications unscrew the bolt at the top of the fork steerer tube which serves to adjust the initial bearing pressure, remove the Ahead cap (3.e) and release the bolts on either side of the stem by up to three turns. Remove stem and spacers from the fork steerer tube. In doing so keep hold of both frame and fork to prevent the fork from slipping off the head tube.

You can determine the handlebar height by the arrangement of stem and spacers, Slip the remaining spacers onto the fork steerer tube above the stem.

As all works require know-how, experience, suitable tools and skills, you should restrict yourself to adjusting your seating position. Contact your POLYGON dealer, if you are not happy with your seating position or if you want something changed. They will take care your request as soon as you leave your POLYGON bike at the workshop, e.g. first inspection.

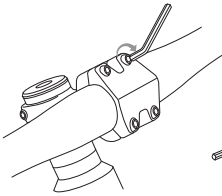


Figure (3.f)

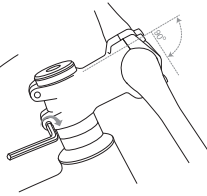


Figure (3.g)

If you want to turn the stem around, you also have to release the bolts from its faceplate which securing the handlebars (3.f). If the stem fitted with a cap, you can simply take out the handlebars at this point. If it not fitted with a cap, you have to remove the handlebar fittings, mount the handlebars and the handlebars fittings, if necessary.

Check after the adjustment or assembly, whether the handlebars are firmly seated in the stem by trying to rotate the handlebars downwards (3.g) Verify whether the handlebar/stem-combination can be turned relative to the fork. Do this by taking the front wheel between your knees and trying to twist the handlebars. If there is movement, carefully tighten the bolts a little more by using the torque Wrench, observe the maximum torque value and check again the proper fit.

Tighten carefully by approaching the prescribed maximum torque value in small steps (0.5 Nm increments) and check in between the proper fit of the component. Never exceed the maximum torque value indicated by POLYGON! Ask your POLYGON dealer to explain to you both the function and adjustment of your stem or, still better, let him do that work,

**⚠ Warning** Ensure you read the component manufacturer's manual carefully. Work on the handlebar and the stem should only be carried out by a specialist dealer!

**⚠ Danger** Changes to the position of the attachment always lead to a change in the position of the handlebar. You must always be able to reach all handles, levers and devices safely. Functionability must always be assured. The lengths of all bowden cables and cords must be sufficient to be able to make all steering movements safely and securely.

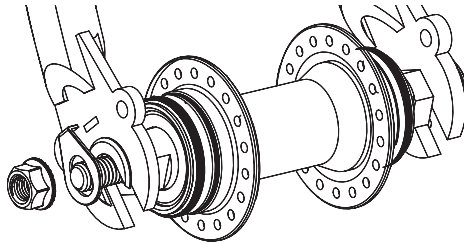
#### D. Front Wheel

Your bicycle comes either with a nutted, quick release or through axle front wheel. Understand and apply the correct technique for securing your wheel in place.

**⚠** It is crucial the front wheel is securely attached to the forks to avoid the risk of a crash. After installing the front wheel, make sure to correctly set up the front brake.

## Nutted Wheel

Step 1: Place the front axle in the fork dropout slots and ensure the wheel fits correctly. Look for the tyre rotation direction found on the tyre sidewall - the arrow should point forwards the front of the bikes.



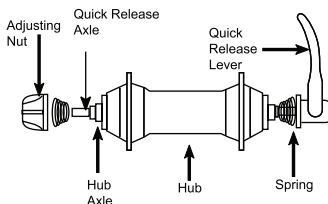
Step 2: If your bicycle has tabbed lock washers, ensure that the locking tabs are correctly inserted into the holes in the fork dropouts. Any washer should be placed on the outside of the forks.

Step 3: Firmly tighten bolt nuts and ensure the wheel sits straight in the forks. Double check the wheel is secure in the forks

**!** It's crucial the front wheel is securely attached to the forks to avoid the risk of a crash. All nuts must be firmly tightened before you ride. Check both wheels are secure before every ride by rocking the wheel side to side, if there's movement it's likely the nuts need to be tightened.

## Quick Release

The quick release (QR) device uses tension to secure the wheel to the frame or fork. Tension is controlled by the adjusting nut (opposite the lever), it is important to make sure that the adjusting nut is set correctly. If there is too much tension, the quick-release lever will not close. If there is too little tension, the wheel will not be held in place. The following instructions explain how to install your quick-release device correctly.



Step 1: Remove the adjusting nut and one cone spring from the QR mechanism and slide the skewer through the axle so that the QR lever is on the left hand side of bicycle.

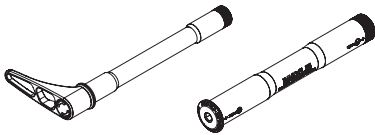
Step 2: Reinstall the spring (small end first) and the adjusting nut onto the skewer and place the axle into the fork dropouts, ensuring the wheel is centered and facing the correct direction.

Step 3: Always adjust the QR clamp with the lever in the halfway position, and by turning the adjusting nut, and not the lever. Stop when you start feeling resistance.

Step 4: Using your palm, close the lever so that the wheel is secure. When closing the lever you should feel resistance half way through the lever travel. From there, press hard until fully closed.

Step 5: When the lever is fully closed, the wheel should be free from any wobble. If this is not the case, release the lever, tighten the nut and repeat the process. Ensure the wheel sits straight and secure in the forks.

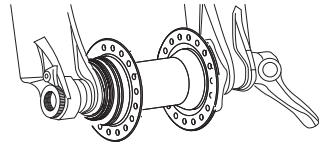
Step 6: Make sure that the QR lever always points backward when closed, to prevent them becoming hooked behind objects during the ride and working open, risking accidents and injuries.



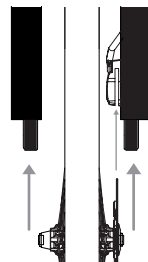
## Through Axle Wheel

Many of our bikes will come equipped with a front through axle. Some will have a tension adjustment lever, some a fixed lever and some require a tool to be installed, usually a 6mm Allen key. Understand and apply the correct technique for securing your wheel in place.

Some higher end suspension forks will also have a 6mm pinch bolt on the drive side dropout, which is there to ensure the axle is properly secured in place when subject to extreme riding conditions. Make sure to check if your fork has that pinch bolt - loosen it prior to the wheel installation, and make sure to tighten it to 5 Nm when the wheel is in place. If in doubt, please refer to the manufacturer's component manual.



Step1: Place the front axle in the fork dropout slots and ensure the wheel fits correctly. Pay attention to the rotor as it slide into the brake caliper



Step 2: With the wheel in place, insert the through axle in the dropouts and through the hub. The insertion side may differ according to the fork model. Tighten the through axle to the recommended torque specifications.

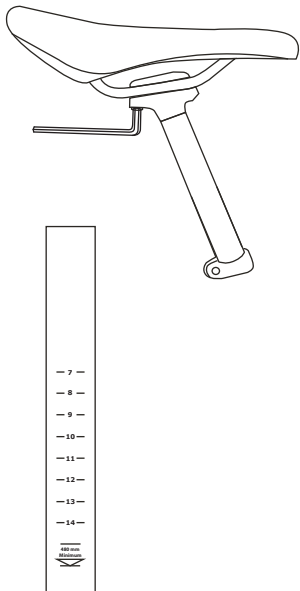
Step 3: If the through axle comes with a tension lever, adjust the tension so you feel resistance half way through the lever travel. From there, press hard until fully closed.

Step 4: When the axle is installed, the wheel should be free from any wobble. If this is not the case, repeat the process. Ensure the wheel sits straight and secure in the forks

#### D. Seat and Saddle Adjustment

After the height of the seat has been adjusted, the tilt of the seat must be checked and fixed. The seating surface must be horizontal. The seat must be adjusted with the bolt of the seat lug loosened.

If your bicycle has a so-called integrated seatpost" or a seatpost with integrated movement stop, then carefully read the manual supplied by the manufacturer to learn how to operate and adjust it.



**⚠ Danger** Before riding off, make sure that the seat and seatpost are fitted firmly and securely. Hold the seat by its nose and rear and try to twist it. The seat should not move.

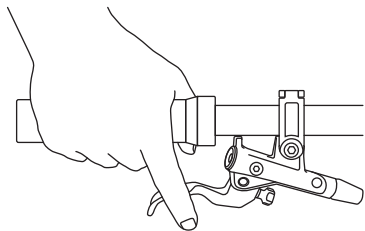
**⚠ Warning** Carefully read the component manufacturer's manual to learn about operating and adjusting spring-mounted and telescopic seatposts.

**⚠ Danger** Never pull the seatpost out of the seat tube in the frame beyond the engraved maximum marking. If there is no engraving for maximum, then you must make sure that the seatpost sits at least 7.5 cm deep in the frame's seat tube.

## E. Brake Lever Adjustment

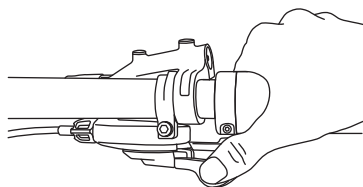
The brake levers must be adjusted in such a way that you can grip them securely at any time without effort. Ensure that you can operate it naturally without having any difficulties, this means you know which lever to operate the brake for the front and rear wheel. Some brakes have brake force limiters, so-called "modulators", built in. They function like an anti-lock braking system (ABS) in a car.

**Danger** The brake force can increase abruptly if the lever pulled strongly or at the end of the travel distance of the lever. The braking effect might be different from what you used to have. Familiarize yourself with it. Read the component manufacturer's manual and have it explained to you by a specialized dealer.



**Attention** If the brake levers have been correctly adjusted, your hands will function as straight extensions of your arms and you can then operate the levers safely and without getting tired.

The levers can be brought closer to the handlebar by means of a regulating screw, so that riders with small hands can reach the brake grips safely. Racing bicycles are fitted with special devices for positioning the brake lever closer to the grip. Carefully read the operating manuals supplied by the component manufacturers. The pulling tension must be adjusted in such a way that the brake handle cannot touch the handlebar grip, even when it is pulled forcefully!



The gears of your POLYGON bike serve to adjust the gear ratio to the terrain you are riding on and the desired speed. A low gear (where in the case of derailleurs gears the chain runs on the small chainring and a large sprocket) allows you to climb steep hills with moderate pedalling force. You must, however, pedal at a faster pace. High gears (large chainring, small sprocket) are for riding downhill. Every turn of the pedals takes you many metres forward at correspondingly high speed.

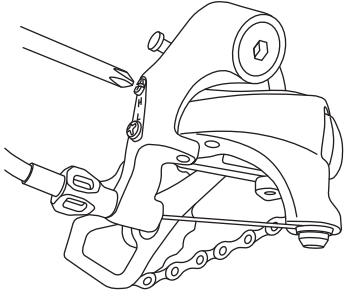


Figure (4.a)

## F. Checking and readjusting

The derailleur gears of your bike were carefully adjusted by your POLYGON dealer before delivery. However, Bowden cables may stretch a little on the first kilometres, making gear shifting imprecise and the chain rattle. Adjusting the front and rear derailleur (4.a) accurately is a job for an experienced mechanic. If you want to try to do the adjustment on your own, observe in addition the manual of the gear manufacturer on this POLYGON manual book. If you have any problems with the gears, contact your POLYGON dealer.

## G. Rear Derailleur Adjustment

Increase the tension of the Bowden cable by turning the adjustable cable stop at the shifter lever (5.a) or the adjusting bolt connected to the rear derailleur (5.b). Shift to its smallest sprocket and turn the bolts anti-clockwise in half turn until the cable slightly tensioned. After tensioning the Bowden cable, check whether the chain immediately climbs up to the next larger sprocket.

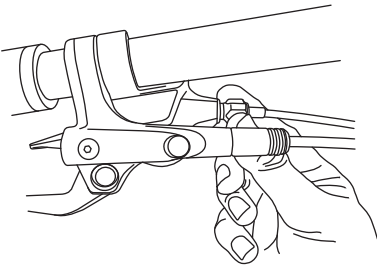


Figure (5.a)

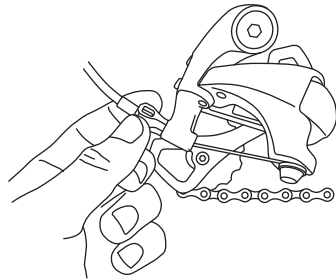


Figure (5.b)

To find out the result, you can check it either by turn the crank by hand (5.c) or ride your POLYGON bike while shift through the gears. The chain should climb onto the next larger sprocket easily and vice versa. If it does not, try to release the respective adjusting bolt a little bit. You may need several tries.

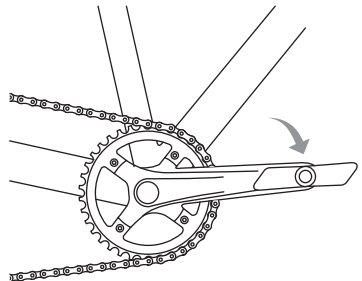


Figure (5.c)

## H. Stop Limit Adjustment

The rear derailleur is equipped with limit screws (6.a) which limit the movement range of the derailleur, thus preventing the derailleur and chain from colliding with the spokes or the chain from dropping off the smallest sprocket. The limit screws are adjusted by your POLYGON dealer. They do not alter their position during normal use.

If necessary, correct the position by means of the limit screws. The limit screws on rear derailleurs are often marked "H" for high gear and "L" for low gear. High gear means that the chain is running on the smallest sprocket. Turn the screw clockwise to move the rear derailleur towards the wheel and anticlockwise to move it away from the wheel (6.b). Shift to the largest (inmost) sprocket and check whether the teeth of the sprocket and the teeth of the guide pulley are all in a perfectly vertical line (6.c).

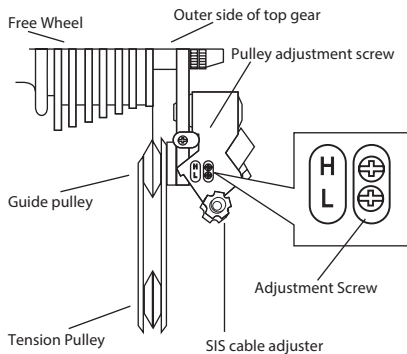


Figure (6.a)

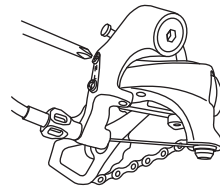


Figure (6.b)

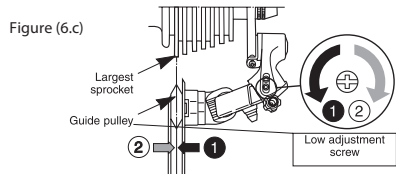


Figure (6.c)

Turn the limit screw marked "L" clockwise until the rear derailleur stops moving towards the spokes and can neither be moved by actuating the shift lever nor by pushing it with your hand. Turn the cranks carefully. This adjustment prevents the chain from getting stuck between sprocket and spokes or the rear derailleur or the derailleur cage from touching the spokes, which could result in damage to the spokes, the rear derailleur and the frame. In the worst case, this could result in a fall or accident.

**⚠ Danger** If your POLYGON bike has tipped over or the rear derailleur received a blow (the rear derailleur, its mounting, rear derailleur hanger) might be bent and causing to material failure or even accident. It is advisable to check its range of movement and readjust the limit screws after an incident occur or after mounting a new rear wheel on your bike (if needed).



## I. Front Derailleur Adjustment

The range between the front derailleur on the chainring (without touching the chain) is very small. If the chain has the tendency to jump off the chainring, you will need to reduce the movement range the same way with the rear derailleur, i.e by turning the limit screws marked "H" and "L" (7.a). The limit screws are adjusted by your POLYGON dealer. They do not alter their position during normal use. The same with rear derailleur, the cable of the front derailleur (7.b) is subject to lengthening which leads to reduced precision in gear changing. If necessary, shift to the small chainring and increase the tension of the Bowden cable by turning the adjusting bolt which passes the entry to the gear shifter (7.c).

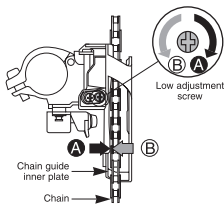


Figure (7.a)

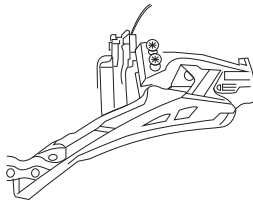


Figure (7.b)

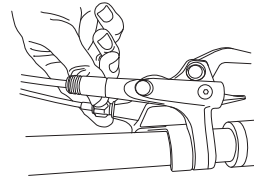


Figure (7.c)

**⚠ DANGER** Always check after an accident whether the guide plates of the front derailleur are still parallel to the chainrings. Make sure they do not touch the large chainring which would block the drive. Risk of accident!

## Backpedal Brake

A backpedal brake is operated by pedalling backwards instead of forwards. Be aware that you cannot freewheel backwards if your bicycle is fitted with a backpedal brake!


**⚠ Attention** For a backpedal brake, you should only apply the brake when both pedals are aligned horizontally with each other. If the crank arms of the pedals are in a vertical position, so that one of your feet is held high on a pedal and the other foot is all the way down on a pedal, it is not possible to brake strongly because this position does not allow you to apply strong force.

**⚠ Remark** When the brake is applied continuously, for example, on long downhill stretches, the backpedal brake can overheat. That severely limits the brake effect or there may even be no brake effect at all! During longer downhill stretches, also use the front brake for braking. Do not touch the backpedal brake if you have been braking for a long time. It will be hot and there is danger of getting burnt!

## KIDS BIKE

As a parent or person with legal responsibility for supervising, you are bearing great responsibility if a child on a bicycle mingles with traffic on the public highway!

- Practice safety protocols within your presence in a safe area without any traffic (unused car park, lawn, etc), until they are able to control the bicycle safely.
- Explain to the child that s/he should ride a bicycle wearing bright clothes that can be seen from a distance. Ensure the child always wears a helmet and explain the reasons why.
- When adjusting the seat and the handlebar, make sure that the child can touch the ground with his/her feet, in uncertain situations. A relaxed seating position is decisive for being safely in control of the bicycle.
- Explain to the child and help him/her practise using the front and rear brakes. In particular, the backpedal brake and moderate use of the front wheel brake must be practised.

 **Danger** Be sure to carefully read the component manufacturer's manual before fitting the stabilisers on the bicycle. Stabilisers must be fitted very firmly and securely. Your child depends on them! Should you encounter difficulties when fitting them, contact a specialist dealer.

 **Warning** Stabilisers can help a child to better familiarise itself with a bicycle, because it feels more secure and falling off can be prevented. But riding a bicycle with stabilisers is like riding a tricycle. The child does not learn to maintain balance and to make the necessary balancing movements. Therefore, supervise your child particularly closely after the stabilisers have been removed. He/she must get used to the changed riding properties and learn many new things.

### **Carrying Kids / Trailers for kids**

- Look at the quality. Only place your child in tested and approved child seats!
- The child seat must offer hold your child's feet firmly in place. This is the only way to prevent your child touching moving parts, such as spokes.
- Always secure your child in the seat with a safety harness.
- Make sure that your child always wears a well-fitting bicycle helmet.
- Fitting a child seat has unfavorable impact on the riding properties of the bicycle. Because of the extra weight given, the bicycle would swerve during riding and stopping distance will be longer. Practice riding with the child seat attached in a quiet area without traffic.
- Carefully read the manuals supplied by the manufacturers.
- Make sure you do not exceed the bicycle's total allowed weight, including rider, child, child seat and any extensions that may have been fitted.

**⚠ Danger** Child seats may only be fitted on bicycles that have been approved for this purpose. Never fasten child seats to frames or components made of carbon fibre! Never fasten a child seat to the seatpost!. Do not use spring-loaded seats or seatposts when you are carrying a child in a child seat behind the seat. There is significant danger of injury! Ensure you wrap or cover all moving parts and seat springs so that children cannot catch their fingers.

**⚠ Warning** In Germany, carrying children in a child seat is only permitted for children up to the age of seven years. The rider must be at least 16 years of age. Always find out about the national legal stipulations that apply to you.

If your bicycle is supplied with accessories that have not been assembled, be sure to carefully read the component manufacturers' manuals. Trailers for Children

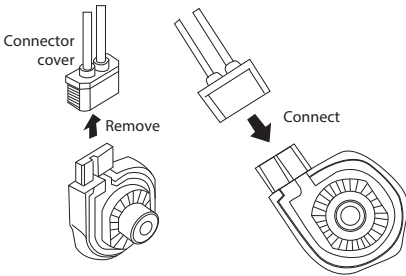
- Use only tested and approved trailers of good quality. Always find out about the national legal stipulations that apply to you.
- Not all bicycles are approved for towing trailers for children. Check whether the manufacturer has approved the bicycle for that purpose and use only attachments that the provided by the manufacturer.
- Remember it is easy to overlook a trailer with children in the traffic! Increase your chances for being notice by affixing a pennant and approved lights. Contact your specialized dealer and ask him about suitable safety accessories.
- Towing a trailer for children seat has un unfavourable impact on the on the riding properties of your bicycle. Because of the extra weight, stopping distances are longer and the bicycle will steer differently. Practise riding with a trailer for children in a quiet area without traffic.

For Polygon city, trekking and urban bikes, trailers are not permitted. Note that POLYGON will not assume liability or guarantee for the use of these trailers because of the wide varlatlon in fixation systems, the technical details of these systems and any associated problem with these fixation systems.

## PARTS & ACCESSORIES

### Mounted Accessories

Accessories/Repair/Spare parts  
Lighting-technical installation  
Always find out about the national legal stipulations that apply to you.



If your bicycle is fitted with a bottle dynamo, turn it on by pressing the button or the ON-ever from above. To turn it off, pull the dynamo away from the tyre and swivel it back into its home position. If your bicycle is fitted with a hub dynamo, the on- and off-switch can be found on the back of the headlamp or on the handlebar. If the lighting installation is controlled by a sensor, then the light automatically switches on in low light or when entering a tunnel.

**⚠ Danger** Only turn the dynamo on or off when standing still. Otherwise you will put yourself and other road users in danger.

**Warning** Clean the headlamp and reflectors at regular intervals with warm water and appropriate cleaning agents or washing-up liquids. Cleaning with abrasive cleaner can cause damage. For maintenance of the contact points, use a suitable spray oil.

**Danger** Well-functioning lighting is a matter of life or death! Have faults repaired in a professional.

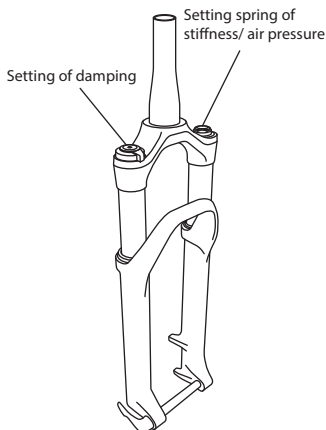
### Baggage Carriers

**⚠ Danger** Baggage Carriers  
The carrying of baggage changes the riding properties of your bicycle. One consequence is that braking distance becomes longer and can cause serious accidents. Adjust your riding behaviour to the altered riding properties. Brake sooner and remember that steering action will react more slowly. Only carry baggage on baggage carriers that are designed for this purpose. Never fasten baggage carriers to the seatpost. It is not designed for this purpose. Overloading the seatpost can cause it to break and lead to serious falls!

- Mount child seats only on baggage carriers on the rear construction, if the relevant fixings are available and have been provided by the manufacturer.
- Always attach baggage in a way that prevents anything getting caught between the spokes or in moving parts.

**⚠ Attention** When carrying baggage, always ensure that you do not exceed the permissible total weight for the bicycle. Information about maximum permissible weight is engraved on the baggage carrier.

**⚠ Remark** Front Wheel Baggage Carriers Front wheelbaggage carriers are fastened to the front axle or the front wheel fork. They are designed for lower weights than the rear baggage carriers.. Front wheel baggage carriers have a strong negative impact on riding behaviour! Before setting off on a ride, practise riding with a fully laden front baggage carrier in a safe area without traffic.



## Suspension

The spring elements that your bicycle may be equipped with must be adjusted to the weight of the rider and its intended use. This requires professional knowledge and experience. So only make the relevant adjustments in consultation with a specialist dealer. Be sure to read the manual supplied with the spring elements on your bicycle carefully. A typical spring fork for trekking bikes and mountain bikes looks like this:

Adjusting a spring fork must be carried out in accordance with the specifications given in the fork manufacturer's manual. As a rule of thumb, when riding over uneven surfaces, the fork should be functioning noticeably but should not "push through", i.e., to the limit stop. With proper basic settings, the spring element should be compressed by about 10-15% (Cross Country), 15-20% (Touring) or 25-33% (Enduro, Freeride, Downhill) of the spring play, if the rider is sitting comfortably on the bicycle.

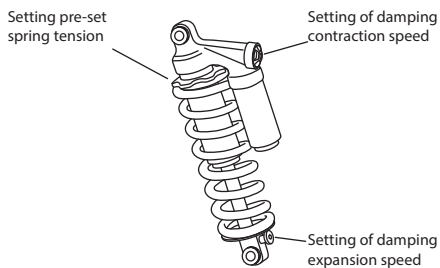
**Warning** It is important that you clean the spring fork regularly, so it will functionally sustain. Only use special cleaning agents or warm water with washing-up liquid. At regular intervals, lubricate the spring fork with a spray oil that suited to the purpose (available in specialized dealers). Do the same thing with the spring-loaded seatpost.

**Warning** Most springloaded seatposts can be adjusted to the weight of the rider. In most cases, the seatpost must be dismantled first. Contact your specialist dealer.



### Spring-loaded Frames and their Spring Elements

In the case of spring-loaded frames, the rear construction has movable bearings and is suspended and damped by a shock absorber. In the various models of shock absorbers, the damping is achieved either via a spring or via an air chamber. In high quality shock absorbers, the damping, i.e., the speed of expansion and contraction, can be adjusted.



A typical spring element looks like this: Read the manufacturer's manuals supplied for detailed information.

**⚠ Warning** Do not clean your bicycle with a pressure washer. Because of the high pressure, the cleaning liquid will penetrate the sealed bearings and damage them. During regular bicycle maintenance, carefully wipe the piston and the shock absorber seal clean with a soft cloth. Spray the running surface of the damper and the seal with oil, in order to sustain the functionality. Use special spray oils.

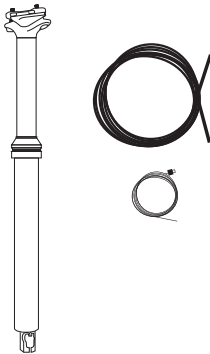
Regularly check the joints of the rear construction for play. Hold the frame and try to move the rear wheel sideways. You can check the fastenings of the rear construction by quickly lifts and puts down the rear wheel. Have your bicycle check by specialized dealer if you notice play anywhere r if you hear any rattling sound. Do not ride on your bicycle until the damage has repaired.

**⚠ Danger** The functioning and the firm seating of the spring components are essential for your safety! So regular checks and maintenance of your full-suspension bicycle are necessary. Suitable for cleaning are warm water and washing-up liquid or a soft cleaning agent that is approved.

**⚠ Danger** Tighten all screws only with the prescribed torques. Screws or extensions that are not fastened with the correct torque can tear, break or work loose. This can lead to the most serious-falls and injuries!

**⚠ Attention** Full-suspension bicycles are not suited for use with trailers and with trailers for children! Bearings and fastenings are not designed for the forces that then may occur. That leads to higher wear and tear. There is danger of construction elements breaking. The most serious falls and injuries could be the result.

**⚠ Remark** If your full-suspension frame only has a short seat tube that is open from below, the seatpost may only be inserted to the point where the spring element cannot be touched, even if the full spring travel is used.

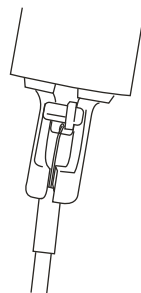
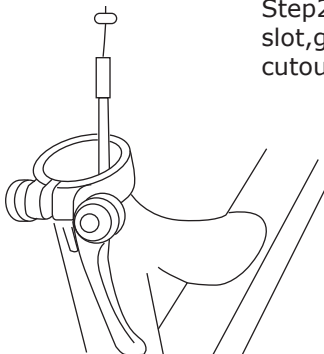


### Telescope Seatpost / Dropper post

Dropper posts are a game changer for mountain biking, allowing you to have your optimal pedalling position for climbing, and with a simple press of the lever you can push the saddle down to tackle the descents with ease. This is why a lot of our bikes now come with dropper post

Step 1: Pull the dropper cable out of the seat tube. You may need to turn the handlebars and simultaneously push the cable from the other end of the frame.

Step2:Insert the housing ferrule into the slot,guiding the cable through the slot cutout.



Step 3: Insert the activation barrel into the hook on the bottom of the post and slide the cable through the hook cutout.

Step 4: Visually check if everything is correctly seated - pressing the activation lever now should activate the post.

Step 5 : Insert the dropper post into the seat tube. Note the minimum insertion mark on the post. Feed the cable back towards the front of the bike as you insert the post to prevent damage to the cable and actuator.


Step 6: Adjust the cable routing where it exits the frame so there are no kinks or sharp turns on the cable line. To move the cable through the frame, feed it from one end while pulling from the other end.

Step 7: Place the dropper post in the desired position and tighten the seatpost clamp. This may be a small QR lever or an Allen head bolt. Tighten to 5Nm.

Step 8: Test the dropper activation by pushing the saddle down while pressing the lever, and pressing the lever while the seat is down and allowing the post

## MAINTENANCE


### Service and Repair

 **Remark** Take your bicycle to a specialist dealer for regular check-ups, at least after 1000 km ridden or after a year, whichever is the sooner. He will be able to recognise damaged and worn construction elements quickly and advise you on their replacement. Do not carry out repair work yourself on construction elements that affect safety, such as frame, fork, handlebar, stem, headset, brakes and lighting.

POLYGON pedelec are equipped with parts that work together to make it powerful and natural. Decibel level perceived by the driver is less than 70dB. If any components need to be replaced, make sure to use original spare parts only.

Wearing knock off parts, e.g brake pads or tire with unidentical dimension may resulting in unstable bike. Risk of accident!

**Note** that POLYGON pedelec only allowed certain components to be replaced, to ensure the insurance cover. Be sure to use original spare parts only.

 **Danger** Take note that during all works on the bicycle, all joints screw must be tightened with the correct torque. You can find the torque needed on a lot of construction elements display. The torque in Newton meters (Nm) and can only be applied by using torque wrench.

Screws or construction elements that are not tight enough can tear, break or loose. If you do not have torque wrench, then you should contact your specialized dealer to do the work.

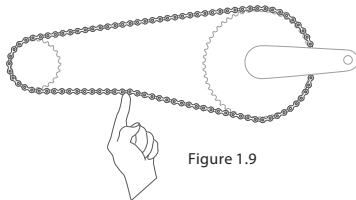
### Bicycle chain

Clean and lubricate the bicycle chain regularly in order to maintain its functionality. Dirt can be removed during normal washing of the bicycle. Otherwise, you can also clean the chain by pulling it through an oily rag. Use a suitable lubricant to apply oil to the cleaned joints of the chain. Leave for a while, then remove the excess lubricant.



**! Remark** The chain must be under a certain tension to enable secure functioning of the chain and the gears. In the case of chain gears, tension will be automatically applied. In the case of hub gears, the chain must be tensioned if it shows too much catenary sag. Otherwise the chain may come off and cause a fall.

### Chain Tension



**! Attention** In case of bicycle with adjustable dropouts, the fastening screws not the axle nuts of the axle support need to loosen and retightened. If an eccentric brushing is installed in the bottom bracket-shell then the chain must be tensioned in accordance with the specifications of relevant manufacturer.

**! Warning** Dirt and continuous load on the chain cause the chain to wear out. The chain must be replaced as soon as it can be lifted clearly (approx. 5 mm) off the front chain ring. Modern chains for chain gears do not have chainjoints, so special tools are needed for replacing the chain. Have the chain replaced by a specialist dealer. Other chains are supplied / mounted with chain joints. The joints can be opened without tools. Therefore, in the event of a defect whilst on the road, you can repair the chain on the spot. Make sure that you select the correct width of the chain joints, so that they will fit on the relevant sprockets.

### Tires & Rims

**! Remark** In normal use, brake rubbers and brake linings are subject to wear and tear. Check the condition of the brake installation and brake linings at regular intervals. Replace worn brake linings and brake rubbers in good time. Keep rims and brake discs clean and free of grease.

**! Note** On modern rims (from size 24") there are engraved or coloured points and lines on the brake surfaces and rims, where you can see how much tread is left. If the markings cannot be seen at a point, replace the rim. Other markings that fulfil the same function only become visible after a particular period of use, at which time the rim must be replaced. Have the rim checked by a specialist dealer, at the least when you have used up the second pair of brake rubbers.

**! Danger** Rims are construction elements under heavy load and are relevant to safety. They wear out during normal use and especially when applying rim brakes. Do not continue to ride a bicycle with a rim that has signs of damage or on which the wear markings indicate that they are worn out. Take your bicycle to the specialist dealer so that he can check the rim and replace it if necessary.

A worn rim loses stability and can lead to falls and serious accidents. Regularly check the tyres on your bicycle as well. The values for minimum permissible tyre pressure and maximum permissible air pressure 35-80 PSI (2.5-5.5 BAR) are displayed on the side of the tyre. Adhere to those values. Otherwise, the tyre can jump off the rim or burst!



**! Remark** Tyres are one of the components that are subject to wear and tear. Regularly check the profile depth, air pressure and the condition of the side of the tyre. The various types of tyres are meant for different uses. Consult your specialist dealer when selecting tyres in order to find the tyre that is best suited to your bicycle.

**! Danger** When using non-original or counterfeit spare parts, the correct operation of your bicycle is no longer guaranteed. Falls with serious consequences are possible when using tyres with bad adhesion or poor operational reliability, brake linings with insufficient friction and light construction elements that are used incorrectly or that have been poorly constructed. The same applies to incorrect assembly.

Remark If, Due to a human errors or wear, it is necessary to replace the construction elements that affect safety. Only replace them with manufacturer approved original spare parts.

This is compulsory for lighting purposes. In case of other constructions element, guarantee will usually void if the spare parts used are not approved by manufacturer. Seek advice from the manufacturer, importer or specialized dealer on selecting suitable spare parts.

### **Tubeless Tires**

If you use tubeless tyres on your bicycle, then read the manuals supplied by the tyres and rim manufacturers attentively.



**! Danger** Tubeless tyres may only be used on rims that are designed for this purpose. They are marked accordingly, e.g., with the abbreviation "UST".

**! Note** When using tubeless tires, be sure to adhere to the prescribed instruction. The tubeless tires should be fitted without using tools to prevent any damage and leakages. If the sealant is not relevant for remedying a defect, then you can fit a normal tube after you have removed the valve.

## Tubular Tyres

If tubular tyres are fitted on your bicycle, then ensure you read the manuals supplied by the tyres and rim manufacturer attentively.

**⚠ Danger** With tubular tyres, only use the type of rim that is designed for this purpose. They have no flanges and have a smooth, inward-curved surface, onto which the tubular tyre is glued.

**⚠ Remark** When using tubular tyres, ensure you adhere to the prescribed instructions for use and to the correct air pressure.

**⚠ Danger** Special skills and a lot of experience are required for gluing tubular tyres in place. Have tubular tyres replaced by a professional. Obtain information about the correct handling and replacement of tubular tyres.

## Dealing with punctures

The following equipment is needed for dealing with punctures:

- Plastic tyre levers
- Open-ended spanner or wrench (for wheels without quick release skewers)
- Air pump
- Spare tube

Do the following:

### 1. Opening the Brake

Opening cantilever brake or V-brake

- Press the brake arms together against the rim
- Hang the bowden cable of the brake or the outer sheath of the bowden cable over one of the brake arms

Hydraulic rim brake

- If quick release skewers are available, then dismantle one brake unit in accordance

with the instructions in the manual

- If quick release skewers are not available, then let the air out of the tyre,

Side-pull calliper brake

- If available, open the quick release skewer at the brake arm or at the brake lever

- If quick release skewers are not available, then let the air out of the tyre. You can now pull the wheel from between the brake linings.

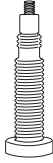

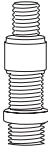
Hub gear, roll brakes, drum brakes or backpedal brakes:

- Loosen the cable clamp bolt or the quick release skewer at the brake arm.
- In case of backpedal brakes, open the screw of the

## 2. Removing the Wheel

- If your bicycle is fitted with a quick release skewer, then open it.
- If your bicycle has hexagonal bolts, then loosen them in anti-clockwise direction with a fitting ring spanner or box-end wrench. You can now remove the front wheel from the fork. When removing the rear wheel, pay attention to the following (the described steps only serve as examples):
  - If your bicycle has derailleur gears, shift to the lowest pinion. In that position, the derailleur does not hinder removal.
  - If your bicycle is fitted with a quick release skewer, then open it.
  - If your bicycle has hexagonal bolts, then loosen them in an anti-clockwise direction with a fitting ring spanner or box-end wrench
  - Pull the derailleur back a little
  - Lift the bicycle a little
  - Shift the wheel a little from above by hitting it lightly with the flat hand
  - The wheel will drop from below out of the frame. If your bicycle is fitted with hub gears, then carefully read the supplied operating manual of the manufacturer for instructions on how to demount.

Valve Types of Bicycle Tubes  
 Scloverand, Dunlop (English or Woods), Car (Schrader or American)

 <p>Scalaverand Valve</p>	<p>Synonyms                      SV-Scalaverand Valve                      French valve                      Racing bike valve                      Tubular tire valve                      Presta valve</p> <p>Rim bore                      6.5mm                      Maximum pressure                      15 bar</p>
 <p>Schrader Valve</p>	<p>Synonyms                      Car valve                      Passenger car valve</p> <p>Rim bore                      6.5mm                      Maximum pressure                      6 bar</p>
 <p>Dunlop Valve</p>	<p>Synonyms                      DV-Dunlop Valve                      NV-Normal Valve                      Bicycle valve                      English valve                      Wood valve                      German Valve</p> <p>Rim bore                      8.5mm                      Maximum pressure                      6 bar</p>

## 3. Dismantling Tyre and Tube

- Remove the valve cap, the locking nut and possibly the union nut from the valve. In the case of Dunlop or English valves, remove the valve barrel.
- Let the remainder of the air out of the tube.
- Place the tyrelever opposite the valve on the inside of the tyre.
- Place the second tyre lever approx 10 cm from the first lever between the rim and the tyre.
- Lever the side of the tyre over the flange of the rim. -Lever the tyre as often over the rim as is necessary for loosening the tyre all around the rim.
- Take the tube out of the tyre.

#### 4. Replacing the Tube

Note Only replace the tube tyre and tubeless tyre in accordance with the specifications in the tyre or rim manufacturer's manual.

#### 5. Mounting Tyre and Tube

**⚠ Note** Make sure that no foreign particles get into the inside of the tyre. Make sure that the hose has no pleats and is not squeezed anywhere. Verify that all spoke ends are covered by the rimlining and that there is no visible damage.

- Put one edge of the rim inside the tyre.
- Press one side of the tyre completely into the rim.
- Push the valve through the valve hole in the rim and place the hose inside the tyre.
- Use the ball of the hand to press the other side of the tyre completely over the edge of the rim.
- Verify that the tube is properly seated.
- In the case of Dunlop or English valves: place the barrel back into the valve and tighten the union nut.
- Pump a little air into the tube.
- Verify the proper seating and true run of the tyre by means of the witness line on the side of the tyre. Correct the seating of the tyre by hand, if it does not run true.
- Pump air into the tyre up to the recommended pressure.

#### 6. Mounting the Wheel

Securely fasten the wheel with the quick release skewer or the threaded axle into the frame or fork.

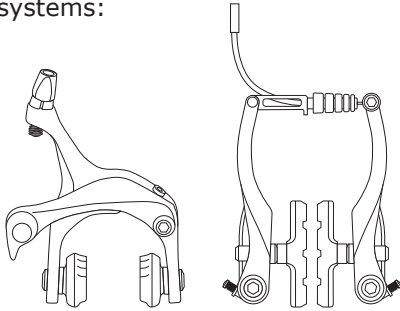
**⚠ Danger** If your bicycle has disc brakes, then be absolutely sure that the brake discs are correctly seated between the brake linings. Carefully read the gear manufacturers' manuals for the correct and secure mounting and adjusting of chain and hub gears and of combinations of chain and hub gears.

**⚠ Danger** Tighten all screws with the prescribed torque. If this is not done, screws may break off and components may become detached.

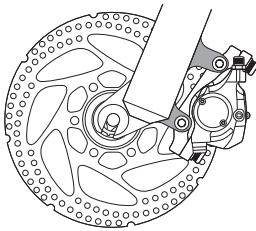
- Hang the bowden cables of the brake in place, secure them or close the quick release skewer.
- Check whether the brake linings touch the brake surfaces.
- Securely reassemble all dismantled construction elements of the brake.
- Carry out a brake test.

## Brakes

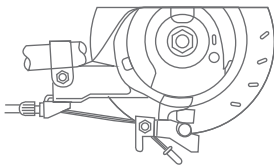
Modern bicycles can be equipped with a wide variety of possible brakes. There are various brake systems:



Rim Brakes



Disc Brakes



Roller Brakes

Modern brakes can have a much stronger braking effect than you are used to. Before mingling with road traffic, practise in a quiet area without traffic. Become familiar with the allocation of the front and rear brake to the right and left brakelever.

**! Note** Your bicycle was supplied with the appropriate operating manual for the brake model that has been installed on the bicycle. You will find information about your bicycle's brakes in the manufacturers' manuals and on their websites. Read the instructions about operating and maintaining the brakes extra carefully!

**! Danger** Brakes and brake systems are construction elements that are highly relevant to safety! This means that regular servicing is essential, and requires specialist knowledge and special tools. Ensure all work on the brake installation is carried out by a specialist dealer! Work that has not been carried out correctly and professionally will impair the operational safety of your bicycle!

**! WARNING** : Do not touch the the disc brake after prolonged use . The surface of the might be hot and could cause burns.

## Gear changing

Modern bicycles can be equipped with a wide variety of possible gear systems. There are various gear systems:

- Chain gears
- Hub gears
- Combined chain and hub gears
- Automatic gears

**! Note** has been installed on the bicycle. You will find information about the gear system of your bicycle in the manufacturers'

**⚠ Danger** Brakes and brake systems are construction elements that are highly relevant to safety! Carefully read the manufacturers' manuals. Before your first ride, familiarise yourself with operating and shifting the gears on your bicycle. Have all work on the gear installation carried out by a specialist dealer! Work that has not been carried out correctly and professionally will impair the operational safety of your bicycle!

### **Electrical / Electronic Gears**

If your bicycle is fitted with gears where the gear change signals are transmitted electronically, it is important to read the component manufacturer's manuals supplied, with regard to operating and maintenance.

### **Inspection Schedule**

Modern bicycle technology is powerful, but also sensitive. That means that regular servicing is essential. This requires specialist knowledge and special tools. Have all work on your bicycle carried out by a specialist dealer! You will find information about construction elements and servicing and maintenance in the operating manuals of the manufacturers and on their pages on the Internet. Maintenance you can carry out yourself without danger are shown hereafter in bold.

The following actions are necessary for maintaining sustainable functionality and upholding the right to make claims under guaranty:

- Clean you bicycle after every ride and visually check it for damage.
- Always have inspections carried out by a specialist dealer.
- Check your bicycle at intervals of about 300 to 500 km and at least after three to six months. Amongst other things, check that screws, bolts and quick release skewers are firmly seated.
- Use a torque Wrench for all screw joints!
- Maintain and lubricate all moving parts (except the brake surfaces) in accordance with the specifications of the manufacturer.
- Have paintwork touched up.

### **Deadlines and Maintenance for Bicycle Inspection**

Before every ride on the bicycle:

Actions to be carried out: Service / Check-up

Check:

- Spokes
- Rims for wear and true running
- Tyres for damages and embedded foreign particles
- Quick release skewer for secure and correct seating
- Functioning of gears and suspension
- Functioning of the brakes

In case of hydraulic brakes: Tightness

- Lighting

After having ridden 200 kilometres, and after that at least once a year.

Actions to be carried out

- Tyres and wheels

Have the following components adjusted:

- Headset
- Brakes
- Gears
- Spring elements

Torques of:

- Crankarms
- Seatpost -Pedals
- All fastening screws
- Seat
- Handlebar and stem

Every 300 to 500 kilometres approx: Actions to be carried out

Check

- Bicycle chain
- Pinions
- Cogset
- Rim
- Brake linings

for wear, have them replaced if necessary (specialist dealer)

Lubricate:

- Chain with suitable lubricant

Check / have checked:

- the firm seating of all screws

Clean:

- Bicycle chain
- Pinions
- Cogset

Every 1000 kilometres approx  
Actions to be carried out

Check hub brake, if necessary, grease brake sheath with brake sheath grease or replace (specialist dealer)

Every 3000 kilometres approx:  
Actions to be carried out

Have your specialist dealer check, clean, possibly replace:

- Hub
- Pedals
- Headset
- Gears
- Brakes

After every ride in the rain:

Actions to be carried out

- Gear changing
- Chain Cleaning and lubricate:
- Brake (except brake surfaces)



## Lubrication

**⚠ Warning** Ask your specialist dealer about suitable lubricants! Not all lubricants are suitable for all purposes. If the wrong lubricants are used, damage may occur and functionality may suffer!

**⚠ Note** The first inspection is particularly important for the safe functioning of your bicycle without any problems. Bowden cables and spokes can get longer and screw joints can become loose. Therefore, make sure that the first inspection is carried out by a specialist dealer.

**⚠ Danger** Specialist knowledge, special tools and experience are needed for working on the bicycle. So make absolutely sure that all work on parts that are relevant to safety is carried out or checked by a specialist dealer!

### Lubrication schedule

The chain, after removing dirt, after having ridden in the rain, every 250 km with chain oil  
Brake and gear cables, when not functioning well, once a year with silicon-free grease  
Wheel bearings, pedalbearings, inside bearing, once a year with bearing grease  
Spring elements, after removing dirt, after riding in the rain, as per manufacturer's instructions with special spray oil

### Thread during mounting with mounting grease

Contact surfaces of carbon parts, during mounting with carbon mounting paste  
Sliding surfaces of quick release skewers, once a year with grease, spray oil  
Metal seatpost in metal frame, during mounting with grease  
Gear joints, when not functioning well once a year with spray oil  
Brake joints, when not functioning well once a year with spray oil

## Screw Joints

**⚠ Danger** Applying the correct torque (the correct tightening force) is essential for all screw joints on the bicycle, to ensure that they remain securely seated. A torque that is too high can cause damage to the screw, the nut or the construction element. Therefore, always use a torque wrench. Without this specific tool, it is impossible to tighten screws correctly.

**⚠ Warning** Also, be sure to apply the torque that is stated on a construction element. If no torque is stated, read the manufacturer's manual.

Name of clamp bolt	Torque N.m
Crank arm, steel	30Nm
Crank arm, aluminium	40Nm
Pedals	40Nm
Wheel Nut, front	25Nm
Wheel Nut, rear	40Nm
Stem expander bolt	8Nm
A-head clamp screws	9Nm
Clamping screw on handle grip	10Nm
Seatpost clamping screws M8	20Nm
Seatpost clamping screws M6	14Nm
Seatpost bracket	20Nm
Brake blocks	6Nm
Dynamo fastening	10Nm
Seat clamp on carbon frame	5Nm
Bottle cage on carbon frame	2Nm
Bolt of handlebar	6-8Nm
Handlebar Stem & fork clamp bolt	6-8Nm
Seat post	Quick release

Different for carbon components:

Name of clamp bolt	Torque N.m
Screw Connection/ Torque Derailleur, clamp fastening screw	3Nm
Shifter, mounting bolt	3Nm
Brake lever, mounting bolt	3Nm
Handlebar clamping- handlebar stem	5Nm
Clamping handlebar stem-fork shaft	4Nm

Screw joint/thread/ torque, max Seat bracket, loose, M5	4Nm
Seat bracket, loose, M6	5.5Nm
Derailleur hanger, M10 x 1	8Nm
Bottle cage, M5	4Nm

Inside bearing BSA\*as per manufacturer's specification  
 Caliper, disc brake, Shimano (IS and PM), M66-8 Nm\*  
 Caliper, disc brake, AVID (IS and PM), M68-10 Nm\*  
 Caliper, disc brake, Magura (IS and PM), M66 Nm\*

At the side end \* The use of carbon mounting paste is recommended

**Danger** Using grease or oil for lubrication is not permitted, when carbon fibre frames and construction elements are used. Special paste must be used for carbon fibre parts.

General torques for screw joints  
 In principle, the following torques apply to screw joints:  
 Dimension/ Torque for screw quality markings 8.8, 10.9,12.9  
 M4: 2.7/3.8/4.6 Nm  
 M5: 5.5/8.0/9.5 Nm  
 M6: 9.5/13.0/16.0 Nm  
 M8: 23.0/32.0/39.0 Nm  
 M10: 46.0/64.0/77.0 Nm

## Handling Carbon Fibre Components

Carbon fibre is a material that requires special handling and care when constructing the wheel, during servicing, when riding and also during transportation and storage.

### Properties

**⚠ Danger** After an accident or fall, although carbon fibre parts may not be deformed, pressed in or bent, fibres may have been damaged or come loose, e.g., within the construction element, which cannot always be seen from the outside. So the carbon fibre frame and other carbon fibre components should be regularly and closely inspected, especially after an accident or if the bicycle has fallen over.

- Look for splintering, tears, deep scratches, holes or other changes to the carbon fibre surface.
- Check whether some parts feel weaker or less firm than normal.
- Check whether some layers come off (Jacquer, finish or fibres).
- Listen for unusual noise or the occurrence of cracking sounds.

Always have the concerned carbon fibre parts checked by a professional if you have any doubt at all about their condition.

**⚠ Warning** In order to be fastened securely, carbon fibre components need a lower torque than similar metal components. Torques that are too high can cause damage that may be hidden and possibly not be visible from the outside. Therefore, always adhere to the supplied information of the manufacturers or ask your specialist dealer about it. Always use a torque wrench, to be sure that you are applying the correct tightening force. Never lubricate carbon fibre parts with grease. There are special mounting pastes for carbon fibre components that are used for mounting in order to guarantee secure seating at low torques.

Carbon fiber parts should never be exposed to high temperatures. Even in a car, strong radiation from the sun can increase the temperature to certain point it can have a negative effect on the security of the carbon fiber parts. Carbon fiber frames should never be clamped directly in a mounting stand. Only use the seatpost to secure the carbon fiber frame in position. If the seatpost also made of carbon fiber then temporarily use a metal post along mounting duration.

# WARRANTY

## Wear and Tear and Guarantee

In pedelec bike, construction elements are subject to easily wear and tear compared to a bicycle without auxiliary propulsion. This is due to greater weight of the vehicle and higher average speed that achieved through the propulsion.

The increase of wear and tear amount from a fault does not affect the guarantee. Construction elements that are typically affected by wear and tear, are:

- Tyres
- Pinions
- Chain
- Brake linings
- Spokes

Because the battery is subject to obsolescence, it is subject to wear and tear. Be aware that the distance that can be covered on a fully charged battery becomes shorter with age and duration of use. Take this into consideration when you are planning your rides and, if need be, exchange your battery for a new one in good time. Replacement batteries are available from specialist dealers.

**⚠ Warning** If you wish to dispatch the battery, you must adhere to special conditions. Ask the manufacturer or specialist dealer about the regulations that apply to you. If you transport your Pedelec in a car, you must remove the battery off and transport it separately.

## Liability in the event of a Fault

The conditions for guarantee / liability for faults are (partially) harmonised in countries that are subject to EU law. Find out about the relevant national stipulations that apply to you. Within the scope of EU law, the seller is liable for material faults for at least the first two years from the date of purchase. The liability for faults also covers faults that already existed at the time of purchase / handover. Moreover, during the first six months it is assumed that the fault already existed at the time of purchase. If lodging a claim against the seller, it is a prerequisite that the purchaser has adhered to all prescribed conditions for use and servicing. The relevant conditions can be found in the chapters of this manual and in the manuals supplied by the component manufacturers.



In Germany / Austria, if a fault occurs, you can demand supplementary performance as a first step. If the second attempt to render supplementary performance fails, it will be assumed that the equipment has definitively failed. You will then have the right to a discount or you may withdraw from the purchase.



In Switzerland, liability is limited to one year from the date of purchase. In the event that a fault occurs, you can choose between restitution, reduction and subsequent delivery or, in all cases, repair.

Liability for material faults does not cover normal wear and tear within the framework of use as intended. Construction elements of the propulsion and deceleration devices, as well as tyres, lighting and contact points between the rider and the bicycle are subject to wear and tear by virtue of their function. For Pedelecs and e-bikes, the battery is also a part that is subject to wear and tear. Read the relevant guarantee conditions for further details about the guarantee cover and on how to exercise claims under it.

**⚠ Note** Contact a specialist dealer if a fault / liability case should occur. Present all purchase receipts and inspection records as proof. **Maintenance and Service** The more often and the more intensively you use your MTB / racing bike, the more maintenance it will need. Regular servicing increases the useful economic life of your MTB/ racing bike, reliably secures its functionality and avoids major repairs. A comprehensive inspection should be carried out at least once a year at your specialist dealer. If you notice changes in your MTB / racing bike) that you cannot explain (e.g., in riding, steering or braking properties), then consult your specialist dealer immediately, for safety reasons.

For the following, we would like to give further servicing instructions. A cleaning cloth is best for removing dirt. Mud is best removed using a bucket of warm water and some (biologically degradable) washing-up liquid. This exterior maintenance is suitable for all parts of your bicycle, except the chain, seat, tyres and plastics. Cleaning your MTB/racing bike has the additional advantage that possible defects can be identified at an early stage. Take the opportunity to look for damage to the frame, fork and components. After cleaning and subsequent drying, use a protection product: spray wax has proved to be best. But it is better to apply little and often rather than over-waxing once in a while.

**⚠ Warning** In the case of bicycles with brake systems that act on the rims, it is very important to make sure that no lubricants (wax, oil, grease) get onto the sides of the rims or on the brake rubbers. Otherwise, the brake effect could be reduced to nil. In the case of full suspension MTBs, servicing is restricted to the chainstay and careful cleaning of the bearing area and the suspension strut. Do not use a steam-jet air ejector or abrasive cleaning agents! Regularly check whether there is sideways play in the bearings of the rear wheel hops or vertical play in the bearings of the suspension strut.

1. Lift the bike at the seat and try to move the rear wheel sideways to and fro. If necessary, get someone to help by holding the front part of the frame.
2. To check for play in the suspension strut, gently place the rear wheel on the ground and lift it again a little. Listen for clattering sounds.
3. If there is any play, have it repaired immediately by your dealer.

## GUARANTEE INSPECTION

### Guarantee inspection checklist within 30 to 60 days of purchase

Checked	New	Adjusted	Repaired
Gears / Chain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bowden cables gears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brake system / Linings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bowden cables brakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bearing system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spring fork / Spring element	<input type="checkbox"/>	Adhere to the manufacturer's service instructions and service intervals	
Pedal bearings / Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Headset / Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stem / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handlebar / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seat / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seatpost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheels / Wear and tear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spoke tension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Work carried out: \_\_\_\_\_

Materials used: \_\_\_\_\_

Specialist dealer, date, stamp \_\_\_\_\_

## ANNUAL INSPECTION

Checklist annual inspection 12 months after date of purchase or 200 ridden kilometres

Checked	New	Adjusted	Repaired
Gears / Chain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bowden cables gears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brake system / Linings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bowden cables brakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bearing system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spring fork / Spring element	<input type="checkbox"/>	Adhere to the manufacturer's service instructions and service intervals	
Pedal bearings / Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Headset / Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stem / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handlebar / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seat / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seatpost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheels / Wear and tear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spoke tension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Work carried out: \_\_\_\_\_

Materials used: \_\_\_\_\_

Specialist dealer, date, stamp \_\_\_\_\_



## ANNUAL INSPECTION

**Checklist annual inspection 24 months after date of purchase or 1000 ridden kilometres**

Checked	New	Adjusted	Repaired
Gears / Chain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bowden cables gears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brake system / Linings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bowden cables brakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bearing system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spring fork / Spring element	<input type="checkbox"/>	Adhere to the manufacturer's service instructions and service intervals	
Pedal bearings / Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Headset / Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stem / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handlebar / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seat / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seatpost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheels / Wear and tear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spoke tension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Work carried out: \_\_\_\_\_

Materials used: \_\_\_\_\_

Specialist dealer, date, stamp \_\_\_\_\_

## ANNUAL INSPECTION

**Checklist annual inspection 36 months after date of purchase or 2000 ridden kilometres**

Checked	New	Adjusted	Repaired
Gears / Chain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bowden cables gears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Brake system / Linings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bowden cables brakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bearing system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spring fork / Spring element	<input type="checkbox"/>	Adhere to the manufacturer's service instructions and service intervals	
Pedal bearings / Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Headset / Seating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stem / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Handlebar / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seat / Fastening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seatpost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheels / Wear and tear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spoke tension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tyres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Work carried out: \_\_\_\_\_

Materials used: \_\_\_\_\_

Specialist dealer, date, stamp \_\_\_\_\_

Object	To be done	Before every ride	Monthly	Annually
Steering bearing	Steering bearing for free movement	√		
Handlebar (and bar ends)	Check for firm seating	√		
All quick release skewers	Check for firm seating	√		
Rims	For damage resp. Edge abrasion checking	√		
Tyres	Condition and air pressure Checking	√		
Valves	Check seating	√		
Brake system	For full functionality Checking	√		
Pedal bearings	Checking play in bearings		√	
Crank set	Check for seating resp. tighten			√
Chain	For need to lubricate Checking	√		
	Check for lengths		from 1000 km	
Hub	Checking play in bearings		Every 3 months	
Spokes	Check tension	√		
Wheels	Check for true run	√		
Gear / brake bowden cables	Demount, grease anew			√
(Spring) fork	Check and service	See specifications of the manufacturer		
Frame spring element	Check and service	See specifications of the manufacturer		

**Handover log**

The bicycle that is specified in the bicycle identification has been handed over to the customer in properly mounted and ready-to-ride condition. The customer has carried out a visual inspection.

**Functional check for the following components:**

- Visual check (lacquer damage, scratches)
- Wheels: secure seating, spoke tension, true run, correct air pressure
- All screw joints: secure seating, correct torque
- Brake system
- Gears
- Lighting system
- Adjustment of sitting position to the rider
- Adjustment of spring elements to the rider

The following extensions have been separately mounted and checked:

- Test ride by the mechanic / acceptance
- Instructing the customer in respect of the bicycle
- Grip for front wheel brake right (mark)
- Grip for front wheel brake left (mark)

Date signature mechanic / Dealer's stamp: \_\_\_\_\_

**The following manuals have been handed over and explained: (mark)**  
Bicycle

Additional manuals for:

Brake system

Gears

Spring elements

V-belt propulsion

Pedelec:  
Battery

Propulsion

Operating element

Other records: \_\_\_\_\_

Permissible total weight  
(Weight bicycle + Rider + Baggage + Trailer)

**Customer/receiver**

Name \_\_\_\_\_

First name \_\_\_\_\_

Address \_\_\_\_\_

Postal code,  
town/city: \_\_\_\_\_

Email \_\_\_\_\_

Date signature mechanic / Dealer stamp: \_\_\_\_\_

**Identification properties of the bicycle**

Bicycle manufacturer / Make:

Bicycle model:

Frame height / size:

Colour:

Frame number:

Fork manufacturer / Make:

Fork model:

Colour:

Serial number:

Type of gears:

Separately mounted parts / Special equipment \_\_\_\_\_

Date of Purchase:

Owner (Surname, first name) \_\_\_\_\_

Address \_\_\_\_\_

Date / Signature \_\_\_\_\_

Handed over by (Dealer's stamp):

In case of change of ownership:

Owner (Surname, first name) \_\_\_\_\_

Address \_\_\_\_\_

Date / Signature \_\_\_\_\_

## **STANDARD CLASSIFICATION FOR BICYCLES USAGE**

To get the detailed and updated information, Please kindly check on  
Please kindly check link [www.polygonbikes.com](http://www.polygonbikes.com)

## **BICYCLE SIZING GUIDE**

To get the detailed and updated information, Please kindly check on  
Please kindly check link [www.polygonbikes.com](http://www.polygonbikes.com)



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