



TECHSHARK
TRAILBLAZER

PREMIUM MOUNTAIN BIKE

CONGRATULATIONS ON YOUR TRAILBLAZER BIKE PURCHASE!

Our bike is designed, assembled, and adjusted to meet the highest safety standards. With proper care, your **Trailblazer** bike will keep you cycling and happy for many years to come. Given that there are multiple models of **Trailblazer** bikes equipped with different specifications, this manual will provide general information. Should you have any questions regarding your **Trailblazer** bike or its parts, please contact us.

Assembly and initial adjustments require specific tools; therefore, it is recommended to receive assistance from an experienced seller's mechanic. Some maintenance will require service that can only be completed by a professional mechanic. Since bicycles are considered vehicles, it is important to follow the rules of the road and ensure not to neglect safety regulations. This specification manual contains useful information that will help you enjoy riding and using your **Trailblazer**

TRAILBLAZER

PREMIUM MOUNTAIN BIKE

Specifications Manual

ENG

TRAILBLAZER

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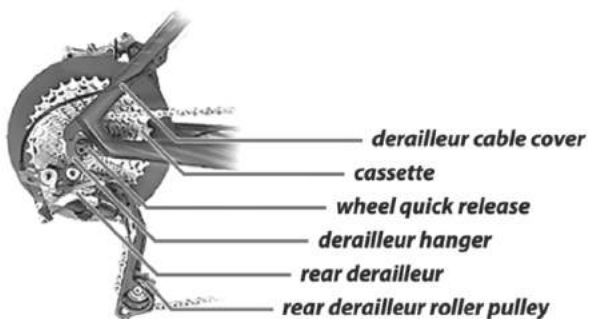
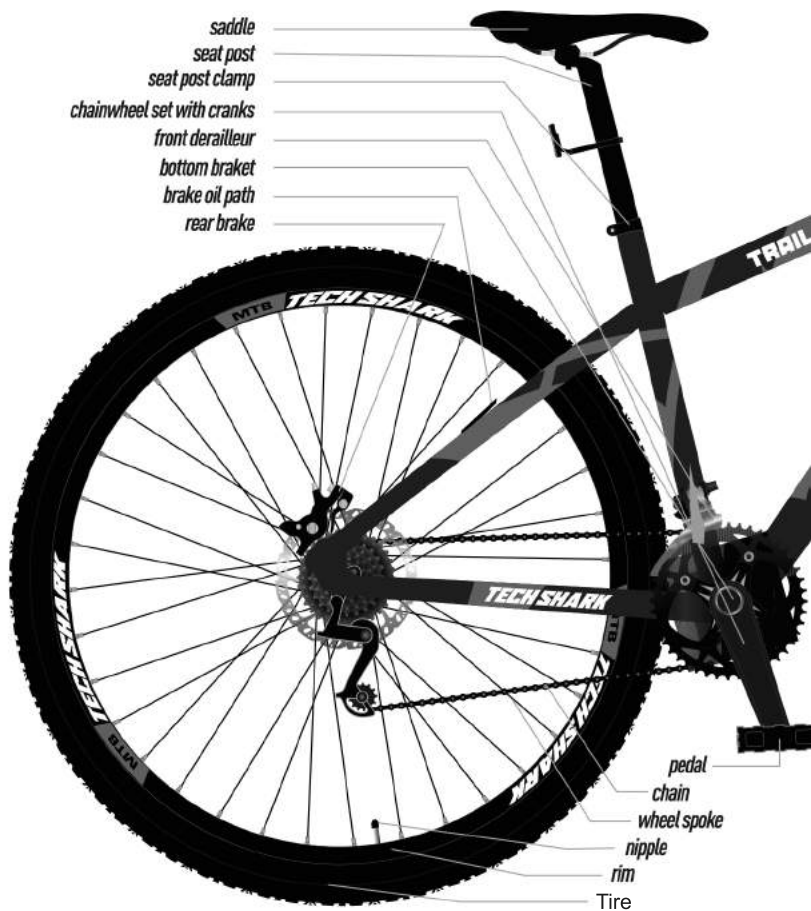
1. SAFETY

- 1.1. ATTENTION!** Please remember cycling can be a hazardous activity.
- 1.2. Before each ride check the bike** as described in Section 4.
- 1.3. When riding, use individual means of protection.** Wear a helmet to protect your head from injury, glasses will cover your eyes from dust and insects, gloves will save your hands in case of fall.
- 1.4. Before entering road traffic, study its rules.** Most countries and regions have their own national regulations for cyclists. Here are the most crucial rules:
 - 1.4.1. Use appropriate hand signals.
 - 1.4.2. Ride along the required road side (never ride against traffic).
 - 1.4.3. If you're in a team while on the road cycle one by one.
 - 1.4.4. Protect yourself (try to forecast unexpected). Remember: You are not always visible; though cycling becomes more popular, many drivers do not know bicycle signals.
- 1.5. Be careful when cycling on roads with dangerous surface.** Please be careful while riding on gravel roads.
 - 1.5.1. Make sure you're allowed to ride there. Not all parks and private places are opened for cyclists.
 - 1.5.2. Put on protective apparel, including helmet, glasses and gloves.
 - 1.5.3. Stubs, stones, potholes make ground cycling dangerous.
 - 1.5.4. When going down slow down, moving your body backwards and downwards; it's advisable to use rear brake.
 - 1.5.5. Consider others. Use the bell to warn them you're on the way.
- 1.6. Use brakes with care.** Always keep a safe distance when stopping behind other vehicles or objects. Braking distance and power should correspond to road conditions depending on weather. Use both brakes at the same time and avoid front brake overusing.
- 1.7. Protect yourself.** Always be ready to face risk. Please remember you are less visible to other cyclists, bikers and pedestrians than a car. Always be prepared to stop or skirt.

- 1.8. Watch the road.** Though road conditions and tracks design have recently become better you should be always aware. You can meet pits, drains, low edges, etc on your way. Cross the railway cautiously at the angle of 90 degrees. In case you don't feel confident, get off the bicycle and drive it.
- 1.9. Watch the parked cars when passing by.** You can easily get into trouble in case a car drives suddenly away or a car door is suddenly opened on your way. For your safety it's advisable to use the alarm bell.
- 1.10. Be careful when driving at night time.** Your bicycle is equipped with required reflectors set; fix them where it's necessary and make sure they are clean. Do remember no matter you have reflectors you are still in danger of being injured unless light is focused on them. We also advise you to set light equipment on your bicycle and wear bright clothes to be seen on the road. The key point is to see and to be seen. Please use numerous and various gadgets for that.
- 1.11. Mind wet weather.** Any brakes no matter the design don't function same way in wet and dry weather. That is why one should stick to safety rules. When it's wet outside your well adjusted and oiled brakes still require an increased lever pressure and a longer braking distance. It will take you more time to stop. Besides, wet weather leads to bad view (for you and car drivers) and worsens road adherence. Slow down when turning on wet road. Greasy leaves and hatches can be dangerous as well.
- 1.12. If you use additional equipment and make technical changes to your bike** (child seat, additional seats, lighting equipment installed) take the national traffic regulations and applicable standards into account.
- 1.13. Never leave your bike unattended to prevent theft.**

2. ASSEMBLY

- 2.1. Take your bike out of the box releasing it from packing.
- 2.2. Install the front wheel. Make sure the directional tyres go in the arrow marking direction, use the quick release correctly. Close the quick release to fix the wheel at the ends of the fork. To define the closing torque, use the adjusting nut.
- 2.3. Install the stem and the handlebar on the fork rod. Depending on the headset type, install the star nut and tighten the screw with torque of 3-5 N/m or tighten the locking screw with torque of 25 N/m.
- 2.4. Install the front brake caliper on a fork (in some cases, the brake is already installed). Connect it with cable and outercasing.
- 2.5. Install the pedals and pay attention: thread of the left pedal is left, thread of the right pedal is right. Each pedal is labeled L/R. Before installation apply a thick coat of grease on the thread.
- 2.6. Inflate the Tires. Advisable pressure is stated on the Tires lateral side.





handlebar

frame

oil path/ brake cable

fork crown

fork legs

fork sliders

front brake

brake disk

wheel hub

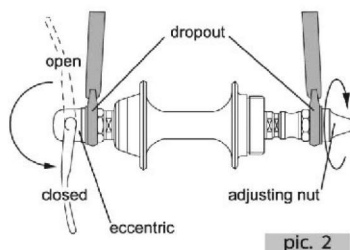
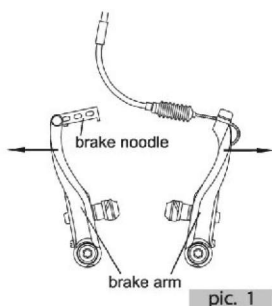
3. ADJUSTMENT

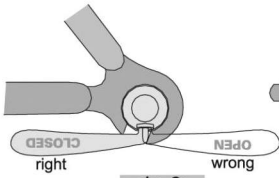
3.1. Wheels

For further adjustment of the bike units check whether the wheels are correctly assembled. For this:

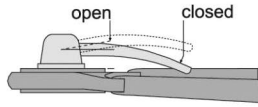
- 3.1.1. Set the bike horizontally on the wheels.
- 3.1.2. Open the wheel quick release, under the bike weight the wheel will set itself right into the dropouts. If it is necessary to adjust the quick release torque use the adjusting nut. The torque to apply is 10-15 N/m (pic. 2)
- 3.1.3. Do the same as above to the second wheel.
- 3.1.4. If the wheel is fixed to the fork by nuts, first loosen them, after the wheel takes its place in the dropouts tighten the nuts with little effort for accurate fixation and then tighten the nuts with torque of 35-50 N/m
- 3.1.5. When installing rear wheel on one gear bikes appropriate chain tension is required. If the tension is too weak the chain may fall down from the free wheel, severe tension leads to hard running and fast chain wear. The chain tension is considered to be appropriate, when grasped in the middle of the chain run between the front and rear sprockets, there should be a total of 20-25 mm total vertical movement (pic. 3).

For V-brake wheel removal or assembly release or lock the brake noodle (pic. 1, 4).

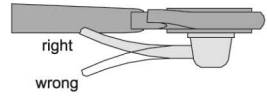




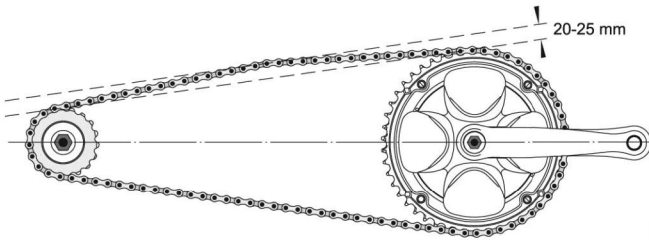
pic. 2a



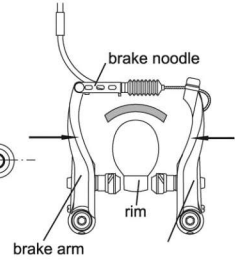
pic. 2b



pic. 2c



pic. 3

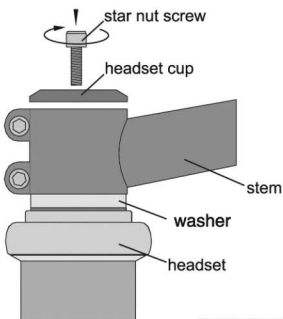


pic. 4

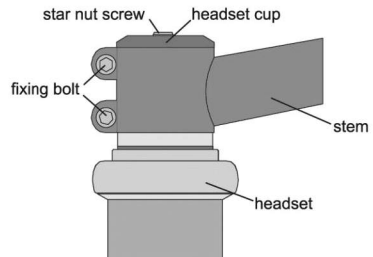
3.2. Headset (threaded and threadless)

Threadless headset

- 3.2.1. Make sure all headset parts are properly placed and duly fixed (pic. 5).
- 3.2.2. Using the star nut screw tighten the headset (3-5 N/m) till the fork turns easily, without any play.
- 3.2.3. Put the stem straight against the front wheel and tighten fixing screws (8 N/m) (pic. 6).
- 3.2.4. The stem height can be slightly adjusted with compensating nuts. Just stick to the rule to fix the stem on fork rod at the height of not less than 80% from stem height at the point of mounting.



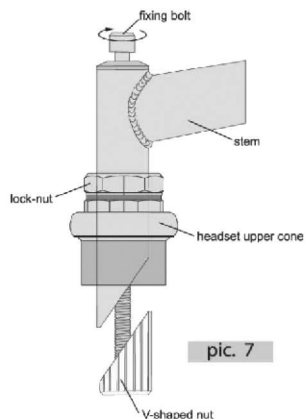
pic. 5



pic. 6

Conventional headset.

- 3.2.5. Make sure all headset parts are properly placed and duly fixed (pic. 7).
- 3.2.6. Put the stem at the required height, level the stem against the front wheel and tighten the lock bolt (25 N/m).
- 3.2.7. Check the stem for a mark which limits its possible height. Adjusting the stem above the mark is not allowed.



3.3. Handle bar

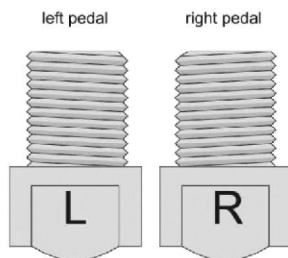
You can easily define handlebar tilt and bent. Make sure the handlebar tilt is horizontally centred in the stem. Otherwise, you may refer to your own comfort requirements. To adjust/mount the handlebar release/take off Allen bolts, set the bar within the stem centre and keep the necessary tilt direction. Torque the bolts in rotation, in case it's a two-bolt fix; torque the bolts in chequer-wise rotation, in case it's a four-bolt fix. The maximum torque is 5-8 N/m.

3.4. Saddle, seat post

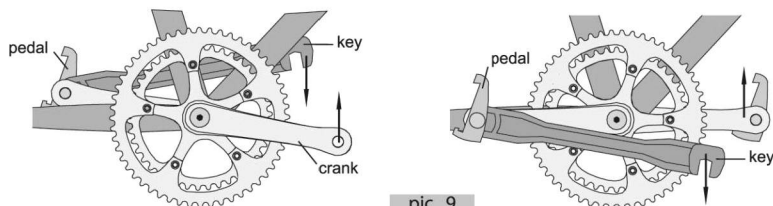
Put the seat at the approximate height, the torque of quick-release bolt 5-8 N/m (do not mount the seat post height drawn out beyond the limit). Get on your bike, let somebody hold you or put the bike beside the wall when on it. Put your heels on pedals. Spin the pedals back. When wearing your shoes there should be a slight bend in your knee in a proper riding position. At the same time you shouldn't fall over the saddle when riding. Tip the saddle nose either parallel to the ground or a bit up to stay on the seat without moving towards the handle bar. To adjust the saddle angle and position towards the seat post back and forth release the bolt in the seat post; in case you have a two-bolt fix release the bolts in rotation. After you adjust the saddle to the desired position torque the bolt with 12-15 N/m. In case of the two-bolt fix adjust the angle by tightening one of the bolts and loosening the other. The final torque for each bolt is 12 N/m.

3.5. Pedals

Before setting the pedals oil the thread with grease thick coat, it will prevent pedals sticking to cranks. When pedals are mounted tighten their axles inside the cranks with torque of 20-30 N/m (pic. 8, 9).



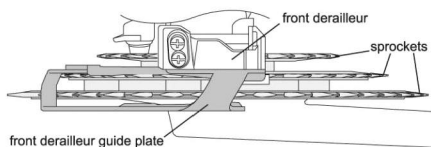
pic. 8



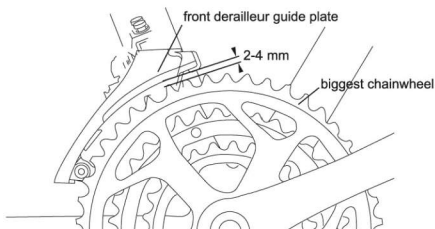
pic. 9

3.6. Front derailleur

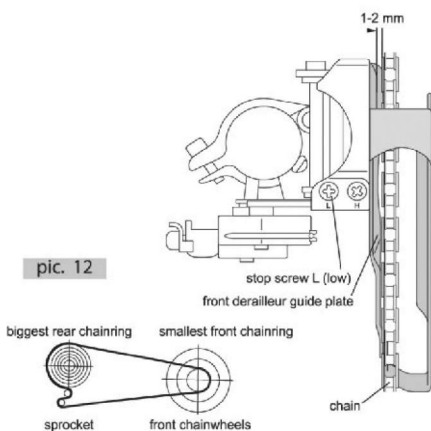
- 3.6.1. Mount the front derailleur on the seat tube so that the guide plate of the derailleur is in parallel with the chainwheels and distance from plate outside till bigger chainwheel is 2-4 mm (pic. 10, 11). The fixing bolt torque is 5-8 N/m.
- 3.6.2. Set the chain onto the smallest front chainring and the largest rear sprocket (pic. 12).
- 3.6.3. Using the stop screw L (low) adjust the front derailleur innermost position so that chain is 1-2 mm apart from the plate inner side (pic. 12).
- 3.6.4. Set the left shifter to the small chainwheel position and increase the front derailleur cable tension so that it couldn't lengthen (5 N/m) (pic. 13). Pay attention to check whether derailleur cable is duly grooved where cable is fixed.
- 3.6.5. Turn the cranks forward and set the chain to the biggest front chainring and the smallest rear sprocket (pic. 15).
- 3.6.6. Using the stop screw for shifter make the front derailleur duly function (pic. 14).
- 3.6.7. Using the stop screw H (high) adjust the front derailleur outermost position so that the guide plate couldn't move crankward, at the same time chain should easily shift on to the largest chainring.



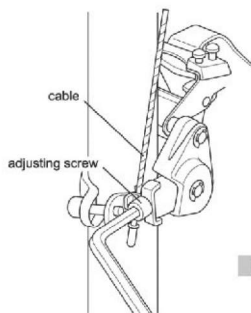
pic. 10



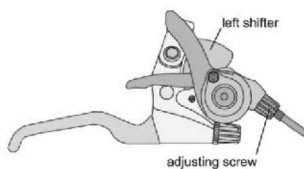
pic. 11



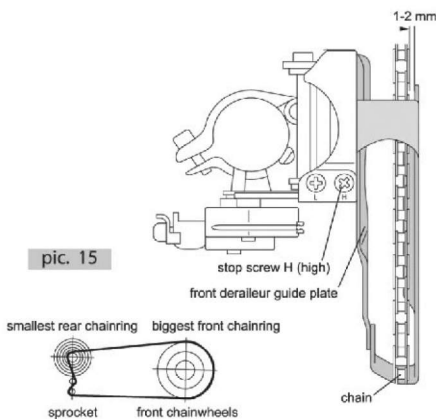
pic. 12



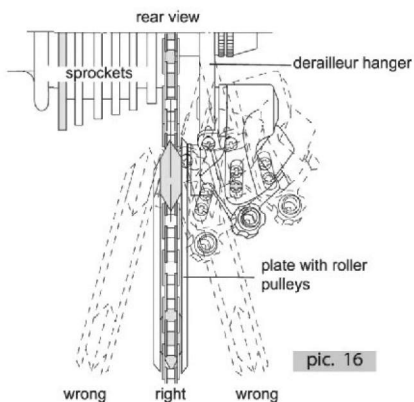
pic. 13



pic. 14



pic. 15

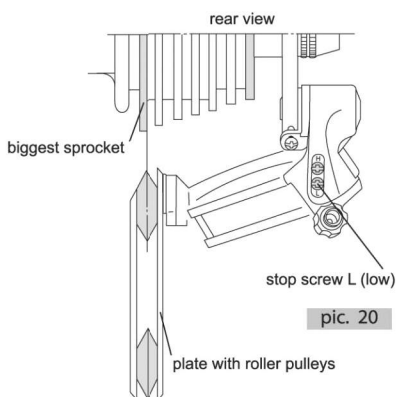
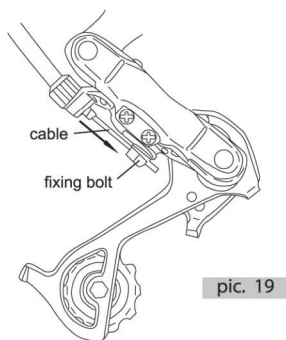
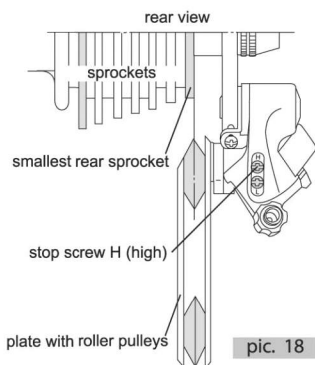
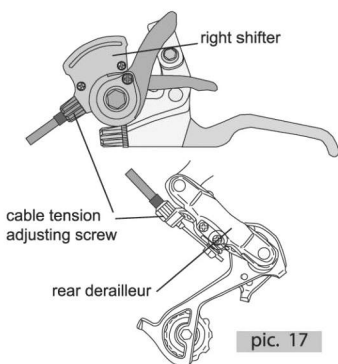


pic. 16

3.7. Rear derailleur

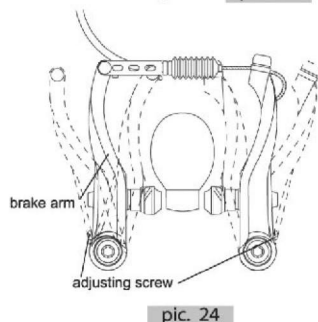
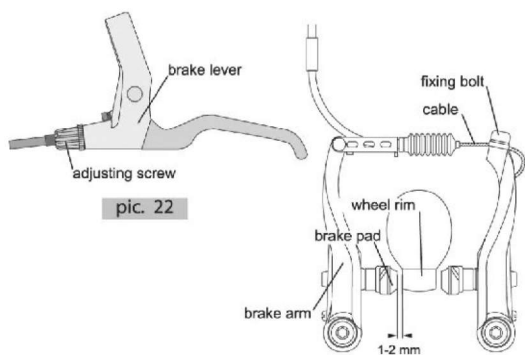
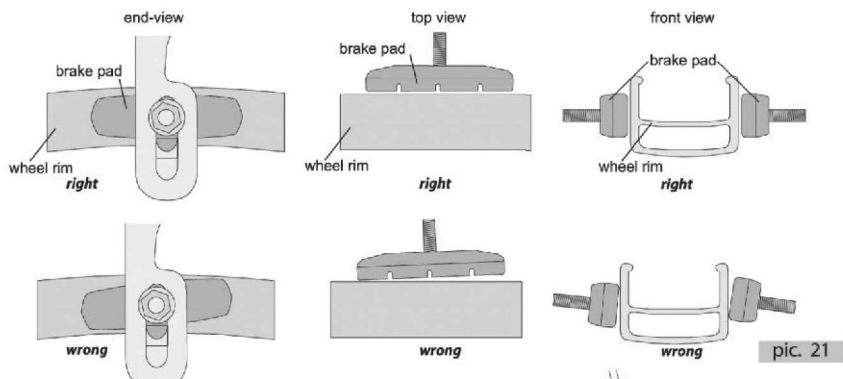
- 3.7.1. Before adjusting rear derailleur make sure its fastener is not deformed and the guide plate is in parallel with the chainwheels (pic. 16).
- 3.7.2. Turn the cranks forward and mount the right shifter to the small chainwheel position; set the chain onto the smallest rear sprocket (pic. 18).
- 3.7.3. Turn the adjustment bolt counterclockwise in half turns until the cable is tensioned (pic. 17).

- 3.7.4. Using the stop screw H (high) adjust the rear derailleur outermost position so that derailleur roller is situated exactly under the smallest sprocket (pic. 18).
- 3.7.5. Fix the rear derailleur cable tension so that it couldn't lengthen (5 N/m) (pic. 19).
- 3.7.6. Turn the cranks forward and set the chain to the largest sprocket (pic. 20).
- 3.7.7. Using the stop screw L (low) make sure when gear is the lowest (the largest sprocket) the plate with rollers freely functions in-plane of bigger chain-wheel (pic. 20); at the same time shifter should be easily and exactly set to the lowest gear.
- 3.7.8. Using the stop screw for shifter (or derailleur) delicate adjustment make the rear derailleur duly function (pic. 17).



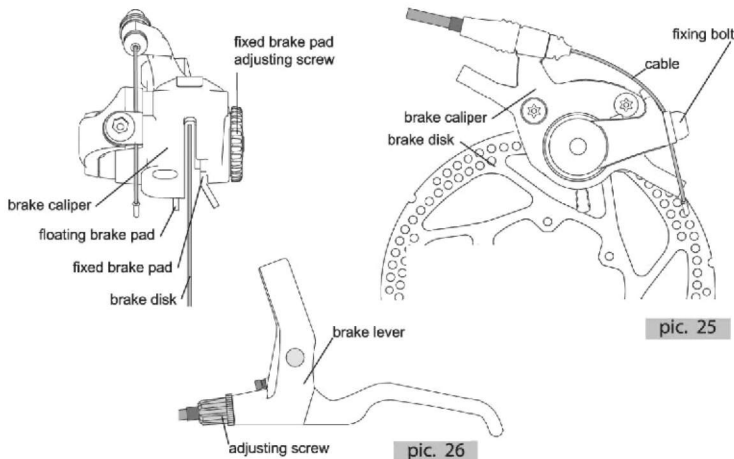
3.8. Rim brakes

- 3.8.1. Mount the brake pads so that the pad braking surface is in parallel with the rim braking surface and it's set right in the middle (pic. 21).
- 3.8.2. Tighten the adjusting bolt against the brake lever and unscrew it by two turns (pic. 22), fix the cable on the lever in such a way that distance between pads and rim amounts to 1-2 mm (5 N/m) (pic. 23).
- 3.8.3. Pull the brake lever, use the lock ring if necessary to adjust the distance between brake pads and rim (pic. 22).
- 3.8.4. Use the adjusting bolt on brake arms to pull them equally aside (pic. 24).
- 3.8.5. Once pads become worn and cables are pulled adjust the cable tension by using the lever bolt or by using the lock nut at the cable holder located at the point where the brake cable enters the brake lever; please, keep in mind the lock should be screwed 5 mm less into the lever.



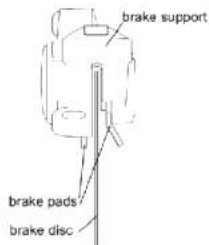
3.9. Mechanical disc brakes

- 3.9.1. Before adjusting disc brakes make sure discs are not deformed, pads' surface is smooth, without any scratches.
- 3.9.2. With your eye control set the disc brake caliper in such a way that pad braking surface is in parallel with the brake disc. Fix the caliper bolts (5-8 N/m) (pic. 25).
- 3.9.3. Use the adjusting bolt to mount a fixed pad in such a way it is as close as possible to the disc without touching it while wheel rotating.
- 3.9.4. Adjust the brake cable so that when pulling the lever it's 2-3 cm apart from the handlebar (5-8 N/m) (pic. 26), if required use the adjusting bolt on the brake lever.
- 3.9.5. As a rule disc brakes completely grind after 100-200 km distance run.
- 3.9.6. In proportion to wear use the adjusting bolt on caliper and brake lever to set necessary clearance between pads.

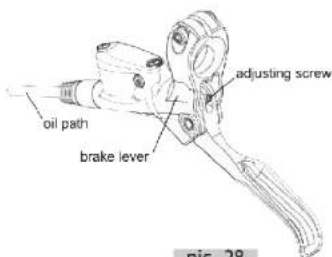


3.10. Hydraulic disc brakes

- 3.10.1. Before adjusting hydraulic disc brakes make sure discs are not deformed, pads' surface is smooth, without any scratches.
- 3.10.2. With your eye control set the disc brake caliper in such a way that pad braking surface is in parallel with the brake disc (pic. 27). Fix the caliper bolts (5-8 N/m).
- 3.10.3. Use the adjusting bolt to mount the brake lever at your own requirement (pic. 28).
- 3.10.4. As a rule disc brakes completely grind after 100-200 km distance run.



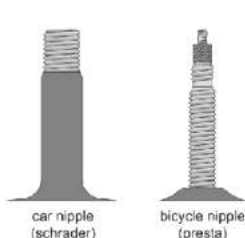
pic. 27



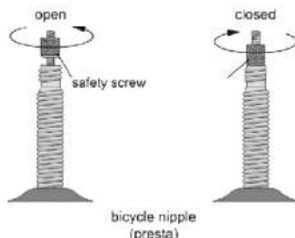
pic. 28

3.11. Tires

- 3.11.1. Before riding pump up the wheels till the required pressure. The pressure needed is shown on the tyre sidewall.
- 3.11.2. Use the pump appropriate for your bicycle nipple. There are two main types of nipples: for bicycle (PRESTA) and car (SCHRADER) (pic. 29, 30).
- 3.11.3. Before you start inflating a bicycle tyre with PRESTA nipple, loosen the safety screw (pic. 30), make sure it works after one-time press. Once you inflate the bicycle tyre with PRESTA nipple, tighten the safety screw back.



pic. 29



pic. 30

4. MAINTAIN YOUR BICYCLE.

4.1. Before every ride

- 4.1.1. Check the way your brakes function. Press the brake lever rolling the bicycle forward and backward. The wheels should clearly block.
- 4.1.2. Check the holding force of wheels quick releases. (Tips are given in 3.1).
- 4.1.3. Check the tyre pressure (Tips are given in 3.11).

4.2. Once a week (about 100-200 km distance run)

- 4.2.1. Clean and oil the chain (choose special silicone or teflon based lubricants, use specific cleaners). Depending on weather conditions and riding frequency the break between maintenance sessions can vary.

4.3. Once a month (about 500-800 km distance run)

- 4.3.1. Check the chain for wear using the tool required.
- 4.3.2. Check whether hub, headset, bottom bracket and pedal bearings are properly adjusted.
- 4.3.3. Tight the crank bolts to the torque specification. For cranks set to bottom bracket axle — 35-40 N/m.
- 4.3.4. Check that all stem and handle bar bolts are tightened to the torque specification (5-8 N/m).
- 4.3.5. Check the wheels radial and face true. If necessary change the rims. To adjust you will need a spoke wrench (we strongly advise you to contact an authorised service centre in this case).
- 4.3.6. Check brake pads condition, in case you have V type brakes; check the wear of rims braking surface. Once the special grooving remains the rim is still possible to use; once the grooving is no longer visible, the rims are subject to change.

4.4. Once a season

- 4.4.1. Suspension fork is maintained according to the manual enclosed. Fork oil seals are to be cleaned or replaced, suspension fluid is to be changed. If you ride your bicycle when it's rainy, snowy or dirty service it more often than the schedule suggests. You can determine by sight or once you feel the fork malfunctions whether suspension systems require service.
- 4.4.2. Check cables and their cover condition. The cover should not be damaged in the cable-held places. The cables must have smooth surface with no signs of souring and be able to run freely inside the cover. If required, change the cables and cover.
- 4.4.3. Change the lubricant inside the hubs, bottom bracket and head set (provided that bearings are possible to dismount for service).

Within first 2 weeks of bicycle riding (about 100 km distance run) take it to the service centre for first maintenance. It includes determining torque of cranks on bottom bracket spindle (500 Nm); checking headset, stem and handle bar torque (star nut — 3 Nm, stem bolts — 5 Nm); spokes' tension check; brakes and derailleurs adjusting.

5. GUIDE TO GENERAL RULES

5.1. Recommended tools for service and repair:

- Torque wrenches with measure range of 3 to 50 N/m;
- Allen keys 2, 3, 4, 5, 6, 8 mm;
- Spanner keys 9, 10, 13, 15, 17 mm;
- Cap keys 15 mm;
- Screwdriver Ph+ (1);
- Tire levers;
- Air-gauge pump.

For further consult on wide range tools usage please contact your dealer.

5.2. Frame size choice

When choosing the bicycle with an appropriate frame size please consult dealer shop assistants. In case you're on your own use the following tips:

- Stand on the even surface and set the bicycle between your legs.
- Calculate the distance between your crotch and frame upper tube. For MTB the required distance is 10-12 cm. For road bicycle the distance is 5-10 cm..

MTB					
frame size (inches)	$\frac{\quad}{\text{cyclist height (cm)}}$	$\frac{15''}{155-165}$	$\frac{17''}{165-180}$	$\frac{19''}{175-190}$	$\frac{21''}{185-200}$
ROAD					
frame size (cm)	$\frac{\quad}{\text{cyclist height (cm)}}$	$\frac{48-51}{155-170}$	$\frac{53-55}{170-180}$	$\frac{58-61}{180-200}$	

5.3. Seat (saddle) adjustment

Follow the recommendations given in 3.4. Your comfort cycling will depend on correctly chosen saddle height and shape, as well as its adjustment.

5.4. Apparel

We strongly advise you to wear a helmet. Choose the one considering your riding style and frequency. Let a bike shop assistant help you when buying. Cycling gloves will let you provide a good grip for the bar. Sole of the shoes should be stiff and non-slip. Clothes should be loose and comfortable fitting your body. Wide pant legs can easily be caught by cranks or stuck between the chain and chainwheel. Wide jacket or T-shirt can easily hitch on the bar, stem or seat.

5.5. Gear shift

While riding choose the most comfortable for you sprockets ratio regards the area. Follow the rule to never use such derailleurs gears as: smallest front chainwheel – smallest rear sprocket, largest front chainwheel – biggest rear sprocket. Such use leads to the unfavorable run of chain and fastens chain and sprockets wear.

Pressing the shifter moves the chain to the large chain rings. When shifting the chain over the chain wheels (front derailleurs) it's advisable to apply less force with pedals, at least before the chain reaches the 6-7 teeth sprocket. Otherwise, such shift can lead to chainwheel break down (bend, teeth damage) or chain out of order (links torn or bent).

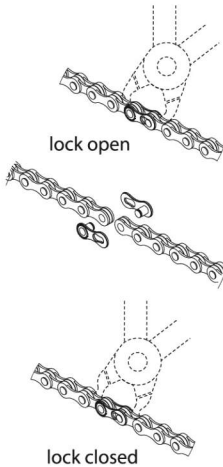
When shifting the smallest rear sprockets (rear derailleurs) it's advisable to slow down the pedal force. Do not try to shift the gears without chain rotation. It may disadjust the derailleurs.

5.6. Chain

If your chain is quick-locked, you can easily remove it to clean. You can mount the quick-lock yourself by removing a chain link and replacing it by the lock. Use an appropriate key tool (pic. 38). to mount – dismount the lock. Oil the chain duly to prevent it from early wear, as well as the chainwheels. Apply specific lubricant on the chain once or twice a week so that oil could infiltrate the links. Finally rub off excess lubricant with a rag, thus chain won't get dusted.

5.7. Storage

When not riding store your bicycle in rooms with appropriate humidity, protected from sun and precipitations.



lock open key



lock close key



pic. 38

5.8. Suspension

Use specific lubricants for your suspension fork and rear shock maintenance. Apply it on the sliding surface of fork upper legs and suspension rod according to the manual enclosed. It makes seals function better and longer. Apply some water to remove dirt from fork legs surface and suspension rod. Suspension fluid inside the fork is changed once a season or as advised in the manual enclosed.

6. WARRANTY INFORMATION

Register your Techshark Warranty online at

<https://www.techvillestore.com/pages/warranty-registration>

Or use the QR code below to register:



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