



BICYCLE USER INSTRUCTIONS

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Dear customer,

Thank you for your decision to buy an original and unmistakable genuinely Czech product that will meet all your high demands. Please read all information given in these instructions carefully. DURATEC wishes you many sports successes.

The bike is designed solely for sports purposes, it is not designed to be used on roads. If used that way, it should be equipped according to the regulations for mandatory bicycle equipment on roads according to the legislation in your country.

Always wear a cycling helmet while riding. Wearing cycling clothes and equipment (cycling gloves, glasses etc.) is recommended. Your ride will become more comfortable and safer.

1. BICYCLE MAINTENANCE AND ADJUSTMENTS

In the case of a defect or imperfect operation of any component, try to eliminate the defect as soon as possible. That way you can avoid much higher future costs of defect elimination. Only use the proper tools for bike repairs and adjustments.

If you are unsure what to do during adjustments or repairs, you had better ask a professional service shop to carry out the work. The warranty does not apply to the defects resulting from unauthorised repairs or adjustments.

1.1. Brakes

In the case of a brake malfunction do not ride the bike! Eliminate the defect as soon as possible.

With most brake levers, the adjusting screw can be used to set the distance of the lever from the handlebar. It is appropriate to shorten the lever distance mainly for the riders with shorter fingers who can thus reach the brake levers comfortably and safely.

In the case of mechanical brakes where the force is transferred from the lever to the shoe by means of a steel cable, the cable gets slacken eventually and brake functionality decreases. The braking effect is also reduced by the wear of brake blocks and pads. Adjustment nuts on the brake lever or the brake shoe of roadrace bikes are used for easy brake adjustment.

Brake components, e.g. brake blocks or pads, brake cables and Bowdens, wear eventually and they have to be checked and replaced in time to prevent a damage of the rims, discs or the brakes proper. With the rim brakes check also the wear of rims which may eventually get grooved. Further use of such rims may be dangerous and it is not recommended. Potential noisiness of rim brakes is usually caused by improper adjustment of brake blocks. The brake blocks should be 1–2 mm from the rim and in the process of braking the front part of brake blocks should fit first against the rim.

In the case of bikes equipped with hydraulic disc brakes the braking effect is reduced as a result of the wear of brake pads. Brake components, e.g. brake pads, brake fluid, end pieces and tubes, wear eventually and they have to be checked and replaced in time to prevent damage of the discs or the brakes proper. All disc brakes need some time to be run in to provide maximum performance. For that purpose accelerate to approx. 30 kph for 30 to 50 times and always brake until the bicycle stops completely. After proper running in the pads will turn glassy and they will provide the highest performance. Keep the brake discs clean and degreased using special brake cleaning agents. If deep cracks or dents are found on the discs, they must be replaced. In the case of disc rubbing, the brake needs to be adjusted by loosening and proper attaching the brake back to the frame or wheel fork. The leaking brake fluid may not only be harmful to your health, but among other effects it may also damage the paint.

Each rider should be familiar with basic brake adjustment. If you are unsure regarding your capabilities, you had better see a professional service shop.

1.2. Gear shifting

The cables controlling the front and rear derailleur get slacken eventually and the shifting system needs to be adjusted. Adjustment is always required if shifting is difficult, noisy or it does work properly. In

the adjustment process it is good to adjust the front derailleur first and only after that the rear one.

Front derailleur adjustment

First of all, set the proper upper and lower limit stop of the front derailleur using two screws on the shifter in order to prevent the chain from shifting past the largest and the smallest sprocket. Shift to the smallest sprocket and check that the smallest sprocket and both shifter idlers align. If not, the shoe carrying the derailleur or even the frame may be bent. Next, adjust the cable leading to the derailleur to be stretched and the chain shifts lightly as far as the smallest sprocket. Use a nut at the shifting levers or at the derailleur to adjust the cable. If shifting by a larger distance is required, the cable proper must be stretched or loosened.

Rear derailleur adjustment

It is necessary that the rear derailleur guide is parallel with chain wheels. The lower edge of the guide must be 1–3 mm from the teeth of the largest chain wheel. For adjustment shift to the smallest chain wheel and the largest sprocket. Use the adjustment screw to set the lower limit stop of the rear derailleur so that the inside part of the guide is approx. 1 mm from the chain. Then shift to the largest chain wheel and the smallest sprocket and set the upper limit stop of the rear derailleur using the second adjustment screw. Adjust the cable length using the nut at the gear shift or by shifting the cable proper in the fixing screw in the rear derailleur.

Gear shift cables and Bowdens

Their frequent check is important and necessary. If a defect is found, e.g. fraying, cracks or unnatural bending, replace the cable or Bowden. For correct and accurate gear shifting use the cables and Bowdens designed for the gear shifting systems which differ from the brake ones in their design and usually also in diameter.

1.3. Wheels

All wheels are equipped with quick-release mechanisms which enable easy and quick installation and removal of wheels without the use of tools. In the case of removal, release the quick-release lever outwards; for both wheels it is also necessary to loosen the nut on the other side of the quick-release mechanism.

In order to remove the rear wheel, shift the smallest sprocket on the cassette and in the process tighten the rear derailleur by hand in the backwards direction. That way the rear wheel easily releases from the fork and the frame shoe carrying the derailleur will not be bent. Install the wheel in the reverse order. Always apply sufficient force to attach the wheels in the frame or fork and check their correct fitting. After re-installing the wheels always check the brake functionality!

If your bike is equipped with hydraulic brakes take care not to press the brake lever during the wheel removal. The brakes could get re-aerated. During the transport of a bike with wheels removed we recommend to use plastic blocks inserted between brake pads in order to prevent pressing the brake lever.

1.4. Headset, handlebar stem and handlebar

The DURATEC bikes are equipped with the ahead set type handlebar stem, which is attached from the outside to the steerer tube of the fork. This stem type allows only very limited height adjustment. The change of height depends on the length of the fork neck and number of adjusting shims below the stem. The height can be adjusted by using handlebars with various bending or replacing the stem with another one with a different tilt angle. The bikes manufactured based on the data from the professional FOG measurement have been adjusted to the optimum values based on the FOG measurement.

The headset play is set using a screw located in the middle of the headset cap. To adjust the play, first of all release both screws of the fork socket on the headset sufficiently (the screws on the headset used to attach the headset to the fork neck) and then tighten the upper screw in the cap as required. After the adjustment retighten both screws in the headset!

In the case of a fall, we recommend to check that the handlebar or handlebar stem are not bent or cracked. In the case of any doubts the damaged components must be replaced; further use might be very dangerous!

1.5. Fork and shock absorbers

The bicycle equipped with spring fork, or full suspension bike will make the cross-country rides and riding on broken roads easier and more pleasant. Improperly adjusted suspension elements cause the incorrect functioning of the system and may even result in the damage of the fork, shock absorber or the bike frame. Contact a professional service shop for maintenance and repairs. Always follow manufacturer's instructions while performing adjustments of the fork and shock absorber.

After each ride clean both the fork blades and shock absorber piston from dust and dirt using a fine cloth. Use a little silicone oil to lubricate the fork blades and shock absorber piston regularly.

1.6. Pedals and cranks

Pedals are marked with letters R and L. The L pedal is mounted on the left crank and the R pedal on the right one. Upon purchase of the bike check that the pedals are mounted correctly and tightened sufficiently. The use of a bike with loosened pedals may result in the damage of the pedal or crank threads. That is an unrepairable defect that is not subject to the warranty. Check the cranks mainly for sufficient tightening of the screws that attach chain wheels to the right crank. Further pay attention to the fastening of the cranks to the central axle in order to avoid deformities of the seating surfaces of the crank and central axle. In the case of joint deformity, repair is impossible and both components need to be replaced. The warranty does not apply to this defect.

1.7. Bottom bracket

The DURATEC bikes are equipped with various types of bottom brackets (BBs); each of them requires proper tools for removal. All BB types are enclosed, so the bearings do not require any treatment or lubrication. If the BB does not run smoothly, contact a professional service shop to have your bike checked and the BB possibly replaced.

The BB belongs to the most stressed bike components; its durability is mainly decreased by a frequent use of the bike in unfavourable conditions, racing use and cleaning with high-pressure water jet.

1.8. Saddle and seat post

Before ride set the correct saddle height and position. The offset can be adjusted by shifting the saddle to the front or back in the seat post lock. In order to ensure that you sit comfortably the saddle should be in the horizontal position. At the correct saddle height your leg placed with the heel on the pedal in the lower position should be slightly bent. The bikes manufactured based on the data from the professional FOG measurement have been adjusted to the optimum values based on the FOG measurement.

The quick-release mechanism or saddle socket must always be tightened sufficiently in order to prevent the seat post sliding into the frame.

The seat post must not be extended above the mark identifying the maximum permitted limit; if there is no mark, you should observe that the post is inserted at least 70 mm for the road frame and at least 100 mm for MTB! Otherwise the post might get bent, broken or the frame damaged! In the case of a claim regarding the frame in the seat post area, the seat post must be submitted.

1.9. Chain

The chain is the most important component for the motion forward, therefore care should be taken to keep it clean! To clean the chain, use preferably modern environmentally friendly degreasing agents that can be bought in common cycling shops. After cleaning always lubricate the chain well.

1.10. Rear structure of full suspension frames

The rear suspension system requires careful cleaning of the area of the shock absorber attachment and movable parts around bearings. Do not use pressure washing or aggressive cleaning agents. After washing always spray some oil into the area around the bearings and shock absorber attachment.

After riding for 30 – 40 hours, always check the bearings of the rear structure for lateral play and the bearings of the shock absorber for vertical play. To check the lateral play of the rear structure, grasp the saddle to lift the bike and try to move the rear wheel from side to side. If required, ask a friend to hold the saddle of the bike and keep the front part of the frame still.

To check the vertical play of the rear shock absorber, place the rear wheel gently on the ground and lift it smoothly. Check that the shock absorber does not give any clattering sounds.

If a play is discovered, contact your service shop immediately and have it eliminated. The main bearings of the rear structure are enclosed and they usually do not require any maintenance. Use a torque wrench to check tightening of the joints securing the bearings and the upper as well as the bottom attachment of the shock absorber. The correct torque is 9 – 10 Nm.

The rear suspension is subject to wear from its nature. The most worn components include mainly the bearings, gaskets and journals that are subject to friction. The wear of these parts depends to the large extent on the degree of use and their maintenance.

After each fall check that the shock absorber is not damaged. If in doubts, contact your service shop for advice and check.

2. BIKE INSPECTION AND MAINTENANCE OF INDIVIDUAL COMPONENTS

All frames and components have their lifetime, which depends on the structure, material as well as on the maintenance, the way and intensity of the use. Regular checks should be commonplace. That way you can avoid potential future problems. It is always better to eliminate a minor defect in time that might otherwise grow into a major one in the future and risk a serious damage to the bike or even your health as a result of possible injury.

2.1. Bicycle storage

It is appropriate to store the bike in places where it is not subject to weather effects. You will contribute to its longer lifetime significantly. Do not lay the bike on its right side; the front derailleur could get damaged and the chain polluted. If you are planning to store the bike for a longer period of time, first of all clean it thoroughly and then store it in an appropriate dry place.

2.2. Cleaning

In order to ensure perfect performance of the bike it is necessary to keep it clean. Movable parts including the chain, cassette, chain wheels, front and rear derailleur and rims are subject to dirt and impurities. Especially if your ride in a muddy or dusty environment. These components will repay your regular and timely cleaning and maintenance by better performance and longer lifetime. To clean the bike use special and environmentally friendly agents; that way you will protect your bike as well as the nature.

2.3. Lubrication

For bike maintenance use the agents designed for bicycles to be bought in cycling shops. The lubricants designed for motorists are not suitable for bikes. To lubricate the chain, apply oil to the clean and dry chain, preferably sufficiently long time before the ride (e.g. in the evening before the ride). That way you will ensure better penetration of oil to the inside of the chain. Before you set out for a ride, you should wipe off the excessive lubricant. You will prevent excessive adhesion of dust and impurities to the chain. Perform the check of lubrication and cleaning of the sliders of spring forks regularly and in time, always after approx. 30 hours of operation or immediately after the ride in the case of unfavourable conditions (mud, rain, dust). You will prevent permanent damage of the spring fork.

2.4. Recommended bike inspection and maintenance intervals

Before each ride check	functioning of brakes, gear shift, spring fork and shock absorber
	easiness of turning of wheels, handlebar, cranks and pedals
	tightening of quick-release bike mechanisms
	tightness of hydraulic brakes
Once a week or after riding approx. 200 km check	tyre pressure (inflate to the recommended pressure specified on the tyre)
	chain cleanliness and lubrication
	centring of wheel rims and fastening of quick releases
	cleanliness of fork sliders and shock absorber piston
	functioning of brakes and gear shift
Once a month or after riding 1,000 km	perform thorough bike cleaning and lubrication, check for chain sagging (using gauge or at a bicycle service shop), possibly replace the chain (the late chain replacement requires also the replacement of the cassette and chain wheels)
	check tightening of all bolted joints, tightening of cranks, brakes, headset, pedals, tightening of spokes in the wheel, state of tyres, brake and gear shift cables
	check the lubrication of Bowdens, brake journals and joints of all movable mechanisms (front and rear derailleur, joints of the rear bike structure, etc.)
	check the wear of brake blocks or pads (possibly replace them)
	check the condition of spring fork, shock absorber, lubrication of sliders, and in case of air suspension, check the pressure
	perform thorough bike cleaning and lubrication, check for chain sagging (using gauge or at a bicycle service shop), possibly replace the chain (the late chain replacement requires also the replacement of the cassette and chain wheels)
Once every 3 months	check tightening of all nuts and bolts
	clean and lubricate the seat post (not in case of carbon frames) and handlebar stem
	check the state and wear of the cassette and chain wheels
Once a year	perform overall service (preferably at a professional service shop),
	clean and lubricate all bearings, hubs, bottom bracket and headset
	replace damaged cables and Bowdens