LAMBDA TUNING

ENJOY BIKING

Installation instructions

Carbon Saddle


120 Gramm
120Gramm
LAMBDA TUNING

Last updated: April 2026

"A road bike saddle is like a good friend – it holds you tight, even when things get bumpy."

1. General information

The manual must have been read and understood by the user and installer prior to assembly and use.

LAMBDA-Tuning GmbH is constantly working on improving the products. For this reason, we reserve the right to make changes to the illustrations and descriptions of this manual. Technical specifications, dimensions and weights are understood with tolerances.

Meaning of the symbols:

Danger Indicates a hazard with danger to life or serious bodily injury

Caution Risk of injury or damage to property

If you have any further questions after reading through or during assembly, please contact us by email (info@Lambda-Tuning.de).

Danger

Compliance with the following instructions is a prerequisite for accident-free operation and proper functioning:

- Incorrect handling, incorrect assembly, incorrect use and incorrect maintenance can lead to breakage.
- Damaged saddle stays can break off and lead to an accident or fall. If there is damage or signs of damage (e.g. cracking, cracking, crunching, flexibility), the saddle must not be used.

Caution

- Loosened, incorrect or over-tightened screws can damage the seat stays and fastening.

- The maximum permissible **bolt torque depends on the clamping method of the seat post**.
- Follow the instructions for use and instructions for using your torque wrench. Mistakes can quickly be made here. The adjustment range of the torque wrench must not be greater than 25 Nm, otherwise it will be too coarse and inaccurate.
- Do not continue riding after a fall. Check the saddle for damage after every fall and after every fall of the bike.
- Carbon components must not be exposed to temperatures below -15°C **and** above 50°C **during (car)**

transport or storage . This is especially important in summer when transporting by car.

- Do not use a high-pressure cleaner or aggressive or solvent-based cleaning agents (e.g. paint thinner, nitro, acetone) for cleaning.

2. Application area

Danger

Any use other than the intended use can lead to accidents. The carbon saddles are only to be used on standard road or gravel road bikes.

Do not drive at an air temperature **below -10°C and not above 40°C**.

The maximum permissible rider weight (rider, clothing, helmet) is **120 kg**.

ASTM Classification: Category 2

Riding on smooth, paved surfaces; permanent contact with the ground. (racing bikes, time trial bikes). In addition, unpaved, gravel paths; short-term loss of contact with the ground is permitted. Jumps up to approx. 15 cm. (gravel bikes, cyclocross).

3. Special features of carbon components

The proper assembly of all carbon components is crucial for safety and functionality. If you're not familiar with certain installation work, have it done by your dealer.

As with any mechanical part, the service life of the carbon parts is limited, depending on the stress and material fatigue.

The following factors influence the service life: riding time, rider weight and strength, surface, fall and environmental conditions. Due to the various influences, it is not possible to give an exact time for a replacement.

In the case of a stump, a possible breakage usually occurs near the places where the saddle stays are attached to the saddle floor.

4. Note on races with UCI rules

In order to comply with the UCI rules (Union Cycliste Internationale), the following settings have been defined for road bike saddles. These are relevant for licensed races, time trials and championships that run under UCI rules.

1st position (the "aftermath" / setback)

The 5 cm rule: The tip of the saddle must be at least 5 cm behind the vertical line that runs through the bottom bracket axle.

Measurement: You drop a plumb line from the tip of the saddle and measure the horizontal distance to the center of the bottom bracket.

Exception: If a rider cannot sit so far back for anatomical reasons (e.g. short thighs), the saddle may be advanced to the vertical line (0 cm). This usually has to be registered/checked with the commissioners before the race.

2. Inclination (horizontality)

The saddle must be "**horizontal**". The saddle must not be tilted strongly downwards (nose down) or upwards. The UCI allows a maximum inclination of 9 degrees.

A plane is calculated that is placed on the highest point at the front and the highest point at the back of the saddle.

3. Dimensions (length)

The saddle must **be at least 240 mm** and a maximum of 300 mm long. Therefore, modern "short-nose" saddles are often exactly 240-245 mm long in order to just about meet the rule, but to allow maximum leeway in the riding position.

5. Assembly

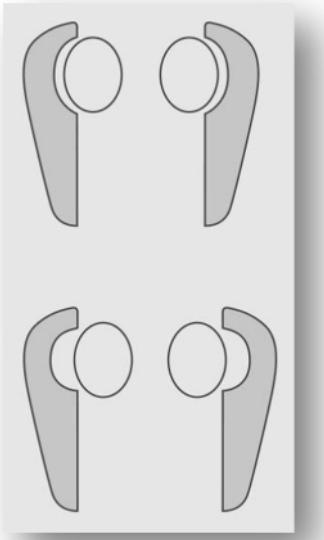
To ensure that you are efficient on your tours - whether road or gravel - the right setup is crucial. Here you will learn step by step how to adjust height, inclination and position perfectly to you.

What You Need (Tool)

Before you start, it's best to have the following things ready:

- Allen key (Allen key)
- Spirit level or mobile phone with spirit level app
- Tape measure or folding rule
- Torque wrench and assembly paste

The technological feature: 7x9 mm (oval)



Conventional saddle rails are round and have a diameter of 7 mm. However, carbon rails are usually high oval (7 mm wide, 9 mm high) to increase vertical stiffness and minimize weight.

There are two main mounting methods for seatposts:

Top-bottom clamping: The clamping jaws grip from above and below. This is usually harmless, as the pressure acts on the flat sides of the struts.

Lateral clamping: The clamping jaws grip from the left and right. Attention: Here you need **special adapters** (oversize clamps). A standard 7mm side clamp would crush and destroy the 9mm high struts at certain points.

Required Tools & Materials

For professional installation you need:

1. Torque wrench (range 2–15 Nm).
2. Carbon assembly paste: Contains micro-particles that increase friction.
3. Cleaning spirit: For degreasing the clamping surfaces.
4. Hex socket or Torx bits: Fits your seatpost.

Replacement of the old saddle

Measure the distance between the old saddle and the handlebars. To do this, use the position where the saddle has a width of 8 cm.

Measure the distance between the top edge of the saddle and the center of the bottom bracket axle.

Step 1: The saddle height

The height is the basis for your power transmission and protects your knees.

The calculation of the saddle height is usually done by this formula: Saddle height = inseam length x 0.883 (+/- 1 cm)

The saddle shape, the saddle hardness (carbon vs foam) and also the shoe sole height have an influence on the real saddle height.

Everything that is +/- 1cm in the "target" is compensated for by muscular adaptation (e.g. pointed foot or tilting of the hips). Below and above there are losses due to the lever mechanism.

Loosen the seatpost clamp and pull the saddle to your calculated saddle height. Measure in the area where the saddle is about 8 cm wide. The saddle should point straight in the direction of the stem or top tube.

Step 2: Saddle inclination

The inclination often determines seating comfort and pressure distribution.

Use a spirit level or your phone with the app. Place it lengthwise on the saddle to check if it is horizontal (a slight tilt forward or backward is often necessary to avoid pressure).

- Adjustment: Adjust the inclination using the bolts on the seatpost head.
- Important for special shapes: For round or semi-circular saddles, place the scales on the widest part to meet the anatomical center.

Most people often prefer a saddle nose that is slightly inclined downwards (1°-3°). The aim is to place the main load on the sit bones.

Step 3: Locking (Set-Back / Saddle Offset)

This is about how far forward or backward the saddle is mounted.

Sit on the bike and bring the crank to a horizontal position (3 o'clock position). Sit comfortably on the saddle and easily grip the top handlebars. Your gaze goes towards the front hub. Now observe where the front hub is located – in front, concealed or behind the top link tube.

Move the saddle so that the top bar covers the hub. This actually always fits very well and takes into account the stem length. The method with the "knee plumbing" is outdated because the stem length is not taken into account.

Special feature for short saddles

With shorter saddles (short nose), the sitting position (anatomical center) is usually 3-5 cm further forward than with saddles with a standard nose.

Special feature of saddles without padding

Don't worry about the "hardness". At school, we all sat on a hard wooden chair for many hours and there we had no pain in our buttocks.

These are the basic and proven recommendations:

- The longer the bike tour, the harder the saddle and the greater the elevation, the narrower the saddle should be.
- Our LR 6 carbon saddle is hard and narrow, making it ideal for all competitive athletes.
- For most women, a recess is very comfortable

Important notes

Individuality: The ideal attitude (especially the inclination) is very personal and depends on your physical conditions.

Torque: Tighten all screws to the correct torque (it's best to use a torque wrench for this) to avoid damage.

The carbon rails are made of solid material and do not break. Don't worry. The torque is used to protect the screw and thread (usually made of aluminum).

The **2-bolt rule**: Always tighten the bolts (if there are two) alternately in 1 Nm increments.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Test drive

Take time for test drives to tweak the settings. Often you only notice after 20-50 kilometers whether everything really fits.

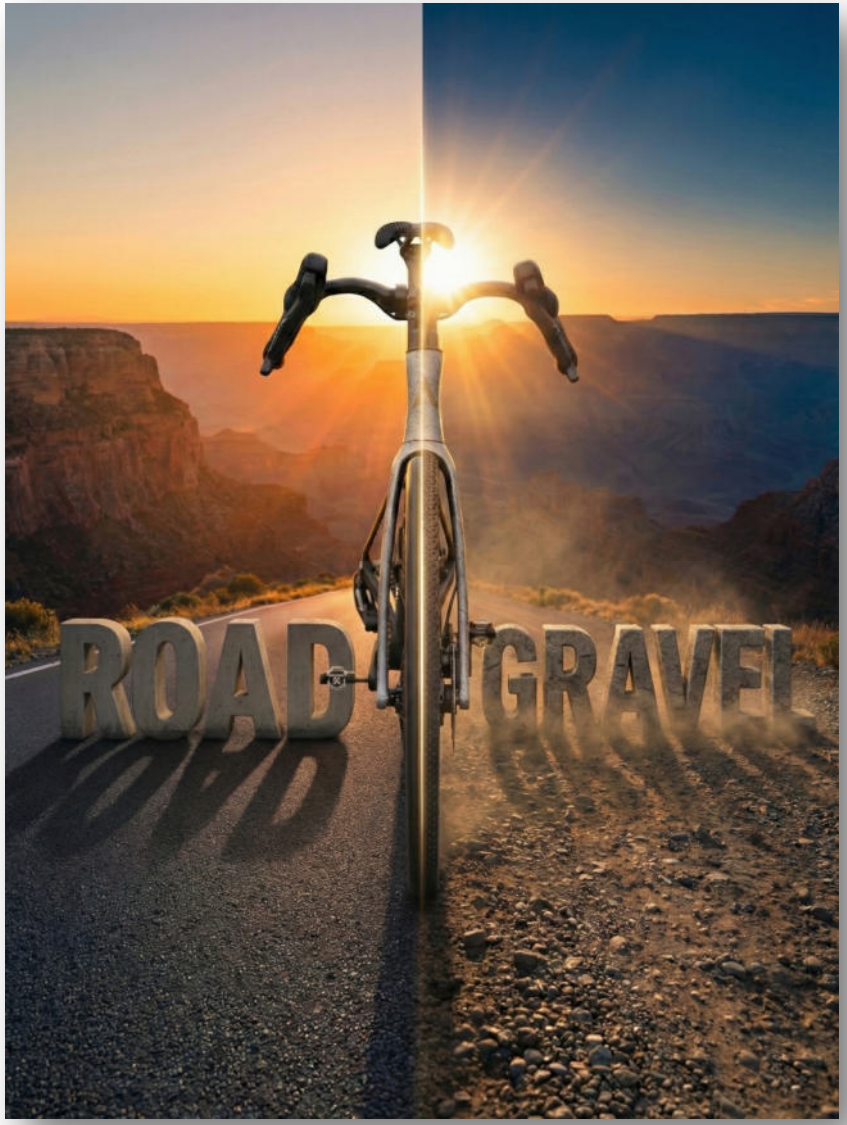
If it is still pressing:

If it remains uncomfortable despite perfect adjustment, it may be due to the shape of the saddle, inclination or distance to the handlebars.

6. Cracking noises

Cracking is often caused by dust between the strut and the clamp or from the seat post in the frame.

1. Disassemble the saddle and seat post.
2. Clean everything meticulously.
3. Apply new carbon assembly paste.
4. Assemble with correct torque.
5. Important: Never use spray oil (such as WD-40), as this will make the clamp slippery and can attack the plastic.



7. Cleaning and care

Caution

After 100 km at the latest, the tightening torque of the screws must be checked. Check the tightening torque and assembly condition every additional 30 driving hours or 1000 km and at least once a year.

The upholstery is cleaned with warm water, a soft sponge and suitable detergents (e.g. washing-up liquid or soap without abrasive particles).

No high-pressure cleaners and aggressive cleaning agents or surfactants may be used. Isopropanol, alcohol or cleaning gasoline may be used carefully. However, avoid vigorous rubbing and long exposure times.

8. Warranty

We grant the statutory material defect liability (warranty) on material and workmanship on all products.

The liability period of two years begins with the first purchase of the corresponding product. Warranty claims can only be asserted with proof of purchase and only by the consumer.

There is no entitlement to warranty in the following cases:

- Normal wear and tear or wear from use
- Improper assembly, too high or too low clamping forces and modification
- Use of unsuitable attachments
- Improper use, overload (weight or maximum torque) or misuse (e.g. jumps)
- Rental, commercial use or commercial use
- Damage caused by accidents or external influences (e.g. falling, falling over, etc.)
- Commercially permissible or technically unavoidable fluctuations in texture and appearance

Cycling races are not an exclusion of warranty.

We are not liable for indirect or consequential damages.

The place of jurisdiction and performance is Siegburg (Germany). German law applies.

We reserve the right to make changes in technical details, text and images.

9. Crash Replacement

In the event of irreparable damage to functionality (e.g. due to an accident or fall), we grant the original buyer a discount of **50% on the current retail price of the saddle within two years of purchase**.

If this regulation is used, the irreparable saddle remains in our possession after our assessment. Shipping is at your own expense.

We wish you a lot of fun and success with your new carbon saddle.

Tina and Jan

Company:

LAMBDA-Tuning GmbH
CEO Sports Scientist Tina Smekal

Technical development:
Dipl.-Ing. Aerospace Engineering Jan Smekal

Address:

Pfarrer-Stauf-Str. 64
53819 Neunkirchen-Seelscheid
Germany

Accessibility:

Phone: +49 2247-913025
Mobile: +49 15 15 1 80 10 40

Webpage: www.Lambda-Tuning.de
Email: info@Lambda-Tuning.de

Responsibilities:

For order processing and goods distribution:
Tina Smekal

For websites and technical correspondence:
Jan Smekal

Product safety:
LAMBDA-Tuning GmbH

LAMBDA TUNING GmbH

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Pfarrer-Stauf-Str. 64
53819 Neunkirchen-Seelscheid
info@lambda-tuning.de

Webpage