# THRESHER USER MANUAL



## WELCOME TO THE SHARK REVOLUTION

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## **DESCRIPTION OF COMPONENTS**



#### 1 Frame

- a Top tube
- b Down tube
- c Seat tube
- d Chainstay
- e Seat stay
- 2 Saddle
- 3 Seat post
- 4 Seat post clamp
- 5 Rear brake
- 6 Cassette sprockets
- 7 Rear Derailleur
- 8 Chain
- 9 Chainring
- 10 Crank set
- 11 Motor
- 12 Pedals
- 13 Battery
- 14 Stem

- 15 Headset
- 16 Key Barrell

#### 17 Suspension Fork

- g Fork crown
- h Stanchion tube
- i Lower leg
- Drop-out

#### 18 Spokes

- 19 Thru-axle / Quick Release
- 20 Hub
  - 21 Front brake
- 22 Rim
- 23 Tyre
- 24 Valve
- 25 Brake lever rear
- 26 Display
- 27 Brake lever front
- 28 Shift lever

## SAFETY INSTRUCTIONS

The warning notices, safety instructions and notices are structured according to the following scheme. The possible consequences described will not be repeated every time the symbols appear in the manual.

#### **! DANGER**

This symbol indicates a hazardous situation which could result in death or serious injury - if the relevant operational instructions are not followed or the relevant protective measures are not taken.

#### **A** CAUTION

This symbol is used to address practices not related to physical injury which may, however, result in damage to property and the environment.

#### NOTICE

This symbol indicates specific safety related instructions or procedures about how to handle the product or refers to a section in the operating instructions that deserves your particular attention.

#### NOTICE

The Thresher Shark Bicycle and these operating instructions comply with the safety requirements of the EN15194 and EN17404 ISO standards.

#### • NOTICE

Assembly instructions are supplied in the Quick Start Guide supplied with your Thresher mountain bike. This is also available in digital format on our website www. sharkebikes.com

#### • NOTICE

Before your first ride you must ensure you read this manual in full. Perform regular checks and maintenance before and after every ride.

#### THESE OPERATING INSTRUCTIONS AND ALL FURTHER DOCUMENTATION

Serious injury and/or equipment damage can be caused by failure to observe the operating instructions.

#### NOTICE

Read these operating instructions carefully before using your bike for the first time. Also read and observe all additional documentation provided.

Retain these operating instructions and all additional documentation for future reference. Pass these operating instructions and all additional documentation to anyone who uses, maintains, repairs, or disposes of this bicycle.

The manufacturer's liability and any warranty are deemed null and void for any damage or injury caused by a failure to adhere to safety symbols and instructions.

We assume you have a fundamental understanding of bicycle operation. However, it is essential to thoroughly read these instructions and consult the component-specific manuals for detailed settings and adjustments.

## INTENDED USE

Our all-mountain and enduro bikes, including e-MTBs, are designed for challenging off-road riding. They are suitable for trails and technical sections with roots, rocks, ruts, loose surfaces, and rough terrain, including blocked passages.

Riding over jumps is allowed on official mountain bike trails where the landings are purpose-built, provided the jump height does not exceed 1.2 metres.

Use in bike parks is permitted on trails appropriate for this category of bike, as long as they do not include features requiring equipment rated for higher categories. Be aware that poorly executed jumps, especially by inexperienced riders can lead to harsh or incorrect landings. This places extra stress on the bike and increases the risk of damage or injury.

We strongly recommend taking a skills course to improve riding technique. If you ride frequently in bike parks, have your bike serviced more often than the standard maintenance schedule suggests.



#### ! DANGER

It is major importance that the bikes are not used under conditions beyond the intended use, as this bears the risk that the bikes' maximum load is exceeded and the frame or other components are damaged. This can result in severe crashes.

#### MAXIMUN PERMITTED OVERALL WEIGHT

The maximun permitted overall weight is calculated as follows:

weight mountain bike + weight of cyclist + weight of luggage = maximum permissible overall weight

#### **! DANGER**

Child seats are not allowed.

#### **I DANGER**

Towing child trailers is not allowed.

#### ! DANGER

Use of clamps of bike carrier and child seat systems cause a risk of crushing large diameter frame tubes. As a result carbon frames may fail abruptly during use.

#### DANGER

Pannier racks are not permitted. For any external luggage a bike rucksack on your person is recommended.

## UNDERSTANDING EAPC / EPAC

In the UK, electrically assisted bikes commonly known as EPACs (Electrically Power Assisted Cycles) or EAPCs (Electrically Assisted Pedal Cycles) are fitted with a motor that activates only when the rider is pedalling. The motor stops providing support as soon as pedalling ceases.

Many models also include a walk-assist feature, which helps move the bike at low speeds (up to 6 km/h or 3.7 mph) without pedalling. This can be particularly useful when starting on a slope or manoeuvring the bike by hand. The level of support and speed typically vary depending on the selected gear.

For a breakdown of UK legal requirements related to e-bike use including licensing, registration, type approval, helmet laws, insurance, and cycle lane rules refer to the summary table below:

Pedal Assistance up to max. km/h (mph)	25 km/h (15.5 mph) MDS* without pedal assistance 6 km/h (3.7mph)
Helmet	Recommended
Rear Mirror	No
Horn	No
Driving Licence	No
Markings	CE Mark
Insurance	No
Riding on cycle lanes	Yes
Riding on forest trails	Yes
Vehicle Class	Bicycle
Legal Age	14 years or older
Child seat	Not permitted
Child trailer	Not permitted
Indicators	Not required

#### ! DANGER

Do not modify or alter your e-bike motor, battery or display. Doing so can significantly increase the risk of accidents. Any unauthorised changes will void your warranty. Additionally, the e-bike may no longer meet legal requirements for use on public roads or forest trails.

#### • NOTICE

We recommend arranging personal liability insurance. Ensure that your policy includes cover for any damage you may cause while riding a bicycle or e-bike. If you're unsure, contact your insurance provider for clarification or to update your coverage if needed.

## BEFORE RIDING

If you've never ridden an electric bike before, take time to get used to how it handles. Start your first ride using the lowest level of motor assistance. Get to know how your e-bike responds in a quiet, traffic free area, and experiment with the type of terrain you plan to ride on. For added confidence, consider taking a course on e-bike handling and technique.

Each of our e-bikes is built with a specific maximum total weight in mind, which includes the rider, bike, and any gear or accessories. You'll find the allowed total weight listed on the bike's CE label. Never exceed this limit. To better understand what your bike is intended for, refer to the section on "Intended use", or contact our customer service team.

If you plan to ride your e-bike on public roads, it must meet the local legal standards these can vary depending on the country. Some models may not come fully equipped for road use in every region. Be sure to check the specific rules that apply in your location or any area where you'll be riding. Make sure your e-bike is properly equipped before heading out.

#### ! DANGER

Do not wear long skirts or ponchos and do not hang long strings, bands or the like to your e-bike during the ride. There is the risk of getting caught in the wheels or in the drive. Risk of a fall!

#### ! DANGER

E-bikes have a different weight distribution compared to non-assisted bicycles. Due to the added motor and battery, e-bikes are significantly heavier than standard bikes. This makes tasks like parking, pushing, lifting, or carrying more challenging. Keep this in mind when loading or unloading your e-bike from a vehicle, or when mounting it onto a bike rack or carrier system.

Ensure the frame size is correct and both the saddle and handlebars are properly adjusted for your riding position. You can refer to our assembley guide for more assitance. Stand over the top tube of your bike and check whether there is enough clearance between the top tube and your crotch (at least one handbreadth).



#### **A** CAUTION

Riding a frame that is too large can lead to injuries, particularly when dismounting the bike quickly. For all-mountain, enduro, and freeride bikes, the saddle is typically set to a lower position. Lowering the saddle is especially recommended when riding downhill.

Check the air pressure of the suspension fork regularly. An incorrectly adjusted suspension fork may malfunction or become damaged, which can negatively affect both riding performance and your safety. For further details, please refer to the sections titled "Suspension Fork" and "Full-Suspension".



#### ! DANGER

Shark Bikes are premium sports equipment, showcasing lightweight construction as a pinnacle of engineering. It is essential to handle these materials with expertise. Misuse, improper assembly, or inadequate maintenance can compromise the safety of your bike. This poses a risk of accidents!

Are the thru axles securely fastened? For further details, please refer to the section titled "How to Use Thru Axles".



#### ! DANGER

Improperly closed thru-axles can lead to bicycle components becoming loose, posing a serious risk of falling.

Are the tyres in proper condition and inflated to the correct pressure? Spin the wheels to ensure the rims are true. While doing so, check for tyres with damaged sidewalls, as well as any broken axles or spokes. For further information, please refer to the section titled "The Wheels - Tyres, Inner Tubes and Air Pressure".



Check the brakes while stationary by pulling the brake levers firmly towards the handlebar. A clear pressure point should be felt after only a short amount of lever travel; however, the lever must never come into contact with the handlebar.

Ensure there are no fluid leaks from the hydraulic (disc) brakes. For additional details on the brake system, refer to the section titled "The Brake System".



Ensure all torque and sizing guidelines for press-fit and thread-fit components are followed. Over-tightening can strip threads or damage parts, while using an incorrect-sized component may lead to part failure and could cause a crash, resulting in serious injury or even fatality. Always check the torque specifications listed on the components, in the owner's manual, or on the manufacturer's website.

Drop your Shark Bike gently onto the ground from a low height. If you hear any unusual noises or rattling, locate the source and inspect it carefully. Check the bearings and all bolted joints, adjusting them if needed.

Enduro bikes, like the Blacktip, are designed to handle intense and demanding use. If you own one of these bikes, make it a routine to check for signs of wear or damage, such as cracks, dents, or bends, before setting off on every ride. Regular inspection is essential to ensure safety and performance.

#### RIDING SAFELY

Comply with all applicable local and national cycling laws and regulations. These may include, but are not limited to, registering your bicycle, wearing a helmet, adhering to road traffic rules, and ensuring your bicycle is equipped with lights or reflectors. Regulations regarding cycling on pavements, cycle paths, and trails may also apply. It is your responsibility to be aware of and follow all relevant laws and regulations.

#### ! DANGER

Wear a helmet that complies with EN 1078 or CE safety standards. Failure to wear a helmet when riding may result in serious injury and/or death.

#### ! DANGER

Be vigilant for potential hazards while cycling, such as debris, potholes, uneven road surfaces, railway tracks, or cattle grids. These hazards may damage your wheels and tyres or cause you to lose control of your bicycle, leading to accidents that could result in serious injury or even death.

Ensure your bicycle is equipped with a proper front and rear lighting system, along with reflectors, when riding in low-light or poor visibility conditions such as fog, dusk, dawn, or at night. Reflectors alone are insufficient for safe cycling in these circumstances.

#### ! DANGER

Without adequate lighting and reflectors, you may struggle to see clearly and may not be visible to others. Riding without proper lighting or reflectors in such conditions is highly dangerous and could result in serious injury or even death.

#### CAUTION

Shark Bikes are typically delivered with the left brake lever controlling the rear brake. Check if the front brake lever is positioned as you are accustomed to. If it differs, take time to adjust and train with the new setup, as accidentally using the front brake unexpectedly can cause you to lose control and fall. If required, consult an expert to reconfigure the brake lever assignments to suit your preferences.

Your new bike is fitted with modern brakes that may be significantly more powerful than those you are accustomed to. Practice using the brakes in a safe, traffic-free area before riding on public roads. Gradually become familiar with the maximum braking force to ensure safe handling. For additional details on the braking system, refer to the chapter titled "The Brakes."

Are you familiar with the type and operation of your bike's gears? If not, take the time to practice and understand their function in a traffic-free area. Avoid shifting gears on both the front and rear derailleurs simultaneously, and refrain from pedaling with excessive force while shifting. For more detailed information on the gearing system, refer to the chapter titled "The Gears"

Riding on challenging terrain demands focus, fitness, and practice. Take the time to become gradually accustomed to your new mountain bike in a quiet, low-traffic area before tackling more difficult trails. Progress step by step as you build confidence and skill. Consider attending a riding technique course to enhance your abilities and ensure a safer experience.

#### CAUTION

Mountain biking and road cycling are inherently risky activities that can lead to injury even at low speeds. Engaging in stunt riding, jumping, high-speed cycling, lift-assisted riding, racing, or other extreme disciplines is particularly hazardous and significantly increases the risk of serious injury or death. Even with the best safety equipment, serious accidents can occur. To minimise your risk, always ride within your abilities, use your bicycle as intended, and wear a suitable helmet along with appropriate safety gear.

#### ! DANGER

While in use, your Shark Bike is subjected to stress caused by both road conditions and the rider's actions. These constant forces can lead to wear and fatigue across the bike's different components. Be sure to regularly inspect your Shark Bike for signs of wear, such as scratches, dents, bent parts, or the early formation of cracks. Keep in mind that components nearing the end of their service life can fail without warning. It is essential to have your Shark Bike inspected on a regular basis so that any worn-out parts can be replaced promptly. For more details on maintenance and operational safety, refer to the sections "General Notes on Care and Inspection," "Recommended Torque Values," and "Service and Maintenance Schedule."

#### CAUTION

After an impact, crash, or exceeding the maximum weight limits, damage to composite components or the frame may not always be visible. It is crucial to contact the manufacturer immediately to arrange for a thorough inspection.

#### **A** CAUTION

Avoid exposing your Shark Bike to temperatures exceeding 150°F (65°C). Excessive heat, such as from open flames or other hot surfaces, can compromise the adhesive used to bond carbon fibres or affect the joints connecting the frame parts, potentially causing damage.

#### ! DANGER

Excessive vibration or "harmonic oscillation" caused by imbalances in the wheels or frame is a sign of a significant issue. Cease riding the bike immediately and contact the manufacturer for assistance.

#### NOTICE

Do not attempt to repair damaged carbon composites. It is impossible to determine the extent of damage sustained by a carbon frame or its components following an impact or crash. Attempting to repair a carbon frame can compromise safety and will invalidate the warranty. For further details, please consult the section titled "Characeteristics of Carbon".

#### RIDING SAFELY

#### ! DANGER

Keep your hands away from the moving drivetrain. The points where the chain interacts with the front and rear sprockets or derailleurs can pinch fingers or hands, causing injury.

#### ! DANGER

Keep your hands away from a moving wheel. A spinning wheel can trap your hand between the spokes and the frame or other components, potentially causing severe injury.

#### ! DANGER

Avoid placing your hands near sprocket teeth or disc brake rotors, as their sharp edges can cause cuts to the skin. This bike is not designed for use with child seats or trailers.

## HOW TO USE THRU AXLES

The wheel is secured to the bicycle with a "thru axle" wheel mounting system. The thru axle portion is a threaded axle that inserts through the hub and fork/frame dropouts, and is clamped securely at the fork/frame dropouts.

#### ! DANGER

Do not ride your bicycle with an improperly secured wheel or axle. This can allow the wheel to move or disengage from the bicycle, and can cause you to crash, which may result in serious injury and/or death.



#### **INSTALL THE THRU AXLE**

- 1. Position the chain on the outermost cog.
- 2. Install the rear wheel into the rear dropouts.
- 3. Insert the axle through the dropouts and hub from the non-drive side.
- 4. Insert a 6 mm hex wrench into the thru axle and turn the axle clockwise to the torque specifications.

#### **REMOVE THE THRU AXLE**

- 1. Position the chain on the outermost cog.
- 2. Use a 6 mm hex wrench to turn the axle bolt counter clockwise and remove it.
- 3. Slide the axle out of the dropouts and hub to release the wheel.

#### **! DANGER**

The incorrect installation or placement of an axle lever could cause the lever to get caught in the rotor of the disc brake or interfere with the frame or other components, which can cause you to crash and may result in serious injury and/or death.





## REMOVING, REMOUNTING AND CHARGING THE BATTERY

Before removing or charging the battery, always ensure that your Shark e-bike is turned off.

The power switch is located on either the touchscreen display or the control unit. Take time to familiarise yourself with its operation before riding.

#### REMOVING THE BATTERY

Support the base of your battery with one hand. Using the supplied key with your Shark e-bike, turn the key anti-clockwise with your other hand.

You can now fully remove the battery by turning the lock, located at the top of the down-tube towards the key mechanism.

#### INSTALLING THE BATTERY

Using both hands, insert the bottom of the battery into the down-tube first, then push the top of the battery into place. Next, turn the key clockwise to lock the battery securely in the frame.







#### ! DANGER

Failure to ensure that the battery is locked into the frame can result in serious danger. It is essential that you check the battery is secured in the frame before, during and after riding.

#### CHARGING THE BATTERY

You can charge your Shark e-bike either whilst it remains in the frame or separately once removed.

To charge the battery in situ, first undo the dust cover on the side of the frame. Insert the charger into the battery socket, then plug it into a UK mains socket.

#### **A** CAUTION

Always plug the battery charger directly into a UK mains socket. Do not use extension leads or travel adapters.

To charge the battery out of the frame, follow the previous instructions to remove the battery. Now you can charge the battery.

Make sure the battery is fully charged before taking your e-bike out for its first ride. Are you confident in how to handle, install, and remove the battery?





#### **! DANGER**

We recommend charging your e-bike battery during daytime hours and only in a dry, well-ventilated room equipped with a smoke or fire alarm. Avoid charging the battery in bedrooms or sleeping areas. While charging, place the battery on a large, non-flammable surface such as a ceramic or glass plate to reduce fire risk.

#### ! DANGER

Always keep an eye on the battery during charging. If you notice any unusual signs such as smoke, excessive heat, or a burning smell, immediately unplug the charger and move both the battery and charger to a safe, non-flammable area. Do not continue using the battery or charger if any issues occur. Instead, contact our support team for further guidance and assistance.

#### ! DANGER

Always charge your battery using the charger provided with your e-bike. Never use chargers from other manufacturers, even if the plug appears to fit. Using an incompatible charger can cause the battery to overheat, catch fire, or in extreme cases, explode.

#### **! DANGER**

Do not charge your e-bike battery immediately after a ride. Allow the battery to cool down for at least one hour or up to four hours if the weather is hot before connecting it to the charger. Charging a hot battery can increase the risk of damage or fire. Always avoid charging in direct sunlight or in hot environments.

#### ! DANGER

Whenever possible, keep your e-bike in the shade when not in use to prevent overheating. If you're transporting the e-bike in a car or van, always remove the battery this helps avoid exposure to direct sunlight through windows and reduces the risk of high internal temperatures. Never leave the battery inside a parked vehicle, especially in warm weather, as excessive heat can damage the battery and compromise safety.

#### ! DANGER

Regularly inspect the connection points on both the battery and the terminals in the bike's frame. Ensure they are free from debris and not damaged, bent, or misaligned. For optimal maintenance, we recommend using a dedicated e-bike terminal cleaner such as Weldtite Connection Cleaner.

#### **I DANGER**

Do not use any cleaning agents or other chemicals to clean the battery. Keep aggressive chemicals such as oils, greases, lubricants or solvents away from the battery, as these agents can damage your battery permanently.

#### CAUTION

Do not dispose of your rechargeable battery in the normal household waste! It must be disposed of according to battery disposal regulations. Therefore, sellers of new rechargeable batteries must provide collection of old batteries and appropriate disposal. If you are in doubt or if you have any questions, contact our service team.



Make sure not to discharge your rechargeable battery completely (also referred to as 'deep discharge'). This occurs often when the battery has run out completely and the e-bike was left standing for a few days. Depth discharge will affect the rechargeable battery of your e-bike permanently. A deep-discharged battery can only be recharged in exceptional cases and with special chargers. Alternatively, contact our service team.

#### **A** CAUTION

Remove the rechargeable battery from your e-bike if you do not use your e-bike for a longer period of time, and keep it clean and dry.

#### CAUTION

If the rechargeable battery or the charger (or parts of it) must be replaced, only use original spare parts. Contact our service team.

#### CAUTION

Keep in mind that the battery of your e-bike will show signs of wear over the years. This will result in a degradation of the battery and more and more reduce the range per battery charge. After a certain period of time it is even necessary to replace the battery.





## DISPLAY SETTINGS

- 1. Battery Capacity Indicator
- 2. Speed Indicator
- 3. Support Level Indicator
- Walk Assistance
- 5. Indicator for Lighting System

#### Switching the System ON/OFF

Press and hold the On/Off for 2 seconds button to turn on the system. Repeat to turn off the system.

#### Selection of Support Levels

When the display is turned on, press the + or - button to switch to the support level, the lowest level is 1, the highest level is 5. When the system is switched on, the support level starts in level 1. There is no support at level 0.

#### Headlights / Backlighting

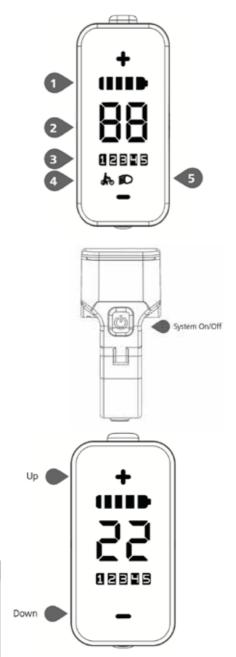
Hold the + button for 2 seconds to activate the backlight of the display. Hold the + button again for 2 seconds to turn off.

#### Walk Assistance

When your bike is motionless, press the button until the Walk assistance indicator is displayed. At this point long press button, the bike enters the walk assistance mode, the indicator will flash. If release the button will stop this, if no any operations within 5s will automatically return to 0 level.

#### NOTICE

Walk assistance is specifically designed for use when pushing the bike. Do not use walk assistance while seated on the bike, as this can significantly reduce the lifespan of your battery.



#### **Battery Capacity Indication**

The battery capacity is indicated with 5 levels. When the lowest level indicator flashes that means battery needs to charge. The battery capacity is shown as follows:

Indication definition	soc	Example
5 bars	80%-100%	*****
4 bars	60%-80%	HIND
3 bars	40%-60%	
2 bars	20%-40%	
1 bar	5%-20%	■0000
1 flashing	<5%	<b>8</b> 0000

## **ERROR CODES**

#### NOTICE

DP E160.CAN display can provide warning for failures. The error code flickers when an error is detected. Please read carefully the description of the error code. When the error code appears, please first restart the system. If the problem is not eliminated, please contact your dealer or technical personnel.

Error	Declaration	Troubleshooting
04	The throttle has fault	Check the connector and cable of the throttle are not damaged and correctly connected.
		Disconnect and reconnect the throttle, if still no function please change the throttle.
05	The throttle is not back in its correct position	Check the connector from the throttle is correctly connected. If this does not solve the problem, please contact our support team.
07	Overvoltage protection	Remove and re-Insert the battery to see if it resolves the problem.
		2. Using the BESST tool update the controller.
		3. Contact our support team.

Error	Declaration	Troubleshooting
08	Error with the hall sensor signal inside the motor	Check all connectors from the motor are correctly connected.      If the problem still occurs, contact our support
09	Error with the Engine	team Contact our support team.
10	The temperature inside the engine has reached its maximum protection value	Turn off the system and allow the bike to cool down.      If the problem still occurs, please contact our support team.
11	The temperature sensor inside the motor has an error	Contact our support team.
12	Error with the current sensor in the controller	Contact our support team.
13	Error with the temperature sensor inside of the battery	Check all connectors from the battery are correctly connected to the motor.      If the problem still occurs, contact our support team.
14	The protection temperature inside the controller has reached its maximum protection value	Allow the bike to cool down and restart the system.      If the problem still occurs, contact our support team.
15	Error with the temperature sensor inside the controller	Allow the bike to cool down and restart the system.
		2. If the problem still occurs, contact our support team.
21	Speed sensor error	Restart the system     Check that the magnet attached to the spoke is aligned with the speed sensor and that the distance is between 10 mm and 20 mm.     Check that the speed sensor connector is connected correctly.  4. If the problem still occurs, contact our support team.

Error	Declaration	Troubleshooting
25	Torque signal Error	Check that all connections are connected correctly.
		2. If the problem still occurs, contact our support team.
26	Speed signal of the torque sensor has an error	Check that all connections are connected correctly.
		2. If the problem still occurs, contact our support team.
27	Overcurrent from controller	Contact our support team.
30	Communication problem	Check that all connections are connected correctly.
		2. If the problem still occurs, contact our support team.
33	Brake signal has an error (If brake sensors are fitted)	Check all connectors are correctly connected on the brakes.
		Change the brakes to see if the problem is solved.
35	Detection circuit for 15V has an error	Contact our support team.
36	Detection circuit on the keypad has an error	Contact our support team.
37	WDT circuit is faulty	Contact our support team.
41	Total voltage from the battery is too high	Contact our support team.
42	Total voltage from the battery is too low	Contact our support team.
43	Total power from the battery cells is too high	Contact our support team.
44	Voltage of the single cell is too high	Contact our support team.

Error	Declaration	Troubleshooting
45	Temperature from the battery is too high	Turn off the system and allow the bike to cool down.
		If the problem still occurs, please contact our support team.
46	The temperature of the battery is too low	Turn off the system and bring the bike to room temperature.
		If the problem still occurs, please contact our support team.
47	SOC of the battery is too high	Contact our support team.
48	SOC of the battery is too low	Contact our support team.
61	Switching detection defect	Check the gear shifter is not jammed.
		2. Please change the gear shifter.
62	Electronic derailleur cannot release.	Please change the derailleur.
81	Bluetooth module has an error	Contact our support team.

## BATTERY AND CHARGER TECHNICAL DATA

## **BRAKES**

Brakes are designed to regulate speed, slow down, and stop your bicycle. Squeeze each brake lever to determine which brake controls the front wheel and which controls the rear. Practise using the brakes at low speeds in a safe, traffic-free area to understand the maximum braking power of each wheel at various speeds. Take care not to "lock" or completely stop the wheels while the bike is still in motion, as this could cause a loss of control or result in a crash, leading to serious injury or death. When braking hard, such as during descents, shift your weight towards the rear wheel to avoid being thrown over the handlebars. Disc brakes are highly powerful, so ensure you practise in a safe environment until you feel confident using them during your rides.

Before every ride, inspect the brakes to confirm they are functioning correctly and assess any signs of wear.

Adhere to the torque specifications provided on the components or detailed on the manufacturer's website. If you have any concerns, contact your dealer for advice. Brake levers often include a "reach" adjustment feature, which allows you to set the distance between the lever and the handlebar. Refer to your dealer or the brake manufacturer's instructions for guidance on installing and adjusting your brakes.

#### ! DANGER

Brakes do not work as well under wet or icy conditions as they do under dry conditions. The braking distance in wet weather is longer than those in dry conditions, and you should take special precautions to ensure safe stopping. Ride slower than normal, and apply your brakes well in advance of anticipated stops.

#### **! DANGER**

Ensure you follow the rotor size guidelines specified by your fork manufacturer. Using a rotor larger than the recommended size may interfere with the fork, frame, or other components, potentially leading to a crash that could result in serious injury or death.

#### **A** CAUTION

Avoid contacting disc brakes immediately after use. Both the brakes and rotors can become extremely hot during operation and may cause burns to your skin. Always ensure they have fully cooled down before handling.

#### NOTICE

Hydraulic disc brake pads will wear down over time and may become misaligned. Please refer to the manufacturer's instructions for your brakes or consult your Shark Bikes dealer to align your hydraulic disc brakes, as well as inspect or replace the rotors and brake pads. Ensure the brake lever is not squeezed when the wheel is removed. This can alter the brake pad position and may prevent you from reinstalling the disc brake and wheel.

#### NOTICE

New brake pads require a bedding-in period to achieve their best braking performance. Accelerate your Shark 30 to 50 times to approximately 30 km/h (19 mph) and bring it to a stop after each acceleration.

#### ! DANGER

Contaminated brake pads and rotors can significantly reduce braking performance. Always ensure the brakes are free from oil and other fluids, especially when cleaning your bike or lubricating the chain. Under no circumstances should dirty brake pads be reused; they must be replaced. Rotors can be cleaned using warm water and mild soap, or with specialised brake cleaning products.

#### **Assigment of Brake Levers**

The United Kingdom has a varied layout of brake levers to most of Europe. As standard your Shark will come assinged with left lever acting as the rear brake and right lever acting as the front brake.



#### NOTICE

Shark Bikes are typically delivered with the left brake lever controlling the rear brake. Check if the front brake lever is positioned as you are accustomed to. If it differs, take time to adjust and train with the new setup, as accidentally using the front brake unexpectedly can cause you to lose control and fall.

## ADJUSTING THE BRAKE LEVER AND REACH

On many braking systems, the distance between the brake levers and handlebar grips can be adjusted. This feature allows riders with smaller hands to position the brake levers closer to the handlebars for greater comfort. The point at which the brake engages should also be adjusted to suit the length of the rider's fingers.

Check when the brake pads make contact with the braking surfaces. If this occurs shortly after the lever is pulled, the brakes will require readjusting. For detailed guidance on adjusting brake lever reach, refer to the section "The Brake System" in this manual. Incorrect adjustment may cause the brakes to drag. Conversely, if the brake pads only engage after the lever has travelled halfway, there is some room to reduce the lever's gripping distance.

Most bikes feature a small adjustment bolt (sometimes headless) near the point where the brake hose connects to the brake lever mount. Tightening this bolt will bring the brake lever closer to the handlebars—observe the movement of the lever as you make this adjustment.

For hydraulic brakes, there is typically an adjustment bolt on the lever itself, which can be used to change the lever's position. Once you have set the levers to your desired gripping distance, ensure there is still sufficient slack for the levers to move slightly before the brake pads contact the braking surfaces.





#### ! DANGER

Ensure that all bolted connections on the stem, handlebar, and brakes are tightened to the specified torque values. Ignoring these prescribed values can result in components becoming loose or breaking, which may lead to a serious accident.

#### **! DANGER**

If you are unable to reach the brake levers while your hands are securely positioned on the handlebars, you must either adjust the lever reach or replace the brake levers with a more suitable model. Riding with brake levers that are out of reach can lead to loss of control and a potential crash, which could result in serious injury or even death.

#### **A** CAUTION

You should not be able to pull the brake levers entirely to the handlebars. Maximum braking force must be achieved before reaching this point!

## HEADSET, HANDLEBAR AND STEM

The headset connects the fork, stem, handlebars, and front wheel to the frame while allowing them to turn freely as a unit. It should offer almost no resistance to turning for your Shark Bike to travel straight and maintain stability as it moves. Uneven road surfaces can expose the headset to significant stress, which may cause it to become loose or improperly adjusted over time.

#### CHECKING AND READJUSTING

To check the headset for play, place your fingers around the upper head cup.



Place your weight on the saddle, squeeze the front brake with one hand, and firmly rock your Shark Bike back and forth while keeping the front wheel on the ground.



If there is movement in the bearing, the upper head cup will shift noticeably in relation to the lower cup.

Another method to inspect the headset is by slightly lifting the front wheel off the ground and letting it drop. If there is movement in the bearing, you will hear a distinct rattling sound in this region.

To check the bearing for smooth operation, lift the frame so the front wheel is off the ground. Gently move the handlebars from left to right. The front wheel should rotate effortlessly from one side to the other without catching at any point. A light tap on the handlebars should be sufficient to move the wheel to one side.



#### ! DANGER

Riding a bike with a loose headset places extra strain on the fork and bearing. This can damage the bearing or even result in a fork failure, potentially causing serious consequences!

#### **! DANGER**

Check the secure seat of the stem after having adjusted the bearings, by holding the front wheel between your knees and trying to twist the handlebars relative to the front wheel. Otherwise, a loose stem can throw you off your bicycle.

#### CAUTION

To ensure the stem is securely fixed after adjusting the bearings, grip the front wheel firmly between your knees and attempt to twist the handlebars relative to the front wheel. A loose stem could result in losing control and being thrown off your Shark Bike.

#### ! DANGER

Do not attempt to adjust the handlebar height yourself. This task requires specialised tools and expertise in headset bearing adjustments and should only be carried out by your authorised dealer. Improperly installing the headset, stem, or handlebars can damage the fork's steerer tube and may lead to a crash, resulting in serious injury or even death.

#### ! DANGER

Do not remove any spacers from the fork's steerer tube. This task requires specialised tools and knowledge of headset bearing adjustments and minimum spacer requirements, and should only be performed by your authorised dealer. For non-carbon fork steerer tubes, ensure there is always a minimum of one 5 mm spacer below the stem. For carbon fork steerer tubes, there must be at least one 5 mm spacer positioned both below and above the stem.

#### **CHECKING AND READJUSTING**

The unique feature of this system is that the stem is not inserted into the steerer tube but rather clamped externally around the threadless steerer tube. The stem plays a crucial role in the headset bearings, as its clamping force secures the bearings in their adjusted position.

#### TO ADJUST THE STEM

- Loosen the clamping bolts located on the sides or rear of the stem.
- Using an Allen key, gently tighten the countersunk adjustment bolt on the top slightly.
- 3. Realign the stem with the frame so that the handlebars sit straight when the front wheel points ahead.
- 4. Retighten the clamping bolts on the sides of the stem using a torque wrench. Ensure you do not exceed the maximum torque values. These values can be found on the components themselves, in the Quick Start Guide for your Shark Bike model, and/or in the component manufacturer's instructions.

#### CHECKING THE STEM FOR PLAY

Follow the steps below to ensure proper headset adjustment:

- Refer to the provided picture or diagrams for assistance.
- Be careful not to overtighten the bearings.

To conduct the check, stand in front of your Shark Bike and hold the front wheel firmly between your knees. Grip the handlebars and attempt to twist them relative to the front wheel. If the handlebars move, slightly retighten the clamping bolts of the stem.







#### ! DANGER

Be aware that overtightening the bolts can cause the stem to crush the steerer tube. Always use a torque wrench and adhere to the specified maximum torque values to avoid damaging your Shark Bike's components.

#### **! DANGER**

Ensure the stem is securely fastened after adjusting the bearings. A loose stem could cause you to lose control and be thrown off your Shark Bike.

#### ADJUSTING THE HANDLEBARS

To achieve comfortable positioning, adjust the handlebars so your wrists can rest naturally without being excessively turned outward.

- Loosen the Allen bolts located at the front of the stem.
- 2. Rotate the handlebars to the desired position.
- 3. Ensure the handlebars are properly centred within the stem.
- 4. Carefully retighten the bolts using a torque wrench. Do not exceed the specified torque values, which are listed on the components themselves, in your Shark Bike torque specifications, page XX or in the component manufacturer's instructions.









#### **ENSURING HANDLEBAR STABILITY**

To check the secure positioning of the handlebars:

- Stand in front of your Shark Bike and hold the handlebars at both brake levers.
- Test for stability by applying a jerk-like motion downward. The handlebars must not rotate downward under force
- If necessary, gently retighten the clamping bolts at the stem to ensure a firm hold.

#### ADJUSTING THE BRAKE LEVERS AND SHIFTERS

- Once the handlebars are adjusted, you may need to reposition the brake and shift levers:
- 2. Loosen the Allen bolt on the mount of each brake or shift lever.
- 3. Adjust the brake and shift levers on the handlebars to suit your reach.
- 4. Sit on the saddle, place your fingers on the brake levers, and ensure that the back of your hand aligns in a straight line with your forearm.
- 5. Retighten the levers securely.

## SHIFTERS, DERAILLEURS, AND GEARS

The right-hand shifter operates the rear derailleur. To make pedalling easier, shift to larger cogs on the cassette. For harder gears, shift to smaller cogs. Remember, you need to continue pedalling forward to change gears successfully.

The left-hand shifter controls the front derailleur. Shifting to a larger chainring provides a harder gear, while shifting to a smaller chainring results in an easier gear. Again, ensure you are pedalling forward to make these adjustments.

The position of the shifters and brake levers on the handlebars should be tailored to suit the rider's natural hand position. For assistance in setting up these components so they are within comfortable reach, consult your dealer.

For safe bike operation, the derailleurs and shifters must be properly installed, adjusted, and maintained. Key adjustments for safe riding include (where applicable): chain length, B-adjust screw, upper limit screw, lower limit screw, and cable tension (or micro-adjustment in the case of electronic shifting systems).

Proper setup ensures smooth gear changes, enhances rider comfort, and maintains safety.

#### NOTICE

Over time, shifter cables may stretch, requiring adjustment to maintain proper shifting performance. The tension in the shifter cable can be adjusted either at the derailleur or via a barrel adjuster, where fitted, on certain types of shift levers.

Regular checks and adjustments ensure smooth and reliable gear shifting, keeping your Shark Bike operating at its best.



#### NOTICE

If the rear derailleur cannot be adjusted correctly, it may indicate that the derailleur hanger is bent. It is recommended to consult your dealer for the repair or replacement of the derailleur hanger to ensure optimal performance and safety of your Shark Bike.

#### **GEARS**

The gears on your Shark Bike help you adapt your effort to suit the terrain and your desired speed. While the physical effort required remains constant for a given distance and speed, the gears influence the pedalling force required for each crank rotation.

For example, when cycling uphill, a lower gear lets you climb steep inclines with less pedalling force but at an increased cadence. On the other hand, when descending, switching to a higher gear allows each pedal stroke to cover more distance, pushing your speed higher. Frequent gear changes are essential for energy-efficient cycling. Just like an engine in a vehicle, your body needs to maintain an effective cadence range to perform at its best.

On flat terrain, aim for a cadence of at least 60 pedal strokes per minute. Competitive cyclists usually maintain a cadence between 90 and 110 strokes per minute on level ground. While climbing, your cadence will naturally decrease, but it's still important to pedal smoothly. Modern bike gears with finely tuned adjustments facilitate efficient cycling, reduce strain on knee joints, and minimise wear on the chain and sprockets.

Derailleur gears remain the most efficient bicycle transmission system, transmitting about 97 to 98 percent of the pedalling force to the rear wheel when they are properly cleaned and lubricated. These systems also provide excellent control and braking performance.

Thanks to specially designed sprockets, flexible chains, and intuitive gear lever positioning, shifting gears on your Shark Bike is straightforward, allowing for a seamless and enjoyable riding experience.

#### CAUTION

Always wear straight-cut trousers or secure your trousers with clips or similar accessories. This helps prevent your clothing from catching in the chain or chainrings, which could lead to a crash and compromise your safety while riding your Shark Bike.

#### ! DANGER

Avoid shifting gears while under heavy load, as this can significantly reduce the lifespan of your chain. Additionally, it may cause a chain-suck incident, where the chain becomes jammed between the chainstay and the chainrings. To ensure smooth and safe operation of your Shark Bike, refrain from shifting gears while pedalling with excessive force.

#### NOTICE

Maintain a steady pedalling motion without applying force while shifting gears. This promotes precise gear changes, minimises noise, and reduces wear on your Shark Bike's components, ensuring a smoother and more efficient ride.

#### UNDERSTANDING GEAR SHIFTERS

Gear levers, or shifters, operate in two primary ways. Typically, pressing the larger shifter moves the chain onto the bigger chainrings. Meanwhile, the smaller shifter, positioned at the front of the handlebars from the rider's perspective, shifts the chain to the smaller chainrings.

It's essential to avoid shifting under heavy load, as doing so significantly reduces the chain's service life. If your Shark Bike is equipped with SRAM shifters, note that these are exclusively thumb-operated. For SRAM systems, the large lever also shifts towards larger chainings.

The shift lever sends the command via Bowden cable to the rear derailleur, which then moves to guide the chain onto the next sprocket. For smooth gear transitions, keep pedalling lightly without applying excess force while the chain shifts between sprockets. Some chainrings are specifically designed with built-in guides to enable gear changes even under moderate force.

By mastering these techniques, you'll enjoy efficient and hassle-free gear shifting on your Shark Bike.



#### NOTICE

Practise shifting gears in a safe, traffic-free environment to ensure you become familiar with the functionality of the different gears and how they affect your Shark Bike's performance. Building confidence in their operation will help improve your riding experience and efficiency.

#### CHECKING AND READJUSTING THE GEARS

The derailleur gears of your Shark Bike have been meticulously adjusted by the Shark Bikes team prior to delivery. However, during the first few kilometres (or miles), the cables may stretch slightly. This can lead to imprecise gear shifting, causing the chain to struggle when moving onto the next larger sprocket. Regular checks and minor adjustments will help maintain optimal performance.



#### **REAR DERAILLEUR**

To increase the tension of the cable, turn the adjustment bolt located at either the entry to the shift lever or the rear derailleur.

Once tensioned, test whether the chain shifts smoothly onto the next larger sprocket. To do this, either turn the cranks manually or take your Shark Bike for a ride.

If the chain moves effortlessly onto the larger sprockets, next check if it transitions smoothly to the smaller sprockets when shifting to higher gears. You may need to make several adjustments to ensure the derailleur system is perfectly tuned for optimal performance.



#### • NOTICE

Enlist the help of an assistant to lift the rear wheel of your Shark Bike. By turning the cranks and shifting through the gears, you can effortlessly check the functionality and ensure smooth operation.

#### **ADJUSTMENT OF LIMIT STOPS**

The rear derailleur on your Shark Bike is fitted with limit screws that regulate its swivel range. These screws prevent the derailleur and chain from coming into contact with the spokes or the chain from slipping off the smallest sprocket. Under normal conditions, the position of the limit screws remains unchanged during regular use.

However, if your Shark Bike tips over, the rear derailleur or its mount may bend. For this reason, it is important to inspect the derailleur's swivel range after any such incident or when changing or mounting new wheels on your Shark Bike. Regular checks will help maintain the safety and performance of your gear system.

Shift the gear lever to position the derailleur into the highest gear (smallest sprocket). At this point, the inner cable will be fully relaxed, and the chain should naturally sit on the smallest sprocket. Stand behind your Shark Bike and visually inspect the cassette sprockets. Check whether the derailleur pulleys align precisely with the cogs of the smallest sprocket.

If the pulleys are not correctly aligned, you will need to adjust their position using the limit screw. On your derailleur, these screws are identified on the image with "H" (for high gear) and "L" (for low gear).

The "H" screw corresponds to the highest gear, which is when the chain is on the smallest sprocket and provides the highest transmission ratio

The "L" screw corresponds to the lowest gear, which is when the chain is on the biggest sprocket and provided the lowest transmisson ratio.





#### ! DANGER

Incorrectly adjusted limit screws or a bent rear derailleur mount can cause significant damage to your Shark Bike. This may also lead to the rear wheel becoming jammed, posing a serious safety risk. Always ensure the derailleur system is correctly aligned and securely adjusted to avoid such hazards.

To make the correct adjustment, turn the screw clockwise to move the derailleur pulleys closer to the wheel or anticlockwise to move them further away. Fine-tuning these settings will ensure smooth and accurate gear shifting.

Shift into the lowest gear, moving the chain onto the largest sprocket. Exercise caution to prevent the rear derailleur from coming into contact with the spokes at any point during this process.

Once the chain is securely on the largest sprocket, intentionally overshift and gently push the rear derailleur towards the spokes by hand while allowing the wheel to rotate. Observe the alignment. If the pulley cage touches the spokes or the chain climbs beyond the largest sprocket, the swivel range needs to be reduced. Adjust the screw marked "L" until the rear derailleur clears the spokes entirely and the chain remains securely on the sprocket.

Next, assess the gap between the derailleur pulley cage and the cassette. There should be a clearance equal to one to two chain links. If the gap is too small, locate the adjustment B Limit Screw on the front of the derailleur's mount, near the dropout. Turn this bolt clockwise to increase the clearance until it meets the required distance. Rotate the cranks backwards to ensure the pulley does not come into contact with the sprocket during this movement.

If adequate clearance cannot be achieved and gear shifting is still affected, it may be necessary to shorten the chain by one link. This step increases tension on the derailleur, which will improve alignment. However, always verify that the chain can still run smoothly on both the largest chainring and the largest sprocket without issue. Keep in mind that using this extreme gear combination creates a steep chain angle and should generally be avoided to prevent strain.







#### CAUTION

Adjusting the rear derailleur on your Shark Bike is a task best performed by an experienced mechanic. If you choose to attempt it yourself, carefully follow the operating instructions provided by the gear manufacturer.

Should you encounter issues with your gear system, do not hesitate to reach out to our service hotline or submit your concerns via the contact form available on our website. Our team is here to assist you.

#### ! DANGER

If your Shark Bike has toppled over or the rear derailleur has been subject to an impact, there is a risk that the rear derailleur or derailleur hanger may bend and possibly interfere with the spokes. After such an incident, you should inspect the derailleur hanger's position carefully.

Similarly, if you have installed a different rear wheel, ensure you check the derailleur's swivel range. If required, make the necessary adjustments to the limit screws to maintain proper alignment and prevent damage.

#### CAUTION

Once you have adjusted the gears and chain on your Shark Bike, it is crucial to conduct a test ride in a flat and quiet area, such as an empty car park. This helps ensure the adjustments are correct and safe.

Avoid testing the bike in busy road traffic, as improperly made adjustments could cause a loss of control and pose a safety risk. Always prioritise safety during this process.

#### **CHAIN MAINTENANCE**

Ensuring your Shark Bike chain is well-lubricated is essential for a smooth and enjoyable riding experience. Remember, it's not about how much lubricant you use but how evenly it's applied and how regularly you maintain it.

Regularly clean your bike's chain to remove dirt and old lubricant, keeping it free from debris and ensuring optimal performance. Regular care will extend the life of your chain and improve your riding experience.

After thoroughly cleaning the chain, apply chain lubricant directly to the chain links.

To lubricate, drip the lubricant onto the rollers while steadily turning the crank. Once the entire chain is covered, pedal through several rotations of chain length. Allow your Shark Bike to rest for a few minutes to enable the lubricant to spread evenly.

Finally, use a rag to wipe off any excess lubricant. This helps prevent splattering and reduces dirt accumulation while riding, ensuring optimal performance and cleanliness.





#### NOTICE

To minimise environmental impact, always use recommended biodegradable lubricants when maintaining your Shark Bike. Remember, some lubricant may inevitably end up on the ground during application.

For a list of our recommended biodegradable lubricants, please visit www. sharkebikes.com. Prioritising eco-friendly products helps protect the environment while ensuring top performance for your bike.

#### ! DANGER

It is critical to ensure that the rotors and brake pads remain completely free from lubricants or degreasers. Contaminated brakes or pads may result in significant brake failure, which could lead to serious injury or even death.

Always handle lubricants and cleaning agents with care, keeping them away from the braking system to maintain safety and optimal performance.

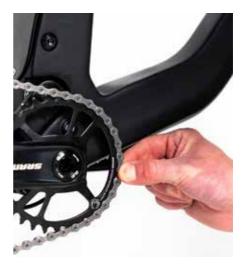
#### **CHAIN MAINTENANCE**

While the chain is one of the most frequently worn components on your Shark Bike, there are several ways to extend its service life. Regular lubrication is vital, especially after riding in wet conditions. To minimise strain on the chain, use gears that allow the chain to run as straight as possible, and aim to pedal at a high cadence of over 60 to 70 revolutions per minute.

For mountain bikes with derailleur gears, chains may wear out after as little as 800 km (500 miles). A stretched chain can negatively impact the performance of the derailleur gears. Riding with a worn chain can also accelerate wear on the sprockets and chainrings, which are significantly more costly to replace than the chain itself. For this reason, it's a good idea to check the condition of your chain regularly.

To check your chain, shift it onto the largest chainring available. Hold the chain between your thumb and index finger and attempt to lift it off the teeth. If it lifts noticeably, the chain is heavily worn and requires replacement.

For precise inspection, special chain measuring tools are available. Replacing a chain should generally be carried out by a professional, as modern chains often lack a master link. These continuous chains require specific tools for removal and installation. If you're in doubt, visit your dealer, who can assist in selecting and fitting a chain appropriate for your gear system.



#### ! DANGER

An incorrectly riveted chain can fail and potentially cause you to lose control of your Shark Bike. To ensure your safety, always have your chain replaced by a qualified and experienced mechanic who can quarantee proper installation.

# THE WHEELS, TYRES INNER TUBES AND AIR PRESSURE

The wheels of your Shark Bike are the primary contact points with the road. They bear the rider's weight and any luggage, in addition to enduring the impacts of uneven surfaces. While the wheels are meticulously manufactured and delivered in a true state, the tension in the spokes may loosen slightly during the first few kilometres (miles) of use. Consequently, the wheels might require truing after a short break-in period of approximately 100 to 300 kilometres (60 to 180 miles). Regularly inspect your wheels during this time. However, the need for spoke adjustment is uncommon.

Each wheel is composed of the hub, spokes, and rim. The tyre is mounted onto the rim, encasing the inner tube. A rim tape is fitted along the base of the rim to shield the inner tube from potential damage caused by the spoke nipples or the sometimes sharp edges of the rim base.

When replacing a tyre, it is essential to use one that matches the size of the tyre being replaced. The size is marked on the sidewall of the tyre and typically includes two designations. The more precise marking uses millimetres, such as 57-622, indicating that the tyre is 57 mm wide when inflated and has an inner diameter of 622 mm. The alternative marking expresses the size in inches, for example, 29 x 2.25. Using a tyre that is larger than the specified size risks causing it to rub against the fork or rear frame. To avoid this, always choose a tyre with identical dimensions to the original.



#### DANGER

If you fit a tyre that differs in size from the standard one supplied with your Shark Bike, this may reduce the clearance between the front of your shoe and the wheel when riding at slow speeds. Additionally, compression of the suspension system could lead to the wheel jamming. This presents a significant risk of an accident. Always ensure the tyre size is compatible with your bike's design to maintain safe operation.

To ensure optimal performance, the tyres on your Shark Bike must be inflated to the correct air pressure. Properly inflated tyres not only perform better but are also more resistant to punctures. If the air pressure is too low, the inner tube is more likely to become pinched, causing a "snake-bite" puncture when hitting a sharp curb or obstacle.

The recommended air pressure for your tyre, provided by the manufacturer, can be found on the tyre sidewall or type label. If two pressure values are indicated, the lower pressure is ideal for better shock absorption, making it suitable for off-road riding. Higher pressures, on the other hand, reduce rolling resistance, making them better for smooth roads and paved paths but less comfortable. For off-road cycling, a slightly lower pressure improves rolling resistance and grip.

Tyre pressure is often listed in psi (pounds per square inch), an older unit of measurement.

For traditional tyres and rims, an inner tube is required to retain air pressure, except in the case of tubeless tyres typically found on mountain bikes. The inner tube is filled with air via a valve.

Shark Bikes come equipped with Schrader or Presta valves, which are commonly used across most bike types. These valves feature a plastic cap to protect them from dirt and debris.



#### **I DANGER**

Always ensure you do not exceed the maximum permissible pressure listed for your Shark Bike tyres. Over-inflating your tyres can lead to bursting or the tyre detaching from the rim while riding, which poses a severe risk of fatal accidents.

#### ! DANGER

If a tyre wider than the standard one supplied with your Shark Bike is mounted, it may come into contact with the fork crown when the suspension fork is fully compressed. This can negatively affect performance and safety.

#### ! DANGER

For tyres that support an inflation pressure of five bars or more, it is essential to mount them on hook bead rims. These rims can be identified by the "C" designation. Ensure the correct rim type is used to maintain safety and functionality.

Valves come in different diameters, so it's essential to use inner tubes with valves that match your rim. Using an incompatible valve can lead to a sudden loss of air pressure, which could result in a serious accident.

With Presta valves, there is a possibility that the valve body may not be fully secured, causing slow air leaks. Always check that the valve body is properly seated within the stem.

When inflating tyres to high pressure, hand pumps are often insufficient. A stand pump with a pressure gauge is a more reliable option for home use, allowing you to monitor the air pressure accurately. Additionally, adapters are available for various valve types, enabling you to inflate Presta valve inner tubes at petrol stations if needed.





#### ! DANGER

Always ride with the specified tyre pressure. Make it a habit to check and adjust the tyre pressure regularly, ideally at least once a week.

#### ! DANGER

Never use or replace tyres with worn treads, brittle material, or fraying on the sides. Such tyres are more vulnerable to dampness and dirt, which can penetrate and damage the internal structure.

#### ! DANGER

Replace spoilt rim tapes immediately.

#### ! DANGER

Riding with too low air pressure may make the tyre come off the rim.

#### CAUTION

Make sure the valve diameter matches the hole in the rim and the valve is always in upright position.

#### • NOTICE

With Presta valves you first have to undo the small knurled nut a little and press it in carefully until air starts to escape.

# RIM TRUENESS, SPOKE TENSION

The spokes link the rim to the hub at the centre of your Shark Bike's wheel. Consistent spoke tension is crucial for ensuring the wheel runs smoothly and true. If the tension of certain spokes changes – for instance, from riding over a kerb at high speed or due to a broken spoke – the forces acting on the rim become uneven. This imbalance can cause the wheel to wobble and may impair the performance of your Shark Bike even before the untrue wheel becomes visibly apparent. Regular checks and maintenance are essential to prevent such issues.



#### ! DANGER

Riding with wheels that are not true is dangerous and increases the risk of a fall. For your safety, it's recommended to periodically inspect your Shark Bike's wheels for trueness. To perform this check, lift the wheel off the ground and spin it by hand. This simple routine helps ensure your wheels are running smoothly and safely.

#### **A** CAUTION

Loose spokes should be tightened immediately to maintain the integrity of your Shark Bike's wheel. Failing to do so will increase the strain on the remaining spokes and the rim, potentially leading to further damage.

#### CAUTION

Truing (retruing) wheels is a difficult job which you should definitely leave to an expert.

## REPAIRING PUNCTURES

Flat tyres are something every cyclist might face. With the right tools for changing tyres and inner tubes, along with a spare tube or a puncture repair kit, it doesn't have to end your cycling adventure. If your wheels are fixed with nuts or an anti-theft lock, make sure you have the appropriate spanner to take the wheel off.

When working with hydraulic disc brakes, ensure you don't press the brake lever while the wheel for that brake is removed. When putting the wheel back on, check that the rotor doesn't rub against the brake calliper. Avoid touching the rotors straight after braking since they become extremely hot and could cause injury.

For derailleur gears, shift the chain to the smallest sprocket before taking off the rear wheel. This moves the rear derailleur outward, making it less likely to interfere during removal.

With SRAM gears, you'll need to move the rear derailleur into the mounting position and lock it with a button. To make removing the rear wheel easier, pull the rear derailleur slightly backwards.

Lift your Shark Bike slightly off the ground and gently tap the wheel with your hand to help it drop out.







#### ! DANGER

Rotors can become hot. Let them cool down before removing the wheel.

#### CAUTION

Do not pull the (disc) brake lever with a removed wheel and make sure to mount the safety locks when removing the wheel.

#### **REMOVING TYRES**

Unscrew the valve cap and fastening nut from the valve, and completely deflate the tyre.

Push the tyre from the rim's side towards the centre of the rim. Doing this all the way around the tyre will make it easier to remove.

Use a plastic tyre lever on one bead of the tyre, positioning it roughly 5 cm to the left or right of the valve. Pry the tyre out of the rim and keep the lever steady in place. Insert a second tyre lever between the rim and tyre approximately 10 cm (4 in.) away from the first, then lever the next section of the bead over the rim's edge.

After prying part of the tyre bead over the rim edge, you should be able to slide the entire tyre off on one side by guiding the lever around the tyre's circumference. At this stage, carefully remove the inner tube. Be sure the valve doesn't snag on the rim and that the inner tube remains undamaged.

Follow the instructions provided with your puncture repair kit to fix the issue.

Once the tyre has been removed, inspect the rim tape. It should be flat in the base of the rim, fully covering all spoke ends, and free from tears or brittleness. For double-base rims, also known as double-chamber rims, ensure the tape covers the entire rim base. Use only fabric or durable plastic rim tapes for this type of rim. If you encounter difficulties with the rim tape, reach out to the Shark Bikes service team or use the contact form on our website at www. sharkebikes.com.







#### NOTICE

If necessary, you can remove the whole tyre by pulling the other tyre bead off the rim.

#### MOUNTING TYRES

When fitting a tyre, ensure no foreign debris, such as dirt or sand, gets inside, and take care not to damage the inner tube during the process.

Start by placing one bead of the tyre onto the rim. Use your thumbs to press the bead over the rim's edge along its entire circumference. This should be possible without any tools, regardless of the tyre type. Insert the valve of the inner tube through the hole in the rim.

Slightly inflate the inner tube so it takes on a round shape, then fit it into the tyre all the way around. Be sure there are no folds in the tube.

To mount the tyre, begin at the point opposite the valve. Use your thumbs to push the second tyre bead over the rim edge as much as possible.

Take care to avoid pinching the inner tube between the tyre and rim. You can prevent this by gently pushing the inner tube into the tyre hollow with your finger as you go.

Work the tyre onto the rim by progressing symmetrically towards the valve from both sides. Near the end, pull the tyre vigorously downward to move the mounted portion of the tyre into the deepest part of the rim base. This will make fitting the last section easier.

Finally, double-check that the inner tube is seated correctly inside the tyre. Using the balls of your thumbs, press the last stretch of the tyre over the rim edge to complete the process.





#### NOTICE

If you get a puncture while riding, you can attempt to repair the inner tube without taking off the wheel or fully removing the tube. Leave the valve in place within the rim and start by locating the source of the air leak. Inflate the inner tube slightly, hold it close to your ear, and listen for any hissing sounds. Once you identify the hole, check the corresponding area on the tyre for any foreign objects. Often, the culprit will still be lodged in the tyre, so make sure to remove it if needed.

If this method fails, you'll need to use tyre levers. Ensure the blunt ends of the levers face the inner tube to avoid any damage.

Push the valve deeply into the tyre to prevent the tube from getting trapped between the rim and the tyre beads. Check if the valve is standing upright. If it isn't, remove one bead again and reposition the inner tube.

To ensure the inner tube isn't pinched between the rim and bead, inflate it slightly and inspect it carefully. Confirm that the rim tape remains in place and hasn't shifted during the process.

Inflate the tube only up to the recommended pressure. You'll find the maximum pressure printed on the tyre's sidewall

Finally, check the tyre's fit by examining the "witness line" located on the side of the tyre above the rim's edge. Ensure it is evenly aligned all the way around the tyre.





## SUSPENSION

#### **COMPRESSION DAMPING**

Typically controlled by a blue adjustment knob, compression damping slows the compression movement of the suspension. This feature helps prevent the suspension fork from bottoming out when responding to quick impacts. High-quality suspension components often differentiate between "high-speed" compression damping (for sharp, forceful impacts that cause rapid spring compression) and "low-speed" compression damping (for slower, smoother movements, such as when pedalling out of the saddle).



#### **REAR SHOCK**

The rear shock is an integral component in the rear frame of a full-suspension Shark Bike. It combines both the spring function and damping to effectively manage the bike's rear suspension performance.



#### SUSPENSION FORK

The suspension fork is designed to absorb and dampen shocks through its moving parts. Among the most widely used suspension fork designs are telescopic models. These forks feature thinner stanchion tubes, which are press-fitted or screwed into the fork crown, and lower legs, into which the stanchion tubes slide. Some telescopic forks also come in upside-down designs, where the orientation of the components is reversed to enhance stiffness and reduce weight.



#### SPRING STIFFNESS OR RATE

Spring stiffness, also referred to as the spring rate, represents the force needed to compress the spring by a specific amount of suspension travel. This measurement is commonly expressed in Newtons per millimetre (N/mm) or pounds per inch (lbs/in). A higher spring rate means more force is required for compression. When it comes to air springs, a higher spring rate corresponds to increased air pressure.

#### SPRING PRELOAD

For air suspension systems, the air pressure in the suspension fork plays a critical role in determining both the spring rate and preload. Always refer to the manufacturer's guidelines for proper settings. For steel coil springs, preload can be applied within a specific range, causing the suspension to respond only under greater loads. However, the spring rate itself remains unchanged. Note that heavier riders cannot correct an overly soft spring rate by simply increasing preload.



Lockout functionality is typically controlled by a lever located on the suspension element or handlebars. This mechanism blocks the movement of the fork or rear shock, preventing suspension bob when riding on smooth surfaces, such as tarmac. Lockout should not be used during off-road cycling.

## NEGATIVE SUSPENSION TRAVEL (SAG)

SAG refers to the amount of suspension travel used when the rider assumes their standard riding position while stationary. It is expressed as a percentage of the total suspension travel. Proper SAG adjustment is critical to achieving optimal bike performance and must be set individually for each rider.

#### REBOUND DAMPING

Rebound damping regulates and slows the rebound motion of the suspension. This helps prevent excessive bike bobbing and ensures a smoother ride.









## SUSPENSION FORK

There is a clear movement in bicycle technology towards enhancing rider comfort and ensuring safer handling. For this reason, Shark Bikes' mountain bikes are outfitted with suspension forks. These forks provide greater control when navigating cross-country trails or uneven terrain. They significantly reduce the impact of mechanical shocks on both the rider and the bike, making for a more enjoyable and less strenuous ride.

While various suspension fork designs are available, the majority fall under the category of telescopic forks, which operate in a similar manner to the suspension systems seen on motorbikes.



For extended uphill climbs that require intense pedalling while standing out of the saddle, it's recommended to activate the lockout mechanism. This improves efficiency by minimising suspension movement during ascents.

Conversely, when descending on uneven terrain, it's advisable to reduce the compression damping or fully open it, depending on the trail conditions, to allow for more responsive suspension performance.

#### **! DANGER**

Shark Bikes mountain bikes are exclusively designed for use with standard suspension forks or with equivalent models. The installation of dual-crown forks or forks with differing effective lengths is strictly prohibited. Doing so could result in severe damage to your Shark Bike, including the risk of frame failure, and will immediately void your warranty. Such modifications also significantly increase the risk of accidents and compromise rider safety.

### NOTICE

The majority of fork manufacturers supply detailed and well-crafted manuals with their products. It is essential to thoroughly review these instructions before making any adjustments or performing maintenance on your fork. This ensures correct handling and preserves the integrity of your Shark Bike's suspension system.

#### **HOW SUSPENSION WORKS**

When force is applied to the front wheel, the lower section of the fork, known as the lower legs, moves upwards. These lower legs slide along thinner stanchion tubes that are securely attached to the fork crown by screws, press-fitting, or adhesive. This motion compresses an internal spring, causing the fork to retract.

The spring ensures the fork returns to its original position after absorbing the shock by extending once more. Ideally, this rebound happens instantly. To provide a controlled rebound and prevent unnecessary bobbing, the fork is fitted with an oscillation damper.

Telescopic forks vary in their suspension and damping systems. Suspension is achieved using steel or titanium springs, sealed air chambers, or a combination of these elements. Each design choice influences the fork's performance and rider experience.



#### **A** CAUTION

The suspension fork should be adjusted to avoid reaching the end of its travel, also known as bottoming out, except in rare and extreme circumstances. A spring rate that is too soft, or air pressure that is too low, may result in the suspension frequently bottoming out. This is often noticeable as a distinct "clunk" sound or sensation caused by the fork compressing fully and hitting its limit.

Frequent bottoming out not only compromises the suspension's performance but also leads to excessive wear and potential failure of both the suspension fork and the Shark Bike frame. Ensuring the correct settings will preserve the integrity of your bike and guarantee a safer, more comfortable ride.

#### ADJUSTING THE SPRING RATE

For the suspension fork to function effectively, it must be adjusted to suit the rider's weight, posture, and intended style of use.

It's important to note that the suspension fork should compress slightly even when you're simply sitting on the bike. This compression is referred to as negative suspension travel or sag. Sag allows the front wheel to extend when it moves over depressions in the ground, ensuring the suspension fork smooths out uneven surfaces.

If the air pressure or spring preload is set too high, the fork may remain fully extended even when required to compress. This leads to the loss of an essential safety and comfort feature, as the tyre may lose contact with the ground momentarily. Proper adjustment ensures better grip, stability, and a smoother ride.

For cross-country and marathon riders, a shorter negative suspension travel (sag) is usually preferred, while freeriders and downhill riders tackling rough terrain tend to favour longer sag. For cross-country and marathon bikes, the suspension fork should compress by 10-25% of its maximum travel. With all-mountain, enduro, and freeride bikes, the sag typically ranges between 20-40%.

To measure the suspension travel, use the rubber ring found on the thinner, plunging tube of the suspension fork. If your fork doesn't have a rubber ring, you can secure a cable tie around one of the stanchion tubes. Ensure the cable tie is not too tight, it should be movable by hand but must remain in position without sliding on its own.







With air suspension forks, the spring rate is determined by the air pressure inside the fork. This pressure should be set before your first ride using a specialised high-pressure pump with a pressure gauge. Adjustments may be needed later based on changes in rider weight and/ or load.

Most air suspension forks feature a sticker displaying a recommended starting value. Inflate the fork to the pressure specified for your weight.

Wear your normal riding gear, including a packed rucksack if necessary, and sit on your Shark Bikes bicycle in your typical riding position. Lean against a stable object such as a railing or wall to maintain balance without falling over. Ask someone to slide the rubber ring or cable tie down to rest against the dust seal on the lower leg of the fork.

Carefully dismount the bike, ensuring the fork doesn't compress further. Measure the distance between the rubber ring or cable tie and the wiper—this represents the negative suspension travel, or sag. Compare this measurement to the fork's total suspension travel (as specified by the manufacturer) to decide whether the suspension needs to be adjusted for increased or decreased stiffness.

If your bike is equipped with an air suspension fork, adjust the air pressure to suit your requirements.

Check the position of the rubber ring or cable tie after your ride. The distance from the wiper indicates the maximum suspension travel used. If it has only shifted a few millimetres, the fork setting is too firm. Reduce the air pressure or, for steel coil springs, decrease the spring preload. If this doesn't help, consider replacing the steel springs.









If the rubber ring or cable tie has moved the full length of the tube, or if the fork bottoms out audibly on rough terrain, the setting is too soft. Increase the air pressure in air suspension forks. For steel coil springs, consult a bicycle shop to replace the spring or book an appointment with the Shark Bikes workshop.

### NOTICE

Record the correct settings both before and after your initial ride, and check them regularly thereafter. Always adhere to the manufacturer's guidelines and ensure the air pressure of the suspension fork does not exceed the specified maximum. Conduct a test ride following any adjustments to the settings to ensure optimal performance.

### NOTICE

When replacing parts, ensure you only use those with the correct markings, and for added safety, opt for original spare parts. After making changes to the settings, always perform a test ride across various terrains to confirm everything functions properly.

#### ! DANGER

Suspension forks are built to absorb shocks effectively. If the fork is overly rigid or becomes stuck, the shocks are transferred directly to the frame, which is often not constructed to handle such impacts in these sections. If your suspension features a lockout mechanism, avoid engaging the lockout when navigating rough terrain. Use it only when riding on smooth surfaces such as roads or field tracks.

#### ! DANGER

When fitting a new front tyre, ensure there is sufficient clearance between the tyre and the fork crown when the fork is fully compressed. If needed, fully deflate the suspension fork and firmly push down on the handlebars to verify this. A jammed front wheel could result in a fall and cause injury!

#### **A** CAUTION

Avoid riding your bike if the suspension fork bottoms out, as this can cause damage to both the fork and the bike frame. The spring rate must be correctly adjusted to suit the rider's weight, the load being carried, and the riding conditions.

#### ADJUSTING THE DAMPING

The damping is regulated by internal valves. These valves regulate oil flow, slowing the fork's compression or extension speed and preventing it from bouncing after encountering obstacles. Proper damping adjustment helps optimise how your Shark Bike responds to rough terrain and unexpected impacts.

Suspension forks equipped with adjustable rebound damping have a knob that allows you to control the speed of the rebound movement. If there is a second knob, typically blue, it can be used to adjust the compression speed and/or activate the lockout function.

Begin by fully opening the damping settings (set both rebound and compression to "-"). Securely hold the handlebars with both hands and apply the front brake. Lean your full body weight onto the fork, then quickly remove it. The fork should rebound at approximately the same speed as it compresses.

Next, slowly turn the rebound adjustment knob towards the "+" setting until you feel or hear a click. Apply the process again—compress the fork with the front wheel brake engaged and remove your weight suddenly. You'll notice that the fork extends more slowly.

Keep repeating this cyclical compression and release, gradually turning the rebound damping knob towards the "+" position. This will help you become familiar with how the rebound damping functions.





#### ! DANGER

A too strong damping (rebound damping) of the fork can result in the fact that the fork no longer extends when riding over a quick series of obstacles. Risk of a fall!

The ideal rebound damping setting allows the suspension to extend at a controlled pace—neither too fast nor sluggish. A slow, dragging rebound movement indicates the damping is set too high.

To finalise the correct adjustment, ride over a small obstacle such as a kerb. Gradually increase the rebound damping in small increments by turning the knob towards the "+" position. You've achieved the optimal rebound setting when the suspension fork completes its cycle without bouncing more than once after hitting an obstacle.

Always test any changes to these adjustments on varied terrain to make sure the suspension performs as desired.

Adjust the compression damping incrementally, as excessive damping can stop the suspension fork from fully utilising its travel. Setting up compression damping often takes time and should be done carefully and in small steps.

#### LOCKOUT

When riding uphill for extended periods and pedalling hard out of the saddle, a suspension fork often bobs. If your fork has a lockout function, it's recommended to engage it. However, when descending on rough terrain, the lockout must always remain open to ensure proper functionality and safety.

#### DANGER

Avoid using tools to randomly adjust screws in the hope of fine-tuning them. Doing so could loosen essential fastening mechanisms, increasing the risk of an accident. Typically, adjustment controls are designed to be operated by hand and are clearly marked by manufacturers. These markings often include scales or symbols such as "+" for increased damping or firmer suspension and "-" for reduced damping or softer suspension. Occasionally, speed settings are indicated using symbols like a rabbit for faster and a turtle for slower movement.

#### ! DANGER

Excessive rebound damping on the fork can prevent it from extending properly when riding over a rapid succession of obstacles. This may significantly increase the risk of falling.



#### CAUTION

Only engage the lockout function when riding on smooth surfaces, such as roads or field tracks. Avoid using it while riding over rough terrain.

#### MAINTENANCE

Suspension forks are highly engineered components that need regular care and maintenance. Because of this, most suspension fork manufacturers have set up dedicated service centres where you can get your forks professionally inspected and serviced at routine intervals, such as once a year, depending on usage.

## REAR SUSPENSION

Full-suspension bikes come equipped with both a suspension fork and a rear frame section that moves, supported by a rear shock. This setup improves bike control when riding off-road or on rough trails by keeping the tyre in better contact with the ground. It also reduces the impact of shock loads on both the bike and the rider.

Rear shocks vary in the type of suspension elements and damping systems they use. Most often, they operate with an air spring element, though some use steel coil springs. Damping is typically provided by oil, and depending on the design, rear shocks may include one or more bearing axles.

#### ADJUSTING THE SADDLE

The rear shock adjustment can sometimes cause the saddle to tilt slightly backwards. Keep this in mind when setting the saddle angle. If you experience discomfort while seated, try lowering the saddle nose slightly from its usual position.

For dirt, freeride, and downhill riding, the saddle is often adjusted to a much lower position and tilted backwards for better adaptability to the terrain.





#### NOTICE

Complete this crucial task methodically and step-by-step. If you have any questions, please reach out to our service hotline or use the contact form available on our website at www.sharkebikes.com.

#### NOTICE

Full-suspension bikes offer significantly higher ground clearance compared to bikes without suspension. When the saddle is set to the correct height, it is common that your feet won't touch the ground. To start, adjust the saddle slightly lower and practise mounting and dismounting the bike.

#### ADJUSTING THE SPRING RATE

For optimal performance, the rear shock must be tailored to the weight of the rider, their sitting posture, and the intended usage of the bike.

It's crucial to understand that the rear frame should compress slightly when you sit on the bike - this is known as negative suspension travel or sag. When riding over potholes or similar obstacles, the spring rebounds, allowing the rear frame to adapt to uneven terrain. However, if the air pressure or spring preload is too high, this effect diminishes because the rear frame is already fully extended. This reduces both comfort and safety, as the tyre may momentarily lose contact with the ground.

Cross-country and marathon riders often prefer shorter negative suspension travel, while freeriders and downhill riders, frequently tackling rough terrain, favour longer sag. For cross-country and marathon bikes, the rear frame should compress by 10-25% of the maximum suspension travel. For all-mountain, enduro, and freeride bikes, the sag should be between 20-40%.

#### MEASURING SAG

To measure the negative suspension travel, use the rubber ring typically located on the thinner, plunging tube of the rear shock. If no rubber ring is available, secure a cable tie around the thinner tube instead. Ensure the tie is loose enough to move but tight enough to stay in place without slipping on its own.





#### ! DANGER

Full-suspension frames are specifically engineered to absorb shocks. If the rear shock becomes rigid or jammed, shocks are transferred directly into parts of the frame that are not built to handle these stresses, potentially causing damage. If your rear shock features a lockout mechanism, only use it when cycling on smooth surfaces such as roads or field tracks. Avoid activating the lockout function when navigating rough terrain to ensure the suspension operates correctly and protects the bike from unnecessary strain.

Adjust these settings carefully to match your riding style and terrain, ensuring a balance between comfort and control for your Shark Bike. Always test the effects of adjustments during a ride to confirm proper performance.

#### **A** CAUTION

Never adjust the suspension travel when navigating rough terrain or riding downhill.

If the sag has been correctly set as described earlier and the rear shock performs well during a standard test ride but still bottoms out, you can gently increase the compression damping.

Make adjustments incrementally, click by click, as excessive compression damping could stop the rear shock from fully utilising its suspension travel.

Fine-tuning the compression damping is a gradual process that requires careful attention and small incremental changes. Begin with the lowest setting by turning the adjustment knob fully towards the "-" position.

Always test any adjustments through a ride on appropriate terrain to ensure the changes improve performance. If you're uncertain about how to make the adjustments or encounter difficulties during the process, refer to the manufacturer's operating instructions for the suspension fork, contact Shark Bikes' service hotline, or use the contact form on our website at www.sharkbikes.com.



#### LOCKOUT

During extended uphill rides that require intense pedalling out of the saddle, the rear frame may bob. To minimise this, it's recommended to lock the damping if your rear shock features a lockout mechanism. However, when riding downhill on uneven terrain, the lockout mechanism must always remain open to ensure proper suspension performance. Adjust prudently for a safe and smooth Shark Bike experience!

#### ADJUSTING THE SPRING RATE

For rear shocks with air springs, the spring rate is adjusted by setting the air pressure within the rear shock. This must be done before your first ride using a special high-pressure pump with a pressure gauge. Adjustments may be necessary later to account for changes in rider weight or added loads. Many air spring rear shocks include a sticker with a reference table for initial pressure settings based on rider weight. Inflate the rear shock to match the pressure recommended for your weight before heading out.

Put on your typical riding clothing, including a fully packed rucksack if you usually carry one. Sit on your bike and position yourself as you would during a normal ride.

Lean against something sturdy, such as a railing or wall, to maintain balance and ensure you don't fall. Have someone assist you by sliding the rubber ring or cable tie downwards until it touches the dust seal at the rear shock's lower tube.

Step off the bike carefully to prevent further compression of the rear frame. The gap between the rubber ring or cable tie and the dust seal is your negative suspension travel, or sag.

Compare the sag with the full suspension travel provided in the rear shock's manufacturer specifications (not the rear frame). Alternatively, measure the straight, smooth portion of the shock that compresses during use to determine whether the suspension needs to be made firmer or softer.

For bikes equipped with air spring rear shocks, adjust the air pressure as needed using a high-pressure pump.









Record the appropriate settings and check them regularly to maintain performance. Always adhere to the manufacturer's guidelines and never exceed the rear shock's maximum air pressure.

After every adjustment to your settings, take your bike out for a test ride to ensure everything is functioning as desired.

Ensure the valve is always secured with its cap during use. After making any changes to the suspension settings, take a test ride across various terrains and surfaces. Following this, inspect the position of the rubber o-ring or cable tie on the rear shock. The distance between this and the wiper indicates the maximum rear shock travel used.

If the o-ring or cable tie has moved only a few millimetres, the suspension setting may be too hard. Reduce the air pressure, or if your rear shock uses a steel coil spring, adjust the spring preload. Should this not resolve the issue, consider replacing the steel coil spring.

Conversely, if the o-ring or cable tie has shifted along the entire tube length, or the rear shock bottoms out with a noticeable sound when riding over rough terrain or poor roads, the setting is likely too soft. For air-spring rear shocks, increase the air pressure.

For further guidance, get in touch with our service team using the contact form on our website at www.sharkebikes.com.

#### **A** CAUTION

After completing your initial ride, make sure to inspect both the settings and air pressure of your rear shock. Continue these checks at regular intervals thereafter. Rear shocks that are not correctly adjusted can result in malfunctions or potential damage to the component.



#### NOTICE

When replacing any components, ensure they are marked with the correct certification or identifier. For added safety, it's recommended to use original spare parts.

#### **A** CAUTION

The rear shock should be configured or designed to bottom out only in rare and extreme instances. When the spring rate is too soft or the air pressure is too low, a distinct "clunk" noise may be heard or felt. This occurs when the rear shock fully compresses and reaches its bottom-out limit. Frequent bottoming out will lead to wear and failure of the rear shock, and potentially damage the frame as well.

#### **SETTING THE DAMPING**

The damping is controlled by internal valves. When oil is pushed through these valves, it slows down the compression and extension of the rear shock. This prevents the suspension from "bouncing" after hitting obstacles, allowing you to fine-tune how your Shark Bike responds to different terrain.

Rear shocks featuring adjustable rebound damping located with red adjustment knob. This can be used to either slow down or speed up the rebound movement.

The blue adjustment knob allows for control over the low speed compression.

Begin adjustments with damping completely open (rebound and compression set to "-"). To check the damping, grasp the saddle with both hands, lean your entire weight on it, and then remove your weight quickly. The rear shock should extend at the same pace as when it was compressed under your weight.

Turn the red adjustment knob towards the "+" setting until you hear a click. Push the saddle down and then release your weight quickly. You'll notice that the rear shock extends more slowly.

Continue compressing and releasing the suspension while gradually adjusting the rebound damping. This will help you develop an understanding of how the rebound damping operates.

The ideal rebound damping setting allows the suspension to extend at a controlled pace, but not so slowly that it feels sluggish. If the extension is overly slow and feels lethargic, the damping is set too high.







To fine-tune, ride over an obstacle (such as stepping off a kerb) and delicately adjust the rebound damping knob in small increments towards "+". The optimal rebound setting is achieved when the rear frame settles without bouncing more than once. Always confirm and evaluate changes through test rides on uneven terrain.

Some rear shocks also feature compression damping. Typical compression damping—or in certain models, high-speed compression damping—slows the rate at which the rear shock compresses when riding quickly over obstacles. Without this, rapid compression could cause the rear shock to bottom out.

A weaker level of damping allows the suspension to react more freely, which can improve responsiveness. However, it might lead to excessive compression or even a bouncing sensation when riding fast over obstacles such as steps. On the other hand, a higher level of damping stiffens the suspension, reducing comfort but providing greater stability.

#### ! DANGER

Excessive rebound damping on the rear shock can cause a sluggish rebound, leaving the rear frame unable to recover properly during a rapid series of impacts. This increases the risk of losing control and potentially falling. Adjust rebound damping carefully to maintain safety and performance on your Shark Bike.

#### DANGER

Avoid using tools to turn any screws in the hope of making adjustments. This could loosen important fastening mechanisms, potentially causing an accident. Typically, adjustment controls are designed to be operated with your fingers. Manufacturers generally mark these controls with a scale or symbols like "+" (indicating stronger damping or firmer suspension) and "-" (for softer settings). Stay safe and adjust with care!

#### ! DANGER

When mounting a new rear tyre, make sure there is enough clearance between tyre and frame as the rear frame compresses entire-ly. If necessary, deflate the rear shock completely and press the saddle forcefully downward to check this. The rear wheel can get jammed. Risk of a fall!

#### MAINTENANCE

Rear shocks and rear frames are intricately designed components that demand consistent maintenance and care. To support this, most rear shock manufacturers have set up specialised service centres where your shocks can be inspected and serviced regularly based on usage, typically once a year. Keep your Shark Bike in top condition by adhering to these maintenance schedules!

#### ! DANGER

Suspension elements are complex components that require expert handling. Maintenance, and particularly the disassembly of these elements, should be entrusted to the service centre of the rear shock manufacturer. For optimal performance and safety, rely on the professionals to care for your Shark Bike.

#### CAUTION

Do not ride your Shark Bike if the rear shock bottoms out, as this could damage both the shock and the frame. Always ensure the spring rate is adjusted to match the rider's weight, any luggage, and the specific riding conditions. Prioritise proper setup to protect your bike and enhance performance!

#### NOTICE

Ensure your rear shock is inspected by the manufacturer's service centre at least once a year. Regular check-ups are essential to maintain the performance and longevity of your Shark Bike's suspension system!

## ADJUSTING RIDING POSITIONS

Your seating position is vital. It plays a key role in your comfort and overall riding performance. Therefore, make sure to adjust both the saddle and handlebars of your Shark Bike precisely to suit your individual needs.

A mountain bike is inherently a piece of sporting equipment. For this reason, riding such a bike demands a certain level of conditioning in the trunk, shoulder, and neck muscles.

When choosing the frame size for your Shark Bike, your height is the most important factor. By selecting a specific bike type, you already define a general riding posture. However, many Shark Bike components, such as the seat post, stem, and brake levers, are designed to allow for adjustments to match your unique proportions.

Lastly, ensure that the chosen frame size provides ample crotch clearance when standing over the bike. This helps to ensure safety and comfort during rides.





#### DANGER

The tasks outlined below require experience, the right tools, and good manual skills. Once assembly is complete, conduct a quick check (refer to "Before every ride") and take your Shark Bike for a test ride in a quiet area or an unfrequented road. This will help ensure everything is functioning properly and safely.

If you feel uncertain, limit your adjustments to the seating position. When in doubt, seek assistance from an expert to ensure your Shark Bike is properly set up and adjusted.

## ADJUSTING THE SADDLE TO THE CORRECT HEIGHT

To maximise comfort and efficiency while pedalling, ensure the ball of your big toe rests above the pedal spindle's centre. When your feet are in this position, your legs should not fully stretch out at the pedal's lowest point. If the saddle is set too high, pedalling through the lowest point becomes difficult and awkward.

Conversely, a saddle that's too low may lead to knee discomfort. Follow this simple method to check your saddle height – wearing flat-soled shoes works best: Sit on your saddle and place a heel on the pedal at its lowest point. Your leg should be fully extended in this position, ensuring your hips remain level.

To adjust saddle height, loosen the seat post binder bolt or quick-release mechanism (refer to "How to use thru axles" if needed). Turn the binder bolt anticlockwise using an appropriate tool to release it.

Do not extend the seat post beyond its marking. On frames with long seat tubes extending above the top tube, the seat post must reach below the top tube's height. This often means a minimum insertion depth of 10 centimetres (4.0 inches) or more.

When adjusting the height, ensure the section of the seat post inside the seat tube is properly greased. (Exception: do not grease carbon frames or seat posts.) If the seat post is difficult to move, avoid using force. Instead, contact the Shark Bikes service hotline or use the contact form on our website for assistance. Careful adjustment of your saddle height ensures a smoother, safer, and more enjoyable ride.



#### ! DANGER

Avoid applying grease or oil inside the seat tube of a carbon frame unless it contains an aluminium sleeve. When fitting a carbon seat post, do not use grease, even if the frame is metal. Greased carbon fibre components may no longer clamp securely, potentially compromising safety and performance.

#### **A** CAUTION

The minimum insertion depths indicated on the seat post and frame may vary. Always ensure the seat post is inserted to meet the deepest recommended insertion depth to guarantee safety and optimum performance.

Align the saddle with the frame by using the saddle nose along with the bottom bracket or top tube as reference points.

Secure the seat post by tightening the seat post binder bolt in a clockwise direction. You should not need excessive force to achieve a secure clamp. If a secure fit requires significant effort, the seat post might not be the correct size for your frame. If you are uncertain or have questions, contact the Shark Bikes service hotline or use the contact form available at www.sharkbikes.com.

Verify the seat post's tight fit by gripping the saddle at both ends with your hands and attempting to twist the seat post within the seat tube. If it does not move, the seat post is properly secured.

Next, confirm the correct saddle height using the leg stretch test. Position your foot on the pedal at the lowest point, ensuring the ball of your big toe is centred on the pedal spindle. Your knee should have a slight bend in this position. If it does, your saddle height is appropriately set.

Lastly, test your ability to balance on the bike while seated on the saddle. Stretch your feet towards the ground. If you're unable to touch the ground, lower the saddle slightly for better control and safety.





#### ! DANGER

Avoid overtightening the seat post clamp bolt, as this can lead to damage to the seat post or frame, increasing the risk of an accident. Always tighten with care to ensure safety and maintain the integrity of your Shark Bike.

#### ! DANGER

Never ride your Shark Bike with the seat post extended beyond the limit, maximum, or stop mark. Doing so could result in the seat post breaking or causing significant damage to the frame. For bikes with a long seat tube extending beyond the top tube, the seat post must extend below the level of the top tube and the junction of the rear stays for proper support and safety.

#### CAUTION

Tighten components gradually, increasing in small increments (0.5 Nm) towards the recommended maximum torque value. At each step, ensure the component is seated correctly before proceeding. Never exceed the manufacturer's specified maximum torque to avoid damage and ensure safety.

#### NOTICE

Ensure your rear shock is inspected annually by a service centre authorised by the rear shock manufacturer. For children who are still growing, it's recommended to review and adjust their seating position every two to three months to maintain proper fit and comfort.

#### FORE-TO-AFT POSITION AND SADDLE TILT

The positioning of the saddle plays a vital role in your ride quality and ensures a comfortable, pain-free experience.

The distance between the handlebars and the saddle affects the angle of your upper body, influencing both riding comfort and dynamics. You can make slight adjustments to this distance by shifting the saddle rails on the seat post. However, be mindful that altering the saddle rail position also impacts pedalling efficiency, causing the rider to pedal either more from the back or forward.



If the saddle isn't set horizontally, it can make pedalling uncomfortable and force the rider to constantly brace themselves or grip the handlebars tightly to prevent sliding.

Ensure the upper edge of the saddle stays level as you tighten the bolt(s). For accuracy, place the bike on even ground when making adjustments.

For full suspension mountain bikes, slightly tilting the nose of the saddle downwards can sometimes enhance comfort and riding performance.



The adjustment range of the saddle is limited. To make more significant changes in length, consider using adjustable stems or stems of varying lengths. This can provide a difference of over 10 cm. However, in most cases, this adjustment will also require changes to the gear and brake cables. If needed, contact our service hotline or use the contact form on our website at www.sharkbikes.com.

After making adjustments, check that the re-tightened saddle does not tilt or twist. Apply pressure alternately with your hands on the nose and rear of the saddle to ensure it stays secure.

#### ! DANGER

Ensure the bolted connections on the seat post are tightened to the specified torque values. Always use a torque wrench for accuracy, and never exceed the manufacturer's maximum torque limits to maintain safety and prevent damage.

#### DANGER

Always secure the saddle in the straight section of the saddle rail. Avoid clamping it in the curved areas to ensure proper installation and maintain the integrity of the saddle.

#### NOTICE

The adjustment range of the saddle is quite limited. For more substantial changes to the fore-to-aft position, replacing the stem is an excellent option, as stems are available in lengths varying by more than ten centimetres (4.0 in.). However, in most cases, you will need to adjust the length of the gear and brake cables accordingly. It is strongly recommended to have this work carried out by a professional workshop. If you have any questions or wish to schedule an appointment, please contact our service hotline or use the contact form available on our website.

#### ADJUSTING SADDLE POSITION AND TILT

The saddle's tilt and horizontal position are secured by two vertical Allen bolts—one located behind the seat post and the other either in front of or at the centre of the seat post.

When adjusting the saddle, loosen both bolts by only two to three turns at most. Overloosening may cause the entire mechanism to come apart. To modify the fore-to-aft position, carefully move the saddle horizontally. Occasionally, a gentle tap may be needed to shift it. Always stay within the markings visible on the saddle rails, ensuring you do not exceed them. Once your desired position is set, confirm that both halves of the clamp mechanism are firmly and evenly gripping the saddle rails.

Finally, tighten the bolts in line with the recommended torque values to secure the setup.



#### ! DANGER

Ensure the saddle rail is positioned so that the seat post clamp is within the marked area. If no markings are present, the clamping must be applied only on the straight section of the rail. Under no circumstances should clamping occur on the front or rear bends, as this could lead to rail failure.

#### DANGER

When replacing your saddle, remember that seat posts are generally designed for saddle rails with a diameter of seven millimetres (0.28 in.). Using saddle rails of different dimensions could compromise the seat post's integrity, potentially leading to its failure and posing a risk to the rider's safety.

#### **A** CAUTION

Use a torque wrench to inspect and tighten the bolts once a month, following the recommended torque settings to ensure optimal performance and safety.

#### **A** CAUTION

Once the saddle is secured, test its resistance to tilting by applying pressure with your hands at both ends of the saddle. This ensures proper fastening and stability.

### CHARACTERISTICS OF CARBON

Carbon fibre reinforced plastic, often referred to as carbon or CRP, possesses unique qualities that set it apart from traditional lightweight materials. Understanding these features is crucial to ensuring the durability and reliability of your premium-quality Shark Bike, allowing you to ride with full confidence in its material.

CRP has repeatedly demonstrated its worth in the competitive world of road racing, contributing to countless victories. Components crafted from this material are remarkably lightweight and, when designed, processed, and treated correctly, exhibit exceptional strength and resistance to stress.



One notable limitation of carbon fibre reinforced plastic (CRP) is its brittleness. When placed under stress, it does not exhibit permanent deformation, even if its internal structure has been damaged. In severe cases, the fibres may separate, a process known as delamination, which weakens the component's structural integrity. Unlike steel or aluminium, carbon components subjected to inner fibre damage caused by excessive stress often show no visible signs of deformation.

This means that carbon components stressed beyond their limits may fail unexpectedly during use, potentially leading to accidents with serious consequences. We advise having the affected part—or ideally your entire Shark Bike—thoroughly inspected by our specialised workshop or one of our approved service partners after any incident.

#### ! DANGER

Stay alert while riding. If you hear any creaking from your carbon components, this could signal a potential material defect. Cease using your bike immediately and get in touch with our service hotline to determine what actions to take. For your safety, avoid attempting repairs on CRP components. Damaged carbon components must be replaced straightaway and should not be used by anyone else.

#### ! DANGER

Carbon components must never be subjected to high temperatures, such as those produced during powder coating or enamelling, as this heat can damage the component beyond repair. Avoid leaving carbon parts in vehicles under direct sunlight or near heat sources for extended periods to prevent heat-related damage.

#### ! DANGER

Avoid pairing carbon handlebars with bar ends unless they have been expressly approved for such use. Do not cut down carbon handlebars or position the brake and gear levers closer to the centre than recommended. Failure to follow these guidelines could result in breakage!

#### **CARE INSTRUCTIONS**

Clean carbon fibre components using a soft cloth and clear water. For stubborn oil or grease stains, use a petroleum-based cleaner. Avoid degreasing agents containing acetone, trichloroethylene, methyl chloride, or other harsh chemicals and solvents, as they can damage the surface. Always use neutral and safe cleaning products to maintain the integrity of your components.

#### ! DANGER

The durability of lightweight carbon components may vary depending on usage, with potential for faster wear. We strongly advise adhering to the recommended service intervals and having these components inspected and, if necessary, replaced regularly at our service workshop or another qualified specialist workshop.

#### ! DANGER

Regularly inspect your carbon components, especially while cleaning your bike, for signs of damage such as cracks, dents, notches, discolouration, or other abnormalities. If your cleaning cloth snags on any area, it needs to be closely examined. Stop using your Shark Bike immediately and contact our service hotline or reach out via the contact form on our website for further assistance.

#### **A** CAUTION

Many bike carrier system clamps pose a risk of crushing large-diameter frame tubes. This can lead to a sudden failure of carbon frames during use. Always ensure proper handling and compatibility when transporting your Shark Bike to prevent damage or accidents.

#### CAUTION

Avoid clamping a carbon frame or seat post in the holding jaws of a workstand, as this can cause damage. Instead, use a robust aluminium seat post to secure the frame, or opt for a workstand designed to hold the frame at three points within the frame triangle, or one that clamps the fork and bottom bracket shell for safe maintenance.

#### **A** CAUTION

Safeguard the exposed sections of your carbon frame, such as the underside of the down tube, by using specialised protective pads. These will help shield your frame from rubbing cables and damage caused by stone chips, ensuring long-lasting durability.

#### **A** CAUTION

Refrain from applying grease to carbon components, as it can seep into the surface of the material. This reduces the coefficient of friction, compromising the stability of clamping joints even when tightened within the recommended torque limits. Once carbon fibre has been greased, it may no longer be possible to secure it safely and reliably.

#### NOTICE

Ensure the combined weight of the rider, any baggage (such as a rucksack), and the bike does not exceed 120 kg (265 lbs). Please note that trailers are strictly prohibited.

## CARE AND INSPECTION

Your Shark Bike is a high-quality, technologically advanced product. Like any vehicle, it requires regular attention. Ensure scheduled maintenance is carried out by a professional to keep it in optimal condition.

For lightweight bikes, key components may need to be replaced periodically (refer to the "Service and Maintenance Schedule"). This will maintain the safety, reliability, and enjoyment of your bike for many years.





#### WASHING AND CLEANING

Sweat, dirt, and salt from winter riding or exposure to sea air can damage your Shark Bike. Make it a habit to clean all components regularly and apply corrosion protection to ensure longevity. Avoid using a steam jet to clean your Shark Bike. Though a fast method, it comes with significant drawbacks. Highpressure water jets can breach seals and get into bearings, diluting lubricants, increasing friction, and promoting corrosion. Over time, this can damage and impair the functionality of the bearings. Additionally, steam jet cleaning can wear away stickers. Always opt for gentler cleaning methods to protect your bike.

#### CAUTION

When working on your Shark restrict yourself to jobs for which you are equipped and have the necessary knowledge.

#### **A** CAUTION

Do not use a jetwash, high pressure hosepipes or steam jets on your Shark Bike.

#### **A** CAUTION

Protect the upward facing part of the chain-stay and any places where cables might rub with foil or the like. This will avoid any unpleasant scratches and abrasion marks.

A softer, more effective method for cleaning your Shark Bike is by using a gentle spray of water or a bucket of water paired with a sponge or large brush. Cleaning your bike manually also offers the added advantage of spotting paint damage or any worn or faulty components early on, helping you address issues promptly.

Once your Shark Bike is dry, polish its coating and metal surfaces with hard wax (avoiding the rotors). You can also apply hard wax to smaller components like spokes, hubs, bolts, and nuts. For areas with limited surface space, use a handheld atomiser for accurate application. After waxing, buff the surfaces with a soft cloth to create a brilliant shine and enhance water resistance.

Finally, inspect the chain closely after cleaning. If necessary, apply grease or lubricant to ensure smooth operation (refer to the "The Gears" chapter, specifically the "Chain Maintenance" section, for detailed guidance).

#### ! DANGER

Ensure that brake pads and rotors remain free from cleaning agents and chain oil, as contamination could lead to brake failure (refer to the "The Brake System" chapter for more information). It is also crucial not to apply grease or oil to carbon clamping areas such as the handlebars, stem, seat post, and seat tube to maintain their integrity and functionality.





#### DANGER

While cleaning your Shark Bike, carefully check for cracks, scratches, dents, or any bent or discoloured materials. If you're uncertain about any damage or have questions, reach out to our service hotline or use the contact form available on our website at www.sharkbikes.com. Replace any defective components without delay and address paint imperfections promptly to maintain your bike's performance and appearance.

## SERVICING, INSPECTION AND MAINTENANCE

#### Initial Service:

Our expert technicians have created a specialised maintenance schedule for your Shark Bike. During the first few kilometres (or miles), components like the brake pads may undergo a bedding-in process, and Bowden cables might stretch, resulting in less precise gear shifting. If any parts are found to be excessively worn and require replacement early on, a service technician will contact you beforehand to discuss the necessary repairs

Regular Annual Service:

After a long and demanding season of cycling, we recommend a thorough check-up for your Shark Bike. Who better to carry out this work than the team who built your bike? Our skilled staff will perform the annual service based on a maintenance plan specifically designed for your type of bike, ensuring it stays in peak condition year after year.

#### ! DANGER

Lightweight components on your Shark Bike may have a shorter service life. To ensure your safety, it is crucial to inspect the parts listed in the "Service and Maintenance Schedule" at the recommended intervals. Replace any components as needed to maintain optimal performance and reliability.

#### CAUTION

To ensure many years of enjoyment with your Shark Bike, regular servicing is essential. The "Service and Maintenance Schedule" provides a general guideline for cyclists covering between 750 and 1,500 km (500 to 1,000 miles) annually. If you ride significantly more, especially on rough roads or off-road terrain, you will need to shorten the maintenance intervals accordingly. This also applies if you frequently cycle in the rain or other moist conditions. Regular care will help maintain your bike's performance and longevity.

#### **A** CAUTION

For your safety and the optimal performance of your Shark Bike, it is essential to use only genuine parts recommended by Shark Bikes for all safety-critical components. These parts are specifically designed, engineered, and rigorously tested to meet Shark Bikes' exact standards, ensuring compatibility, durability, and reliability. Using non-genuine parts could compromise your bike's integrity, leading to potential safety risks such as component failure or reduced performance. If you are unsure about which parts are genuine, please contact Shark Bikes or an authorized retailer directly for guidance. By choosing genuine parts recommended by Shark Bikes, you are ensuring the highest standards of safety and quality for your ride.

#### **A** CAUTION

If a component needs replacement, always use genuine Shark Bikes spare parts. For the first two years, or during the warranty period, Shark Bikes ensures the availability of all essential spare parts. Should a specific part become unavailable, Shark Bikes will provide alternatives of equal or greater value to maintain your bike's quality and performance.

#### NOTICE

If you have to return your Shark Bike to our headquaters for repairs, warranty claims or servicing, you are responsible for packing the bike correctly. We strongyl advise to store your Shark Bike Box for any future needs.

### SERVICE SCHEDULE

After the bedding-in period you need to have your bike serviced by an expert at regular intervals. The intervals given in the schedule below are meant as reference for cyclists who cycle between 750 and 1,500 km (500 and 1,000 miles) approx. 50 to 100 hours, a year. If you regularly cycle more or a lot on poor roads, the service intervals will shorten according to the harder use.

If you have a certain degree of mechanical skills, experience and suitable tools. If you come across any defects, take appropriate measures without delay. If you have any questions, contact our service hotline or use the contact form on our website www. sharkebikes.com

#### **A** CAUTION

If unsure, leave any mechanical work to an experienced and skilled bicycle expert.

Component	What To Do	Before Every Ride	Monthly	Annually	Other Intervals
Lighting	Check	х			
Tyre Pressures	Check	х			
Tyres	Check Wear and Side Walls		х		
Brake Discs	Check Wear of Brake Pads		х		
Brake Hoses	Visual Inspection		х		
Rear Shock	Service			х	
Suspension Fork Bolts	Check Bolts		х		
Suspension Fork Oil	Change Oil, Service			х	
Bottom Bracket Bearings	Check for movement / Play		х		
Bottom Bracket Grease	Regrease			х	
Chain Lubricant	Check and/or Lubricate	х			
Chain	Replace			х	
Frame	Clean		х		
Wheels and Spokes	Check Trueness and Tension		х		
Handlebars And Stem	Check or Replace				X Every 3 Years
Headset	Check Bearing Play and Regrease		х	х	
Hubs	Check Bearing Play and Regrease		х	х	
Pedals	Check Bearing Play and Clean Mechanism				
Front/Rear Derailleur	Clean / Grease		х		
Quick Release	Check	х			
Bolts and Nuts	Check or Tighten		х		
Valves	Check	х			
	1				

## REPLACEMENT / SPARE PARTS

Headset	Tapered 1 1/8" - 1.5" (ZS44/ZS56) Upper Bearing Size: 41 x 31 x 7mm 45/45 Lower Bearing Size: 52 x 41 x 7mm	
	45/45	
Front Fork Travel	160-160mm	
Rear Shock Travel	150mm	
Seat post Diameter	φ31.6mm	
Chain Guard	Compatible With ISCG-05 Chain Guide	
Chain Line	52mm	
Front Tyre Part Number: 11601102.01	Schwalbe Magic Mary Compound - ADDIX Soft Version - Super Trail TL-Easy Size - 29 x 2.60 ETRTO - 65-622 Max Pressure - 3.5bar/50psi	
Rear Tyre Part Number: 11654157	Schwalbe Big Betty Compound - ADDIX Soft Version - Super Trail TL-Easy Size - 27.5 x 2.60 ETRTO - 62-584 Max Pressure – 3.5bar/50psi	
Inner Tube - Front Part Number: 10461620	Schwalbe AV19+AP (Air Plus Inner Tube) Size - 29 x 2.10-2.60 ETRTO – 40/65-622	
Inner Tube – Rear Part Number: 10461590	Schwalbe AV21AP (Air Plus Inner Tube) Size - 27.5 x 2.10-2.75 ETRTO – 40/65-584	
Max Tire Clearance - Front	29 x 3.1"	

<u></u>	<u></u>
Max Tire Clearance - Rear	27.5 (650b) x 3.0" or 29 x 2.6"
Max Compatible Chainring	34T-44T
Min/Max Disc Brake Rotor – Front 200mm-220mm	Post Mount disc brake, 200mm Rotor. (Compatible with Max 220mm rotor by using adapter)
Min/Max Disc Brake Rotor – Rear 180mm-203mm	Post Mount disc brake, 180mm rotor. (Compatible with Max 200-203mm rotor by using adapter)
Disc Brake Rotor	Sram
Front: Part Number: 00.5018.037.015	Centerline Disc Brake Rotor Size - 200mm Fitment – 6 Bolt
<b>Rear:</b> Part Number: 00.5018.037.014	Centerline Disc Brake Rotor Size - 180mm Fitment – 6 Bolt
Rear Shock Size Compatibility	Max Shock
(Standard/Standard Mount)  Fitted: 190 x 45mm	Shock Eye-Eye: 190 x 51mm (hardware 22.2 x M10)
Front Dropout	9 x 110mm Boost Thru Axle
Rear Dropout	12 x 148mm Boost Thru Axle
Replacement Brake Pads	Sram
Part Number: 00.5318.003.003 Part Number: 00.5318.003.004 Part Number: 00.5318.003.005 Part Number: 00.5318.003.006	Brake Pads - Medium Organic/Aluminium (Quiet/Light) Brake Pads - Medium Organic/ Steel (Quiet) Brake Pads - Medium Sintered/Steel (Heavy Duty) OE Brake pads - Medium Organic/Steel (Powerfull)

#### • NOTICE

During the bed-in process of hydraulic disc brakes, a thin layer of brake pad material is transferred onto the rotor. This friction between the two surfaces enables powerful braking. When changing brake pad compounds, it is crucial to replace the rotors as well to achieve optimal performance with your hydraulic disc brakes.

Frame Pivot Bearings	
Rear Shock Pivot Mount Upper Bearings – x2 Linkarm Seatstay Pivot Bearings – x2	6900 Enduro Bearings Size: 10 x 22 x 6 - 4Pcs
Rear Dropout Pivot Bearings – x4	6800 Enduro Bearings Size: 10 x 19 x 5 – 4Pcs
Bottom Bracket Pivot Bearings – x4	6902 Enduro Bearings Size:15 x 25 x 7 – 4Pcs
Linkarm Main Pivot Bearings – x2	6802 Enduro Bearings Size: 15 x 24 x 5 - 2Pcs

## RECOMMENDED TORQUE VALUES

Component	Bolted Connection	Torque Value
Crank Bolt Arm	Crank Fixing Bolt	54 N.m
Crank Self Extracting Cap		14 N.m *
Crank Pre Load Adjuster		N/A
Pedals		54 N.m **
Bolt Bracket Cups		50 N.m
Brake Calliper Bolts Front		9.5 N.m
Brake Calliper Bolts Rear		9.5 N.m
Front Axel		9 - 13.5 N.m
Rear Axel		9 - 13.5 N.m
Rear Derailleur Mounting Bolt		11 N.m
Rear Derailleur Cable Anchor Bolt		4.5 N.m
Rear Derailleur Pully Wheel Bolt		3 N.m
Cassette Lockring		40 N.m
Steam Steering Tube Clamp Bolts		5 N.m
Stem Face Plate Clamp Bolts		5 N.m
Top Cap Bolt		N/A
Seat Post Clamp Bolts		5 N.m
Brake Lever Clamp Bolts		5.5 N.m
Shift Lever Clamp Bolts		3 N.m

<sup>\*</sup> Abbey Bike Tools DUB Self-Extracting Cap Tool or hand tight\*\* when using a spanner.

<sup>\*\*</sup> unless otherwise specified by the pedal manufacturer.

Component	Bolted Connection	Torque Value
Dropper Post Lever Clamp Bolt		3 N.m
Dropper Post Cable Clamp Bolt		6 - 7 N.m
Gear Hanger		25 N.m
Centre Lock Disc Brake Rotor Lock Ring		40 N.m
Rear Shock Pivot Mounting Bolt Upper		10 N.m
Rear Shock Pivot Mounting Bolt Lower		10 N.m
Linkarm Main Pivot Mounting Bolt		20 N.m
Linkarm Seatstay Pivot Mounting Bolt		10 N.m
<b>Bottom Bracket Pivot Mounting Bolt</b>		20 N.m
Rear Derailleur Mounting Bolt		10 N.m
Rear Dropout Pivot Mounting Bolt		10 N.m
Grip Lock on Clamp Bolts		4.5 - 5 N.n

## LEGAL REQUIREMENTS FOR RIDING ON PUBLIC ROADS

If you intend to ride your Shark Bike on public roads, it must be equipped to comply with the regulations of the specific country. If you plan to purchase or use your bike in a different country, consult your bicycle dealer to learn about the relevant local laws.

When cycling on public roads, you are generally required to follow the same traffic regulations as car drivers. Take time to familiarise yourself with the applicable rules in your country to ensure safe and lawful riding.



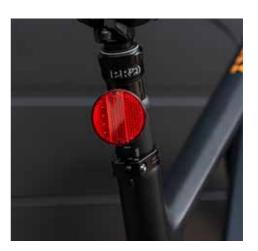
(Last update: January 2025) According to the Highway Code in Great Britain your bicycle must be equipped as follows:

- 1. Lighting, rear lights, reflectors: At night your bicycle must have:
- · a white front light
- a red rear light
- · a red rear reflector
- four amber pedal reflectors (if manufactured after October 1, 1985)

In addition, it should be equipped with:

- · a white front reflector
- spoke reflectors
- flashing lights are permitted, a steady front lamp is however recommended.
- (Law RVLR regs 13, 18 & 24)

It is not required that the prescribed lighting is mounted upon sale of the bicycle. If it is, however, it must comply with these regulations.







#### **BRAKES**

Every bicycle must be equipped with at least one braking system. (Laws PCUR regs 6 & 10)

#### SIGNALLING DEVICES

It is recommended that a bell be equipped.

#### **HELMETS**

Wearing a helmet is not a legal requirement in the UK. The Highway Code suggests that cyclists should wear a helmet. Wearing a cycle helmet which conforms to current regulations in the correct size and securely fastened is recommended.

#### **CYCLE LANES**

Using cycling lanes is not compulsory, but can make your journey safer. You must cycle on a pavement. (Laws 835 sect 72 & R(SA 1984, sect 129)

#### ! DANGER

For your own safety, be sure to switch on the light as soon as dusk sets in. Riding without lighting set and reflectors when visibility is poor may cause severe accidents with unforeseeable consequences for your life.

#### ! DANGER

Keep the lighting set clean and check its functioning at regular intervals. Particularly check before every ride, whether the battery/ accumulator-operated lights are sufficiently charged.

#### ! DANGER

A good knowledge of the Highway Code in Great Britian is needed before riding on roads and cycle lanes. You can find full access at www.gov.uk/browse/driving/highway-code-road-safety

### WARRANTY AND GUARANTEE

Your Shark Bike was carefully built and delivered to you largely pre-assembled. By law, we guarantee that it is free from any defects that would significantly reduce its value, usability, or make it unfit for purpose. You are entitled to full warranty coverage for two years following your purchase. For any warranty concerns or defect-related queries, you can reach out to us directly via the contact information provided.

To ensure a smooth claims process, it is important to present your receipt. Please keep it in a secure location.

For a long service life and optimal durability, always use your bike as intended (refer to the chapter on "Intended Use"). Adhere to the permissible load limits as well as the guidance on carrying luggage or children (also found in the "Intended Use" section). It is crucial to follow the assembly instructions provided by the manufacturers, especially with regard to torque values for bolts and the specified maintenance intervals. Ensure you carry out the tests and checks listed within this manual, as well as any other included documentation (see the "Service and Maintenance Schedule"), and replace safety-critical components such as handlebars and brakes as instructed.

We wish you many safe and enjoyable rides on your Shark Bike. If you have any questions or need further assistance, feel free to contact our service hotline or reach out via the contact form on our website at www.sharkbikes.com.

#### **A** CAUTION

The rear shock mountings on full-suspension Shark Bike frames are specifically designed to absorb and dampen shocks. If the rear shock is overly rigid or jammed, terrain-induced impacts can transfer directly to the frame without damping. Frames are not typically built to handle such undampened stresses, which can lead to damage. When using shocks with a lockout function, always remember that this feature should only be used on smooth surfaces, such as paved roads or gentle trails. Avoid engaging the lockout on rough terrain to protect your frame and ensure proper functionality.

#### NOTICE

Included with your delivery, you will find the operating instructions from the component manufacturers. These provide detailed information regarding the use, maintenance, and care of your Shark Bike components. This manual also includes several references to these specific and detailed instructions. Ensure that you have the manuals for clipless pedals, gear systems, and brake components in your possession. Keep these documents stored safely along with this manual and the Shark Bikes bicycle manual for future reference.

#### • NOTICE

Carbon is a composite material chosen for its lightweight and optimised design properties. Due to the nature of the manufacturing process, surface irregularities such as small bumps or pores may appear on carbon components. These are completely normal and do not indicate a defect.

#### **WEARABLE PARTS**

Some parts of your Shark Bike are designed to wear as part of their function. The rate of wear depends on how well the bike is maintained and how it is used. Factors like distance travelled, riding in rain, dirt, salty conditions, or leaving the bike outdoors can accelerate wear due to exposure to the elements.

To ensure optimal performance, these components require regular care and maintenance. However, they will eventually reach the end of their service life, depending on the conditions and intensity of use.

When components are worn out, they must be replaced. This includes:

- Chain
- Cables
- Rotors
- Grip coverings or bar tape
- Chainrings
- Sprockets
- Pulleys
- Gear cables
- Tyres
- Saddle covering (e.g., leather)
- · Brake pads
- Disc brake pads, in p articular, wear down over time due to their function. If you
  use your bike for competitive riding or in hilly terrains, you may need to replace
  them more frequently. It's essential to check their condition regularly and have
  them replaced by a professional dealer if needed.

Proper care and timely replacement of worn components will help maintain the quality and longevity of your Shark Bike.

#### BEARINGS AND REAR SHOCKS OF FULL-SUSPENSION FRAMES

Rear shocks and full-suspension frames will experience some level of wear over time due to their function. This is especially true for the seals of the rear shock and the bearings within the rear frame. To prevent undue stress and potential damage, it's crucial to avoid overtightening the rear shock fastening bolts, as this can place excessive strain on the frame. Always follow the assembly guidelines provided and use a torque wrench to ensure accurate installation.

Carbon fibre reinforced plastic, a material that has achieved numerous victories in road racing, is used in many Shark Bike components. It offers exceptional lightweight properties and, when designed, manufactured, and handled correctly, provides outstanding strength and resistance to stress. Maintaining and handling these materials appropriately ensures long-lasting performance for your Shark Bike.

# TIME TO START YOUR SHARK REVOLUTION