

# **FISHAW**

## **E-BIKE MANUAL**



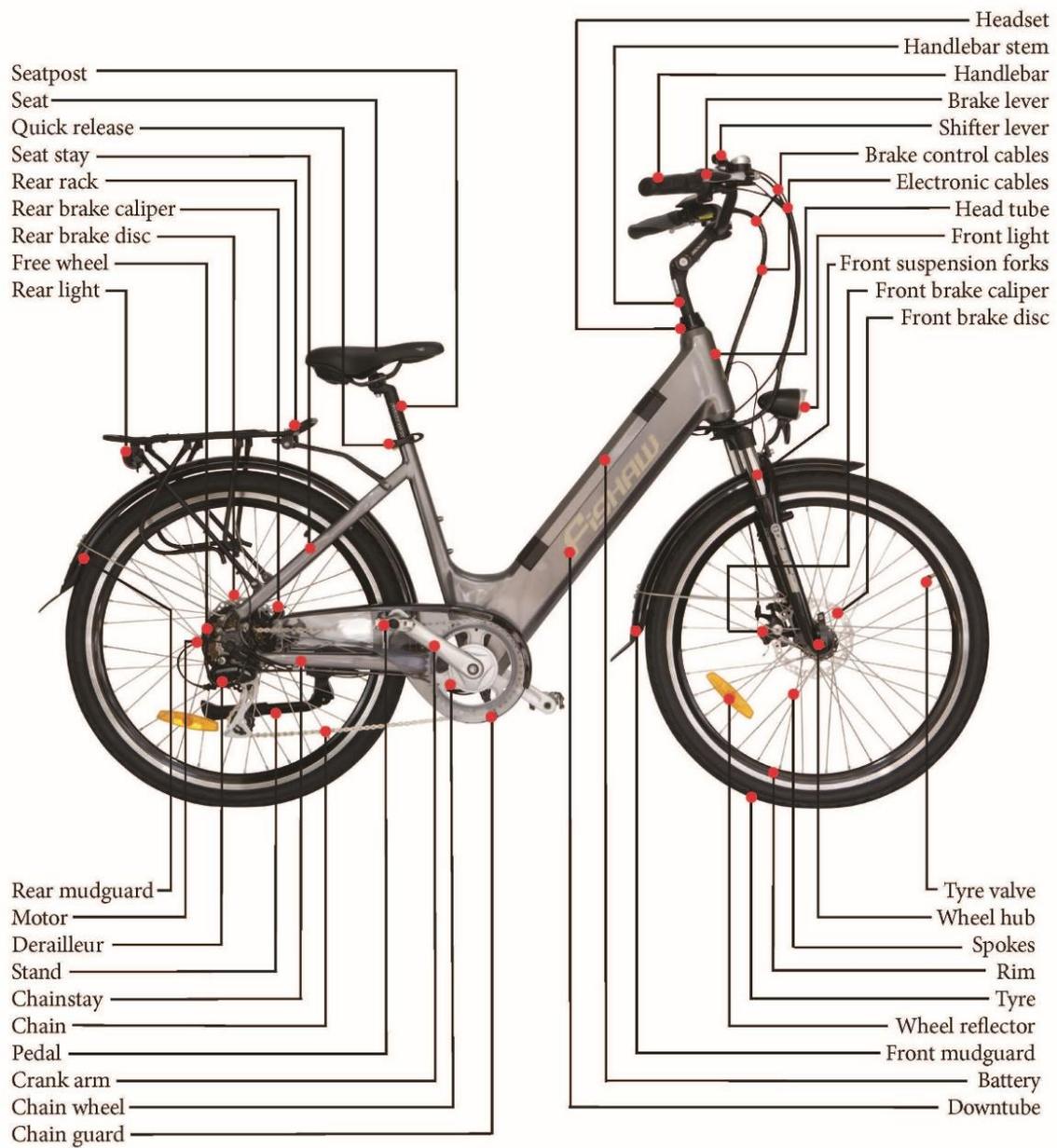
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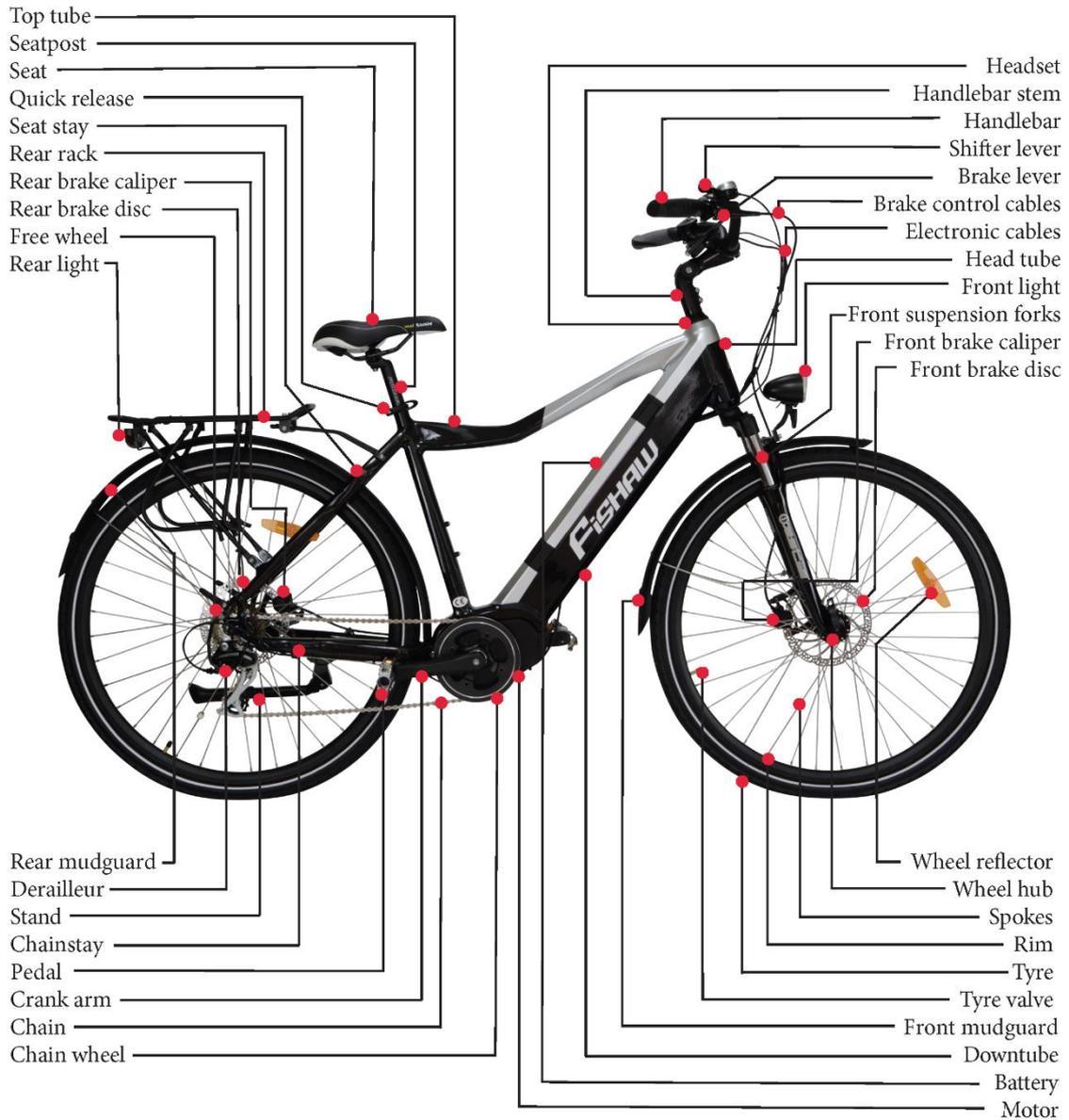
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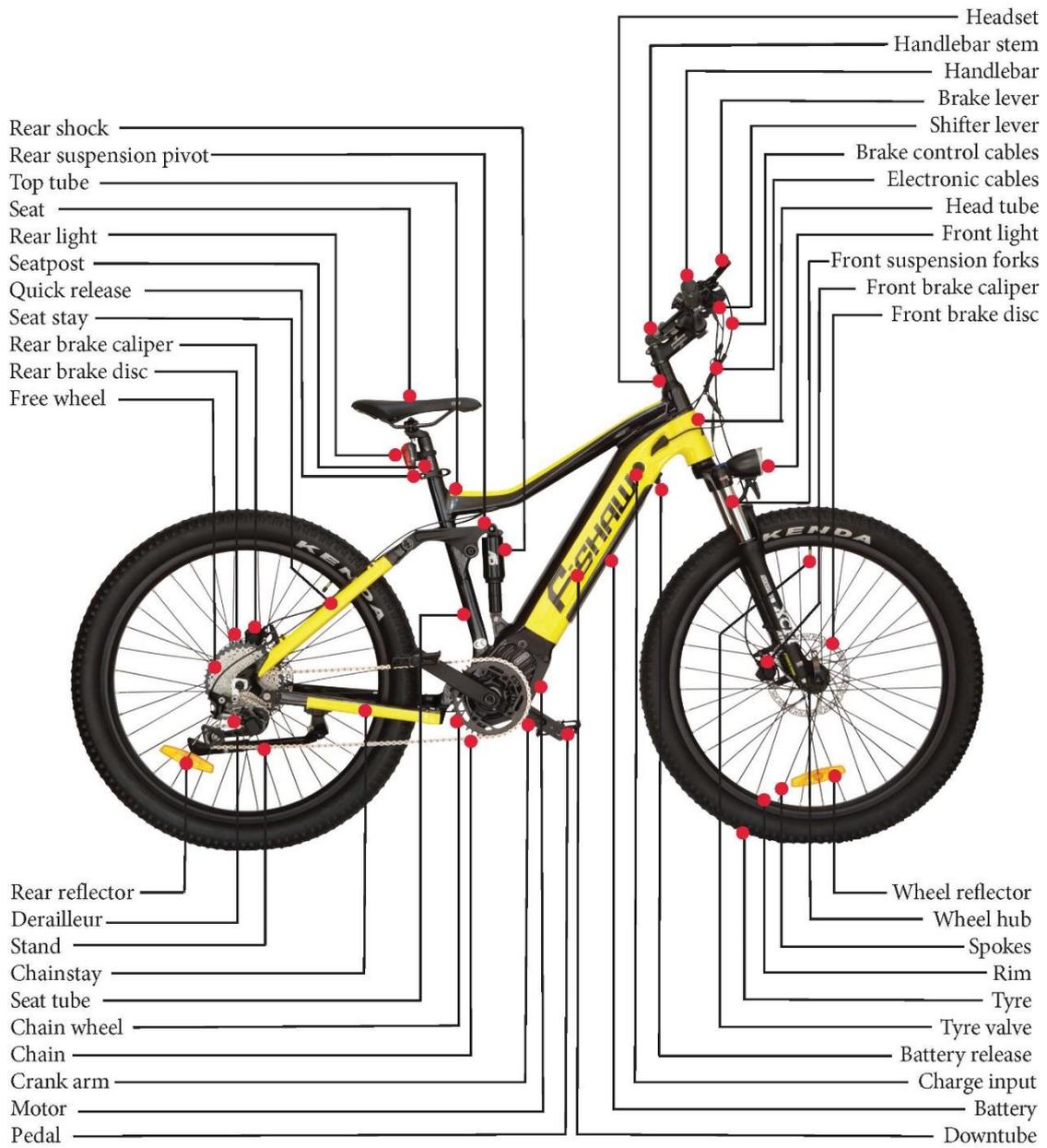


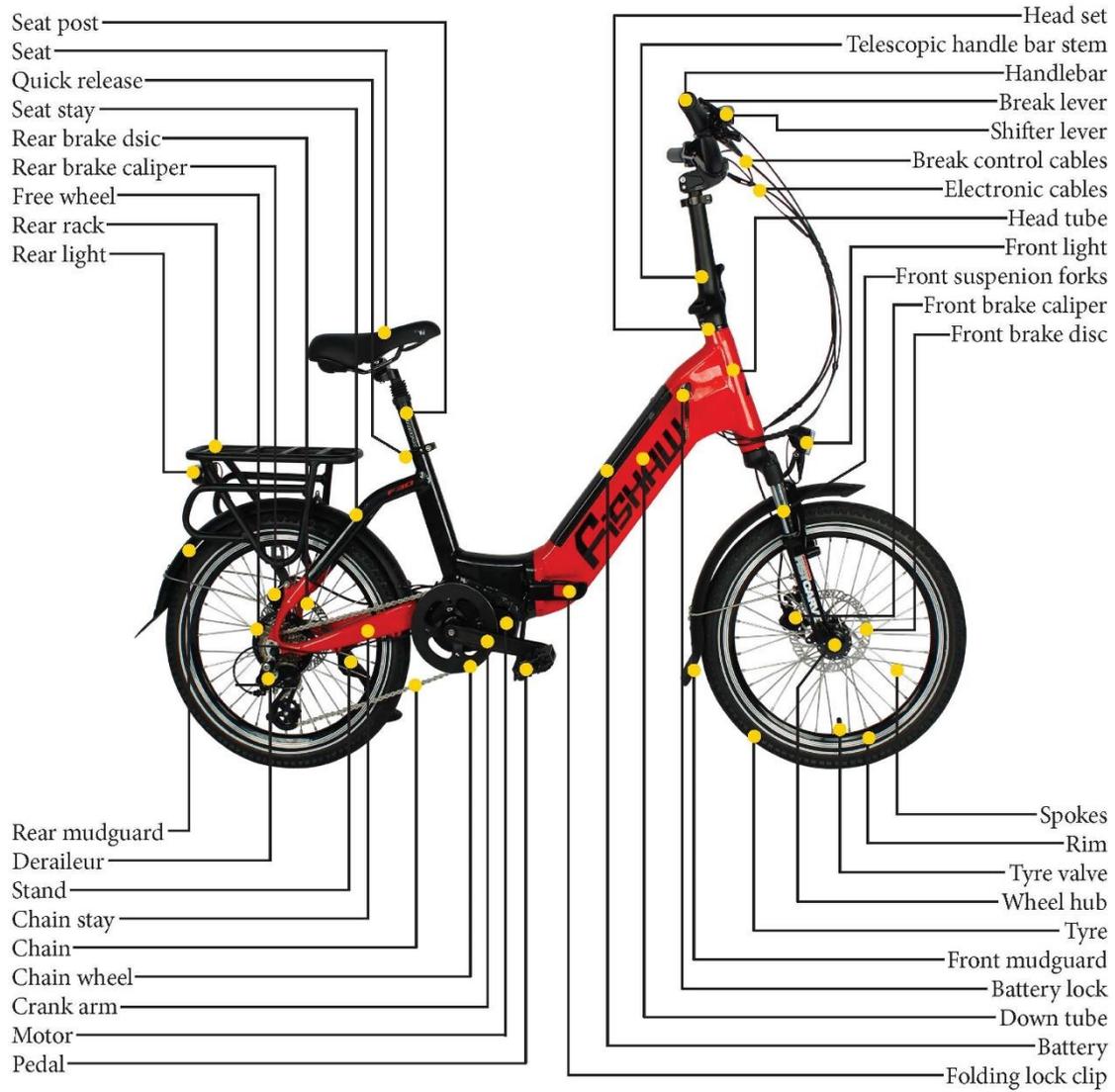
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## GENERAL SAFETY INSTRUCTIONS

Dear FISHAW customer,

FISHAW electric bikes have been designed to provide you with an electric bike of high quality and performance. Each component of your new FISHAW electric bike has been designed, manufactured, and assembled with care and expertise by our FISHAW team. Your electric bike was given a functional check at its final assembly, before leaving our factory. This ensures your electric bike arrives with little assembly required and peace of mind that your electric bike has passed our strict quality control standards.

This manual contains information on the proper use of your FISHAW electric bike, its maintenance and operation. Read these FISHAW operating instructions thoroughly. Electric bicycle technology is advancing at a rapid pace.

Before riding your new FISHAW electric bike it is imperative to be sure to carry out the functional checks in the **chapter “Before Each Ride”** on your FISHAW electric bike.



**Pay attention to this warning symbol, throughout the manual! It alerts you to actions that may cause injury to the rider, other people, damage to property and or damage to your electric bike when using your FISHAW electric bike.**



**This symbol gives you information about how to operate your FISHAW electric bike or refers to operating instructions that deserve special attention.**

All FISHAW electric bike models, comply with the requirements of the European standards EN 15194 for pedelecs; which Australia has adopted as its own standard.

These operating instructions are not intended to help you assemble a FISHAW electric bike from individual components or to repair it. Assembly Instructions for all our models can be found on our website.

**Link to FISHAW E-Bike Assembly Instruction Manuals:** <https://fishaw.com/assembly-instructions/>

These operating instructions focus on your newly purchased FISHAW electric bike and standard components and provides the most important information and warnings.

In conjunction with this manual, please observe the system instructions of the drive manufacturers and the instructions of the component manufacturers, found on their respective websites. Please contact your FISHAW representative if you require assistance obtaining this information.

When doing any adjusting and maintenance work, be aware that the instructions in this manual only refer to FISHAW electric bikes.

The information contained in this manual is not applicable to any other type of electric bicycle.



**Be aware that these instructions may require further explanation, depending on the experience and/or skills of the person doing the work. For some jobs you may require additional (special) tools or supplementary instructions. This manual cannot teach you the skills of a bicycle mechanic.**

Before riding, pay attention to these instructions that are very important to every cyclist. Never ride without a properly adjusted helmet. Make sure to wear suitable, bright

clothing, and shoes. Always ride carefully on public roads and observe the traffic rules so as not to put yourself or others in danger.



**This manual cannot teach you how to ride. Please be aware that cycling is a potentially dangerous activity that always requires the rider to stay in control of his or her FISHAW E-Bike. Be aware from the moment you set off that you have suitable riding experience and expertise.**

Like any sport, cycling involves the risk of injury and damage. By choosing to ride an e-bike, you assume the responsibility for these risks. On an e-bike you have no protection around you like you have in a car (e.g. bodywork, ABS, airbag). Always ride carefully and respect the other road users. Never ride under the influence of drugs, medication, alcohol or when you are tired. Do not ride with a second person on your FISHAW e-bike, unless on an attached passenger seat (e.g., child seat), and never ride without having both hands on the handlebars.

Observe the legal regulations for your state, concerning off-road cycling and cycling on public roads with FISHAW electric bikes. Respect the natural environment when riding through national parks and in the open countryside. Only use your FISHAW Urban e-bikes on well-maintained trails and hard-surface roads.



**Always remember that you travel rapidly and quietly when you are riding a FISHAW electric bike. Do not startle pedestrians or other cyclists. Always make others aware of your presence well ahead of time, by ringing your bell and use the brakes to avoid accidents.**

Familiarize yourself with your FISHAW electric bicycle. For more information in this regard, read the chapter "Riding a FISHAW Electric

## **Bicycle — Special Features".**

First, we would like to familiarize you with the various components used on your FISHAW city/trekking electric bicycle. Observe the component description on the front pages of these FISHAW operating instructions. There you will find a FISHAW hybrid/urban electric bike, a FISHAW trekking/mountain electric bike and a FISHAW Folding electric bike, showing all the essential components so that you can easily locate the components as they are referred to in this user's manual.



**For your own safety never do any work or adjusting when servicing your bike unless you feel absolutely sure about it. If you are in doubt or if you have any questions, contact your qualified bicycle mechanic or FISHAW directly.**

Please note: Do not hitch yourself and your bike to a car. Do not ride freehand. Only take your feet off the pedals, if required by the condition of the road.



**Keep in mind that every type of bike is designed for a specific use. Be sure to use your FISHAW electric bicycle only for its intended use, as it may otherwise not withstand the stress and could fail and cause an accident with unforeseeable consequences! If you use your bike for anything other than its intended purpose, the warranty will become void.**

## **URBAN E-BIKES**

FISHAW urban and folding e-bikes are intended for hard-surface roads, i.e., for tarred roads and bicycle lanes or gravel off road tracks. Observe the traffic rules when riding on public roads. **FISHAW e-bikes are not suitable for competitive use of any kind.**

FISHAW bikes of this category are designed for riding on hard-surface roads, where the wheels remain in permanent contact with the ground. The rider's maximum weight including baggage should not exceed 120 kg for the Urban E-Bikes and 130 kg for the E-Mountain Bikes.

FISHAW e-bikes are not suitable for stair riding, jumps, slides, wheelies, tricks.

For your own safety, do not overestimate your riding skills. Please note that though looking easy the tricks of a professional are dangerous and can cause serious injury. Always protect yourself with suitable clothing.



When riding a FISHAW electric bicycle, wearing a helmet is compulsory and must comply with Australian standard AS/NZS 2063.

FISHAW Urban electric bicycles are designed for cycling exclusively on paths and roads with a compacted surface. They are equipped with tyres suitable for riding on grass and gravel surfaces, making them suitable for most rail trails and touring. FISHAW urban electric bikes are generally suitable for off-road use, as long as they are ridden on well-maintained trails and tracks with compacted surfaces and no large rocks or holes.



Your FISHAW electric bike is designed for a maximum overall weight including rider and baggage. The overall weight is 120 kg for Urban models and 130 kg for Mountain Bike models.



**Be sure to use your FISHAW electric bike only for its intended purpose, as it may otherwise not withstand the stress and fail. Risk of an accident!**



**Please note that there are different types of pedelecs and e-bikes which are subject to different legal framework conditions. All FISHAW E-Bike's conform to the Australian regulations for Pedalecs (pedal assist bicycles).**

### **POWER-ASSISTED PEDAL CYCLE (AB)**

A pedal cycle to which is attached one or more auxiliary propulsion motors having a combined maximum power output not exceeding 200 watts; or

A 'Pedelec'.

PEDELEC - A vehicle meeting European Committee for Standardization EN 15194:2009 or EN 15194:2009+A1:2011 Cycles - Electrically power assisted cycles - EPAC Bicycles.

To be considered a Power Assisted Pedal Cycle or a Pedelec, the following requirements apply:

**Power Assisted Pedal Cycle – maximum power output 200 watts**

The auxiliary motor/s must not be capable of producing a combined maximum power output exceeding 200 watts, whether or not the motor/s is operating.

**2. Power-assisted pedal cycle – maximum power output 250 watts (a 'Pedelec')**

Motor has no more than 250 watts.

Compliant with EN 15194:2009 or EN 15194:2009+A1:2011

Top power assisted speed limited to 25 kilometres per hour.

A person must still be able to propel the bicycle via pedals without the motor operating.

**Road Safety requirements vary slightly from State to State:**

## New South Wales:

<http://www.rms.nsw.gov.au/documents/roads/safety-rules/standards/vsi-27-mopeds-power-assisted-pedal-cycles.pdf>

## Queensland:

<https://www.qld.gov.au/transport/safety/rules/wheeled-devices/bicycle#legal-motorised>

## Victoria:

<https://www.vicroads.vic.gov.au/safety-and-road-rules/cyclist-safety/power-assisted-bicycles>

### ***Power assisted bicycles with power output greater than 200 W (excluding pedelecs)***

Bicycles with motor power output exceeding 200 W, excluding pedelecs, are classified as motor vehicles. Unless registered, these bicycles are illegal to use on Australian roads.

### ***Engine kits for bicycles***

Engine kits that the consumer can fit on a bicycle are available for purchase in Australia. State Road Traffic Authorities have expressed concern about these kits. Kits can be either electric or petrol powered, have power output exceeding 200 W, and allow bicycles to reach speeds more than 60 km/h.

**When engine kits with power output exceeding 200 W are fitted on bicycles, the bicycle is classified as a motor vehicle and unless registered (and therefore compliant with Australian Design Rules) are illegal to use on Australian roads.**

## **RIDING A FISHAW ELECTRIC BIKE- SPECIAL FEATURES**

Your FISHAW electric bike is designed to be used like a conventional bike. The unique riding experience, however, starts when you operate the drive system. At that moment, the assistance generated by the 250 W motor increases with its high torque the stronger you pedal.



**Set off for your first ride by selecting the lowest level of drive assistance.** Gradually get used to the additional power. Slowly approach the potential of your FISHAW electric bike in an area free of traffic.

Practice typical riding situations such as starting off and braking, tight corners and riding on narrow cycle paths and lanes. This is where a FISHAW electric bike really differs from a conventional bike.

Be aware that the brakes of your FISHAW electric bike are always more effective than the drive. If you face any problems with your drive (e.g., because it pushes you forward in front of a bend), slow down your FISHAW electric bike carefully. This is only applicable to rear-hub drive systems (motors).

### **RIDING WITH DRIVE ASSISTANCE**

The system is switched on and off at the buttons of the control panel on the handlebars.

Different assistance modes can be selected, the remaining capacity of the rechargeable battery is displayed, and the different functions of the cycle computer can be selected. **Detailed operating instructions for the Drive (Display) Systems for each model are found in the footer on our website: -**  
<https://fishaw.com/manual/>

When switched on, the system activates during pedalling and the drive assistance is available. Sensors measure your pedalling movements and control the fully automated drive

assistance according to the selected assistance mode. The level of the additional propulsion depends on the assistance mode, your speed and the amount of force applied to the pedals.

The assistance switches off when you reach a speed of more than 25 kmh.

Keep in mind that you may have to change your riding habits: Do not mount by placing one foot on the pedal and by trying to throw the other leg over the saddle. The FISHAW electric bike would set off suddenly unless the assistance level is set to "0" on your Display. **The motor will engage as soon as you move the pedals on all other levels of assistance!**



**Stop pedalling earlier than you are used to before riding a turn or bend. Otherwise, there may be too much propulsion and your cornering speed may be too high.**

Do not give in to the temptation to always ride in a high gear, due to the strong motor. Shift gears frequently in the same way that you are used to doing with a conventional bike to make your own contribution to your forward progress as efficient as possible. Your cadence should always be in a smooth flow. In other words, you should pedal at more than 60 crank rotations per minute.



Keep in mind that the other road users are not yet used to the new electric bicycles and their higher speeds. Ride with this fact in mind and anticipate the actions of other road users. Be aware that the speed you ride at will be clearly faster than you are used to.

Therefore, keep these facts in mind and be ready to brake whenever unclear or possibly dangerous situations come into your field of vision.



**Do a test ride in an unfrequented area to make yourself familiar with the riding characteristics of your FISHAW electric bike.**



**Never ride without a helmet!**



**Do not step on the pedals before sitting in the saddle, select the lowest level of assistance (level 1) and be ready to brake when you set off. Risk of an accident!**



**Keep in mind, when riding the UB200 Urban Model, that due to the higher driving power at the rear wheel the risk of an accident increases with slippery roads (due to wetness, snow, gravel etc.). This applies more when riding bends. Risk of an accident!**



**Please note that car drivers and other road users may underestimate your speed. Always wear bright clothing. Therefore, always ride on public roads with this fact in mind and anticipate the actions of other road users. Risk of an accident!**



**Keep in mind that pedestrians do not hear you when you approach at high speed. Therefore, ride particularly defensively when using cycle lanes and cycle/footpaths to avoid accidents. If necessary, ring the bell to warn others.**

## **RANGE — USEFUL INFORMATION FOR A LONG RIDE**

How long and how far you can benefit from the auxiliary drive depends on several factors, i.e., the road conditions, the weight of the rider and any additional load, the rider's pedal force, the assistance level chosen, (head)winds, frequent stops, temperature, weather conditions, topography, tyre pressure, etc.

The charge state of your rechargeable battery can be read from the display/controller, on the handlebars.

The batteries of FISHAW electric bikes have no memory effect.

It is recommended that you charge the battery after every long ride. Avoid any deep discharge of the rechargeable battery.

For more information see the chapter, **“Important Information for The Proper Care of Your Rechargeable Battery”**.



To extend the range it is recommended that you ride with low assistance or no assistance at all on level or downhill trails and only select maximum drive assistance with headwinds, heavy additional loads and/or when climbing hills.

#### **You can extend the range by:**

- checking the tyre pressure regularly, i.e., once a week with a pressure gauge, and changing it, if necessary.
- shifting gears down in front of traffic lights and intersections or in general in cases of stops and by setting off in low gears.
- shifting gears regularly, as you would do on a bike without drive assistance.
- not only riding in high gears
- riding with these facts in mind and always looking ahead to avoid any unnecessary stops.
- reducing your additional load, i.e., without any unnecessary baggage
- storing your battery in your home and installing it only shortly before you set off on your bike in cooler weather, when it is cold.
- not parking your FISHAW electric bike in the blazing sun



If your battery does not have enough capacity to reach your destination, you will benefit from the advantage of the fact that you are riding a hybrid electric bike. The advantage being that; without drive assistance you can ride your FISHAW electric bike like a conventional bike, with an unlimited range and almost without compromising on riding characteristics.



**If your battery runs empty during the ride, do not recharge the battery with any other charger, even if it happens to be fitted with an identical connector type. Risk of explosion! Only charge your battery with the supplied charger!**

#### **Riding Without Drive Assistance**

You can also use your FISHAW electric bike without drive assistance, i.e., just like a conventional bike.

Observe the following points when riding without the rechargeable battery:

- If you want to ride without drive assistance with a mounted battery, you can switch on the drive control panel of your FISHAW electric bike to benefit from the functions of your cycle computer. Just select 0 as the level of power assistance.



- After you have removed the battery of your FISHAW electric bike: **Keep the connections of the rechargeable battery free of dirt and moisture.**

## **IMPORTANT INFORMATION FOR THE PROPER CARE OF YOUR RECHARGEABLE BATTERY**

Remove the rechargeable battery if you do not use your FISHAW electric bike for an extended period of time (e.g., on vacation). Store the rechargeable battery in a dry room at temperatures between 5 and 20 degrees Celsius. The state of charge should be 50 to 70% of the charging capacity. Check the state of charge, if the rechargeable battery is left unused for more than two months, and recharge it in between, if necessary.

Clean the battery housing with a dry or, if at all, a slightly moist rag. Do not direct the water jet of a high-pressure cleaner at the rechargeable battery, as there is a risk of water entry and/or short-circuit.



**Charge your battery only with the supplied charger. Do not use the charger of any other manufacturer, not even when the connector of the charger matches your rechargeable battery. The rechargeable battery can heat up, catch fire, or even explode!**



**Keep the rechargeable battery and the charger out of the reach of children!**

We recommend that you charge your battery during the day and only in dry rooms which have a smoke or a fire detector; but keep it out of your bedroom. Place the battery during the charging process on a non-flammable surface! Unplug the battery once it has been charged up.



**Keep the rechargeable battery and the charger away from moisture and water during**

the charging process to prevent electric shocks and short circuits.



**Do not use a rechargeable battery or a charger that is damaged or faulty. If you are in doubt or if you have any questions, contact your FISHAW customer service representative.**



**Do not expose your battery or the charger to the blazing sun.**



**Do not charge any other electrical devices with the supplied charger of your FISHAW electric bike!**



**The drive is not approved for steam cleaning, high-pressure cleaning, or cleaning with a water hose. The contact of water with the electrical components or the drive can destroy the units. The individual drive components can be cleaned with a soft rag and neutral detergents. You may use a moist rag, but not excessive water. Keep the rechargeable battery dry and do not submerge it! Risk of explosion!**



**Make sure your rechargeable battery is in good condition. Do not open, disassemble, or crush the battery. Risk of explosion!**



**Make sure your rechargeable battery is not exposed to mechanical impacts.**



**Keep your battery away from fire and heat. Risk of explosion!**



**Batteries must not be short-circuited. Store them in a safe storage area and make sure the battery is not short-circuited accidentally (e.g., with another battery). In**

addition, the rechargeable battery must not be stored inappropriately, e.g., in a box or in a drawer where they can be short-circuited by other conductive materials or where they can short-circuit each other. Do not place any objects in the storage area (e.g., clothes).



**Make sure to use the battery only for the FISHAW electric bike for which it is designed.**



**When you remove your battery from your e-bike for charging it; you should protect the connections, e.g., with a plastic bag against rain, water, moisture, and dirt. If the connections of the rechargeable battery are soiled, clean them with a dry rag.**



**Your FISHAW electric bike should NOT be left in the open during charging!**



**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 FISHAW electric bike is left uncharged for a number of days. Depth discharge will affect the rechargeable battery of your FISHAW electric bike permanently! A deep-discharged battery can only be recharged in exceptional cases and with special chargers. Contact your FISHAW customer service representative.**

If the rechargeable battery or the charger (or parts of it) must be replaced, only use original spare parts. Contact your FISHAW customer service representative.

Charge the battery at an ambient temperature of approx. 20 degrees Celsius. **Therefore, before starting the charging, wait until the**

**temperature of the battery has increased or decreased after a ride in cold weather or hot weather.**



**Do not dispose of your rechargeable battery in the normal household rubbish. 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 FiSHAW.**

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

Do not charge your battery over a long period of time if you do not need it.



Lithium-ion batteries have no memory effect; they can therefore be charged at any time without affecting battery life.

- **Do not recharge the battery in places with high humidity or outdoors. Doing so may result in electric shock.**
- Do not insert the plug while it is wet. Plug and socket need to be dry, otherwise electric shocks may occur.
- **If the battery does not become fully charged after 6 hours, unplug the battery from the outlet immediately and stop charging. Not doing so may cause overheating, rupture, or ignition of the battery.**
- **Do not use the battery if it has any noticeable damage. Doing so may cause rupture, overheating or malfunction.**
- **The battery may only be used in the temperature ranges stated below. Do not use the battery in temperatures outside these**

ranges. If the battery is used or stored in temperatures outside these ranges, fire, injury or malfunction may occur: -

- 1. Temperature for discharging: -10°C to 50°C
- 2. Temperature for charging: 0°C to 40°C



## **Danger! Pay Attention to all of the Following Instructions:**

- Do not deform, modify, or disassemble the battery. Do not apply solder directly to the battery. Doing so may cause leakage, overheating, rupture, or ignition of the battery.
- Do not leave the battery near sources of heat (e.g., heaters). Do not heat the battery or throw it into a fire. Doing so may cause rupture or ignition of the battery.
- Do not subject the battery to strong shocks or throw it. If this is not observed, overheating, rupture or ignition of the battery may occur.
- Do not immerse the battery in fresh water or seawater, and do not allow the battery terminals to get wet. Doing so may cause overheating, rupture, or ignition of the battery.
- Only use the specified charger. Not doing so may cause overheating, bursting, or ignition of the battery.

Observe the components during the specified charging conditions when charging the battery.

- Do not short-circuit the discharge port with metal, or else it may cause overheating, rupture, or ignition of the battery.
- Do not leave the battery in a place exposed to direct sunlight, inside a vehicle on a hot day

or in other hot places. Doing so may result in battery leakage.

- If any leaked fluid gets on your skin or clothes, wash it off immediately with clean water. The leaked fluid may damage your skin.
- If any liquid leaking from the battery gets into your eyes, rinse immediately with clean water (e.g., tap water). Seek medical advice immediately; otherwise, the battery liquid may damage your eyes.
- Store the battery in a safe place out of the reach of children and pets.

## **Using the Battery Properly**

The battery can be charged at any time no matter how much power is left. However, in the following cases, the battery needs to be fully charged. Make sure you use the specified charger to charge the battery.

- The battery is usually not fully charged for the convenience of transport. Make sure the battery is fully charged before using the battery for the first time. (ie., when you first receive your e-bike).
- If you do not intend to use the battery for a long time, make sure the battery is fully charged before storage and that it is charged at least once every 12 months thereafter. Do not leave the battery completely discharged!
- Once you have begun to use the battery, please have it charged at least once every two weeks.

If the battery is completely discharged, charge it as soon as possible. If you do not charge the battery, it will be damaged!

## **Charging the Battery**

- **When using the battery for the first time, check that the battery has not run low in transport or storage.**

- If you do not intend to use the battery for a long period of time, charge the battery regularly to avoid excessive battery discharge.

- **Please charge the battery as soon as possible before it runs out; over-discharge can cause permanent damage to the battery.**

- **No matter how much power is left, the battery can be charged at any time. However, the specified charger must be used to avoid overcharge of the battery.**

## Removing the Battery for Charging

The key locks the battery into place and unlocks the battery, so that you can remove it from the e-bike for travelling or charging away from the e-bike. Once you lock the battery into place no one can remove it from the bike. Please make sure you do not leave your keys in your e-bike when you are out with the e-bike. **Always keep them in a safe place, as they are made to work for your battery only and are expensive to replace, if lost.**



**Record the identification number that comes with your keys as soon as you receive them. This ID is specific to your e-bike lock and will be needed to order replacement keys. When you first receive your e-bike, separate the keys and put the spare key away for safe keeping, along with your lock ID number.**

When the key is turned one way, the battery is locked onto the bike and you cannot remove it. Please make sure that the battery is locked into place properly before riding the bike and definitely before leaving your bike unattended.

When it is turned the other way, you are able to pull the battery off the frame for charging away from the bike.

You need to pull the battery towards you out of the frame to remove it. If it is locked, you will be unable to pull it away from the frame.

A photo of the battery being removed, for your reference:



We have found it is easier sometimes to hold the actual battery and pull it across towards you than just to pull it from the black finger hold on the side of the battery.

To replace the battery, you need to do so on an angle with the bottom of the battery lined up with the connection points on the bottom of the battery and the frame and then push the battery firmly into the frame, so that it is firmly in the frame and can be locked into place again with the battery.

The removal and replacement of the battery becomes easier with practise.

## BEFORE EACH AND EVERY RIDE

1. If you want to use your bike on public roads, it must comply with federal and state, legal requirements.

For more information see page 8 of this user manual, for Australian Electric Bike Legislation.

2. Are you familiar with the brake system? Your new bike is equipped with modern brakes, which may be far more powerful than those you were used to in the past. Be sure to first practice using the brakes on a level, non-slip surface off public roads! Slowly approach higher brake performances and speeds.

For more information see the **chapter “The Brake System”** and the instructions of the component manufacturers on their respective websites.

3. Are you familiar with the type and functioning of the gears? Make yourself familiar with your new gears in an area free of traffic, if necessary. For more information see the chapter **“The gears”** and the instructions of the component manufacturer on their respective websites.

4. Are saddle and handlebars properly adjusted? The saddle should be set to a height from which you can just reach the pedal in its lowest position with your heel. Check whether your toes reach to the floor when you are sitting on the saddle. For more information see the **chapter “Adjusting the FISHAW E-Bike to the Rider”**.

5. If you have bought a FISHAW electric bike with suspension, you should read the chapters **“Suspension Forks”** and the instructions of the component manufacturers on their respective websites.



**Improperly adjusted suspension components are liable to malfunction or cause damage. In any case they will impair the performance of your electric bike as well as your safety and enjoyment whilst riding.**



**Be sure to use your FISHAW electric bike**

**only for its intended purpose, as it may otherwise not withstand the stress and fail.**

**Risk of an accident!**



**Pay particular attention to the fact that there is enough clearance between your crotch and the top tube so that you do not hurt yourself when you have to get off your bike quickly.**



**Note that both braking effect and tyre grip can be reduced drastically in wet conditions. Look well ahead when riding on wet roads and go well below the speed you would ride at in dry conditions.**



**If you are involved in a crash with your FISHAW electric bike, perform the check described in the next chapter. Ride back very carefully by taking the shortest route possible, even if your FISHAW electric bike went through this check without any problems. Do not accelerate or brake hard and do not ride your bike out of the saddle. If you are in any doubt, have yourself picked up by car, instead of taking any risk. Back home you need to check your FISHAW electric bike thoroughly once again. If you are in doubt or if you have any questions, contact FISHAW or your local electric bicycle mechanic!**

## **ACCIDENTS- CHECKLIST BEFORE CONTINUING TO RIDE**

1. Check whether the wheels are still firmly fixed in the dropouts and whether the rims are still centred with respect to the frame or fork. Spin the wheels and observe the gap either between brake pads and rim sides or between frame and tyre. Have the wheels trued by your bike mechanic immediately after you are back home.

For more information see the chapters **“The Brake System”**, **“How to use the Quick-Releases”** and **“The Wheels and the Tyres”** as well as in the instructions of the component manufacturers on their respective websites.

2. Check that handlebars and stem are neither bent nor broken and that they are level and upright. Make sure the stem is firmly fixed on the fork by trying to turn the handlebars relative to the front wheel. Briefly lean on the brake levers to make sure the handlebars are firmly fixed in the stem.

Realign the components, if necessary, and gently tighten the bolts to ensure a reliable clamping of the components. The maximum torque values are printed directly on the components or specified in the instructions of the component manufacturers on their respective websites.

For more information see the chapters **“Adjusting the FISHAW Bike to the Rider”** and **“The Headset”** and the instructions of the component manufacturers on their respective websites.

3. Check whether the chain still runs on the chain-wheels and the sprockets. If your FISHAW electric bike fell over to the chain side, verify the proper functioning of the gears. Ask somebody to lift your FISHAW bike by the saddle and carefully shift through all the gears. Pay particular attention when switching to the small gears, making sure the rear derailleur does not get too close to the spokes as the chain climbs onto the larger sprockets.

**If the rear derailleur or the dropouts/derailleur hanger is bent, the rear derailleur may collide with the spokes. This can destroy the rear derailleur, the rear wheel, or the frame.**

For more information see the chapter **“The Gears”** and the instructions of the component manufacturers on their respective websites.

4. Make sure the saddle is not twisted by using the top tube — or the bottom bracket shell as a reference. If necessary, open the seat clamp, realign the saddle, and retighten the clamping.

For more information see the chapters **“Adjusting the FISHAW Bike to the Rider”** and **“How to use the Quick-Releases”** and the instructions of the component manufacturers on their respective websites.

5. Let your FISHAW bike bounce on the ground from a small height. If there is any rattling, see where it comes from. Check the bearings, bolted connections, and tighten them slightly, if necessary.

6. Finally, take a good look at the whole FISHAW electric bike to detect any deformations, colour changes or cracks. Ride back very carefully by taking the shortest route possible, even if your FISHAW electric bike went through this check without any problems. Do not accelerate or brake hard and do not ride your bike out of the saddle. If you are in doubt about the performance of your FISHAW electric bike, have yourself picked up by car, instead of taking any risk.

Back home you need to check your FISHAW electric bike thoroughly. Damaged parts must be repaired or replaced. Ask FISHAW for advice.



**Damaged components, especially components made of aluminium, can break without previous warning. They must not be repaired, i.e., straightened, as this will not reduce the imminent risk of breakage. This applies in particular to the fork, the handlebars, the stem, the cranks, the seat**

post and the pedals. When in doubt, it is for your safety always the better choice to have these parts replaced. Contact your qualified bike mechanic for advice.



**Make it a rule to check the functioning and in particular the limit stop of the rear derailleur after a fall or if your FISHAW electric bike has toppled over.**

### **ADDITIONAL INFORMATION FOR AFTER AN ACCIDENT**

1. Check the rechargeable battery. If the rechargeable battery is no longer properly secured in the frame, or shows any damage, do not use your FISHAW electric bike any longer, at least not in the assistance mode. Switch off the drive. A damaged battery can lead to a short-circuit resulting in a sudden failure of the FISHAW pedelec assistance.



**Damage to the outer housing of the rechargeable battery can result in water or moisture entry which can lead to short circuits or electric shocks. The rechargeable battery may catch fire or even explode! In such a case, contact FISHAW immediately. The battery must be replaced.**

2. Check that all values are displayed properly and fully on the drive control display. Do not use your FISHAW electric bike if the drive control display shows an error message or a warning.

Do not ride your FISHAW electric bike when the drive control display shows a warning. In such a case, contact FISHAW immediately.



**For more information see the operating instructions in the Display Manual for your model on our website:**

<https://fishaw.com/manual/>

### **ADDITIONAL INFORMATION -BEFORE YOUR FIRST RIDE WITH YOUR FISHAW ELECTRIC BICYCLE.**

1. Have you ridden an electric bicycle before? Please note the riding characteristics of this revolutionary hybrid drive concept. **Set off for your first ride by selecting the lowest level of drive assistance!** Slowly approach the potential of your FISHAW electric bike in an area free of traffic.

2. **The rechargeable battery of your FISHAW electric bike must be charged before you set off for the first time.** Are you familiar with the handling and mounting of the rechargeable battery? Before you set off for the first time, check whether the battery is properly in place and that it is locked into place with the key. Please keep your keys in a safe place, as you will not be able to remove your battery if they are lost. **Replacement keys are expensive to replace, and lost keys are not covered by warranty.**

The functions of your FISHAW electric bike are operated by the buttons on the drive control panel on the handlebars. Are you familiar with all functions and displays? Check whether you know the functions of all buttons before setting off on your first ride.

For more information see **the Drive System instructions in the Display Manual for your specific e-bike model.** Found in the footer section on our **website at fishaw.com**

### **Drive System (Display) Manuals:**

<https://fishaw.com/manual/>

**Choose the Display/Drive Manual for your model.**

4. Your FISHAW electric bike model has Walk Assist. This pushing aid provides assistance

during pushing your FISHAW electric bike. Are you familiar with the walk assist function?

**Information in the Drive/ Display Manuals:**

<https://fishaw.com/manual/>



**When mounting your FISHAW electric bike make sure not to step on the pedals until you sit in the saddle and grip the handlebars tightly, and that one pedal is at the lowest position when you get on. The motor assistance might switch on suddenly if an assistance level is already selected. This could result in an uncontrolled start of your FISHAW electric bike. Risk of an accident!**



**Charge your battery only on a non-flammable surface and only in dry rooms which have a smoke or a fire detector, but not in your bedroom. Place the battery during the charging process on a big, non-flammable plate made of ceramics or glass! Unplug the battery once it has been charged.**



**Charge your battery only with the supplied charger. Do not use the charger of any other manufacturer, not even when the connector of the charger matches your rechargeable battery. The rechargeable battery can heat up, catch fire, or even explode!**



**Do not park your FISHAW electric bike in the blazing sun.**



**The weight distribution on your FISHAW electric bike differs markedly from the weight distribution on bikes without drive assistance. A FISHAW electric bike is markedly heavier than a bike without drive assistance. For this reason, parking, pushing, lifting, and carrying the FISHAW electric bike is more difficult. Bear this in mind when loading your electric bike into a car and unloading it or when mounting it on a bicycle carrier system. Removing the**

**battery will decrease the weight of your e-bike for moving it.**



**Be aware that the brakes of your FISHAW electric bike are always more effective than the drive/motor. If you face any problems with your drive (e.g., because it pushes you forward in front of a bend), slow down your FISHAW electric bike carefully.**



**Before towing a trailer with your FISHAW electric bike, check with the trailer manufacturer that it is suitable to be used with your FISHAW electric bike model.**



**Before mounting a child seat, make sure it is compatible with your FISHAW electric bike model. Check with the child-seat manufacturer.**



**Please note that all FISHAW electric bikes are fitted with kickstands. Therefore, when parking your FISHAW electric bike, make sure it stands safe and secure and is not at risk of toppling over or being knocked over. If your FISHAW electric bike topples over, it may be damaged.**

## FIRST RIDE-CHECKLIST

Your FISHAW electric bike has undergone numerous tests during production and a final check has been carried out before shipping your bike to you. Nevertheless, be sure to check the following points to exclude any malfunctioning that may be due to the transport of your FISHAW electric bike before delivery and after self-assembly:

1. Are the quick-release levers or bolted connections of the front and rear wheel, the seat post and other components properly closed?

For more information see the **chapter “How to use the quick-releases”** and the instructions of the component manufacturers on their respective websites.

2. Are the tyres in good condition and do they have enough pressure? A higher pressure gives better riding stability and reduces the risk of a puncture. The minimum and maximum pressure (in bar or PSI) is indicated on the side of the tyre.

For more information see the **chapter “The Wheels and the Tyres”** and the instructions of the component manufacturers on their respective websites.

3. Spin the wheels to check whether the rims are true. For disc brakes, watch the gap between frame and rim of tyre. Untrue rims can be an indication of tyres with ruptured sides, broken axles, or spokes.

For more information see **the chapter “The Wheels and the Tyres”** and the instructions of the component manufacturers on their respective websites.

4. Test the brakes while the bike is stationary by firmly pulling the brake levers towards the handlebars. Make sure you cannot pull the brake levers all the way to the handlebars and check the hydraulic brake cables for leaks! Check the thickness of the brake pads, as well.

With disc brakes you should have a stable pressure point at once. If you have to operate the brake lever more than once to get a positive braking response, have the bike checked by your bicycle mechanic immediately.

For more information see **the chapter “The Brake System”** and the instructions of the component manufacturers on their respective websites.

5. Let your FISHAW electric bike bounce on the ground from a small height. If there is any rattling, see where it comes from. Check the bearings and bolted connections, if necessary. Tighten them slightly, if necessary.

6. If you have a FISHAW electric bike with suspension, press down on your FISHAW bike and see whether the spring elements retract and extend as usual.

For more information see **the chapters “Suspension Forks”** and the instructions of the component manufacturers on their respective websites:

RST:

<https://rstuspension.com/en/forks>

SUNTOUR:

[https://www.srsuntour.com/fileadmin/user\\_upload/Downloads/Consumer/Bike/Owners%20manuals/General\\_Fork\\_Manual/EN\\_MY22\\_SUS\\_fork\\_user\\_manual-20210820.pdf](https://www.srsuntour.com/fileadmin/user_upload/Downloads/Consumer/Bike/Owners%20manuals/General_Fork_Manual/EN_MY22_SUS_fork_user_manual-20210820.pdf)

7. If your bike has a kickstand, make sure it is fully raised before you set off. **Risk of an accident!**

8. Do not forget to take a high-quality D- or chain lock with you on your ride. The only way to effectively protect your FISHAW electric bike against theft is to lock it to an immovable object.

9. If you want to ride on public roads, make sure your FISHAW electric bike is equipped according to the applicable regulations of your country. Riding without lights and reflectors in dark or dim conditions is very dangerous because you will be seen too late or not at all by other road users. A lighting set that corresponds to the regulations is a must on public roads. Turn on the lights as soon as dusk sets in.

The UB400, UB600, M300 and M500 have intuitive lights that will switch on according to the light sensitivity that is set in your Drive (Display) System settings.



**Improperly closed fastenings, e.g., quick releases, can cause parts of your FISHAW bike to come loose. This can result in a serious accident! It is very important to check the quick release after any accident, to make sure the lever has not been moved to the unlocked position!**



**Be aware that the distance you need to stop your bike increases, when you are riding with your hands, on bar ends or on multi-position handlebars. The brake levers are not always within easy reach.**



**Do not use your FISHAW electric bike, if it fails at any one of these pre ride check points! A defective FISHAW electric bike can lead to serious accidents! If you are in doubt or if you have any questions, contact FISHAW or your qualified bicycle mechanic.**

For more information see **the chapter on “The Battery”**

2. Do the display on the control element and the cycle computer on the handlebars show all the values? Is there any error message or warning on the display? Check the values are correct before every ride. Do not set off on your FISHAW electric bike under any circumstances if the control element shows a warning!

For more information see **the chapter on “The Battery”**.

3. Is the battery correctly fitted into the frame and the lock properly locked? Never set off with a loose and unlocked battery.



**During use, your FISHAW bike is undergoing stress resulting from the surface of the road and from the rider's actions. Due to these dynamic loads, the different parts of your bike react with wear and fatigue. Please check your FISHAW bike regularly for wear marks, scratches, deformations, colour changes and any indication of cracking. Components which have reached the end of their service life may break without previous warning. Maintain and service your FISHAW electric bike regularly. In cases of doubt, it is always best to replace components.**

#### **ADDITIONAL INFORMATION BEFORE YOUR FIRST RIDE ON YOUR FISHAW ELECTRIC BIKE.**

1. Are the connections of the rechargeable battery, the drive control panel or the command console and the drive correctly connected?
4. Are the tyres in good condition and do they have sufficient pressure? Please note that an electric bicycle weighs more and that your usual tyre pressure may be insufficient. A higher pressure gives better riding stability and reduces the risk of a puncture. The minimum and maximum pressure (in bar or PSI) is indicated on the tyre side.

For more information see the **chapter “The Wheels and the Tyres”**.



**Do not use your FISHAW electric bike, if it fails on any one of these points! Riding a defective FISHAW electric bike can result in serious accidents! If you are in doubt or if you have any questions, contact FISHAW.**

## ADJUSTMENTS OF YOUR E-BIKE TO THE RIDER

By choosing a specific type of bike you roughly determine the posture you will be riding in. However, some components of your FISHAW bike are especially designed so that you can adjust them to your body proportions up to a certain degree. This includes the seat post, the handlebars, and the stem as well as the brake levers.

As all adjustments require know-how, experience, suitable tools, and skills, you should restrict yourself to adjusting your seating position and handlebars. Contact your bicycle mechanic if you are not happy with your seating position or if you want something changed.

After any adjustment/assembly work, be sure to make a short functional check as described in **the chapter “Before Every Ride”** and do a test ride on your FISHAW electric bike in an area free of traffic.



All tasks described in the following require the know-how of a mechanic and appropriate tools. Make it a rule to tighten the bolted connections always with the greatest attention. Increase the torque values bit by bit and check the fit of the component in between. Use a torque wrench and never exceed the maximum torque values! You will find the prescribed values directly on the components and/or in the operating instructions of the component manufacturers on their respective websites or contact your bicycle mechanic.



The seating position depends mostly on how you want to use the FISHAW electric bike.



If sitting on the saddle causes you trouble, e.g., because it numbs your crotch, this may be due to the saddle. Your FISHAW

electric bike has a wide range of saddles available, and we have designed our bikes with the most comfortable saddle for the intended purpose of your FISHAW model.

### ADJUSTING THE SADDLE TO THE CORRECT HEIGHT



The correct saddle height depends on the length of your legs. When pedalling, the ball of your foot should be positioned above the centre of the pedal axle. With your feet in this position, you should not be able to stretch your legs completely straight at the lowest point, otherwise your pedalling will become awkward. Check the height of your saddle with flat-soled shoes. This is best done with suitable cycling shoes.

Sit on the saddle and put your heel on the pedal at its lowest point. Your leg should be fully stretched, and your hips should remain horizontal.

To adjust the saddle height, loosen the quick-release lever (**see the chapter “How to use the Quick-Releases”**). Now you can perform the vertical adjustment of the seat post.

Be sure not to pull out the seat post too far.

**The mark on the seat post (max., min., stop or the like) should always remain within the seat tube.** Always grease the surface of an aluminium seat post that is inserted into a seat tube made of aluminium.

Align the saddle with the frame by using the saddle nose and the bottom bracket or top tube as a reference point.

Clamp the seat post tight again by closing the quick-release, as described in chapter “How to use the Quick-Releases”.

Check in between that the seat post is sufficiently tight by taking hold of the saddle at both ends and then trying to rotate the seat post inside the seat tube. If it does rotate, gently retighten the seat post clamp and do the check again.

Does the leg stretch test now produce the correct result? Check by moving your foot and pedal to the lowest point. When the ball of your foot is exactly above the pedal centre in the ideal pedalling position, your knee should be slightly bent. If this is the case, the saddle height is adjusted to the correct height.



**Never ride your bike with the seat post drawn out beyond the limit, maximum, or stop mark! The seat post might break or cause severe damage to the frame. *In the case of frames with seat tubes that extend beyond the top of the frame's top tube the seat post should be inserted into the seat tube at least below the bottom of the top tube and below the top of the rear stays! If seat post and frame require different minimum insertion depths, you should opt for the deeper insertion depth.***



**If the seat post does not move easily inside the seat tube or if it cannot be tightened sufficiently, ask your bicycle mechanic for advice. Do not use brute force!**



**Tighten carefully by approaching the prescribed maximum torque value in small steps (0.5 Nm increments) and check the proper fit of the component in between. Never exceed the maximum torque value indicated by the manufacturer.**

## **ADJUSTING THE HEIGHT OF THE HANDLEBARS**

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

FiSHAW has 2 different stem systems that allow adjustment of the handlebars, i.e., the adjustable and the Aheadset®-stem. These systems require special knowledge. In this regard, the descriptions hereafter may be incomplete. If you are in doubt or if you have any questions, contact your qualified bicycle mechanic or your FiSHAW customer service representative.



**The stem is one of the load bearing parts of your FiSHAW electric bike. Changes to it can impair your safety. If you are in doubt or if you have any questions, contact FiSHAW or your bicycle mechanic.**

These routines require a certain amount of manual skill and (special) tools. Ask your bicycle mechanic to explain to you both function and adjustment of your stem or let them do that work.



**The bolted connections of the stem and handlebars must be tightened to the prescribed torque values. If you disregard the prescribed values, the handlebars or stem may come loose or break. We recommend only allowing a qualified bicycle mechanic to perform any adjustments.**



**Stems come in very different lengths and shaft and binder tube diameters. A stem of inappropriate dimension can become a source of danger: Handlebars or stems can break, resulting in an accident. When replacing any parts, be sure to only use parts that bear the appropriate mark and, to be on the safe side, original spare parts. Your FISHAW customer service representative will be pleased to help you.**



**Make sure the handlebar clamping area is free of sharp edges. Make sure the handlebar/stem combination is approved to be used together.**

### Conventional Stems

Handlebars with conventional stems allow limited vertical adjustment. This is done by moving the stem up or down inside the fork steerer tube. The UB200 Urban model has a conventional stem.

Release the expander bolt by two to three complete turns. The stem should now turn freely inside the fork. If it does not, release the bolt by tapping it gently with a rubber hammer. With Allen bolts you need to stick the Allen key

into its head, first, as it is normally countersunk and therefore impossible to be hit directly. Now you can move the handlebar/stem unit up and down as a whole. Be sure not to pull out the stem too far. The mark on the stem (end, min, max, stop, limit or the like) should always remain within the tube. Setting the stem to a lower position can only add to your safety!

Realign the handlebars with the front wheel. Retighten the expander bolt with the correct size Allen key.

Tighten carefully and check the proper fit of the component in between. Never exceed the maximum torque value indicated by the manufacturer! You will find the prescribed values, directly on the components and/or in the operating instructions of the component manufacturers on their respective websites.

Check the seat of the stem by taking the front wheel between your legs and trying to turn the handlebars and stem relative to the wheel. If there is movement, you must tighten the expander bolt. If the handlebars are still too high or too low, you can replace the stem. This can be quite a big job, as it may mean taking off and remounting all the fittings on the handlebars. Ask your FISHAW customer service representative or your bike mechanic for advice about the different types of stems.



**Never ride a FISHAW electric bike with a stem that has been drawn out beyond the mark for the maximum permissible height! Check all bolted connections and test your brakes before you set off in an area free of traffic!**



**Never try to unscrew the top race of the headset when you only want to adjust the stem, as you will otherwise alter the bearing play!**

## Adjustable Stems

There are various solutions for adjusting the tilt of the front part of adjustable stems:

Some designs use bolts on the sides of the joint, others have bolts coming from above or below, and others again are equipped with additional locking mechanisms of adjusting bolts.

**For more information see the Assembly Instructions for your model found on our website: [www.fishaw.com](http://www.fishaw.com)**

Stems and handlebars must be tightened to their specified torques. If you disregard the prescribed values, the handlebars or stem may come loose or break. Use a torque wrench and observe the minimum and maximum torque values! You will find the prescribed values directly on the components and/or in the operating instructions of the component manufacturers on their respective websites.



The bolted connections of adjustable stems and handlebars must be tightened to their specified torque values. If you disregard the prescribed values, the handlebars or stem could become loose or break.

Keep in mind that readjusting the position of the stem changes the position of handlebars, brake levers and shifters. Readjust these components, as described in the chapter

### **Stems for Threadless System – Urban/MTB**

FiSHAW electric bikes with Aheadset® headsets, the stem also serves to adjust the bearing preload. If you change the position of the stem you must readjust the bearing play (see the chapter “The headset”) and the

instructions of the component manufacturers on their respective websites.

The vertical setting range is determined by the intermediate rings, also referred to as spacers.

Unscrew the bolt at the top of the fork steerer tube which serves to adjust the initial bearing pressure, remove the Ahead cap and release the bolts on either side of the stem by up to three turns. Remove the stem and Spacers from the fork steerer tube. In doing so keep hold of both frame and fork to prevent the fork from slipping off the head tube.

You can determine the handlebar height by the arrangement of stem and spacers. Slip the remaining spacers onto the fork steerer tube above the stem. Adjust the headset, as described in the chapter “The headset”. If you want to turn the stem around, you must also release the front bolts securing the handlebars. If the stem is fitted with a cap, you can simply take out the handlebars at this point. If it is not fitted with a cap, you must remove the handlebar fittings.

Mount the handlebars and, if necessary, the handlebar fittings, as described in **the chapter “Adjusting the Tilt of the Handlebars and Brake Levers”** and/or in the instructions of the component manufacturers on their respective websites.

Check whether the handlebars are firmly seated in the stem by trying to rotate the handlebars downwards. Verify whether the handlebar/stem unit can be twisted relative to the fork. Do this by taking the front wheel between your knees and trying to twist the handlebars. If there is movement, carefully tighten the bolts a little more and check again for correct fit.

Tighten carefully by approaching the prescribed maximum torque value in small steps (0.5 Nm increments) and check the proper fit of the component in between adjustments. Never exceed the maximum torque value indicated by the manufacturer!

**Ask your bicycle mechanic to explain to you both function and adjustment of your stem or, better still, let them do that work.**



**In the case of turned stems, it is possible that the cables are too short. In this case riding can be unsafe. If in doubt, ask your qualified bicycle mechanic.**

When removing spacers, the fork steerer tube must be shortened. **This change is irreversible. The shortening should be carried out by a qualified bicycle mechanic, but only after you have found your preferred position.**

Keep in mind that readjusting the position of the stem changes the position of handlebars, brake levers and shifters. Readjust these components, as described in the chapter **“Adjusting the Tilt of the Handlebars and Brake Levers”**.

## **CORRECTING the HORIZONTAL TILT of the SADDLE and the Forward to Back Position**

The distance between the grips of the handlebars and the saddle, influences the position of your upper body, which in turn influences your riding comfort and pedalling power. This distance can be altered slightly by changing the position of the saddle rails in the seat post clamp. However, this also influences your pedalling. Whether the saddle is positioned more to the front or to the back of the bike will alter how rearward the pedalling position of your legs is.



**You need to have the saddle horizontal to pedal in a relaxed manner. If it is tilted, you will constantly have to lean against the handlebars to prevent yourself from slipping off the saddle.**



**Make sure the saddle is clamped within the range of the markings on the saddle rail. Otherwise, the saddle rail can fail! Check the bolts by using a torque wrench once a month according to the prescribed values.**



The setting range of the saddle is exceedingly small.

The manufacturers of saddles deliver their products with detailed instructions. You will find these instructions on their respective websites.

### **Selle Royal:**

[https://www.selleroyal.com/sites/default/files/supportcyclists/docs/selle\\_royal\\_manual\\_usere\\_n.pdf](https://www.selleroyal.com/sites/default/files/supportcyclists/docs/selle_royal_manual_usere_n.pdf)

Read them carefully before adjusting the position of your saddle. If you are in doubt or if you have any questions, contact FISHAW or your qualified bicycle mechanic.

## **ADJUSTING SADDLE POSITION AND TILT**

With patent seat posts one central Allen head bolt secures the clamping mechanism, which controls the tilt and the horizontal position of the saddle.

Release the bolt at the top of the seat post. Release the bolt two to three turns counter clockwise at the most, otherwise the whole assembly can come apart. Move the saddle back or forth, as desired. You may have to give the saddle a light tap to make it move. Please observe the markings on the saddle rail.



Make sure the seat of the saddle remains horizontal as you retighten the bolt. **Your FiSHAW electric bike should stand on level ground while you adjust the saddle.**

Having found your preferred position, make sure both clamp halves fit snugly around the saddle rails before tightening the bolt to the correct torque value as prescribed by the seat post manufacturer.

Retighten the bolt with a torque wrench according to the instructions of the manufacturer. **After fastening the saddle, check whether it resists tilting by bringing your weight to bear on it once with your hands at either end of the saddle.**



**Poorly tightened or loosening bolts can fail. Risk of an accident!**

Once a month check the bolts by using a torque wrench according to the values indicated directly on the components and/or in the instructions of the component manufacturers website.



**Be aware that the distance you need to stop your bike increases, when you are riding with your hands-on bar ends or on multi-position handlebars. The brake levers are not always within easy reach.**



**Never fix bar ends in vertical position or with their ends pointing rearwards as this would increase the risk of injury in the event of an accident.**

## **ADJUSTING the TILT of the HANDLEBARS and BRAKE LEVERS**

Adjusting the brake lever reach on FiSHAW Urban, Trekking, Folding and Mountain Bikes.

With most brake systems the distance between the handlebar grips and the brake levers is adjustable. This makes it more convenient and easier to reach for riders with small hands to operate, by bringing the brake levers closer to the handlebars. On most models there is a small adjusting screw on the brake lever.

When adjusting the lever reach, make sure the first phalanx of the index finger reaches around the brake lever. Check the proper adjustment and functioning of the brake system as described in the chapter, “The Brake System” in this manual.



**Make sure you cannot pull the brake levers all the way to the handlebars. You should reach the maximum braking force short of this point.**

## **Adjusting the Tilt of the Handlebars**

Set the handlebars to a position where your wrists are relaxed and not turned outwards too much.

Release the Allen bolts at the bottom or front side of the stem. Turn the handlebars to the desired position. Make sure the handlebars are accurately centred in the stem. Carefully retighten the bolt(s) with the torque wrench.

Make sure the upper and lower clamping slots of the stem are parallel and the same width. If you have a stem with several bolts, tighten them evenly in a cross pattern by using a torque wrench and observe the recommended torque values on the component or on the manufacturers corresponding websites.

Try rotating the handlebars once they are clamped into the stem and tighten the bolt(s) a little more if needed.

After any adjustments to the handlebars, you need to adjust the brake levers/gear shifter levers. Release the Allen bolt at either lever attachment. Turn the levers relative to the handlebars. Sit in the saddle and place your fingers on the brake levers.

Check if the back of your hand forms a straight line with the line of your forearm. Retighten the levers with a torque wrench and perform a “twist test”. The brake levers should not be so tight that they will never move. In case of an accident, causing you to fall off your bike, it is an advantage when the brake levers can be turned.



**Tighten the bolts at the stem until the clamping slots between the stem body and faceplate are parallel and the same width at the top and the bottom. Tighten the bolts evenly in a cross pattern, ie., alternately and gradually.**

## QUICK-RELEASES- INSTRUCTIONS FOR USE

Most FISHAW electric bikes are fitted with quick-releases to ensure fast adjustments, assembly and disassembly. Be sure to check whether all quick-releases are tight before you set off on your FISHAW electric bike. Quick-releases should be handled with the greatest care, as they affect your safety.

Practice the proper use of quick-releases to avoid any accidents.

Quick-release mechanisms essentially consist of two operative elements:

1. The hand lever on one side of the hub which creates a clamping force via a cam when you close it.

2. The tightening nut on the other side of the hub with which the preload on the threaded rod (quick-release axle) is set.



**Do not touch the brake disc directly after having stopped, e.g., after a long down-hill ride, you may burn your fingers! Always let the brake disc cool down before opening the quick-release.**



**Never ride a FISHAW electric bike without having checked first whether the wheels are securely fastened. With an insufficiently closed quick-release the wheel can come loose, creating a serious risk of accident!**



**Your FISHAW electric bike is equipped with quick-releases, be sure to lock the frame to an immovable object together with the wheels when you leave it outside.**

### HOW TO FASTEN COMPONENTS SECURELY WITH A QUICK-RELEASE

Open the quick-release. You should now be able to read “Open” on the lever. Make sure the component to be fastened is in the accurate position.

For more information see **the chapters “Adjustments of Your E-Bike to Suit the Rider” and “The Wheels and the Tyres”** and the instructions of the component manufacturers on their respective websites.

Move the lever back, as if to close it. Now you should be able to read “Close” on the outside of the lever. When you start closing the lever you should feel virtually no resistance with your hand until the lever is at a right angle to the frame/fork.



When continuing to close the lever the resistance you feel should increase significantly and towards the end, even more strength is required to close the lever. **Use the ball of your thumb while your fingers pull on an immovable part, such as the fork or a rear stay, but not on a brake disc or spoke, to push it in all the way.**

In its end position, the lever should be at a right angle to the quick-release axle, i.e., it should not stand out. The lever should lie close to the frame or the fork so that it cannot be opened accidentally. Make sure, however, that the lever is easy to handle for actual quick use.

To check whether the lever is securely locked apply pressure to the end of the hand lever and try to turn it while it is closed. If you can turn the lever around, open it and increase the preload. Screw the tightening nut on the opposite side clockwise by half a turn. Close the quick-release lever and check it again for tightness.



Finally lift the bike a few centimetres, so that the wheel no longer touches the ground, and hit the tyre from above. If it is properly fastened, the wheel will remain firmly fixed in the dropouts of the frame or fork without producing any rattling.

If your seat post is equipped with a quick-release mechanism, check whether the saddle is firmly fixed by trying to twist it relative to the frame.

## BRAKING SYSTEMS

Brakes are used to adjust your speed to the surrounding terrain and traffic. In an emergency situation, the brakes must bring your FISHAW e- bike to a halt as quickly as

possible.

In the event of such emergency braking, the rider's weight shifts forward abruptly, thus reducing the load on the rear wheel. The rate of deceleration is primarily limited by the danger of the rear wheel losing contact with the ground, resulting in an overturning of the FISHAW electric bike and, secondly, by the grip of the tyres on the road. This problem becomes particularly acute when riding downhill.

**Therefore, in case of any emergency braking, you should try to shift your weight towards the rear and the ground as far as possible.**



Operate both brakes simultaneously and bear in mind that, due to the weight transfer, the front brakes can generate a far better braking effect on a surface with good grip.

The braking conditions on unpaved surfaces differ, i.e., over-braking the front wheel can make the wheel slip away. Make yourself familiar with the operation of your brakes before you set off for the first time. Practice braking on different kinds of surfaces in an area free of traffic.

There are various types of brake systems that may be subject to the following problems:



**With disc brakes, prolonged braking or permanent dragging of brake pads can also lead to an overheating of the brake system. This can result in a reduction of the braking force or even brake failure. Risk of an accident!**

When riding downhill, get used to braking hard and then releasing the brake again, whenever the road surface and the situation allows for it. If you are in doubt about the braking action,

stop and let the brake system cool down.



The assignment of the brake lever to brake calliper can vary, e.g., left lever acts on front brake.

**On your FiSHAW E-Bike, the right brake lever operates the rear brake, and the left brake lever operates the front brake.** FiSHAW has chosen to not cross the brake cables across the headtube, this prevents problems with stretching or breaking the hydraulic brake cable when the handlebars are turned full lock to the right side. This is the ideal set up for disc brakes as the disc and calliper are on the left-hand side of the wheel. Electric bikes have a lot more cables to contend with in their design and manufacturing, so having the brake lever on the same side, prevents the above-mentioned problems occurring. This was not an issue before disc brakes became more accessible, as it is not an issue for rim brakes.



Be careful while getting used to the brakes. Practice emergency stops in a place clear of traffic until you are comfortable controlling your FiSHAW e-bike. This can save you from having accidents when you ride in road traffic.



**Wet weather reduces the braking effect and the road grip of the tyres. Be aware of longer stopping distances when riding in the rain, reduce your speed and operate the brakes carefully.**



**Ensure that braking surfaces and brake pads are completely free of wax, grease, and oil. Risk of an accident!**

When replacing any parts, be sure to only use parts that bear the appropriate mark and, to be on the safe side, original spare parts. Refer to the instructions of the component manufacturers on their respective websites

before you start to readjust or to service the brake or before doing any work whatsoever. **If you are in any doubt, contact your bicycle mechanic to perform these tasks.**

## DISC BRAKES

### FUNCTIONING AND WEAR

The most striking feature of disc brakes is their outstanding braking effect. They respond a lot faster in wet conditions than rim brakes do and achieve their normal high braking power within a noticeably shorter time. They require little maintenance and do not wear down the rims as rim brakes do. Disc brakes consist of the brake calliper, the rotor, the brake lines, or cables as well as the brake lever unit. Operating the brake lever compresses the hydraulic pistons through hydraulic pressure or mechanically, pushing the brake pads against the rotor.

The friction generated by braking causes wear to the brake pads as well as to the rotors. **Frequent rides in the rain and dirt and over hilly terrain can accelerate wear on both braking surfaces.** Depending on the manufacturer and the model there are different ways of checking the brake pads and rotors for their wear limits.



**New brake pads must be broken in until they reach their optimal braking power. Accelerate your FiSHAW electric bike about 30 to 50 times to around 25 k/h and bring it to a halt each time.**

This procedure is finished when the force required at the lever for braking has stopped decreasing.



Disc brakes get hot in use. For this reason, do not touch the rotors directly after stopping, especially after a long downhill ride.

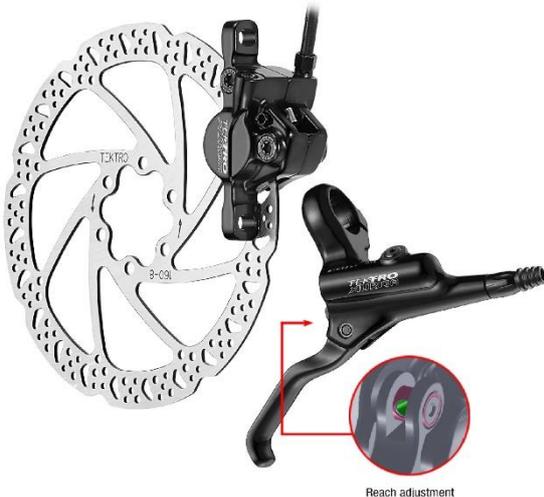


**Dirty brake pads and rotors can lead to drastically reduced braking force. Therefore, make sure the brake remains free of oil and other fluids, especially when you clean your FISHAW electric bike or grease the chain. Dirty brake pads cannot be cleaned under any circumstances, they must be replaced! Rotors can be cleaned with special brake cleaners or with warm water and mild soap.**

Unusual noises (scratching, chafing etc.) during braking and/or a noticeable change of the braking force (stronger or weaker) are signs that the brake pads are dirty or worn down. Check the brake pads and replace them, if necessary. Otherwise, you risk further damage, e.g., to the rotor, or even an accident due to brake failure! If you are in doubt, contact your bicycle mechanic.

## HYDRAULIC DISC BRAKES

URBAN MODELS UB400 & UB600 | FOLDING F30 | MOUNTAIN BIKES M300 & M500



## FUNCTIONAL CHECK



Regularly check the lines and connections for leaks while pulling on the brake lever. Contact your bicycle mechanic immediately in the event of a brake liquid leakage. **A leak in the brake lines can render the brake ineffective. Risk of an accident!**

## WEAR AND MAINTENANCE

Check the pads for wear at regular intervals by following the operating instructions of the respective manufacturer.

### Disc Brake Pad Replacement:

[https://www.youtube.com/watch?v=YHhKDNhZEpE&list=PLo\\_l1469gkLJ21Ray6BLIbpRWF9Af8uZF&ab\\_channel=TEKTROTW](https://www.youtube.com/watch?v=YHhKDNhZEpE&list=PLo_l1469gkLJ21Ray6BLIbpRWF9Af8uZF&ab_channel=TEKTROTW)

### UB400/UB600/F30/M300/M500 MODELS:

#### Product Information:

[https://www.tekro.com/upload/Product/F\\_20150915093971Rwrqel.PDF](https://www.tekro.com/upload/Product/F_20150915093971Rwrqel.PDF)

### How to Align a Hydraulic Disc Brake

[https://www.youtube.com/watch?v=uk\\_nC9anQcM&ab\\_channel=ParkTool](https://www.youtube.com/watch?v=uk_nC9anQcM&ab_channel=ParkTool)

### How to Fix a “Soft” Brake Lever:

<https://www.youtube.com/watch?v=xWkZ5ePn2hk>

### How to Bleed Hydraulic Brakes:

<https://www.youtube.com/watch?v=cS0pBCBT65g>



**Loose connections or leaky brake lines drastically impair the braking effect. If you find leaks in the brake system or kinked lines, contact your electric bicycle mechanic immediately!**



Do not open the brake lines. Brake fluid can be very unhealthy and damage the paint if it leaks out.

Read the instructions of the brake manufacturer fully before removing the wheel or doing any maintenance work. Improper operation can lead to brake failure. **If in any doubt make sure a qualified bicycle mechanic does any work on your brakes.**

## MECHANICAL DISC BRAKES

Urban Model UB200



Adjustable Sensor Control

Installation Instructions:

[https://www.tekro.com/upload/Product/F\\_20210527133253ki\\_ynk.PDF](https://www.tekro.com/upload/Product/F_20210527133253ki_ynk.PDF)

Brake Levers:

[https://www.tekro.com/upload/Product/F\\_20150915102425Mq5EKP.PDF](https://www.tekro.com/upload/Product/F_20150915102425Mq5EKP.PDF)

## FUNCTIONAL CHECK

The more the brake pads of mechanical disc brakes wear down, the longer the brake lever travel. Regularly check whether you get a positive braking response before the lever touches the handlebars. Make sure the brake cables are in sound condition!



**Damaged cables should be replaced immediately, as they can snap. Risk of an accident!**

## WEAR AND MAINTENANCE

To a certain extent, the wear of the brake pads can be compensated for directly at the brake lever. Unscrew the Knurled lock nut on the bolt through which the cable enters the grip and then unscrew the bolt until the lever has the desired travel. Retighten the lock nut by taking care that the slit of the bolt head does not face upward or forward, as this would permit an unnecessarily high amount of water or dirt to enter.

After readjusting check the functioning and make sure the brake pads do not drag when releasing the brake lever and spinning the wheel.

Repeated readjustment at the brake lever makes the arm on the brake calliper change its position. This can make the brake less effective and result in a complete brake failure in an extreme case. Risk of an accident!



**Repeated readjustment at the brake lever can drastically reduce the maximum braking effect.**

Read the instructions of the brake manufacturer on their respective websites carefully before removing the wheel or doing any maintenance work.

**UB200 MODEL:**

[https://www.tekro.com/upload/Product/F\\_201509151015859uWPB9.PDF](https://www.tekro.com/upload/Product/F_201509151015859uWPB9.PDF)

**How to Align a Mechanical Disc Brake**

[https://www.youtube.com/watch?v=NmqGelNcVlg&ab\\_channel=ParkTool](https://www.youtube.com/watch?v=NmqGelNcVlg&ab_channel=ParkTool)

 **Improper operation can lead to brake failure. If in any doubt of your ability, only use a qualified bicycle mechanic to work on your brakes.**

## GEARS

### DERAILLEUR GEARS



The gears of your FISHAW electric bike serve to adjust the gear ratio to the terrain you are riding on and the desired speed.

A low gear (where in the case of derailleur gears the chain runs on the small chainwheel and a large sprocket) allows you to climb steep hills with moderate pedalling force. You must, however, pedal at a faster pace. High gears (large chainwheel, small sprocket) are for riding downhill. Every turn of the pedals takes you many metres forward at correspondingly high

speed.

When riding your FISHAW pedelec, reduce the cadence and the pedalling force shortly before you start shifting. If you continue pedalling forcefully, the high chain forces could result in a chain failure.



**Continue pedalling at reduced cadence during gear shifting, however, at clearly reduced pedalling force. In particular when shifting through the chainwheels continue pedalling slowly and without force.**



**Practice shifting gears in a place free of traffic until you are familiar with the functioning of the gear levers of your FISHAW electric bike.**

FISHAW pedelecs have only one chainwheel. As a consequence, there is no front derailleur and no shifter on the left handlebars.

**Read the gear manufacturer's operating instructions on their respective websites.**

**Shimano Products General Manual:**

<https://si.shimano.com/api/publish/storage/pdf/en/dm/GN0001/DM-GN0001-24-ENG.pdf>

**UB200|UB400|UB600|F30 MODELS:**



[https://si.shimano.com/pdfs/um/UM-00J0A-001-0R-ENG\\_FRE.pdf](https://si.shimano.com/pdfs/um/UM-00J0A-001-0R-ENG_FRE.pdf)

<https://si.shimano.com/pdfs/si/SI-6BLRA-002-ENG.pdf>

### M300 MODEL:



<https://si.shimano.com/api/publish/storage/pdf/en/um/67R0A/UM-67R0A-002-ENG.pdf>

<https://si.shimano.com/api/publish/storage/pdf/en/dm/RD0001/DM-RD0001-06-ENG.pdf>

### M500 MODEL:



<https://si.shimano.com/pdfs/um/UM-6T80A-005-00-ENG.pdf>



<https://www.sram.com/globalassets/document-hierarchy/user-manuals/sram-mtb/drivetrain/95-7618-001-000-rev-c-2x-3x-mtb-derailleurs-user-manual.pdf>

### M300 & M500 Shifting Lever User Manual:



<https://si.shimano.com/api/publish/storage/pdf/en/um/67R0A/UM-67R0A-002-ENG.pdf>

## FUNCTIONING AND OPERATION

**Derailleur gears always work according to the following principle:**

Large chainwheel (front) — heavy gear — bigger transmission. Small chainwheel (front)— easy gear - smaller transmission. Large sprocket (rear) - easy gear — smaller transmission - Small sprocket (rear)- heavy gear - bigger transmission.

The bottom bracket is the interface between cranks and frame. There are different designs, in some cases the bearing spindle is part of the bottom bracket, in some other cases it is integrated into the right crank. Sealed bottom brackets are maintenance free and delivered without play ex works. **The bottom bracket in the frame must be checked for play at regular intervals.**

Also check at regular intervals whether the cranks are firmly attached to the bearing spindle or whether there is play. Grab the crank and try to jiggle it forcefully. It must be totally free of movement. If you notice any play, contact your electric bicycle mechanic immediately.



Depending on the gear system, gear shifting is initiated by operating a shifter, or by a short turn of the wrist with twist grips. **Continue pedalling during gear shifting, however, with reduced pedalling force.**

Please find below the principles of the shift lever types and their operation. It is, however, also possible that your new FISHAW electric bike has a gear system that is not listed below.

In the case of shifters pressing the target shifter (thumb shifter) moves the chain towards the larger chainwheels/sprockets.

That means that any gear shift made by pressing the large thumb shifter on the right produces a lower gear. This is an indexed shifting system with the option of shifting several gears with one action. Operating the large thumb shifter on the left produces a higher gear.

Pulling the small lever located in front of the

handlebars from the rider's viewpoint and actuated with the index finger (index finger lever) shifts the chain towards the smaller chainwheels/sprockets, i.e., on the right side to the higher gears and on the left side to the lower gears.



**Make yourself familiar with your new gears in an area free of traffic.**



**Shifting gears under load, i.e., while pedalling hard, can make the chain slip. At the very least the service life of the chain will be reduced considerably.**



**If there is movement between bearing spindle and cranks, they can sustain damage. Risk of breakage!**



**Avoid gears which involve an extremely oblique run of the chain as this will increase wear!**



**It is crucial when switching gears to continue pedalling smoothly and without too much force. Do not shift under load.**

## CHECKING AND READJUSTING

The derailleur gears of your bike were carefully adjusted by your FISHAW manufacturer before delivery. However, Bowden cables may stretch a little over the first few kilometres, making gear shifting imprecise and the chain rattle.



**Adjusting the rear derailleur accurately is a job only for an experienced mechanic!**



**For your own safety, take your FISHAW electric bike to your bicycle mechanic for its first inspection after 100 to 300 kilometres, 5 to 15 hours of initial use or four to six weeks, and at the very latest after three months.**

## Important Safety Information



### WARNING

- **Do not disassemble or modify the product. This may cause the product to not operate correctly, and you may suddenly fall and be seriously injured.**
- **Never use alkali based or acid-based solvents, such as rust cleaners. If those solvents are used the chain might break and cause serious injury.**
- **Clean the chain with an appropriate chain cleaner regularly. Intervals between maintenance depend on the use and riding circumstances.**
- **Check the chain for any damage (deformation or cracking), skipping, or other abnormalities such as unintended gear shifting. If any problems are found, consult your local bicycle mechanic or FiSHAW representative. The chain may break, and you may fall.**
- If gear shifting operations cannot be carried out smoothly, clean the shifting unit and lubricate all moving parts.
- The gears should be periodically washed with a neutral detergent. In addition, cleaning the chain with neutral detergent and lubricating it can be an effective way of extending the life of the gears and the chain.
- Products are not guaranteed against natural wear and deterioration from normal use and aging.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.

## Regular Inspections Before Riding the Bicycle

Before riding the bicycle, check the following items. If any problems are found, consult your local bicycle mechanic or FiSHAW.

- Is gear shifting carried out smoothly?
- Has excess play increased in the links?
- Has excess play increased in the pulleys?
- Are there any abnormal noises coming from the derailleur?
- Is there any noticeable damage on the chain?

## ADJUSTING THE REAR DERAILLEUR

Increase the tension of the Bowden cable by turning the adjustable cable stop at the shifter lever or the adjusting bolt through which it runs into the rear derailleur. To do so, shift to the smallest sprocket and turn the bolts counter clockwise in half turns until the cable is slightly tensioned. After tensioning the Bowden cable check whether the chain immediately climbs onto the next larger sprocket. To find out you either must turn the cranks by hand — or ride your FiSHAW electric bike and shift through the gears.

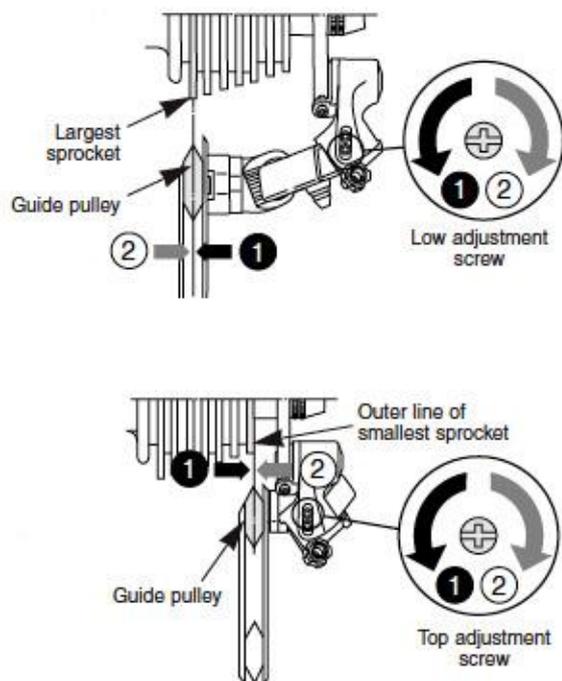
If the chain easily climbs onto the next larger sprocket, check whether it just as easily shifts to the small sprockets. If it does not, release the respective adjusting bolt a little. You may need several tries.

Observe the operating instructions of the gear manufacturer on their respective websites. If you have any problems with the gears, contact your bicycle mechanic.



Ask a helper to lift the rear wheel. By turning the cranks and shifting through you can easily check the function.

## ADJUSTING THE LIMIT STOPS



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

If necessary, correct the position by means of the limit screws. The limit screws on rear derailleurs are often marked "H" for high gear and "L" for low gear. "High gear" means that the chain is running on the smallest sprocket. Turn the screw clockwise to shift the rear derailleur towards the wheel and counter clockwise to shift it away from the wheel.

Shift to the biggest (inmost) sprocket and check whether the teeth of the sprocket and the teeth of the guide pulley are all in a perfectly vertical line. Turn the limit screw marked "L" clockwise until the rear derailleur stops moving towards the spokes and can neither be moved

by operating the shift lever nor by pushing it with your hand.

This adjustment prevents the chain from getting stuck between sprocket and spokes or the rear derailleur or the derailleur cage from touching the spokes, which could result in damage to the spokes, the rear derailleur, and the frame. In the worst case, it could be impossible to continue cycling.

### How to Adjust a Rear Derailleur

[https://www.youtube.com/watch?v=UkZxPIZ1ngY&ab\\_channel=ParkTool](https://www.youtube.com/watch?v=UkZxPIZ1ngY&ab_channel=ParkTool)



If your FISHAW electric bike has tipped over or the rear derailleur received a blow, the rear derailleur, or its mount, also referred to as the derailleur hanger, might be bent. It is advisable to check its range of movement and readjust the limit screws, if necessary, after such an incident or after mounting a new rear wheel on your bike.

**Be sure to do a test ride in an unfrequented place after adjusting the gears.**



**Let your bicycle mechanic maintain and service your FISHAW electric bike regularly.**



Always make sure changing gears makes as little noise as possible and is smooth and not jerky!



Make yourself familiar with the operation of your gears in a place free of traffic and practice operating the shifters or the twist grips as well as the brake system, before using your bike on public roads.

Removing and mounting the wheels is not the same as with derailleur gears. With this fact in

mind read the **chapter “Tyre Puncture”** and observe the operating instructions of the manufacturer on their respective websites.

## CHECKING, READJUSTING AND SERVICING

Multi-speed hubs require only little maintenance and need not be adjusted very often. Check the chain tension, in particular when removing and mounting wheels, and read **the chapter “Chain - Care and Wear”**.

If the indexed gear change does not work trouble-free, then contact your bicycle mechanic.

## ADJUSTING MULTI-SPEED HUBS

Shift into the fourth (4th) gear. Look from above at the right-hand side of the hub. There you can see two yellow markings. These two markings must be at the same height, i.e., they must produce a line.

Turn the adjusting screw at the shifter until you get just one single line.



**Regularly check the reliable fit of the bolted connection of the hub and, if necessary, of the torque arm at the frame.**

**Shimano recommends for example regular maintenance every 5,000 km or every two years.** Read the operating instructions of the gear manufacturer Shimano or contact FISHAW.

**Observe the operating instructions of the gear manufacturer, Shimano.**



**If you are in doubt or if you have any questions, contact your qualified bicycle mechanic.**

## CHAIN — CARE and MAINTENANCE

Regular and correct lubrication of your bike’s chain makes for enjoyable riding and prolongs its service life. It is not the quantity, but the distribution and regular application of lubricant that counts. Clean the dirt and oil off your chain with a slightly oily rag from time to time.



**Special degreasers are not necessary; they even have a damaging effect.**

Having cleaned the chain as thoroughly as possible, apply chain oil, wax, or grease to the chain links. To lubricate the chain, drip the lubricant onto the rollers of the lower run of the chain while you turn the crank. Once this is done, turn the crank a few more times; then let your FISHAW electric bike rest for a few minutes so that the lubricant can disperse. Finally wipe off excess lubricant with a rag so that it does not spatter around during riding or can collect road dirt.



**Make sure the braking surfaces of the rims, the rotors and the brake pads remain clear of lubricants, as the brakes will fail otherwise!**

For the sake of the environment, only use biodegradable lubricants. Bear in mind that some of the lubricant can end up on the ground, especially in wet conditions.

## CHAIN MAINTENANCE

The chain is one of the wearing components of your FISHAW electric bike and will need replacement at the end of its life. To prolong its life: Make sure the chain is lubricated regularly, especially after riding in the rain. Try to only use gears which run the chain in the

straightest line between the sprockets and chainwheels and get in the habit of high cadence pedalling.



Heavily stretched chains impair the operation of derailleur gears. Cycling with a worn-out chain also accelerates the wear of the sprockets and chainwheels. Replacing these components is relatively inexpensive compared with the costs of a new chain. It is therefore advisable to check the condition of the chain at regular intervals.

### When to Replace a Chain on a Bicycle

[https://www.youtube.com/watch?v=gXd-3UnqoaM&list=RDCMUCzaZ1sPWEuZN-18\\_XT6AH8g&index=4&ab\\_channel=ParkTool](https://www.youtube.com/watch?v=gXd-3UnqoaM&list=RDCMUCzaZ1sPWEuZN-18_XT6AH8g&index=4&ab_channel=ParkTool)

Your bicycle mechanic has accurate measuring instruments for checking the chain wear. Replacing the chain should ideally be left to an expert, as this requires special tools. In addition, you need to select a chain matching your gear system.



**An improperly riveted or heavily worn chain can break and throw you off your bike.**

When replacing your chain, only use appropriate and suitable original spare parts. Your FISHAW customer service representative or bicycle mechanic will be pleased to help you.

## WHEELS AND TYRES

The wheel consists of the hub, the spokes, and the rim. The tyre is mounted onto the rim so that it encases the tube in the case of the most common system, i.e., the clincher or folding tyres. There is a rim tape running around the rim wall to protect the sensitive tube against the edges of the rim trough, which are often sharp.

The wheels are subjected to considerable stress through the weight of the rider and any carried baggage as well as through bumpy road surfaces and terrain. Although wheels are manufactured with great care and delivered accurately trued, spokes and nipples can lose a little tension on the first few kilometres.



**Ask your bicycle mechanic to check and true up the wheels after you have bedded them in over about 100 to 300 kilometres or 5 to 15 hours of use.**

After the bedding-in period, check the wheels regularly. It will, however, rarely be necessary to tighten the spokes.



**Truing (retruing) wheels is a difficult job which you should leave to your bicycle mechanic.**

### TYRES, INNER TUBES, RIM TAPE, INFLATION PRESSURE

The tyres should provide grip and traction. At the same time, they should run smoothly and enhance the rider's comfort by absorbing small shocks. Both the rolling friction and the grip depend on the nature of the tyre carcass, the rubber compound, and the tyre tread. Your bicycle mechanic would be glad to help you choose from the numerous types of tyres.

If you want to mount a new tyre, you need to know the sizing system and the actual size of the old tyre. The latter is specified in two different units on the side of the tyre. One of the sizes is the standardised size in millimetres which is more precise, e.g., the number sequence 40-622 means that the tyre is 40 mm in width when fully inflated and has an inner tyre diameter of 622 millimetres. The other size is indicated in inches (e.g., 28x1.5").



The tyres must be inflated to the proper inflation pressure to provide an optimal compromise between smooth running and riding comfort. Properly inflated tyres are also more resistant to punctures. An insufficiently inflated tyre can easily get pinched (“snakebite”) when it goes over a sharp kerb.

The air pressure recommended by the manufacturer is given on the tyre side or on the tyre label. The lower of the two pressure specifications makes for better cushioning for lightweight riders and is therefore best for cycling on a rough surface. Rolling resistance on level ground decreases with growing pressure, but so does comfort. Highly inflated tyres are therefore most suitable for heavy riders and for riding on tarred roads. Therefore, adjust the pressure to your weight and your riding habits.

Inflation pressure is often given in the old system of units, i.e., in psi (pounds per square inch).

Clincher and folding tyres and rims alone are not able to hold the air. Therefore, an inner tube must be placed inside the tyre to retain the air pressure.

The rims of clincher and folding tyres require, in general, a high-value rim tape. This rim tape protects the inner tube from the braking heat which could make the tyre burst.



**Replace tyres with a worn tread or with brittle or frayed sides. Dampness and dirt penetrating the tyre can cause damage to its inner structure. The tube might burst. Risk of an accident!**



**If you mount a new tyre with another size than the standard tyre mounted, it might**

**be possible that the clearance between the front of your shoe and the wheel will be reduced when you ride at reduced speed. Risk of an accident!**



**Treat your tyres with care. Always ride your bike with the prescribed tyre pressure and check the pressure at regular intervals, at least once a week. Riding with too low or too high air pressure may make the tyre come off the rim or burst.**

Clincher and folding tyres allowing an inflation pressure of five bars or more have to be mounted on hook bead rims, identifiable by the designation “C”.

Observe the maximum pressure value of the rim. The pressure is dependent on the tyre width. You can find the values in the operating instructions of the rim or wheel manufacturer on their respective websites.



**Please note that an electric bike weighs more and that your usual tyre pressure may be insufficient. A higher pressure gives a better riding stability and reduces the risk of a puncture. The minimum and maximum pressure (in bar or PSI) is indicated on the tyre side.**

## VALVES

There are two valve types generally used on almost all types of city and trekking bikes:

1. Presta valve; This valve is nowadays used on almost all types of road bikes.
2. Schrader valve; This is an adapted car tyre valve and is used on mountain bike and e-bike tyres.

All valve types come with a plastic cap to protect them from dirt.

### **Your FiSHAW E-Bike tyres have Schrader Valves.**

The Schrader valves can be inflated with a suitable pump directly after removing the protective cap.

Tyres with Schrader valves can conveniently be inflated at car filling stations with a compressed air dispenser. A compressed air dispenser must be used very carefully in short bursts as you may otherwise overinflate the tyre and make it burst.

To let out air, press the needle in the centre of the Schrader valve.



It can be hard to inflate tyres to the necessary pressure by using hand pumps. It is much easier with a track pump equipped with a pressure gauge.

### **RIM TRUENESS AND SPOKE TENSION**

For the true running of the wheel, it is imperative that the tension exerted by the spokes is distributed evenly around the rim. If the tension of a single spoke changes, e.g., because of riding fast over a kerb or from a loose nipple, the tensile forces acting on the rim become unbalanced, and the wheel will no longer run true. **The functioning of your FiSHAW electric bike may even be impaired before you notice the wobbling appearance of a wheel that has gone out of true.**

It is therefore advisable to check the wheels for trueness from time to time. For this purpose, lift the wheel off the ground and spin it with your hand. Watch the gap between the rim and the brake pads. If the gap varies by a millimetre

or more, you should ask your bicycle mechanic to true up the wheel.



**Do not ride with untrue wheels. An untrue wheel can impair your braking ability.**



**Loose spokes must be tightened at once. Otherwise, the load on the other spokes and the rim will increase.**



**Truing (retruing) wheels is a difficult job which you should leave to your bicycle mechanic.**

### **TYRE PUNCTURE**

Flat tyres are the most common cause of puncture during cycling. If you have the necessary tools and a spare tube or a repair kit, this need not mean the end of your ride. If your wheels are attached with quick-releases to the frame and the fork, you only need two tyre levers and a pump.

Before removing a wheel, read **the chapters, “Mounting Wheels” and “How to use the Quick-Releases”**. If you are in doubt or if you have any questions, contact your bicycle mechanic.

### **DISMOUNTING WHEELS**

Your FiSHAW electric bike has disc brakes (hydraulic or mechanical). Check the position of the brake pads through the inspection window. In this way you will be able to tell later whether the brake pad is still in its proper position. Read the operating instructions of the brake manufacturer on their respective websites.

If you have derailleur gears; you should shift the chain to the smallest sprocket before removing the rear wheel. This shifts the rear

derailleur right to the outside where it does not interfere with the removal of the wheel.

Open the quick-release of the wheel, as described in the chapter "How to use the quick-releases".

If you cannot remove the front wheel after releasing the lever, this is due to the drop-out safety tabs. They come as metal catches which engage with recesses in the dropouts. Just release the quick-release adjusting nut a little and slip the wheel past the tabs.

You will find it easier to remove the rear wheel when you pull the rear derailleur slightly backwards. Lift your FISHAW electric bike a little off the ground and give the wheel a light blow with your hand so that it drops out.



**Rotors can become hot, so let them cool down before removing a wheel!**



**If you purchased a FISHAW bike with hydraulic disc brakes, never turn your FISHAW bike upside down for repair work, i.e., with the handlebars and saddle underneath, as the brakes will fail otherwise.**



**Never pull the (disc) brake lever while a wheel is removed and always make sure that you fit the safety locks before removing the wheel.**



**Observe the instructions of the brake and gear manufacturers; found on their respective websites.**

<https://www.tekro.com/support-video.php>

<https://si.shimano.com/api/publish/storage/pdf/en/dm/GN0001/DM-GN0001-24-ENG.pdf>

## DISMOUNTING TYRES

Remove the cap and the fastening nut off the valve and deflate the tyre completely. Press both tyre sides from the rim side towards the centre of the rim. This will ease the removal.

Apply a plastic tyre lever to one bead of the tyre about 5 cm beside the valve and lever the tyre out of the rim in this area. Hold the tyre lever fast in its position. Slip the second tyre lever between rim and tyre at a distance of about 10 cm on the other side of the valve and lever the next portion of the bead there over the edge of the rim.

After levering a part of the tyre bead over the edge of the rim you should normally be able to slip off the whole tyre on one side by moving the tyre lever around the whole circumference. Now you can remove the inner tube. Make sure the valve does not get caught in the rim, as this can damage the inner tube. If necessary, you can remove the whole tyre by pulling the other tyre bead off the rim.

Repair the puncture according to the instructions of the repair kit manufacturer or replace the inner tube.



**When you have removed the tyre, you should also check the rim tape. It should lie squarely in the rim trough, covering all spoke nipples, and should neither be damaged nor brittle.**

In the case of double wall rims the tape must cover the entire rim base, but it should not be so broad as to stand up along the inside edges of the rim trough. Rim tapes for this type of rim should only be made of fabric or durable plastic. If you are in doubt or if you have any questions, contact your bicycle mechanic.



If the fabric of the tyre is destroyed by the perforating object, replace the tyre to be on the safe side.



Replace spoilt rim tapes immediately.

If you get a puncture on route, inflate the inner tube, and bring it close to your ear. In most cases you can hear the air coming out. At home you can use a bucket of water, where you can locate the hole by the bubbles. When you have found the hole, look for the corresponding place on the tyre and check it, as well. Often you will find the foreign body sticking in the tyre. Otherwise, another puncture can occur.

## MOUNTING TYRES



When mounting a tyre make sure that no foreign matter such as dirt or sand gets inside the tyre and that you do not damage the inner tube in the process.

Slip one bead of the tyre onto the rim. Using your thumbs, press the bead over the edge of the rim and then around the entire circumference. This should normally be possible without using tools.

Stick the valve of the inner tube through the hole in the rim. Inflate the inner tube slightly so that it becomes round and push it into the tyre all the way round. Make sure, not to leave any folds in the inner tube.

To finish mounting the tyre, start at the opposite side of the valve. Using your thumbs, press as much of the second bead of the tyre over the edge of the rim as you can.



Make sure the inner tube does not get pinched and squashed between the tyre and

the rim. You can prevent this by pushing the inner tube into the hollow of the tyre with a finger as you work along.

Work the tyre into the rim by approaching the valve symmetrically from both sides. Towards the end, you will have to pull the tyre vigorously downwards to make the already mounted portion of the tyre slip towards the deepest part of the rim well. This will ease the job noticeably on the last centimetres.

Before fitting the tyre completely on the rim check again whether the inner tube lies properly inside the tyre and press the last stretch of tyre over the edge of the rim using the balls of your thumbs.

If this does not work; you will have to use the tyre levers. Make sure that the bent ends point towards the inner tube and that the inner tube does not get damaged.

Push the valve subsequently a little into the tyre so that the inner tube does not get caught between the rim and the tyre beads. Check whether the valve stands upright. If not, dismount one bead again and reposition the inner tube.



To make sure the inner tube does not get pinched between the rim and the tyre beads, move it sideways back and forth between the sides of the rim. While doing so, also check whether the rim tape has shifted.

Inflate the tube to the desired pressure. The maximum pressure is indicated on the side of the tyre.

Check whether the tyre is properly seated by inspecting the fine witness line? on the tyre just above the rim edge. This line should be even to the rim all around the tyre. If it is not,

deflate the tyre a little and check again. Starting from the maximum tyre pressure you can now reduce the pressure through the valve to suit your needs. Please observe the recommended tyre pressure range.

## MOUNTING WHEELS

To mount a wheel, follow the reverse procedure of wheel dismounting. Make sure the wheel is correctly seated in the dropouts and accurately centred between the fork legs or the rear and chain stays. Make sure that the quick-release and the drop-out catches are correctly seated. For more information see the chapter "How to use the quick-releases".

If you have disc brakes, check before mounting the wheel whether the brake pads rest snugly in their seats in the brake calliper body. The gaps between the brake pads and the wheel should be parallel and the wear indicators in their correct position. Make sure that you push the brake disk between the brake pads. After mounting the wheel and tightening the quick-release, pull the brake lever (several times, if you have disc brakes).

**If your bike has a multi-speed hub, verify the proper assembly of the individual component, and tension the chain before tightening the wheel nuts by pulling the wheel backwards.**



**Verify that the amount of movement midway between sprockets and chainwheel is not more than two centimetres. Make sure there is no excessive chain slack!**

After mounting the wheel and tightening the quick-release, pull the brake lever (several times, if you have disc brakes). To do so lift your FISHAW bike off the ground and spin the wheel with your hand. With the wheel spinning the rotor should not drag along the brake

calliper or the brake pads and the rim should keep off the (rim) brake pads.



Before setting off again check that the brake surfaces and/or rotors are still free of grease or other lubricants after the wheel mounting.



Check whether the brake pads hit the rotors or brake surfaces of the rims. Check the seating of the wheel attachment. Always do a brake test as described in the **chapter "Before Every Ride"**

## HEADSET

The headset connects the fork to the frame but allows it to move freely. It must afford virtually no resistance to moving, if your FISHAW electric bike is to go straight, stabilizing itself as it runs. The shocks caused by uneven road surfaces expose the headset to considerable levels of stress. In this way it can become loose and maladjusted.



**Riding the bike with a loose headset greatly increases the stress on the fork and the bearings. This can lead to damage to the fork. Risk of an accident!**

## CHECKING AND READJUSTING

Check the headset for movement by placing your fingers around the upper head tube race. Bring your weight to bear on the saddle, pull the front brakes with your other hand and push the FISHAW electric bike firmly back and forth with the wheel remaining on the ground. If the bearing has movement, you will feel the upper head tube race moving in jerks relative to the lower head tube race - visible as a small gap in between the head tube races.

 To check the bearing for ease of running, lift the frame until the front wheel is suspended in the air. The handlebars should turn from far left to far right without feeling roughness or tightness at any point. With a gentle tap on the handlebars the fork should turn easily from the middle position.

If you face any problems during the test, contact your bicycle mechanic.

 **Adjusting the headset requires a certain amount of experience and should therefore be left to your bicycle mechanic.**

### **THREADLESS HEADSETS — AHEADSET®**

This headset system is characterized by the fact that the stem is not in the fork steerer tube but clamps it from outside. Hence the stem is an important constituent part of the headset, clamping it therefore also sets the adjustment. You generally only need one or two Allen keys and a torque wrench to adjust an Aheadset®.

Release the clamping bolt(s) located on the side of the stem by one to two turns. Gently tighten the counter sunk adjusting bolt on top a little, e.g., by a quarter turn, by using an Allen key.

Align the stem so that the handlebars are not slanted. Make sure the front wheel is in line with the top tube and the stem. Tighten up the stem clamping screws. Use a torque wrench and never exceed the maximum torque values! You will find the prescribed values, directly on the components and/or in the operating instructions of the component manufacturers on their respective websites.

Check the headset for play as described above.

 Take care not to tighten the bearing too much, as this could easily destroy it. Bear in mind that by overtightening the bolts the stem can crush the steerer tube.

Check the secure seat of the stem by taking the front wheel between your legs and trying to turn the handlebars and stem relative to the wheel. A loose stem can cause bad accidents.

 **Never change the preloading mechanism in the inside of the fork steerer tube.**

 There can be several reasons why the bearings cannot be adjusted. If you are not absolutely sure, ask your bicycle mechanic for help.

 Do not overtighten the upper bolt, it only serves to adjust the headset play.

## **SUSPENSION**

### **GLOSSARY:**



### **SUSPENSION FORK**

Bicycle forks absorb and dampen shocks through moving components. The most common among these forks are the telescopic suspension forks. What is designated as stanchion tubes are the thinner tubes press

fitted or screwed to the fork crown of a telescopic fork. What is designated as lower leg are the lower tubes in which the stanchion tubes slide in.



## REAR SHOCK

The rear shock is the element combining the spring as well as the damping in the rear frame of a full suspension bike. Often the rear shock is also designated as a shock absorber.

## SPRING RATE OR HARDNESS

The force that is required to compress the spring by a certain suspension travel - measured in Newton per millimetre (N/mm) or pound per inch (lbs/in). A higher spring rate means a higher force requirement per unit of travel. In air spring elements this corresponds to a higher pressure.

## SPRING PRELOAD

In the case of the widespread air spring systems, the air pressure in the fork is crucial for the spring rate and the spring preload. Observe the recommendations of the manufacturers. Within a certain range a preload can be applied to the coil springs. Then the suspension only reacts when a greater load is applied. However, the spring rates are not changed as a result. Heavy riders cannot compensate a too low spring rate with a higher preload.

## NEGATIVE SUSPENSION TRAVEL ("SAG")

The suspension travel that is taken up by the rear structure or the fork when the rider takes up his or her usual riding position at a standstill. This is usually specified as a percentage of the overall suspension travel.

## LOCKOUT

In most cases a lever on the suspension element or the handlebars. A device to block the fork or the rear shock so that the suspension element does not cause bob when riding on tarred roads or smooth surfaces. Not to be used off road.

## SUSPENSION FORKS

FiSHAW city/trekking electric bikes are equipped with suspension forks. This feature gives you better control of your bike when riding cross-country or on rough road surfaces and ensures more ground contact for the tyre. It noticeably reduces the strain on you and your bike caused by the mechanical shocks from the terrain.

Suspension forks differ in their types of spring elements and damping. Suspension forks normally work with air spring elements or with coil springs. Damping is usually done by oil.

Suspension fork manufacturers normally include instructions for their products on their respective websites. Read them carefully before changing any settings or doing any maintenance work on your suspension fork. You can find the instruction of the suspension fork manufacturers on their respective websites.

### UB200|UB400|UB600|F30 Suspension Forks:



[http://dump.antropoide.net/pub/trek/om/assets/pdfs/10rst\\_forks\\_engdefi.pdf](http://dump.antropoide.net/pub/trek/om/assets/pdfs/10rst_forks_engdefi.pdf)

<https://d.docs.live.net/78f9216d35fd6af3/Documents/RST-FORK-USER-MANUAL-1.pdf>

### M300|M500 Suspension Forks:



[https://www.srsuntour.com/fileadmin/user\\_upload/Downloads/Consumer/Bike/Owners%20manuals/General Fork Manual/EN MY22 SUS fork user manual-20210820.pdf](https://www.srsuntour.com/fileadmin/user_upload/Downloads/Consumer/Bike/Owners%20manuals/General Fork Manual/EN MY22 SUS fork user manual-20210820.pdf)

Also observe the suspension glossary at the beginning of this chapter.

### ADJUSTING THE SPRING RATE

To work perfectly, the suspension fork must be adjusted to the weight of the rider, the sitting posture and the intended use. If you wish to have this adjustment carried out; contact your bicycle mechanic.

Note in general that the suspension fork must give in a little even when you are just sitting on the bike; this is the so-called negative suspension travel or sag. If you ride over a pothole the spring is decompressed and the suspension fork compensates for the unevenness. If the air pressure or the spring preload is too high, this effect is lost because the suspension fork is already fully extended. This means that an important comfort and safety factor is lost if the tyre briefly loses contact with the ground.

The suspension fork should yield by 10-25 % of the maximum suspension travel.

To measure the travel, you can use the rubber ring mainly located on the thinner, plunging tube of the suspension fork. If there is no rubber ring, tie up a cable tie around one of the stanchion tubes. Make sure it is not too tight, you should still be able to move it, it should however not slip by itself.

Put on your usual riding clothing (including if necessary, a packed backpack), sit on your bike and bring yourself into the usual riding position. Lean against a fixed object (railings, wall etc.) and make sure you do not fall over. Ask a helper to move the rubber ring or the cable tie downwards against the dust seal at the lower leg.

Get off your bike so that the fork does not compress anymore. The distance between the rubber ring/cable tie and the wiper is the negative suspension travel, or sag. Compare it against the total suspension travel (as specified by the manufacturer) to determine whether the suspension should be set to be harder or softer.

With air suspension forks the spring rate is set by the air pressure in the fork. The pressure must be set before the first ride by means of a special high-pressure pump with pressure

gauge and modified later as required due to changes in the weight of the rider and/or load.



Note the appropriate setting values and check them subsequently at regular intervals. Always follow the recommendations of the manufacturer and never exceed the maximum air pressure for the suspension fork. Always take a test ride after each change to the settings.

**In the case of most suspension forks with coil springs a preload can be applied to the springs within tight limits by turning a knob at the top of the fork crown. If that is not possible and the desired negative suspension travel (“sag”) cannot be set, the coil springs must be replaced by harder or softer models. The replacement is a job for your bicycle mechanic.**

When replacing any parts, be sure to only use parts that bear the appropriate mark and, to be on the safe side, original spare parts. Your FISHAW customer service representative or your bicycle mechanic will be pleased to help you.



**Always take a test ride over terrain with various surfaces after each change to the settings.**

Check afterwards the position of the rubber ring/cable tie. Its distance from the wiper is the maximum suspension travel that you have used. If the rubber ring/cable tie has moved by even a few millimetres, the setting of the forks is too hard. Reduce the pressure, or, in the case of coil springs, the spring preload. If that brings no improvement, have the springs replaced.

If the rubber ring/cable tie has shifted over the entire length of the tube or if the fork audibly bottoms out and hits the top repeatedly when riding off-road or on bad roads, the setting of

the springs is too soft. In the case of air-suspension forks the pressure must be increased. In the case of steel coils, have them replaced by your bicycle mechanic.

Suspension forks are designed in a way to absorb shocks. If the fork is too rigid and jammed, the terrain-induced shocks pass directly into the frame without any damping. The frame is not designed to withstand such undamped stresses.



**If your suspension has a lockout mechanism, do not activate the lockout function when riding in rough terrain, but only when riding over smooth terrain (roads, field tracks).**



**The suspension fork should be set up and adjusted in a way that it does not reach the end of its travel, i.e., bottoms out, unless in extreme cases. A spring rate which is too soft (too low air pressure) can usually be heard or felt as a “clunk” type noise. This noise is caused by the sudden complete compression of the suspension fork as it reaches bottom out. If the suspension fork frequently reaches bottom out, it will fail over time, and so will the frame.**



**Do not turn any screws by using tools in the vague hope of adjusting them somehow. You could be loosening the fastening mechanism, thus provoking an accident. Normally, the adjustment devices are operated with the fingers and are marked by all manufacturers with a scale or with “+” (for stronger damping/harder suspension) and “-” signs.**



**When mounting a new front tyre, make sure there is enough clearance between tyre and fork crown as the fork compresses**

entirely. If necessary, deflate the suspension fork completely and press the handlebars forcefully downward to check this. This can block the front wheel. Risk of an accident!



**Do not ride your bike when the suspension fork bottoms out. This could damage the suspension fork itself as well as the frame. The spring rate should always be adjusted to the weight of the rider and the baggage as well as to the riding conditions.**

## LOCKOUT

When taking long uphill rides involving hard pedalling out of the saddle, a suspension fork is typically bobbing. It is advisable to lock the damping if the suspension fork has a lockout mechanism. For downhill rides on uneven ground the lockout mechanism must be open.



**DO NOT ACTIVATE the lockout function when riding over rough terrain, but only when riding over smooth terrain (such as roads or field tracks).**

## MAINTENANCE

Suspension forks are components of sophisticated design that require regular maintenance and care. You should have your forks thoroughly checked and overhauled at regular intervals according to use, e.g., once a year.

**The following routines are essential for maintenance:**

1. Make sure the sliding surfaces of the stanchion tubes and the wiper rings are absolutely clean.
2. Clean the suspension fork, if it is soiled, directly after the ride with water and a soft sponge.

3. After washing your bike, spray the stanchion tubes of the suspension fork with a little grease spray

or apply a very thin film of hydraulic oil. Compress the fork several times and wipe off excess lubricant with a clean rag before you set off for your next ride.

4. Do not use a steam jet or aggressive cleaning agents for cleaning! Ask your FISHAW customer service representative for an appropriate cleaning agent.

5. If your suspension fork has coil springs, you should regularly have the springs cleaned and lubricated with a non-corrosive resin-free grease. Some fork manufacturers supply special greases for fork maintenance. Strictly observe the recommendations of the manufacturers.

6. Suspension forks with air springs must be checked regularly for air pressure since the air escapes over time.



**Suspension elements are of sophisticated design. The maintenance routines and all of the above disassembly of the suspension elements are jobs best left to your bicycle mechanic.**



Suspension forks are constantly being sprayed with water and dirt from the front wheel. Clean them after every ride



**Be sure to have your suspension fork checked by a qualified bicycle mechanic once a year.**

## REAR SHOCK

To set the pressure in the main cylinder (valve marked "MP), use a compatible shock pump. Remove the valve cap and attach the shock pump according to the pump manufacturers specifications.

Recommended air pressure for the main cylinder is 100-150 psi.

 **DO NOT EXCEED 180 psi.**

### MAINTENANCE

Your Exa Form Rear Shock requires periodic service to maintain consistent function. This service should be done at the same interval as a drivetrain cleaning. Please see your local bicycle mechanic to perform this service.

**Lubrication:** It is recommended that the main shaft be lubricated every 25-30 hours of use or after a long period of non-use.

**Cleaning:** Use only warm water and a lint-free soft cloth to wipe down. The use of solvents, degreasers, waxes, and other chemicals may damage the shock and void the warranty.

### ATTENTION

This is a high-performance product. It will give you reliable service if it is installed properly and regularly maintained. Please read through these instructions fully and follow them carefully.

### WARNING

 **Exa Form Rear Shocks must be regularly maintained by a qualified bicycle mechanic. Do not disassemble your rear shock. Disassembly could cause damage and severe personally injury as some of the contents are under pressure. Failure to follow these warnings and instructions will immediately void your warranty.**

## LIGHTS



When riding on public roads a properly functioning lighting set is a legal requirement.

You should be familiar with the assembly of the lighting set so that you can repair possible failures yourself.

The rear light and the front lamp are powered by the battery. They are connected with two cables, each to the battery.

### REAR LIGHT

Either bulbs or LEDs beam through a (red) diffusion disc rearwards and are visible at best even from the side. The MTB models rear light must be switched on manually with the switch on the rear light.

## FRONT LAMP

Front lamps are either bulbs, halogen lamps or one or several LEDs, i.e., light emitting diodes, beaming white light by means of a reflector and/or a diffusion disc on the road lane.

Our mid-drive models are fitted with a sensor that automatically switches on the front lamp when it gets dark.



**An incomplete or inoperative lighting set is not only against the law, but also a hazard to your life. Cyclists riding in the dark without a light are liable to be overlooked and at risk of getting involved in serious accidents!**

## Things Worth Knowing About Your FISHAW Electric Bike

### Cycling helmets are LEGALLY REQUIRED

Verify that your helmet meets the [Trade Practices \(Consumer Product Safety Standards\) Regulations 2001—Bicycle Helmets](#) sets out the mandatory requirements for bicycle helmets.

This mandatory standard is based on certain sections of the voluntary Australian and New Zealand Standard, AS/NZS 2063:2008—Bicycle helmets. AS/NZA 2063:2008 is available from [SAI Global](#).

Cycling helmets are only approved for use during cycling. Observe the manufacturer's instructions.

**But remember that even the safest helmet is useless unless it fits properly and is correctly adjusted and fastened!**



**Never ride without a helmet.**



In addition to a cycling helmet and suitable clothing, cycling glasses are absolutely essential when you are riding your FISHAW electric bike. They not only protect your eyes from the sun and the wind, but also keep out flies and other impurities that may impede your vision when they fly into your eyes. Risk of an accident!



Good cycling glasses must fit closely against your face so that the wind does not get into your eyes from the side. There are a great many different models, for example, without tinting and UV protection, which can be worn at night or in twilight conditions, or glasses with a high level of UV protection that you should wear if the sun is stronger.



**Ask FISHAW for advice before mounting any kind of accessories to your bike.**

Retrofitted accessories, such as mudguards, pannier racks etc. can impair the functioning of your FISHAW bike.

Before buying any additional bells or lighting accessories, inform yourself thoroughly whether they are permitted and tested and accordingly approved for use on public roads.

### Bicycle Locks

Do not forget to take a high-quality ant-theft lock with you on your ride. The only way to effectively protect your FISHAW bike against theft is to lock it to an immovable object.

### Puncture Kit

The most important accessories for a successful cycle tour are a tyre pump and a small tool kit. The tool kit should include two plastic tyre levers, the most used Allen keys, a spare tube, a tyre repair kit, your mobile phone, if necessary, and a little cash. In this way you will

be well prepared in the event of a puncture or an accident.

### **Kickstand**

Bike kickstands are intended to prevent your bike from falling over when it is parked. The kickstand has been chosen according to the kind of use that it will get.

### **Mudguards/Wheel Protectors**

If you want to mount mudguards on your FISHAW bike, ask your FISHAW dealer for advice. There are removable mudguards, also referred to as clip-on mudguards, as well as firmly attached models that provide more protection.

Retrofittable mudguards for a fix fastening are usually made of plastics and are secured in the correct position by means of additional stays. The length of the stay is perfect when the bottom edge of the mudguard runs at an approx. distance of 15 mm in parallel to the tyre.



**For safety reasons the front wheel stays must have security fastenings. They prevent the tyre from being blocked by impurities taken up by the front wheel from the ground. In this case the security fastening frees the stay and hereby prevents a possible accident. The plug connection can easily be refastened.**

**Damaged mudguards should be replaced in any case. Risk of an accident!**

## **Transporting Baggage**



There are various ways of carrying baggage on your FISHAW electric bike. Your choice will primarily depend on the weight and volume of the baggage and on the e-bike model you are using. Using a backpack is a convenient way of transporting baggage on a bike. However, your FISHAW bike is fitted with a rear (pannier) rack — for longer cycling tours or if you intend to take heavy and bulky items with you.

It is advisable to carry baggage in stable pannier bags with a very low centre of gravity.

Another possibility of transporting baggage are handlebar bags. They often have snap buckles for quick mounting and removal. Handlebar bags are particularly suitable for valuables, photographic equipment and maps that should be within easy reach.

When buying bags, make sure they are watertight so that your belongings are protected, and you will not have any unpleasant surprises if it rains.

Lowrider bags fitted at the front of the bike are mounted to the fork by means of special holders.



Do not overload your FISHAW electric bike. Observe the maximum permissible load printed or imprinted on the rear rack. The maximum load of most of our rear racks is 25 kg.



Adjust the suspension fork and the tyre pressure to suit the additional load.



**Baggage generally changes the riding characteristics of your FISHAW electric bike and increases your stopping distance! Therefore, practice riding a loaded bike in a place free of traffic.**

### Taking Children with You

The only possible and legal way of transporting children by bike is in special child seats or trailers.

Only buy tested child seats, child trailers, and children's bicycles towing devices (meet product safety standards) and ensure that they are properly installed. The manuals of the manufacturers included in the delivery of the child transport products provide detailed information in this regard.

### Child Seats

Make sure the child you are taking with you always wears a suitable helmet. Keep in mind that you should always wear a helmet, as well. Cover the springs of your saddle to make sure that your child will not have their fingers pinched.

It is legally permissible to install and use child carriers on pedelec electric bikes in all states of Australia.

Please note that your stopping distance increases due to the additional load of the child seat.

Not all FISHAW electric bikes are suitable for the installation of child seats with a special mounting device. Ask your FISHAW customer service representative for advice.

### Child Trailers



You can transport one or two children with special child trailers that are towed behind your FISHAW electric bike. The children can play in the child trailer without any toys falling out. Some versions also allow you to fit a roof to protect against sun or rain.



Trailers affect the braking behaviour of your FISHAW electric bike and occupy far more width than the bike would alone. First, practice

pulling the trailer without passengers. Equip the trailer with a long pole with a coloured flag to increase visibility. It should be fitted with all the reflectors that are prescribed for riding on public roads, just like your bike. If you use it in the dark, illuminate the rear end of the trailer with a battery/accumulator-powered lamp.



Always secure children with the seat belt, as uncontrolled movements of the child can make the FISHAW electric bike, or the trailer topple over.

Make sure the child you are taking with you always wears a suitable helmet. A trailer is an insufficient protection in the event of an accident. Keep in mind that you should always wear a helmet, as well.



**Please note that your stopping distance increases due to the additional load of the child trailer.**

If you want to use your FISHAW E- Bike to tow a trailer, please check whether it is designed accordingly. Ask your FISHAW customer service representative for advice.

### **Kids' Bike Towing Devices/Trailer Systems**

There are different systems on the market that allow a kids' bike to be attached to an adult bike to enable you to cycle together with your child on public roads.

Educate yourself about the different types of kids' bike towing devices.

Some of the towing devices are attached to the seat post of the bike that it is towing. Suspension from one point of the seat post is somewhat unstable. Systems in which the kids' bike is coupled to the adult's bike are more suitable.



Towing devices affect the braking behaviour of your FISHAW electric bike. Before riding with a kids' bike towing device on public roads, practice riding and braking without passengers in an area free of traffic!



Towing devices have a strong influence on the riding characteristics of your FISHAW electric bike. The weight of both the hitched bike and the child will make the bike somewhat top-heavy.

Practice getting on and off, and actual riding.

**Remember when taking corners that the FISHAW electric bike is much longer when it has a towing device!**



It is also important for you to practice with your child how to behave on a hitched bike during the ride. Make sure your child wears a helmet even when riding on a coupled or attached bike.

**Set a good example by wearing a helmet, as well!**



Only buy tested towing devices (meet product safety standards) and have them properly installed. The manuals of the manufacturers included in the delivery of the system provide detailed information in this regard.

If you want to use your FISHAW electric bike to mount a towing device, please check whether it is designed for such a device. If in doubt, ask FISHAW customer service representative.

# TRANSPORTING THE FISHAW ELECTRIC BIKE

## BY CAR

Nearly every car accessory dealer and car company offer carrier systems that allow the transport of a bike without disassembly.

Rear carriers are becoming more and more popular. Their big advantage over roof carriers is that you do not have to lift up the bike so high to attach it. Electric Bikes are generally too heavy to use roof mounted bike racks. Make sure the clamps used do not cause any damage to the fork or frame. Risk of breakage!

Whatever system you opt for, make sure it complies with the relevant Australian safety standards.

**Read the operating instructions of your bike carrier and comply with the maximum load capacity and recommended or prescribed driving speed.**



**Make sure to remove all parts of your FISHAW electric bike (tools, pannier bags, child seats etc.) which may come loose during transport. Risk of an accident!**



**Do not buy a carrier on which the FISHAW electric bike has to be mounted upside down, i.e., with the handlebars and saddle fixed face down to the carrier. This way of fastening the bike exposes handlebars, stem, saddle, and seat post to extreme stress during transport Risk of damage!**



**Check whether your FISHAW electric bike is properly fastened before and at regular intervals during the journey. A FISHAW**

**electric bike that detaches from the carrier system may endanger other road users.**



**Always secure the FISHAW electric bike or its components when putting it/them into the interior of your car. Parts shifting around can cause a car accident.**

Please make sure the lights and the number plate of your car are not hidden from view. For some carriers, a second exterior rear-view mirror is required by the road traffic regulations.



If your bike has disc brakes, be sure to mount the safety locks before transporting your FISHAW electric bike with the wheels dismantled. Pull the brake lever and secure it with a strong elastic strap when transporting a FISHAW electric bike with hydraulic disc brakes.

## BY PUBLIC TRANSPORT

In the cities the regulations for taking FISHAW electric bikes by public transport differ. There are e.g., some places where you are only allowed for travel with your FISHAW electric bike during off-peak hours. Inform yourself about the regulations of carrying the bike before you start the trip.

Remove, if necessary, any heavy or bulky pannier bags and baggage for easier boarding and disembarking of the train.



Before you start your trip inform yourself in time about the conditions of carriage and observe the regulations and rules about bike transport in your state.

Australian Public Transport Regulations:

<https://www.bicyclenetwork.com.au/newsroom/2017/11/20/bikes-public-transport/#>

## What to Bear in Mind When Transporting Your FISHAW Electric Bike:

### By Car

FISHAW electric bikes can be transported like conventional bikes outside or inside the car. Always make sure the FISHAW electric bike is securely fastened outside or inside the car and check the fastenings regularly. In addition, you should always remove the battery from your FISHAW electric bike, prior to fastening it outside the car. Stow the battery, inside the car and secure it appropriately to avoid any damage in transit.



Protect the connections of the rechargeable battery against rain, wetness, moisture, and dirt during the journey, for example, with a plastic bag.



The weight distribution on an electric bike differs markedly from the weight distribution on bikes without drive assistance. An electric bike is markedly heavier than a bike without drive assistance. For this reason, parking, pushing, lifting, and carrying the FISHAW electric bike is more difficult. Bear this in mind when loading your electric bike into a car and unloading it or when mounting it on a bicycle carrier system.



Before transporting several electric bikes on a rear mounting carrier system, inform yourself about the maximum load capacity of the bike carrier and the maximum load of the trailer hitch. Keep in mind that the weight of an electric bike is higher than the weight of a bike without a drive. It could be that you can only transport one or two electric bikes instead of three bikes without drive systems.



Make sure to remove all movable and loose parts and above all the rechargeable battery, before transporting the electric bike inside or outside the car. If you transport your FISHAW electric bike without its battery on a bike carrier system, protect the connections against water, moisture, and dirt, for example, with a plastic bag.

## NOTES ON CARE AND SERVICING

### MAINTENANCE AND SERVICING

Your FISHAW electric bike has been assembled and adjusted ready for use when you receive it. Nevertheless, your FISHAW electric bike needs regular servicing. Have your local bicycle mechanic do the scheduled maintenance work. This is the only way to ensure that all components function safely and reliably for many kilometres.



The bike will be due for its first service after 100 to 300 kilometres, 5 to 15 hours of initial use or four to six weeks. The bedding-in phase typically involves spokes slightly losing tension or gears coming out of adjustment, so there is every reason to have your qualified bicycle mechanic service the FISHAW electric bike at this stage.



**This bedding-in process is unavoidable. Therefore, remember to make an appointment with your bicycle mechanic to have your new FISHAW electric bike inspected. This first service is very important for both the functioning and durability of your FISHAW electric bike.**

It is advisable to have your FISHAW electric bike serviced regularly by your qualified bicycle mechanic after the bedding-in phase. If you ride a great deal on poor road surfaces or cross-country, it will require correspondingly shorter service periods.

The intended use of the FISHAW electric bike includes regular servicing and the replacement of wearing parts in time, e.g., chains, brake pads or Bowden and brake cables and therefore has an influence on the warranty and the guarantee, as well.



**Servicing and repairs are jobs best left to a qualified bicycle mechanic. If you have your bike serviced by anyone other than an expert, you run the risk that parts of your FiSHAW electric bike will fail. Risk of an accident!**

**When working on your FISHAW electric bike restrict yourself to jobs for which you have the suitable tools, e.g., a torque wrench, and the necessary knowledge.**



**If a component needs to be replaced, make it a rule to only use original spare parts. Using parts of other manufacturers, e.g., brake pads or tyres that are not of identical dimension, may render your FISHAW electric bike unsafe. Risk of an accident!**

## **CLEANING AND CARING FOR YOUR FISHAW ELECTRIC BICYCLE**



Dried sweat, dirt and salt can harm your FISHAW electric bike. You should therefore make it a habit of cleaning all components at regular intervals.



Avoid cleaning your bike with a high-pressure cleaner. The high-pressure jet will cause water to enter bearings by passing through the seals and dilute the lubricants thereby increasing the friction. This destroys and impairs the functioning of the bearing races in the long term. High-pressure jets are also likely to remove frame stickers. The electronics will be damaged by high-pressure water jets. Use of any high-pressure water jets used on your FiSHAW electric bike will void your warranty!



A much gentler way of cleaning your bike is with a low-pressure water jet or a bucket of water and a sponge or a large brush. Cleaning your bike by hand has another positive side-effect: you may discover defects in the paint as well as worn or defective components at an early stage.

Check the chain for wear and relubricate after cleaning and drying (see the chapter “Chain-Care and Maintenance”)

Wipe dry the sliding surfaces of the suspension fork and apply special spray. Apply a coat of standard hard wax on painted, metal and carbon surfaces (except on brake surfaces and brake discs). Polish the waxed surfaces after drying to give them a nice shine.



**Keep cleaning agents and chain oil clear of the brake pads, brake discs and rim sides. Otherwise, the brakes could fail. Risk of an accident!**

While cleaning, watch out for cracks, scratches, dents as well as deformed or discoloured material. Have defective components replaced immediately. If you are in doubt or if you have any questions, contact your qualified bicycle mechanic.



Only use petroleum-based solvents for cleaning tough oil or grease stains from paint surfaces. Never use degreasing agents containing acetone, methyl chloride or the like, or solvent-containing, non-neutral or chemical cleaning agents that could attack the surface!



Do not clean your FISHAW electric bike with a high-pressure cleaner or a water jet.

Keep in mind that the drive system of your FISHAW electric bike may lead to partly higher wear than you are used to. This applies in particular to the brakes and the tyres and in the case of bottom bracket drives to the chain and the sprockets.



A rechargeable battery that has reached the end of its service life may not be disposed of in the normal household rubbish. Bring or send the rechargeable battery to a Battery Recycling Centre. If in doubt, contact, FISHAW.

## Safekeeping and Storing your FISHAW Electric Bike

If you regularly look after your FISHAW electric bike during the times you are riding it, you will not need to take any special measures when storing it for a short time, apart from securing it against theft. Store your bike in a dry, well aired place.



If you want to store your FISHAW electric bike for a longer period of time, please observe the following things: Inflated inner tubes tend to gradually lose air when the bike is not used for a long time. If your FISHAW electric bike is left standing on flat tyres for an extended period, this can cause damage to the structure of the tyres. It is therefore better to

hang the wheels or the entire FISHAW electric bike or to check the tyre pressure regularly. Clean your FISHAW electric bike and protect it against corrosion.

Remove the seat post and let moisture that may have entered dry. Spray a little finely atomized oil into the metal seat tube. Shift the gear to the smallest chainwheel and the smallest sprocket. This relaxes the cables and the springs.

For more information on the safekeeping and storing of your FISHAW electric bike see the chapter “The Proper Care of Your Rechargeable Battery”.

## Drive Maintenance and Care

The motor, the rechargeable battery and the drive display are mainly maintenance free, except for the battery charging which is necessary regularly. From time to time the dirt and oil needs to be cleaned off your chain with an oily rag. Special degreasers are not necessary; they even have a damaging effect.

Having cleaned the chain as thoroughly as possible, apply chain oil, wax, or grease to the chain links. To lubricate the chain, drip the lubricant onto the rollers of the lower run of the chain while you turn the crank. Once this is done, turn the cranks a few more times; then let the FISHAW electric bike rest for a few minutes so that the lubricant can disperse. Finally wipe off excess lubricant with a rag so that it does not spatter around during riding or can collect road dirt.



A rechargeable battery that has reached the end of its service life may not be disposed of in the normal household rubbish. Bring the rechargeable battery to a battery recycling centre. If in doubt, contact FISHAW.



**The drive/motor is not approved for steam cleaning, high-pressure cleaning or cleaning with a water hose. The contact of water with the electronics or the drive can destroy the units. The individual drive components can be cleaned with a soft rag and neutral detergents. You may use a moist rag, but not excessive water. Do not submerge the rechargeable battery!**

## **Service and Maintenance**

It is advisable to have your FiSHAW electric bike serviced regularly after the bedding-in phase. The schedule given in the table below is a rough guide for cyclists who ride their bike between 1,000 and 2,000 km or 50 to 100 hours of use a year.

**If you consistently ride more or if you ride a great deal on poor road surfaces, the service intervals will shorten accordingly.**



For your own safety, bring your FiSHAW electric bike to your FiSHAW bicycle mechanic for its first inspection after 100 to 300 kilometres, 5 to 15 hours of initial use or four to six weeks, and at the very latest after three months.

All bolted connections of the FiSHAW electric bike components must be tightened carefully and checked regularly to ensure the safe and reliable operation of your FiSHAW electric bike. This is best done with a torque wrench that disengages at the desired torque value or a click-type torque wrench. Tighten carefully by approaching the prescribed maximum torque value in small steps (0.5 Nm increments) and check in between the proper fit of the component. Never exceed the maximum torque value indicated by the manufacturer!

Where no maximum torque setting is given start with 2 Nm. Observe the indicated values and observe the values on the components and/or in the operating instructions of the component manufacturers on their respective websites: [www.shimano.com](http://www.shimano.com)  
[www.tekro.com](http://www.tekro.com)

COMPONENT	WHAT TO DO	BEFORE EVERY RIDE	MONTHLY	ANNUALLY	OTHERS
Lighting	Check function	X			
Tyres	Check pressure	X			
	Check tread and side walls		X		
Brakes (disc)	Lever travel, brake pads, seals, test brakes in s	X			
	Replace liquid (DOT-liquids)			*	
Brake cables/pads/lines	Visual inspection		X		
Suspension forks	Check & retighten bolts if necessary,lubricate		X		
	All-inclusive service (change oil)			*	
Crank	Check & retighten if necessary		X		
	Dismount & regrease (cups)			*	
Chain	Check & grease, if necessary	X			
	Check wear,replace, if necessary derailleur gears				*After 1000 km or 50 hours of use
Painted Surfaces	Thoroughly Clean & Polish		X		
Wheels/Spokes	Check for trueness and tension		X		
	True or Retighten				*If necessary
Handlebars and Stem	Check and replace, if necessary				*at least every 2 years
Headset	Check for bearing play		X		
	Regrease			*	
Bottom bracket	Check for bearing play		X		
	Regrease bearings			*	
Metal surfaces	Polish(except: brake discs)				X at least every 6 months
Pedals	Check for bearing play		X		
	Regrease pedal threads		X		
Seat post/stem	Check bolts		X		
	Lubricate handle bar stem & seat post			*	
Rear derailleur	Clean and grease		X		
Quick-releases/thru axles	Check Seat & Wheel are firmly closed	X			
	Lubricate handle bar stem & seat post			X	
Bolts and nuts	Check and tighten,if necessary		X		
Cables(gears & brakes)	Disassemble and regrease			*	
	Check for cable wear		X		
Battery	Check for signs of damage	X			
Hubs	Check for bearing play		X		
	Regrease			*	
Mudguard/Rack/Kickstand	Adjust attachment & alignment if necessary		X		

Due to the unmanageable number of components on the market, FiSHAW is not in a position to foresee every product that will be replaced or newly assembled by third parties. Therefore, FiSHAW denies any liability for such kind of additions or modifications with regard to compatibility, torque values etc. Whoever assembles or modifies the FiSHAW e-bike shall ensure that the bike was assembled according to FiSHAW's Assembly instructions for your model or was assembled by a qualified bicycle mechanic.

Some components have the maximum permissible torque values printed on them. Use a torque wrench and never exceed the maximum torque value! If you are in doubt or if you have any questions, contact FiSHAW.

# Warranty and Guarantee

Your FiSHAW electric bike was manufactured with great care. As a direct purchaser you have full warranty rights within the first two years after purchase. Please contact your FiSHAW customer service representative in the event of defects.

To ensure a smooth handling of your claim, it is necessary to present your receipt, your warranty registration document which contains your warranty registration number and proof of services. Therefore, be sure to keep these documents in a safe place.

To ensure a long service life and good durability of your FiSHAW e- bike, use it only for its intended purpose (see the chapters “Before your first ride” and “Intended Use”). Please observe the permissible load specifications as specified. Be sure to follow the assembly instructions, as well as the maintenance prescribed by the component manufacturers.

Observe the checks and routines listed in your comprehensive FiSHAW User Manual, the system instructions of your drive manufacturer and the instructions of the component manufacturers on their respective websites and attend to the replacement of safety-relevant components, such as handlebars, brakes etc, if necessary.



Keep in mind that retrofitted accessories can impair the functioning of your FiSHAW E-Bike. If you are in doubt or if you have any questions, contact your FiSHAW customer service representative.

## A Note on Wear

Some components of you FiSHAW electric bike are subject to wear due to their function. The rate of wear will depend on care and maintenance and the way you use your FiSHAW electric bike (mileage, riding in the rain, dirt, salt etc.) FiSHAW electric bikes that are often left standing in the open may also be subject to increased wear through weathering.

The components below require regular care and maintenance. Nevertheless, sooner or later they will reach the end of their service life, depending on conditions and intensity of use. Parts that have reached their limit of wear must be replaced:

rechargeable battery	incandescent bulbs/LED
drive chain	rubber grids
brake pads	chainwheels
brake fluid (DOT)	chainstay protection
brake discs/rotors	lamps
brake cables	tyres
brake cable housings	sprockets
seals of suspension elements	saddle covering
pulleys	lubricants

## Warranty on FiSHAW E-Bikes

Your FiSHAW electric bike is guaranteed (as of date of purchase to the initial buyer):

- 2 years for aluminium alloy frames.
- 2 years for the motor.
- 1 year warranty on the rechargeable battery and battery charger.
- 1 year warranty on paint and stickers

In a warranty-activating event FiSHAW reserves the right to provide a bike of the current successor model in an available colour, or if no such bike is available, a higher-grade model.

Your direct contact in any case should be your FiSHAW customer service representative, who will be pleased to answer all of your enquires.

The manufacturer's warranty only applies to claims made by the initial buyer and substantiated by presenting the customer's receipt, the warranty registration document stating the date of purchase and model.

Warranty claims will only be accepted, if the bike has been used for none other than its intended use, had an inspection during its first 300 km or the first six months after purchase, has been fitted with none other than original spare parts or accessories and had its suspension systems serviced by a qualified bicycle mechanic at least once a year.

The warranty does not cover labour and transport costs, nor does it cover follow-up costs resulting from defects.

The warranty does not apply to bikes that have been used in competition, for jumping or that have been subjected to any other kind of overstress.

The warranty does not apply to e-bikes that have been used for jumping or subjected to any other kind of overstress. It does not cover damage resulting from wear, neglect (insufficient care and maintenance), falls/accidents, overstress caused by overloading, incorrect assembly or improper treatment or resulting from changes to the electric bike in connection with the installation or alteration of additional components.

Diligent compliance with the manufacturers' assembly instructions and maintenance intervals as prescribed in this manual are crucial to a long service life and good durability of the electric bicycle components. Non-observance of the assembly instructions or maintenance intervals renders the guarantee null and void. Please observe the checks described in this manual as well as all instructions concerning the regular replacement of safety-relevant components, such as the handlebars etc.

These warranty conditions are voluntary benefits of FiSHAW. Moreover, the buyer may benefit from additional legal rights which vary from country to country. To find out more just ask your FiSHAW customer service representative.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced, if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits to the consumer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods and services to which this warranty relates.

In case of any inquiries, please contact your FiSHAW customer service representative; visit [www.fishaw.com](http://www.fishaw.com) to find contact details.

These provisions of the guarantee are applicable as of model year 2017.

FiSHAW Technology Pty Ltd

## **OWNERS NOTES**

