



USER MANUAL

ST500

SO500

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USING THIS MANUAL

We are pleased that you have made an investment in a Fission Bike and hope it brings you many years of enjoyment.

This manual contains details of the product, its equipment, and information on operation, maintenance, and other helpful tips for owners. Read it carefully and familiarize yourself with the ebike before using it to ensure safe operation and prevent accidents. This manual contains many warnings and cautions concerning the safe operation and consequences if proper setup, operation, and maintenance are not performed. Some basic maintenance and tuning can be performed by using this manual as a guide, however detailed repairs and general maintenance should be performed by a qualified technician at a local bike shop as this manual is not intended as a comprehensive service, maintenance, use, and repair manual.

Keep this manual, along with any other documents that were included with your bike, for future reference. All content in this manual is subject to change or withdrawal without notice. Fission makes every effort to ensure the accuracy of its documentation and assumes no responsibility or liability if any errors or inaccuracies appear within. Visit our website to download the most recent version and view updates.

There are risks associated with the use of any bike that cannot be predicted or avoided and are the sole responsibility of the rider. It is impossible to anticipate every situation or condition that will occur while riding, this manual makes no representations about the safe use of bikes under all conditions.

GENERAL INFO

Registration

Please register your new eBike at www.fissioncycles.com/registration. By registering your product, Fission Cycles can communicate updates and safety information. If you choose not to register, make sure you check our website regularly for any new safety information. If you need additional information, please contact us at Fission Cycles directly.

Symbol Key



This symbol indicated that the accompanying information refers to a potential hazard, important warning, or safety guideline.



This symbol indicates that the accompanying information refers to a general warning or notice.

General Operating Rules

Notice: Pay special attention to all the general operating rules below before operating your Fission Bike.

- When riding, obey the same road laws as applicable by law in your area.
- Ride with the flow of traffic.
- Use correct hand signals to indicate turning.
- Ride defensively; to other road users, you may be hard to see.
- Concentrate on the path ahead and avoid obstacles and hazards that can cause the operator to lose control or puncture a tire.
- Cross-train tracks at a 90-degree angle or walk your bike across.
- Watch for opening car doors or cars backing out of driveways.
- Be careful at intersections and when passing other vehicles or cyclists.
- Familiarize yourself with all the features and operations of the bike by Fission Bikes. Practice and become proficient at shifting gears, applying the brakes, using the pedal-assist system, and using the throttle in a controlled setting before riding in riskier conditions.
- Wear proper riding clothes including closed-toe shoes. Avoid wearing loose pants to prevent them from being caught in the chain or gears.
- Do not use items that may restrict your hearing.
- Check your local rules and regulations before carrying cargo.

- When braking, apply the rear brake first, then the front brake. If brakes are not correctly applied, you may lose control and/or fall.
- Maintain a comfortable stopping distance from all other objects, riders, and vehicles. Safe braking distances are based on factors such as road and light conditions along with other variables.

Mandatory Equipment and Use Locations

Before riding, ensure you have all required and recommended safety equipment and are following all laws pertaining to use an electric bike in your region. For example, these laws may specify the need for mandatory equipment, use of hand signals, and where you can ride.

Changing Components or Attaching Accessories

The use of non-original components or spare parts can jeopardize the safety of your ebike, void your warranty, and, in some cases, cause your ebike to not conform with laws pertaining to your bike.

The replacement of original components or installation of third-party accessories or accessories, not explicitly recommended by Fission for your bike model, is at your own risk. Using aftermarket accessories or components that have not been tested by Fission for safety and compatibility may void your warranty, create an unsafe riding condition, damage to property or your bike, or result in serious injury or death.

Safety Check Before Each Ride

Always check the condition of your bike before you ride in addition to having regular maintenance performed. If you are unsure of how to conduct a complete check of the condition of your bike before every ride, you should consult a certified, reputable bike mechanic for assistance.

Accessories, Straps, and Hardware

Ensure all hardware is secured and all approved accessories are properly attached per the specific component manufacturer's instructions. It is good practice to look over all hardware, straps, and accessories before each ride and if you do discover something wrong or something that you are not sure about, have it checked by a certified, reputable bike mechanic.

SAFETY INFORMATION

Safety Notes

The following safety notes provide information on the safe operation of your Fission Bike and should be closely reviewed. Failure to review these notes can lead to serious injury or death.

- All users must read and understand this manual before riding their Fission Bike. Additional manuals for components used on the bike may also be provided and should be read before installing or using those components.
- Ensure that you comprehend all instructions and safety notes/warnings.
- Ensure the bike fits you properly before your first use. You may lose control or fall if your bike is too big or too small.
- Always wear an approved bicycle helmet whenever riding a bike. Failure to wear a helmet when riding may result in serious injury or death.
- Ensure correct setup, tightening, and torquing to recommended values is performed before first use. Check the setup, tightening, and condition of components and hardware regularly.
- It is your responsibility to familiarize yourself with the laws and requirements of operating this product in the area(s) where you ride.
- Ensure the handlebar grips are undamaged and properly installed. Loose or damaged grips can cause you to lose control and fall.
- Off-road riding presents variable conditions and hazards. Wear appropriate safety gear and do not ride alone in remote areas. Check local rules and regulations about whether off-road ebike riding is allowed.
- DO NOT ENGAGE IN EXTREME RIDING. This includes but is not limited to jumps, and stunts. Although many articles/advertisements/catalogs depict extreme riding, this is not recommended, and you can be seriously injured or killed by performing extreme riding.
- Bikes and bike parts have strength and integrity limitations, and extreme riding, including but not limited to jumps, stunts, etc., should not be performed as it can damage bike components and/or cause or lead to dangerous riding situations in which you may be seriously injured or killed.
- Failure to perform and confirm proper installation, compatibility, proper operation, or maintenance of any component or accessory can result in serious injury or death.
- After any incident, you must consider your bike unsafe to ride until you consult with a certified, reputable bike mechanic for a comprehensive inspection of all components, functions, and operations of the bike.

- Failure to properly charge, store, or use your battery will void the warranty and may cause a hazardous situation.
- You should check the operation of the brake motor cutoff switches before each ride. The brake system is equipped with an inhibitor that cuts off power to the electric motor whenever the brakes are squeezed.
- Check proper operation of brake motor cutoff switches before riding.
- Extreme care should be taken when using the pedal assistance sensor and throttle on this product.
- Ensure you understand and are prepared for the pedal assistance to engage as soon as pedaling is underway.
- Users must understand the operation of the thumb switch throttle and pedal assistance sensors before using the bike and must take care to travel at speeds appropriate for the usage area, riding conditions, and user experience level.
- Any aftermarket changes to your Fission Bikes not expressly approved by Fission Cycles could void the warranty and create an unsafe riding experience.
- Because electric bikes are heavier and faster than normal bikes, they require extra caution and care while riding.
- Take extra care while riding in wet conditions including decreasing speed and increasing braking distances. Feet or hands can slip in wet conditions and lead to serious injury or death.
- Do not remove any reflectors.

Battery and Service Safety



Remove the battery before attempting to service, make adjustments, or perform any maintenance on your eBike. Removing the battery will help ensure that the motor does not start inadvertently while service or maintenance is being performed.

The battery should be removed anytime the bike is stored or left unattended to prevent unauthorized use or accidental engagement of the motor. Keep the battery out of reach of children. Failure to remove the battery may result in serious injury or death.



Never use a battery that is cracked or broken. Battery acid is highly corrosive and can cause severe burns! Battery acid can burn you if it makes contact with your eyes or skin. It can also damage personal property.

Brakes and Stopping Power

Ensure that the brakes and their system components are free from damage, properly secured, and working correctly. When fully squeezed, both front and rear brake levers should not be touching the handlebar. Take your bike to a certified, reputable bike mechanic to have the brakes repaired if you find a problem.



Improper use of the braking system, including over-use of the front brake, can cause you to lose control and fall. Avoid improper braking by understanding and practicing the proper application of your brakes as explained in this manual.

Fission bikes come equipped with disc brakes. These brakes are different from other general types of brakes associated with bikes. Most bikes typically use rim brakes which operate by squeezing the wheel rim between two brake pads. Disc brakes squeeze a hub-mounted disk between two pads. Stopping power on your bike can vary depending on adjustments and pad thickness and wear. Consult your local bike shop about brake options and adjustments based on your specific needs.



Front and rear brake levers contain safety power cutoff switches, which disable the hub motor's assistance when applied. Both levers should be checked for correct operation before each ride. If the brake lever cutoff switches are not working, please contact Fission Support.

Brake Reach

Some bikes have adjustable brake levers. These can be adjusted to fit each rider's specific needs. For example, if you have a short reach you may need the levers adjusted closer to the handlebar. This adjustment or brake lever replacement should be done by a qualified bike technician or bike shop.



Disc brakes and discs get very hot during use and could burn skin. Also, the disc edges may be sharp and could cut skin. Avoid touching the disc or disc brake when hot, or when rotating.



Disc brakes may have sharp edges that could cut you. Also, after extended use, your disc brakes may get extremely hot, take special care not to touch them until they have cooled.

Additional Brake Warnings

Disc brakes have varying amounts of stopping power depending on adjustments and pad conditions. Use extreme caution when applying the brakes. Never apply the brakes too hard or too quickly which could cause you to lose control and fall. The excessive or sudden

application of the front brake could pitch the rider over the handlebars which may result in serious injury or death.



Never ride with worn brake pads or improperly adjusted brakes.

Throttle on Demand

With throttle on-demand, you can throttle the bike from a complete stop. This feature is to help give you that extra push when you need it on a steep hill when hitting multiple stops signs, etc. However, we strongly recommend pedaling first and throttle second to ensure proper stability and preparedness.

Handlebar Stem and Front Wheel Alignment

Make sure the front wheel and handlebar stem are aligned in the proper orientation of each other.

Turn the handlebar from side to side with the front wheel locked between your knees to test the stem connection of the fork. If any movement is noted do not ride the bike until this is corrected.

Inspect cable routing to be sure the handlebars can turn freely without binding or pinching the cables.

Check to be sure that your handgrips on the handlebars are in good condition and the bars are not protruding through the grip.

Suspension, Handlebar, Grips, and Seat Adjustments

The suspension fork on your ebike will affect the handling of the bike so you must understand how it works before use. The suspension fork should be properly adjusted according to your weight and terrain. Ensure the handlebar and handlebar stem are properly aligned, fitted to the user, and secured to their recommended torque values. Handlebar grips should not move easily on the handlebar end. Loose, worn, or damaged handlebar grips should be replaced before you ride. The seat and seat post should be properly aligned, fitted to the user, and the seat post quick release should be properly tightened, fully closed, and secured before riding

Tires and Wheels

Check the tire inflation. Use a tire pressure gauge to check the tire pressure. The tires should be set between the factory's recommendation that is printed on the tire.

Check before you ride:

- Spin each wheel and check that the tires are in good shape with no cuts or abrasions. If these are found, replace the tire immediately.
- Inspect the rim for trueness by spinning it and watching for any side-to-side or up-and-down wobble. If any movement is noted do not ride this bike until the rim is repaired.



A wheel attachment device that is not properly adjusted and closed may allow the wheel to be loose or come off unexpectedly, causing you to lose control and fall causing serious injury or death! Make sure the wheels are properly attached before riding the bike

Your wheels should always spin straight and must be repaired or replaced if they wobble side to side or up and down when spinning. If your wheels become untrue or spokes loosen, which can happen with normal use, we recommend that a certified, reputable bike mechanic performs all-wheel tuning and truing operations on your Fission Bike. Do not attempt to true wheels or tighten spokes unless you have adequate knowledge, tools, and experience. Ensure the tires and inner tubes are in good working condition without any visual damage and have the correct amount of air pressure. Always replace tires and inner tubes with punctures, cuts, or damage before you ride. Tires without the correct amount of air pressure can reduce performance, increase tire and component wear, and make riding your bike unsafe.

Fork and Frame

Check the frame, fork, and components. If you notice that the frame or fork has any visible damage, cracks, dents, or you hear any unusual noise while riding or other problems, do not ride your bike. If at any time you notice a shimmy or wobble immediately slow down and take your bike to your local bike shop for inspection and/or repair. Carefully inspect your bike before and after each ride.



Certain types of riding significantly increase stresses and abnormal wear and tear on your bike. This can include competition or stunt riding, downhill racing/riding, or jumping your bike.

Certain types of impacts can affect the components of your bike and cause them to fail unexpectedly. After any impact or crash, thoroughly inspect all the parts of your bike for damage. A crash or other impact can put extraordinary stress on the bike. An impact or high force is any situation such as hitting a hole or obstacle in the road, such as a bump or curb.



A bike is a mechanical device. Materials and mechanisms are subject to fatigue and stress. Over time, components can fail once they have exceeded their useful limits and life. Product life is often related to the kind of treatment and riding you submit your bike to. Hard and aggressive riding along with neglect will shorten the projected lifespan of your bike and its components. If not properly maintained, your bike and its components can fail to cause serious injury or death.



A shimmy or steering wobble can cause you to lose control and fall. If you experience a shimmy, slow down immediately. Take your bicycle to your dealer for inspection and repair.

Helmets

When riding a bike, always wear a properly fitted helmet that covers the forehead. Many locations require specific safety devices. It is your responsibility to familiarize yourself with the local laws, rules, and regulations where you ride and to comply with all applicable laws, including equipping yourself and your bike as the law requires.

General Warnings

Like any sport, bicycling involves the risk of damage, injury, and death. By choosing to ride a bike, you assume the responsibility for that risk, so you need to know, and practice the rules of safe and responsible riding and the proper use and maintenance of this bike. Proper use and maintenance of your bike reduce the risk of damage, injury, and death.

Biking and controlled substances do not mix. Never operate a bike while under the influence of alcohol, drugs, or any substance or condition that could impair motor functions, judgment, or the ability to safely operate a bike or another vehicle.

The FM 750x is designed for use by persons 18 years old and older. Riders must have the physical condition, reaction time, and mental capability to ride safely and manage traffic, road conditions, and sudden situations, as well as respect the laws governing electric bike

use where they ride, regardless of age. If you have an impairment or disability such as a visual impairment, hearing impairment, physical impairment, cognitive/language impairment, a seizure disorder, or any other physical condition that could impact your ability to safely operate a vehicle, consult your physician before riding any bike.

A Note for Parents and Guardians

As a parent or guardian, you are responsible for the activities and safety of your child. FM750X is not designed for use by children under the age of 18. If you are carrying a passenger in a child safety seat, they should also be wearing a properly fitted and approved helmet.

SPECIFICATIONS

Specification for ST500/SO500

Model Name	ST500/SO500
Max. Load Capacity	250 lbs/ 113 kg
Max. Speed	20 mph/ Configurable to 28 mph
Motor	48V/ 500W Brushless Hub
Battery	48V/ 672Wh Lithium-Ion
Range Average Per Charge	Average 35 Miles
Wheel Size (Front & Rear)	26 x 2.35"
Tire Pressure	5-30 PSI
Charger	48V 2A
Charging Time	Approximately 7 Hours
Water Resistance	IPX4
Weight	SO500 57.24lbs/25.9kgs ST500 56.13lbs/25.4kgs
Light	Front & Rear

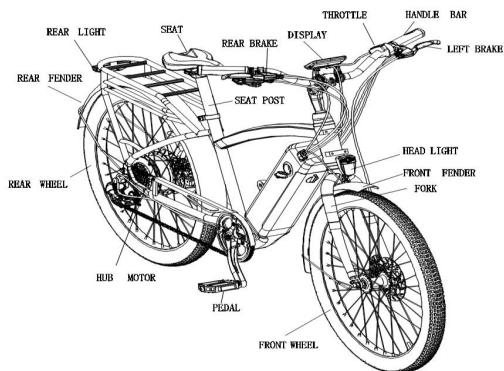
* Range Per Charge is measured under the conditions that power is sufficient, with a 75 kg load, at 86°F (30°C), 70% humidity, on a level road, in pure electric riding mode. Actual results may vary based on differences in temperature, load, wind speed, road conditions, and other factors.

Range

The range of your Fission Bikes is the distance the bike will travel on a single full charge of the battery. The range values in this manual are estimates based on the expected usage characteristics of Fission Bikes. Some of the factors that affect range include changes in elevation, speed, payload, acceleration, number of starts and stops, ambient air temperatures, tire pressure, and terrain.

Expected Range	Operating Conditions
25 miles (40 km)	Hilly Terrain, Heavy Payload, Windy, High Pedal Assist Level, High Throttle Use, Light Pedaling
35 miles (56 km)	Flat Terrain, Normal Payload, Not Windy, Medium Pedal Assist Level, Moderate Throttle Use, Light Pedaling
40 miles (64km)	Flat Terrain, Normal Payload, Not Windy, Low Peal Assist Level/ Minimal Throttle Use, Moderate to Heavy Pedaling

ASSEMBLY INSTRUCTION



What's In The Box

1 ST500/S0500 ebike
1 Charger box
1 Charger cable
2 Front/ Rear reflector
1 Rack strap

1 Owner's manual
2 Reflector holder
1 Left pedal
1 Right pedal

Assembly

The following steps are only a general guide to assist in the assembly of your ebike and are not a complete or comprehensive manual of all aspects of assembly, maintenance, and repair. Consult a certified, reputable bike mechanic to assist with the assembly, repair, and maintenance of your ebike.

Step 1: Unpack the bike.

Open the bike box. With the help of another person remove the ebike from the bike box. Carefully remove the packaging material protecting the bike frame and components. Locate and remove the smaller boxes. These smaller boxes contain your charger and accessories. Please recycle packaging materials especially cardboard and foam whenever possible.

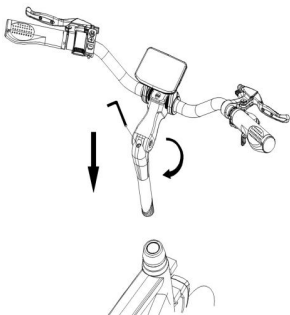
Step 2: Preparing the stem.

Remove the stem rubber cover, loosen the bolt using a 5mm hex key, and discard the packing protective material.

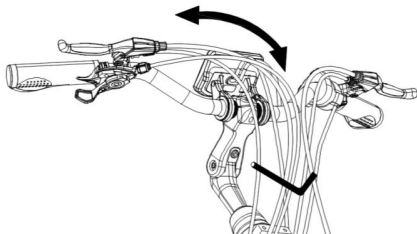
Loosen the screw in the stem and turn the stem so that it is oriented in the correct direction and aligns with the front fork.

Step 3: Handlebar Installation.

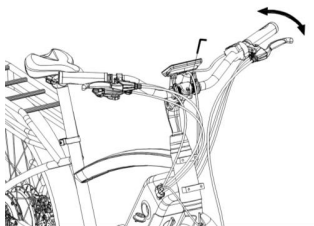
Insert the stem into the fork steerer from the top, then use a 6mm hex key to tighten it to 8 Nm. make sure the stem is securely fixed into the steerer.



Orientate the handlebars so that the cables are not twisted and adjust the position.



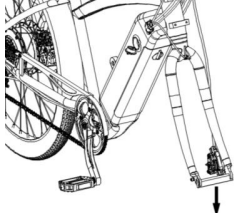
Set the handlebars into the mounting bracket and reattach the cap with the four hex bolts. Make any final adjustments and alignments then tighten the hex bolts so that the handlebars are secure. Check all the cables to ensure that they have not lost connection during the assembly.



Cables can work loose and disconnect during shipping. Check all the cables to ensure they have not come loose. If a cable is loose, apply gentle pressure to each side to reconnect. If cables are completely disconnected, use the arrows on the side of the connector to align the pins before connecting. **DAMAGE TO THE PINS CAUSED BY MISALIGNMENT WILL VOID THE WARRANTY**

Step 4: Front-wheel installation.

- 1) Locate the front wheel and remove the black protective guards.



- 2) Remove fork protective cover and all other plastic protective inserts.
- 3) Loosen the front axle nuts and slide the front wheel into the front dropout on the fork. Ensure the brake rotor is between the brake pads of the brake caliper.
- 4) Use 15 mm open wrench to tighten front axle nut, recommended torque at 25 - 30 Nm.



A critical aspect of assembling your bike is securing the front wheel and checking the tightness of the rear wheel axle nuts. Fission bikes use bolted on, through axle, or quick release front wheel mounting mechanism, and the rear wheel is bolted on. These mechanisms may become loose or unsecured during shipment or over time. The torque and security of the mounting hardware should be inspected upon arrival and on a regular basis. Both wheels need to be properly secured before operating your bike.



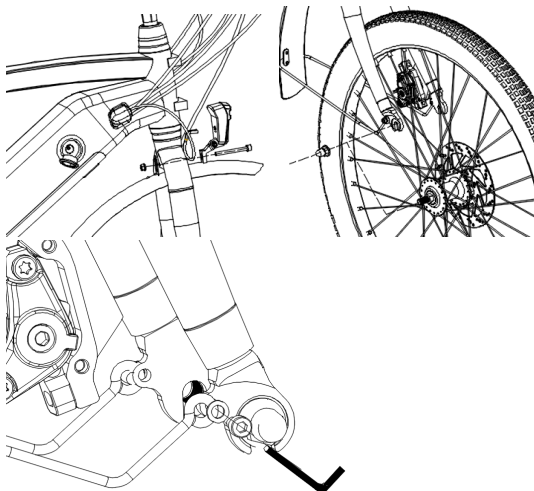
Never touch the brake rotor, especially when the wheel and/or bike is in motion, or serious injury could occur. Hand oils can cause squeaking and decrease brake performance



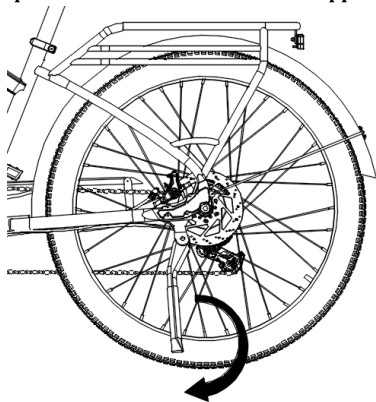
An improperly secured front wheel and/or handlebar stem can cause loss of control, accidents, serious injury, or death. Check that the front wheel and handlebar stem are properly secured to the bike during assembly and before each ride.

Step 5: Front fender installation.

- A. Use a 4mm hex key to loosen front fork screws.
- B. Align the front fender to the screw holes, use a 4mm hex key to tighten the front fork screws.



Step 6: Put down the kickstand to support the ebike.



Step 7: Pedal installation.

Use a wrench to install the pedals. Locate the pedal with a smooth pedal axle exterior and an "R" sticker label. The "R" indicates that it is the right pedal. The right pedal goes on the crank on the right side of the bike. The right side has the drivetrain gears and is the same as a rider's right side when riding.

The right pedal is threaded so that it is tightened by turning clockwise. Apply grease to the thread and carefully thread the right pedal onto the crank on the right side of the bike by hand. Do not cross-thread or damage the threads.

The left pedal (pedal with "L" sticker label) is reverse-threaded and tightens counterclockwise. Apply grease and carefully thread the pedal onto the left crank by hand slowly. Do not cross-thread or damage the threads.



Torque each pedal to 35 Nm. The right pedal tightens clockwise and the left pedal tightens counterclockwise

Step 8: Inflate tires.

Check that the tire beads and tires are evenly seated on the rims. Use a pump with a Schrader valve and pressure gauge to inflate each tire to the recommended pressure indicated on the tire, min of 5 PSI, max of 30 PSI. Do not overinflate or underinflate tires.

Step 9: Install saddle.

Open seat post clamp lever, adjust the seat post to a comfortable height while ensuring the seat post is inserted past the minimum insertion point, as indicated on the seat post. Close the seat post clamp lever.

Step 10: Adjusting the seat position and angle.

To change the angle and horizontal position of the seat use a 5mm hex wrench to loosen the seat adjustment bolt on the clamp positioned directly underneath the seat, above the rear wheel. Do not completely remove the bolt.

Move the seat backward or forward and tilt to adjust the angle. A seat position that is horizontal to the ground is desirable for most riders. Do not exceed the limit markings on the seat rail, which show the minimum and maximum horizontal movement allowed.

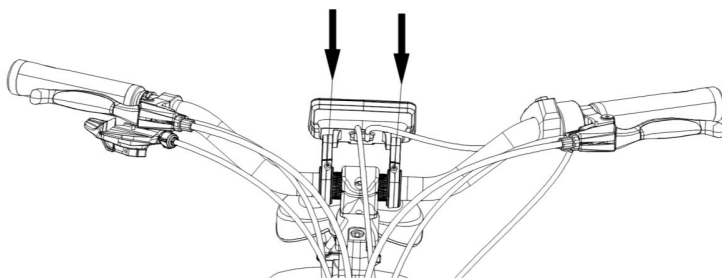
While holding the seat in the desired position, use a 5mm hex key to tighten the seat angle adjustment bolt securely to the recommended torque value (8 Nm).

Step 11: Adjusting the display and handlebar.

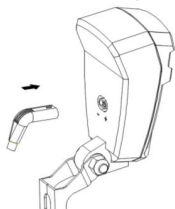
Stand in front of the bike and clamp the front wheel with both legs, verify the handlebars are straight and in line with the front wheel. Make sure the pinch bolts are tight and you can not turn the stem freely from the front wheel.

Sit on the saddle, adjust the handlebar to the desired position, tighten the screws which secure it to the handlebar with a 4 mm hex key.

Adjust display to the desired position, tighten the screws with a 2mm hex key.

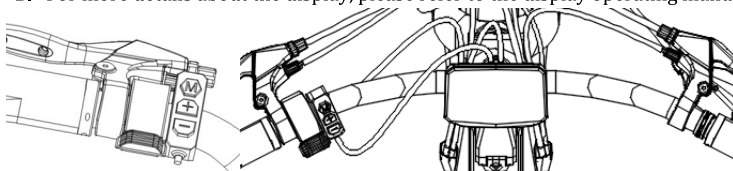


Adjust the headlight to the desired position, tighten the screws with a 4mm hex key



Step 12: Powering on the display.

- A. Press the power button for 3 seconds to turn the display on.
- B. For more details about the display, please refer to the display operating manual.

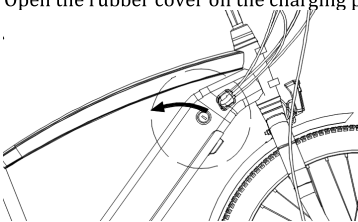


BATTERY AND ELECTRICAL

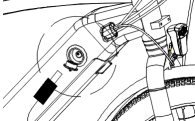
Charging Procedure

Follow these steps for charging your battery.

1. Check that the battery switch is in the off position. If not, toggle to the off position. The battery can be charged both on and off the bike.
2. Open the rubber cover on the charging port.



3. Place the charger in a flat, secure place and plug the charger into the battery's charging port, **before plugging into the power out.**



4. Plug the charger into a power outlet (110/240- volt plug). Charging should initiate and will be indicated by the LED charge status light on the charger.

Flashing Red - Battery not charging

Red - Battery is connected and charging

Green - Charging cycles is complete.

5. Once fully charged, unplug the charger from the outlet, then the charging port: Indicated light turning will turn green when fully charged



Always charge your battery in temperatures between 50 °F – 77 °F (10 °C – 25 °C) and ensure the battery and charger are not damaged before initiating charge. If you notice anything unusual while charging, please discontinue charging and contact Fission Cycle's Support Team for help.

Battery Charging Best Practices

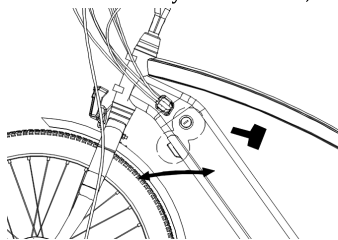
- Check the charger, charger cables, and battery for damage before beginning each charge.
- Be sure to charge in an area where it is clear and safe from any potential damage.
- Place wires so they do not cause a tripping hazard to occur.
- Always charge indoors in a cool and dry area and away from direct sunlight, dirt, or debris.
- Always charge your battery in temperatures between 50 °F – 77 °F (10 °C – 25 °C).
- The battery can be charged on or off the bike. To remove the battery, turn the key to the unlocked position, and take the battery out.
- Charging the battery normally takes 3-7 hours.
- Remove the charger from the battery within one hour of the green light indicating a complete charge.
- The charger is designed to automatically stop charging when the battery is full, but unnecessary wear of the charging components could occur if the charger is left attached to the battery and a power source for longer than 12 hours.
- Never charge a battery for more than 12 hours at a time.
- Do not leave a charging battery unattended.



Failure to follow Battery Charging Information could result in unnecessary wear to the charging components, battery, and or charger, and could lead to an underperforming or non-functional battery and replacement will not be covered under warranty.

Removing The Battery

To remove the battery from the bike, insert the key and turn to the unlocked position.



Use caution to avoid damage to battery connector terminals, which are exposed when the battery is unlocked and removed from the frame of the bike. In the case of damage to the terminals or battery mounts, please discontinue use and contact Fission Support immediately.



 Remove the battery before attempting to service, make adjustments, or performing any maintenance on your eBike. Removing the battery will help ensure the motor does not start inadvertently while service or maintenance is being performed. The battery should be removed anytime the bike is stored or is left unattended to prevent unauthorized use or accidental engagement of the motor. Keep out of reach of children. Failure to remove the battery may result in serious injury or death.

Installing The Battery On The Bike

- Ensure the battery is turned off.
- Do not force the battery into the opening; slowly align and gently push the battery down into the connector.
- Make sure there is no space between battery and tray, confirm the battery has been fully secured on the connector.
- Ensure the battery has been properly secured to the bike before each use by carefully pulling outwards on the battery with both hands once locked.



Never use a battery that is cracked or broken. Battery acid is highly corrosive and can cause severe burns! Battery acid can burn you if it makes contact with your eyes or skin. It can also damage personal property.

Charger Safety Information

- The charger should only be used indoors in a cool, dry, ventilated area, on a flat, stable, hard surface.
- Avoid charger contact with liquids, dirt, debris, or metal objects.
- Do not cover the charger while in use.
- Store and use the charger in a safe place away from children.
- Fully charging the battery before each use can help extend the life of the battery and reduces the chance of over-discharging.
- The charger works on 110/240 V 50/60 Hz standard home AC power outlets and automatically detects and accounts for incoming voltage. Do not open the charger or modify the voltage input.
- Do not yank or pull on the cables of the charger. When unplugging carefully remove both the AC and DC cables by pulling on the plastic plugs directly, and not on the cables.
- The charger is expected to get relatively warmer as it charges. If the charger gets too hot to touch, you notice a strange smell, or any other indicator of overheating, discontinue using the charger and contact Fission Support.



Charge the battery only with the charger originally supplied with the bike from Fission Cycles, or a charger purchased directly from Fission Cycles that is designed for use with your specific bike serial number. Never use an aftermarket charger, which can result in damage, serious injury, or death.



Please take special care in charging your bike in accordance with the procedures and safety information detailed in this manual. Failure to follow proper charging procedures can result in damage to your bike, the charger, personal property, and/or cause serious injury or death.

Balancing The Battery

When you first receive your bike, and for the first three charge cycles, complete the procedure outlined below to ensure the cells that power the battery are balanced and operating as efficiently as possible.

Follow these steps to balance your ebike battery:

1. After your first ride, regardless of the distance ridden or the amount of battery used, charge the battery for just under 12 hours (but never exceeding the 12-hour mark).
Note: this will most likely require staying plugged in and charging even after the charger indicator light turns green.
2. Once you are near the 12-hour mark (do not exceed 12 hours) disconnect the charger from the wall outlet, then from the battery.
3. On your next use, ride your ebike normally.
4. Repeat steps 1-3 for the first three rides for a total of three (3) battery balance charge sessions.
5. After the third balance charge and fourth ride, begin normal charging procedures including:
 - a. Charging the battery after each ride according to the Battery Charging Information section.
 - b. Removing the charger from the battery shortly after the green charge light indicating the battery is full, which will typically occur between 3-7 hours.
 - c. Never leave the battery charging for longer than 12 hours.
 - d. Never leave the battery/charger unattended while charging.

Repeat battery balancing steps 1-5 only after a period of long-term battery storage (see the Long-Term Battery Storage section), if experiencing noticeable range decline, when instructed to do so by Fission Support, or up to once per month with frequent use as proactive battery maintenance. Do not perform battery balancing more than once per month.

Long-Term Battery Storage

If storing your Fission bike for longer than two weeks at a time, follow the instructions below to maintain the health and longevity of your battery.

- Charge (or discharge) the battery to approximately 75%.
- Do not leave the battery attached to the bike frame. Remove it from the bike during long-term storage.
- Store the battery in a dry, climate-controlled, indoor location between 50 °F – 77 °F (10 °C – 25 °C).
- Check the battery every month, and if necessary, use the charger to charge the battery to 75% charged.



Please follow the above instructions for storing your bike and battery. Failure to follow proper battery storage procedures can result in a non-functional battery. Replacement will not be covered under warranty.



If the battery is physically damaged, non-functional, performing abnormally, or was dropped or involved in a crash, with or without obvious signs of damage, please discontinue use and charging and contact Fission Cycles.



Do not cover up the charger while it is charging. The charger air cools and needs to be on a hard, flat surface in an open space. Use the charger with the indicator lights facing upward. Do not use the charger inverted, which can inhibit cooling and reduce charger lifespan.



Do not open the battery housing, which will void the warranty and can result in damage to the battery, property or cause serious injury and/or death.

Recycling Used Batteries

Fission Cycles is committed to keeping our environment clean for all who enjoy outdoor activities. When your battery reaches the end of its useful life, dispose of it using an authorized and reputable recycling company.



Do not throw used electric bike batteries away with household garbage.

Electrical System

The electrical system powers several components on your ebike that control different operating conditions and user preferences. It is critical that you familiarize yourself with all aspects of your ebike's electrical system and check to see if it is working correctly before every ride. The front and rear brake levers contain safety power cutoff switches, which disable the hub motor's assistance when applied, and both levers should be checked for correct operation. The throttle should provide smooth acceleration when gradually applied. If the throttle, brake lever cutoff switches, pedal assistance, or lighting are

functioning abnormally, intermittently, or not working, please discontinue the use of your ebike immediately and contact the Fission Support team for assistance.

Display Quick Start Guide



Riding data pages

Click 'M' to switch.



Assistant Level

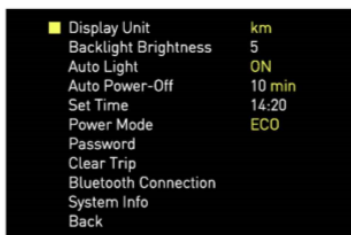
Click '+' / '-' to switch.

Long press '-' is pedestrian mode.



Setting Page

1. Long press '+' and '-' to enter the setting page.
2. Use '+' / '-' to navigate to the 'Auto light' line.
3. Press 'M' to change ON/OFF and other items using the same method.
4. Or press 'M' to enter next page.



Connect to Bikewise Pro APP

1. Long press 'M' to enter the setting page.
2. Use '+' / '-' to navigate to the 'Bluetooth Connection' line and press 'M'.
3. Scan the QR-Code displayed on the screen with Bikewise Pro APP.



Error Detection

Your bike from Fission is equipped with an error detection system integrated into the display and controller. In the case of an electronic control system fault an error code should display. The following error codes are the most common and can aid in troubleshooting. If your bike has an error code displayed at any time it is recommended that you cease operation and contact Fission Cycles immediately.

Error Code	Definition
21	Abnormal Current
22	Throttle Fault
23	Motor Phase Fault
24	Motor Hall Fault
25	Brake Switch Fault or Brake Applied While Turning On
26	Under-voltage Protection
30	Communication Fault

OPERATION

NOTICE: Do not operate your bike until you have read and understood the entirety of this manual until you have read this entire manual since there are important details related to safety in the following sections.



Read and understand all sections of this entire manual before operating the bike for the first time. There are important safety warnings throughout the manual that must be followed to prevent dangerous situations, accidents, damage to the bike, damage to property, injury, or death.



Users must follow the instructions and warnings contained in this manual for safety. Do not attempt to operate your Fission Bikes until you have adequate knowledge of its control and operation. Damage caused by failing to follow instructions is not covered under warranty and could result in serious injury or death. Contact Fission Cycles if you have any questions about assembly or operation.



Users must become accustomed to the bike's power control system before operating. The pedal assistance feature is also a powerful option and users should

fully research and understand how to operate it before first use. Not taking the time and care to familiarize yourself and practice the operation of the power system on your Fission Bike can lead to damage, serious injury, or death.

Guideline for Safe Riding

You must ensure that you understand the safe operation of this bike and follow all traffic, bike laws, and regulations in the area in which the bike is being operated. These may include rules regarding helmets, reflectors, and lights. A few important general rules for riding include but are not limited to:

- Wear a helmet that meets ASTM or CPSC safety testing requirements
- Have reflectors and lights installed on your bike
- Use proper hand signals
- Avoid loose clothing
- Ride on the correct side of the road with the flow of traffic
- Always wear a bright color and reflective clothing
- Ride single file if riding with others
- Obey all traffic laws and regulations
- Watch for parked car doors opening unexpectedly
- Watch for pedestrians stepping out, pets, and children playing near the roadway
- Never carry a passenger
- Never ride with earbuds or headphones
- Always obey traffic signals
- Use caution when crossing railroad tracks and carefully cross at a 90-degree angle
- Mount a horn or bell onto your bike to signal others of your approach

Before riding fast or in more difficult conditions, try riding at slower speeds in a flat, open lot to test the function and performance features of your bike. Consult your local bike shop if you have specific questions concerning the parts and functionality of your bike. Some areas offer cyclist courses or classes which can be found online or through your local bike shops.

Unsafe Riding

While not all accidents can be avoided the list below outlines a few examples of things you can do to help decrease your risk of serious injury or death.

- Pay attention and avoid distractions while riding
- Always maintain both hands on the handlebars

- Avoid bike stunts and/or aggressive riding
- When carrying gear make sure it is securely attached to your bike and/or rack.
- Never strap or latch any item to your bike in an area not designed to carry gear.
- Only carry gear on your racks and within the standard weight limits of the rack.
- Do not ride while intoxicated or using medications that might make you drowsy.
- Never carry a passenger while riding

Avoid Riding Too Fast:

Higher speeds create higher risks and greater forces in the event of a crash. At higher speeds, it is more likely that wheels will slip, or that a small bump can create a significant impact on your frame or fork. Always keep your bicycle under control. For children, the limit of speed for safe riding is much lower, so parents should strictly enforce this rule.

Off-Road or Backcountry Riding:

Always use special care when riding off-road or in remote areas. If you are unfamiliar with off-road riding start on moderate terrain and slowly build your skills until you are confident you can ride on trails and unimproved roads. Remember, keep your bike under control at all times! Never attempt an obstacle that is beyond your skill level. Riding at an increased speed in rough conditions greatly increases your risk of serious injury or death.

Special Considerations for Remote Areas:

- While riding on rough terrain even if a short distance, share your destination and route with another adult
- Never ride alone in remote areas
- Carry a signaling device such as a whistle, cell phone, or 2-way radio
- Take identification and emergency food and drink
- Wear appropriate clothing and safety gear for the type of riding you plan
- Carry a first aid kit

Respect local regulations and rules / Private Property:

Remember each area in which you may ride your bike may have specific regulations. Always respect private property and never trespass. Respect the rights of others who may be sharing the trail with you; ie: hikers, cyclists, equestrians. Stay on your designated trail and do not destroy vegetation and minimize your impact on the environment.

Wet Weather

Use extra caution when riding in wet weather. Your brake's stopping power will be diminished in wet conditions no matter what type of brake system your bike is equipped with. All brake systems are affected by wet weather. To ensure you can stop safely in wet conditions, ride more cautiously and slowly and brake earlier than you would in normal road and weather conditions.

Never ride in storms with high winds and lightning conditions. Ride in wet weather only if necessary. This electric bike is not meant for use in heavy rain or streams. Never immerse or submerge this product in water or liquid as the electrical system may be damaged.

In wet weather, you need to take extra care when operating this bike.

- Decrease riding speed to help you control the bike in slippery conditions.
- Brake earlier since it will take longer to slow down and come to a stop than when operated in dry conditions.
- Take care to be more visible to others on the road.
- Wear reflective clothing and use approved safety lights.
- Road hazards are more difficult to see when wet; proceed with caution.

Night Riding

Riding at dawn, dusk, during poor visibility or night riding is extremely dangerous. Your reflectors are not a substitute for required bike lights. Motorists and pedestrians may not be able to see a bicyclist during poor visibility conditions. Consult your local bike shop for night riding equipment if you choose to accept the risk of riding during these conditions.

- Wear reflective and light-colored clothing.
- Slow down and use familiar roads with street lighting, if possible.
- Ensure tire wall, pedal, and other reflectors are installed and unobstructed.
- Ensure headlight and taillight/brake light are functioning correctly and use them.



Riding a bicycle in low light conditions without proper lighting and reflectors attached to your bike impairs your ability to see and be seen by other motorists or pedestrians. This greatly increases the chance you will be involved in an accident that could lead to serious injury or death. Use a light on the front and rear of your bike and be sure all reflectors are in place before riding in low light conditions.

Parking, Storage, and Transport

Please follow these basic parking, storage, and transport tips to ensure your bike is well cared for on and off the road.

- When pushing or carrying the bike manually, turn off the power to avoid accidental acceleration from the motor.
- Turn the power and any lights off to conserve battery.
- Ensure the battery is locked to the frame in the off position or use the key to remove the battery and bring it with you for security or storing in a temperature-controlled location.
- Park indoors when possible. If you must park outdoors in rain or wet conditions, leave your ebike outside for only a few hours and then park it in a dry location as soon as possible to allow all of the systems to dry out. As with a regular bike, an ebike used in wet conditions needs more frequent maintenance to prevent rust, corrosion, etc., and to ensure all systems are working safely.
- In public places, your Fission Bike must be parked in accordance with local rules and regulations.
- Locking up your bike is recommended to ensure your bike is secure and the chance of theft is reduced. Fission Cycles makes no claims or recommendations on the proper lock hardware or procedures to secure your bike, but we do recommend you take appropriate precautions to keep your bike safe from theft.
- Do not park, store, or transport your Fission Bike on a vehicle rack not designed for the bike's size and weight.
- Use a vehicle rack compatible with the width of tires used on your bike. Some racks may not accommodate all tire widths.
- When carrying your bike on a vehicle rack for transport, unlock and remove the battery. This will reduce the weight of the bike, make lifting and loading easier, and allow you to protect the battery by transporting it in the cab of a vehicle.
- Avoid transporting your Fission Bike on a vehicle rack during rain, as this may cause water damage to the electrical components.

MAINTENANCE

Basic Bike Care



If you do not have the experience, skill, and tools to complete maintenance and adjustment of your bike, Fission Cycles strongly recommends having a certified, reputable bike mechanic maintain, tune, and ensure the bike is safe to ride.

Maintenance and Care

Before every ride complete a bike inspection. If you identify any areas that need adjustment or service, immediately take your bike to a qualified bike technician for repair and service.

Before Every Ride:

- Check hardware for proper torque.
- Check wheels for trueness
- Check drivetrain for proper alignment
- Check tire inflation level
- Check brakes and brake pads
- Check handlebar and stem alignment and torque
- Check seat and seat post
- Check lights and reflectors
- Check the condition of the frame, fork, and components

Monthly or Every 100 Miles:

- Clean your bike thoroughly
- Lubricate chain rollers with bike chain lubricant.
- Squeeze and inspect brakes for wear and proper working order
- Check reflectors, lights, and seat/seat post for wear or damage
- Check the frame, fork, handlebars, and stem for cracks and damage
- Check each pedal to make sure they are not loose
- Make sure there is no rust or kinks in the control cables or cable housing
- Check your wheel rims for excessive wear and dents or any loose or damaged spokes
- Check your tires for tire inflation and excessive wear, cuts, or abrasions
- Inspect shifters and derailleurs and lubricate derailleurs

Every 3 Months:

- Clean and polish your bike thoroughly
- Lubricate chain rollers with bike chain lubricant.
- Squeeze and inspect brakes and brake pads for wear and proper working order
- Check reflectors, lights, and seat/seat post for wear or damage
- Check the frame, fork, handlebars, and stem for cracks and damage
- Lubricate handlebar stem and seat post
- Check each pedal to make sure they are not loose and lubricate
- Make sure there is no rust or kinks in the control cables or cable housing
- Check your wheel rims for excessive wear, dents, looseness, or damaged spokes
- Check your tires for tire inflation and excessive wear, cuts, or abrasions
- Check crankset and bottom bracket

- Inspect brake levers, shifters and derailleurs
- Lubricate brake levers, shifters, and derailleurs
- Lubricate bottom bracket bearings, wheel bearings, and suspension fork

If you are uncomfortable with any service or general maintenance to your bike, please visit your local bike shop for service and maintenance.

Take your bike to your local bike shop for inspection after 30 days or if you think something is wrong with your bike take it in immediately.



Your bike and components are subject to wear and fatigue. If a component's life cycle is exceeded it can suddenly fail which may cause serious injury or death.

Take your bike to your local bike shop for repair and service if you notice any of the following or any other wear and fatigue:

- Any cracks, fraying, scratches, or discoloration.
- If your chain is not shifting quietly from gear to gear the derailleur is out of adjustment.
- If the brake lever fails
- Any signs of fatigue or excessive wear or damage

NOTE: If you notice any signs of wear, damage, or fatigue, DO NOT RIDE YOUR BIKE. Take your bike immediately to a local bike shop for repair and service!

Regular inspection and maintenance are key to ensure your Fission Bike function as intended and to reduce wear and tear on their systems. Recommended service intervals are meant to be used as guidelines. Real-world wear and tear, and the need for service, will vary with conditions of use. We generally recommend inspections, service, and necessary replacements are performed at the time or mileage interval that comes first in the following table.

Interval	Adjust/ Replace
Weekly or Every 100 - 200 miles	-After each inspection, replace any components that are damaged or show considerable wear and tear. -Use barrel adjusters to apply the correct tension to derailleurs and brake cables if needed.

	*Cables stretch over time and will need to be adjusted.
Monthly or, Every 500 - 800 miles	-Replace brake and shift cables if necessary. -Replace brake pads if necessary.
Every 6 Months or, Every 800 -1500 miles	-Replace brake pads. -Replace tires if necessary. -Replace cables and housing if necessary.



Your cables, spokes, and chain will stretch after an initial break-in period of 50-100 mi (80-160 km), and bolted connections can loosen. Always have a certified, reputable bike mechanic perform a tune-up on your Fission Bike after your initial break-in period of 50-100 mi (80-160 km) (depending on riding conditions such as total weight, riding characteristics, and terrain). Regular inspections and tune-ups are particularly important for ensuring that your bike remains safe and fun to ride.

WARRANTY INFORMATION

Standard Limited Warranty

Bicycle Lifespan

Fission Cycles™ eBikes have an expected lifespan depending on the level of care and/or use. Misuse, neglect, and abuse will significantly reduce the expected lifespan of your bike. Some types of riding styles (competition, jumping, downhill racing, and extreme conditions or climates) will all impact the lifespan of your bike and its components. These types of riding may cause premature failure of your bike and its components. This warranty does not extend to any failures associated with this type of riding, or to any Fission products that have been subject to misuse, neglect,

abuse, or improper storage, or if the product is modified or altered in any way other than as directed by official Fission Cycles instructions. Always have your bike periodically inspected by a qualified bicycle technician. These inspections are crucial for the safety of you and others around you as well as extending the lifespan of your Fission eBike.

Limited Lifetime Frame Warranty

Fission eBike frames are warranted against factory defects for the lifetime of the original purchaser as long as they remain the owner of the Fission eBike. This warranty is non-transferable. Your

Fission frame is warranted against premature failure caused by faulty workmanship or materials, as determined by Fission Cycles. Frames must be returned to Fission Cycles at the owner's expense for determination of defect and/or replacement. If a frame replacement is found to be warranted by Fission Cycles, a comparable frame (depending on availability) will be issued to the original purchaser. Front forks and suspension forks do not have a lifetime warranty!

Warranty

Beyond the lifetime frame warranty, Fission Cycles warrants all bikes, enclosed hardware (where applicable), and accessories to be free from defects in material and workmanship for twenty-four months from the original date of purchase. Some components on your Fission eBike such as brakes, tires, tubes, chains, grips, motors, and cables are not warranted against normal wear. If you find a product to be defective, contact Fission Cycles through the official website (www.fissioncycles.com). All components must be returned at the owner's expense for inspection. Product repairs and/or updates not covered by warranty will be provided at a set rate. At its sole discretion, Fission will determine whether the component will be covered under this warranty. This warranty is in lieu of all other warranties expressed or implied. You may have certain legal rights that extend beyond this warranty in certain states.

Terms and Conditions of this Limited Warranty

This limited warranty does not cover installation, disassembly, adjustments of components, normal wear and tear, damage caused by improperly installed parts or components, installation, and use of aftermarket accessories or storage fees. Any installation of a powerplant (motor electric or internal combustion) other than powerplants supplies directly by Fission Cycles immediately voids this warranty. Some parts and components may from time to time become obsolete or discontinued. Fission Cycles reserves the right to substitute any component at its sole discretion. This is the only warranty provided or honored by Fission Cycles, and no other warranty will be honored unless specifically provided for by law. No implication of merchantability or fitness for a particular purpose has been made by Fission Cycles.

General

Fission Cycles™ will not be held liable for any damages resulting from a breach of warranty or for sums beyond the purchase price of the product. Fission Cycles is not liable for lost profits or goodwill; downtime; damage or destruction of items or equipment used with, or in conjunction with Fission Cycles™; personal injury or loss; or any other damages. This agreement is the entire agreement between you and Fission Cycles™, and supersedes any prior agreements, representations, or proposals; and may be changed only by written agreement with Fission Cycles™.

A waiver by any party or breach of this agreement will not constitute a waiver of any subsequent default or breach of the same or different kind. The invalidity of

any provision of this agreement shall not affect the validity of the other provisions hereof.

