



Electrolite Owner's Manual Supplement

Thank you for purchasing a Sun Bicycles product! We are happy to have you as part of our cycling family, and will gladly help with any questions or concerns along the way. We've also worked hard to establish one of the best dealer networks in the industry. These dealers are the arms and legs to our body of knowledge. We and each of these dealers are dedicated to providing you with everything you need to have the best experience possible on your new Sun bicycle.

www.sunbicycles.com

Distributed by:
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Notice: Sun Bicycles are partially assembled. They are intended to be sold only in a fully assembled and adjusted condition. Final assembly and adjustment are to be performed by an authorized Sun Dealer.

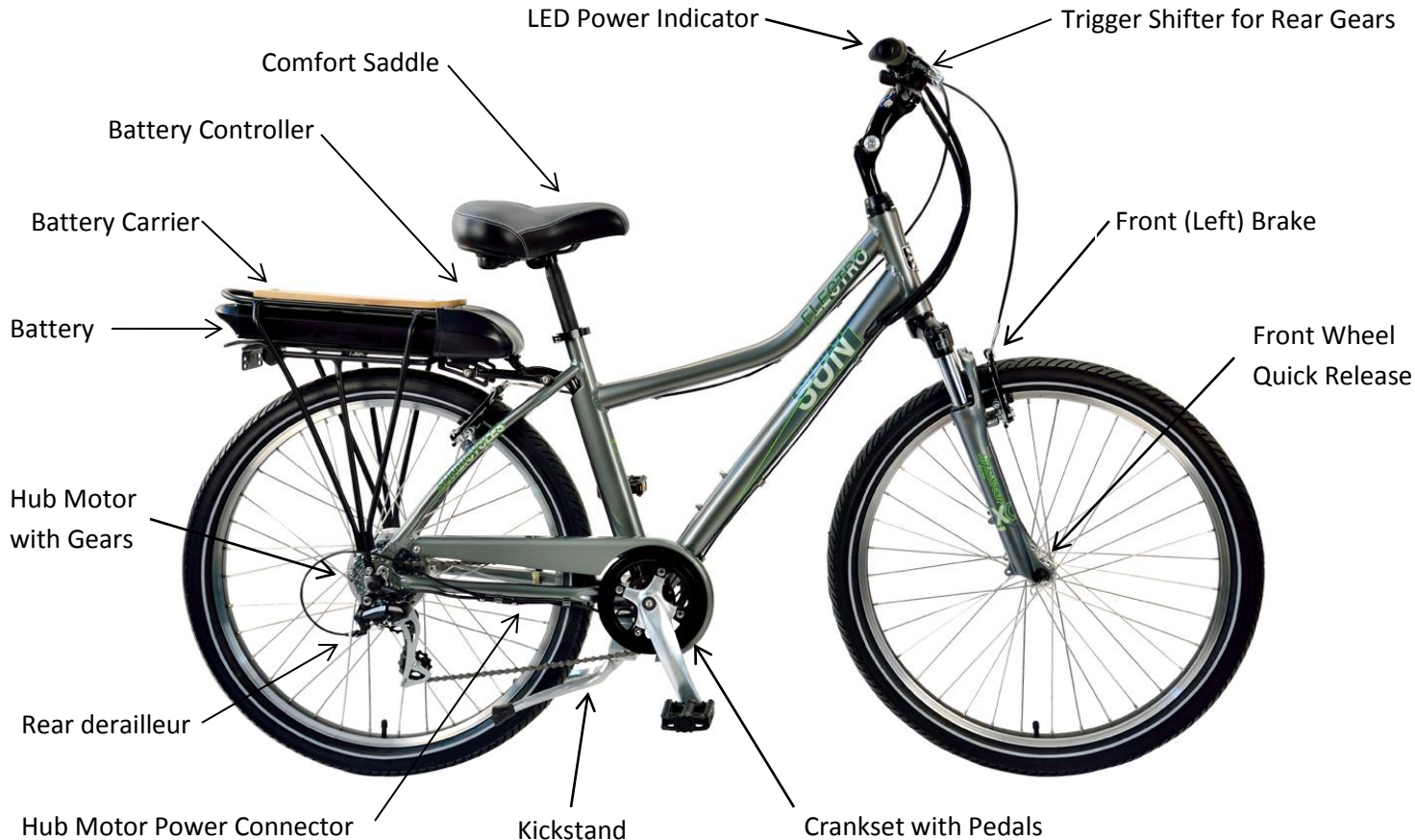


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SUN ELECTROLITE KEY SERIAL NUMBER:



CHARGING YOUR ELECTROLITE BATTERY:

REMOVING THE BATTERY:

Use included key to unlock battery from rear carrier of bike.

Slide battery rearward from carrier, being careful not to drop battery.

Turn battery over to reveal rubber cap covering charging port.

NOTE: Your Sun Electrolite battery can also be charged while installed in the bike if more convenient.



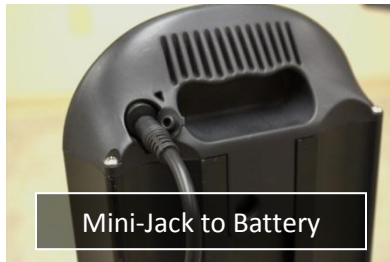
CONNECTING THE BATTERY TO THE SMART-CHARGER:

Plug mini-jack into battery at charging port, with battery either installed or removed from bike.

If charging with the battery installed in your Electrolite, be certain that power to the LED Power Indicator is turned OFF. (See Page 11 for details.)

Plug power cord into end of smart-charger body.

Plug smart-charger into active wall outlet. If outlet is switched be sure that it's powered on.



OPERATING THE SMART-CHARGER:

There is no on-off switch on the smart-charger. Power is automatically controlled.

Battery will show level of charge, with LED indicators showing as follows: Low-35%-55%-75%-100%

Battery will be fully charged in approximately 5 hours using the supplied smart-charger.

Smart-charger will show a red indicator light when plugged in and not charging.

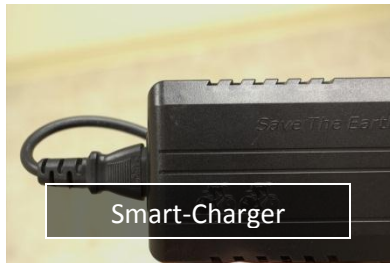
Smart-charger will show an orange indicator light when charging.

Smart-charger will show a green indicator light when fully charged.

When done charging, always unplug smart-charger from wall and mini-jack from battery charging port.

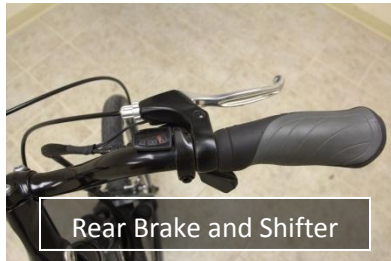
Cover charging port on battery with attached rubber cap.

Slide battery back into rear carrier, use included key to relock battery into rear carrier.



POWERING UP YOUR SUN ELECTROLITE:

With fully charged battery, push ON button [(+) symbol] on the left-hand LED Power Indicator.
LED Power Indicator will run through a quick systems-check and will illuminate all LEDs.
LED Power Indicator will show battery charge across top row of LEDs.
LED Power Indicator will also show Pedal Assist setting across lower row of LEDs.
LED Power Indicator will adjust its brightness according to ambient light for easy day or night use.



PEDAL ASSIST MODE:

Pedal Assist mode is always active when the LED Power Indicator is powered on. Selecting (+) or (-) on the LED Power Indicator will give you five different levels of electric assist from the hub motor when pedaling. Simply choose the amount of assistance you desire and pedal the bike like a normal bicycle.

You can choose gears from the right trigger-shifter to pick a gear suitable for your riding terrain as well. Gearing on the right trigger-shifter is easiest in the smallest numbers (gears 1, 2 for hills,) normal for the middle numbers (gears 3,4,5 for standard riding,) and hardest for the highest numbers (gears 6, 7,8 for straightaways and downhill riding.)

For safety, Pedal Assist mode will automatically stop providing power when you stop pedaling. The brake levers also act as a safety switch to remove power from the hub motor. This prevents accidental acceleration from pedal inputs while brakes are being applied.



THROTTLE ASSIST MODE:

Using Throttle Assist while pedaling will produce an additional boost of electric assist for hills and quick acceleration, and will only activate after pedaling at least one revolution. Twisting the throttle rearward while pedaling will give you extra help on hills, help you accelerate around other riders, or will simply let you take a break from pedaling for a moment. Throttle Assist mode will only activate if pedaling, but once activated you can stop pedaling and enjoy the ride until you release the throttle again. Throttle Assist will override any Pedal Assist settings to provide up to 100% of available power, and is limited to a top bicycle speed of 20mph due to federal safety regulations.

Remember that this Throttle Assist mode will reduce the range of your battery, so enjoy it conservatively for best battery life and riding range.



The brake levers will still act as a safety switch to remove power from the hub motor. This prevents accidental acceleration from throttle inputs while brakes are being applied.

POWERING DOWN YOUR SUN ELECTROLITE:

When parking or storing your Sun Electrolite always turn off the LED Power Indicator on the left side of the handlebar. This is done by holding the “OFF” button [lower button with (–) marking] for approximately five seconds.

Your Electrolite does have a sleep mode, where the controller will turn itself off after about five minutes. This helps to preserve battery life, and is used as a preventative measure only. For safety, always turn your Electrolite off at the LED Power Indicator when parked or otherwise unattended.

FAQ:

Q. How far can I go on one battery charge?

A. Typical range is around 40-45 kilometers, or 25-28 miles. This will vary according to rider and cargo weight, how hilly your terrain is, how much electric assist you choose to add, and how often and how long you use the Throttle Assist mode.

Q. How long does it take to charge the battery?

A. The included smart-charger takes approximately five (5) hours to charge a completely drained battery. Partially drained batteries will take less time to charge back to full capacity. The smart-charger will not overcharge your battery, but it’s not recommended to leave your battery charging for more than 24 hours.

Q. Why does the battery/charger get warm while charging?

A. The smart-charger reduces line voltage and creates heat in the conversion process. The smart-charger is fan-cooled to remove internal heat. The battery uses an internal chemical reaction to convert and store its voltage charge. This chemical reaction creates a small amount of heat. For safety we require that the battery and charger remain uncovered to prevent overheating.

Q. What is battery “memory?”

A. It’s a term used to describe a very specific effect observed in a nickel-cadmium battery. We use advanced Lithium-Polymer batteries paired with smart-chargers in your Electrolite so you don’t have to worry about battery “memory.” This means that you can recharge your battery at any time, without it having to be completely discharged.

Q. What’s the useful battery life of my Sun Electrolite?

A. Typically lithium-polymer batteries have a useful life of about 500-700 charge-discharge cycles. However, average battery life is influenced by many conditions and rechargeable batteries do have a finite lifespan. Be aware that temperature, terrain, rider weight, riding style and electric assist settings all play a factor in both battery range and overall battery life. Please see your local Sun Bicycles dealer for help with any issues involving battery replacement.

Q. Can I ride my Sun Electrolite without using the battery assistance?

A. Of course. Simply leave the LED Power Indicator off, and you can ride your Sun Electrolite like a normal recreational bicycle. You’ll still have normal pedaling control and can use the right-hand trigger-shifter to adjust gear settings for anything from hills to straightaways.

Q. How do I remove the rear wheel if I have a flat tire?

A. The removal process is the same as any other geared bicycle with the addition of simply disconnecting the power lead to the rear wheel before loosening and removing wheel. If you have any concerns about this removal or reinstallation, we recommend having your local Sun Bicycles dealer perform this process for you.

Q. Can I carry my Sun Electrolite on my bike rack?

A. Take great care when transporting your Electrolite. Many automotive bike rack manufacturers have maximum bike weight limits in place to prevent damage to your bike rack, your bike and your car. Failure to heed these maximum weight limits can result in damage or failure of your bike rack, damage to your Electrolite, or damage to your car.

Auto rack failure can also pose a hazard to others around you. You should consult with your rack manufacturer to be sure that your bike rack meets the demands of your usage including not only the additional weight of your Sun Electrolite, but its low-standover frame design as well. The preferred method of transport is a hitch-mounted tray-style carrier that holds your Electrolite securely without touching frame components. Your local Sun Bicycles dealer can help you with these types of carriers.

Q. What do I do if I've lost my battery key?

A. Please note the key serial number that is stamped on your key. You'll have spares that can be kept in different locations. Leaving one key at home with the charger is the most common example. If you do lose all of your keys please provide the key serial number to your local Sun Bicycles dealer. They will be able to order the proper replacement key only if you have this information.

This key serial number is not kept on record anywhere else. Make note of your key serial number on the Table of Contents page.



Q. I didn't see my question listed here. What should I do?

A. Feel free to contact your local Sun Bicycles dealer with any additional questions. Like we said earlier, our network of dealers are the best resource for information and technical expertise, and will gladly be there to assist you with any questions or concerns no matter how big or small.

CLEANING AND MAINTAINING YOUR SUN ELECTROLITE:

Your Electrolite is a special bike and deserves some special attention. It doesn't need lots, but there are a few things to watch for when cleaning and maintaining an electronic assist bike.

Do not use any high-pressure streams of water to clean your Electrolite. High-pressure spray can pass beyond seals meant to preserve delicate electrical connections and components. Irreparable damage may occur if high-pressure spray is used. Harsh or abrasive cleaners are also not recommended.

The best products for cleaning your Sun Electrolite can be found at your local Sun Bicycles dealer. They include gentle foaming cleansers for cleaning all painted surfaces, citrus-based degreasers for removing heavy deposits on the chain drive and rear gears, and polishes for keeping the painted surfaces free of road grime. A light rinse of water and application of the gentle foam cleanser is all that's needed to clean the painted surfaces of your Sun Electrolite. Be gentle with water around the LED Power Indicator, and be sure that your Electrolite is powered down. Also be gentle with water around the Battery Controller and Battery Housing.

Citrus degreasers are best for any heavy deposits of oil and dirt on the crankset, chain and rear gears. Be conservative with application of any degreasers around the rear gears and hub motor. Too heavy of an application here may leave degreaser in areas that can't be rinsed well, and this degreaser may eventually damage seals in the hub motor. Relubricate the chain with a Teflon-based chain lubricant for best performance, found also at your local Sun Bicycles dealer.

DO NOT USE ANY LUBRICANTS OR POLISHES ON THE RIM BRAKING SURFACES OR TIRE TREADS!

This can lead to brake failure, tire failure, loss of traction or other dangerous conditions

REPAIR / REPLACEMENT PARTS:

Please see your local Sun Bicycles dealers for any repairs to or replacement parts for your Sun Electrolite. Any repairs to electronic components performed by parties other than authorized Sun Bicycles dealers will void any warranty claims. Use of parts not authorized by Sun Bicycles will void any warranty claims.

TROUBLESHOOTING:

BATTERY CHARGING:

Orange light is off during charging:

Check that connections to battery are fully engaged.

Check that line voltage is not too low, or switched off.

Line voltage should be at least 100V AC and no more than 240V AC.

Orange light does not turn to Green:

Remove from AC power for at least five (5) seconds.

Reconnect power to continue charging.

Orange light turns to Green immediately:

Check that battery is not already fully charged.

If any of these procedures do not work, have your local Sun Bicycles dealer check both the battery and charger for issues.

LED POWER INDICATOR:

LED Power Indicator won't power on:

Check that battery is fully seated and locked into the rear carrier.

Check that the battery is charged. The battery's rear indicator lights should show at least a minimum charge.

Check that wiring harness to LED Power Indicator is not frayed, crimped or otherwise damaged.

Check that connection plug to LED Power Indicator is firmly connected.

Check that the (-) ON/OFF button is pressed firmly to begin the Systems Check.

An "E" light on the LED Power Indicator blinks constantly and I get no electronic assistance:

The blinking "E" on the battery indicator reminds you that your battery is exhausted and should be recharged before further use. You'll want to turn off the LED Power Indicator and finish your ride without electronic assistance to protect the battery and other components. Fully recharge your battery when you are home.

I pedal with the LED Power Indicator turned on, but I get no electronic assistance:

With your Electrolite stopped, turn off LED Power Indicator and wait about five seconds. Turn the LED Power Indicator back on, being sure that you aren't pedaling. This will reset the controller and should now send power to the motor.

I tried powering-off the LED Power Indicator, but still get no electronic assistance:

Does the Throttle-Assist still work? If so, there may be a problem with the battery controller.

Does the Throttle Assist not work either? First, check the connector to the hub motor. It's located just behind the crankset, on the right-hand side of the bike. Check that it's plugged securely, and that it's free of corrosion or water. If there's still no electronic assistance, there may be a problem with the magnetic crank sensor located behind the crank set on the right side of the bike.

Problems with either the battery controller or the magnetic crank sensor should be taken to your local Sun Bicycles dealer for inspection and repair.

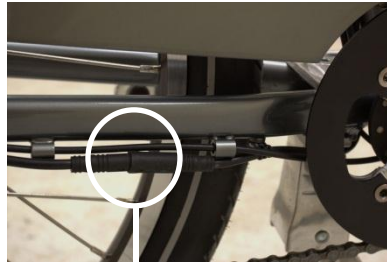
OTHER ISSUES:

I removed the rear tire to replace a tube, and now I don't get any electronic assistance:

Check that the rear hub motor is reconnected. The connector is located behind the crankset, on the right hand chain stay. Be sure that the connector is plugged securely and is free of corrosion and water.



Hub Motor Input Wire



Hub Motor Connector Plug



Magnetic Crank Sensor

I use the brakes to begin slowing down but the electronic assistance remains active:

Check that the brake sensors on the brake levers are in good condition. They can be damaged by sharp pulls on their wiring harness. Activation of either brake lever should remove power to the hub motor. Check that the wiring harnesses to the brake levers are not crimped, frayed or otherwise damaged.



Front Brake Sensor & Wire



Rear Brake Sensor & Wire

NOTICE

Your Sun Electrolite battery is protected by two fuses in the front of its casing, as facing forward:

One 20A/250V 314-series fast-acting ceramic fuse located on the left side front of battery

One 5A/250V 314-series fast-acting ceramic fuse located on the right side front of battery

These two fuses protect both the battery and the controller. In the event of an overload these fuses will remove ALL BATTERY POWER by disconnecting the overloaded circuit. The overloaded fuses must be replaced if this happens. Do not, under any circumstances, bypass these fuses. Do not replace these fuses with anything other than the exact size and specification of fuse. Use of non-specification fuses may result in battery damage, controller damage, or risk of fire.



BATTERY CARE:

- Sun Bicycles warrants your new battery to be free from defect in material and workmanship from the date of purchase for a period of 1 year provided it is cared for properly.
- Sun Bicycles uses a Lithium Polymer battery on your new Electrolite bicycle.
- Your battery must be immediately fully charged when received and before first use.
- Approximate charge time is 5 hours with the included charger.
- You may charge the battery on or off the bike.
- If you plan to store your battery you must still charge the battery at least every 90 days until normal use is resumed.
- If you let your battery sit beyond 90 days without charging it may not accept a charge or its charging capacity may be diminished.
- Always store the bicycle with a fully charged battery.
- Battery power indicator on rear of battery can be used to check battery charge at any time. Push button until charge indication appears, display will illuminate for several seconds.
- Do not allow the battery to charge for more than 24 hours.
- Always disconnect the charger from the wall outlet and battery if not actively charging battery.
- Inspect charger cord, wall cord and battery charge port for damage before each use. Do not use if any part is damaged. See your Sun Bicycles dealer for repair or replacement of affected part.
- Do not store the battery in temperatures below 50 degrees Fahrenheit and never let the battery freeze in temperatures below 32 degrees Fahrenheit.
- Always turn off your bike after use with the on/off button on the L.E.D. display located on the left side of your handlebar.

SUN ELECTROLITE CHARGER SPECIFICATIONS:

- HP1202L Series Charger for Lithium Batteries
- Input 100VAC-240VAC, 50/60HZ, 2.1 A-0.9A
- Output +36VDC @ 3A

SUN ELECTROLITE BATTERY SPECIFICATIONS:

- Lithium-Polymer Battery, 36VDC, 10Ah rating
- Custom Alloy Casing with Keyed Battery Lock
- Dual Fuse Protection, 20A main and 5A controller fuses
- 5HR Full Recharge Time

SUN ELECTROLITE HUB SPECIFICATIONS:

- 250 Watt Silent Hub Motor, 36VDC operation, 17.4 mph top speed rating
- Maintenance-Free Brushless Operation, 12G Stainless spokes

WARNING

- Do not immerse your Sun Electrolite in water
- Do not mix batteries from other suppliers.
- Do not mix chargers from other suppliers.
- Use only the supplied charger.
- Charge in dry locations only.
- Do not cover battery or charger when charging.
- Do not short battery terminals.
- Do not allow children to play with batteries.
- Do not allow children to charge batteries.
- Do not modify battery.
- Do not modify charger.
- Do not modify electrical system.
- Do not modify hub motor.
- Do not use damaged battery, charger or cords.
- Do not dispose of battery in household garbage.
- Do not bypass or use non-specification fuses.

NOTICE

Maintain battery charge once every three (3) months for best battery performance.

Power off your Sun Electrolite when parked, stored or otherwise left unattended.

Battery power indicator on rear of battery can be used to check battery charge at any time. Push button until charge indication appears, display will turn off automatically within a few seconds.

Please see your local Sun Bicycles dealer if you have additional questions or concerns on the operation of your Sun Electrolite

BICYCLES LIMITED WARRANTY:

All Sun Bicycles (Sun) bicycles sold through, and assembled by an authorized Sun dealer are subject to the following terms, conditions and limitations. J&B Importers, Inc. grants each original buyer of a Sun bicycle a non-transferable warranty subject to the following limitations, terms and conditions that states when new this bicycle is free of defective materials and workmanship.

Lifetime Summary Coverage (subject to limitations, terms, and additional conditions as explained below)

- All Sun alloy and steel frames are warranted for the lifetime of the original retail buyer.
- If at the time of warranty, Sun does not have available an equivalent frame, the consumer may be offered a complete bike at a discounted price.

One (1) Year Summary Coverage (subject to limitations, terms, and additional conditions as explained below)

- All Sun forks, parts and components including e-bike motor and electronic parts (except wear items such as tires and inner tubes) are warranted for one (1) year from the date of purchase of the original retail buyer.
- E-bike lithium polymer battery is warranted for one (1) year from the date of purchase of the original retail buyer with the following exceptions. The battery warranty does not include damage from power surges, use of unapproved chargers (only original equipment charger is approved,) improper maintenance, or normal wear.

Commercial Use Summary Coverage (subject to limitations, terms, and additional conditions as explained below)

- All Sun alloy and steel frames designated "Type-R," if used for commercial purposes are warranted for one (1) year from the date of purchase of the original buyer.
- All original Sun forks, parts and components (except wear items such as tires, tubes and grips) on bicycles designated "Type-R" if used for commercial purposes are covered for thirty (30) days from the date of purchase of the original buyer.

LIMITED WARRANTY DOES NOT COVER:

- Improper assembly
- Improper maintenance
- Normal wear and tear
- Installation of components, parts, or accessories not originally intended for or compatible with the bicycles as sold
- Damage or failure due to accident, misuse, abuse, or neglect
- Labor charges for replacement or changeover
- Paint / finishes

ADDITIONAL CONDITIONS:

This Limited Warranty is made only to the original owner of this new Sun bicycle or frameset purchased from a Sun dealer, and it shall remain in force only as long as the original owner retains ownership of the Sun bicycle or frameset. This Limited Warranty is not transferable. In order to exercise your rights under this limited warranty, the bicycle or frameset must be presented to a Sun dealer, together with a receipt, bill of sale or other appropriate written proof of purchase which identifies the bicycle or frameset by serial number. Should this bicycle or any part be determined by Sun to be covered by this warranty, it will be repaired or replaced, at the sole option of Sun, which will be conclusive and binding. The original owner shall pay all labor charges connected with the repair or replacement of all parts. Claims made outside the USA may be subject to fees and additional restrictions. This limited warranty does not apply to normal wear and tear or to claimed defects, malfunctions or failures that result from abuse, neglect, improper assembly, improper maintenance, alteration, collision, crash or misuse. This bicycle has not been designed, engineered, distributed, manufactured, or retailed to be equipped with a motor of any kind, for uses in trick riding, ramp riding, jumping, aggressive riding, riding on severe terrain, riding in severe

climates, riding with heavy loads, commercial activities, or any similar activities; such uses may damage the bicycle, and can cause serious injury to the rider, and in all cases will void this warranty.

USEFUL PRODUCT LIFE CYCLE:

Every Sun bicycle or frameset has a useful product life cycle. The length of that useful product life cycle will vary with the construction and materials of the bicycle or frameset, the maintenance and care the bicycle or frameset receives over its useful product life cycle, and the type and amount of use the bicycle or frameset is subject to. Uses in competitive events, trick riding, ramp riding, jumping, aggressive riding, riding on severe terrain, riding in severe climates, riding with heavy loads, commercial activities and other types of non-standard use can dramatically shorten the useful product life cycle of a Sun bicycle or frameset. Any one or a combination of these conditions may result in an unpredictable failure of a Sun bicycle or frameset that would not be covered by this warranty. All Sun bicycles or framesets should be periodically checked by a Sun dealer for indicators of stress and/or potential failure, including cracks, deformation, corrosion, paint peeling, dents, and any other indicators of potential problems, inappropriate use, or abuse. These are important safety checks and very important to help prevent accidents, bodily injury to the rider and shortened useful product life cycle of a Sun bicycle.

THIS IS AN INTEGRATED AND FINAL STATEMENT OF Sun Bicycles LIMITED WARRANTY. Sun Bicycles DOES NOT AUTHORIZE OR ALLOW ANYONE, INCLUDING ITS DEALERS, TO EXTEND ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, FOR Sun Bicycles. NO OTHER REPRESENTATION, AND NO STATEMENT OF ANYONE BUT Sun Bicycles, INCLUDING A DEMONSTRATION OF ANY KIND BY ANYONE SHALL CREATE ANY WARRANTY REGARDING THIS BICYCLE. ALL OF THE REMEDIES AVAILABLE TO THE ORIGINAL OWNER ARE STATED HEREIN. IT IS AGREED THAT Sun Bicycles LIABILITY UNDER THIS LIMITED WARRANTY SHALL BE NO GREATER THAN THE AMOUNT OF THE ORIGINAL PURCHASE PRICE AND IN NO EVENT SHALL Sun Bicycles BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

DISCLAIMER:

All other remedies, obligations, liabilities, rights, warranties, express or implied, arising from law or otherwise, including but not limited to, any claimed implied warranty of merchantability, any claimed implied warranty arising from course of performance, course of dealing or usage of trade, and any claimed implied warranty of fitness, are disclaimed by Sun Bicycles and waived by the original owner. Some states, jurisdictions, countries, provinces, do not allow some or all of the limitations set for herein, or the exclusion or limitation of incidental or consequential damages. If any provision is found unenforceable, only that provision shall be stricken and all others shall apply. This limited warranty does provide the original owner with certain legal rights and recourse and the original owner may possess other rights or recourse, depending on the state, jurisdiction, country or province.



THANK YOU FOR CHOOSING SUN BICYCLES!

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