

SANTA CRUZ BICYCLES

E-bike User Manual Supplement



2020

TABLE OF CONTENTS

SAFETY INSTRUCTIONS.....	4
BICYCLE SAFETY	4
BATTERY SAFETY	4
PARTS DIAGRAM.....	5
E-BIKE SYSTEM.....	6
REMOVING AND INSTALLING THE BATTERY	6
CHARGING THE BATTERY.....	8
HANDLEBAR DIAGRAM.....	10
DI2 HANDLEBAR INTERNAL CABLE ROUTING.....	11
ALLOY HANDLEBAR EXTERNAL CABLE ROUTING	13
CYCLE COMPUTER INSTALLATION AND WIRING	14
SPEED SENSOR MAGNET	16
SPEED SENSOR.....	16
MODE SWITCH	17
CONNECTING TO THE E-BIKE APP	17
TROUBLESHOOTING.....	17
GENERAL SERVICE AND CARE.....	19
STORING.....	19
CLEANING.....	19
INCIDENTAL DAMAGE	19
TRANSPORT	19
MAINTENANCE.....	19
MAINTENANCE SCHEDULE.....	20
LIMITED WARRANTY.....	21

SAFETY INSTRUCTIONS

⚠ WARNING

BICYCLE SAFETY

You must register your bicycle in order to make a warranty claim (see the instructions on the Warranty page).

This document is a supplement to the Santa Cruz Bicycles User Manual. Refer to full Santa Cruz Bicycles User Manual for complete safety information and installation.

Keep this manual for your reference. It is critical that you consult your dealer and component manufacturer's instructions where indicated in this manual, as many tasks should only be done by your dealer.

The Shimano STEPS system is not serviceable by the consumer and any tampering will void the warranty. Always take your bicycle to a verified Santa Cruz Bicycles dealer for service.

Adhere to all torque and sizing specifications for press fits and thread fits. Over-tightening can damage threads or cause parts to fail. Using the wrong size part can cause parts to fail and may cause a crash, which can result in serious injury and/or death.

As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail and may cause a crash, which can result in serious injury and/or death. Any form of crack, scratch, dent, delamination, unusual noise, or change of coloring indicates that the life of the component has been reached and it should be replaced before riding.

In the event of an impact or crash, damage to composite components or frame may be invisible to the user. Consult your dealer immediately for inspection. Your bicycle requires regular maintenance, frequent inspection, and the replacement of parts to address any issues.

After any crash or impact, or if you have exceeded the maximum weight limits, immediately contact your dealer for inspection.

Do not exceed 150°F (65°C) exposure to your bicycle. High temperatures, such as an open flame or other heat sources, may damage the adhesive that holds carbon fibers together or the joints that hold frame parts together.

Excessive vibration or "harmonic oscillation" from imbalances of the wheels or frame indicates a serious problem. Stop riding the bike immediately and consult your dealer.

Do not attempt to repair damaged carbon composite. It is impossible to predict how forces from a crash or impact have damaged a carbon frame or parts. Repairing a carbon frame can compromise your safety and will void the warranty.

Do not place your hands near a moving drivetrain. The areas where the chain contacts the front and rear sprockets or derailleurs can pinch fingers and hands.

Do not place your hands near a moving wheel. A moving wheel can catch your hand between the spokes and frame or other components and can crush your hand.

Do not place your hands near sprocket teeth or disc brake rotors, which have sharp edges and can cut skin.

This bike is not designed or equipped for use on public roads. Before it can be used on public roads, it must be fitted with the legally prescribed equipment. It is designed to be used off-road, but not for competitions. The manufacturer and dealer accept no liability for damage resulting from any use beyond this definition and/or failure to comply with the safety information and instructions in this user guide. This applies particularly to, but not limited to, the use of this bike in competitions, overloading, and the failure to properly rectify faults. Intended use also includes conformance with the specified operating, service, and repair conditions in the user guide. Fluctuations in the consumption and power of the battery and a reduction of the capacity with increasing age are common and technically unavoidable, and as such, do not constitute material defects.

BATTERY SAFETY

Batteries are subject to the dangerous goods regulations. Private users are permitted to transport them on the road without further conditions. If transported by commercial third parties (e.g. by air freight, logistics companies, or postal service), special conditions apply to packing and labeling. For questions about transporting batteries, please contact your local Santa Cruz Bicycles dealer.

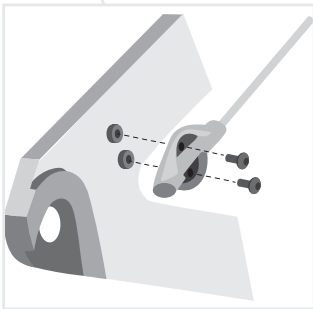
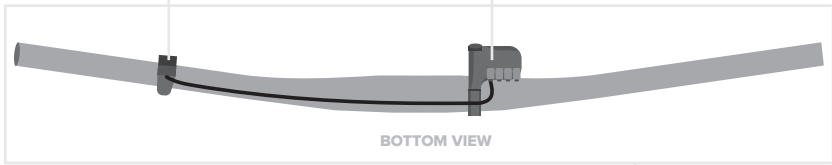
Damaged batteries must not be charged, used, or transported. They can explode and cause serious burns or fires. Gases can be released and irritate the airways. Ensure there is a supply of fresh air and consult a doctor in the event of discomfort. Liquid can escape and cause skin irritation. Avoid contact with this liquid, but in case of accidental contact, wash off with water. If liquid gets into the eyes, flush out with water and seek medical attention.

Batteries must not be submerged in water. There is a risk of explosion. Do not attempt to extinguish a burning battery with water, only the surrounding burning material. For burning batteries, use a Class D Fire Extinguisher. If it is possible to take the battery safely outside, smother the first with sand. You do not need to worry that you are in danger when riding in the rain; the battery is protected from moisture and condensation.

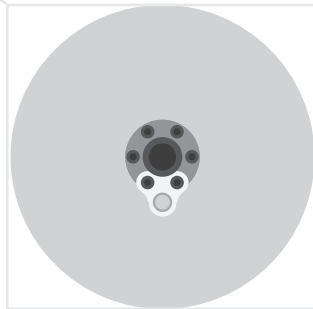
PARTS DIAGRAM

MODE SWITCH

CYCLE COMPUTER



SPEED SENSOR



SPEED SENSOR MAGNET

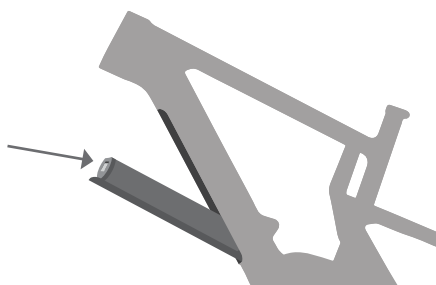
E-BIKE SYSTEM

REMOVING AND INSTALLING THE BATTERY

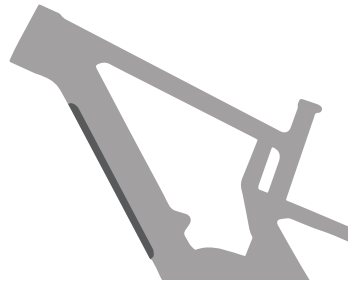
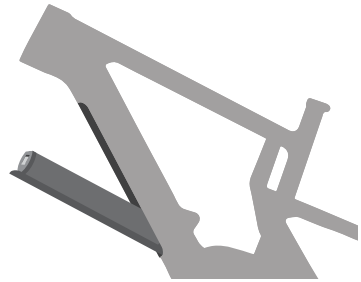
1. Locate the battery removal access port on the battery cover. Use a 4 mm hex wrench in the battery removal access port and turn it **clockwise** 1/4 turn to unlock the battery.



2. When the battery drops down, press the release on the upper end of the battery. Be sure to support the battery while removing it. Remove the top of the battery first and then the bottom.



3. To install the battery into the frame, begin with the lower end near the drive unit. Align the tab in the frame with the slot in the lower end of the battery. This will also align the prongs. When aligned correctly, the upper end of the battery will snap into the upper battery mount. The battery is now locked in place.

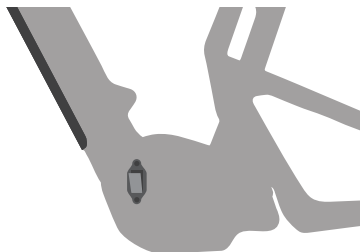


CHARGING THE BATTERY

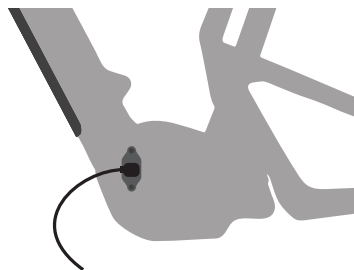
NOTICE

Please reference your Shimano Steps User Manual for complete charging information.

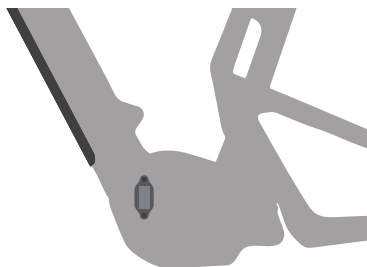
1. The charge port is located on the non-drive side of the frame near the drive unit. Open the cover by hand by pulling the top edge down.



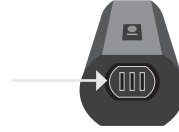
2. Insert the plug so that the cord is facing toward the front of the bike.



3. Be sure to close the charge port cover after charging.



4. To charge the battery while removed from the bike, use the Shimano charger adapter to connect the charging cable to the battery.



5. Once fully charged, disconnect the battery from the charger and reinstall it back into the frame (not pictured).

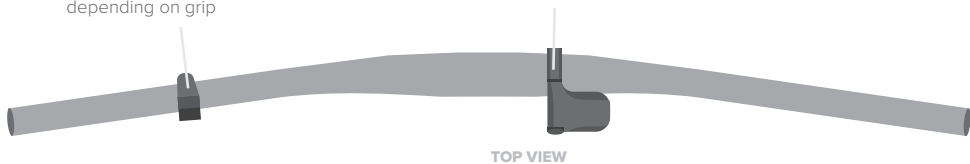
HANDLEBAR DIAGRAM

SCB DI2 BAR

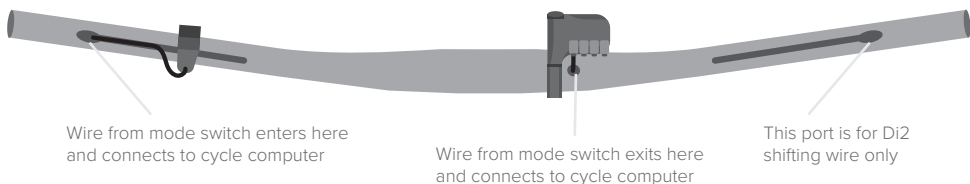
SHIMANO MODE SWITCH

Position ~142 mm from end of bar, depending on grip

SHIMANO CYCLE COMPUTER



BOTTOM VIEW

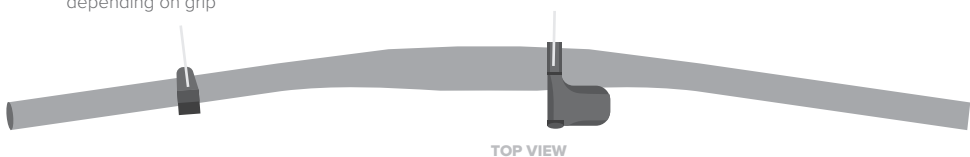


ALLOY OR NON-DI2 BAR

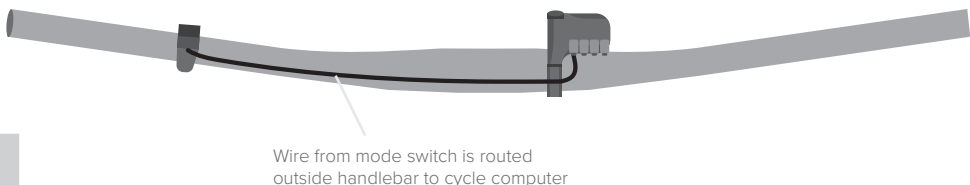
SHIMANO MODE SWITCH

Position ~142 mm from end of bar, depending on grip

SHIMANO CYCLE COMPUTER

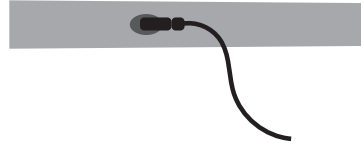


BOTTOM VIEW

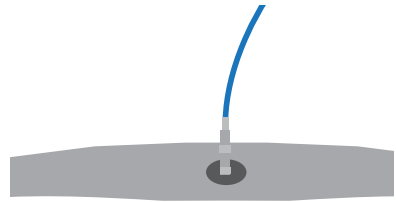


DI2 HANDLEBAR INTERNAL CABLE ROUTING

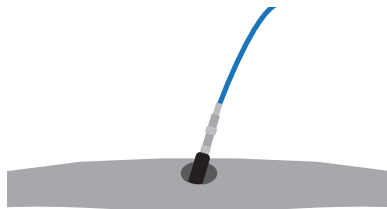
1. Install the mode switch wire into the hole in the left side of the handlebar. Push the wire through until it exits the left side bar end.



2. Insert an internal cable routing (ICR) tool into the hole near the center of the handlebar. Push the ICR tool through until it exits the left side bar end.



3. Connect the mode switch wire to the ICR tool. Pull the ICR tool back through the bar and out the display hole.



4. Install the mode switch in the correct location next to the grip on the rider's **left** side of the handlebar, ensuring the mode switch wire is aligned in the groove under the bar. Use a 3 mm hex wrench to tighten the mode switch clamp bolt to 1.5 Nm (13.8 in-lb).

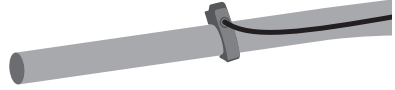
NOTICE

The groove and hole located on the rider's **right** side of the handlebar is intended for internal routing of Di2 shift wires only.



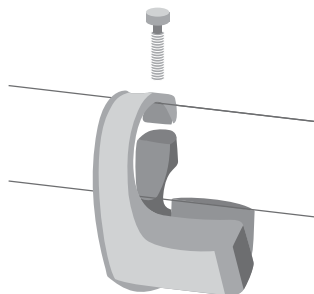
ALLOY HANDLEBAR EXTERNAL CABLE ROUTING

1. Install the mode switch in the correct location next to the grip on the rider's left side of the handlebar, ensuring the mode switch wire is positioned under the bar. Use a 3 mm hex wrench to tighten the mode switch clamp bolt to 1.5 Nm (13.8 in-lb). Use Shimano handlebar guides to secure the mode switch wire along the handlebar.



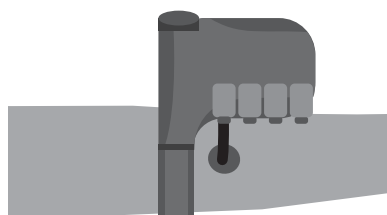
CYCLE COMPUTER INSTALLATION AND WIRING

1. Install the Shimano cycle computer onto the handlebar, directly to the right of the stem. Use a 3 mm hex wrench to tighten the clamp bolt to 0.8 Nm (7.1 in-lb).



2. **Di2 Bar:** The wire from the mode switch routes through the handlebar and connects into the left port of the cycle computer.

Non-Di2 / Alloy Bar: The wire from the mode switch routes along the handlebar and connects into the left port of the cycle computer. Use Shimano handlebar guides to secure the mode switch wire along the handlebar.



DI2



DI2

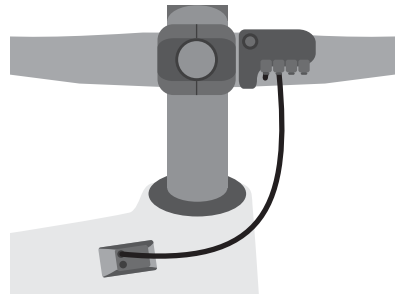


NON-DI2/ALLOY

- The wire from the drive unit routes through the frame, exits the drive-side frame port, and connects to the second port from the left on the cycle computer.

NOTICE

Make sure to leave enough slack in the wire so that you can fully rotate the handlebars to each side. Failure to do so may result in damage to the wire when the handlebars are rotated.



SPEED SENSOR MAGNET

The speed sensor magnet comes preinstalled on the rotor using two of the rotor bolts. The magnet must align with the speed sensor on the inside of the rear triangle.

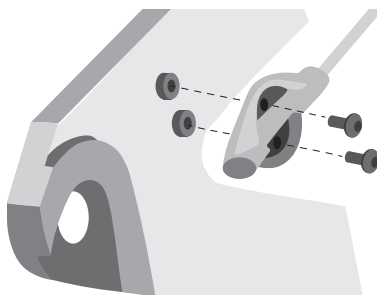
NOTICE

When changing out wheels, make sure to remove the magnet carrier and install it on your new rear wheel. Torque the rotor bolts to your rotor manufacturer's specifications.



SPEED SENSOR

The speed sensor comes preinstalled on the inside of the rear triangle using two bolts. The speed sensor must align with the sensor magnet on the rotor.



MODE SWITCH

See the Shimano STEPS user manual for the most up-to-date descriptions of mode switch.

CONNECTING TO THE E-BIKE APP

E-TUBE PROJECT

The display layout and switch operation can be customized through the Shimano E-Tube Project.

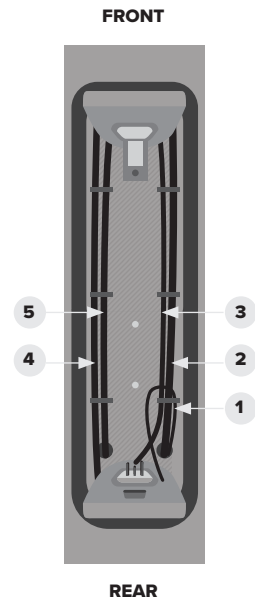
The Shimano E-Tube Project app is available in the App Store or through the Shimano software, which can be downloaded from the Shimano website. The E-tube Project app is compatible with both Android and Apple devices. Make sure to check Shimano's website for the latest information regarding the E-Tube Project software.

TROUBLESHOOTING

Warnings or errors may appear on the cycle computer display if the system detects an issue. System errors and warnings can also be indicated by various lighting patterns on the battery's power panel. Please refer to the Shimano STEPs user manual for information on warning codes, error codes, and battery LED codes. The code will clear once the issue is resolved. If any issues persist after the recommendations below, contact your Santa Cruz Bicycles dealer immediately.

To inspect the cables inside the frame for any signs of damage or poor connection, follow the battery instructions section of this manual to remove and reinstall the battery.

1. Speed Sensor Wire
2. Brake Cable Housing
3. Dropper Post Cable
4. Shifter Cable Housing
5. Di2 Wire



DRIVE UNIT COVER

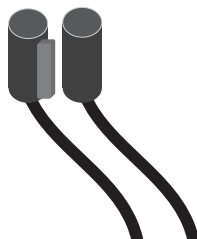
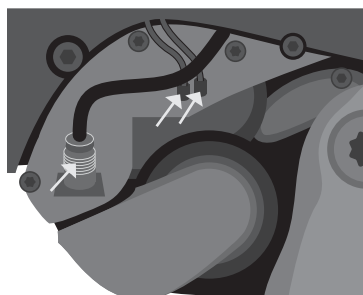
If you receive an error code to check the connections, follow the instructions below.

1. Use a Phillips head screwdriver to remove the three drive unit cover screws.



2. Check the connections of the main power cord (far left) that goes from the battery to the drive unit, the speed sensor wire (center), and the standard DI2 wire from the display (right).

NOTE: The speed sensor wire has notch on the plug that aligns with the port (pictured below).



3. Use a Phillips head screwdriver to reinstall the three drive unit cover screws.



GENERAL SERVICE AND CARE

STORING

Store your bicycle where it will not be an obstruction and has protection from dangerous conditions. Do not park your bicycle near machinery that emits ozone or exhaust, which can damage rubber and paint. Rain or snow can cause the metal on your bicycle to corrode. Ultraviolet radiation from the sun can fade the paint and crack the rubber or plastic on your bicycle. Before you put away your bicycle for an extended time, clean and service it and apply frame polish. Hang your bicycle off the ground with the tires at approximately half the recommended inflation pressure. Before you ride your bicycle again, be sure it operates correctly.

CLEANING

Clean your bicycle with a soft, moist cloth and bicycle cleaner or a solution of dish soap and water. Do not use industrial solvents or harsh chemicals that can damage the paint or moving parts. Do not use high-pressure water. Every three months, clean and polish the frame finish. Some finishes do not require polish. If you are not certain, consult your retailer.

INCIDENTAL DAMAGE

Do not let your bicycle fall. Do not set your bicycle down with the frame or derailleur touching the ground. Use care with car racks and work stands. Clamping devices, such as those found on a work stand or car carrier, can cause damage to the paint or tubes of bicycle frames. To hold the bicycle for repairs, clamp the seatpost. To hold the bicycle for transportation on a motor vehicle, clamp the bicycle by the wheels or fork. If you accidentally apply a bending force to the fork, do not ride the bicycle until your retailer has inspected the fork for damage.

The finish, or paint, on your bicycle can be damaged by chemicals (including some sports drinks) or abrasive contact. Dirt can scratch or remove paint (and even frame material), especially where a cable rubs or a strap is placed around a tube. Keep the bicycle clean. Use adhesive padding to prevent rubbing in critical spots.

TRANSPORT

When packaging your bicycle for travel, use a hard case or carton that will protect it from damage. Attach padding to all the frame and fork tubes, and use a rigid block to protect the fork dropouts and maintain structural support of the fork lowers. If the bicycle is not packaged correctly, it could be easily damaged in transit. If you are not sure, ask your retailer to package your bicycle for you.

MAINTENANCE

Bicycle service requires special knowledge and tools and should be performed by a professional bicycle mechanic. This user manual is to be used in conjunction with the manuals supplied by the component manufacturers. If you did not receive the manual provided by the component manufacturer, download the materials off the Internet or contact your local dealer. Consult your local dealer to create a maintenance plan and refer to the Maintenance Schedule on the next page as a guide for frequent inspection, service, and replacement of parts. The E-bike system is not serviceable by the consumer and any tampering will void the warranty.

MAINTENANCE SCHEDULE

BEFORE EVERY RIDE	WEEKLY	MONTHLY	EVERY 3 MONTHS	ANNUALLY
Check the frame and fork for signs of stress: scratches, cracks, dents, deformation or discoloration. Inspect the chainstay guard and ensure it is correctly and securely attached	Check that all bolts are tightened to proper torque specifications. Make sure to include pedals and any accessories or luggage carriers.	Check the shifter and brake cables for wear	Inspect the drivetrain for wear	Annual servicing at your dealer: overhaul service and inspection of frame, suspension, and all other components. Repair, service, and/or replace parts as needed
Check that the wheels are true	Check the rims and spokes for damage	Check that the bottom bracket is tightened to proper torque specifications	Inspect the crank arms and pedals	Clean and lubricate all parts as recommended by your component manufacturer's instructions or consult your dealer
Check the tire pressure	Clean the bicycle	Check that the headset is adjusted correctly	Top off grease ports in frame lower links, if applicable	Check for service instructions and intervals for your frame at www.santacruz bicycles.com
Check the brakes, including brake pads and brake lines	Check the tires for damage and wear	Check that the chain is tensioned correctly	Check tire sealant levels	
Check that both wheels are secure	Clean dust seals on suspension	Check firmware for updates. Use the E-Tube project app, use the Di2 plug into a computer with E-Tube project computer software, or take to your Santa Cruz Bicycles dealer.	Inspect suspension parts for wear	
Check that the handlebar and stem are correctly positioned and inspect for signs of stress: scratches, cracks, deformities, and discoloration		Check the chainstay guard and bottom bracket guard (if applicable) for wear		
Check that the suspension settings are at your preferences				
Check that the lighting system and reflectors are in good working order				
Check that the saddle and seatpost are correctly positioned and tightened				
Check for smooth shifting operation				
Lubricate the chain				

This list provides some guidelines, but is not to be considered a complete inspection. Following these guidelines will help maintain the performance of your bicycle and prevent more serious problems from arising. It is important to remember that service intervals can vary depending on climate, trail conditions and riding frequency. For service instructions for your specific components, visit the manufacturer's website. If you detect any problems with your bike, and you are not able to repair them, take your bike to your authorized dealer for service.

LIMITED WARRANTY

LIFETIME FRAME AND FORK WARRANTY

Santa Cruz Bicycles will repair or replace at its option any frame or rigid fork made by Santa Cruz Bicycles it determines to be defective in materials or workmanship. The warranty will be in effect for the lifetime of the frame or fork and is available only to the original owner. Notwithstanding the foregoing, frames purchased prior to May 1, 2015 are covered under the previously-existing warranty for five years from the original date of purchase.

LIFETIME RESERVE CARBON WHEELS WARRANTY

Santa Cruz Bicycles will repair or replace at its option any Reserve rim made by Santa Cruz Bicycles that is damaged or destroyed by riding. The warranty will be in effect for the lifetime of the rim and is available only to the original owner.

LIFETIME BEARING WARRANTY

Santa Cruz Bicycles pivot bearings are warranted for life to the original owner of the bike. The return process is simple: fill out the Warranty Bearing Replacement Form at www.santacruz bicycles.com, upload a copy of your purchase receipt, and we'll get a new set of bearings out to you within 48 hours!

LIFETIME HANDLEBARS WARRANTY

Santa Cruz Bicycles carbon handlebars are warranted against defects in materials and workmanship for life from the original date of purchase.

LIFETIME BOTTLE CAGES WARRANTY

Santa Cruz Bicycles carbon water bottle cages are warranted against defects in materials and workmanship for life from the original date of purchase.

NO-FAULT REPLACEMENT

In the event of a non-warranty situation, Santa Cruz Bicycles will make replacement parts available to the original owner at a reduced charge for the applicable warranty period described above.

REGISTRATION

Prior registration is not required for warranty claims. However, registration will make it easier to establish your original ownership and otherwise process your claim. To register your Santa Cruz Bicycles products, please visit www.santacruz bicycles.com.

FILE A WARRANTY CLAIM OR NO-FAULT REPLACEMENT CLAIM

Something not right? Use our Warranty Claim Form at www.santacruz bicycles.com to file a warranty claim. We'll do everything we can to get you back to riding as fast as possible.

If you have any other questions, or would like to follow up on a warranty claim, contact our Warranty Department at www.santacruz bicycles.com.

LIMITATIONS, EXCLUSIONS, AND DISCLAIMERS

The sole remedy available under the foregoing express warranty and all implied warranties is the repair or replacement of defective parts with those of equal or greater value, as determined by Santa Cruz Bicycles in its sole discretion. The warranty does not cover labor costs, custom finishes, normal wear and tear, or damage from commercial use. The warranty is void if the part is modified from its original condition in any manner or used outside normal intended use, as determined by Santa Cruz Bicycles in its sole discretion. The warranty for damage arising from accidents, crashes and other impacts is limited to offered replacement at a reduced charge as set forth above. Any implied warranties (including without limitation the warranties of merchantability and fitness for particular purpose) which may not be disclaimed under applicable law are limited in duration to the period set forth above or the applicable statute of limitations, whichever is shorter.

The foregoing warranty is the sole and exclusive warranty offered by Santa Cruz Bicycles. To the maximum extent permitted by applicable law, all other express and implied warranties (including without limitation the warranties of merchantability and fitness for a particular purpose) are hereby disclaimed. To the maximum extent permitted by applicable law, in no event shall Santa Cruz Bicycles or any of its owners, officers, employees, representatives, agents, or affiliates (or any of their respective successors or assigns) be responsible or otherwise liable for any direct, incidental or consequential damages arising from the purchase, use, or ownership of its products, including without limitation damages for personal injury, property damage, or economic losses, whether based on contract, warranty, negligence, product liability, or any other theory.

Some states and countries do not allow some or all of the foregoing exclusions or limitations, so they may not apply to you. If any portion of the foregoing warranty (or the exclusions or limitations thereto) is deemed invalid or unenforceable pursuant to applicable law, it shall be deemed modified so as to be valid and enforceable to the maximum extent consistent with such law. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state and country to country.

Santa Cruz Bicycles

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