LEVO

USER MANUAL

EN FR DE CZ PL SK

EN

CONTENTS

SPECIALIZED BICYCLE COMPONENTS
15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-6229
0000159790_UM_R1, 09/20
We may occasionally issue updates and addendums to this document. Please periodically check www.specialized.com or contact Rider Care to make sure you have the latest information.
Info: specialized.com / 877-808-8154

1. INTRODUCTION

THIS USER MANUAL CONTAINS IMPORTANT INFORMATION. PLEASE READ CAREFULLY AND STORE IN A SAFE PLACE.

This manual was drafted in the English language (Original instructions) and may have been translated into other languages as applicable (translation of Original instructions).

This user manual is specific to your Specialized Turbo Levo bicycle and should be read in addition to the Specialized Bicycle Owner's Manual ("Owner's Manual"). It contains important safety, performance, and technical information, which you should read before your first ride and keep for reference. You should also read the entire Owner's Manual because it has additional important general information and instructions which you should follow. If you do not have a copy of the Owner's Manual, you can download it at no cost at www.specialized.com, or obtain it from your nearest Authorized Specialized Retailer or Specialized Rider Care.

Additional safety, performance, and service information for specific components such as suspension or pedals on your bicycle, or for accessories such as helmets or lights, may also be available. Make sure that your Authorized Specialized Retailer has given you all the manufacturers' literature that was included with your bicycle or accessories. If there is a difference between the instructions in this manual and the information provided by a component manufacturer, please refer to your Authorized Specialized Retailer.

The Levo is classified as an EPAC (Electrically Power Assisted Cycle, otherwise known as a Pedelec), and is referred to in this manual as a bicycle unless otherwise noted.

ADDITIONAL LANGUAGES ARE AVAILABLE FOR DOWNLOAD AT www.specialized.com.

When reading this user manual, you will note various important symbols and warnings, which are explained below:

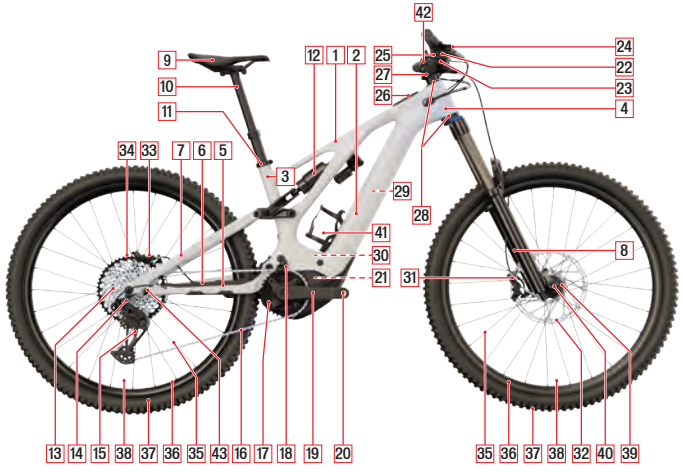
	**WARNING!** The combination of this symbol and word indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death. Many of the warnings say "you may lose control and fall." Because any fall can result in serious injury or even death, we do not always repeat the warning of possible injury or death.
	**CAUTION:** The combination of the safety alert symbol and the word CAUTION indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury, or is an alert against unsafe practices. The word CAUTION used without the safety alert symbol indicates a situation which, if not avoided, could result in serious damage to the bicycle or the voiding of your warranty.
	**INFO:** This symbol alerts the reader to information which is particularly important.
	**GREASE:** This symbol means that high quality grease should be applied as illustrated.
	**CARBON FRICTION PASTE:** This symbol means that carbon friction paste should be applied as illustrated to increase friction.
	**TORQUE:** This symbol highlights the correct torque value for a specific bolt. In order to achieve the specified torque value, a quality torque wrench must be used.
	**TECH TIP:** Tech Tips are useful tips and tricks regarding installation and use.

1.1. WARRANTY

Please refer to the written warranty provisions provided with your bicycle, or visit www.specialized.com. A copy is also available at your Authorized Specialized Retailer.

2. LEVO COMPONENTS

2.1



1.	TOP TUBE
2.	DOWN TUBE
3.	SEAT TUBE
4.	HEAD TUBE
5.	CHAINSTAY
6.	CHAINSTAY PROTECTOR
7.	SEAT STAY
8.	FORK
9.	SADDLE
10.	SEATPOST
11.	SEATPOST CLAMP
12.	REAR SHOCK
13.	CASSETTE
14.	DERAILLEUR HANGER
15.	REAR DERAILLEUR
16.	CHAIN
17.	CHAINRING
18.	CHAIN GUIDE
19.	CRANK ARM
20.	PEDAL
21.	MOTOR
22.	HANDLEBAR

23.	SHIFTER
24.	BRAKE LEVER
25.	REMOTE
26.	TCU 2 DISPLAY
27.	STEM
28.	ADJUSTABLE HEADSET
29.	INTERNAL RECHARGEABLE BATTERY
30.	CHARGING SOCKET
31.	FRONT BRAKE CALIPER
32.	FRONT BRAKE ROTOR
33.	REAR BRAKE CALIPER
34.	REAR BRAKE ROTOR
35.	SPOKE
36.	RIM
37.	TIRE
38.	VALVE
39.	HUB
40.	THRU-AXLE
41.	WATERBOTTLE CAGE
42.	SWAT TOOL
43.	ADJUSTABLE HORST PIVOT

TURBO CONNECT UNIT (TCU)

Fig. 2.2

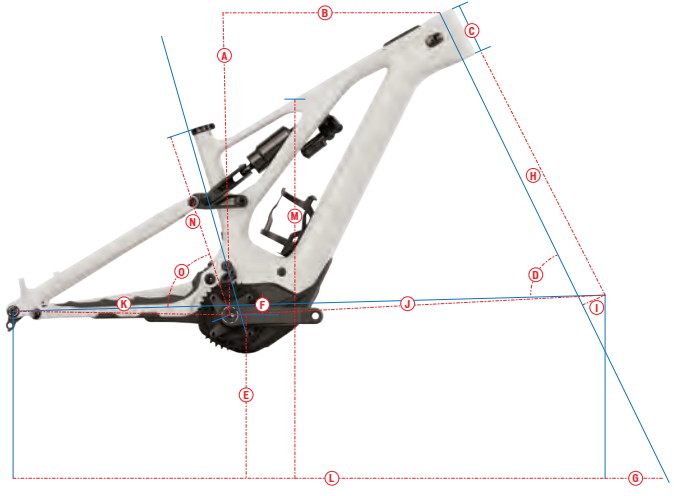
Some Levo models are equipped with the TCU 1 display. The display turns on the motor, and provides access to the support modes options, battery charge level and error codes.

TURBO CONNECT UNIT 2 (TCU 2)

Fig. 2.3

Other Levo models are equipped with the TCU 2 display. The display turns on the motor, and provides a visual on the display for Speed, Battery charge level, Mode, Heart Rate, Error Codes, Distance Ridden, Elevation, Rider Power, Odometer, Time Ridden, and Time of Day.

3. GEOMETRY



	FRAME SIZE	S1	S2	S3	S4	S5	S6
A	STACK	605	618	626	635	644	653
B	REACH	412	432	452	477	502	532
C	HEAD TUBE LENGTH	105	105	115	125	135	145
D	HEAD TUBE ANGLE	64.5	64.7	64.7	64.7	64.7	64.7
E	BB HEIGHT	352	350	350	350	350	350
F	BB DROP	25	27	27	27	27	27
G	TRAIL	131	129	129	129	129	129
H	FORK LENGTH (FULL)	557	567	567	567	567	567
I	FORK RAKE/OFFSET	44					
J	FRONT CENTER	737	759	784	813	842	877
K	CHAINSTAY LENGTH (SHORT SETTING)	441					
L	WHEELBASE	1179	1200	1224	1254	1283	1381
M	BIKE STANDOVER HEIGHT	750	775	785	785	790	790
N	SEAT TUBE LENGTH	380	390	405	425	445	465
O	SEAT TUBE ANGLE	78	77.5	76.7	76.2	76.2	76.2
P	CRANK LENGTH (MM)	160					
	HANDLEBAR WIDTH (MM)	780					
	STEM LENGTH (MM)	35/40	35/40	50	50	50	50
	SADDLE WIDTH (MM)	155	155	143	143	143	143
	SEAT POST MAX INSERTION (MM)	210	220	240	260	280	295
	SEAT POST MIN INSERTION	100					
	REAR WHEEL WIDTH	30					
	FORK SIZE (MM)	160					

The above table shows the standard geometry for the bicycles as shipped.

Visit www.specialized.com for all possible geometry configurations.

4. GENERAL INFORMATION ABOUT YOUR LEVO

4.1. INTENDED USE

The Levo is intended and tested for All Mountain mountain biking (Condition 4) use only.

For more information on the intended use and structural weight limits, please refer to the Specialized Owner's Manual.

INFO: Before using your Levo bicycle, please inform yourself of all applicable legal requirements and regulations in your country or state. There may be restrictions on riding your Levo bicycle on public roads, cycling paths, and/or trails. There may also be applicable helmet requirements, age restrictions, or license, or insurance requirements. Specialized does not, and will not, make any promise, representation, or warranty regarding the use of your Levo bicycle. As laws and regulations regarding electric bicycles vary by country and/or state and are constantly changing, please make sure to obtain the latest information. You should also regularly see your Authorized Specialized Retailer for updated information.

CAUTION: All Levo bicycles have a fixed pre-set speed limit at which the motor support will automatically shut off. Any unauthorized (attempted) tampering with the power output and/or system is prohibited and will void the warranty.

4.2. PEDELEC / EPAC

The Levo is classified as an EPAC.

Your motor support will automatically shut off when you reach a maximum assistance speed depending on the country of purchase. A driver's license or insurance is typically not required.

Per EN 15194: The A-weighted emission sound pressure level at the driver ears is less than 70 dB(A).

5. GENERAL NOTES ABOUT RIDING

The Levo motor provides pedal assistance only while you are pedaling and the bicycle is in motion. The amount of pedal assistance will be higher or lower depending on the amount of force applied to the pedals. If you stop pedaling, the motor will stop providing any assistance.

The Levo bicycle can also be ridden as a normal bicycle without motor assistance by switching the display to the OFF mode. The same applies if the battery charge drops below 5% - 3%.

5.1. RIDING TIPS

Because of the electric motor assist, the Levo offers a unique riding experience compared to a bicycle without motor assist. Below are some riding tips which may also reduce component wear and increase battery range:

- Pay attention to your speed going into a corner and be sure to stop pedaling well before entering the corner. Otherwise you may carry too much speed when entering a corner.
- Ride efficiently and look ahead. Any time braking force is applied, more energy is needed to get the bicycle back up to speed.
- Shift gears regularly to stay in an optimal cadence range and downshift before coming to a stop.
- Reduce pedal force before initiating a gear shift to reduce drivetrain wear.
- Braking while steering may reduce the ability to control your bicycle.
- Check the tire pressure regularly. Low pressure can cause the tires to roll inefficiently.
- Only carry the cargo you need. More weight will drain the battery faster.
- If your bicycle is exposed to cooler temperatures (0 degrees), keep the bicycle stored indoors until just before riding.

WARNING! The motor support is activated as soon as you step onto the pedals and the bicycle is in motion. You should be seated on the bicycle and engage at least one brake before starting to pedal. Do not put one foot on a pedal and throw a leg over the bicycle, as it could accelerate unexpectedly. Failure to follow this warning may result in serious personal injury or even death.

WARNING! The acceleration of an electric bicycle can be faster than anticipated and may feel unusual at first. Before your first ride, you should use the lowest power ECO mode and become familiar with the operation of the electric bicycle by practicing starting and stopping, cornering and navigating obstacles in a safe environment away from other bicycles, pedestrians and/or vehicles. Due to the greater acceleration of an electric bicycle, you should also pay particular attention to terrain conditions as you may approach obstacles faster than expected. Please note the default motor support mode upon startup is always TRAIL mode.

CAUTION: The weight of your Levo is significantly higher than a bicycle without motor support. Use caution when handling the bicycle (including, but not limited to parking, lifting, pushing, loading it into a car or onto a bicycle carrier and unloading it).

WARNING! Use caution when viewing or using the display while riding, as it can be distracting and can lead to accidents. You should always stop before changing settings or operating the various functions of the display.

5.2. BEFORE RIDING

Regardless of your experience level, you should read the "FIRST" section of your Owner's Manual (Bike Fit, Safety First, Mechanical Safety Check and First Ride) and carry out all important safety checks. In addition, make sure you are familiar with the following areas of the bicycle that are specific to electric bicycles.

BEFORE YOUR FIRST RIDE:

- BATTERY: Is the battery fully charged?
- TCU DISPLAY: Are you familiar with the function of the display features?
- REMOTE: Are you familiar with the function of the buttons on the remote?

BEFORE EVERY RIDE:

- BATTERY: Do you have sufficient battery charge?
- TCU DISPLAY: Is the display functioning correctly?
- REMOTE: Do you know how to use the remote to change the motor support level from OFF to ECO to TRAIL to TURBO?

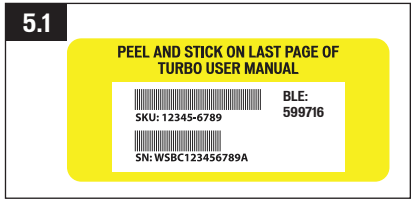
WARNING! If your battery, charger or other component exhibits any signs of damage, do not use the bicycle and immediately bring it to your Authorized Specialized Retailer for inspection.

5.3. KNOW YOUR RANGE

Know the range of your electric bicycle before you start your ride. You can calculate your range by visiting www.specialized.com, selecting your Turbo bicycle model, then clicking on the range calculator. In addition to the range calculator, we recommend using the Smart Control feature in the Mission Control App to control your range.

5.4. REMOVABLE YELLOW STICKER

Your Levo bicycle has a removable yellow sticker adhered to the frame, stating the bicycle serial number and your personal BLE (BLUETOOTH LOW ENERGY) pairing code. Remove this sticker from the bicycle and place it on the last page of this manual for future reference.



Models equipped with the TCU 2 will not show the BLE Code.

5.5. RIDING WITH KIDS

There are many different setups that allow you to ride with kids. Please look at the Riding Safely section in the Owner's Manual regarding general information and instructions on child carriers or trailers.

If you regularly ride with kids on your bicycle, your Authorized Specialized Retailer should conduct a periodic safety inspection.

WARNING! Specialized bicycles are only designed and tested for use by one person at a time. Carrying a child on your Specialized bicycle is at your own risk. If you choose to install an accessory on your Specialized bicycle such as a trailer, carrier, or trailer cycle, make sure it is compatible and refer to the manufacturer's instructions and your Authorized Specialized Retailer. You should make sure your bicycle is still safe to ride with the accessory installed. Be sure to not exceed the structural weight limit of the bicycle when using a trailer, trailer cycle or child carrier. Also make sure not to exceed the maximum cargo weight when using a child carrier.

WARNING! Riding with kids on your bicycle will affect the handling by altering the center of gravity, weight and balance. It may also negatively impact your cornering ability, increase your stopping distance and reduce your ability to slow down and maneuver, especially at higher speeds or down a steep grade. All of this can result in a loss of control, potentially causing serious injury and/or death. You should also become familiar with and practice riding with the accessory in a controlled environment away from traffic.

WARNING! Do not attach a child carrier, trailer or similar accessory to a composite or carbon fiber part or component, either directly or indirectly. For example, do not attach a trailer to a rear axle when the rear triangle is made of composite or carbon fiber. Likewise, do not attach a trailer cycle to a composite or carbon seatpost or a child carrier to a composite or carbon fork. Either may potentially apply unusual forces on your bicycle frame or component which could result in damage and cause a complete failure, with the risk of serious injury or death. If you have previously attached an accessory to a composite or carbon fiber part or component, do not ride until you have had your Authorized Specialized Retailer conduct a careful safety inspection.

Before riding with kids on your bicycle, please inform yourself of all applicable legal requirements and regulations in your country and state. There may be restrictions on riding your bicycle with certain or any accessory(ies). This is especially true for electric and pedal-assist bicycles.

6. GENERAL NOTES ABOUT ASSEMBLY

This manual is not intended as a comprehensive assembly, use, service, repair or maintenance guide. Please see your Authorized Specialized Retailer for all service, repairs or maintenance. Your Authorized Specialized Retailer may also be able to refer you to classes, clinics or books on bicycle use, service, repair, and maintenance.

WARNING! Due to the complexity of the Levo bicycle, proper assembly requires a high degree of mechanical expertise, skill, training and specialty tools. Therefore, it is essential for your safety that the assembly, maintenance and troubleshooting be performed by an Authorized Specialized Retailer. Before your first ride, make sure your components, such as brakes and drivetrain, are assembled and adjusted in accordance with the manufacturer's instructions and are functioning properly.

WARNING! Many components on the Levo, including, but not limited to the motor, battery and cable guides, are proprietary to the Levo. Only use originally supplied components and hardware at all times. Use of other components or hardware will compromise the integrity and strength of the assembly. Levo specific components should only be used on the Levo and not on other bicycles, even if they fit. Failure to follow this warning could result in serious injury or death.

WARNING! Never modify your frame or bicycle in any way. Do not sand, drill, file or remove parts from your bicycle. Do not install incompatible components or hardware. Failure to follow this warning may result in serious personal injury or death.

WARNING! Electrical components can be exposed when working on your bicycle. Do not touch any part of the electrical system while under electric charge. Do not expose the connections of the battery and frame to water. If any live components or the battery are damaged, stop riding immediately and bring your bicycle to your Authorized Specialized Retailer.

6.1. HEADSET BEARINGS

- The headset uses a 1 1/8" (42 mm x 30.5 x 8 mm, 45 x 45°) Campagnolo Standard compatible upper bearing and a 1.5" (52 mm x 40 x 7 mm, 45 x 45°) lower bearing. Ensure that replacement bearings are compatible with the Specialized headset specification.
- No tools are needed for installation or removal of both bearings. Grease the bearing surfaces before installation.
- For more information on the installation of the headset bearings see section 12 in this manual.

WARNING! Burrs and sharp edges can damage the carbon and alloy surfaces of the components. Any deep scratches or gouges in the stem or fork can weaken the components.

6.2. SEATPOST

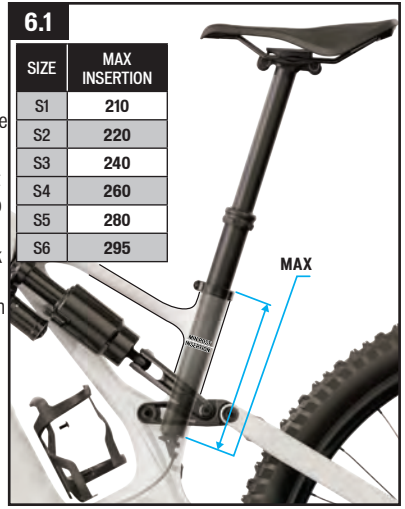
SEATPOST MINIMUM INSERTION:

Both the frame and seatpost have minimum insertion requirements. In addition, the frame has a maximum insertion requirement to prevent damage to the frame and seatpost.

- MINIMUM INSERTION: The seatpost must be inserted into the frame deep enough so the minimum insertion/maximum extension (min/max) mark on the seatpost is not visible. The frame requires a minimum of 100 mm of insertion.
- MAXIMUM INSERTION: The seat tube is reamed to a specified maximum insertion depth for each frame size. This ream depth limits the insertion depth of the seatpost. Please refer to the table in Fig.6.1.

6.1

SIZE	MAX INSERTION
S1	210
S2	220
S3	240
S4	260
S5	280
S6	295



- If the desired seat height cannot be achieved within the minimum and maximum insertion requirements, the seatpost should be replaced for a shorter or longer one.
- Once the saddle height is determined, torque the seatpost collar bolt to 55 in-lbf / 6.2 Nm.

INFO: The Levo is equipped with a Seat post stopper located on the rear of the seat tube, the stopper is designed to stop the seatpost from being inserted too far and impacting the motor.

TECH TIP: The fit between the seatpost and the seat tube must allow the seatpost to slide into the seat tube smoothly and without twisting, but not so loosely that there's excessive side-to-side play/wiggle. Any fit and/or torque issues should be inspected by your Authorized Specialized Retailer. If the seatpost does not fit properly or moves in the frame even though it is torqued to spec, you should have it inspected by your Authorized Specialized Retailer.

TECH TIP: Do not apply grease to the contact surfaces between the seatpost and the seat tube. Grease reduces friction, which is critical to proper seatpost grip. Specialized recommends the application of carbon assembly compound (fiber paste), which can increase friction between carbon surfaces. Please visit your Specialized Authorized Retailer for additional information.

TECH TIP: The specified ream depths are listed in the table in Fig.6.1. The tolerance of the ream depth can vary from frame to frame. Install a regular 34.9 seatpost in the seat tube to verify the actual ream depth of the frame.

INFO: The seat tube is designed for a 34.9 mm post but a smaller diameter seatpost can be used with a shim.

WARNING! Failure to follow the seatpost and frame insertion requirements (Fig. 6.1) may result in damage to the frame and/or seatpost, which could cause you to lose control and fall.

If the seatpost is cut short, the min/max mark on the seatpost may no longer be accurate. Before cutting the seatpost, note the min/max depth required by the seatpost manufacturer.

WARNING! For general instructions regarding the installation of the seatpost, refer to the appropriate section in the Owner's Manual. Riding with an improperly tightened seatpost can allow the saddle and seatpost to slide down, which can damage the frame and cause you to lose control and fall.

WARNING! Inspect the seatpost and seat tube to ensure that there are no burrs or sharp edges. Remove any burrs or sharp edges using fine-grit sandpaper.

CAUTION: If a cable-actuated seat post is inserted too far into the seat-tube, the housing can be damaged and cause the seat post to not function properly.

EN

6.3. DERAILLEUR HANGER

The Levo frame uses the SRAM UDH (Universal Derailleur Hanger) at the rear dropout. This hanger must be installed following SRAM's installation instructions. Please refer to the installation steps in section 14, or refer to the SRAM UDH User Manual.

6.4. SPEED SENSOR

The Levo is equipped with a Speed Sensor magnet, located on the rear hub/disc rotor interface. Dirt and/or metal debris may accumulate on the Speed Sensor magnet. Too much accumulation may result in interruptions in motor support and/or inaccurate speed readings.

Regularly check your Speed Sensor magnet for an accumulation of dirt and/or metal debris, and clean accordingly. The frequency of the cleaning depends on your riding conditions, ride frequency and/or brake pad material. Removing metal debris may require the use of a magnet stronger than the Speed Sensor magnet.

When assembling the rear brake disc, the Speed Sensor Magnet must be installed on the rotor. Four of the six bolts are standard rotor bolts. The remaining two bolts (M5 x 0.8 pitch x 15 mm length, with a countersunk flat head) attach the Speed Sensor Magnet to the rotor.

6.5. CHAIN GUIDE

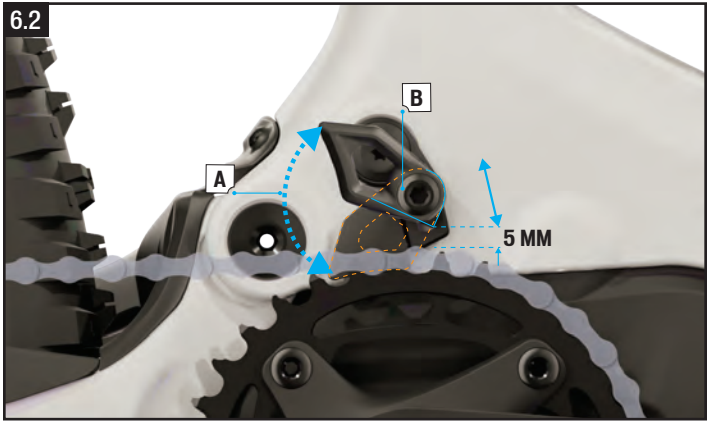


Fig. 6.2

Setting the chain guide position:

- Shift to the lowest gear.
- Rotate the outer chain guide face upwards (A).
- Loosen the chain guide bolt (B) with a 5 mm hex key and align the lower edge of the inner chain guide face to 5 mm above the chain.
- Tighten the chain guide bolt (B) to 4.5 Nm 40 in-lbf.
- Rotate the outer chain guide face downwards (A) and locate it into position.

6.6. STEM

Some Levo models are equipped with an Alloy Trail Stem.

WARNING! The stem is designed with no gap between the stem body and the faceplate at the upper bolt area. The upper bolts must be tightened such that the faceplate bottoms out against the stem body before being torqued. Failure to bottom out the faceplate against the stem body can result in structural damage to the handlebar.

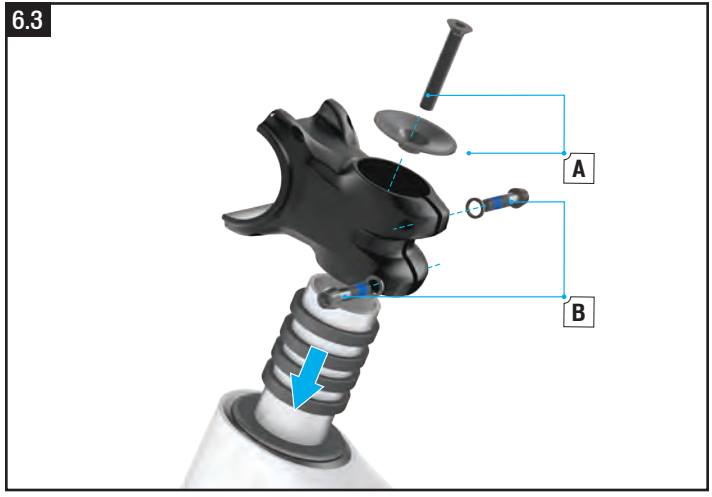
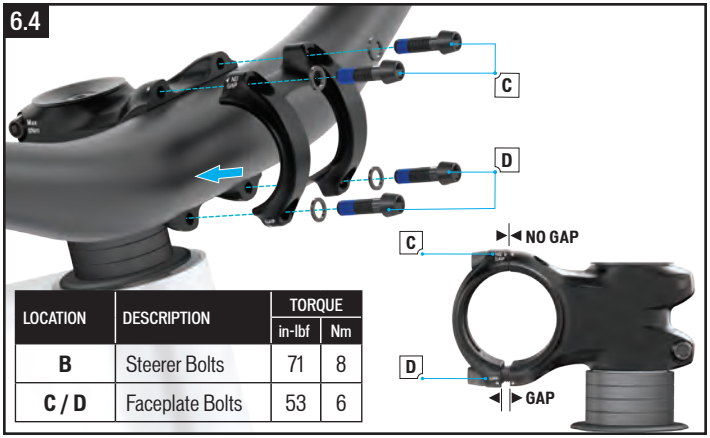


Fig. 6.3

- Install the stem on the steerer tube, followed by the top cap and bolt (A), then tighten the top cap bolt.
- Align the stem with the front wheel and torque the rear stem bolts (B) to specification.

6.4



LOCATION	DESCRIPTION	TORQUE	
		in-lbf	Nm
B	Steerer Bolts	71	8
C / D	Faceplate Bolts	53	6

Fig. 6.4

- Loosely thread the stem bolts through the faceplate and into the stem body.
- Position the handlebar to the desired position.
- Gradually torque the upper bolts to spec alternating from the left to right bolt to evenly increase the torque until the spec is reached (C).
- Gradually torque the lower bolts, alternating from the left to right bolt to evenly increase the torque until the spec is reached (D).
- Check the handlebar is installed correctly by rotating the handlebars up and down, then twisting the handlebars side to side while holding the front wheel. If there is any movement the stem is not sufficiently tightened and should be re-torqued.

WARNING! Burrs and sharp edges can damage the carbon and alloy surfaces of the components. Any deep scratches or gouges in the stem or fork can weaken the components.

CAUTION: All edges of the stem in contact with the steerer tube should be rounded out to eliminate any stress points.

6.7. TCU / HANDLEBAR

The TCU sits above the top tube and has the potential to be struck by the handlebar or stem when the handlebar is rotated fully. When assembling the bicycle, make sure to have enough clearance between the handlebar, stem, and the TCU.

The number of spacers below the stem necessary to clear TCU will depend on several factors. These include stem model/length/orientation, which TCU version your bicycle is equipped with, and the head angle adjustment position.

6.8. DROPPER HOUSING GUIDE

6.5

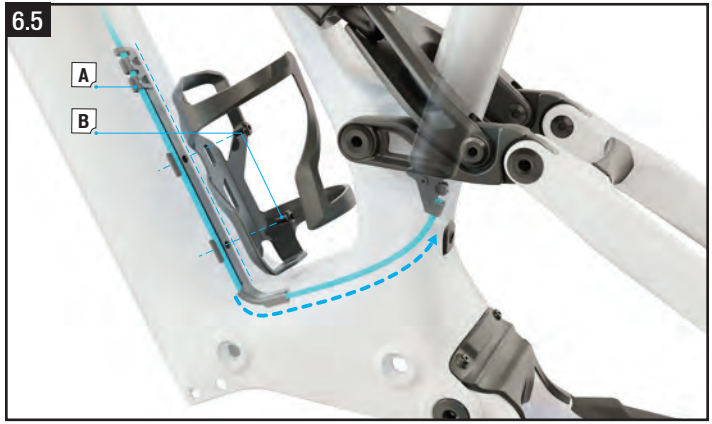


Fig. 6.5

- The dropper housing runs down the down tube above the battery and is held in place by a guide (A) at the motor housing by the bottle cage bolts (B), the guide may come loose when removing the bottle cage.
- Should you want to replace the bottle cage it might be necessary to remove the main battery from the down tube to align the dropper housing guide with the cage bolt holes.
- For more information on removing and replacing the battery see section 10 of this manual.

7. GENERAL NOTES ABOUT MAINTENANCE

The Levo is a high performance bicycle. All regular maintenance, troubleshooting, repair and parts replacement must be performed by an Authorized Specialized Retailer. For general information regarding maintenance of your bicycle, please refer to the Owner's Manual. In addition, routinely perform a Mechanical Safety Check before each ride, as described in the Owner's Manual.

- Great care should be taken to not damage carbon fiber or composite material. Damage may result in a loss of structural integrity, which may result in a catastrophic failure. This damage may or may not be visible during inspection. Before each ride, and after any crash, you should carefully inspect your bicycle for any fraying, gouging, scratches through the paint, chipping, bending, or any other signs of damage. Do not ride if your bicycle shows any of these signs. After any crash, and before you ride any further, take your bicycle to an Authorized Specialized Retailer for a complete inspection.
- While riding, listen for any creaks, as a creak can be a sign of a problem with one or more components. Periodically examine all surfaces in bright sunlight to check for any small hairline cracks or fatigue at stress points, such as welds, seams, holes, and points of contact with other parts. If you hear any creaks, see signs of excessive wear, discover any cracks, no matter how small, or any damage to the bicycle, immediately stop riding the bicycle and have it inspected by your Authorized Specialized Retailer.
- Lifespan and the type and frequency of maintenance depends on many factors, such as use, rider weight, riding conditions and/or impacts. Additionally, the Levo uses a power-assisted drive system, which means more distance is covered in the same amount of time. Components may be subject to increased wear at different rates, depending on the component. Drivetrain and brake components are especially subject to wear. Periodically have your Authorized Specialized Retailer inspect your bicycle and components for wear.
- Exposure to harsh elements, especially salty air (such as riding near the ocean or in the winter), can result in galvanic corrosion of components such as the crank spindle and bolts, which can accelerate wear and shorten the lifespan. Dirt can also accelerate wear of surfaces and bearings. The surfaces of the bicycle should be cleaned before each ride. The bicycle should also be maintained regularly by an Authorized Specialized Retailer, which means it should be cleaned, lubricated, and (partially) disassembled and inspected for signs of corrosion and/or cracks . If you notice any signs of corrosion or cracking on the frame or any component, the affected item must be replaced.
- Regularly clean and lubricate the drivetrain according to the drivetrain manufacturer's instructions.
- Do not use a high pressure water spray directly on the bearings. Even water from a garden hose can penetrate bearing seals and crank interfaces, increasing bearing and crank wear. Use a clean, damp cloth and bicycle cleaning agents for cleaning.
- Do not expose the bicycle to prolonged direct sunlight or excessive heat, such as inside a parked car or near a heat source such as a radiator.
- From time to time, clean the Speed Sensor magnet on the rear wheel with a soft cloth. Depending on your ride conditions and brake pad choice, dirt and/or metal shavings can collect on the Speed Sensor magnet, which could lead to interruptions in motor support or wrong speed readings.

WARNING! Failure to follow the instructions in this section may result in damage to the components on your bicycle and will void your warranty, but, most importantly, may result in serious personal injury or death. If your bicycle exhibits any signs of damage, do not use it and immediately bring it to your Authorized Specialized Retailer for inspection.

WARNING! Use a repair stand to support the bicycle during assembly or maintenance, and a bicycle rack for transportation.

When placing the frame and/or bicycle in a repair stand, clamp the stand to the seatpost and not the frame. Clamping the frame can cause damage to the frame that may or may not be visible, and you may lose control and fall.

WARNING! Always turn off the battery when not in use and/or when working on the bicycle.

CAUTION: Do not open the motor assembly. The motor assembly is a sealed maintenance-free system. Any work on the motor assembly must be performed by a Specialized Service Center.

7.1. REPLACEMENT PARTS AND ACCESSORIES

Specialized replacement parts and accessories are available through your Authorized Specialized Retailer.

8. SYSTEM INTERFACE

Depending on the model, your Levo is equipped with either the TCU 1 or TCU 2 display.

The functionality of the system interface as summarized in this manual is current as of the date this manual was written and is subject to change. Specialized reserves the right to change the functionality at any time and without notice, including modifying, reducing, and/or adding features.

WARNING! Use caution when viewing or using the display while riding, as it can be distracting and can lead to accidents. You should always stop before changing settings or operating the various functions of the display.

8.1. TURBO CONNECT UNIT 1 (TCU 1)

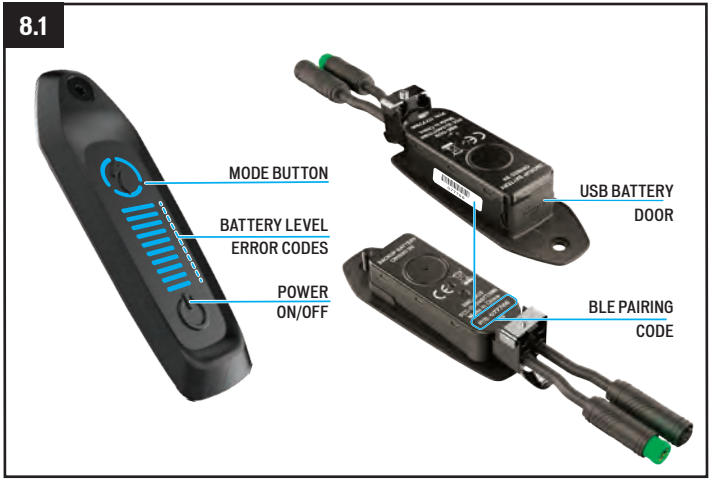


Fig. 8.1

- Some Levo models are all equipped with the TCU 1 display. The display turns on the system and provides access to the support modes options, battery charge level and error codes.
- The six-digit BLE code for Bluetooth pairing is found underneath the TCU 1 on the top tube, as well as on the removable yellow sticker, see section 5.4.

8.2. TURBO CONNECT UNIT 2 (TCU 2)

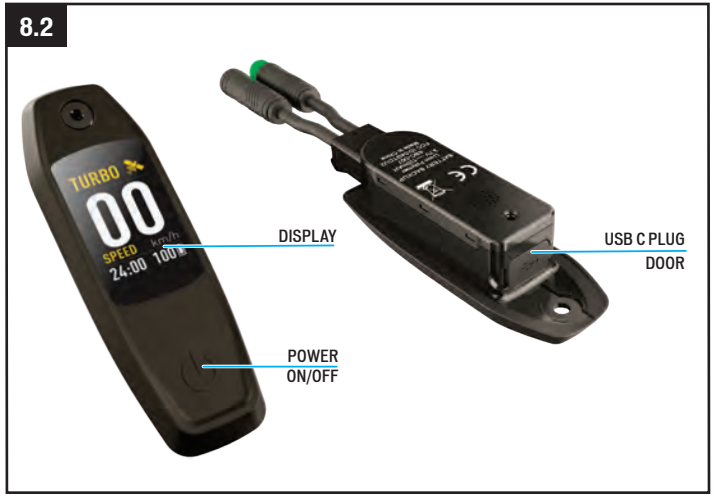


Fig. 8.2

Other Levo models are equipped with the TCU 2 display. The display turns on the system, provides information on the display, and has GPS tracking capabilities.

- The TCU 2 has customizable screens that show options such as Speed, Battery Charge Level, Mode, Heart Rate, and more.
- To fully customize the setup of the TCU 2, pair your bicycle to Mission Control and adjust your preferred settings in the app.
- You are also able to set up units, date and time, see legal information and pair sensors on the TCU display directly by pressing and holding the (+) and (-) button on the remote for two seconds. To navigate and adjust the settings on the TCU 2 use the remote (+), (-), F1,

and F2 buttons.

- For more information on connecting to and using Mission Control, see section 9 of this manual.

8.3. HANDLEBAR REMOTE (TCU 1)

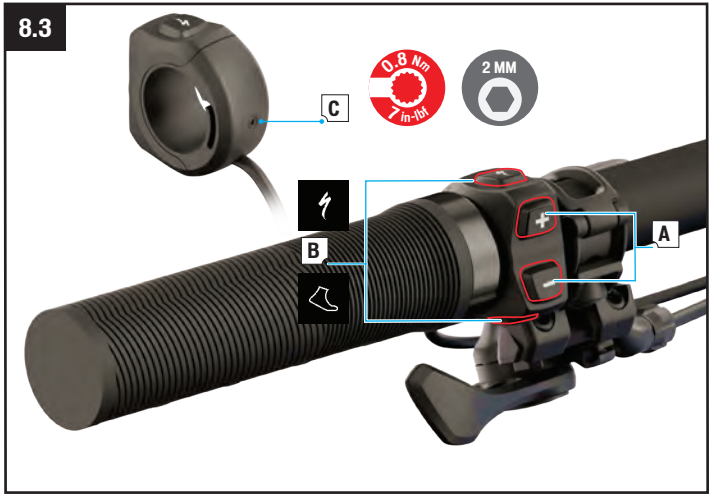


Fig. 8.3

The TCU 1 handlebar remote is included on some Levo models and controls the level of motor support.

- **A: (+)(-)** Support adjustment buttons
- **B:** Function Buttons, pressing and holding the lower function button activates the walk-assist mode.
- **C:** Compression Screw (2 mm Hex Key 0.8 Nm 7 in-lbf)

8.4. HANDLEBAR REMOTE (TCU 2)

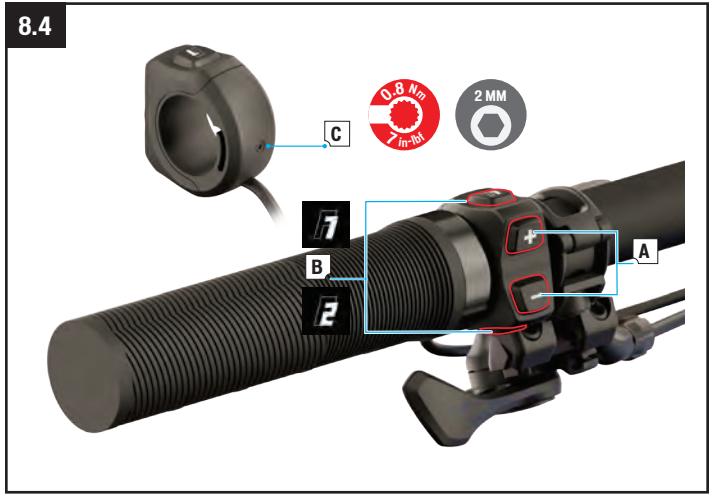


Fig. 8.4

The TCU 2 handlebar remote is included on some Levo models and controls the level of motor support and controls the functions and scrolling of the TCU 2.

- A: (+ -) Support adjustment buttons. (Scrolling and setting up of the TCU 2)
- B: Function Buttons F1 and F2 (Scrolling and setting up of the TCU 2) Pressing and holding the F2 button activates the walk-assist mode.
- C: Compression Screw (2 mm Hex Key 0.8 Nm 7 in-lbf).

8.5. STARTING THE SYSTEM ON THE TCU

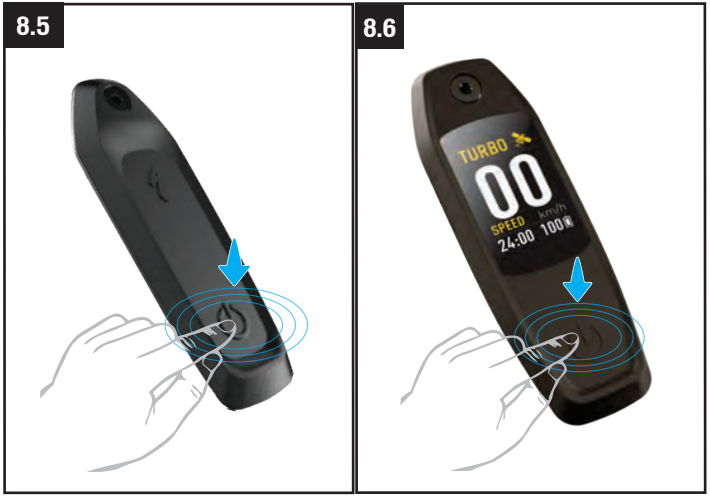


Fig. 8.5 TCU 1

- To start the system, press and hold the POWER button located on the TCU top tube LED display unit until the horizontal LEDs glow blue.
- To turn the battery (and support) off again, press and hold the POWER button until the LEDs turn off.

Fig. 8.6 TCU 2

- To start the system, press and hold the POWER button located on the TCU 2 top tube display unit, until the display turns on.
- To power off the system, press the POWER button and the display turns off.

If the system does not power on after a long period on non-use, remove the TCU2 from the top tube and charge the TCU 2 via a USB-C cable.

8.6. SUPPORT MODES

The Levo motor offers 6 Assist Modes, TURBO, TRAIL, ECO, OFF, SMART CONTROL, and MICRO TUNE mode.

STANDARD BIKE ASSIST MODES:

- **TURBO MODE:** Maximum power mode for high speed sections and climbing.
- **TRAIL MODE:** Maximum control, with sufficient power on demand.
- **ECO MODE:** Most efficient mode for maximum range while offering good power.
- **OFF MODE:** The motor will not offer any assistance, but the display and lights will still function.
- **SMART CONTROL MODE:** The motor, while pedaling, adjusts the power output based on the ride parameters determined in the Mission Control App.

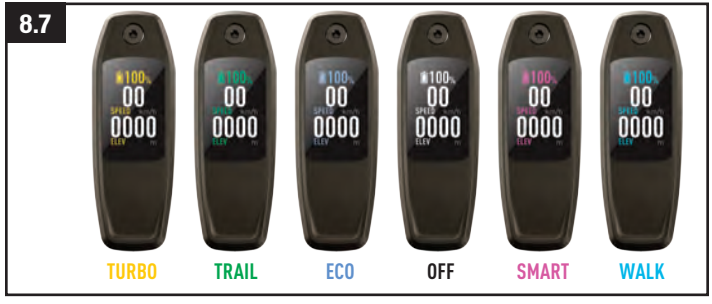


Fig. 8.7 (TCU 2 ONLY)

- When changing support modes the color on the display will change based on the support mode selected for quick reference.

INFO: The SMART CONTROL indicator light will only be visible on the TCU when the bicycle is connected to the Mission Control App and is in SMART CONTROL mode.

MICRO TUNE MODE:

- Long pressing the (+) button on the remote will switch to Micro Tune mode, this mode allows you to change the level of support in small increments while riding.
- To switch out of Micro Tune and back to standard settings long-press the (+) button again.

8.7. CHANGING SUPPORT MODES ON THE TCU

8.8

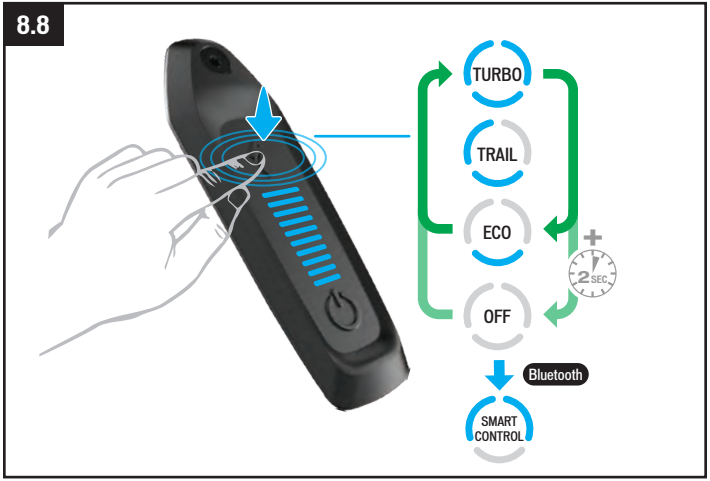


Fig. 8.8

- The drive setting modes are displayed around the S-Button (mode) (Fig. 8.1). Pressing the S-Button cycles through the modes (Fig. 8.8).
- The modes will cycle through the three main support modes, starting at TRAIL (default). OFF MODE is activated by a long press of the S-Button (MODE).

Modes cannot be changed directly on the TCU 2, all interactions other than powering the bicycle on and off are performed with the remote.

8.8. CHANGING SUPPORT MODES ON THE REMOTE (TCU 1)

8.9

Fig. 8.9

- A -TURBO BUTTON:
  - Automatically changes to TURBO mode regardless of the mode the bicycle is in.
- B - WALK-ASSIST BUTTON:
  - Pressing and holding activates the walk-assist mode. This provides motor assist at 6 km/h / 3.7 mph to help push the bicycle uphill when walking.
- C - (+) BUTTON:
  - Increases the amount of support.
- D - (-) BUTTON:
  - Decreases the amount of support.

NOTE: On the remote, after reaching the strongest or weakest mode, the system will not continue to switch. To reduce from TURBO to TRAIL to ECO to OFF, you have to press the - button. To increase from OFF to ECO to TRAIL to TURBO, you have to press the + button.

8.9. CHANGING SUPPORT MODES ON THE REMOTE (TCU 2)

Fig. 8.10

- A - F1 BUTTON:
  - Toggles pages on the TCU 2.
  - Settings & Menu navigating.
- B - F2 BUTTON:
  - Pressing and holding activates the walk-assist mode. This provides motor assist at 6 km/h / 3.7 mph to help push the bicycle uphill when walking.
- Settings & Menu navigating.
- C - (+) BUTTON:
  - Short press increases the amount of support.
  - Long press toggles standard modes and Micro Tune mode.
- D - (-) BUTTON:
  - Short press decreases the amount of support.
  - Long press resets the trip.
- C&D - (-+) DUAL BUTTON PRESS:
  - Long dual press opens the settings menu on the TCU 2.

NOTE: On the remote, after reaching the strongest or weakest mode, the system will not continue to switch. To reduce from TURBO to TRAIL to ECO to OFF, you have to press the - button. To increase from OFF to ECO to TRAIL to TURBO, you have to press the + button.

8.10. CONNECTIVITY OPTIONS

The Turbo Technology System provides a high degree of interface flexibility through Bluetooth and/or ANT+ connectivity.

BLUETOOTH LOW ENERGY (BLE)

- BLE is used for connecting to the bike to the Mission Control app.

ANT+

- ANT+can be used to connect to the sensors for Speed, Rider Power, and Cadence. The sensor data can be received via the ANT+ module built into the TCU.
- In your ANT+ device, search for those sensors and connect to them.
- Some bicycle-specific ANT+ devices feature so-called "LEV" data fields you can use to see all available e-bike data.

8.11. ERROR CODES (TCU 1)

The Levo is equipped with a built-in diagnostic system to automatically check and identify the functionality of the system. If the system detects an error, the TCU display will alert the user with an error code of red and blue LEDs, as shown below.

- If you receive such an error, please restart the system. If the error message continues to be shown, please contact your Authorized Specialized Retailer for further instructions. Depending on the type of error message, the system may be switched off automatically. In any case, the bicycle can be ridden without motor support, with the system turned off.

Mission Control supports the rider with User Actions for errors and diagnostic reports which can be shared with Retailers who can give further advice based on the bicycle serial number.

EN

8.11

ERROR	SOLUTION
1. BATTERY ERROR	For Error Codes 1-4 try the following solutions. • Reboot your bicycle. • Check Mission Control App for more information. • If the problem persists contact your Authorized Specialized Retailer.
2. BATTERY NOT FOUND	
3. MOTOR ERROR	
4. MOTOR NOT FOUND	
5. BATTERY & MOTOR ERROR	Contact your Authorized Specialized Retailer.
6. TCU COIN CELL BATTERY LOW	Replace the coin cell battery in the TCU.

8.12. ERROR CODES (TCU 2)

8.12

Fig. 8.12

TCU 2 equipped models have a built-in diagnostic system to automatically check and identify the functionality of the system. If the system detects an error, the TCU 2 will show the error on the display. In some cases, the error message can be dismissed by pushing any button on the remote.

Depending on the type of error message, the system may be switched off automatically. If you receive an error message, please restart the system. If the error message continues to be shown, please contact your Authorized Specialized Retailer for further instructions. In any case, the bicycle can be ridden without motor support, with the system turned off.

Mission Control supports the rider with User Actions for errors and diagnostic reports which can be shared with Retailers who can give further advice based on the bicycle serial number.

8.13. FACTORY RESET (TCU 1)

When a new or used bicycle is sold, a factory reset should be performed, including resetting the peak power and support mode settings.

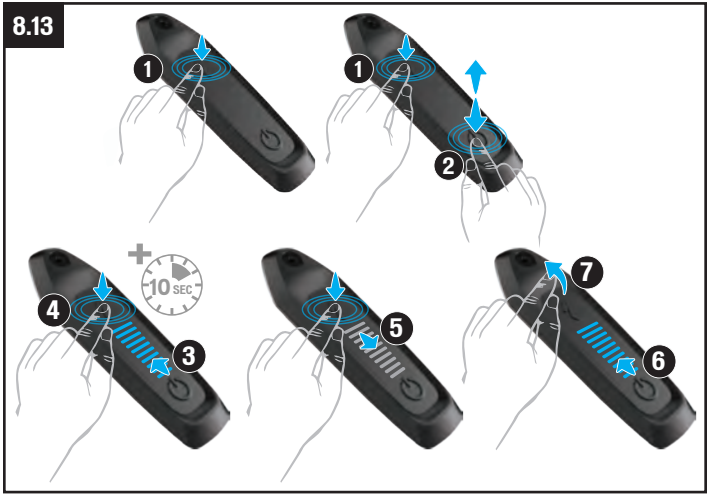


Fig. 8.13

- Long-press the Mode button. (1)
- Press and release the Power button (2) continue pressing the Mode button (1). LEDs will light up (3).
- Continue to long-press the Mode button for 10 seconds (4), until the LEDs turn off (5) and turn back on (6).
- Release the Mode button (7).

8.14. FACTORY RESET (TCU 2)

When a new or used bicycle is sold, a factory reset should be performed, including resetting the peak power and support mode settings.

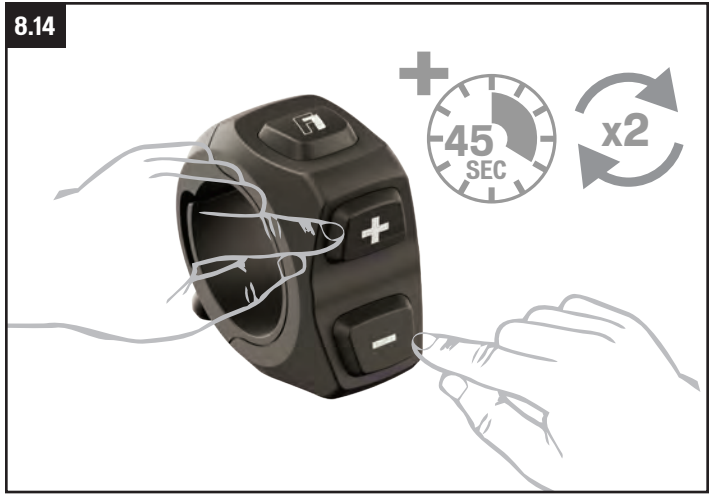


Fig. 8.14

- Dual press and hold the (+) (-)and buttons for 45 seconds. During this process, the TCU 2 will reboot twice.
- Release the buttons when the TCU 2 reboots for the second time.

8.15. CHANGING THE INTERNAL BATTERY (TCU 1 ONLY)

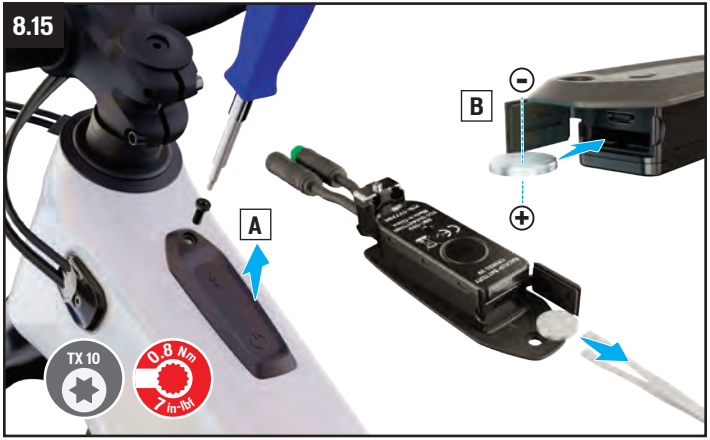


Fig. 8.15

- The coin cell battery is located behind the rubber seal on the front of the TCU 1. To access the battery compartment you will need to remove the TCU 1 from the bicycle.
- To replace the CR 1620 coin cell battery, use tweezers to pull the battery out. When installing a new battery, make sure it is fully inserted.

INFO: The TCU 2 does not have an interchangeable battery, the battery is kept charged via the main internal battery and will not need to be replaced.

INFO: The Micro-USB (TCU 1) or the USB-C (TCU 2) port below the battery port is for Authorized Specialized Retailer and Specialized Service Center diagnostic use only. Please ensure the USB rubber seal is always correctly pressed in and firmly closed.

WARNING: Do not use metallic tweezers to re-insert the battery as this will lead to the battery short circuiting.

9. MISSION CONTROL

The Specialized Mission Control App enables you to further enhance your Levo ride experience to your personal needs.

Most importantly, the app allows you to customize motor characteristics, diagnose the bicycle system, record rides, see real-time ride data, and control bicycle range.

INFO Functionality of the Mission Control App is subject to change without notice. Make sure you have the latest version of the app installed on your mobile device. Refer to the app itself for the latest information and features.

9.1. MISSION CONTROL FUNCTIONS

The following information will help you understand how to get the most out of your Turbo with our Mission Control App.

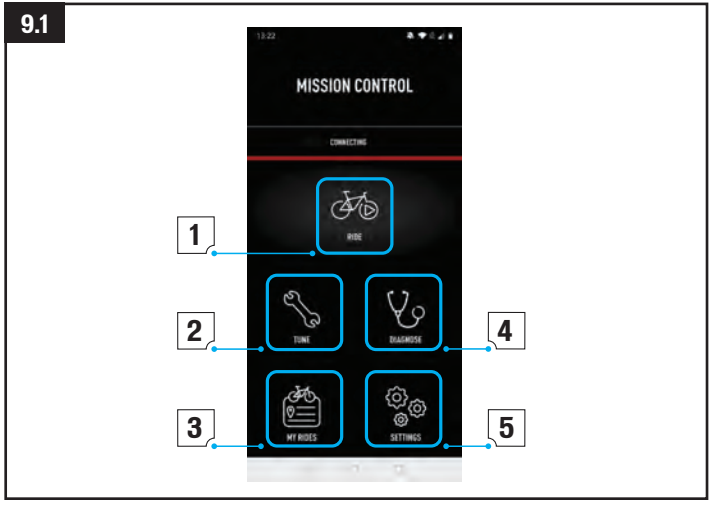


Fig. 9.1

■ 1: RIDE:

Record your rides, route, speed, elevation, and more. See the live map and view live ride data.

Activating Smart Control means the motor and battery output will adjust based on your setting of desired distance, duration, or heart rate goal.

■ 2: TUNE:

Customize and transform your ride by adjusting your motor performance based on Support, Peak Power, Acceleration Response, and Shuttle.

You can save your tune settings as a custom preset by tapping the + symbol. Save multiple presets for your different types of rides. If you later edit the preset value, you can either save the new settings by selecting Update or you can keep the original values by choosing Reset.

■ 3: MY RIDES:

View your recorded rides. With Mission Control integration, rides recorded using the app will be shared to a linked Komoot or Strava account.

■ 4: DIAGNOSE:

System Status tells you, at a glance, if your Turbo system is healthy or if an action is required. The system will provide instructions on how to clear any error codes or refer you to your local Specialized Retailer.

You will also be able to check the Odometer, Serial Number, Wheel Circumference, and charge cycles.

■ 5: SETTINGS:

In Settings, you can define general app parameters and connect/ manage to your bicycle. Edit your user profile, along with options for your ride settings, including integration to STRAVA or Komoot.

INFO: The Mission Control app is constantly being improved which leads to changes in particular sections of the app that might not be reflected in this manual. Use the in-app guide in Mission Control (Section 9.2) to update yourself with all new information and updates.

9.2. IN-APP HELP GUIDE

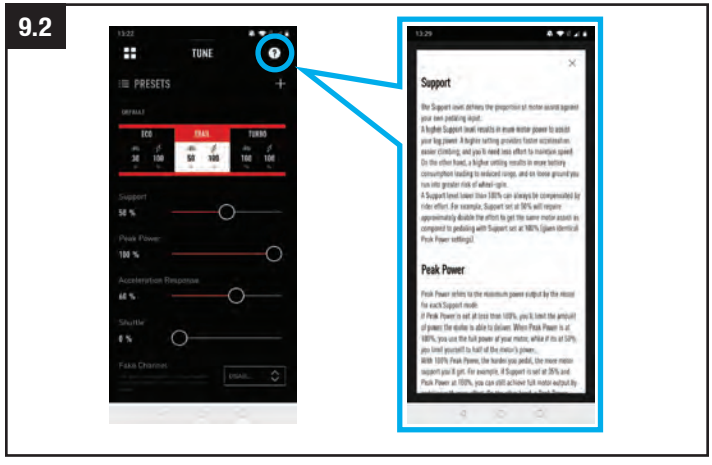


Fig. 9.2

More in-depth information can be found on the individual screens within the app. You'll be able to access the in-app help guide by tapping on the (?) button in each section of Mission Control. This in-app help guide holds explanations on the key terms and features related to the individual screens. To view this feature, you must be connected to the internet.

9.3. DOWNLOAD AND INSTALL MISSION CONTROL

To download the Mission Control app, go to the App Store (iOS devices) or the Google Play Store (Android devices), search for "Specialized Mission Control," and then install the application. Once you've installed the Mission Control app, you can sign in using the same email address and password for other Specialized digital properties (Specialized.com, Ride, Power Cranks, Retül) or you can create an account from the app. A verification email will be sent to you with a link to verify your account. Only after verifying your email will you be able to connect Mission Control to your bicycle.

9.4. PAIRING YOUR BIKE WITH MISSION CONTROL

When connecting to the Mission Control App for the first time, you need to pair using a code with your Levo. The code serves as a security measure since it ensures that only you as the bicycle owner, or entrusted people you share the code with, can connect to the bicycle.

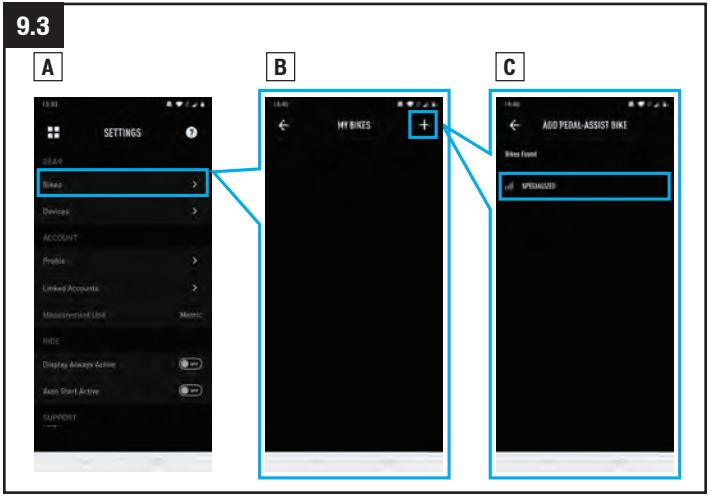


Fig. 9.3

- In the Mission Control App settings, select BIKES, then tap (+) to get to the ADD PEDAL ASSIST BIKE screen.
- Select the bicycle serial number that matches the bicycle you are pairing to. The bicycle serial number can be found on the frame or the removable yellow sticker.

TCU 1:

- When the app prompts, enter the six-digit pairing code. The code can be found both on the bicycle removable yellow sticker (find “BLE” followed by six numbers) AND underneath the TCU on the top tube.

TCU 2:

- When the app prompts you, to confirm the six-digit pairing code. The code will be displayed on the TCU 2 display. Follow the instructions displayed on the TCU 2 and in-app messages to complete the connection.
- Once connected, the bicycle serial number will appear in green at the bottom of the screen, with the connection status being displayed in green as "connected".
- A connection with your bicycle only needs to be established once via the Mission Control App, unless you clear your device Bluetooth history.

9.5. CUSTOMIZING THE TCU 2 DISPLAY

The TCU 2 is shipped with multiple standard screen configurations. With Mission Control you can add more screens, customize the layouts, rename them, and change the stats displayed.

10. BATTERY AND CHARGER

The Levo battery is fitted inside the down tube and is removable with the use of standard bicycle tools. Any work required on the motor and battery should be carried out by an Authorized Specialized Turbo Retailer.

Your bicycle is powered by a Lithium-Ion (Li-Ion) battery. Always adhere to the following instructions when handling or charging the battery or when using the Levo bicycle:

- Only operate the battery between the temperature range of -20° C (-4° F) and +60° C (+140° F).
- Only use the Levo battery with the Levo bicycle. Do not use the Levo battery with any other bicycle or any other battery with the Levo bicycle, even if it fits.
- Always turn the bicycle off before connecting or disconnecting the charger from the charge port.
- Do not modify, open or disassemble the battery or charger. Modification or disassembly may result in a short circuit, fire, or malfunction.
- The battery is very heavy. Be careful when handling it and do not drop it.
- Do not allow any nails, screws, or other small, sharp, and/or metallic objects to come in contact with the battery or the battery's charging socket.
- Do not allow the battery to overheat. Protect the battery from excessive sun exposure.
- Do not expose the battery to an open fire or radiator heat.
- Do not submerge the battery in water.
- Keep the battery away from metal objects as that can cause a short-circuit.
- Do not use a battery that shows any signs of damage to the casing or charge port, or is leaking any fluids. Battery liquid can cause skin irritation and burns. In the event of damage that results in skin or eye contact with any liquid from the battery, immediately flush with water and seek medical assistance.
- Turn off the bicycle, unplug the charger from the battery and remove the battery from the bicycle before performing work of any kind, such as installation, maintenance, cleaning and/or repair. When transporting or handling the battery separately from the bicycle, ensure the bicycle is OFF before disconnecting the battery. Touching the contacts when the battery is ON can result in electric shock and/or injury
- Before riding the bicycle, make sure the battery is properly secured in the frame.
- When fully charged, the charger should be disconnected. The battery should not be left charging overnight.

WARNING! Failure to follow the instructions in this section may result in damage to electrical components on your bicycle and will void your warranty, but, most importantly, may result in serious personal injury or death. If your battery or charger exhibits any signs of damage, do not use it and immediately bring it to your Authorized Specialized Retailer for inspection.

10.1. CHARGING AND USING THE BATTERY

- Regularly inspect the battery and charger for damage. Never charge a battery which you suspect is damaged or know is broken, and do not use it.
- Make sure the charging socket and plug are clean and dry before connecting and charging the battery.
- Only use the supplied charger cord. Ensure the cord plug is fully inserted in the charger before plugging the charger into a power outlet.
- Only use the Specialized charger supplied with the bicycle or other chargers approved by Specialized. Inspect the charger before every use for possible damage to the charger itself, the cable, or the charging plug. Never use a charger which you suspect is damaged or know is broken.
- You should charge the battery in a dry, well ventilated area and make sure the battery and charger are uncovered during the charging process. Ensure that the battery and charger are not exposed to any flammable or dangerous substances.

WARNING! Failure to follow the instructions in this section may result in damage to electrical components on your bicycle and will void your warranty, but, most importantly, may result in serious personal injury or death. If your battery or charger exhibits any signs of damage, do not use it and immediately bring it to your Authorized Specialized Retailer for inspection.

WARNING! Place the charger and battery if removed from the frame on a stable, level surface unaffected by heat. You should charge the battery in a dry, well ventilated area and make sure the charger is uncovered during the charging process. Ensure that the battery and charger are not exposed to any flammable or dangerous substances. Plug the charger's plug into an outlet (100 - 240V), using the appropriate plug for the country's standards, then connect the charging plug with the charging socket on the battery. Specialized recommends charging the battery in an area with a smoke detector.

CAUTION: Always turn off the bicycle before plugging or unplugging the charger.

INFO: The battery can be charged whether installed in the bicycle or not. Refer to the appropriate instructions regarding removing and installing the battery. Only charge the battery at an ambient temperature between 0° C and +45° C (+32° F and +113° F). If outside temperatures are too hot or too cold, charge the battery inside. For safety reasons, if the battery is too hot or too cold, it will not charge.

- Plug the charger's plug into an outlet (100 - 240V), using the appropriate plug for the country's standards.
- Power off the bicycle on the TCU 1 or TCU 2.

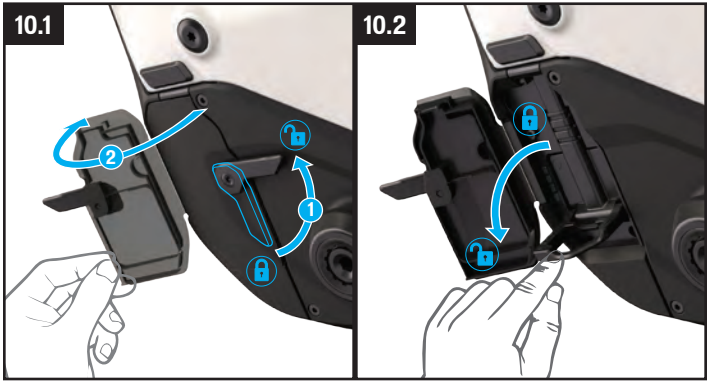


Fig. 10.1

- Locate and open the charge port plug cover on the non-drive side of the battery near the motor housing.

Fig. 10.2

- Rotate the lever on the plug 90 degrees and remove the plug from the battery.

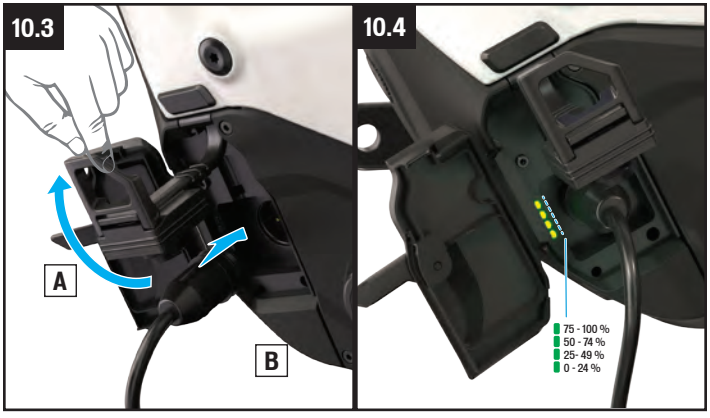


Fig. 10.3

- Move the main harness out of the way (A) and Insert the charging plug into the charge port (B).

Fig. 10.4

- The four green LEDs next to the charging socket indicate the level of charge in the battery in 25% increments.
- When charging is complete, disconnect the charging plug from the charge port.
- Re-insert the main harness plug into the port and rotate the lever back to the closed position then close the charge port lid to seal it against water and debris (Fig. 10.1).
- Unplug the charger from the wall socket.

CAUTION: Always fully close the charge port cover after charging and during riding.

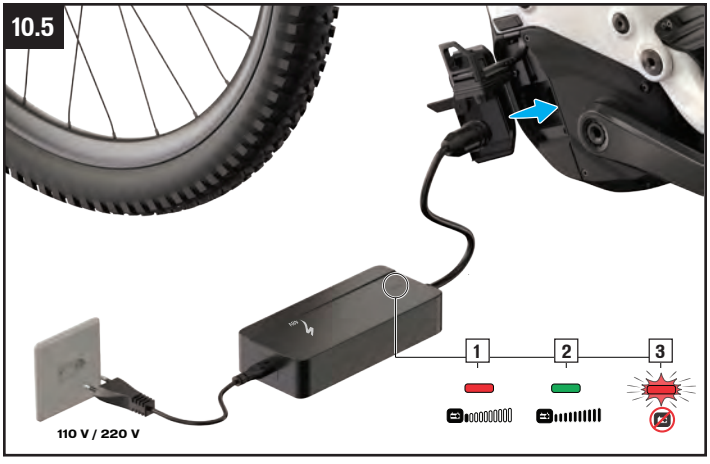


Fig. 10.5

- During the charging process, the diode on the charger will glow red (1). When the battery is fully charged, the diode on the charger will turn green (2).

CAUTION: If the red diode flashes during the charging process (3) a charging error has occurred. In that case, remove the charger from the socket, discontinue use of the motor support and contact your Authorized Specialized Retailer.

INFO: The Battery Management System (BMS) is designed to protect a fully discharged battery from damage for a period of time. However, in order to maintain the best possible battery performance and lifespan, when not in use, Specialized recommends regularly recharging the battery to approximately 60% full (7 LEDs on the TCU 1).

INFO: Please note that Li-ion batteries gradually lose capacity depending on age and use. Strongly reduced operating time after fully charging can be a sign that the battery is reaching the end of its useful life and has to be replaced. Provided the bicycle has been used properly, approximately 75% of the battery's original capacity should remain after 300 charging cycles or two years. Replacement batteries can be purchased from your Authorized Specialized Retailer.

10.2. CHARGE LEVEL DISPLAY

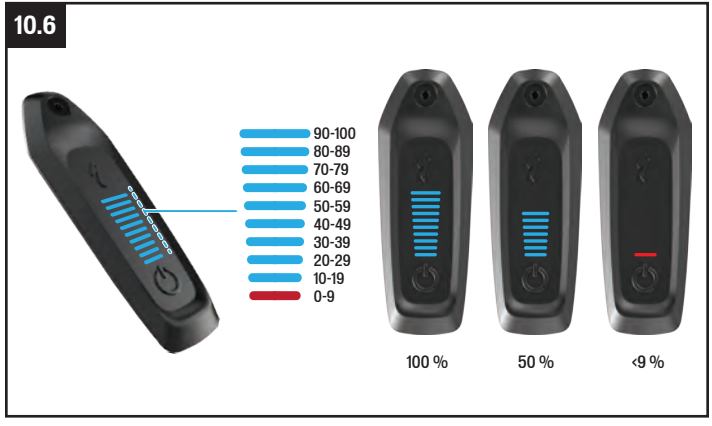


Fig. 10.6 (TCU 1)

The charge level of the battery is permanently displayed during your ride. The number of LEDs glowing BLUE indicates the remaining battery charge. When the battery charge reaches 10%, the last LED will glow RED.

10.7

Fig. 10.7 (TCU 2)

The charge level of the battery is displayed during your ride on the display of the TCU 2. The charge level can be customized to be shown in any of the fields on any page of the TCU 2.

- At 15% - 20% battery charge remaining, the system will start to reduce the amount of motor support to ensure continuous assistance at lower charge levels. At 3% - 5%, the system switches off motor support, leaving the bicycle powered on. This not only supports battery health and lifetime, it also allows you to keep wired lights powered for about 2 hours.
- The timing of the motor shut-off may slightly vary depending on cell temperature or discharge scenario.
- If your bicycle is at a standstill for at least 15 minutes, the system will turn itself off to save power. In order to continue riding with support, you have to turn the system on again.

10.3. REMOVING THE BATTERY

CAUTION: Installation or removal of the battery should be done with the bicycle on a repair stand so the battery can slide out at the bottom. Alternatively, if a repair stand is not available, the bicycle can be carefully placed on its side or turned upside down. If placed on its side, the bicycle should be on even ground and leaned towards the non-drive side. Due to its increased weight, turning the bicycle upside down may require more effort than with a regular bicycle. Be careful not to damage any components when turning the bicycle over and place it on soft ground or protective material.

- Power off the bicycle on the TCU 1 or 2.

10.8

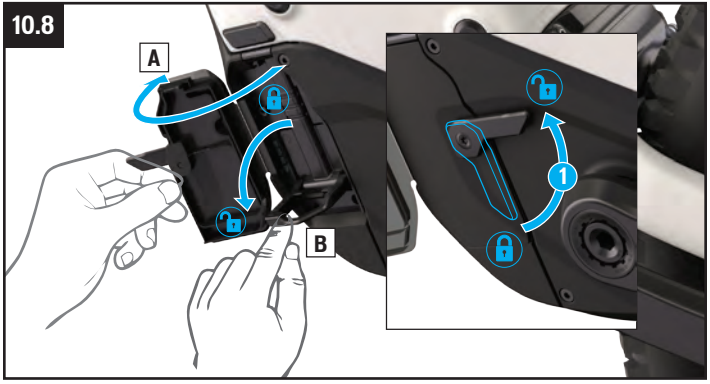


Fig 10.8

- Locate and open the charge port plug cover on the non-drive side of the battery near the motor housing (A).
- Rotate the lever on the plug 90° and remove the plug from the battery (B).

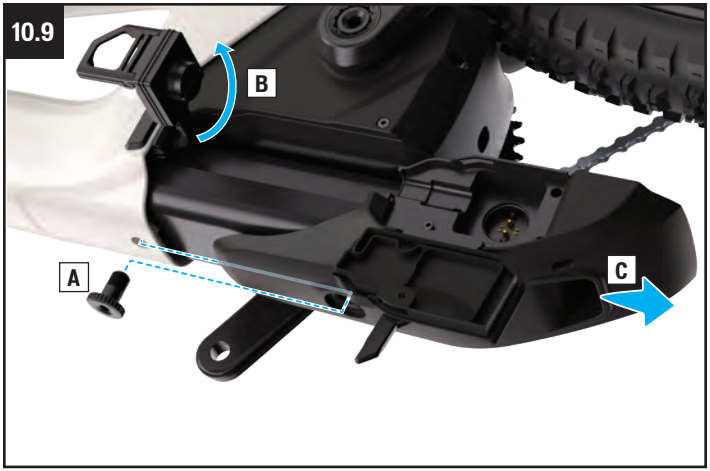


Fig. 10.9

- Loosen the battery mounting screw in the rock guard using a 6 mm hex key then un-thread the screw from down-tube (A).
- Move the main harness out of the way before removing the battery (B).
- Grab the battery pull handle and slide the battery/rock guard assembly from the frame. Be careful not to drop the battery as this may damage the battery (C).
- Reverse the steps to reinstall the battery. Reinsert and torque the bolt using a 6 mm hex key to 55 in-lbf / 6.2 Nm.

10.4. CLEANING

- Always turn the bicycle off and remove the charger from the charge port and wall socket before cleaning the bicycle.
- Make sure the charge port is properly closed before washing.
- Make sure the charge port is free from water and/or dirt, the port should be clean before use. Make sure the system is switched off before cleaning. Blow out the contamination with low air pressure or use a soft brush to remove dry contamination.

CAUTION: Never use a high-pressure cleaner or hose when cleaning your Levo. Best practice is to use a bucket of water with a wet cloth or a sponge to remove dirt, then dry off all surfaces with a clean towel.

For instructions on how to clean drivetrain components, please refer to the drivetrain manufacturer's instructions. Make sure connectors are dry and clean before reconnecting and riding. Ask your Authorized Specialized Retailer for additional information about cleaning your bicycle.

CAUTION: Do not use alcohol, solvents, or abrasive cleaners to clean the charger. Instead, use a dry or slightly damp cloth.

10.5. STORAGE

CAUTION: If the bicycle is not being used for an extended period of time, store it in a dry, well ventilated area. Only store the battery at an ambient temperature below +23° C (+73° F)

CAUTION: If the Bicycle is stored and not in use for extended periods of time, be sure to charge the battery at least every three months to approximately 60% charge. If the battery is not charged over a period longer than three months, it can cause damage to the battery.

INFO: Do not leave the battery connected to the charger for extended periods after the battery is charged.

10.6. TRANSPORT

INFO: Transporting and/or shipping your Levo battery may be subject to certain restrictions and may require special handling, labeling, and/or packaging. Be sure to inform yourself beforehand of all applicable legal requirements and regulations in your country or state. Your Authorized Specialized Retailer may also have helpful information available. When carrying the battery outside the frame, Specialized recommends using an approved battery transport box.

The battery charge should be approximately 30%.

CAUTION: Be aware that your Levo bicycle is significantly heavier than a bicycle without motor support. Use caution when handling, carrying or lifting your Levo bicycle.

10.7. DISPOSAL

Batteries and chargers must not be disposed of in your household trash! All batteries and chargers must be disposed of in an environmentally friendly manner, in accordance with the battery disposal regulations in your country or state. Ask your Authorized Specialized Retailer for information about how to dispose of a battery or charger and any applicable take-back program.

10.8. BATTERY TECHNICAL DATA

DESCRIPTION	UNIT	SPECIFICATION	
		SBC - B21	SBC - B22
OPERATING VOLTAGE	V	36	36
CHARGING TEMPERATURE	°C	0 – +45	0 – +45
	°F	+32 – +113	+32 – +113
OPERATING TEMPERATURE	°C	-20 – +60	-20 – +60
	°F	-4 – +140	-4 – +140
STORAGE TEMPERATURE	°C	-20 – +60	-20 – +60
	°F	-4 – +140	-4 – +140
DEGREE OF PROTECTION		IPX6	IPX6
WEIGHT (INCLUDING ROCK GUARD AND EXPANDER)	KG	3.16	3.86
	LB	6.9	8.5
WEIGHT (EXCLUDING ROCK GUARD AND EXPANDER)	KG	2.9	3.6
	LB	6.4	7.9
RATED CAPACITY	AH	13.4 AH	19 AH
ENERGY	WH	500 WH	700 WH
CHARGE TIME		3:50	5:15

10.9. CHARGER TECHNICAL DATA

DESCRIPTION	UNIT	SPECIFICATION	
CHARGER MODEL NUMBER		SBC-C04	SBC-C05
CHARGING TEMPERATURE	°C	00 – +40	00 – +40
	°F	32 – +104	32 – +104
STORAGE TEMPERATURE	°C	-20 – +65	-20 – +65
	°F	-4 – +149	-4 – +149
OPERATING VOLTAGE	V	42	42
AC INPUT VOLTAGE	V	100 – 240	100 – 240
FREQUENCY	Hz	50 / 60	50 / 60
MAX CHARGE CURRENT	A	4	2
DIMENSIONS	mm	177 X 78 X 38.5	177 X 78 X 38.5

The range of the battery can vary considerably depending on the model/capacity of the battery and riding conditions, such as the gradient of your route and the support mode.

WARNING! Fig. 10.10 is a copy of the battery label which is supplied with your bicycle, familiarize yourself with the information before first use.

10.10

11. SPECIFICATIONS

11.1. GENERAL SPECIFICATIONS

ITEM	PART #	SPECIFICATION
HEADSET	S182500005	HDS NO.42/ACB/S/F/N 46CONE SPACER,AL COMPRS RING,UP1.125/LOW1.5 CRMO 45,AL CROWN RACE,ANO MATT BLK
HEADSET CUPS	S212500015	HDS MY22 LEVO HEADSET CUPS
SEAT COLLAR	S184700004	STC KCNC, SPL-SC02-386, EXTRUDED, 7075-T6, 38.6MM, SCM435, NONE FINISH BOLT, BOLT CLAMP TYPE
SEAT COLLAR DIAMETER		38.6 mm
SEATPOST DIAMETER		34.9 mm
DERAILLEUR HANGER	S202600002	HGR SRAM AC UDH DERAILLEUR HANGER AL BLACK
REAR HUB AXLE	S170200003	AXL THROUGH AXLE, JD JD-QR43, 7075-T73 AXLE W/C6801 WASHER, REAR, 148MM SPACING, 172MM LENGTH, 12MM
REAR TIRE MAX		27.5 x 2.6
REAR WHEEL TRAVEL		150 mm
SHOCK LENGTH / STROKE		210 mm / 55 mm
SHOCK SAG		13.75 mm (25%)
SHOCK EYELET HARDWARE		8 mm ID x 20 mm W (front) / direct mount rear
MAX FORK TRAVEL		150 mm (S1), 160 mm (S2-S6)
MIN / MAX CHAINRING		32-34t
MIN / MAX REAR BRAKE ROTOR		180 mm / 220 mm

CAUTION: Certain chainrings may not have adequate clearance with the chainstay. Verify spacing and chainline before using it.

EN

Levo frames are available in a 29" front and 27.5" rear configuration, with different wheel/tire and/or fork options. Each of these variables will affect the bottom bracket height and head angle of the frame, as well as the general ride characteristics of the bicycle. If you decide to make changes to the stock configuration, e.g. changing the tire size or fork travel, please check with your Authorized Specialized Retailer what components, if any, need to change for compatibility.

11.2. SHOCK CUSTOMIZATION

Specialized frames are generally designed and tested to work with the suspension components provided as original equipment. When changing out shocks, be aware certain models of shocks may not be compatible with the frame due to the position of the shock reservoir, size, and/or other compatibility factors, even if they fit. Always check with your Authorized Specialized Retailer for advice on compatible shocks.

WARNING! Use of an incompatible shock may cause damage to the shock or the frame and can cause you to lose control and fall.

11.3. MAXIMUM FORK LENGTH, TIRE, AND CHAIN-RING SIZE

WHEEL SIZE	MAX FORK TRAVEL	MAX REAR TIRE SIZE	CHAINRING SIZE
29" Front 27.5" Rear	160 mm	27.5 x 2.6	32-34t[1]

WARNING! Only single crown forks with a specified amount of travel or range of travel should be used. Use of different styled forks or forks with longer travel may result in catastrophic failure of the frame which may result in serious personal injury or death.

1- With the chain guide removed, a 36t chainring can be used.

WARNING! While the frame is generally compatible with tires up to 29" x 2.6 front and 27.5" x 2.6 rear, tire dimensions can vary depending on the manufacturer, and not all forks are designed to accept a larger tire. Always check with the fork manufacturer regarding the required clearances.

11.4. TOOLS REQUIRED

■ 2.5, 3, 4, 5, 6, 8 mm ALLEN (HEX) KEYS	■ BLUE THREAD-LOCKER (LOCTITE 243)
■ TORQUE WRENCH (reversible type, for SRAM UDH)	■ GREEN RETAINING COMPOUND (LOCTITE 603)
■ HIGH PRESSURE SHOCK PUMP	■ CABLE AND HOUSING CUTTERS
■ HIGH QUALITY GREASE	■ TORX T10, T25, T30 DRIVERs

11.5. BOLT SIZE / TOOLS / TO TORQUE SPECIFICATIONS

WARNING! Correct tightening force on fasteners (nuts, bolts, screws) on your bicycle is important for your safety. If too little force is applied, the fastener may not hold securely. If too much force is applied, the fastener can strip threads, stretch, deform or break. Either way, incorrect tightening force can result in component failure, which can cause you to lose control and fall.

Where indicated, ensure that each bolt is torqued to specification. After your first ride, and consistently thereafter, recheck the tightness of each bolt to ensure secure attachment of the components. The following is a summary of torque specifications in this manual:

LOCATION	TOOL	TORQUE	
		(Nm)	(in-lbf)
SEAT COLLAR	4 mm HEX	6.2	55
STEM @ STEERER TUBE (TRAIL STEM)	5 mm HEX	8	71
STEM @ HANDLEBAR (TRAIL STEM)	5 mm HEX	6	53
SPIDER LOCK-RING	Shimano BB-UN 98 / Park Tool BBT-18	50	443
CRANK BOLTS	8 mm HEX	40	354
CHAINRING BOLTS	5 mm HEX	10	89
WATER BOTTLE CAGE BOLT	3 mm HEX	2.8	25
12 mm REAR AXLE	6 mm HEX	15	133

DERAILLEUR HANGER	8 mm HEX	25	221
HEAD TUBE ICR GUIDE SCREW	T10 TORX	0.8	7
TCU DISPLAY 1 & 2	T10 TORX	0.8	7
MOTOR MOUNT BOLTS REAR	T30 TORX	18	160
MOTOR MOUNT BOLTS CENTER	T30 TORX	18	160
MOTOR MOUNT BOLT FRONT DS	T25 TORX	9	80
MOTOR MOUNT BOLT FRONT NDS	T30 TORX	9	80
SPEED SENSOR BOLT	3 mm HEX	1	9
MOTOR COVER BOLTS	2.5 mm HEX	2	18
REMOVABLE MOTOR COVER BOLTS	3 mm HEX	1	9
SPEED SENSOR MAGNET (6 BOLT VERSION)	T25 TORX	6.2	55
REMOTE	2 mm HEX	0.8	7
BATTERY BOLT	6 mm HEX	6.2	177
BATTERY ROCK GUARD THRU-BOLT	4 mm HEX	3	26
BATTERY EXPANDER BOLT	4 mm HEX	4	35
BATTERY ROCK GUARD BOLTS	2.5 mm HEX	0.8	7
REAR BRAKE GUIDE	2.5 mm HEX	0.8	7
MAIN HARNESS CLAMP	2.5 mm HEX	4	35
CHAINSTAY BRIDGE COVER BOLTS	2.5 mm HEX	4	35
MOTOR HOUSING CABLE GUIDE BOLTS	2.5 mm HEX	4	35
CHAIN GUIDE	5 mm HEX	4.5	40

11.6. BEARING SPECIFICATIONS

	QTY	PIVOT LOCATION	DIMENSION	BEARING
A	2	MAIN PIVOT (CHAINSTAY)	12 ID x 24 OD x 6 W	6901
B	6	LINK	12 ID x 21 OD x 5 W	6801
C	4	HORST		

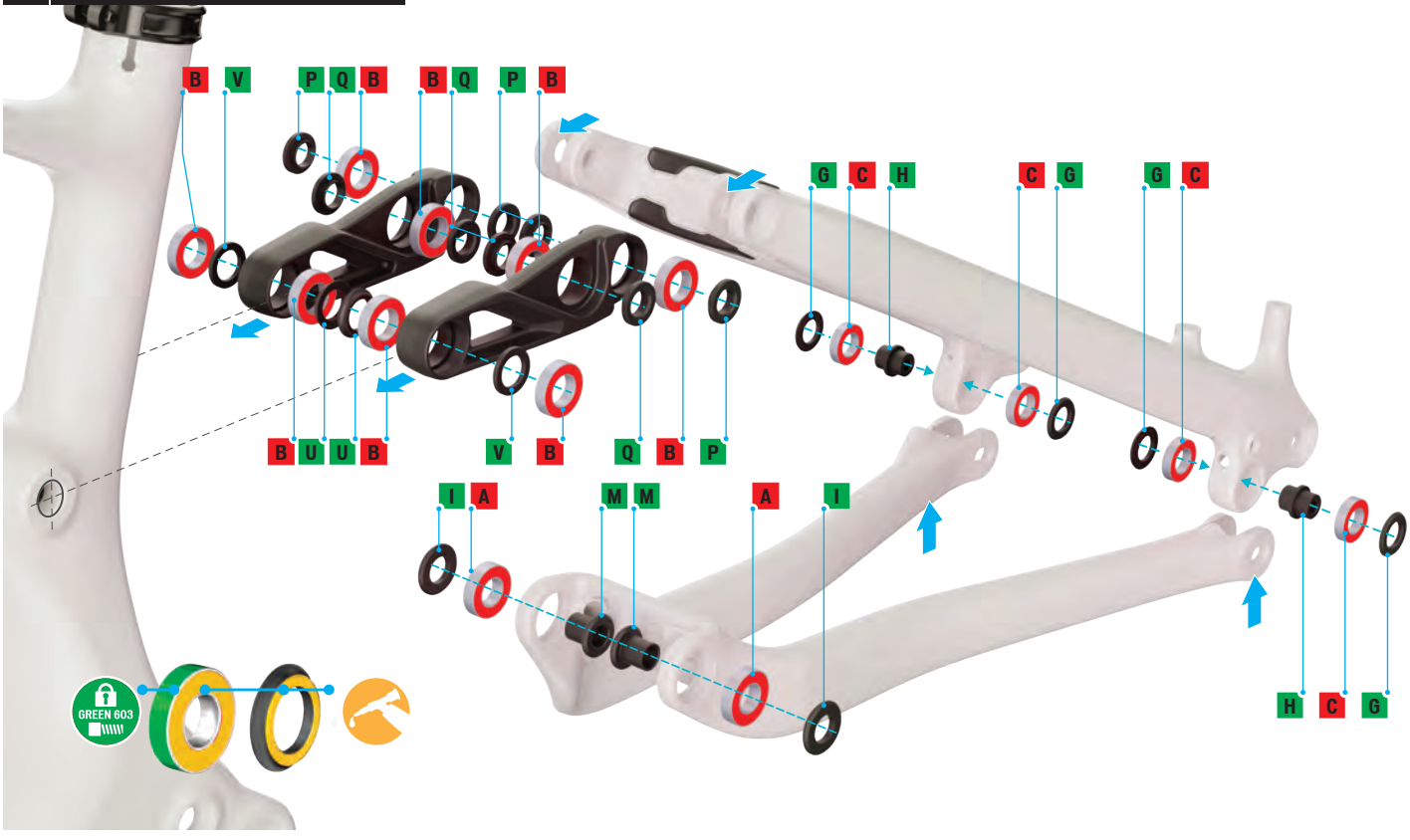
11.7. SPACER/AXLE/BOLT SPECIFICATIONS

	QTY	LOCATION / ITEM	DIMENSIONS	TOOL	TORQUE	
					in-lbf	Nm
D	2	HORST PIVOT BOLT	SCR,CUST,M6 X 1.0 X 32.5,STL,BLK	5 mm HEX	90	10
E	2	HORST PIVOT ADJUSTABLE SPACER OUTSIDE	DO PIVOT SPACER,GEO ADJ,6.0 ID, FLAT			
F	2	HORST PIVOT ADJUSTABLE SPACER INSIDE	DO PIVOT SPACER,GEO ADJ,M6 x 1			
G	4	HORST PIVOT OUTER SPACER	HORST PIVOT OUTER SPACER ASSY 12 X 21 X 2.5			
H	2	HORST PIVOT CENTER SPACER	SPCR,STEP,6 MM ID X 16 MM OD X 16MM W,7075-T6			
I	2	MAIN PIVOT SPACER	SPCR,CUST, 12 ID X 23 OD X 3 W,FSR,AL7075-T73			
J	1	MAIN PIVOT BOLT DS (LEFT HAND THREAD)	SCR,CUST,M10 X I .25 X 35,LH,SST 302	6 mm HEX	210	24
K	1	MAIN PIVOT BOLT NDS	SCR,CUST,M10 X I .25 X 35,SST 302	6 mm HEX	210	24
L	2	MAIN PIVOT WASHER	WSHR, 10.6 ID X 21 OD x 0.5 THK,304 SST			
M	2	MAIN PIVOT SLEEVE	SLEEVE,CUST, 10 ID X 21 OD X 3 W,SST 302			

N	2	LINK @ SEAT STAY BOLT	SCR,CUST,M6 X 1.0 X 8,SST 30	4 mm HEX	71	8
O	2	Link @ SEAT STAY BOLT AXLE	BOLT,CUST,M6 XIFEM X 22.34, 7075,BLK	6 mm HEX	71	8
P	4	LINK @ SEAT STAY SPACER	SPCR,12.1 ID X 19.5 OD X 3 W,FSR,AL7075-T6			
Q	4	LINK @ EXTENSION SPACER	SPCR,CUST, 10 ID X 18.5 OD X 2.5 W,FSR,AL7075-T73			
R	2	LINK @ EXTENSION BOLT	SCR,CUST,M6X1.0 X 8,SST 302	4 mm HEX	71	8
S	2	LINK @ EXTENSION AXLE	AXLE,SS PIVOT,MTB,TRAIL FSR L1	5 mm HEX	71	8
T	2	LINK @ SEAT TUBE BOLT	SCR ASSY,M12 X 1.0 X 24,PA TRAIL FSR F1	6 mm HEX	185	21
U	2	LINK @ SEAT TUBE SPACER	SPCR,12.1 ID X 19.5 OD X 3 W,FSR,AL7075-T6			
V	2	LINK @ SEAT TUBE CENTER SPACER	SPCR,12MM ID X 18MM OD X 2MM W,7075-TG			
W	1	FORWARD SHOCK EYE BOLT	SCR,CUST,M8X1.0 X 42,CHRO-MOLY	6 mm HEX	90	10
X	1	REAR SHOCK EYE BOLT	SCR CUST M8XI.25 X 26 302 SST SIL HEX 5m	5 mm HEX	185	21
Y	1	REAR SHOCK EYE WASHER	WSHR,FLAT,M8, 8.3 ID X 13 OD X 0.5 THK,304 SST			
Z	2	REAR SHOCK EYE TOP HAT SPACER	SPACER,SHOCK,19X-8.1X0.6,SST 304			

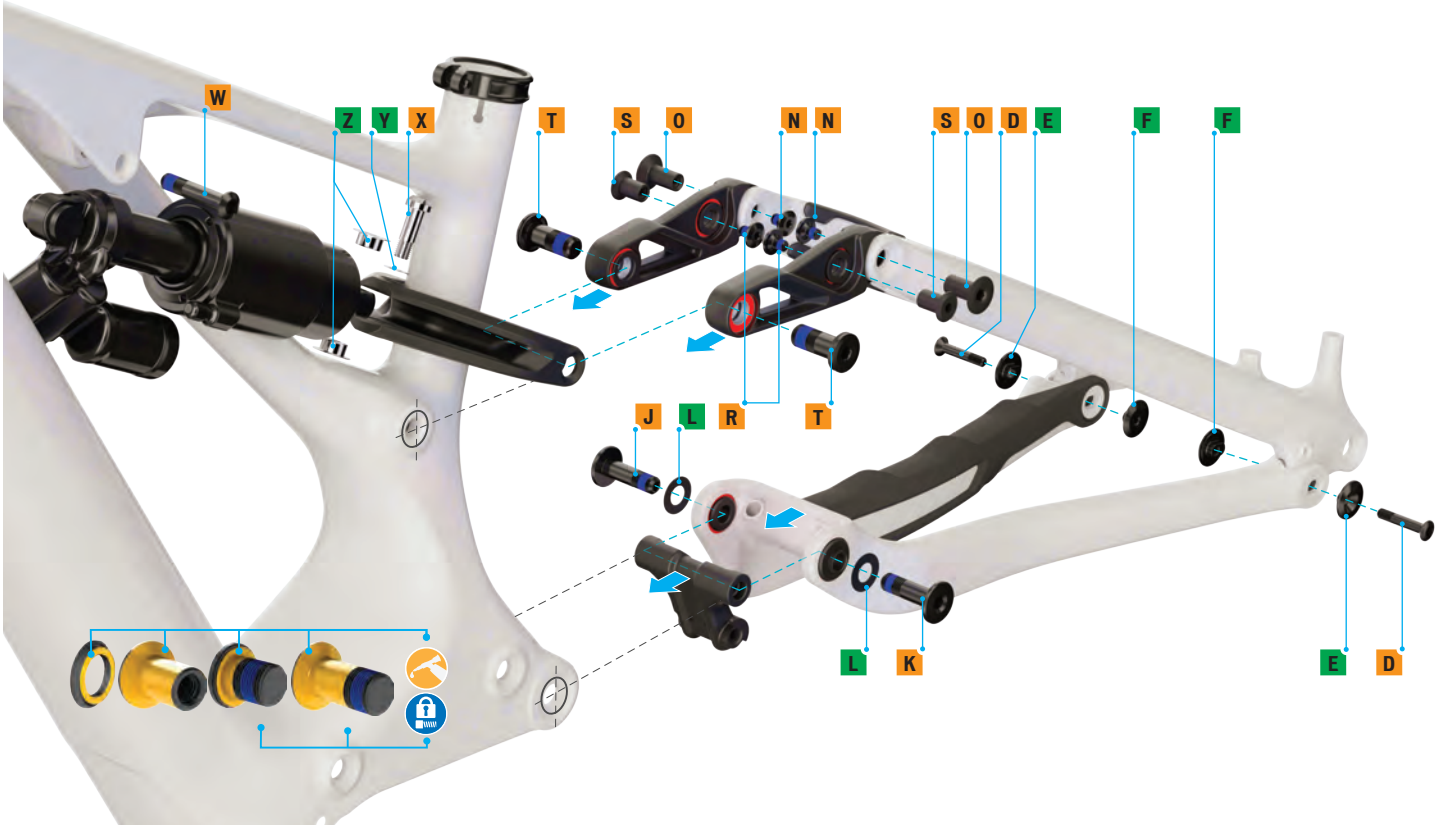
Many bolts have a blue threadlock patch on the threads to help secure the bolt under torque. Repeated installation and removal of bolts may reduce the effectiveness of the patch. When that happens, the old threadlocker and any built-up dirt and grease should be removed and new liquid threadlocker applied.

11.1 EXPLODED VIEW - BEARINGS/SPACERS

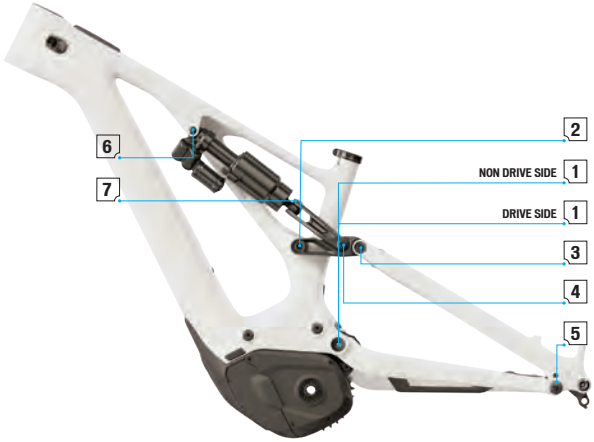


EN

11.2 EXPLODED VIEW - BOLTS



11.3



#	PIVOT LOCATION	TOOL	in-lbf	Nm
1	MAIN PIVOT (DS - LEFT HAND THREAD)	6 mm	210	24
2	LINK @ SEAT-TUBE	6 mm	185	21
3	LINK @ SEAT-STAY	4/6 mm	70	8
4	LINK @ EXTENSION	4/5 mm	70	8
5	DROPOUT (HORST LINK)	5 mm	90	10
6	FORWARD SHOCK EYE	6 mm	90	10
7	REAR SHOCK EYE	5 mm	185	21

Torque each pivot bolt according to the torque specification listed above.

12. FLIP CHIPS

The geometry of the Levo can be modified by adjusting the Horst flip chips and adjustable headset cups. The flip chips are located on both sides of the chainstay near the Horst pivot and the headset cup is located in the upper head tube bearing bore.

The Horst pivot flip chips adjust the chainstay length and bottom bracket height. The headset cups slackens or steepens the headtube angle.

The adjustable headset cup is found in the small parts box supplied with the bicycle.

WARNING! Changing the frame configuration (Flip Chip position, tire size, fork length) can alter the BB height and/or the head tube angle, which can have negative effects on the bicycle's handling characteristics and ride quality. Please refer to your Authorized Specialized Retailer before making any modifications.

INFO: For information on the geometry when adjusting the flip chips visit www.specialized.com for more information

12.1. ADJUSTING THE HORST PIVOT FLIP CHIP

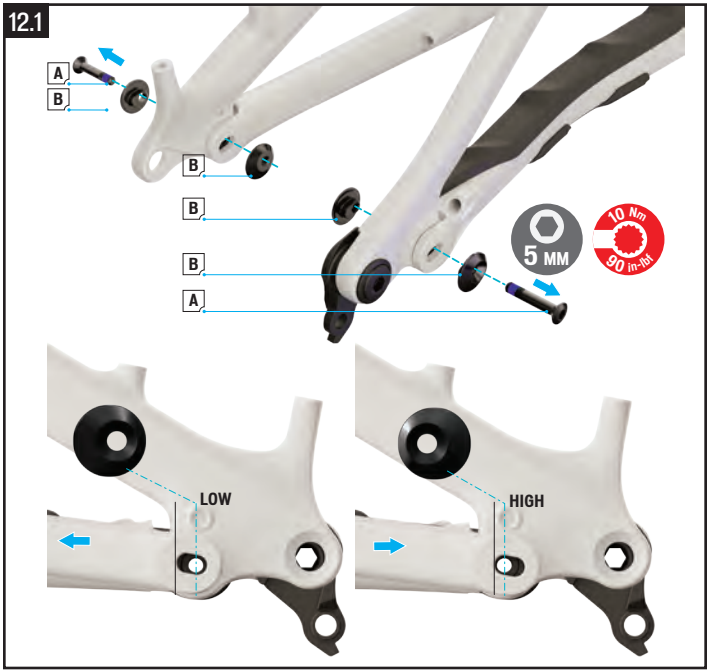


Fig. 12.1

- Remove the Horst pivot bolt from the frame (A).
- Remove all four flip-chips (B) and align the Horst Pivot spacer in the slot to either "high" or "low" position. When replacing the adjustable spacer make sure it is correctly located into the chainstay and that both parts of the flip-chip are aligned in the same direction.
- Reinstall the flip chips in the desired high or low position. Make sure they are fully seated and aligned with the chain-stay protector before tightening the bolt.
- Torque the Pivot bolt to 10 Nm / 90 in-lbf.

WARNING: The drive side and non-drive side Horst flip chips must both be aligned in the same high or low position. Improperly installed Horst flip chips can damage the frame and can also cause you to lose control and fall.

INFO: All models are assembled with the Flip Chip in the high position. Switching to the low position lowers the bottom bracket height by approximately 7 mm and slackens the head tube angle by approximately 0.5 degrees.

12.2. ADJUSTING THE HEAD TUBE ANGLE

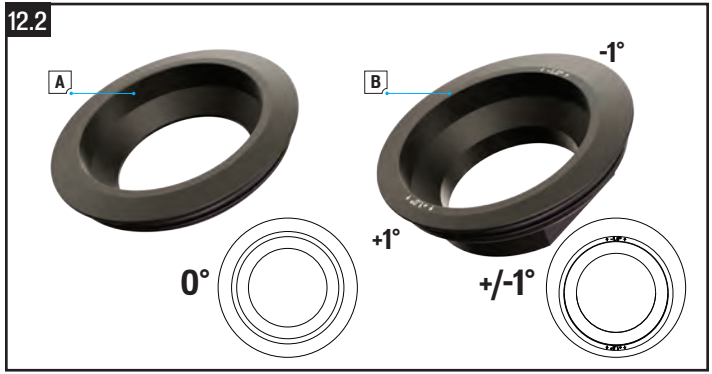


Fig. 12.2

The head-tube angle is adjustable via adjustable headset cups. The bicycle ships with the "zero" offset cup (A) and a +/- 1-degree headset cup (B) ships in the small parts box.

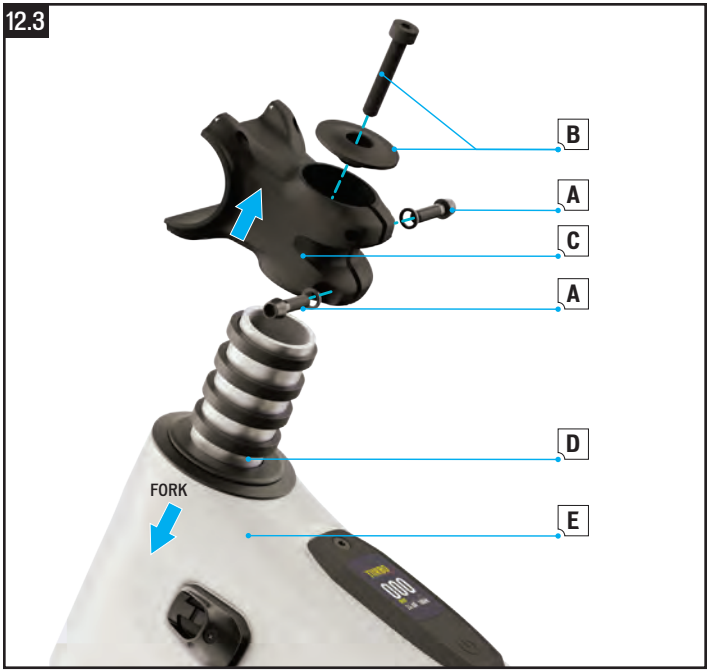


Fig. 12.3

- Loosen the stem bolts that attach it to the fork steerer (A).
- Loosen and remove the top cap bolt (B).
- Remove the stem (C) from the fork steerer tube (D) and remove the fork from the frame (E).
- Choose the headset cup and position (Fig 12.2) for the rider's desired geo.

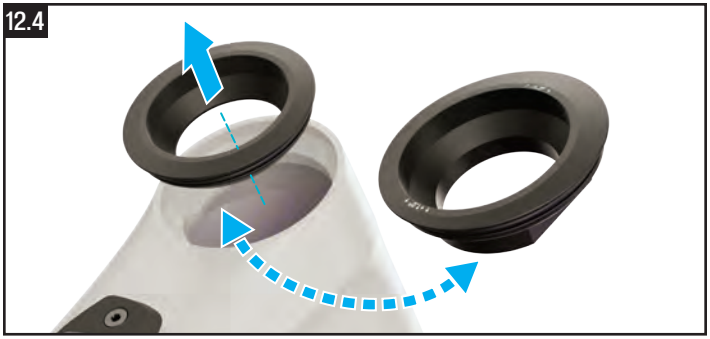


Fig. 12.4

- Remove the zero offset cup from the head tube and replace it with the +/- 1-degree headset cup.

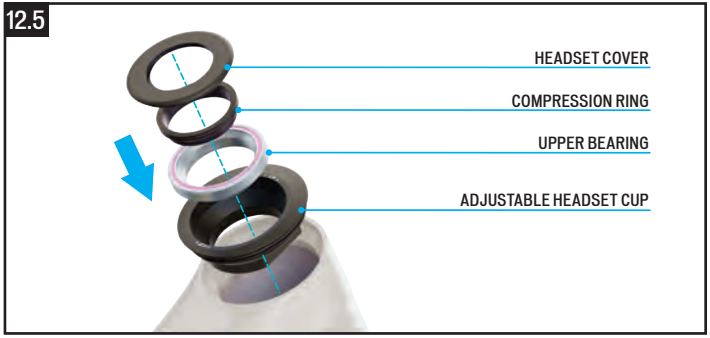


Fig. 12.5

Install the headset parts, bearings, and cups into the frame. No tools are required.

12.6

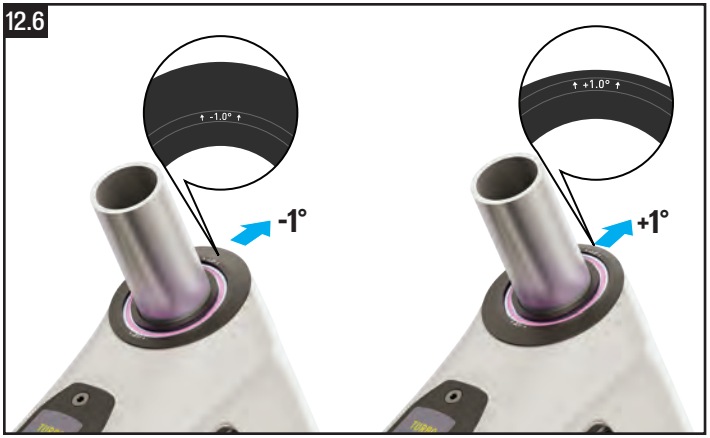


Fig. 12.6

When aligning the headset cup, the etching that is at the front of the bicycle indicates which setting you are in.

i	Make sure the head tube and headset cup are free of dirt and debris when changing the upper cup angle. Lubricate all the parts with high-quality waterproof grease.
i	All models are assembled with the zero offset headset cup. Switching the headset cup steepens or slackens the head tube angle by +/-1 degree.
i	The bottom headset cup is used for all options of adjustability, the cup has a spherical interface with the head tube and will move with the angle of the steerer tube.

12.7

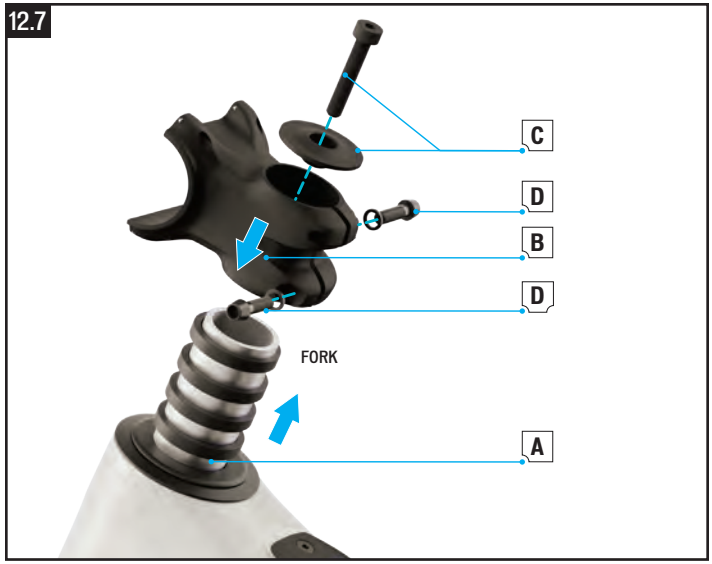


Fig. 12.7

- Slide the fork steerer tube back through the head tube and headset parts (A).
- Install the stem onto the steerer tube (B).
- Install the top cap and compression bolt into the star nut in the fork (C). Tighten the bolt until all the parts are snug and settled. The stem should rotate freely, but there should be no fore/aft free play in the system.
- Pull front brake and rock the bicycle back-and-forth a few times with the stem bolts loosened to make sure everything is well seated
- If necessary re-tighten the headset top cap (C).
- Torque the stem bolts to the recommended torque setting.

ADJUSTMENT POINT	CHAINSTAY LENGTH	BOTTOM BRACKET HEIGHT	HEAD TUBE ANGLE
HORST ADJUSTABLE PIVOT (HIGH)	+ 0 mm	+ 0 mm	+ 0°
HORST ADJUSTABLE PIVOT (LOW)	+ 5 mm	- 7 mm	- 0.5°
HEADSET ADJUSTABLE COLLAR (STD)	+ 0 mm	0 mm	+0°
HEADSET ADJUSTABLE COLLAR (SHORT)	+ 0 mm	-2 mm	-1°
HEADSET ADJUSTABLE COLLAR (LONG)	+ 0 mm	+2 mm	+1°

13. AIR SHOCK SETUP

When setting suspension, always set the shock first and fork second for air pressure, rebound, then compression.

Make sure you're wearing all gear that would normally be worn on a ride (shoes, helmet, hydration pack if used, etc.).

Please visit the suspension calculator tool at www.specialized.com. The suspension calculator provides a personalized baseline suspension setup recommendation based upon your specific height and weight. The baseline information should be considered as a suspension setup starting point. Adjust your suspension as needed based on your experience/preference and terrain conditions.

13.1. SETTING AIR PRESSURE

- Set the shock compression lever or knob (blue) to the full open or off position, and set the rebound knob to the middle of the click range.
- Attach a high-pressure shock pump to the air valve and set your shock pressure based on the personalized baseline suspension setup from the suspension calculator.

13.1

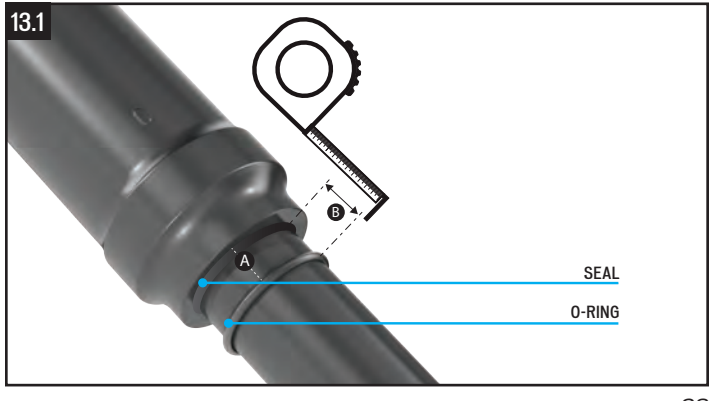


Fig 13.1

- To check the sag, push the o-ring against the seal (A), then mount the bicycle while propped up against a wall and sit in the saddle in a normal riding position, without bouncing the suspension. Do not set sag while riding!
- Check the sag by measuring the distance between the shock seal and the o-ring (B). Once the sag is close to the desired setting, increase or decrease the pressure as needed in 5psi increments until the desired sag is achieved.

Sag is measured as the distance between the o-ring and the shock body's seal, after the rider's weight has been applied to the bicycle, with no bounce. When the pressure is correctly set, sag should measure approximately 13.75 mm of stroke, depending on rider experience/preference and terrain conditions. If the rider is approaching 300lbs, sag may exceed the bicycle's prescribed amount.

To equalize the air pressure, cycle the shock or fork anytime after the air pressure has been adjusted.

CAUTION: Do not exceed the shock manufacturer's maximum pressure. Refer to the shock manufacturer specifications for maximum shock pressures.

13.2. ADJUSTING REBOUND

Rebound damping (red knob) controls the rate at which the shock returns after it has been compressed. Each rear shock has a range of rebound clicks to fine-tune the rebound return rate.

- Adjust the rebound based on the range provided in the suspension setup tool for your bicycle setup and rider weight, as well as other factors like rider experience/preference and terrain conditions, then fine-tune during the ride if necessary. If you do not have access to the suspension setup tool, start in the middle of the click range.
- Clockwise for slower rebound (heavier riders, slow speed, bigger hits).
- Counter-clockwise for faster rebound (lighter riders, higher speeds, small bumps, more traction).

It is best not to veer too far from the recommended clicks, since being too far out of the accepted range can negatively impact the ride experience.

13.3. ADJUSTING COMPRESSION

Compression damping (blue knob) controls the amount of support of the shock platform, in other words, the shock's ability to resist low-speed pedaling forces while still being able to absorb high-speed compression forces.

Please refer to the suspension manual for specifics about the compression options provided by your suspension. Typically, a suspension is equipped with some or all of the following settings:

- OPEN: Low-speed compression setting optimized for the perfect balance of control and plushness for steep, aggressive descents.
- PEDAL (certain models): Moderate low-speed compression setting is activated for an optimal blend of pedaling efficiency and bicycle control on variable terrain.
- LOCK: The firmest low-speed compression setting is activated for maximum pedaling efficiency.

14. DERAILLEUR HANGER

WARNING! Correct grease application is critical to rider safety. **ONLY** apply grease as instructed.

INSTALLATION PROCEDURE:

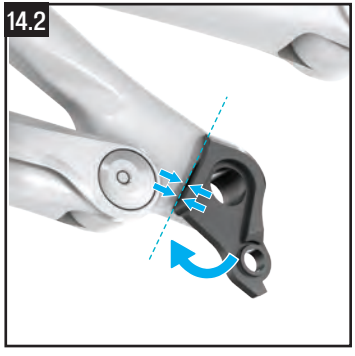


Fig. 14.1

- Install the UDH hanger assembly into the frame dropout.

Fig. 14.2

- Rotate the UDH hanger forward until it is completely seated in the hanger pocket or contacts the rotational stop tab.

Apply grease ONLY to the thru-axle threads. Do NOT apply grease to the frame, UDH hanger or UDH bolt threads.

The hanger must be completely seated in the hanger pocket or against the frame stop tab when tightened to the specified torque.

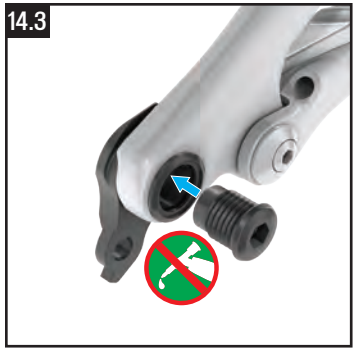


Fig.14.3

- Install the UDH washer, then thread the UDH bolt through the washer and into the hanger.

Fig.14.4

- Tighten the bolt to 221 in-lbf / 25 Nm. The UDH hanger bolt is left-hand threaded.

A reversible (left-hand and right-hand thread) torque wrench MUST be used to ensure proper left-hand thread bolt torque.

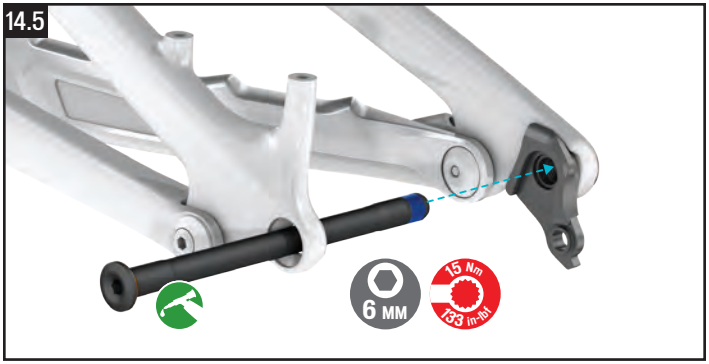


Fig.14.5

- Apply grease to the thru-axle threads before axle installation.

Fig.14.5

- Install the thru-axle and wheel, then torque the rear axle to 133 in-lbf / 15 Nm.

WARNING! Regularly check and confirm the UDH hanger is tight and has not moved before and after riding the bicycle.

15. REGULATORY STATEMENTS

RoHS:

Specialized Bicycle Components, Inc. Certifies that this product and its packaging are in compliance with European Union Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronics Equipment, commonly known as RoHS.

FCC Statement:

This device complies with Part 15 of the FCC Rules.

Caution: If any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

The RF Exposure Compliance distance is 20 millimeters.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

–Reorient or relocate the receiving antenna.

–Increase the separation between the equipment and receiver.

–Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

–Consult the dealer or an experienced radio/TV technician for help.

ISED Statement

This device complies with Innovation, Science and Economic Development Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. CAN ICES-3(B)/NMB-3(B)
The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 millimeters between the radiator and your body.

16. EC - DECLARATION OF CONFORMITY

The manufacturer:

Specialized Bicycle Components Inc.
15130 Concord Circle
Morgan Hill, CA 95037, USA
Tel: +1 408 779-6229

CE

Hereby confirms for the following products:

Product description:	EPAC (Electrically Power Assisted Cycle)
Model designation:	LEVO SW LTD / LEVO SW CARBON / LEVO PRO CARBON / LEVO EXPERT CARBON / LEVO COMP ALLOY / LEVO ALLOY
The conformity with all applicable directives from the guideline:	Machines (2006/42/EC).
The machine also conforms to all the directives in the guidelines:	Electromagnetic Compatibility (2004/108/EC). Radio Equipment (2014/53/EU)
The following harmonizing norms were applied to the product:	EN 15194:2017 Cycles - Electrically power assisted cycles - EPAC Bicycles
Serial number:	Frame decal adhered to the back page of the user manual
Technical documentation by:	Specialized Europe GmbH Werkstattgasse 10 6330 Cham, Switzerland

Signature: 

Jan Talavasek
(Sr. Director Turbo)

Specialized Europe GmbH, 6330 Cham, Switzerland, April 1st, 2020

NOTE: THIS DECLARATION OF CONFORMITY APPLIES ONLY TO BICYCLES SOLD IN COUNTRIES FOLLOWING THE CE MARKING DIRECTIVES.

NOTE: IN ORDER TO CONNECT THE BICYCLE AND THIS USER MANUAL TOGETHER, THE YELLOW SERIAL NUMBER DECAL LOCATED ON THE FRAME OF THE BICYCLE MUST BE PLACED OVER THE FACSIMILE OF THE DECAL ON THE BACK PAGE OF THIS USER MANUAL.