SR SUNTOUR

Owners Manual

COIL SPING SERIES

Raidon

XCR

XCM V2

XCT V2

M2025

M3000AL

XCU

ATB

XC

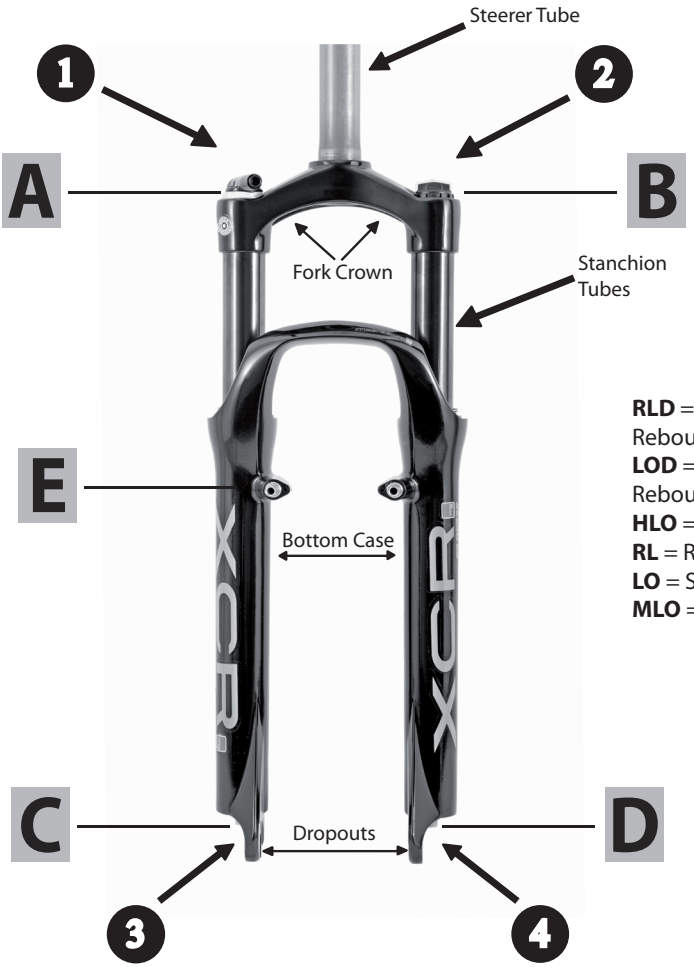
TABLE OF CONTENTS

INTENDED USE

Category	Freeride	All Mountain	XC	ATB
RAIDON				
XCR / XCM				
XCT / M				

Make sure to select the correct fork according to your frames build in height and personal riding style. Please note that the AXON, EPICON and RAIDON^{air} series forks were not designed for jumping, dropping, aggressive downhill riding, freeriding or urban style riding. Not following these instructions could result into a failure of the product, accident and even death of the rider. Not following these instructions will void the fork's warranty!

max disc	MAX ROTOR DIAMETER [mm]
RAIDON / XCR / XCM V2 SERIES	185
XCT V2 / M SERIES	160



RLD = Remote Lock Out + Rebound Damping Adjust
LOD = Speed Lock Out + Rebound Damping Adjust
HLO = Hydraulic Lock Out
RL = Remote Lock
LO = Speed Lock
MLO = Mechanical Lock Out

Model	Speed Lock Out	Remote Lock Out	Preload Adjuster	Rebound Adjuster
RAIDON RLD / RLD 15QLC		1	2	3
RAIDON LOD / LOD 15QLC	1		2	3
RAIDON RLD 15QLC 29"		1	2	3

Model	Speed Lock Out	Remote Lock Out	Preload Adjuster	Rebound Adjuster
RAIDON LOD 15QLC 29“	1		2	3
XCR RL / RL 15QLC		1	2	
XCR LO / LO 15QLC	1		2	
XCR 15QLC			1+2	
XCR & XCR 24“			1+2	
XCM V2 HLO / V2 PM HLO	1		2	
XCM V2 / V2 PM			1+2	
XCT V2 MLO	1		2	
XCT V2			1+2	
XCT V2 JR MLO 24“	1		2	
XCT JR 24“ & XCT JR 20“	1		1+2	
M2025 MLO			1+2	
M- Series			1	

TORQUE VALUES (all values including a tolerance of ± 10%)

MODEL	A	B	C	D	E
RAIDON RLD / RLD 15QLC	10Nm	10Nm	6Nm	10Nm	7Nm
RAIDON LOD / LOD 15QLC	10Nm	10Nm	6Nm	10Nm	7Nm
RAIDON RLD 15QLC 29“	10Nm	10Nm	6Nm	10Nm	7Nm
RAIDON LOD 15QLC 29“	10Nm	10Nm	6Nm	10Nm	7Nm
XCR RL / RL 15QLC	10Nm	4Nm	10Nm	10Nm	7Nm
XCR LO / LO 15QLC	10Nm	4Nm	10Nm	10Nm	7Nm
XCR 15QLC	4Nm	4Nm	10Nm	10Nm	7Nm
XCR & XCR 24“	4Nm	4Nm	10Nm	10Nm	7Nm
XCM V2 HLO / V2 PM HLO	10Nm	4Nm	10Nm	10Nm	7Nm
XCM V2 / V2 PM	4Nm	4Nm	10Nm	10Nm	7Nm
XCT V2 MLO	4Nm	4Nm	10Nm	10Nm	7Nm
XCT V2	4Nm	4Nm	10Nm	10Nm	7Nm
XCT V2 JR MLO 24“	4Nm	4Nm	10Nm	10Nm	7Nm
XCT JR 24“ & XCT JR 20“	4Nm	4Nm	10Nm	10Nm	7Nm
M2025 MLO	4Nm	4Nm	10Nm	10Nm	7Nm
M- Series	4Nm	4Nm	10Nm	10Nm	7Nm

IMPORTANT SAFETY INFORMATION

WARNING !

Failure to comply with the given warnings and instructions may cause damage to the product, injuries or even death to the rider.

- Be sure to read this manual carefully before using your suspension fork. Inappropriate usage of your suspension fork may cause damage to the product, serious injuries or even death to the rider.
- Suspension forks contain fluids and gases under extreme pressure, warnings included in this manual must be followed in order to reduce the possibility of injuries or possible death. Never try to open any SR SUNTOUR cartridge, as stated above they contain fluids and gases under high pressure. Opening any SR SUNTOUR cartrigde implies the risk of getting seriously injured.
- Only use genuine SR SUNTOUR parts. The use of aftermarket replacement and spare parts voids the warranty of your fork and might cause failure to the fork. This could result into an accident, injury or even death.
- SR Suntour suspension forks are designed for the usage by a single rider.
- This instruction sheet contains important information about the correct installation, service and maintenance of your suspension fork. Nevertheless please be informed that special knowledge and tools are essential to install, service and maintain SR SUNTOUR forks. Common mechanical knowledge may not be sufficient to repair, service or maintain a suspension fork. Therefore we strongly recommend getting your fork installed, serviced and/or maintained by a trained and qualified bicycle mechanic. Improper installation, service or maintenance can result in failure of the product, accident, injury or even death.
- Always be equipped with proper safety gear. This includes a properly fitted and fastened helmet. According to your riding style you should use additional safety protection. Make sure your equipment is in flawless condition.
- Make sure to select the correct fork according to your frame's built in height and your personal riding style. Installing a fork which does not match the geometry of your frame could result into a failure of the fork itself and will void the forks warranty. Installing a suspension fork will change the geometry and handling of your bike. Learn how to ride and train your skills. Know your limits and never ride beyond those.
- When using a bike carrier please always fully release the quick release fastener. Not properly unfastened quick releases may result into bending, breaking or other structural damage while removing your bike of the bike carrier. If your bike fell off the carrier please do not ride it, until it has been inspected by a qualified bike mechanic. When using a bike carrier which just secures the bike by clamping the forks dropouts, make sure to fasten your rear wheel as well. A not accurate fastened rear wheel could allow the bike to jiggle which might result into a breakage of the dropouts.
- Please note that SR SUNTOUR suspension forks do not come with the proper reflectors for on road riding. If you intend to ride on public roads or bicycle lanes your dealer should mount the required reflectors to your fork.
- Study all other owner's manuals provided with your bike and make yourself familiar with the components mounted to your bike.

BEFORE EACH RIDE!

Do not ride your bike, if one of the following test criteria can't be passed! Riding your bike without eliminating any defect or carrying out the necessary adjustments can result into an accident, fatal injury or even death.

- Do you notice any cracks, dents, bent or tarnished parts at your suspension fork or any other part of your bicycle? If so, please consult a trained and qualified bicycle mechanic to check your fork or bike.
- Can you notice any oil leaking out your fork? Also check out hidden areas like the bottom side of your fork crown. If so, please consult a trained and qualified bicycle mechanic to check your fork or bike.
- Compress your fork with your body weight. If it feels too soft, relating to the proper pressure to achieve an accurate SAG, inflate it until you have reached the required value. Please also refer to chapter " **SETTING SAG**"
- Make sure your brakes are properly installed/ adjusted and work appropriate. This also applies to every other part of your bike like handlebars, pedals, crank arms, seat post, saddle etc. Also refer to the owner's manuals provided by all other component manufacturers.
- Make sure your wheels are centered perfectly in order to avoid any contact with your suspension fork or brake system.
- If you are using a quick release system to fasten your wheel set, make sure that all levers and nuts are adjusted properly. In case you are using a through axle system, make sure that all fixing bolts are tightened with the appropriate torque values.
- Check the cable length and routing of your components. Make sure they do not interfere your steering actions.
- If you are using reflectors for on-road cycling, make sure they are clean and properly installed.
- Bounce your bike slightly on the ground while looking and listening for anything which might be loose.

FORK INSTALLATION

WARNING!

SR SUNTOUR strongly recommends that your fork is being installed by a trained and qualified bicycle mechanic. Special knowledge and tools are essential to install SR SUNTOUR forks. Common mechanical knowledge may not be sufficient to install a SR SUNTOUR suspension fork. If you intend to install the fork by yourself, the whole job has to be inspected by a trained and qualified bicycle mechanic. Please note, that improperly installed forks are extremely dangerous and can cause damage to the product, serious injuries or even death.

INSTALLATION INSTRUCTIONS

Note! All fixing bolts have to be tightened with the proper fasting torque stated by the manufacturers

1. Remove the existing fork from your bicycle. Afterwards remove the crown race from the fork.
2. Measure the length of your old fork's steerer tube against the length of the SR SUNTOUR fork steerer. SR SUNTOUR suspension forks are delivered with a standard steerer tube length of 255mm. Therefore the steerer tube may need cutting to the proper length.

FORK INSTALLATION

3. In order to define the proper length of your steerer tube you can apply the following formula:

Frame's head tube+Head sets stack height+Spacers+Stem's clamp height-3mm clearance

Warning!
If your SR SUNTOUR fork does come with a threadless steerer tube, do not add a thread to it. SR SUNTOUR'S fork steeres are a one time press fit which can not be removed. Do not try to replace the steerer tube by a steerer tube with a threaded steerer. This will void the warranty of your fork and result into a failure of the product or could cause fatal injuries or even death to the rider.

4. Install the headset crown race (30mm for 1 1/8") firmly against the top of your fork crown. Install the fork unit (headset,spacers,stem) back on the bike. Adjust the headset until you do not feel play anymore. Also refer to the headset's manufacturer installation instructions.
5. Install the brakes according to the manufacturer's instructions. Make sure to adjust the brake pads properly. If you use a disc brake, only mount your brake to the original disc brake mounting holes. Only use cantilever brakes which are intended to be used with a hangerless brace. Check the installation instructions of your brake manufacturer and follow them. Make sure you choose the correct length of the brake cable in order to not interfere the performance of the fork.
6. Re-install the wheel back on to your bike. If you are using a **quick release system** to fasten your wheel set, make sure that all fasteners and nuts are adjusted properly (four or more threads have to be engaged in the nut when it is closed) In case your fork comes with a **through axle system**, make sure that all fixing bolts are tightened with the appropriate torque values. *Please also refer to the Qloc section of this manual.*

TIRE CLEARANCE !

Your SR SUNTOUR suspension fork is designed to be used with 26" tires. Each tire has a different outer diameter (tire width and height).Therefore the clearance between your tire and fork needs to be checked, to make sure your tire does not get in contact with any part of your fork. Keep in mind that the narrowest part of your fork is located at the brake bosses. If you want to remove your wheel, you might have to deflate your tire, in order to be able to pass it through your brake bosses.

Tire Clearance Test:

Note! Using a tire which exceeds the maximum tire size suitable to your fork is very dangerous and could cause an accident, fatal injuries or even death to the rider

1. Release all air of your fork
2. Compress your fork completely
3. Measure the distance between the top of your tire and the bottom of the crown. **Make sure the gap is not less than 10mm!** Exceeding maximum tires size will cause the tire to jam against the bottom of the crown when the fork is fully compressed.
4. Inflate the fork again

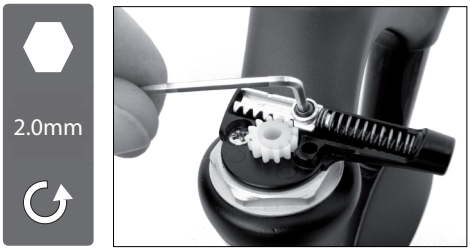
Keep in mind that if you are using a mudguard the clearance is limited! Repeat the "Tire Clearance Test" again to make sure the gap is big enough. Every time you are going to change your tires you have to repeat the test again!

REMOTE LOCK LEVER INSTALLATION RAIDON RLD SERIES

Mount the „Remote-Lock-Lever“ on your handlebar using a 3mm Allen key. Afterwards you can mount your brake and shifting lever back on again.

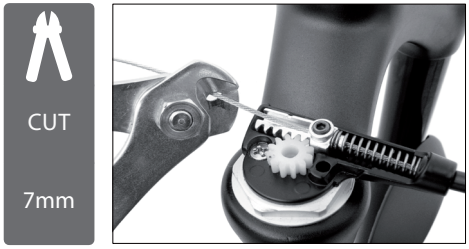
Take off the plastic cover cap using a 2.5mm Allen key.

Unscrew the cable fixing bolt using a 2mm Allen key.

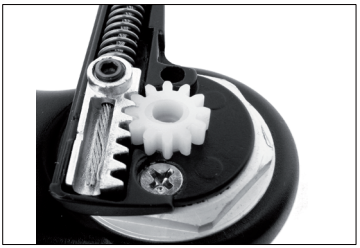


Thread the cable through the outer casing stopper and through the cover unit hole. Tension the cable slightly and tighten it using a 2mm Allen key.

Cut the cable to a proper length to make sure it will still fit into the sliding carriage.

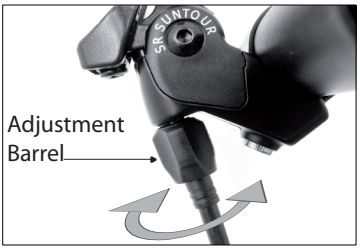


This pictures shows the remote lock unit in the „OPEN“ position. The cable is cut perfectly, still fits into the sliding carriage.



Reassemble the plastic cover cap using a 2.5mm Allen key. Tighten it slightly.

If the fork does not lock, the tension of the cable is probably too low. In this case you have to increase the tension of the cable by turning the adjustment barrel counter-clockwise. If the cable's tension is too high and the fork does not unlock, you have to turn the adjust barrel clockwise.

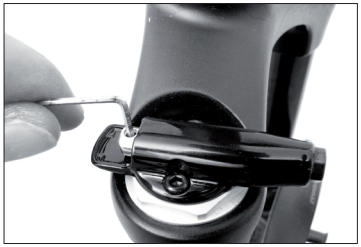


REMOTE LOCK LEVER INSTALLATION REMOTE SPEED LOCKOUT RAIDON RL / XCR RL SERIES

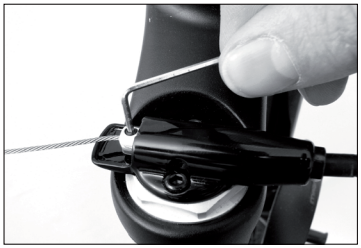
Mount the „Remote-Lock-Lever“ on your handlebar using a 3mm Allen key. Afterwards you can mount your brake and shifting lever back on again.

Take off the plastic cover

Unscrew the cable fixing bolt using a 1.5mm Allen key



Thread the cable through the outer casing stopper and through the cover unit hole. Tension the cable slightly and tighten it using a 1.5mm Allen key.



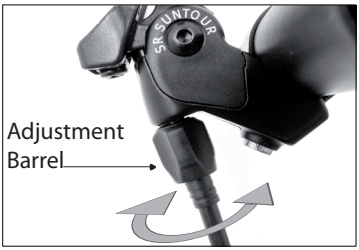
Reinstall the plastic cover cap again..

Cut the cable to a proper length. Approximately 12mm is recommended.

Install a cable end cap at the end of the cut cable using a needle nose pliers.

If the fork does not lock, the tension of the cable is probably too low. In this case you have to increase the tension of the cable by turning the adjustment barrel counter-clockwise. If the cable's tension is too high and the fork does not unlock, you have to turn the adjust barrel clockwise.

TURN



LOCK-OUT SYSTEMS

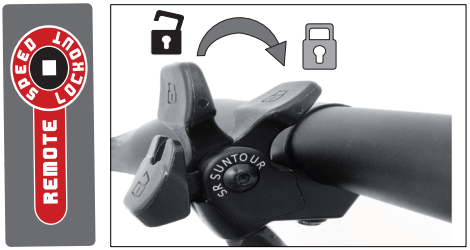
The „Lock-Out" function of SR SUNTOUR forks is intended to reduce teetering during rides out of saddle or uphill riding. The forks will not be locked 100%. A few millimeters of travel will remain, according to our „Anti-Blow-Off-System". This system will protect you in case you have forgotten to unlock the fork while riding in rough terrain.

Nevertheless, you should never set your fork to the „Lock-Out-Mode" while riding in rough terrain, going down hill or jumping. This implies the risk that the fork will get damaged when it's being compressed under high load. This could also result into an accident, injuries or even death of the rider.

Never Lock your fork while it's being compressed. This is a missuse of your fork and implies the risk that it's getting damaged. Moreover this could result into an accident, injuries or even death·

RAIDON RLD / RAIDON RL SERIES
XCR RL SERIES

In order to lock your fork you have to push the „Remote-Lock-Lever" towards your handlebar. For unlocking you have to press the blue release button.

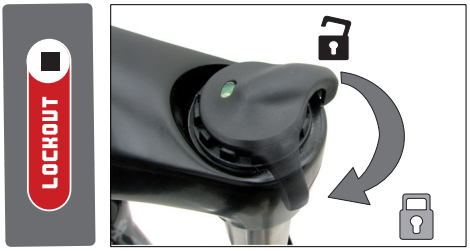


RAIDON LO / LOD SERIES
XCR LO SERIES
XCM V2 HLO SERIES

In order to unlock your fork you have to turn the „Speed Lock Out" knob 90° counter-clockwise.

XCT V2 MLO SERIES
M2025 MLO SERIES

In order to lock your fork you have to turn the lock out lever clockwise. Locking or unlocking your fork while riding is not posssible.



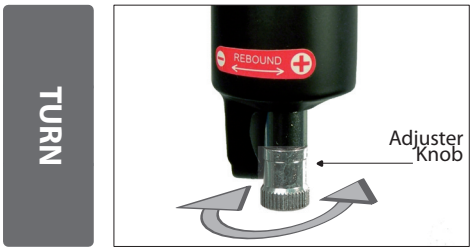
REBOUND DAMPING ADJUST

The rebound function of SR SUNTOUR hydraulic suspension forks allows you to tune your fork according to your personal preferences and the terrain you are riding on. This function enables you to control the speed of your fork's rebound after it's being compressed.

If you are going to ride on a terrain with a lot of small and fast bumps, we recommend to increase your forks rebound speed. Otherwise it implies the risk that your front wheel loses its contact to the ground. If you are going to ride on a terrain with a lot of big and slow bumps, we recommend to decrease your forks rebound speed.

RAIDON RLD SERIES
RAIDON LOD SERIES

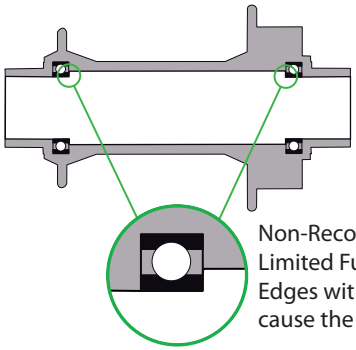
In order to increase the rebound speed of your fork you have to turn the adjuster knob counter clock-wise. To decrease the speed you have to turn it clockwise.



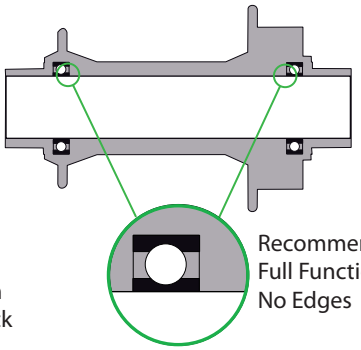
Qloc hub requirements

LOC

According to function of our Qloc system there are some requirements hub's have to fullfil to make this system work smoothly. Please find the explanation down below:



Non-Recommend Shape
Limited Function
Edges within the hub can cause the axle to get stuck



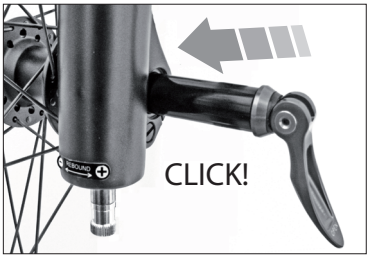
Recommend Shape
Full Function
No Edges

QLOCK SYSTEM 15mm

LOC

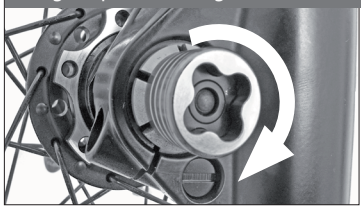
ALL RAIDON 15QLC MODELS
ALL XCR 15QLC MODELS

1. SLIDE IN

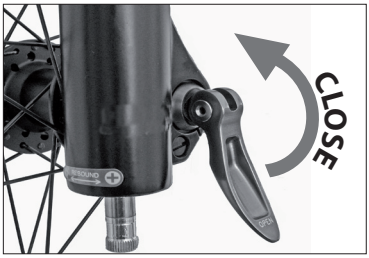


2. ADJUST

Adjust until finding the proper tightening torque for closing the QR lever.



3. CLOSE

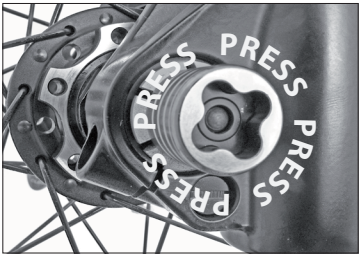


4. CLOSED

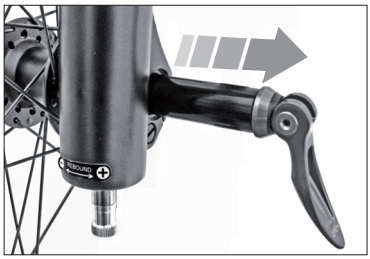
1. CLOSED

2. OPEN

3. PRESS + PUSH



4. PULL OUT



FORK MAINTENANCE

SR SUNTOUR forks are designed to be nearly maintenance free. However, as long as moving parts are exposed to moisture and contamination, the performance of your fork might be reduced after several rides. To maintain a high performance, safety and a long life of your fork, a periodic maintenance is required.

Please keep in mind that a fork which has not been serviced in accordance with the maintenance instructions will loose its warranty!

Never use a pressure washer or any water under pressure to clean your fork as water may enter the fork at the dust seal level.

We recommend that your fork is being serviced more fequently as indicated below if you ride in extreme weather (winter time) and terrain conditions.

Any case you may feel that your forks performance has changed or handles differently immediately call on your local dealer to inspect your fork.

FORK MAINTENANCE

Maintenance Schedule	after each ride	every 25h	every 50h	every 100h
clean stanchion tubes and dust seals	●			
inspect upper tubes for scratches	●			
check main fixing bolts for proper torque (Nm)		●		
check air pressure		●		
oil dust seals with teflon oil (e.g. Brunox Fork Deo)		●		
service 1 (at the dealer)			●	
service 2 (at the dealer)				●

SERVICE 1: Checking fork's functions / cleaning and greasing bushings / lubricate remote lock cable and housing / checking torque values / checking air pressure / checking fork for any scratches, dents, cracks, bent or tarnished parts and stress marks.

SERVICE 2: Service 1 + disassembling / cleaning whole fork / lubricating dust seals and oil wipers / greasing remote lock and travel adjust top caps / sealing air valve top caps by greasing it / checking for any air leakings / checking torque values / tuning according to rider's personal preferences.

LIMITED WARRANTY

SR SUNTOUR warrants its suspension forks to be free from defects in material and workmanship under normal use for a period of two years from the date of original purchase. This warranty is made by SR SUNTOUR Inc. with only the original purchaser and is not transferable to any third party. Lodging a claim under this warranty must be made through the dealer where the bicycle or SR SUNTOUR suspension fork was purchased. To prove the original purchase the original retail invoice has to be provided.

LOCAL LAW:

This warranty gives you specific legal rights. According to the state (USA) or province (Canada) or every other country you are living in, you may have other rights than explained within these warranty regulations. These regulations shall be insofar adapted to the local law to be consistent with such law.

LIMITATION OF WARRANTY

This limited warranty does not apply to any defect of the suspension fork caused by: improper installation, disassembling and re-assembling, intentional breakage, alterations or modification to the fork, any unreasonable use or abuse of the product or any use for which this product was not intended for, accidents, crashes, improper maintenance, repairs improperly performed.

The obligation of this "Limited Warranty" is restricted to repairs and replacements of the suspension fork or any parts of it in which there is a defect in materials or workman-ship within a period of two years.

SR SUNTOUR makes no express or implied warranties of fitness or merchatability of any kind, except as set forth above. Under no circumstances will SR SUNTOUR be liable for incidental or consequential damages.

Damages which are caused by the use of other manufacturer's replaceements parts or damages which are caused by the use of parts that are not compatible or suitable to SR SUNTOUR suspension forks are not covered by this warranty.

This warranty does not apply to normal wear and tear.

WEAR AND TEAR PARTS:

- ► Dust Seals
- ► O-rings
- ► Rubber Moving Parts
- ► Stanchion Tubes

Please note that there is a limited warranty of 1 year on all SR SUNTOUR cartridges!
Please note that there is a limited warranty on sleeves and glide rings of 6 month!

www.srsuntour-cycling.com

www.srsuntour-tuning-base.com

August 2009

SR SUNTOUR HEADQUATER

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2014 FSR
OWNER'S MANUAL

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SPECIALIZED BICYCLE COMPONENTS
15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-6229
0000017543_OM R2, 06/13

Please note all instructions are subject to change for improvement without notice.
Please visit www.specialized.com for periodic tech updates.
Feedback: techdocs@specialized.com

INTRODUCTION

Congratulations on your purchase and welcome to the finest line of suspension bikes available!

About Off Road, Stunt, Downhill and Freeriding

This manual is designed to be used in conjunction with the Bicycle Owner's Manual and owner's manuals supplied by the manufacturer of the front and rear suspension components. If you did not receive any of these manuals, download them from the Internet, contact your Authorized Specialized Dealer, or contact us by telephone. There may be more current manuals and technical information available. For the most current information, regularly check the Specialized web site or consult your Authorized Specialized Dealer. These manuals were written for an important reason: your safety while riding.

This manual contains many "Warnings" and "Cautions" concerning the consequences of failure to maintain or inspect your bicycle or of failure to follow safe cycling practices. The combination of the safety alert symbol and the word Warning indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death. 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 damage to your bicycle or a component. Because the consequences of not following a Warning usually include "you may lose control and fall," which could result in serious personal injury or death, we may not repeat this in conjunction with each Warning. Because it is impossible to anticipate every situation or condition which may occur, a practice or situation may be unsafe but not anticipated by this manual. So, don't forget to use your common sense.

WARNING! Make sure you have, review, and understand the warnings, instructions, and content of the manuals for your bicycle.

About off road, stunt, downhill and freeriding

Downhill racing, severe off road riding, jumping, and stunt riding is extremely dangerous. Some downhill racers and freeriders reach speeds similar to motorcycles, thus face similar risks and hazards. When engaging in these activities, you, your bicycle and safety equipment must be in perfect condition. We recommend that at all times you wear appropriate safety gear, such as an approved full face helmet, full finger gloves, and body armor.

Not every bicycle is built for every activity. Check with your Authorized Specialized Dealer to make sure you have the right equipment.

No bicycle is indestructible. Downhill racing, severe off road riding, jumping, and stunt riding increases the stress on every part of your bicycle. Frames or parts under high stress may fail, causing you to lose control or fall. Because of the risk involved, Specialized recommends that you conduct a thorough inspection before each ride. If you miss a jump, ditch your bike in mid crash, dump or launch your bike without you on it, inspect yourself for injury, then carefully inspect your bicycle for damage.

Here is what you should look for when you inspect your bicycle for this type of riding: bent or broken components, such as the handlebar, handlebar stem, seatpost, pedals; dents, cracks, scratches, deformation, or discoloration. Because damage may be internal and hidden, if any of these signs are present, stop riding until your bicycle has been thoroughly inspected by your Authorized Specialized Dealer.

WARNING! Although many catalogs, advertisements and articles about bicycling depict riders racing, jumping, riding hard off road, and/or stunt riding, this activity is extremely dangerous, increases the rider's risk of injury or death, and potentially increases the severity of any injury. The action depicted is being performed by experts with many years of training and experience. Even with that training and experience, cyclists who engage in such activity often get seriously injured. It is also foreseeable that during some jumps or stunts, and even some races, that the rider will exceed the design capacity of the frame or components, which may result in something on the bicycle bending or breaking. If a frame or component bends or breaks, such may lead to loss of control, serious personal injury or death.

As activities such as racing, jumping, severe off road riding, and stunt riding are extremely dangerous, SAFETY should always be the first consideration. Don't ride in the race, ride hard off road, try the jump, or do the stunt, ***UNLESS YOU CAN DO SO SAFELY.*** Here are some additional recommendations:

- Take lessons from a competent instructor first.
- Do jumps or stunts only in areas designated for this type of riding.
- Start with easy jumps and easy stunts first, and slowly develop skills before trying more dangerous jumps or stunts.
- Wear appropriate safety gear, such as a full face helmet, body armor, full finger gloves, etc.
- Make sure by checking with your Authorized Specialized Dealer that your bike is suitable for the kind of activity you intend to engage in.
- Constantly inspect your bicycle for signs of stress: cracks in the paint; dents; crushing or bending of the frame; bent components. Do not ride your bicycle if it shows such signs of stress.
- Do not seek to bend or break the frame or components. Remember, ***SAFETY FIRST!!!***

Understand and recognize that the stresses imposed on your bike by riding at speed, jumping or stunt riding may break or damage parts of the bicycle, which may result in loss of control, serious injury or death.

Specialized does not warrant the bicycle frame or components for such activities, and expressly disclaims all warranties, including the warranty of fitness for particular purpose and merchantability.

Stunt riding, severe off road riding, jumping, or riding downhill at speed is extremely dangerous, and the rider voluntarily assumes the risk that the bicycle frame and/or its components will bend or break, and voluntarily assumes the risk of injury or death.

Service and modifications

Technological advances have made bicycles and bicycle components more complex, and the pace of innovation is increasing. It is impossible for this manual or the accompanying manuals to provide all of the information required to properly repair and/or maintain your bicycle. In order to help minimize the chances of an injury, it is critical for you to have work performed by an Authorized Specialized Dealer.

WARNING! Service on Specialized bicycles requires special knowledge and tools. Specialized recommends that all service and repairs be performed by an Authorized Specialized Dealer.

Your bicycle has been engineered and tested with specific components and parts. Because of the great variety in these items, it is impossible for Specialized to test and approve of all possible combinations. Modifying the frame, fork, or any of the components may make your bike unsafe. For example, changing the front suspension on your bicycle may alter the steering characteristics and/or add stresses to the frame which have not been tested for. If you must replace any component, have this done by your Authorized Specialized Dealer.

WARNING! Never modify your frame or bicycle in any way. Do not sand, drill, fill, or remove parts. Do not install incompatible forks or suspension parts. An improperly modified frame, fork, or component, can cause you to lose control and fall.

CAUTION: Any modification of your frame, fork, or components means that your bike no longer meets our specifications and therefore voids your warranty.

BIKE SETUP SPECIFICATIONS

Seatpost height

SEATPOST MINIMUM INSERTION 1 **:** To prevent damage to the frame, it's important to have a minimum amount of seatpost in the seat tube.

Carbon frames:

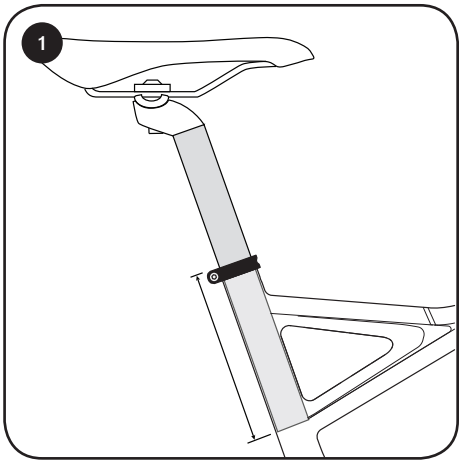
Small / Medium - 70mm insertion

Large / X-Large - 100mm insertion

Aluminum frames:

If you cannot see the seatpost tube through the seat tube hole, your seatpost is too far extended. If a greater saddle height is required, replace the seatpost with a longer one.

NOTE: When running a saddle in a low position, it's important to fully compress the rear end of the bicycle to ensure that the tire doesn't contact the saddle. This is especially important on longer travel bicycles.

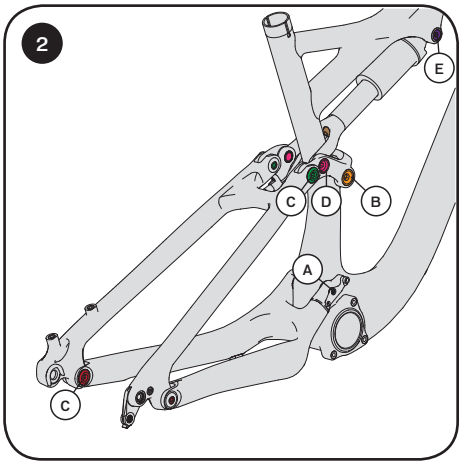


Frame linkage assembly

Specialized recommends following a specific order when assembling the rear triangle pivot locations of FSR suspension bike models 2.

A. Main pivot	**D.** Lower shock eye or yoke pivot
B. Main link pivot	**E.** Upper shock eye
C. Horst link or link @ seatstay pivot	

Assembling the upper or lower pivots of the seatstay as a last step makes it easier to align the parts and hold the washers in place.



Down tube cable guide installation

Certain Specialized FSRs are equipped with bolt-on down tube cable guides 3 under the down tube (3- or 4-cable bats). For proper housing placement and function, the hydraulic rear brake housing goes in the larger (non-drive-side) inner slot, while the gear cables (4mm only) go on the outside.

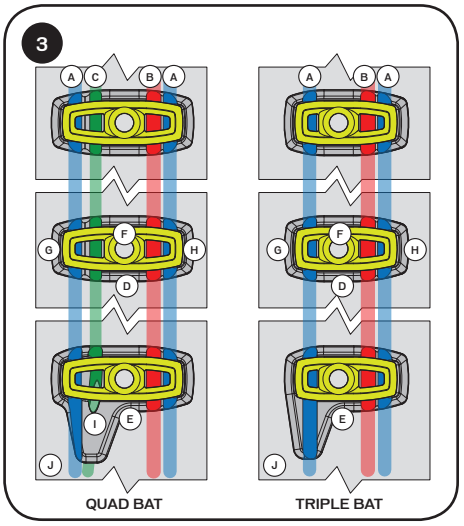
Telescoping seatposts with internal routing require the 4-cable bats, with the cable (4mm only) going in the narrower (drive-side) inner slot.

A. Blue: Gear (narrow outer slots)	**F.** Triple or Quad bat alloy holder
B. Red: Brake (larger inner slot)	**G.** Drive-side
C. Green: Seatpost (narrower inner slot)	**H.** Non-drive-side
D. Triple or Quad bat rubber base (standard)	**I.** Seatpost housing entry port
E. Triple or Quad bat rubber base (extended)	**J.** Down tube

NOTE: Stumpjumper Carbon / Enduro models use 2 x (D) and 1 x (E). Stumpjumper Alloy /Camber Alloy models use 3 x (D).

Do not overtighten the guide bolts! Too much pressure can squeeze the cable housings, creating friction and poor shifting for the cables.

Demo and Status models: The housings are routed on top of the down tube.



142+ rear axle

- Certain Specialized bike models are equipped with a 142+ rear axle system, which requires the use of a proprietary Specialized 142+ wheel, or a 142mm compatible wheel. For additional information regarding compatibility, please refer to the Roval Hub Compatibility Guide at www.specialized.com.

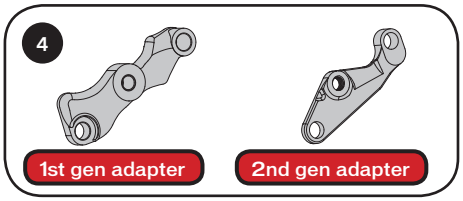
Accessories

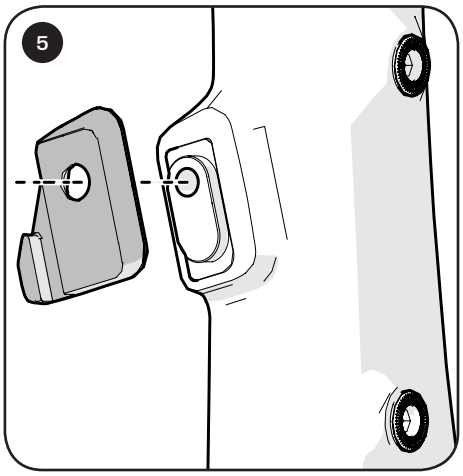
- Specialized offers replacement chainstay protectors for most FSR models, available through your Authorized Specialized Dealer.

Front derailleur type and position

MODEL	ADAPTER (fig.4)	SHIMANO DERAILLEUR	SRAM DERAILLEUR
EPIC (except WC)	*See fig.5	High Direct Mount	
CAMBER	2nd Gen	38-40t: E2, 42/44t: E	S3
SAFIRE	1st Gen	38-40t: E2, 40/42/44t: E	S1
STUMPJUMPER	2nd Gen	38-40t: E2, 42/44t: E	S3
ENDURO 26	--	38-40t: E2, 42/44t: E	S3
ENDURO 29	--	--	A3
RUMOR	2nd Gen	38-40t: E2, 42/44t: E	S3

- Shimano derailleurs are equipped with high-low height adjuster chips. Place the chips in the position that optimizes the spacing relative to the chainring size.
- Enduro 29 models are compatible only with the SRAM A3 MDM front derailleur (model # 00-7618-017-000 - FD MDM 2x10 38/36 BLK DP).
- Epic (non-WC models) are equipped with a fixed frame mount (fig.5), which accepts either a Shimano or SRAM high mount derailleur.
- Carbon Epic models require the additional slotted bracket that goes between the frame and the frong derailleur (fig.5).





SWAT BIKE EQUIPMENT

Certain Specialized bikes are compatible with SWAT (Storage, Water, Air, Tools) components. The matrix below explains the compatibility between SWAT components and Specialized bikes.

SWAT consists of the following parts:

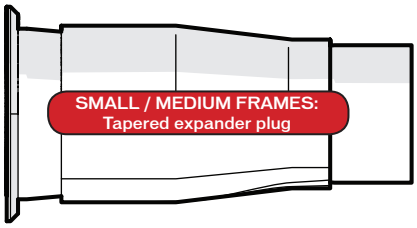
TCCT (Top Cap Chain Tool)	SWAT Box	EMT Tool

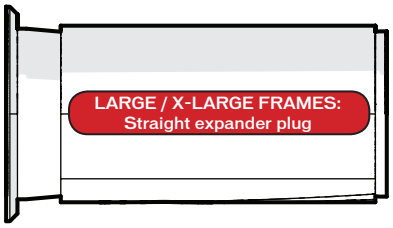
SWAT components can be assembled in stages:

STAGE 1	STAGE 2	STAGE 3
Any one SWAT component by itself	Any combination of two SWAT components (Mini Kit = TCCT + SWAT Tool)	All SWAT components together

2014 BIKE MODEL	MAX STAGE COMPATIBILITY	FULL SWAT EQUIPPED W/FRAME CRADLE	MINI KIT EQUIPPED
SW Epic FSR Carbon	Stage 3	✓	
Epic FSR Marathon Carbon	Stage 3	✓	
Epic FSR Expert Carbon	Stage 3	✓	
SW Camber FSR Carbon	Stage 2		✓
Camber FSR Expert Carbon	Stage 2		✓
Camber FSR Expert Carbon Evo	Stage 2		✓
SW SJ FSR 29	Stage 2		✓
SW SJ FSR 26 Evo	Stage 2		✓
SW SJ FSR 29 Evo	Stage 2		✓
SJ FSR Expert Carbon 29	Stage 2		✓
SJ FSR Expert Carbon Evo 26	Stage 2		✓
SJ FSR Expert Carbon Evo 29	Stage 2		✓

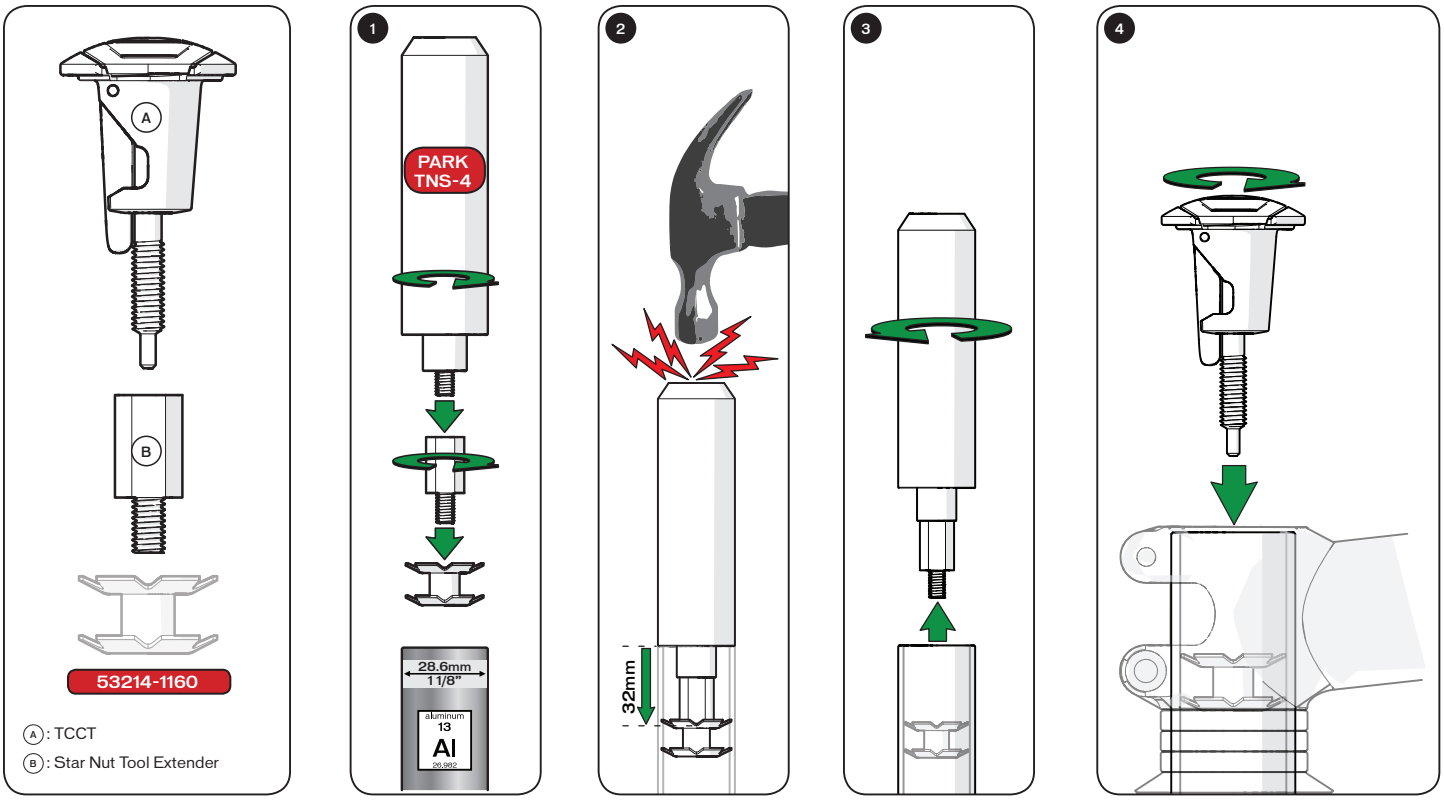
Specialized frames equipped with carbon steerer tubes: Small and medium frames have short steerer tubes that require a tapered expander plug.





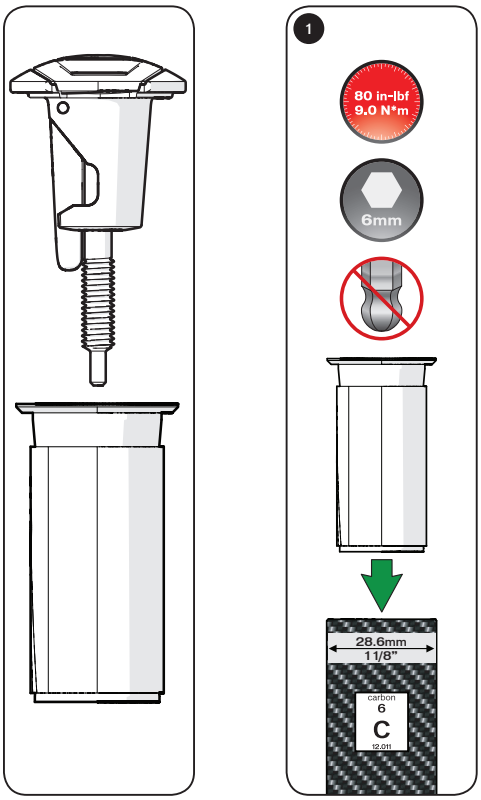
TCCT (Top Cap Chain Tool)

TCCT INTO ALLOY STEERER TUBE:

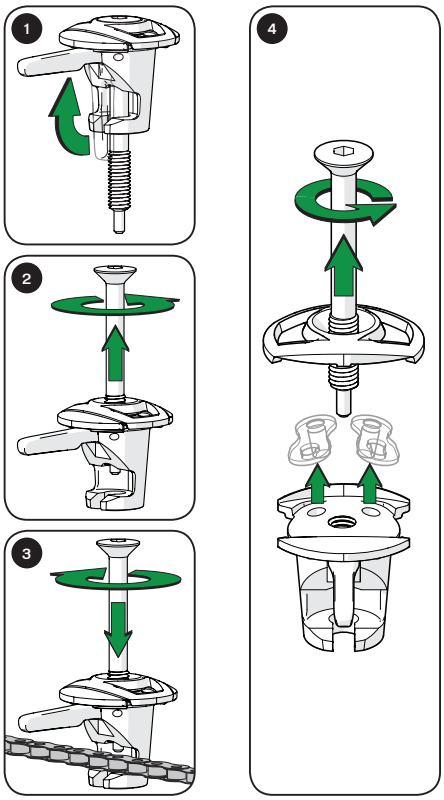


- Install the star nut, then thread the TCCT into the star nut. Tighten the bolt down to adjust headset tension just like a regular top cap.

TCCT INTO CARBON STEERER TUBE:



CHAIN TOOL USAGE:



- Install the expander plug, then thread the TCCT into the plug. Tighten the bolt down to adjust headset tension just like a regular top cap.

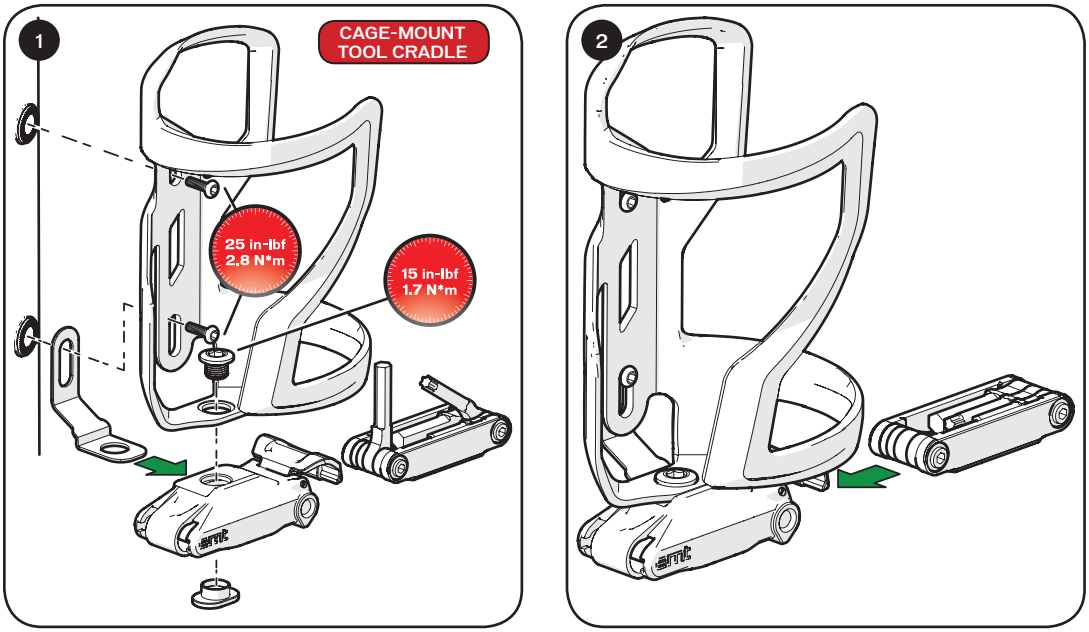
NOTE: The TCCT can be installed on additional bike models. Carbon steerer tubes require the TCCT-specific expander plug.

NOTE: The TCCT requires the use of a quick-connect link to re-attach the chain.

EMT TOOL

The EMT Tool can be mounted two ways:

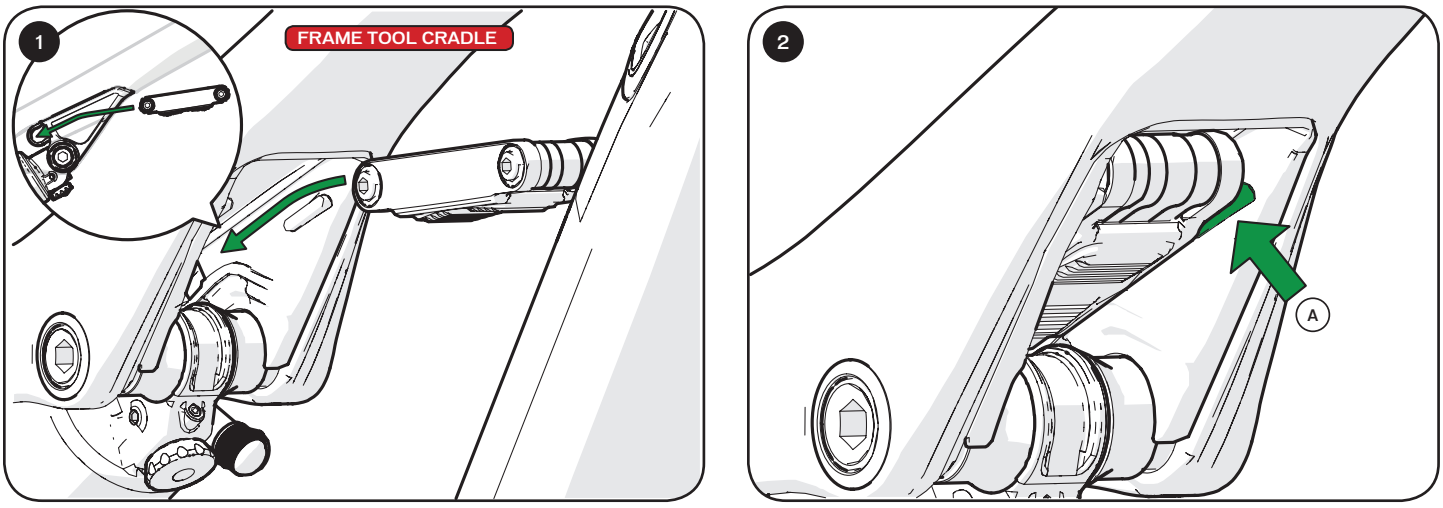
Directly to a Specialized Zee-Cage 2, with the Cage-Mount Tool cradle



- Install the metal bracket into the Cage-Mount Tool cradle (the round hole goes into the cradle, the oblong hole aligns with the Zee-Cage's lower frame mounting hole).
- Align the hole at the base of the Zee-Cage 2 over the hole in the Cage-Mount Tool cradle.
- Insert the T-Nut into the Frame Tool cradle from below.
- Thread the T-Bolt into the T-Nut. Torque the T-Bolt to 15 in-lbf (1.7 Nm).
- Install the EMT tool into the cradle.

NOTE: The EMT Tool with Cage-Mount Tool cradle and Zee-Xage 2 can be installed on many bike models. Some frames are not compatible due to interference between the frame and the Cage-Mount Tool cradle. Verify that the fit is unobstructed before installation.

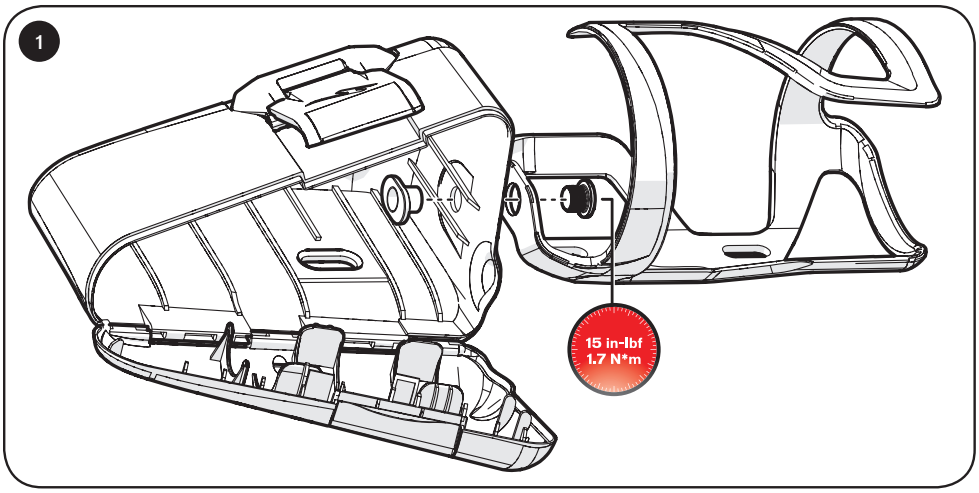
Directly into the Frame Tool cradle above the upper shock eye (2014 Epic Carbon frames only)



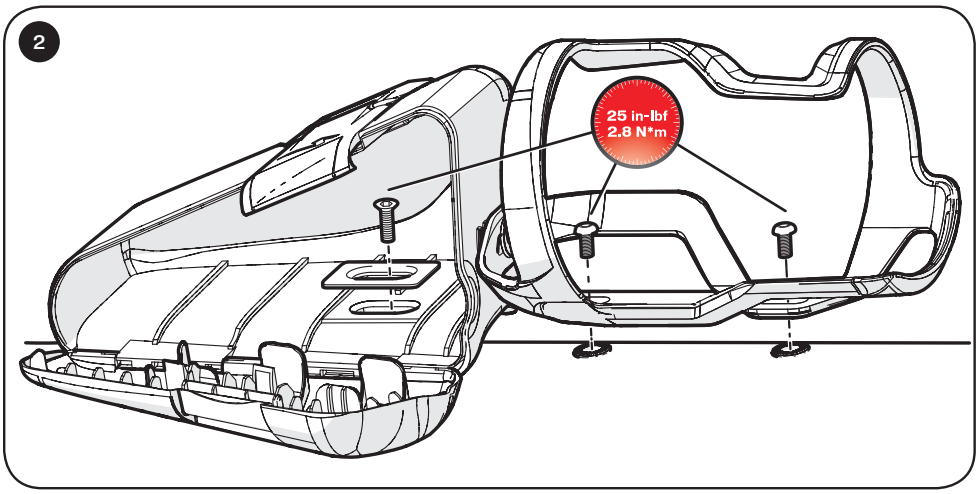
- Insert the tool into the cradle from an angle. As the tool slides into position, press the tool upward, making sure the tool's external pivot bolts are above the small retainer bumps (fig.2-A). Ensure that the tool clicks into place at the back, to hold it in snugly.
- Press up on the tool as it slides into the cradle until the tool clicks into place.
- To remove the tool, apply upward pressure with a finger or two and pull the tool toward the head tube.

SWAT BOX

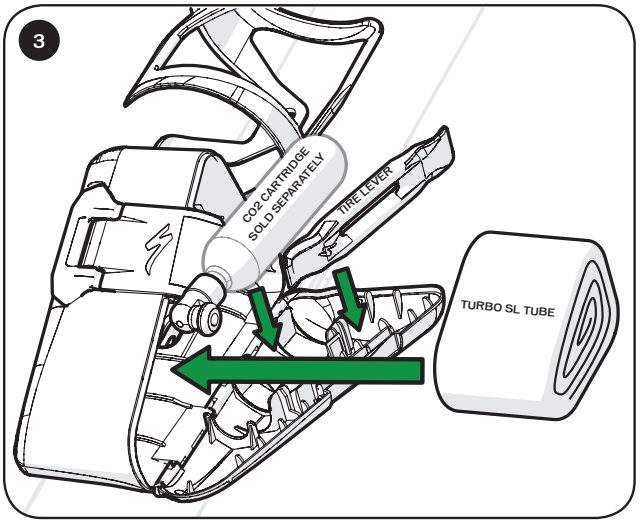
The SWAT Box is compatible only with frames equipped with a 3rd water bottle boss on the downtube (2014 Epic).



- Insert the T-Nut into the SWAT Box from the inside.
- Place the Zee-Cage 2 over the SWAT Box and align the hole at the base of the Zee-Cage 2 with the hole in the SWAT box. Torque the T-Bolt to 15 in-lbf (1.7 Nm).



- Bolt the assembly to the down tube (2 x Specialized low-profile M5 x 16mm water bottle bolts, 1 x recessed M5 x 18mm bolt). Torque the bolts to 25 in-lbf (2.8 Nm).



- Place a Specialized Turbo SL tube (29 x 1.75 - 2.40, with 40mm valve stem) into the box.
- Partially thread the Specialized CO2 head onto a 25g CO2 cartridge (cartridge sold separately).
- Click the CO2 head/cartridge assembly into its designated slot.
- Click the Specialized Tire Lever into its designated slot. The SWAT Box can only accept the Specialized Tire Lever.

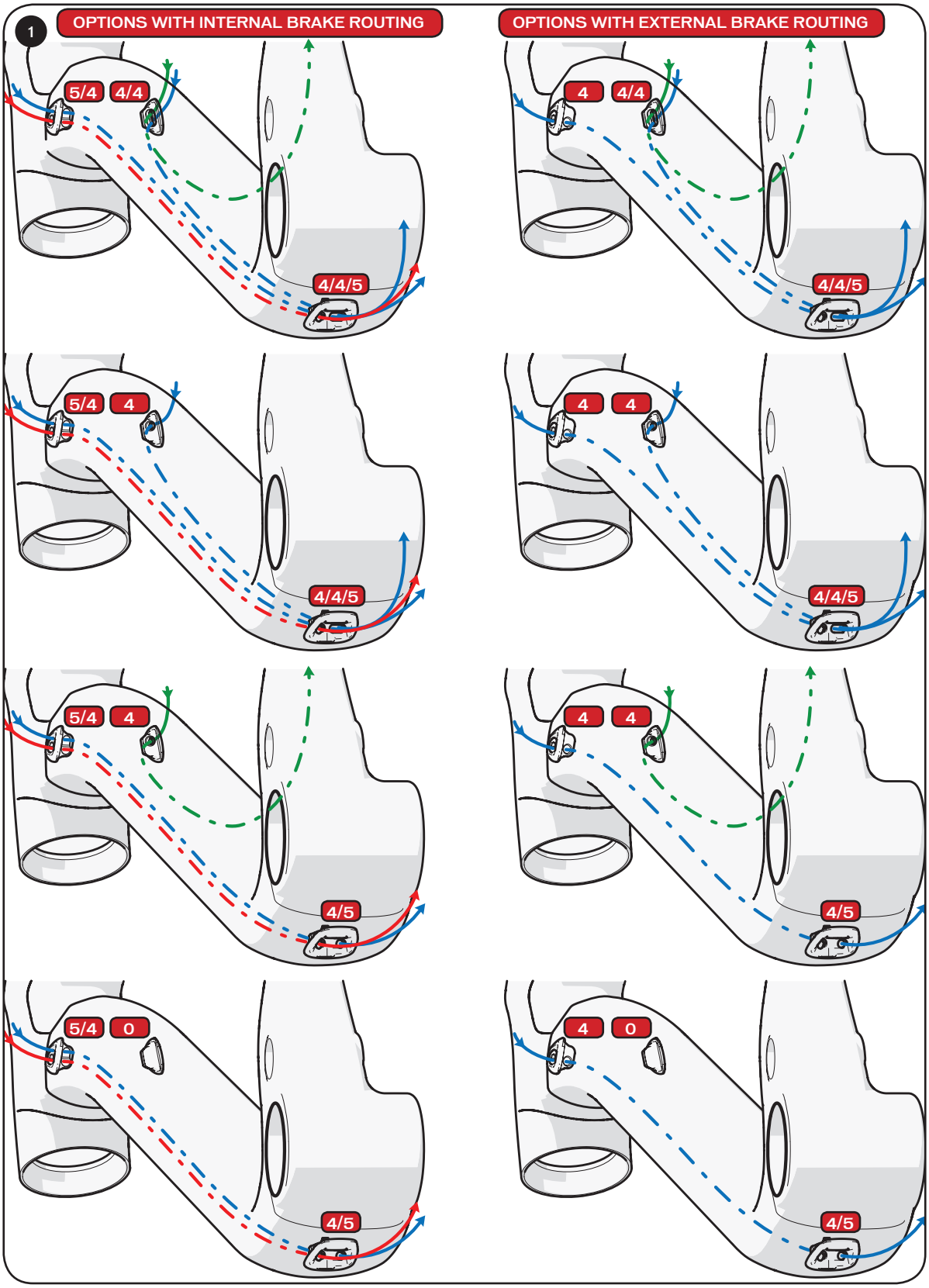
INTERNAL CABLE ROUTING

The following Internal Cable Routing (ICR) instructions are for 2014 Epic Carbon and Camber Carbon models only.

The ICR system has many different configurations, depending on the choices made regarding brakes, derailleurs and telescoping seatposts (Camber).

■ **Fig.1:** Decide which component configuration will be installed on the bike.

- Rear brake (RED): Internal or external?
- Front / Rear derailleur (BLUE): Yes or no? (Epic WC models do not have the option for a front derailleur.)
- Command Post IR (GREEN): Yes or no? (Epic models are not compatible with Command Post IR.)



NOTE: For optimal performance, Specialized suggests that the rear brake and rear derailleur housings enter the hood scoop on the non-drive-side of the frame, while the front derailleur and Command Post IR enter the hood scoop on the drive-side of the frame. However, these are only recommendations. The setup should be done based on the particular needs of the chosen components and rider preferences.

- **Fig.2:** Choose the entry and exit port hood scoops that match the desired component selection (fig.1). Each frame has its own predetermined selection of hood scoops installed at the factory, with the additional hood scoop options supplied in the parts bag.

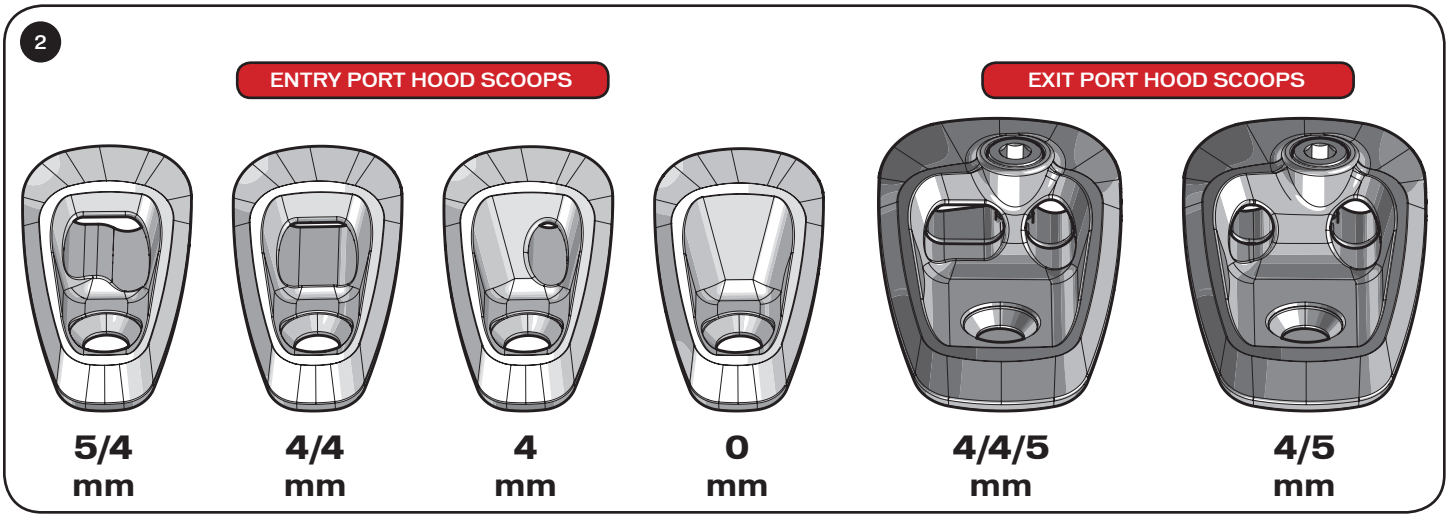
ENTRY PORT HOOD SCOOPS

- 5/4mm: Rear brake (5mm), derailleur (4mm)
- 4/4mm: Derailleurs and/or Command Post IR
- 4mm: Derailleur or Command Post IR
- 0mm: Blank

EXIT PORT HOOD SCOOPS

- 4/4/5mm: Derailleurs (4mm) and rear brake (5mm)
- 4/5mm: Rear derailleur (4mm) and rear brake (5mm)

2



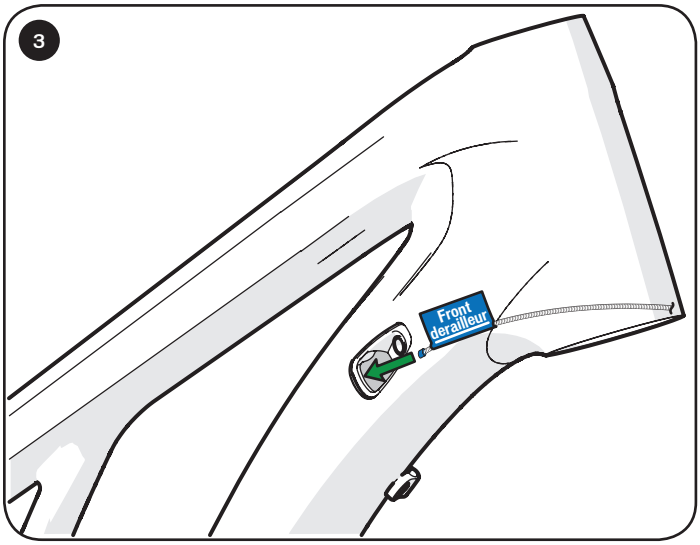
- Measure out the cable housing lengths for the chosen components (derailleur, Command Post) by running the housings from the handlebar controls, along the underside of the down tube and to the receiving component. Cut each length of cable housing with an additional few inches to accommodate changes during the final installation.

TECH TIP: To keep track of the intended component for each cable, mark each cable with a piece of tape for the correct component.

NOTE: Mechanical cable actuated rear brakes can be installed in the same way as derailleur and Command Post cables. Hydraulic brakes are installed in the opposite direction. Refer to pages 6 and 7 for additional information.

NOTE: If running a Command Post IR, it is recommended to refer to the Command Post IR Adjustable-Height Seatpost Instruction Guide, and complete the installation of the Command Post IR cable housing before installing any other cable housing.

3



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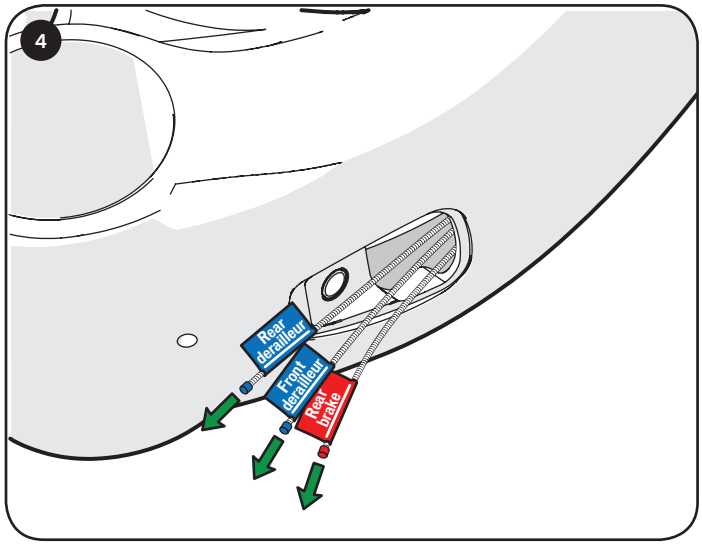
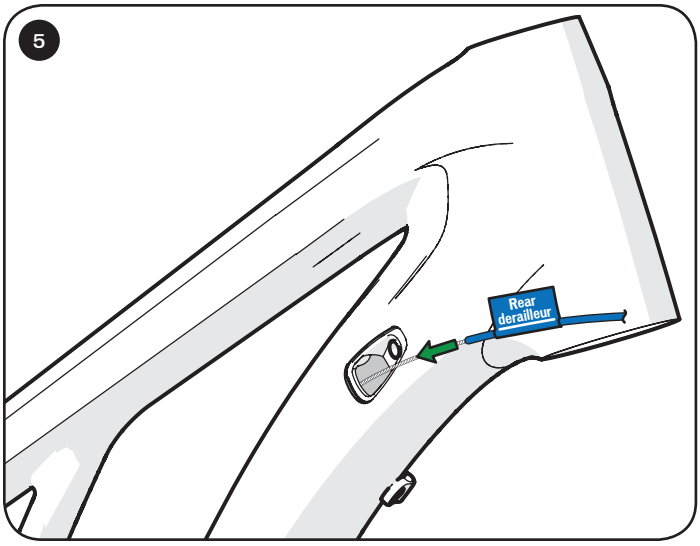
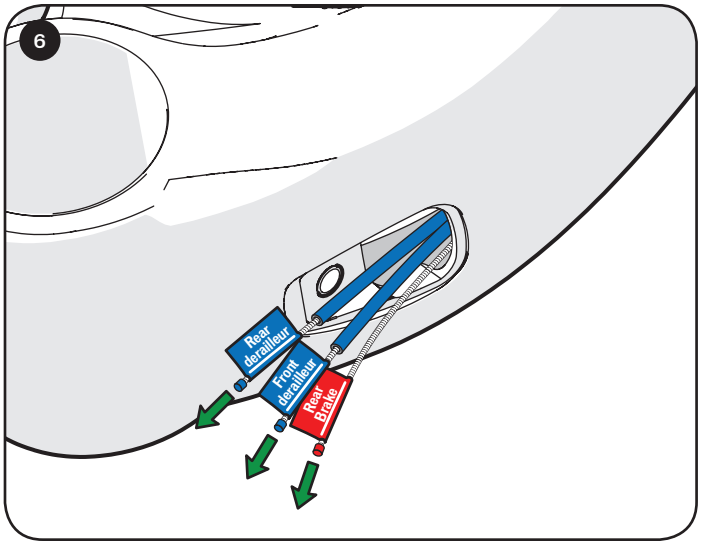
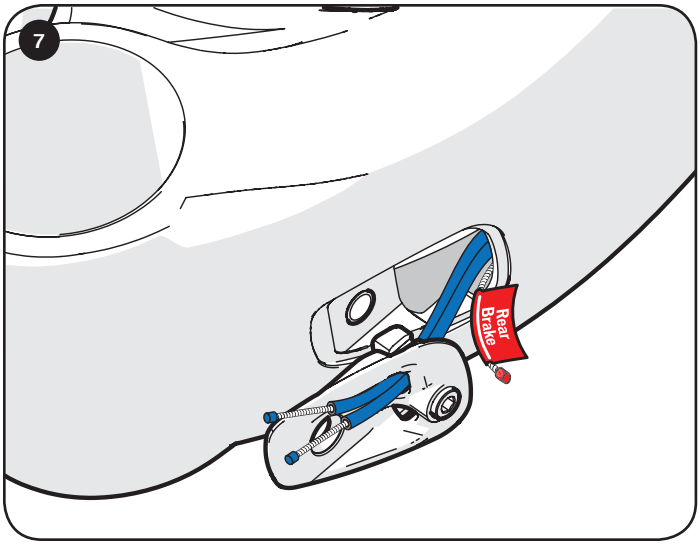


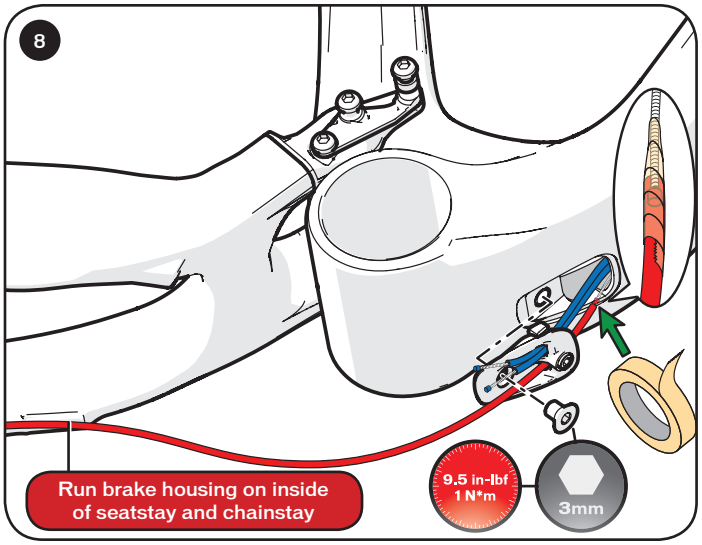
- **Fig.3:** To help simplify the installation of the cable housings, designate a derailleur cable housing for each component (derailleur, brake, Command Post) and mark each cable with tape. Run each derailleur cable through the proper entry port hole with the cable head entering first.
- **Fig.4:** Guide each cable out through the exit port hole. If necessary, use a hooked dental pick.



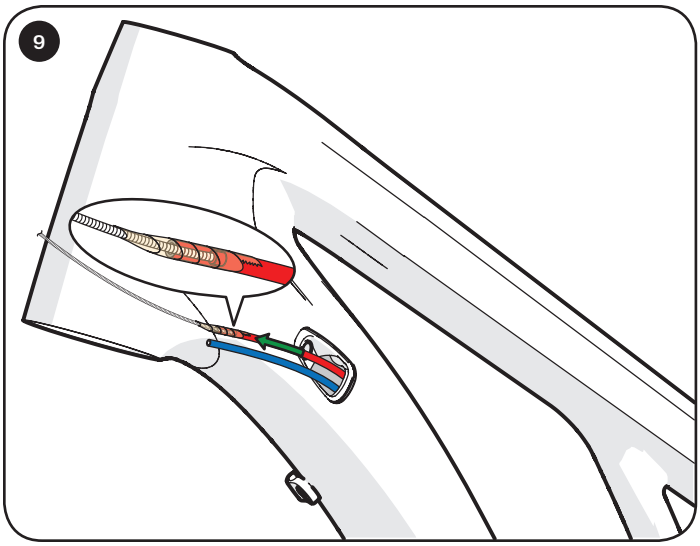


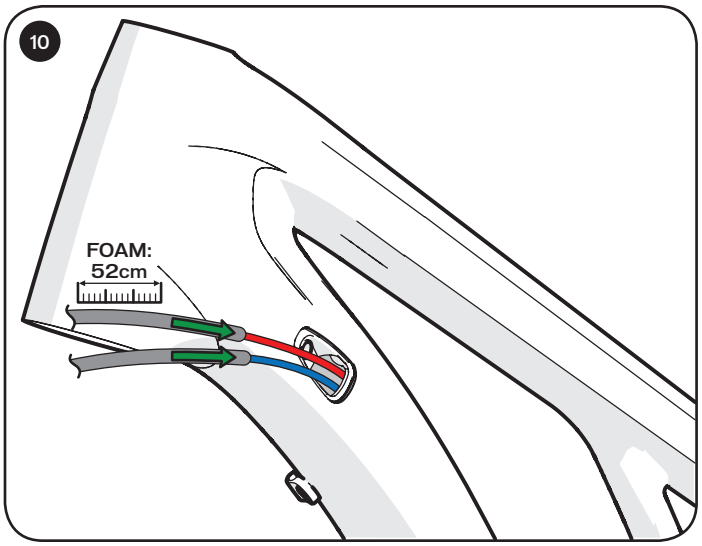
- **Fig.5:** Install each pre-cut housing over each derailleur cable, and into the entry port holes. Be sure to match the housing lengths to the correct cables. For hydraulic brakes, do not place any housing over the cable, as v this cable will be used to guide the hydraulic housing from the bottom.
- **Fig.6:** Push the derailleur cable housing(s) through the entry port hole(s) until they become visible at the exit port hole.



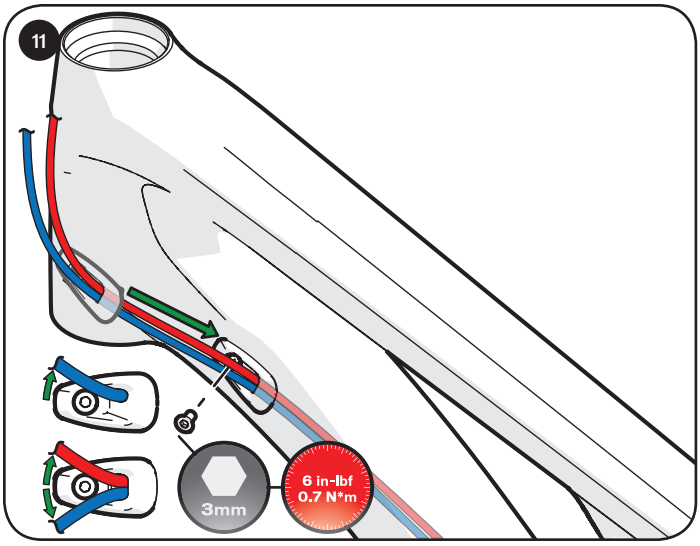


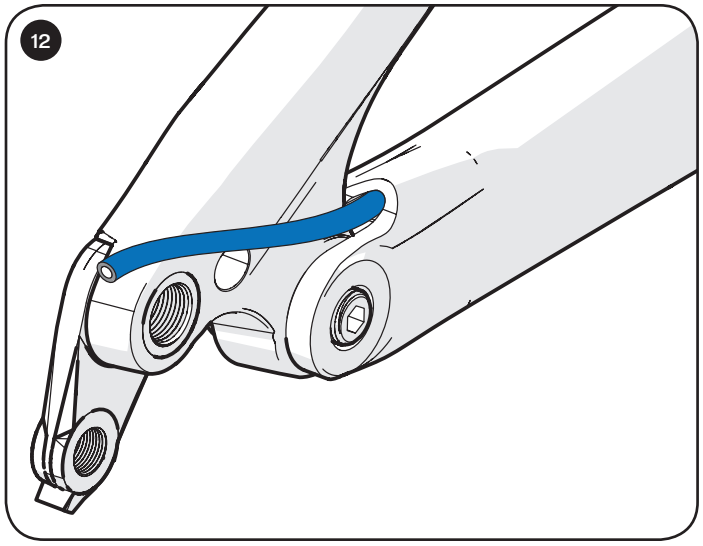
- **Fig.7:** Place the correct exit port hood scoop over the derailleur housing(s). Keep the cable intended for the rear brake out of the hood scoop.
- **Fig.8:** Hydraulic brakes: With the hydraulic housing disconnected from the brake lever, install the rear brake caliper on the seatstay brake mount, then run the housing through the exit port hood scoop brake hole. Tape the housing to the brake cable. Fasten the hood scoop to the frame.





- **Fig.9:** Pull the cable attached to the brake housing until the housing comes out the entry port hole.
- **Fig.10:** Install a section of 52cm long foam tubing (talc pre-applied at factoryv) over each section of housing, through the entry port hole.

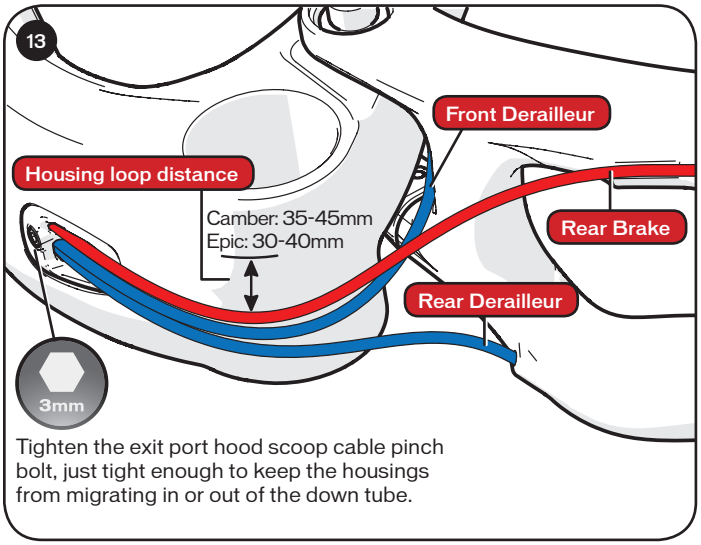


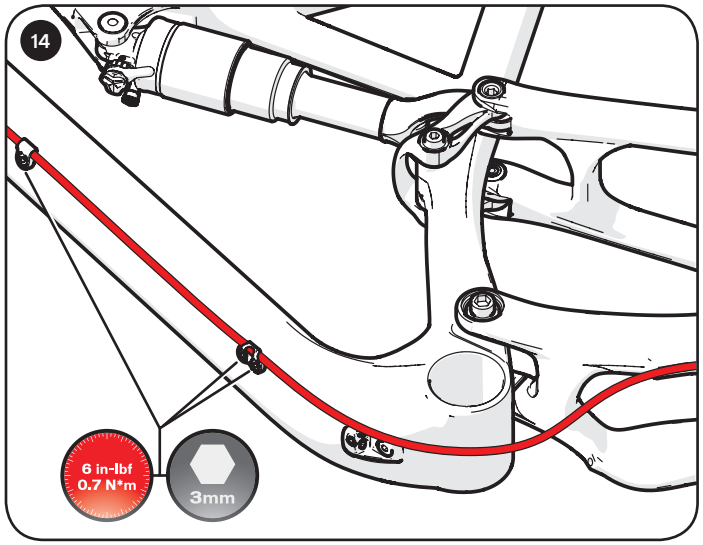


- **Fig.11:** Choose the hood scoops that match the cable choices. Install the correct hood scoop over the appropriate sections of housings. Place the hood scoops into the entry port holes and fasten the hood scoops to the frame (M4 x 13mm chamfered head bolts).

NOTE: If the bolts are being installed after the hood scoops have been installed on the housings, carefully flex the housings to the side to provide enough space for the bolt to access the hood scoop bolt hole. Be sure not to damage the housings.

- Once the entry and exit port hood scoops have been fastened to the frame, adjust the housing lengths so that each housing reaches its mating shifter or Command Post (hydraulic brake housing is adjusted later) with enough housing length to allow the handlebar to rotate freely through its entire range of rotation.
- **Fig.12:** Place the rear derailleur housing section into the chainstay. Pull the housing out of the chainstay at the dropout using a hooked dental pick.





- **Fig.13:** Adjust each length of exposed cable housing to create a loop, so that the gap between the bottom bracket shell and the housing loops is 30-40mm (Epic) or 35-45mm (Camber).
  - Position the front derailleur housing against the cable stop, adjust the loop distance, then trim the housing to the appropriate length. Epic frames do not need a large loop since the housing does not connect to the chainstay.
  - Position the rear derailleur housing loop to the correct distance from the bottom bracket shell. Do not adjust the housing length at the rear derailleur until after the exit port pinch bolt has been tightened.
  - Position the rear brake housing loop to the correct distance from the bottom bracket shell. Final length adjustment can then be made at the brake lever so that the handlebar can rotate freely through its entire range of rotation. Remove the tape holding the cable to the housing, trim the housing length, attach the housing to the brake lever and bleed the brake if necessary.
- Tighten the exit port hood scoop cable pinch bolt, just tight enough to keep the housings from migrating in or out of the down tube.
- **Fig.14:** External rear brake routing: Camber and Epic models are equipped with two single-bolt guide (middle and upper position) and one dual-bolt cable guide (lower position). Place the guides over the brake housing and fasten the guides using recessed head bolts (M4 x 13 mm).

NOTE: Epic frame bottom bracket housing loops: Do not zip-tie the front derailleur housing to the rear derailleur and/or brake housings!

PART	TORQUE in-lbf (Nm)
HOOD SCOOP BOLT (Exit and Entry)	6 (0.7)
EXIT PORT HOOD SCOOP CABLE PINCH BOLT	9.5 (1)

PF30 BOTTOM BRACKET ASSEMBLY

This design allows for the installation of Specialized OSBB carbon cranks, or the installation of different adapters to fit a variety of crank offerings.

Installing PF30 and PF30DH Bottom Bracket Cups

The PF30 design (73x46mm PF30 or 83x46mm PF30DH bottom bracket shell, 42x30x7mm BB30 bearings, Specialized PF30 press-in cups), allow the use of Specialized carbon cranks, or, with the use of Specialized bearing adapters, the use of Shimano cranks or SRAM GXP MTN cranks. The adapters in some cases are followed by specific spacers and/or wave washers, depending on the crank. For additional information about crank compatibility, please refer to the chart below.

- For Specialized carbon crank installation, please refer to the Specialized Carbon Crankset Instruction Guide.

WARNING! Failure to follow these instructions may result in a catastrophic failure of the crank, frame and/or its components while riding, which may result in serious personal injury or death.

WARNING! Bicycle assembly is a complicated task which requires training and experience. Do not attempt installation of any component if you do not have experience and training as a bicycle mechanic. Failure to follow this warning may result in serious personal injury or death. Reference should also be made to Barnett's or some other comprehensive bicycle manual.

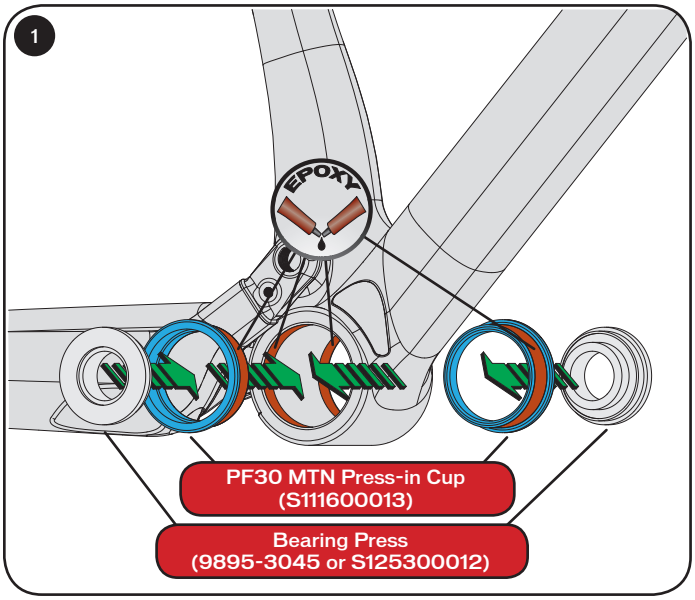
WARNING! Failure to follow the torque specifications in this instruction guide will void your warranty, but most importantly may result in damage to the crank, which may not be visible. If the crank is damaged, this can result in loss of structural integrity, which may result in serious personal injury or death. To ensure the best assembly possible and to prevent any damage to the crank components, follow all torque specifications.

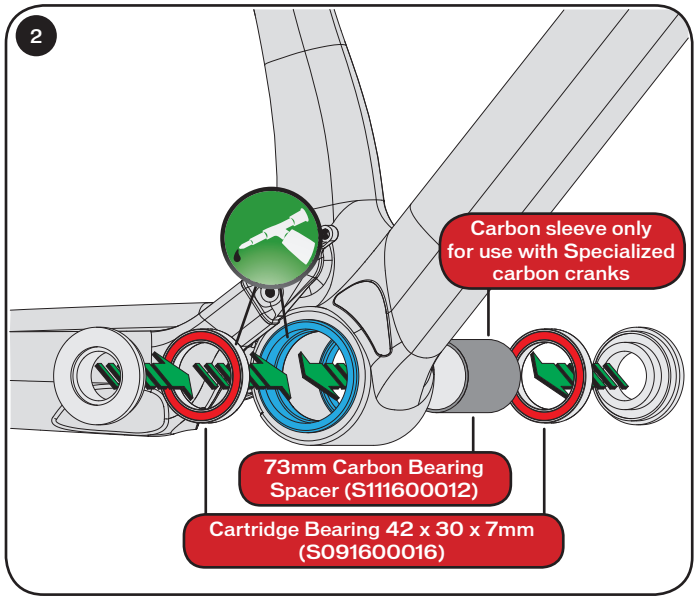
Frame Preparation

CAUTION: Do not face or ream bottom bracket shell! This can possibly prevent proper installation of the crank. Your Specialized frame does not require any bottom bracket shell pre-installation preparation, as all surfaces have been precisely machined to specific tolerances at the factory for proper interface with the S-Works Carbon crankset.

WARNING! Great care should be taken to not damage carbon fiber or composite material. Any damage may result in a loss of structural integrity, which may result in a catastrophic failure. This damage may or may not be visible in inspection. Before each ride, and after any crash, you should carefully inspect your crank for any fraying, gouging, scratches through the paint, chipping, bending, or any other signs of damage. Do not ride if your crank shows any of these signs. After any crash, and before you ride any further, take your bicycle to an Authorized Specialized Dealer for a complete inspection.

Installing the Bottom Bracket (73 x 46mm BB shell, press-in cups)





46mm PF30 SHELL WITH PRESS-IN CUPS

- Remove any grease from the bottom bracket shell.
- Finish cleaning the bottom bracket shell with an alcohol wipe.
- **Prepare the cranks for installation. Any adapters, spacers, wave washers, spider, chainrings, etc. that are involved with the installation of the crank must be ready to be installed prior to the installation of the bottom bracket cups.**

NOTE: Due to the 20 minute work time of the epoxy, the cranks must be installed immediately after the cups are installed, to ensure that the cups, bearings and crank are aligned.

- Fully mix the **3M DP 420** 2-part epoxy, then apply the epoxy to the outer surface of the OSBB cups and the first 10mm of the inner diameter of the bottom bracket shell.
- Wipe off the excess epoxy from the inside and outside flanges of the cups. Use an alcohol wipe to clean off any remaining residue.
- Press the cups into the bottom bracket shell until the cups lightly bottom out against the frame. Use either the Specialized Bottom Bracket Bearing Press (**S125300012**) or the Mindset Headset Bearing Press tool (**9895-3045**). When using the 9895-3045 tool, either use a Park Headset Press Tool or a bench-mounted vise to press the cups into the frame. Be sure to press the cups evenly into the frame.
- Apply grease to the outer diameter of the OSBB bearings, then press them into the cups using the same tool that pressed the cups into the frame.

Be sure to press the bearings in straight. Do not force the bearings into the cup. Wipe any last epoxy residue from the outside of the cup.

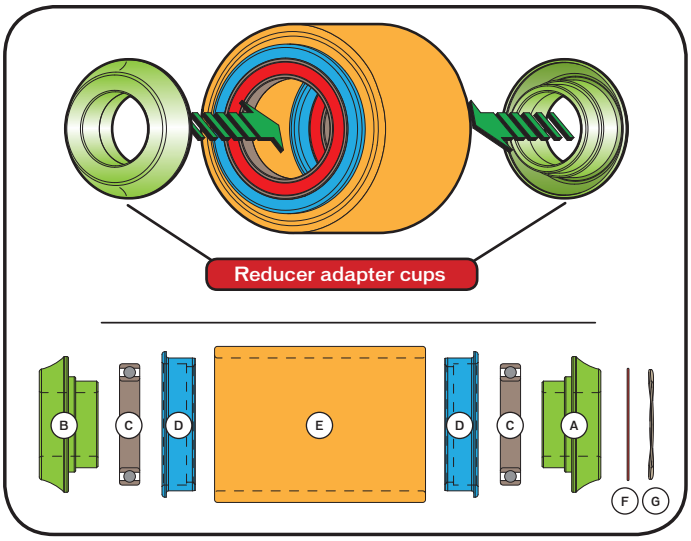
- Once the bearings bottom out in the cups, do not apply any more pressure. Excess force can damage the cups and cause the bearings to spin roughly.
- To remove the cups from the frame, pull the bearings out as shown in the Specialized Carbon Crank set Instruction Guide, then lightly tap the backside of the cups in a circular pattern with a large flat surface. Do not use a screwdriver, as it may damage the cups.
- Before installing new cups with new epoxy, remove any excess epoxy lips that may have formed at the inside and outside edges of the cups.

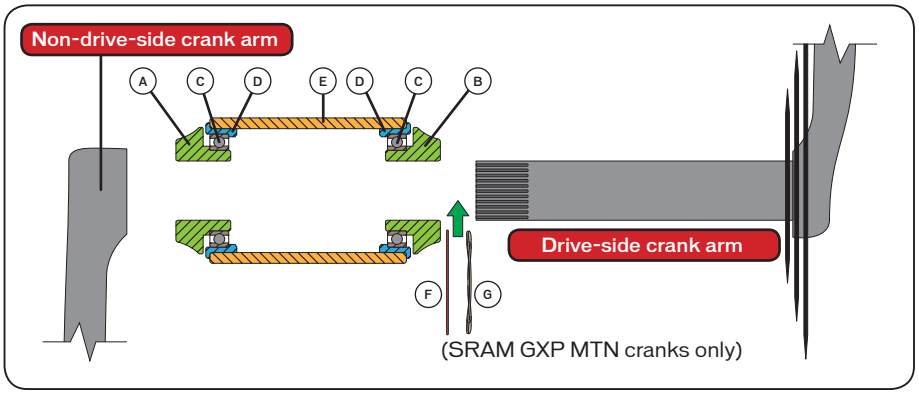
TECH TIP: Any thin epoxy residue that remains on the contact area of the bottom bracket shell should not be removed. This thin film of epoxy residue can actually benefit the bond of fresh epoxy when installing new cups.

Installing the Adapter Cups

- Install the left bearing reducer adapter into the non-drive-side bearing, and the right bearing reducer adapter into the drive-side bearing. The reducer adapters should install by hand with a friction fit.
- Shimano MTN require no spacers or wave washer.
- SRAM GXP MTN cranks require a wave washer and a selection of shims on the non-drive-side.
- Refer to the crank instruction guide for additional installation information.

A. Reducer adapter (left / non-drive-side)
B. Reducer adapter (right / drive-side)
C. OSBB (42x30x7mm) cartridge bearing
D. PF30 46mm to 42mm MTN press-in cup
E. 46mm diameter bottom bracket shell
F. Shim(s) (SRAM GXP MTN cranks only)
G. Wave washer (SRAM GXP MTN cranks only)





Mountain Crank Compatibility

CRANKSET / BOTTOM BRACKET TYPE	PF30 shell (carbon or alloy) • Shell inner diameter: 46mm • Shell width: 73mm • Width bearing-to-bearing: 73mm (with Specialized MTN press-in cups)
SPECIALIZED CARBON	■ PF30 press-in cups / OSBB bearings
SHIMANO HOLLOWTECH II	■ PF30 press-in cups / OSBB bearings / Specialized/Shimano reducer adapters (Part # S120400003)
SRAM/TRUVATIV BB30	■ SRAM PF30 cups for BB30
SRAM/TRUVATIV GXP	■ PF30 press-in cups / OSBB bearings / Specialized/SRAM reducer adapters (Part # S120400004)

CRANKSET / BOTTOM BRACKET TYPE	PF30DH shell (carbon or alloy) • Shell inner diameter: 46mm • Shell width: 83mm • Width bearing-to-bearing: 83mm (with Specialized MTN press-in cups)
SRAM PF30DH (XO, Descendant)	■ SRAM PF30 cups for BB30
E13 (long spindle)	■ E13 PF30 adapter/bearing/spacer kit

FORK LENGTH SPECIFICATIONS

WARNING! Specialized frames are compatible ONLY with forks that have a specific maximum amount of travel (see table below). 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.

FAMILY	MODEL	MAX FORK TRAVEL	CROWN
EPIC	All	100mm (3.9")	Single
CAMBER	All	110mm (4.3")	Single
CAMBER EVO	All	120mm (4.7")	Single
RUMOR	All	110mm (4.3")	Single
SAFIRE	All	120mm (4.7")	Single
STUMPJUMPER FSR	26" EVO	150mm (5.9")	Single
	29	130mm (5.1")	Single
	29 EVO	140mm (5.5")	Single
ENDURO	26"	160mm (6.5")	Single
	EVO	180mm (7.1")	Single
	29"	160mm (6.5")	Single
STATUS	All	200mm (7.9")	Double
DEMO	All	200mm (7.9")	Double

TORQUE SPECS

Torque specs are in-lbf (Nm)

PIVOT (in-lbf / Nm)	EPIC	CAMBER	RUMOR	SAFIRE
MAIN (BB)	180 (20)	150 (17)	150 (17)	215 (24.2)
DROPOUT	115 (13)	110 (12.4)	110 (12.4)	95 (10.7)
S-LINK @ FRAME	80 (9)	95 (10.7)	95 (10.7)	110 (12.4)
S-LINK @ SEATSTAY	160 (18)	95 (10.7)	95 (10.7)	110 (12.4)
S-LINK @ CLEVIS	80 (9)	--	--	95 (10.7)
LOWER SHOCK EYE	130 (14.7)	130 (14.7)	130 (14.7)	130 (14.7)
UPPER SHOCK EYE	130 (14.7)	130 (14.7)	130 (14.7)	130 (14.7)

PIVOT (in-lbf / Nm)	STUMPJUMPER FSR	ENDURO	STATUS	DEMO
MAIN (BB)	150 (17)	215 (24.2)	215 (24.2)	190 (21.5)
DROPOUT	110 (12.4)	150 (17)	110 (12.4)	190 (21.5)
S-LINK @ FRAME	110 (12.4)	190 (21.5)	215 (24.2)	190 (21.5)
S-LINK @ SEATSTAY	110 (12.4)	190 (21.5)	110 (12.4)	190 (21.5)
S-LINK @ CLEVIS	170 (19.2)	190 (21.5)	--	190 (21.5)
LOWER SHOCK EYE	130 (14.7)	130 (14.7)	190 (21.5)	170 (19.2)
UPPER SHOCK EYE	95 (10.7)	170 (19.2)	190 (21.5)	110 (12.4)

REAR DERAILLEUR	70 (7.9)
FRONT DERAILLEUR	44 (5)
SEAT COLLAR (Bolt style)	45 (5.1)
WATER BOTTLE	25 (2.8)
DOWN TUBE CABLE BATS	30 (3.4)
REAR AXLE	133 (15)
DERAILLEUR HANGER	35 (4)
DERAILLEUR HANGER (Demo)	115 (11.3)
BRAIN MOUNT	55 (6.2)
BRAIN HOUSING GUIDE	6 (0.7)

FRAME SPECIFICATIONS

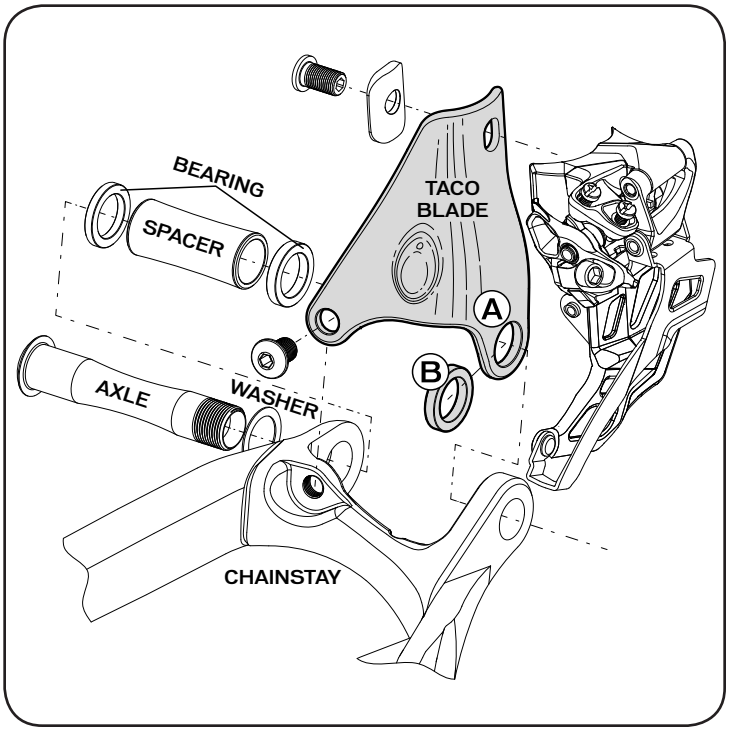
DESCRIPTION	EPIC	CAMBER	RUMOR
HEADSET	1 1/8" upper / 1.5" lower	1 1/8" upper / 1.5" lower	1 1/8" upper / 1.5" lower
SEATPOST DIAMETER	27.2mm	30.9mm	30.9mm
SEAT COLLAR (CARBON)	31.8mm	--	--
SEAT COLLAR (ALLOY)	31.8mm	34.9mm	34.9mm
FRONT DERAILLEUR CLAMP	High direct mount (non-WC)	E-Type Direct Mount (DMD)	E-Type Direct Mount (DMD)
REAR HUB SPACING	142mm x 12mm	142mm x 12mm	142mm x 12mm
BOTTOM BRACKET SHELL	PF30 73 x 46mm	PF30 73 x 46mm	PF30 73 x 46mm
DERAILLEUR HANGER	9892-4020	9892-4020	9892-4020
ISCG TABS	--	--	--

DESCRIPTION	SAFIRE	STUMPJUMPER FSR	ENDURO 26"
HEADSET	1 1/8" upper / 1.5" lower	1 1/8" upper / 1.5" lower	1 1/8" upper / 1.5" lower
SEATPOST DIAMETER	30.9mm	30.9mm	30.9mm
SEAT COLLAR (CARBON)	--	34.9mm	34.9mm
SEAT COLLAR (ALLOY)	34.9mm	34.9mm	34.9mm
FRONT DERAILLEUR CLAMP	E-Type Direct Mount (DMD)	E-Type Direct Mount (DMD)	E-Type Direct Mount (DMD)
REAR HUB SPACING	135mm	142mm x 12mm	142mm x 12mm
BOTTOM BRACKET SHELL	Threaded 73mm	PF30 73 x 46mm	PF30 73 x 46mm
DERAILLEUR HANGER	9895-4020	9892-4020	9892-4020
ISCG TABS	--	ISCG 05	ISCG 05

DESCRIPTION	ENDURO 29"	STATUS	DEMO
HEADSET	1 1/8" upper / 1.5" lower	1.5" upper / 1.5" lower	1.5" upper / 1.5" lower
SEATPOST DIAMETER	30.9mm	30.9mm	30.9mm
SEAT COLLAR (CARBON)	34.9mm	--	36.9mm
SEAT COLLAR (ALLOY)	34.9mm	34.9mm	34.9mm
FRONT DERAILLEUR CLAMP	SRAM MDM (with taco blade, below)	--	--
REAR HUB SPACING	142mm x 12mm	135mm	150mm (Team - 135mm)
BOTTOM BRACKET SHELL	PF30 73 x 46mm	Threaded 73mm	PF30DH 83 x 46mm
DERAILLEUR HANGER	9892-4020	9895-4020	9891-4010
ISCG TABS	ISCG 05	Standard	ISCG 05

ENDURO 29 CHAINRING SETUP

- **2 Chainring setup:** Use taco blade (A) to mount front derailleur.
- **1 Chainring setup:** Remove taco blade and replace with spacer (B) between bearing and chainstay.

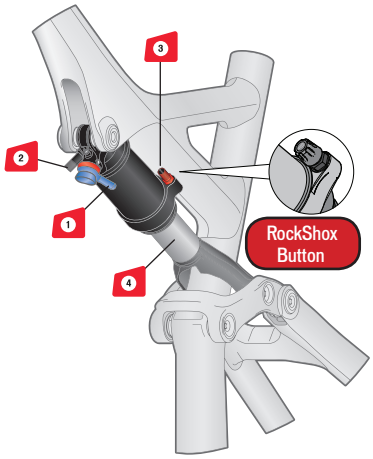


AUTOSAG AIR SHOCK SETUP

Certain Epic, Camber, Rumor, Stumpjumper, Safire and Enduro models are equipped with AUTOSAG, a unique new feature designed to simplify and speed up the adjustment of air pressure. The AUTOSAG feature automatically determines the correct amount of sag, and eliminates the need to refer to an air chart to determine the correct pressure based on rider weight. However, the shock still requires compression and rebound adjustment based on type of terrain and rider weight. Please refer to the compression and rebound charts (page 19) following the setup steps.

NOTE: Shock air pressure can also be set up manually to rider preference.

Step 1: Setting Autosag



1. Position the shock compression lever or knob (blue) to the full open or off position 1. Remove the positive air valve cap (black) and the AUTOSAG valve cap (red).
2. Attach a high-pressure shock pump to the positive air valve 2.
   - **All models except Epic and Safire:** inflate to the rider's weight in pounds (lb) plus 50psi. For kilograms, multiply by three (e.g. 75kg = 225psi).
   - **Epic and Safire:** inflate to the rider's weight in pounds (lb) plus 100psi. For kilograms, multiply by two + 100psi (e.g. 75kg = 250psi).

NOTE: Do not exceed 350psi before activating the Autosag valve (this is a starting pressure only). After the Autosag is activated, Fox recommends a maximum working pressure of 300psi when riding.

3. Make sure the rider is wearing all gear that would normally be worn on a ride (shoes, helmet, hydration pack if used, etc.). Mount the bicycle, prop up against a wall, and sit in the saddle in a normal riding position. Do **not** set sag while riding.
4. Press the AUTOSAG valve 3 (Fox: Air valve. RockShox: Grey button). Air will release as the suspension settles into its pre-adjusted sag point. Make sure all the air is out and release the valve.
5. Cycle the shock a few times 4, then dismount the bicycle.
6. Do **not** depress the AUTOSAG valve again, otherwise the proper sag setting will be lost, and will require this procedure to be repeated from step #2.
7. Put the positive air and AUTOSAG valve caps back on.

NOTE: Rider weight in pounds (lb) plus the PSI (depending on model as described above) is the lowest amount of pressure that should be in the shock before activating AUTOSAG. If the air pressure is too low, the AUTOSAG button may let air out of the negative chamber, which would result in incorrect sag.

NOTE: 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 bike, with no bounce. When AUTOSAG is correctly set, sag should measure approximately (20-30% of stroke, depending on riding/terrain experience, i.e travel). If the rider is approaching 300lbs, AUTOSAG may not function, and sag may exceed the bike's prescribed amount.

Step 2: Adjusting rebound

Refer to the chart to set the rebound damping (red knob). Rebound damping controls the rate at which the shock returns after it has been compressed.

- Clockwise for slower rebound (slow speed, bigger hits).
- Counter-clockwise for faster rebound (higher speeds, small bumps, more traction).

Step 3: Adjusting compression

Refer to the chart to set the compression damping (blue knob).

SPECIALIZED / FOX BRAIN FADE: Controls the inertia valve damping. The blue knob adjusts damping (Race Tune or Trail Tune) from firm (clockwise) to soft (counter-clockwise) and does NOT completely lock out the shock.

Backing off from full firm can help with tracking in loose terrain conditions while riding off camber sections or climbing. The soft setting can also help during lengthy downhill or rugged conditions where the rider may want the suspension active at all times.

FOX CTD: Provides varying levels of compression damping, depending on whether the rider is climbing, trail riding or descending.

- C (Climb): The firmest low-speed compression setting is activated for maximum pedaling efficiency.
- T (Trail): Moderate low-speed compression setting is activated for an optimal blend of pedaling efficiency and bike control on variable terrain. Factory Series shocks offer three levels of Trail adjust. Performance and Evolution shocks are preset with low-speed compression damping.
- D (Descend): Low-speed compression setting optimized for the perfect balance of control and plushness for steep, aggressive descents.

ROCKSHOX MONARCH RL:

- Firm - compression is firmed up, providing a pedal platform for climbing and/or smooth hardpack.
- Open - no pedal platform, unobstructed compression damping for trail riding and descending.

SETUP DATA

DATE						
RIDER WEIGHT						
FORK PSI						
FORK REBOUND DAMPING (# of clicks from full slow)						
FORK COMPRESSION DAMPING (# of clicks from full firm)						
SHOCK PSI						
SHOCK REBOUND DAMPING (# of clicks from full slow)						
SHOCK COMPRESSION DAMPING (# of clicks from full firm)						

AIR CHARTS

Certain Rumor and Camber, as well as Enduro 26 and 29 models are equipped with shocks which require that the pressure be adjusted with a shock pump. Please refer to the supplied air chart for the suggested air pressure for the rider's weight. Rider weight includes all riding gear (clothing, shoes, helmet, gloves, hydration pack, etc).

X-FUSION 02RL AIR SHOCK SETUP

Step 1: Adjusting sag

MODEL	SAG	EYE-TO-EYE / STROKE
CAMBER	12mm (25%)	7.75" x 1.875" (197mm x 47.5mm)
RUMOR	12mm (25%)	7.75" x 1.875" (197mm x 47.5mm)

NOTE: See the chart for starting air pressures to dial in the sag. The chart is only a starting point, actual sag needs to be checked and adjusted on the bike, while riding, and at regular intervals.

Position the blue compression lever in the "Open" position to allow the shock to sag more easily. After setting the pressure, push the rubber ring up to the seal, sit on the bike gently, dismount, and measure sag.

Step 2: Adjusting rebound

Refer to the rebound/compression chart to set the rebound damping (red knob). Rebound damping controls the rate at which the shock returns after it has been compressed.

- Clockwise for slower rebound (slow speed, bigger hits).
- Counter-clockwise for faster rebound (higher speeds, small bumps, more traction).

Step 3: Adjusting compression

The X-Fusion 02RL adjustment has two lever positions, locked out or open, based on the terrain conditions.

		CAMBER/ RUMOR	ENDURO 26	ENDURO 29
RIDER WEIGHT		X-FUSION 02RL	DB AIR 26	DB AIR 29
LBS	(KG)	PSI	PSI	PSI
90	(41)	72	103	88
100	(45)	79	105	90
110	(50)	86	108	93
120	(54)	93	112	97
130	(60)	100	117	102
140	(64)	107.5	123	108
150	(68)	115	130	115
160	(73)	120	137	122
170	(77)	125	144	129
180	(82)	130	152	137
190	(86)	135	163	144
200	(91)	140	173	155
210	(95)	145	184	164
220	(100)	150	195	175
230	(104)	155	205	186
240	(109)	160	215	198
250	(113)	165	225	211
260	(118)	170	235	225
270	(123)	175	245	239
280	(127)	180	255	253

CANE CREEK DB AIR SHOCK SETUP

MODEL	SAG	EYE-TO-EYE / STROKE
ENDURO 26/29"	17mm (30%)	8.5 x 2.25" (216mm x 57mm)

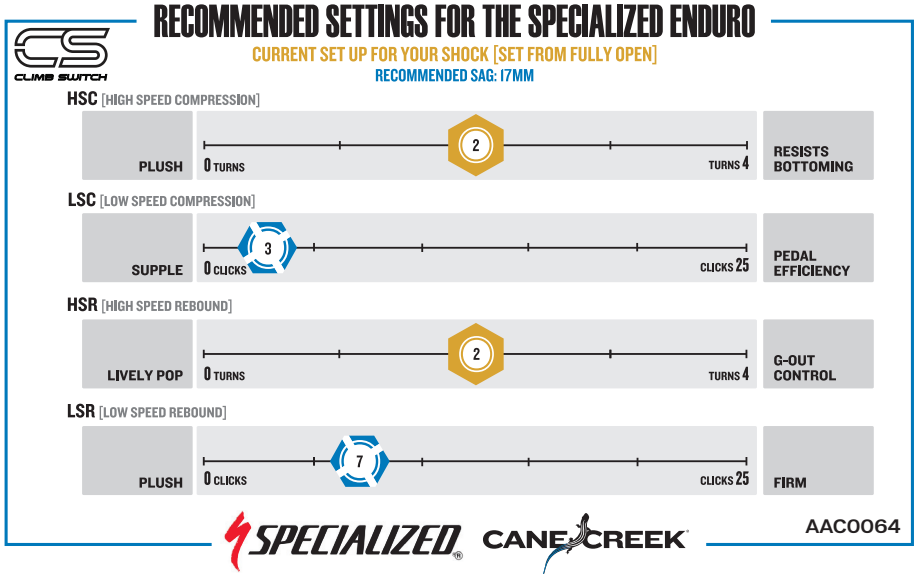
The recommended compression and rebound settings for the DB Air shock are based off a mean rider weight of 150-180 lbs (68-82 Kg). For any weight above or below this range, it is recommended to adjust the rebound damping settings.

If the air pressure is lower than 125psi, rebound damping should be decreased (sped up). Above 150psi, rebound damping should be increased (slowed down).

For additional shock setup information, please visit http://ww2.canecreek.com/products/suspension/db-air.

NOTE: Air pressures, rebound and compression settings are ***suggested starting point*** recommendations only. They should be adjusted according to the rider's needs for each type of terrain to achieve optimal performance.

NOTE: Not all shock pumps are 100% accurate. To ensure that the sag is set correctly, Specialized recommends that the sag be manually measured after the shock is pressurized and the shock pump is removed.



COIL SHOCK SETUP

Step 1: Adjusting sag

- Proper sag should be achieved with one turn of preload on the spring. More then two turns of preload will require a higher spring rate or not enough sag will require a softer spring rate. See spring rate chart for additional information or refer to the shock manual.

SAG INFO:

MODEL	SAG (%)	SAG (inches)	Sag (mm)	EYE-TO-EYE / STROKE (inches)	EYE-TO-EYE / STROKE (mm)
STATUS	30 - 35%	0.8 - 0.95"	21 - 24mm	8.75" x 2.75"	222.3mm x 69.9mm
DEMO 8	30 - 35%	0.9 - 1.0"	23 - 27mm	9.5" x 3"	241.3mm x 76.2mm
ENDURO EVO	30 - 35%	0.75 - 0.85"	19 - 22mm	8.75" x 2.5"	222.3mm x 63.5mm

SPRING RATE:

MODEL	XS	S	M	L
STATUS	350	400	450	500
DEMO 8 (Ohlins)	52 N/mm (297lb)	60 N/mm (343lb)	68 N/mm (388lb)	76 N/mm (434lb)
DEMO 8 (DB Coil)	--	350	400	450
DEMO 8 (Fox Van RC)	300	350	400	450
ENDURO EVO		450	500	550
ENDURO EXPERT EVO		76 N/mm (434lb)	84 N/mm (479lb)	92 N/mm (525lb)

OHLINS SHOCK RATES / TUNING INFO: Please refer to the Ohlins shock manual supplied with the shock, or go to www.specialized.com.

Step 2: Setting rebound

Adjust Rebound (red knob):

Rebound damping controls the rate at which the shock returns after it has been compressed.

- Clockwise for slower rebound (slow speed, bigger hits).
- Counter-clockwise for faster rebound (higher speeds, small bumps, more traction).

Step 3: Setting compression

Vanilla RC / R: Adjust low-speed compression (small blue knob):

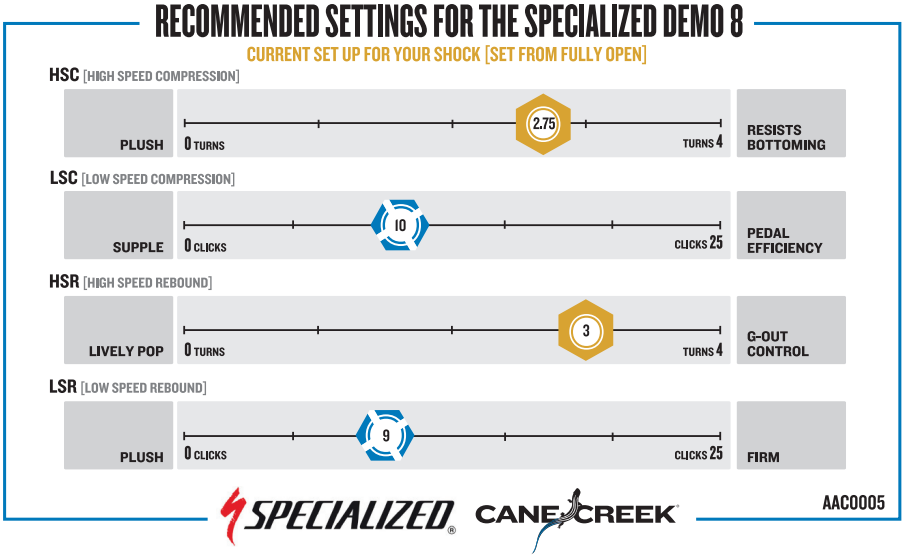
Low-speed compression damping controls slower wheel movement, which helps in pedaling efficiency and bike attitude.

- Clockwise for a firmer platform and more efficient pedaling, greater resistance to small and medium bumps, more harshness.
- Counter-clockwise for a more active, supple reaction to terrain, less efficient pedaling, less harshness.
- Turn the compression adjuster knob to full firm and ride your bike for a while, then gradually reduce compression until it starts to feel too soft and active for the terrain. Gradually increase compression until the optimal setting is found for the terrain and riding style.

Setting Cane Creek Double Barrel coil rebound and compression

For additional shock setup information, please visit http://ww2.canecreek.com/products/suspension/double-barrel.

NOTE: Air pressures, rebound and compression settings are ***suggested starting point*** recommendations only. They should be adjusted according to the rider's needs for each type of terrain to achieve optimal performance.



SHOCK SETTINGS

COMPRESSION						
	EPIC SJ FSR 29 SAFIRE	SJ FSR 26 / 29 / EVO CAMBER	SJ FSR 26 / 29 / EVO CAMBER SAFIRE RUMOR ENDURO 26 / 29	CAMBER RUMOR	CAMBER SAFIRE RUMOR
TERRAIN	BRAIN (Race tune)	BRAIN (Trail Tune)	CTD FACTORY	CTD PERFORMANCE / EVOLUTION	MONARCH RL	X-FUSION 02RL
 XC Race/Climbing/ Asphalt	0 - 2	0 - 2	C	C	FIRM	LOCKOUT
 Smooth hardpack	3 - 6	3 - OPEN	T (1 - Soft) (2 - Medium) (3 - Firm)	T	FIRM	LOCKOUT
 Trail riding	3 - 6	3 - OPEN	T (1 - Soft) (2 - Medium) (3 - Firm)	T	OPEN	OPEN
 Downhill/Technical	6	OPEN	D	D	OPEN	OPEN

BRAIN SHOCK COMPRESSION
(Counter-clockwise clicks from full firm)

REBOUND					
RIDER WEIGHT		BRAIN	CTD FACTORY / PERFORMANCE / EVOLUTION	MONARCH RL	X-FUSION 02RL
LBS	(KG)				
90	(41)	5-9	10-14	7-10	8-20
100	(45)				
110	(50)				
120	(54)				
130	(60)				
140	(64)	4-7	7-14	5-10	5-11
150	(68)				
160	(73)				
170	(77)				
180	(82)				
190	(86)				
200	(91)	0-5	5-10	3-8	3-8
210	(95)				
220	(100)				
230	(104)				
240	(109)				
250	(113)				
260	(118)	0-3	0-5	0-3	0-3
270	(123)				
280	(127)				

REBOUND
(Counter-clockwise clicks from full slow)

CARBON FRAME INSTRUCTIONS

Specialized carbon frames utilize advanced composite materials that require particular care during assembly, storage and riding. This installation and care guide contains instructions and warnings, plus torque specifications. Assembling a complete bicycle is a complicated task requiring training and experience, only a trained and experienced bicycle mechanic should install components to this frame. Reference should also be made to Barnett's or some other comprehensive bicycle manual.

WARNING! Failure to follow these instructions may result in a catastrophic failure of the frame and/or its components while riding, which may result in serious personal injury or death.

WARNING! Bicycle assembly is an art which requires training and experience. Do not attempt installation of any component if you do not have experience and training as a bicycle mechanic.

To ensure the best assembly possible and to prevent any damage to the components or frame, follow all torque specifications. Please refer to the specific owner's manuals for each mating component's correct torque specifications. If the mating component's recommended torque exceeds the frame's recommended torque, use the lower torque specification. Due to torque considerations, not all components will be compatible.

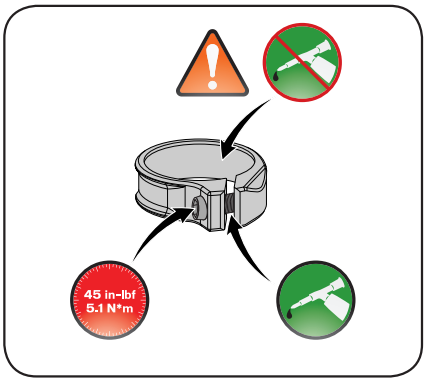
WARNING! Failure to follow the torque specifications in this installation guide will void your warranty, but most importantly may result in damage to the frame which may not be visible. If the frame is damaged, this can result in loss of structural integrity.

Bicycle components such as a handlebar, handlebar stem, seatpost, saddle, brakes, must be mutually compatible with each other, as well as the frame and the intended use. Any doubt regarding compatibility should be discussed with your local Authorized Specialized Dealer.

WARNING! 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, which may impair the structural integrity of the frame.

WARNING! Great care should be taken to not damage carbon fiber or composite materials, including the frame and any carbon fiber or composite components. Any damage may result in a loss of structural integrity, which may result in a catastrophic failure. This damage may or may not be visible in inspection. Before each ride, and after any crash, you should carefully inspect your bicycle for any dents, 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 Dealer for a complete inspection.

Seatpost



Refer to your seatpost owner's manual prior to installation. Specialized FSR frames have a 30.9mm or 27.2mm seatpost diameter and require that the seatpost have a tolerance of 30.78mm to 30.95mm or 27.08mm to 27.25mm. Do not grease the inside surface of the carbon seat tube!

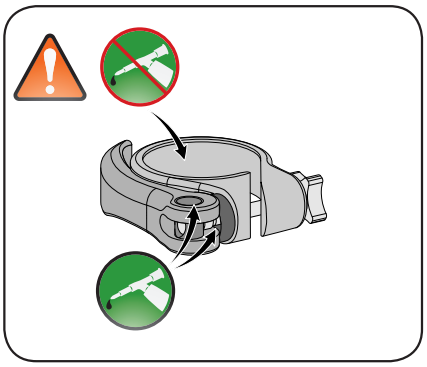
Certain Specialized carbon frames use a quick-release seatpost binder. Since the components of this assembly are in direct contact with carbon fiber, pay special attention to ensure proper tightness for the seatpost when correctly tightened to specifications.

TECH TIP: Specialized recommends the application of carbon assembly compound (or carbon paste) between the seat tube and seatpost to increase friction. See your Authorized Specialized Dealer if you have any questions.

WARNING! Do not extend the seatpost above the minimum insertion line. Extension beyond the minimum insertion line can result in failure, causing serious injury or death.

WARNING! Do not pull down on down tube derailleur cables to pre-stress the cables. This can cause damage to the cable guides.

Bottom bracket

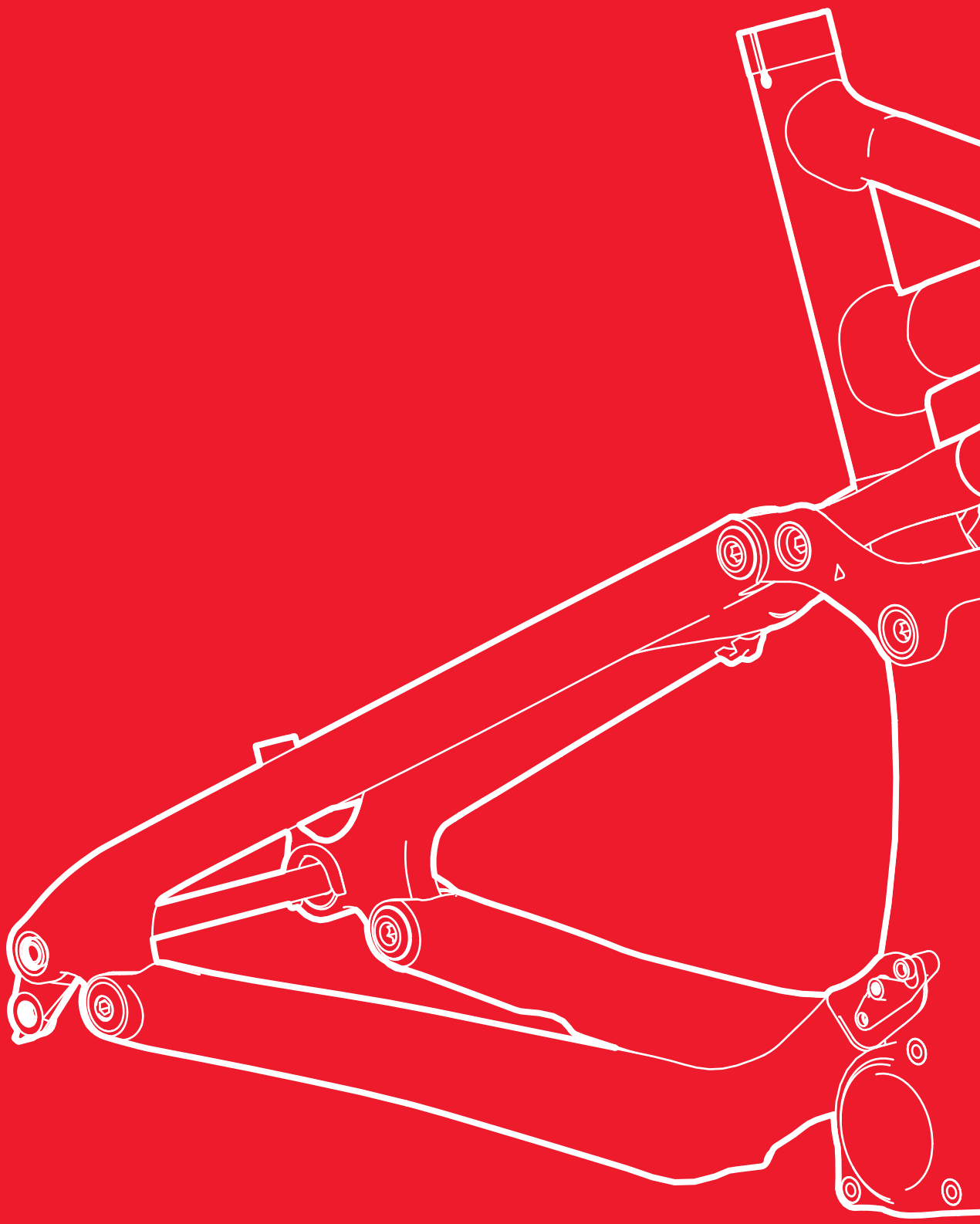


Your Specialized carbon frame does not require any bottom bracket or head tube pre-installation preparation. All surfaces are already prepared from the factory, with the exception of greasing the bottom bracket threads (threaded bottom bracket cups) and head set cups. For threaded bottom brackets, it is acceptable to chase the bottom bracket threads if necessary. Do not face bottom bracket cups.

Oversized Bottom Bracket: Please refer to the carbon crank instruction guide (IG0276 - Crankset - Carbon MTB Crankset) for assembly instructions and compatible tools. For crank compatibility specifications, please refer to the carbon crank compatibility guide (CG0308 - Bottom Bracket - Oversized MTB Bottom Bracket). All documents are available at www.specialized.com.

Headset installation / removal

Specialized carbon frames use a 1 1/8" (41.8mm x 8mm x 45°) Campagnolo Standard compatible top and 1.5" (52mm x 7mm x 45°) bottom bearing, except Demo frames which use a 1.5" diameter headset, top and bottom. Ensure that replacement bearings are compatible with the Specialized headset specification. No tools are needed for installation or removal of both bearings. **Grease bearing surfaces before installation.**



SPECIALIZED BICYCLE COMPONENTS
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