



# **2015 FSR**

## **OWNER'S MANUAL**



# TABLE OF CONTENTS

|  |           |
|--|-----------|
| <b>INTRODUCTION</b> .....                                  | <b>2</b>  |
| About off road, stunt, downhill and freeriding.....        | 2         |
| Service and modifications.....                             | 2         |
| <b>BIKE SETUP SPECIFICATIONS</b> .....                     | <b>3</b>  |
| Seatpost height.....                                       | 3         |
| Frame linkage assembly.....                                | 3         |
| Down tube cable guide installation.....                    | 3         |
| 142+ rear axle.....  | 3         |
| Accessories.....   | 3         |
| Front derailleur type and position.....                    | 4         |
| <b>SWAT BIKE EQUIPMENT</b> .....                           | <b>4</b>  |
| TCCT (Top Cap Chain Tool).....                             | 5         |
| EMT TOOL.....  | 6         |
| SWAT BOX.....  | 7         |
| <b>INTERNAL CABLE ROUTING</b> .....                        | <b>8</b>  |
| <b>PF30 BOTTOM BRACKET ASSEMBLY</b> .....                  | <b>12</b> |
| <b>FORK LENGTH SPECIFICATIONS</b> .....                    | <b>12</b> |
| <b>TORQUE SPECS</b> .....                                  | <b>12</b> |
| <b>FRAME SPECIFICATIONS</b> .....                          | <b>13</b> |
| <b>ENDURO 29 CHAINRING SETUP</b> .....                     | <b>13</b> |
| <b>650b HEADSET CROWN RACE</b> .....                       | <b>13</b> |
| <b>AUTOSAG AIR SHOCK SETUP</b> .....                       | <b>14</b> |
| Step 1: Setting Autosag.....                               | 14        |
| Step 2: Adjusting rebound.....                             | 14        |
| Step 3: Adjusting compression.....                         | 14        |
| <b>SETUP DATA</b> .....                                    | <b>14</b> |
| <b>CAMBER GROM / STATUS GROM</b> .....                     | <b>15</b> |
| <b>FOX CTD / X-FUSION 02R / 02RL AIR SHOCK SETUP</b> ..... | <b>15</b> |
| Step 1: Adjusting sag.....                                 | 15        |
| Step 2: Adjusting rebound.....                             | 15        |
| Step 3: Adjusting compression.....                         | 15        |
| <b>AIR CHARTS</b> .....                                    | <b>15</b> |
| <b>CANE CREEK INLINE AIR SHOCK SETUP</b> .....             | <b>16</b> |
| <b>COIL SHOCK SETUP</b> .....                              | <b>16</b> |
| Step 1: Adjusting sag.....                                 | 16        |
| Step 2: Setting rebound.....                               | 16        |
| Step 3: Setting compression.....                           | 16        |
| <b>SHOCK SETTINGS</b> .....                                | <b>17</b> |
| <b>CARBON FRAME INSTRUCTIONS</b> .....                     | <b>18</b> |
| Seatpost.....  | 18        |
| Bottom bracket.....  | 18        |
| Headset installation / removal.....                        | 18        |
| <b>DEMO 8 CARBON</b> .....                                 | <b>19</b> |
| Bottom Bracket Installation.....                           | 19        |
| Derailleur cable routing.....                              | 19        |
| Rear brake housing routing (internal).....                 | 20        |
| Rear brake housing routing (external).....                 | 20        |
| Rear axle installation.....                                | 20        |

## SPECIALIZED BICYCLE COMPONENTS

15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-6229  
0000040894\_R3, 10/14

Please note all instructions are subject to change and updates without notice.  
Please visit [www.specialized.com](http://www.specialized.com) for periodic tech updates.  
Feedback: [techdocs@specialized.com](mailto: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, file, 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:

|   |   |
|---|---|
| <b>Small / Medium:</b> minimum 70mm insertion | <b>Large / X-Large:</b> minimum 100mm insertion |
|---|---|

### Aluminum frames:

Certain frames are equipped with a sight hole, which is a small hole located approximately 70-100mm below the seat collar (fig.1). The sight hole must not be confused with the seat collar slot (fig.1), which is a narrow slot (approx 1-1.5" long) that extends down from the top of the seat tube to allow the frame to tighten around the seat post.

If your frame is equipped with a sight hole on the seat tube, the seat post **MUST** be visible through the sight hole, **AND** the seat post must **NOT** project from the frame beyond the min/max mark. Use the sight hole in conjunction with the min/max mark on the seat post. If the seat post is at the min/max mark and the seat post is not visible through the sight hole (frames equipped with a sight hole), the seat post is not inserted deeply enough into the seat tube and should be lowered until it can be seen through the sight hole. Do **NOT** cut the seat post short!

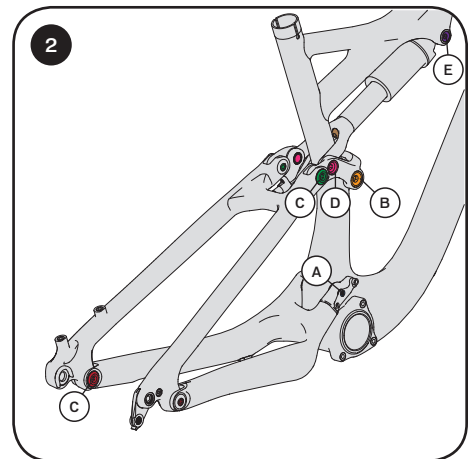
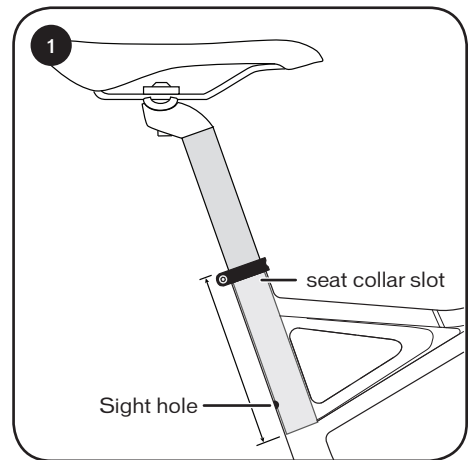
If your seat post is at the min/max mark and/or the seat post is not visible through the sight hole (frames equipped with a sight hole) and the saddle is not high enough, the seat post must be replaced with a longer seat post.

**WARNING!** If your seatpost is not inserted deep enough into the seat tube, the seatpost may break, which could cause you to lose control and fall.

**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.

Demo Carbon: Minimum insertion depth (all sizes): 100mm.

Refer to the Specialized Bicycle Owner's Manual for additional seatpost insertion information.



## Frame linkage assembly

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

|   |   |
|---|---|
| <b>A.</b> Main pivot                          | <b>D.</b> Lower shock eye or yoke pivot |
| <b>B.</b> Main link pivot                     | <b>E.</b> Upper shock eye               |
| <b>C.</b> Horst link or link @ seatstay pivot |   |

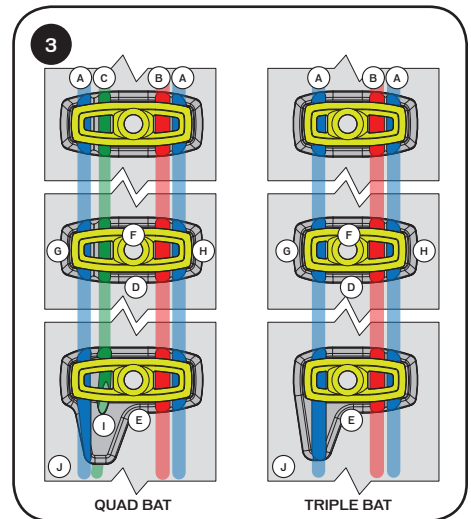
Assembling the upper or lower pivots of the seatstay as a last step makes it easier to align the parts and hold the washers in place.

## 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.

|   |   |
|---|---|
| <b>A. Blue:</b> Gear (narrow outer slots)           | <b>F.</b> Triple or Quad bat alloy holder |
| <b>B. Red:</b> Brake (larger inner slot)            | <b>G.</b> Drive-side                      |
| <b>C. Green:</b> Seatpost (narrower inner slot)     | <b>H.</b> Non-drive-side                  |
| <b>D.</b> Triple or Quad bat rubber base (standard) | <b>I.</b> Seatpost housing entry port     |
| <b>E.</b> Triple or Quad bat rubber base (extended) | <b>J.</b> 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. Torque: 30 in-lbf (3.4 Nm).

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

## 142+ rear axle

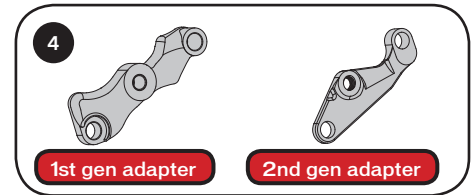
■ Certain Specialized bike models are equipped with a 142+ rear axle system, which requires the use of a proprietary Specialized 142+ wheel, or a 142mm compatible wheel. For additional information regarding compatibility, please refer to the Royal Hub Compatibility Guide at [www.specialized.com](http://www.specialized.com).

## Accessories

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

## Front derailleur type and position

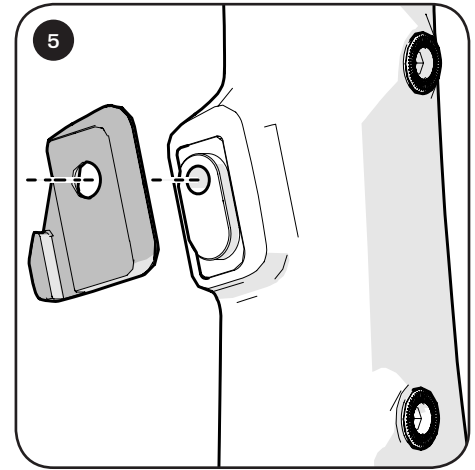
| MODEL            | ADAPTER (fig.4) | SHIMANO DERAILLEUR       | SRAM DERAILLEUR |
|------------------|-----------------|--------------------------|-----------------|
| EPIC (except WC) | *See fig.5      | High Direct Mount        |                 |
| ERA              | *See fig.5      | High Direct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

|                                |  |
|--------------------------------|--|
| Specialized Part #: S141900005 | DER MY14 SRAM ENDURO 29 FRONT DER FD X7 MDM 2X10 DUAL PULL |
| SRAM PART #: 00.7615.140.090   | AM FD X7 2X10 MID DM DUALPULL 38MAX                        |

- Epic models (non-WC) are equipped with a fixed frame mount (fig.5), which accepts either a Shimano or SRAM high mount derailleur.
- Carbon Epic models (non-WC) require the additional slotted bracket that goes between the frame and the front derailleur (fig.5).
- Epic WC and Enduro 650b models are not compatible with front derailleur systems.



## 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 |
|---------------------------|----------|----------|

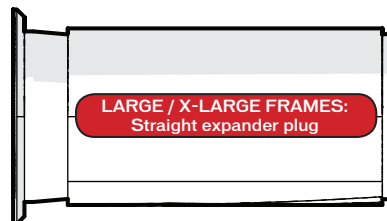
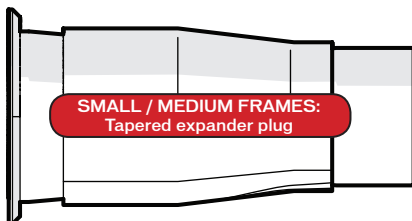
**SWAT components can be assembled in stages:**

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

| 2015 BIKE MODEL | MAX STAGE COMPATIBILITY |
|-----------------|-------------------------|
| EPIC            | Stage 3                 |
| ERA             | Stage 2                 |
| CAMBER          | Stage 2                 |
| RUMOR           | Stage 2                 |
| STUMPJUMPER FSR | Stage 2                 |

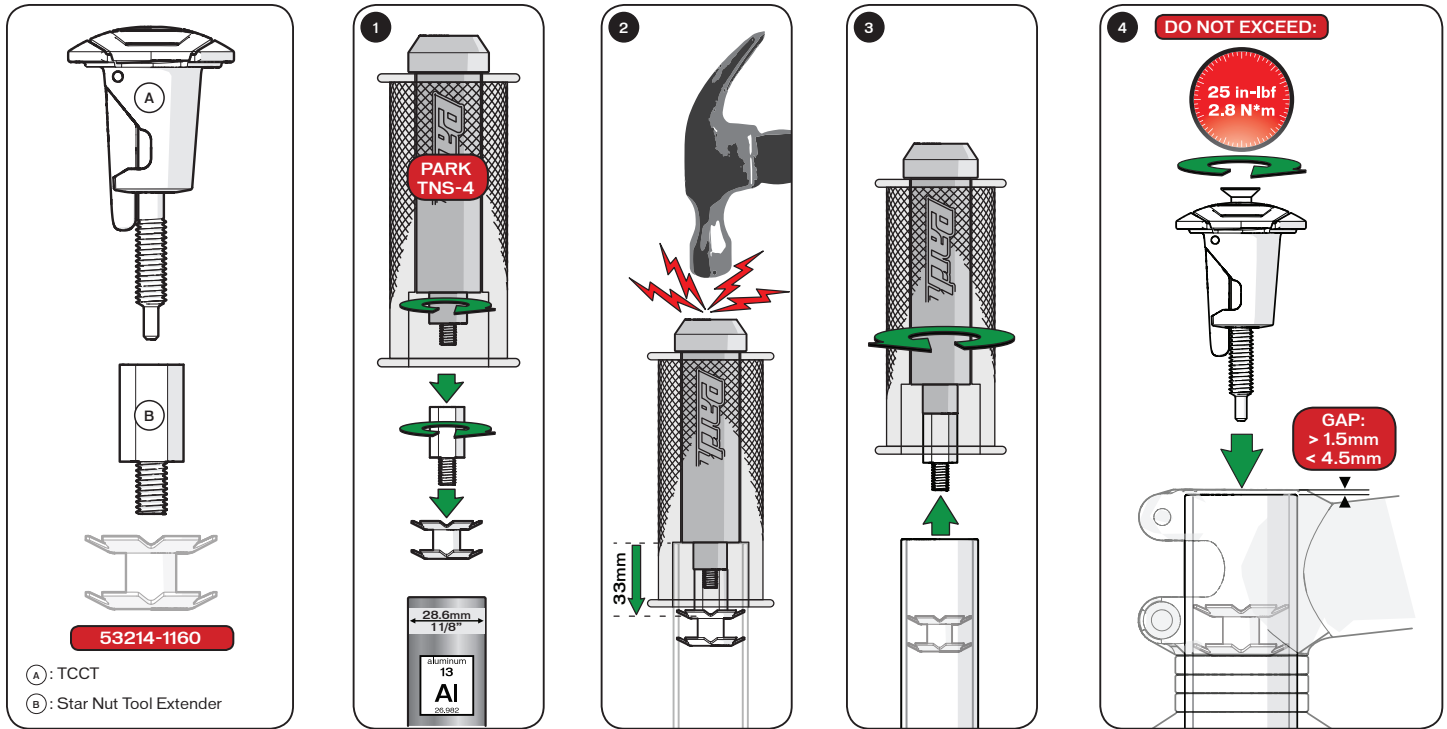
**NOTE:** Only Epic frames equipped with 3rd down tube water bottle boss are compatible with the SWAT box.

**TCCT tool:** 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:



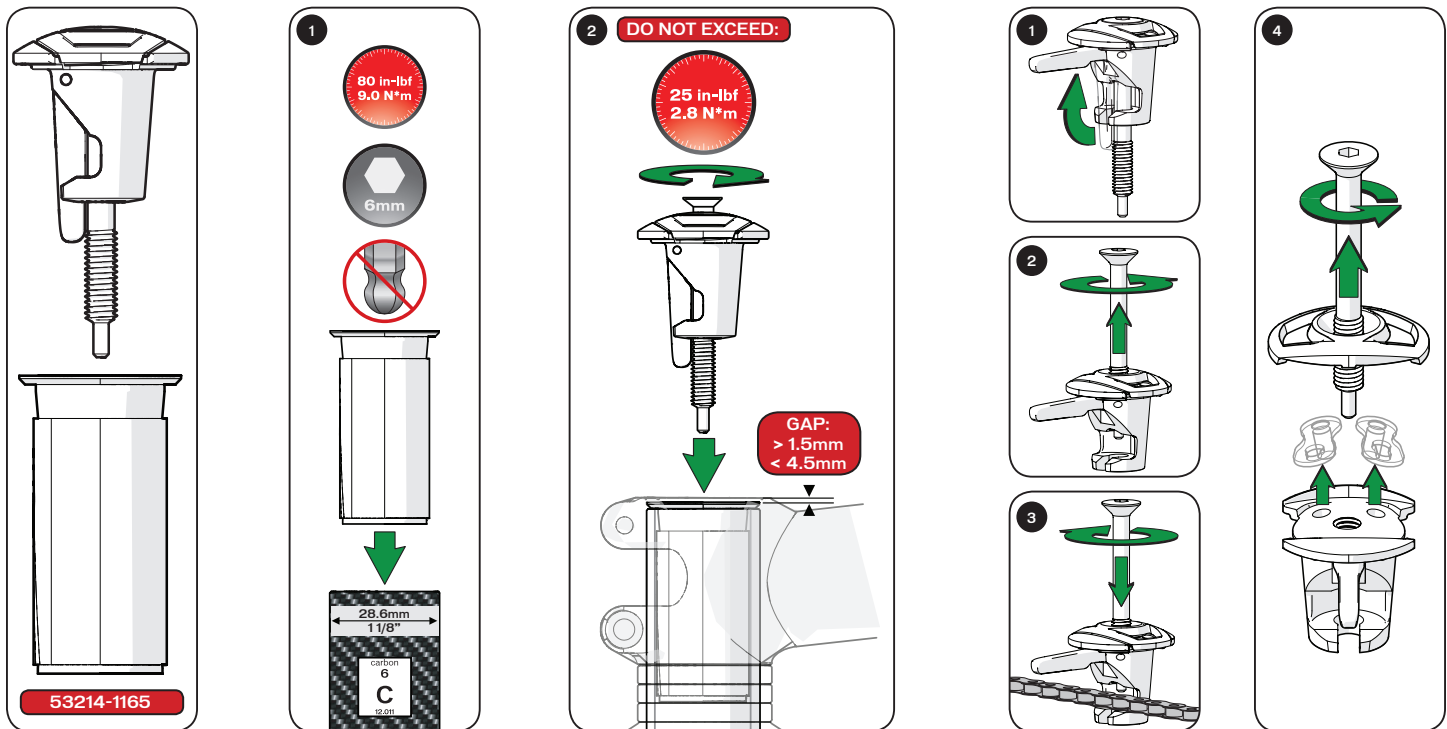
■ Install the star nut, then thread the TCCT into the star nut. Tighten the bolt down to adjust headset tension just like a regular top cap.

**NOTE:** In order to ensure a straight installation of the star nut, Specialized recommends the use of the Park Tool TNS-4 Threadless Star Nut Setter.

**NOTE:** Installation of the TCCT with a Specialized ProSet multi-position stem (angle-adjustable): To prevent excessive side-loading of the bolt, the use of a 2 or 4 degree angled headset spacer (S142500006) is required.

■ Do not exceed 25 in-lbf (2.8 Nm) of torque on the top cap bolt.

### TCCT INTO CARBON STEERER TUBE:



■ Install the expander plug with the slit facing toward the front of the bike (180 degrees from the bolts). Tighten the bolt down to adjust headset tension just like a regular top cap.

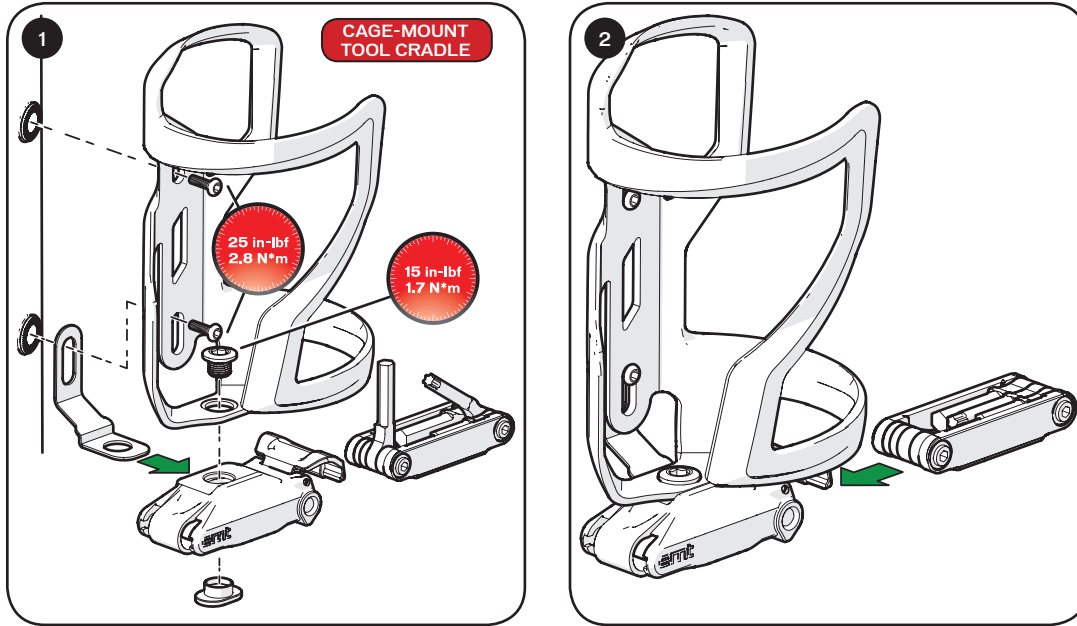
**NOTE:** The TCCT can be installed on additional bike models. Carbon steerer tubes require the TCCT-specific expander plug. Part # 53214-1165 only fits carbon steerer tubes with an internal diameter between 23 and 24mm, and a consistent depth of 55mm.

**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

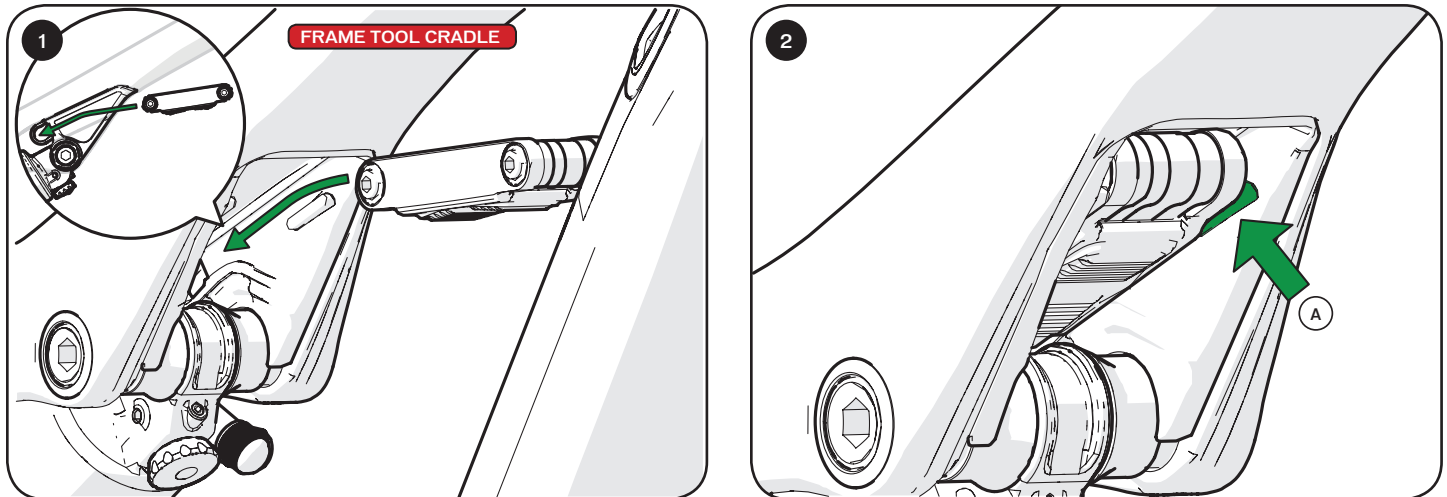


- Install the metal bracket into the Cage-Mount Tool cradle (the round hole goes into the cradle, the oblong hole aligns with the Zee-Cage's lower frame mounting hole).
- Align the hole at the base of the Zee-Cage 2 over the hole in the Cage-Mount Tool cradle.
- Insert the T-Nut into the Frame Tool cradle 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-Cage 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.

**NOTE:** The Zee-Cage 2 is available in left- or right-side bottle entry options.

### Directly into the Frame Tool cradle above the upper shock eye (2015 Epic and Era Carbon frames only)

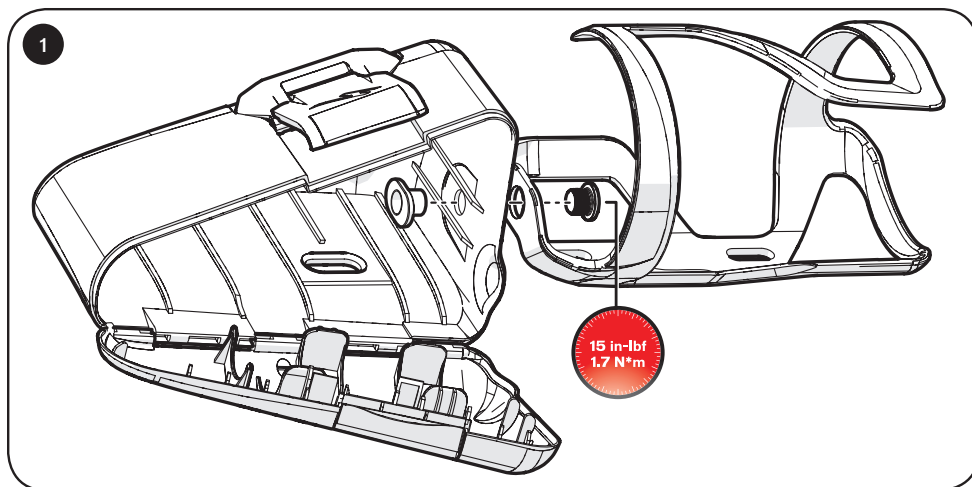


- Insert the tool into the cradle from an angle. As the tool slides into position, press the tool upward, making sure the tool's external pivot bolts are above the small retainers bumps (fig.2-A). Ensure that the tool clicks into place at the back, to hold it in snugly.
- Press up on the tool as it slides 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.

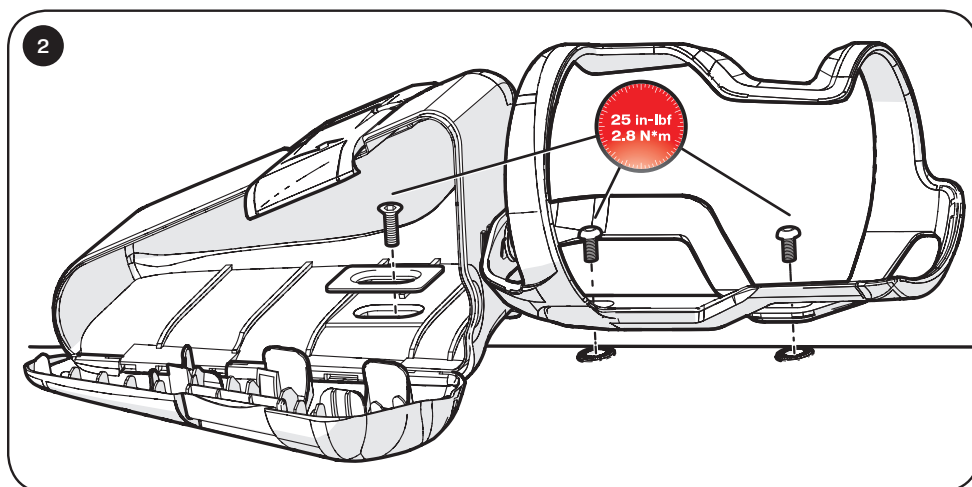


## SWAT BOX

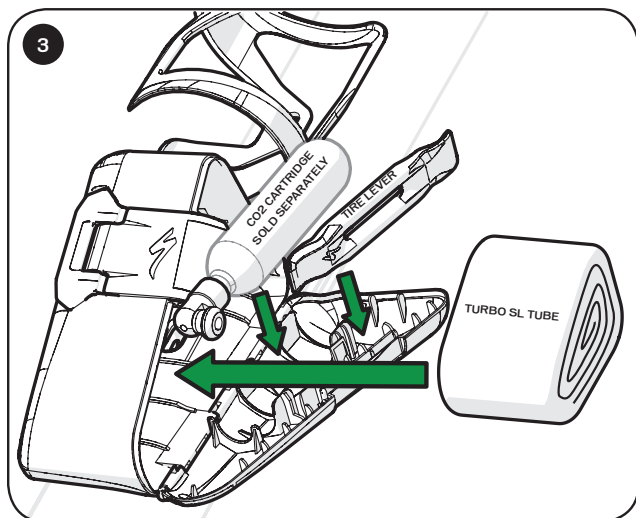
The SWAT Box is compatible only with frames equipped with a 3rd water bottle boss on the downtube (2015 Epic).



- 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.

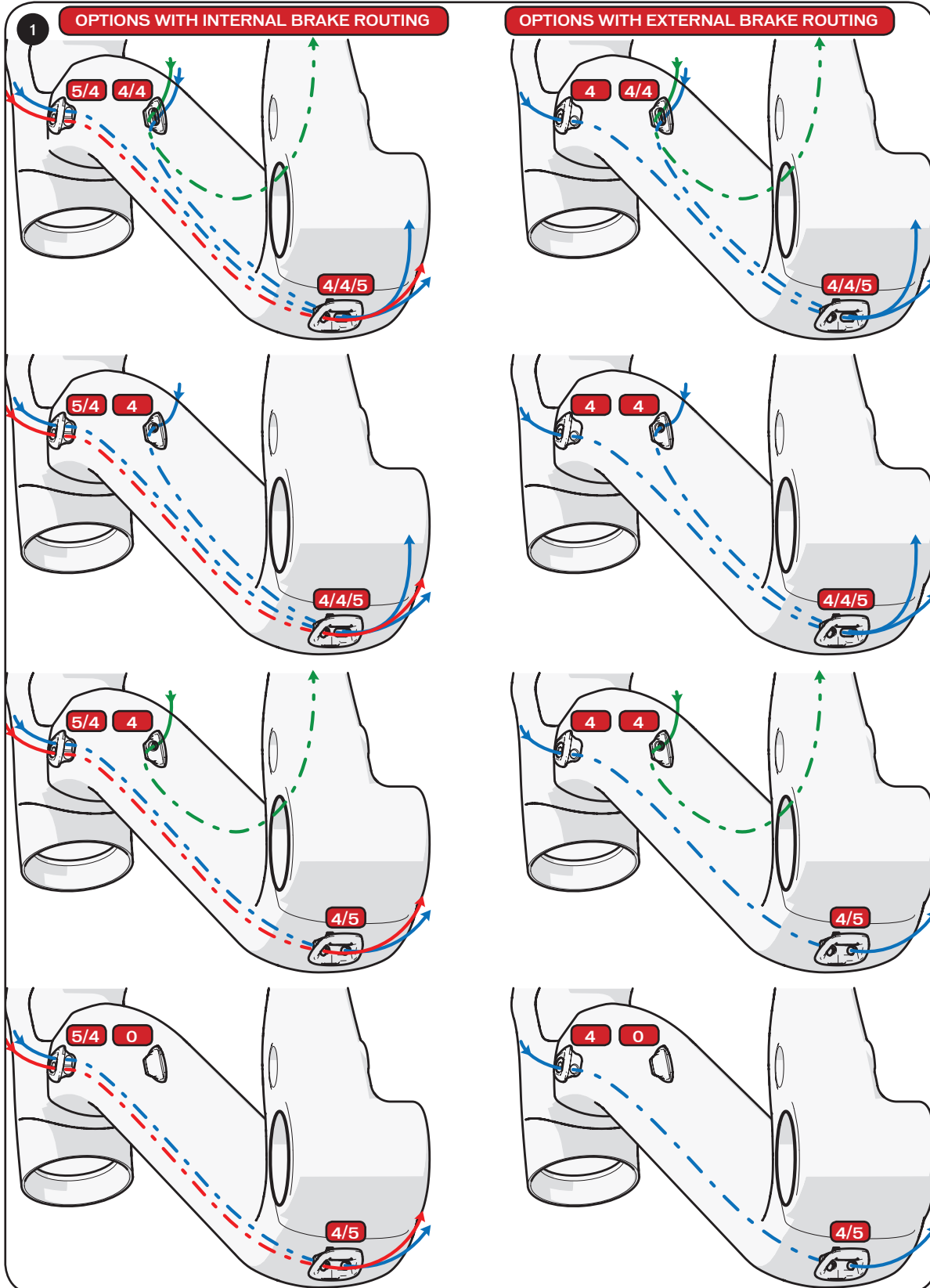
# INTERNAL CABLE ROUTING

The following Internal Cable Routing (ICR) instructions are for 2015 Epic Carbon, Era 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.

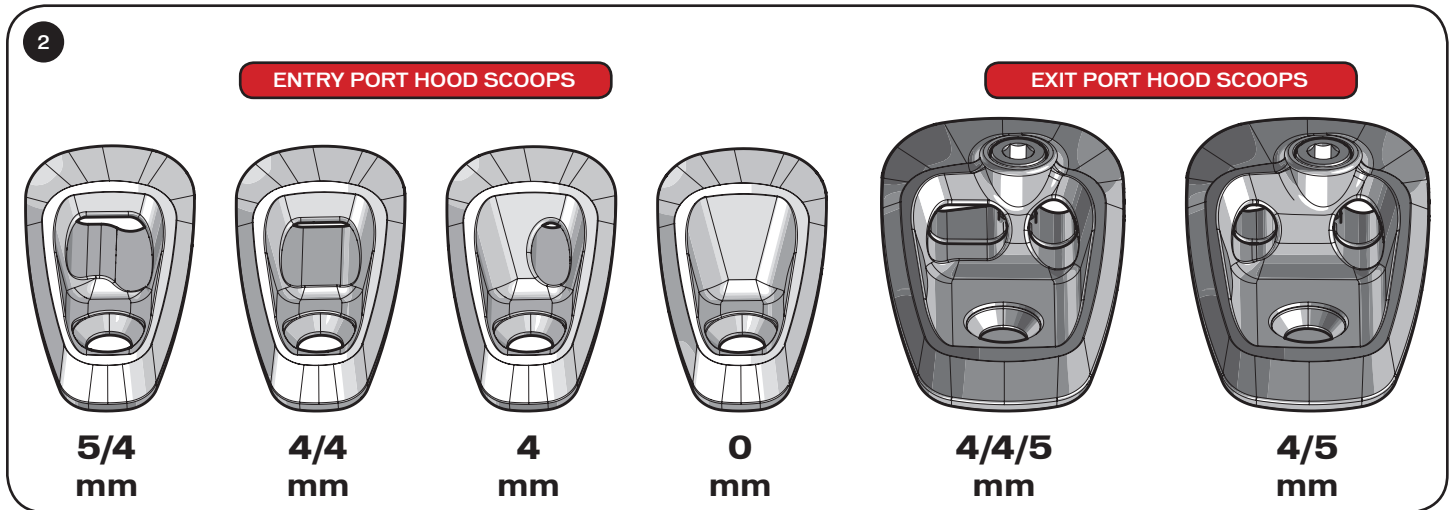
■ **Fig.2:** Choose the entry and exit port hood scoops that match the desired component selection (fig.1). Each frame has its own predetermined selection of hood scoops installed at the factory, with the additional hood scoop options supplied in the parts bag.

**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)



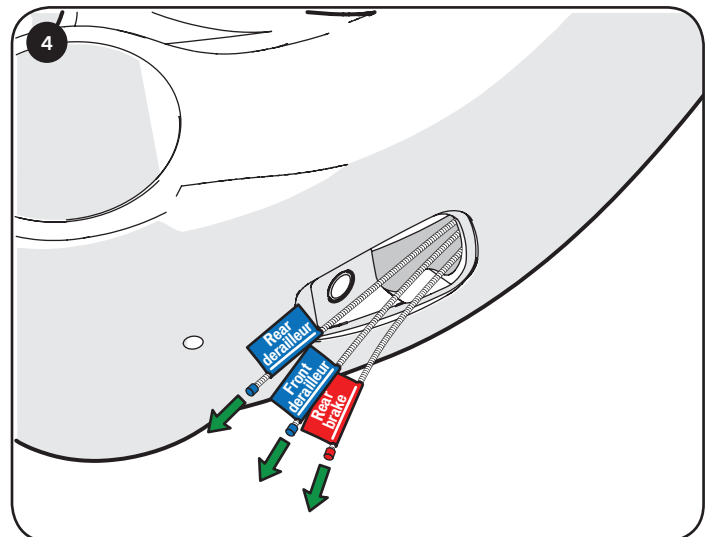
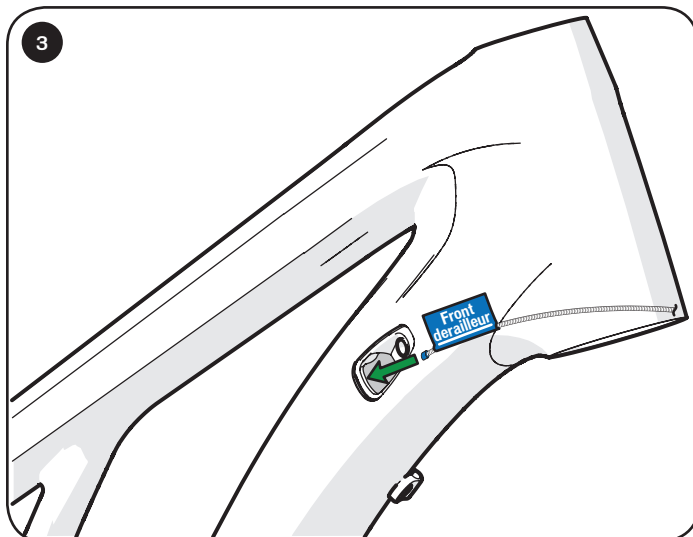
■ Measure out the cable housing lengths for the chosen components (derailleur, Command Post) by running the housings from the handlebar controls, along the underside of the down tube and to the receiving component. Cut each length of cable housing with an additional few inches to accommodate changes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

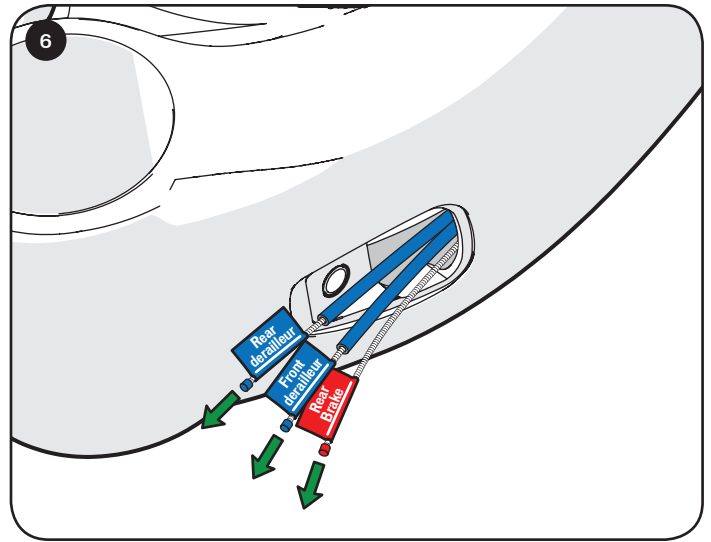
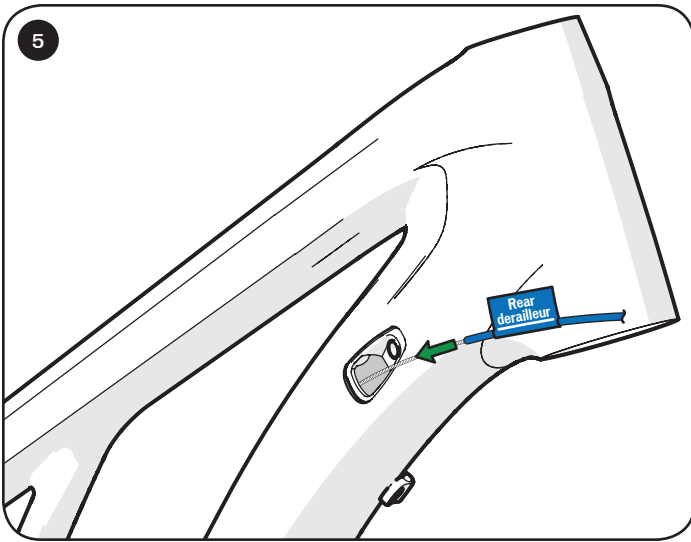
**NOTE:** Mechanical cable actuated rear brakes can be installed in the same way as derailleur and Command Post cables. Hydraulic brakes are installed in the opposite direction. Refer to pages page 10 and page 11 for additional information.

**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.

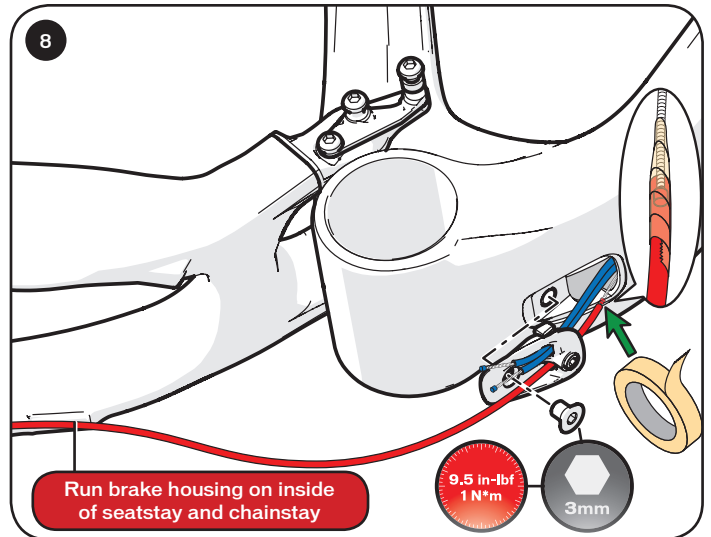
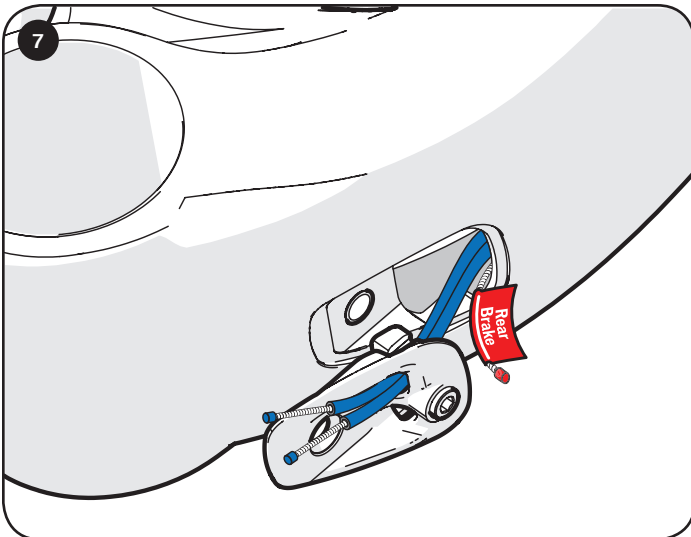


■ **Fig.3:** To help simplify the installation of the cable housings, designate a derailleur cable housing for each component (derailleur, brake, Command Post) and mark each cable with tape. Run each derailleur cable through the proper entry port hole with the cable head entering first.

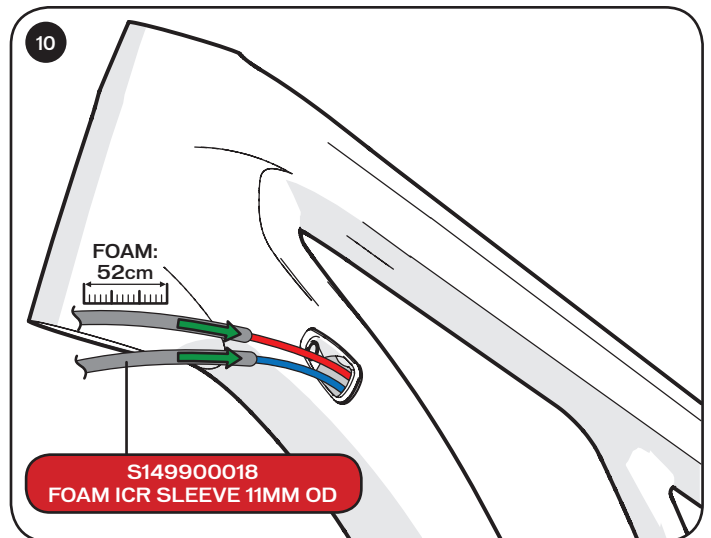
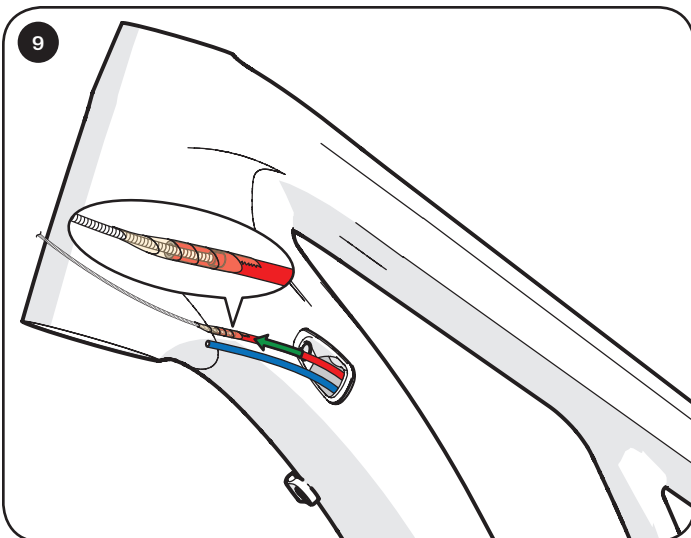
■ **Fig.4:** Guide each cable out through the exit port hole. If necessary, use a hooked dental pick.



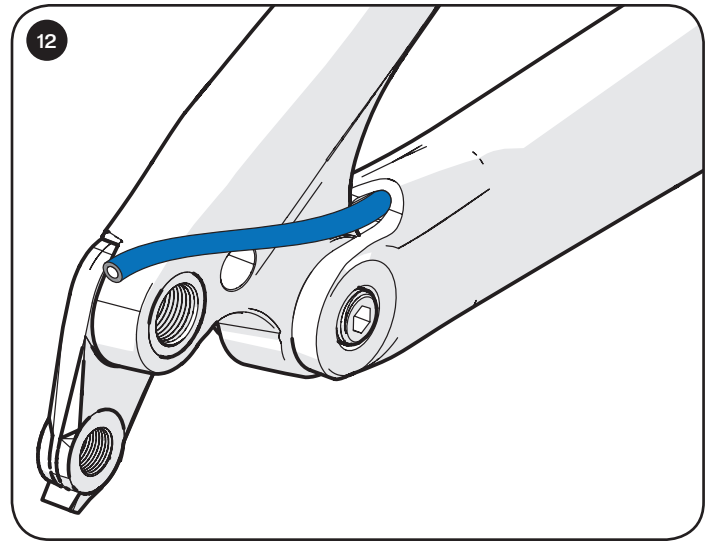
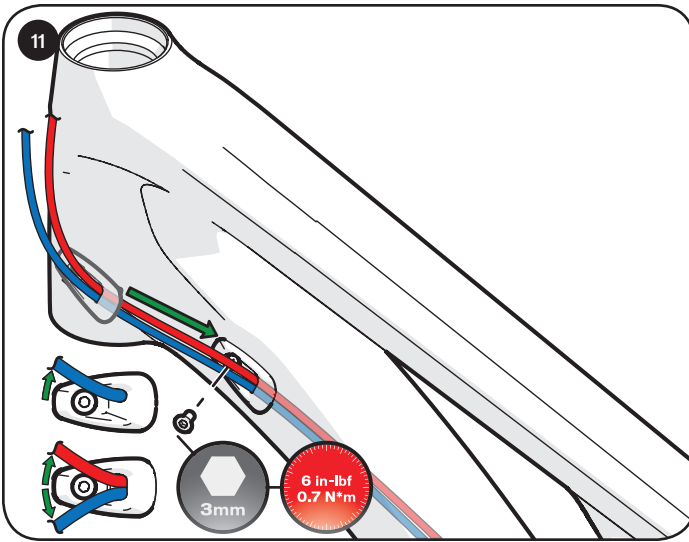
- **Fig.5:** Install each pre-cut housing over each derailleur cable, and into the entry port holes. Be sure to match the housing lengths to the correct cables. For hydraulic brakes, do not place any housing over the cable, as v this cable will be used to guide the hydraulic housing from the bottom.
- **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 factory) over each section of housing, through the entry port hole.

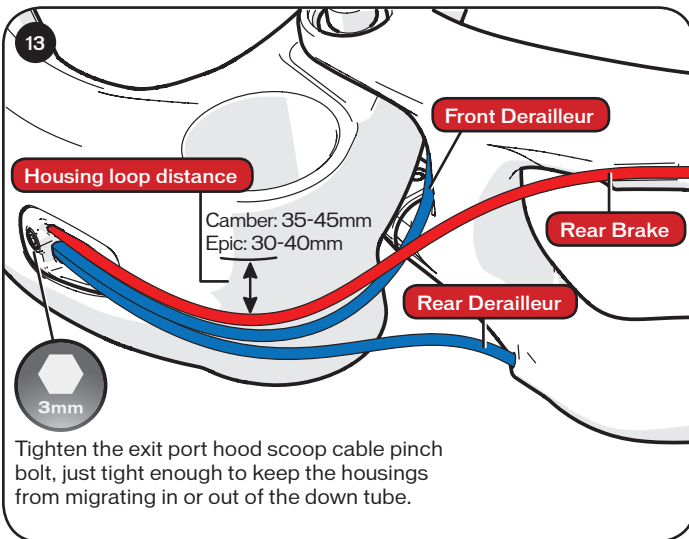


■ **Fig.11:** Choose the hood scoops that match the cable choices. Install the correct hood scoop over the appropriate sections of housings. Place the hood scoops into the entry port holes and fasten the hood scoops to the frame (M4 x 13mm chamfered head bolts).

**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.

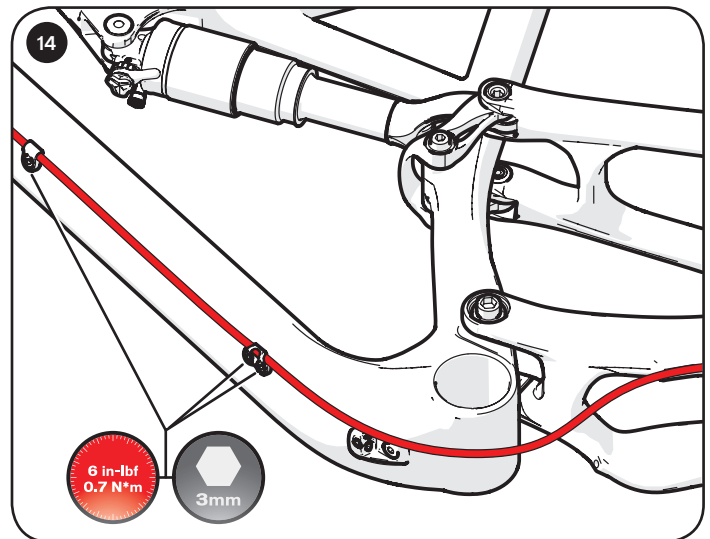
- Once the entry and exit port hood scoops have been fastened to the frame, adjust the housing lengths so that each housing reaches its mating shifter or Command Post (hydraulic brake housing is adjusted later) with enough housing length to allow the handlebar to rotate freely through its entire range 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/Era) 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 and Era frames do not need a large front derailleur 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 down tube 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, Epic and Era models are equipped with two single-bolt guides (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/Era 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

PF30 bottom brackets (73mm width x 46mm): Refer to the manufacturer's instruction guide for installation procedures.

Specialized PF30 cups / 6806 series BB30 bearings: Refer to the Specialized PF30 Bottom Bracket / Adapter / Compatibility Instruction Guide.

Additional information is available at [www.specialized.com](http://www.specialized.com).

## 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 TRAVEL   | CROWN  |
|---------------|-------|--------------|--------|
| EPIC          | All   | 100mm (3.9") | Single |
| ERA           | All   | 100mm (3.9") | Single |
| CAMBER        | All   | 110mm (4.3") | Single |
| CAMBER EVO    | All   | 120mm (4.7") | Single |
| CAMBER GROM   | All   | 110mm (4.3") | Single |
| RUMOR         | All   | 110mm (4.3") | Single |
| RUMOR EVO     | All   | 120mm (4.7") | Single |
| ENDURO SX FSR | All   | 120mm (4.7") | Single |

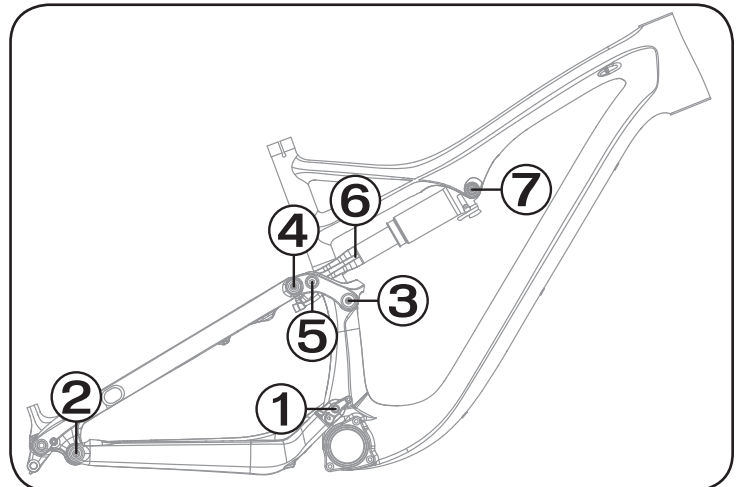
| FAMILY          | MODEL    | MAX TRAVEL   | CROWN  |
|-----------------|----------|--------------|--------|
| STUMPJUMPER FSR | 650b EVO | 150mm (5.9") | Single |
|                 | 29       | 130mm (5.1") | Single |
|                 | 29 EVO   | 140mm (5.5") | Single |
| ENDURO          | 650b     | 160mm (6.5") | Single |
|                 | 650b EVO | 180mm (7.1") | Double |
|                 | 29       | 160mm (6.5") | Single |
| STATUS          | All      | 200mm (7.9") | Double |
| DEMO            | All      | 200mm (7.9") | Double |

## TORQUE SPECS

| PIVOT (in-lbf / Nm)     | PIVOT | EPIC       | CAMBER     | CAMBER GROM | RUMOR      | STUMPJUMPER |
|-------------------------|-------|------------|------------|-------------|------------|-------------|
| MAIN (BB)               | 1     | 180 (20)   | 150 (17)   | 215 (24.2)  | 150 (17)   | 150 (17)    |
| DROPOUT                 | 2     | 115 (13)   | 110 (12.4) | 95 (10.7)   | 110 (12.4) | 110 (12.4)  |
| S-LINK @ FRAME          | 3     | 80 (9)     | 95 (10.7)  | 110 (12.4)  | 95 (10.7)  | 110 (12.4)  |
| S-LINK @ SEATSTAY       | 4     | 160 (18)   | 95 (10.7)  | 110 (12.4)  | 95 (10.7)  | 110 (12.4)  |
| S-LINK @ CLEVIS         | 5     | 80 (9)     | --         | 95 (10.7)   | --         | 170 (19.2)  |
| LOWER SHOCK EYE / MOUNT | 6     | 95 (10.7)  | 95 (10.7)  | 95 (10.7)   | 95 (10.7)  | 95 (10.7)   |
| UPPER SHOCK EYE         | 7     | 130 (14.7) | 130 (14.7) | 130 (14.7)  | 130 (14.7) | 95 (10.7)   |

| PIVOT (in-lbf / Nm)     | PIVOT | ENDURO     | STATUS     | DEMO ALLOY | DEMO CARBON |
|-------------------------|-------|------------|------------|------------|-------------|
| MAIN (BB)               | 1     | 215 (24.2) | 215 (24.2) | 190 (21.5) | 400 (45.2)  |
| DROPOUT                 | 2     | 150 (17)   | 110 (12.4) | 190 (21.5) | 190 (21.5)  |
| S-LINK @ FRAME          | 3     | 190 (21.5) | 215 (24.2) | 190 (21.5) | 190 (21.5)  |
| S-LINK @ SEATSTAY       | 4     | 190 (21.5) | 110 (12.4) | 190 (21.5) | 190 (21.5)  |
| S-LINK @ CLEVIS         | 5     | 190 (21.5) | --         | 190 (21.5) | --          |
| LOWER SHOCK EYE / MOUNT | 6     | 95 (10.7)  | 190 (21.5) | 170 (19.2) | 170 (19.2)  |
| UPPER SHOCK EYE         | 7     | 170 (19.2) | 190 (21.5) | 110 (12.4) | 170 (19.2)  |

| GENERAL FSR TORQUE SPECS        | (in-lbf / Nm) |
|---------------------------------|---------------|
| SEAT COLLAR BOLT (27.2mm)       | 55 (6.2)      |
| SEAT COLLAR BOLT (30.9mm)       | 45 (5.1)      |
| WATER BOTTLE                    | 25 (2.8)      |
| DOWN TUBE CABLE BATS            | 30 (3.4)      |
| 12mm REAR THRU-AXLE             | 133 (15)      |
| REAR DERAILLEUR                 | 70 (7.9)      |
| FRONT DERAILLEUR                | 44 (5)        |
| DERAILLEUR HANGER (MTN)         | 35 (4)        |
| DERAILLEUR HANGER (Demo Carbon) | 55 (6.2)      |
| DERAILLEUR GUARD (Demo Carbon)  | 30 (3.4)      |
| FRAME PROTECTORS (Demo Carbon)  | 25 (2.8)      |
| BRAIN SHOCK MOUNT               | 55 (6.2)      |
| BRAIN HOUSING GUIDE             | 6 (0.7)       |



# FRAME SPECIFICATIONS

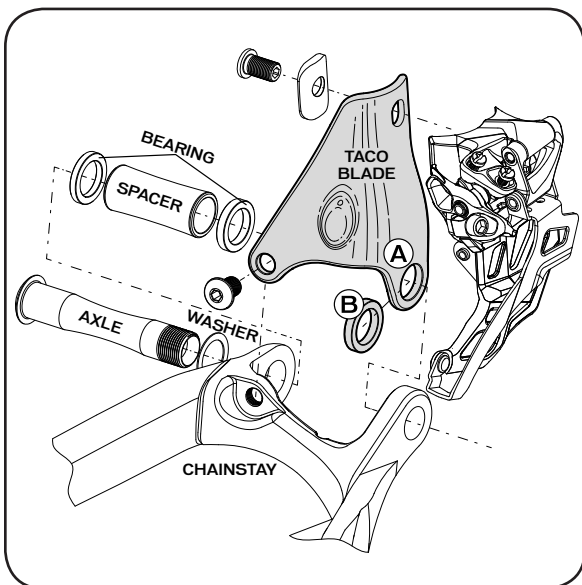
| DESCRIPTION            | EPIC                          | ERA                      | CAMBER                          |
|------------------------|-------------------------------|--------------------------|---------------------------------|
| HEADSET                | 11/8" upper / 1.5" lower      | 11/8" upper / 1.5" lower | 11/8" upper / 1.5" lower        |
| SEATPOST DIAMETER      | 27.2mm                        | 27.2mm                   | 30.9mm                          |
| SEAT COLLAR            | 31.8mm                        | 31.8mm                   | 34.9mm                          |
| FRONT DERAILLEUR CLAMP | High direct mount (except WC) | High direct mount        | E-Type Direct Mount (DMD)       |
| REAR HUB SPACING       | 142mm x 12mm                  | 142mm x 12mm             | 142mm x 12mm (Grom: 135mm)      |
| BOTTOM BRACKET SHELL   | PF30 73 x 46mm                | PF30 73 x 46mm           | PF30 73 x 46mm (Grom: threaded) |
| DERAILLEUR HANGER      | 9892-4020                     | 9892-4020                | 9892-4020 (Grom: 9895-4020)     |
| ISCG TABS              | --                            | --                       | --                              |

| DESCRIPTION            | RUMOR                     | STUMPJUMPER FSR                      | ENDURO                               |
|------------------------|---------------------------|--------------------------------------|--------------------------------------|
| HEADSET                | 11/8" upper / 1.5" lower  | 11/8" upper / 1.5" lower (see below) | 11/8" upper / 1.5" lower (see below) |
| SEATPOST DIAMETER      | 30.9mm                    | 30.9mm                               | 30.9mm                               |
| SEAT COLLAR            | 34.9mm                    | 34.9mm                               | 34.9mm                               |
| FRONT DERAILLEUR CLAMP | E-Type Direct Mount (DMD) | E-Type Direct Mount (DMD)            | SRAM MDM (except 650b)               |
| 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              | --                        | ISCG 05                              | ISCG 05                              |

| DESCRIPTION            | STATUS                  | DEMO ALLOY              | DEMO CARBON             |
|------------------------|-------------------------|-------------------------|-------------------------|
| HEADSET                | 1.5" 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            | 34.9mm                  | 34.9mm                  | 36.9mm                  |
| FRONT DERAILLEUR CLAMP | --                      | --                      | --                      |
| REAR HUB SPACING       | 135mm                   | 135mm                   | 135mm                   |
| BOTTOM BRACKET SHELL   | Threaded 73mm           | PF30DH 83 x 46mm        | BB30DH 83 x 42mm        |
| DERAILLEUR HANGER      | 9895-4020               | 9891-4010               | S152600001              |
| ISCG TABS              | Standard                | ISCG 05                 | ISCG 05                 |

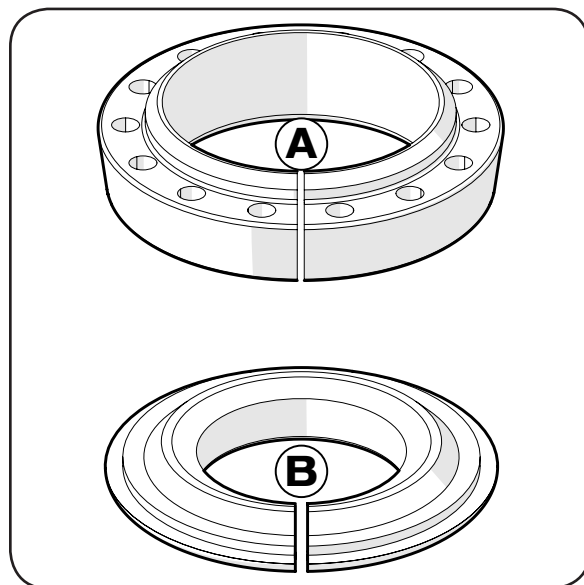
## ENDURO 29 CHAINRING SETUP

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



## 650b HEADSET CROWN RACE

- **Stumpjumper FSR 650b:** Install crown race A on steerer tube crown (between fork crown and head tube)
- **Enduro 650b:** Install crown race B on steerer tube crown (between fork crown and head tube)



# AUTOSAG AIR SHOCK SETUP

Certain Epic, Era, Camber, Rumor, Stumpjumper FSR 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 17) following the setup steps.

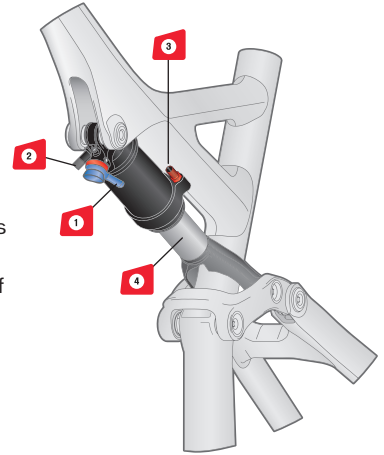
NOTE: Shock air pressure can also be set up manually to rider preference.

## 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 Era:** inflate to the rider's weight in pounds (lb) plus 50psi. For kilograms, multiply by three (e.g. 75kg = 225psi).
  - **Epic and Era:** 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**. 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 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

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.

# 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) |  |  |  |  |  |  |



## CAMBER GROM / STATUS GROM

Camber Grom and Status Grom models are equipped with 24" wheels. These bikes can be adapted to full adult size by switching to 26" wheels. Status Grom models can also accept the same suspension specifications as the adult models (requires new shock and fork). Please consult your Authorized Specialized Dealer for additional information.

## FOX CTD / X-FUSION 02R / 02RL AIR SHOCK SETUP

### Step 1: Adjusting sag

| MODEL       | SHOCK         | SAG         | EYE-TO-EYE / STROKE             |
|-------------|---------------|-------------|---------------------------------|
| CAMBER      | X-FUSION 02RL | 12mm (25%)  | 7.75" x 1.875" (197mm x 47.5mm) |
| CAMBER GROM | FOX CTD EVO   | 8.5mm (25%) | 6.5" x 1.358" (165mm x 34.5mm)  |
| RUMOR       | X-FUSION 02RL | 12mm (25%)  | 7.75" x 1.875" (197mm x 47.5mm) |
| STATUS GROM | X-FUSION 02R  | 15mm (30%)  | 8.74" x 1.97" (222mm x 50mm)    |

**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

**02R / 02RL / FOX CTD:** 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

**02RL:** The shock adjustment has two lever positions, locked out or open, based on the terrain conditions.

**FOX CTD:** See the compression adjustment info in step 3 of the AUTOSAG AIR SHOCK SETUP section.

## AIR CHARTS

Certain models are equipped with non-AUTOSAG shocks which require that the pressure be adjusted with a shock pump. Please refer to the air chart below for the suggested air pressure for the rider's weight. Rider weight includes all riding gear (clothing, shoes, helmet, gloves, hydration pack, etc).

**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.

|              |       | CAMBER/<br>RUMOR | ENDURO<br>650b   | ENDURO<br>29     |              |      | CAMBER<br>GROM   | STATUS<br>GROM  |
|--------------|-------|------------------|------------------|------------------|--------------|------|------------------|-----------------|
| RIDER WEIGHT |       | X-FUSION<br>02RL | INLINE AIR<br>26 | INLINE AIR<br>29 | RIDER WEIGHT |      | FOX FLOAT<br>CTD | X-FUSION<br>02R |
| LBS          | (KG)  | PSI              | PSI              | PSI              | LBS          | (KG) | PSI              | PSI             |
| 90           | (41)  | 72               | 108              | 98               | 50           | (23) | 48               | 54              |
| 100          | (45)  | 79               | 112              | 102              | 60           | (27) | 58               | 64              |
| 110          | (50)  | 86               | 117              | 107              | 70           | (32) | 69               | 74              |
| 120          | (54)  | 93               | 122              | 112              | 80           | (36) | 80               | 84              |
| 130          | (60)  | 100              | 128              | 118              | 90           | (41) | 90               | 94              |
| 140          | (64)  | 107.5            | 134              | 124              | 100          | (45) | 101              | 105             |
| 150          | (68)  | 115              | 140              | 130              | 110          | (50) | 110              | 114             |
| 160          | (73)  | 120              | 150              | 140              | 120          | (54) | 125              | 120             |
| 170          | (77)  | 125              | 160              | 150              | 130          | (60) | 134              | 135             |
| 180          | (82)  | 130              | 170              | 160              | 140          | (64) | 145              | 143             |
| 190          | (86)  | 135              | 183              | 173              | 150          | (68) | 155              | 150             |
| 200          | (91)  | 140              | 195              | 185              | 160          | (73) | 165              | 165             |
| 210          | (95)  | 145              | 208              | 198              |              |      |                  |                 |
| 220          | (100) | 150              | 222              | 212              |              |      |                  |                 |
| 230          | (104) | 155              | 236              | 226              |              |      |                  |                 |
| 240          | (109) | 160              | 251              | 241              |              |      |                  |                 |
| 250          | (113) | 165              | 266              | 256              |              |      |                  |                 |
| 260          | (118) | 170              | 281              | 271              |              |      |                  |                 |
| 270          | (123) | 175              | 296              | 286              |              |      |                  |                 |
| 280          | (127) | 180              | 311              | 301              |              |      |                  |                 |

# CANE CREEK INLINE AIR SHOCK SETUP

| MODEL          | SAG        | EYE-TO-EYE / STROKE        |
|----------------|------------|----------------------------|
| ENDURO 29/650b | 17mm (30%) | 8.5 x 2.25" (216mm x 57mm) |

The recommended compression and rebound settings for the Inline 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.

For additional shock setup information, please visit <http://www.canecreek.com/products/suspension>.

**RECOMMENDED SETTINGS - SPECIALIZED ENDURO 650b/29**

CURRENT SETUP FOR YOUR SHOCK (SET FROM FULLY OPEN)  
RECOMMENDED SAG: 17MM

VOLUME SPACERS: L 1 S 0

**HSC (HIGH SPEED COMPRESSION)**  
PLUSH 0 TURNS | 1.5 | TURNS 4.5 | ABSORBS IMPACT

**LSC (LOW SPEED COMPRESSION)**  
SUPPLE 0 CLICKS | 9 | CLICKS 18 | PEDAL EFFICIENCY

**HSR (HIGH SPEED REBOUND)**  
LIVELY POP 0 TURNS | 2 | TURNS 3.5 | G-OUT CONTROL

**LSR (LOW SPEED REBOUND)**  
PLUSH 0 CLICKS | 10 | CLICKS 18 | FIRM

**SPECIALIZED CANE CREEK AAC0121**

## COIL SHOCK SETUP

### Step 1: Adjusting sag

- Proper sag should be achieved with one turn of preload on the spring. More than 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.

**OHLINS SHOCK RATES / TUNING INFO:** Please refer to the Ohlins shock manual supplied with the shock, or go to [www.specialized.com](http://www.specialized.com).

#### SAG INFO:

| MODEL      | SAG (%)  | SAG (inches) | Sag (mm)  | EYE-TO-EYE / STROKE (inches) | EYE-TO-EYE / STROKE (mm) |
|------------|----------|--------------|-----------|------------------------------|--------------------------|
| ENDURO EVO | 30 - 35% | 0.75 - 0.85" | 19 - 22mm | 8.75" x 2.5"                 | 222.3mm x 63.5mm         |
| 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         |

#### SPRING RATE:

| MODEL               | XS  | S               | M               | L               | XL              |
|---------------------|-----|-----------------|-----------------|-----------------|-----------------|
| 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 (Fox Van RC) | --  | --              | 350             | 400             | 450             |
| ENDURO EVO          | --  | 450             | 500             | 550             | --              |
| ENDURO EXPERT EVO   | --  | 76 N/mm (434lb) | 84 N/mm (479lb) | 92 N/mm (525lb) | --              |

### 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.

# SHOCK SETTINGS

| COMPRESSION   |                                      |                                       |   |   |                  |                 |
|---|--------------------------------------|---------------------------------------|---|---|------------------|-----------------|
|                                  | EPIC                                 | SJ FSR 29                             | SJ FSR EVO 29<br>CAMBER                       | SJ FSR 29 / EVO 29<br>CAMBER<br>CAMBER GROM<br>RUMOR<br>ENDURO 29 | CAMBER<br>RUMOR  | STATUS GROM     |
| TERRAIN   | SPECIALIZED/FOX<br>BRAIN (Race tune) | SPECIALIZED/FOX<br>BRAIN (Trail Tune) | FOX<br>CTD FACTORY                            | FOX CTD<br>PERFORMANCE /<br>EVOLUTION                             | X-FUSION<br>02RL | X-FUSION<br>02R |
| <br>XC Race/Climbing/<br>Asphalt | 0 - 2                                | 0 - 2                                 | C   | C   | LOCKOUT          | OPEN            |
| <br>Smooth hardpack              | 3 - 6                                | 3 - OPEN                              | T<br>(1 - Soft)<br>(2 - Medium)<br>(3 - Firm) | T   | LOCKOUT          | OPEN            |
| <br>Trail riding                 | 3 - 6                                | 3 - OPEN                              | T<br>(1 - Soft)<br>(2 - Medium)<br>(3 - Firm) | T   | OPEN             | OPEN            |
| <br>Downhill/Technical          | 6                                    | OPEN                                  | D   | D   | OPEN             | OPEN            |

## BRAIN SHOCK COMPRESSION

(Counter-clockwise clicks from full firm)



| REBOUND      |       |                          |  |                  |                 |
|--------------|-------|--------------------------|--|------------------|-----------------|
| RIDER WEIGHT |       | SPECIALIZED/FOX<br>BRAIN | FOX CTD<br>FACTORY / PERFORMANCE / EVOLUTION | X-FUSION<br>02RL | X-FUSION<br>02R |
| LBS          | (KG)  |                          |  |                  |                 |
| 90           | (41)  | 5-9                      | 10-14  | 8-20             | 8-20            |
| 100          | (45)  |                          |  |                  |                 |
| 110          | (50)  |                          |  |                  |                 |
| 120          | (54)  |                          |  |                  |                 |
| 130          | (60)  | 4-7                      | 7-14   | 5-11             | 5-11            |
| 140          | (64)  |                          |  |                  |                 |
| 150          | (68)  |                          |  |                  |                 |
| 160          | (73)  |                          |  |                  |                 |
| 170          | (77)  |                          |  |                  |                 |
| 180          | (82)  |                          |  |                  |                 |
| 190          | (86)  | 0-5                      | 5-10   | 3-8              | 3-8             |
| 200          | (91)  |                          |  |                  |                 |
| 210          | (95)  |                          |  |                  |                 |
| 220          | (100) |                          |  |                  |                 |
| 230          | (104) |                          |  |                  |                 |
| 240          | (109) |                          |  |                  |                 |
| 250          | (113) | 0-3                      | 0-5  | 0-3              | 0-3             |
| 260          | (118) |                          |  |                  |                 |
| 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 owner's manual 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 owner's manual 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 instruction guide 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!

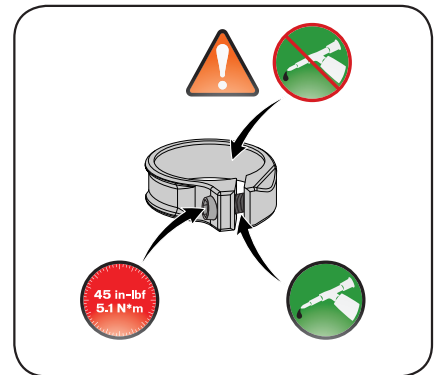
Certain Specialized carbon frames use a quick-release seatpost binder. Since the components of this assembly are in direct contact with carbon fiber, pay special attention to ensure proper tightness for the seatpost when correctly tightened to specifications.

 **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.

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.

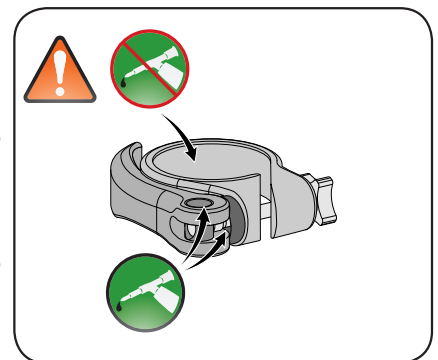


## Bottom bracket

**Oversized Bottom Bracket:** Please refer to the Specialized bottom bracket instruction guide for assembly instructions, tool information and compatibility. All documents are available at [www.specialized.com](http://www.specialized.com).

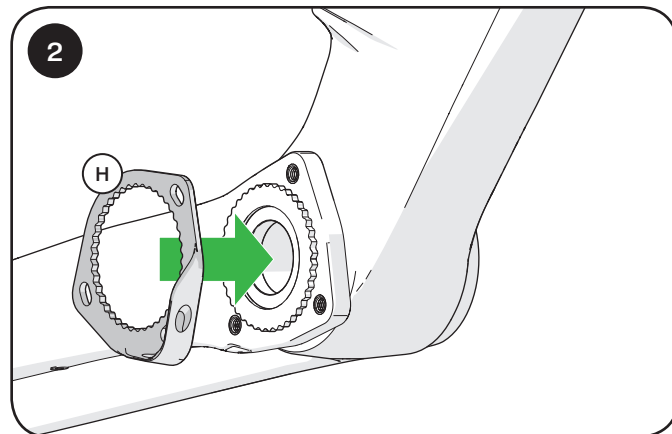
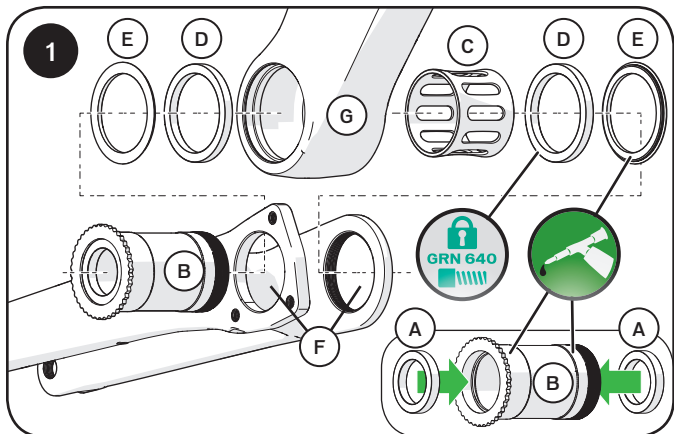
## Headset installation / removal

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.**

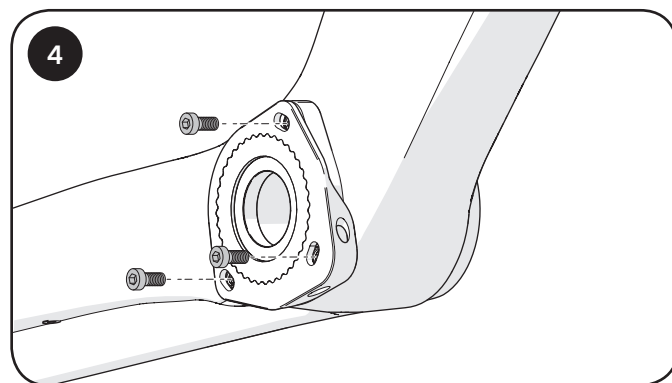
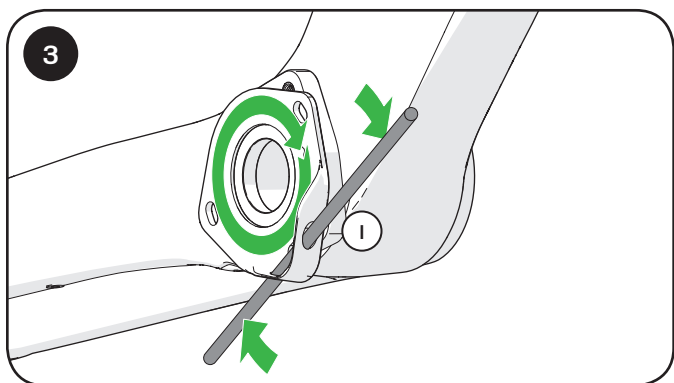


## DEMO 8 CARBON

### Bottom Bracket Installation



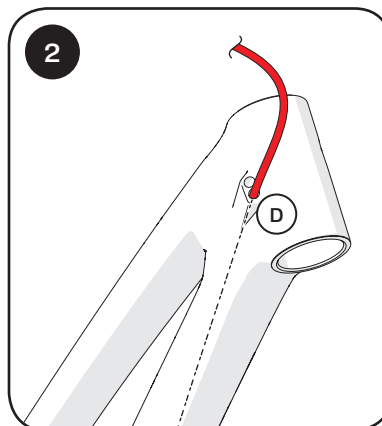
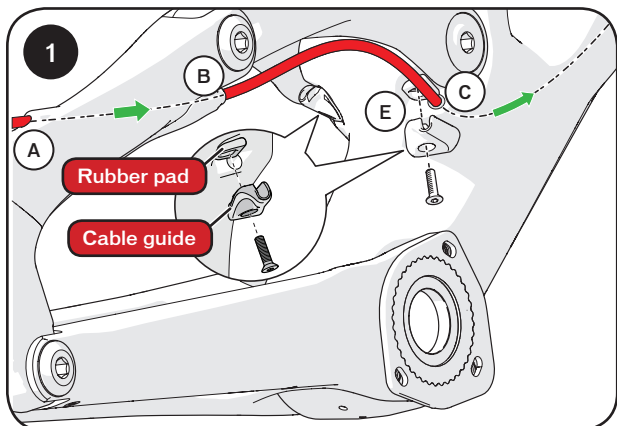
- Press the BB30 bearings (A) (S091600016, 42mm x 30mm x 7mm) into the left and right sides of the BB shell/axle (S150400007) (B) (fig.1).
- Install the inner spacer (S150400008) (C), bearings (S150600002) (D) and outer spacers (S150400006) (E) into the shell of the frame (fig.1).
- Align the main pivot holes (F) of the chainstay assembly with the shell of the frame (G), then slide the BB shell/axle through the drive-side chainstay hole and the shell of the frame (fig.1).
- Thread the axle into the non-drive-side chainstay hole, using the supplied main pivot lock tool (H) (fig.2).



- With the main pivot lock tool (S150400002) (H) positioned with the lip facing out, tighten the bottom bracket by inserting a long 6mm Allen key or a screwdriver shaft (I) into the holes in the lip and rotate counter-clockwise (fig.3). Once tension is felt, rotate the splined ring an additional 1/4-turn.
- **Fig.4:** Once tight, flip the pivot lock tool around so that the lip is positioned over the lower corner of the chainstay and lock it in place by inserting three screws into the ISCG tab holes (fig.4). If desired, install a chainguide/bashguard assembly before inserting the bolts.

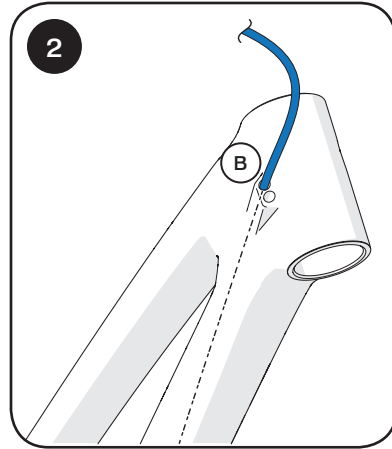
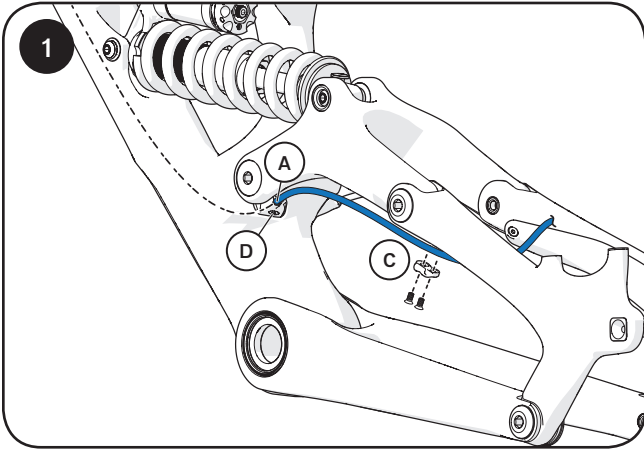
**NOTE:** Certain chainguides might interfere with the lip portion of the pivot lock tool. In the case of interference, use the flat lock tool (S150400001).

### Derailleur cable routing



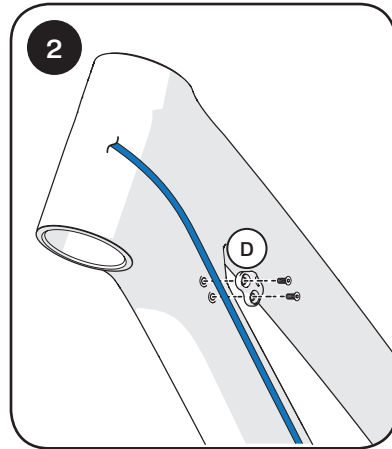
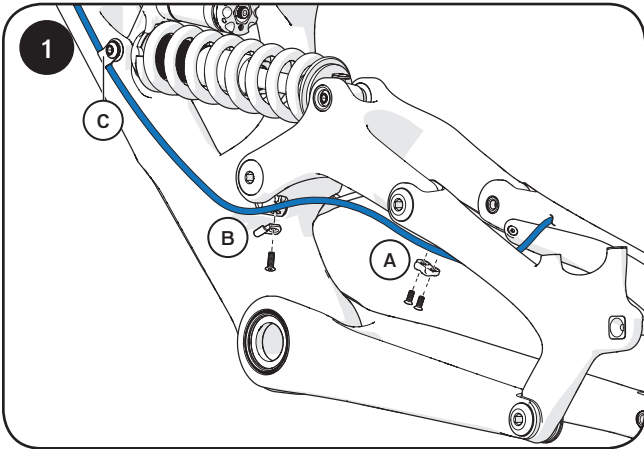
- Insert a full-length piece of derailleur cable housing, measuring at least 6' (1800mm) long, starting at the rear derailleur port (A) (fig.1).
- Guide the housing up the seatstay until it exits through the upper seatstay port (B) (fig.1). Make sure the seatstay protector (S159900014) is installed.
- Insert the housing into the port below the shock link (C) (fig.1). Continue running the housing into the frame until it exits at the head tube port (D) (fig.2).
- Trim the housing to the required length, install the cable and adjust the derailleur, all according to the manufacturer's instructions.
- Install the housing stop assembly (S156500003) (E) (fig.1). Tighten the bolt just enough so that the housing can't move.

## Rear brake housing routing (internal)



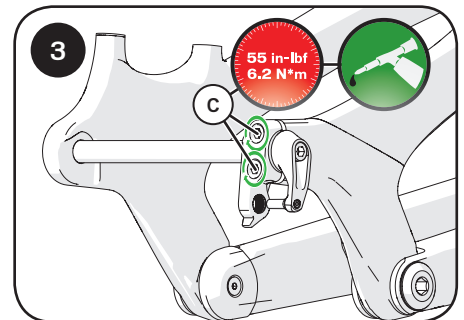
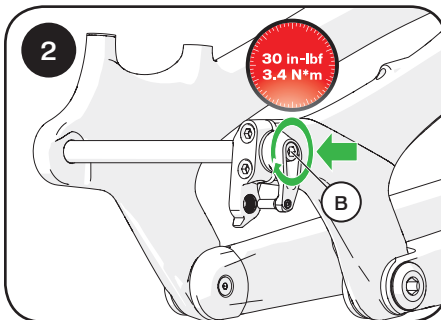
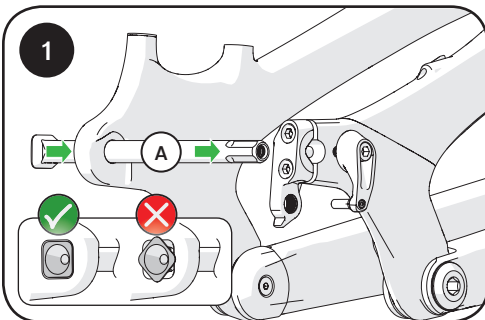
- Run the brake housing starting from the bottom (fig.1). Insert the housing into the port below the shock link (A) (fig.1), on the non-drive-side. Continue running the housing into the frame until it exits at the head tube port (B) (fig.2).
- Bolt the brake to the frame, then bolt the seatstay cable guide (S156500003) (C) to the seatstay (fig.1) to position the housing against the frame.
- Trim the housing to the required length, attach the housing to the brake caliper and bleed the brake according to the manufacturer's instructions.
- Install the housing stop (S156500003) (D) in the same way as for the derailleur housing (P.19). Tighten the bolt (M4 x 13mm) just enough so that the housing can't move.

## Rear brake housing routing (external)



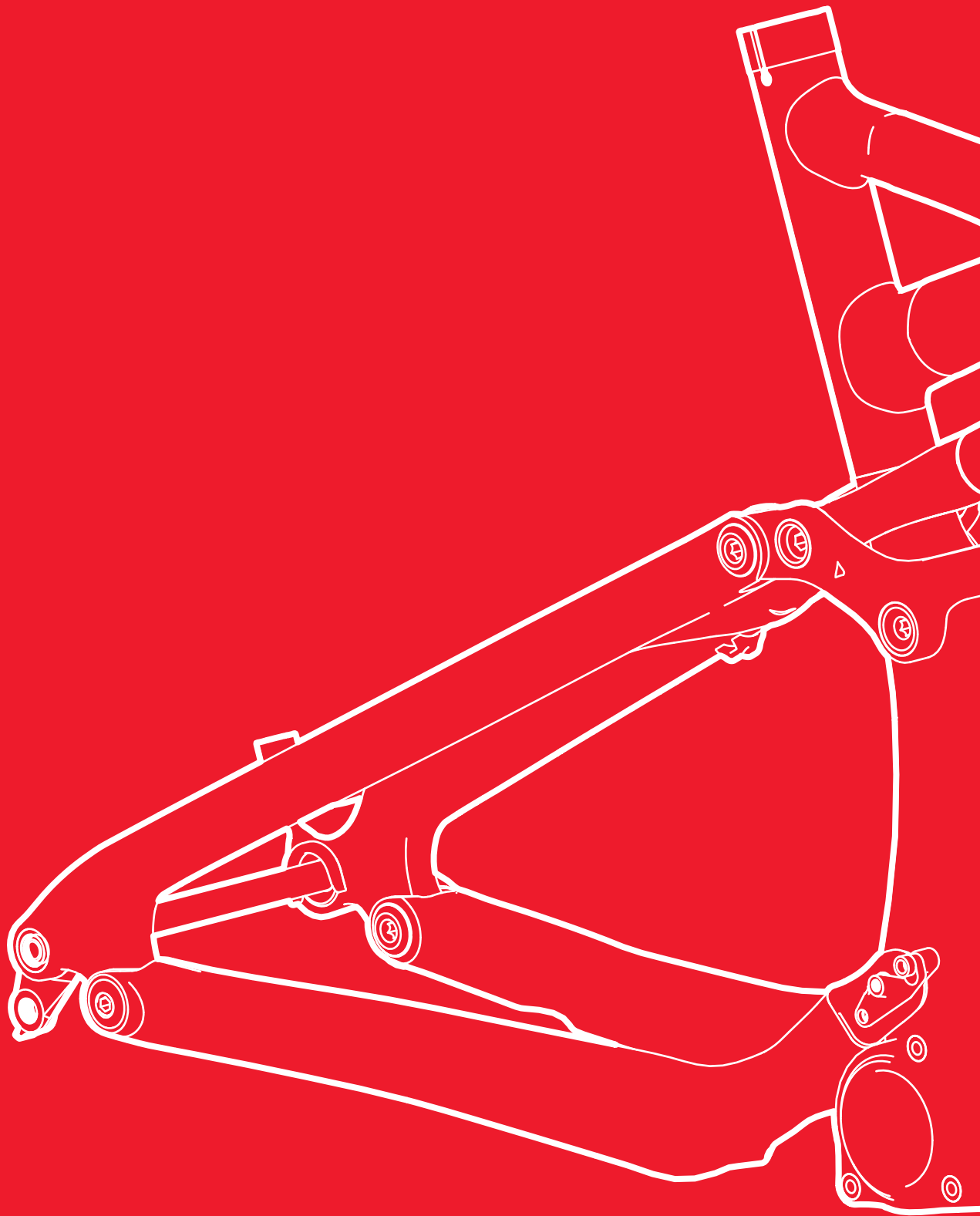
- The housing is attached to the side of the frame at four contact points (cable housing kit S156500003):
  - **Seatstay (A)** : Attach the brake, then bolt the supplied cable guide (fig.1) to the seatstay to position the housing against the frame.
  - **Below shock link (B)** : Using the Internal routing guide as a base, mount the external routing guide, then insert a longer bolt (M4 x 18mm).
  - **Forward shock eye bolt (C)** : Place the supplied retainer loop over the housing (fig.1), then attach it to the frame by placing it on the forward shock eye bolt. Tighten the forward shock eye bolt to 170 in-lbf (19.2 Nm).
  - **Down tube @ head tube (D)** : Bolt the supplied cable guide (fig.2) to the frame to position the housing against the frame.
- Trim the housing to the required length, attach the housing to the brake caliper and bleed the brake according to the manufacturer's instructions.

## Rear axle installation



- Insert the axle (S150200001) (A) through the non-drive-side dropout (fig.1), hub and drive-side dropout. Make sure the axle head is aligned.
- Install the derailleur guard (S159900013) (B) (fig.2), then tighten the derailleur guard bolt to tighten the axle. Torque to 30 in-lbf (3.4 Nm).
- Tighten the two hanger bolts (S152600001) (C) (fig.3). Make sure the gaps between the dropout and the hanger are even. Torque to 55 in-lbf (6.2 Nm).





**SPECIALIZED BICYCLE COMPONENTS**

15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-6229