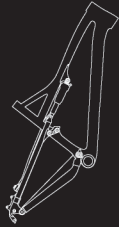




# FSR OWNER'S MANUAL

PITCH





# CONTENTS

<b>INTRODUCTION .....</b>	<b>2</b>
<i>ABOUT OFF ROAD, STUNT, DOWNHILL</i>	
<i>AND FREERIDING.....</i>	<i>2</i>
<i>SERVICE AND MODIFICATIONS.....</i>	<i>3</i>
<b>FORK SETUP .....</b>	<b>4</b>
<b>SEATPOST SETUP .....</b>	<b>4</b>
<b>FRONT DERAILLEUR SETUP .....</b>	<b>4</b>
<b>DOWN TUBE CABLE GUIDE SETUP .....</b>	<b>5</b>
<b>FRAME FEATURES .....</b>	<b>5</b>
<b>FRAME GEOMETRY .....</b>	<b>6</b>
<b>FRAME GEOMETRY .....</b>	<b>7</b>
<i>PITCH .....</i>	<i>7</i>
<b>FOX RP2 / ROCKSHOX ARIO REAR SHOCK SETUP .....</b>	<b>7</b>
<i>SETTING SAG.....</i>	<i>7</i>
<i>SETTING COMPRESSION.....</i>	<i>7</i>
<i>SETTING REBOUND .....</i>	<i>7</i>
<b>PITCH AIR CHART .....</b>	<b>8</b>
<b>DERAILLEUR GUARD .....</b>	<b>9</b>
<b>FRAME SCHEMATIC.....</b>	<b>10</b>
<b>FRAME PIVOT SPECIFICATIONS.....</b>	<b>11</b>
<b>SETUP DATA .....</b>	<b>12</b>

# 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 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 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 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 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 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 retailer.



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

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 retailer.



**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.

## FORK SETUP

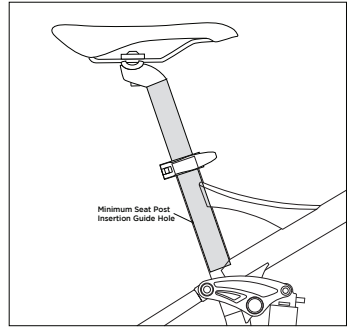


**WARNING!** The Pitch frame is compatible **ONLY** with single crown forks that have travel of 5.9" (150mm) or less. Use of different styled forks or forks with longer travel may result in catastrophic failure of the frame which may result in serious personal injury or death.

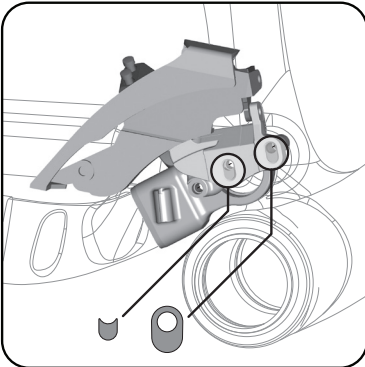
## SEATPOST SETUP

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

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.



## FRONT DERAILLEUR SETUP



**Derailleur position: LOW**



**Derailleur position: HIGH**



Stumpjumper FSR 26"
Stumpjumper FSR 29er
Epic
Epic 29er
Era
SX / SX Trail
BigHit

Enduro
Safire
Pitch

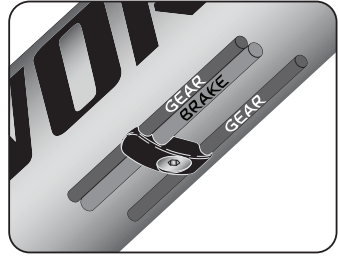
The front derailleur chart is a starting point. Different front derailleurs may require a different mounting position. Adjust position according to the front derailleur to achieve proper positioning over the chainring.

## DOWN TUBE CABLE GUIDE SETUP

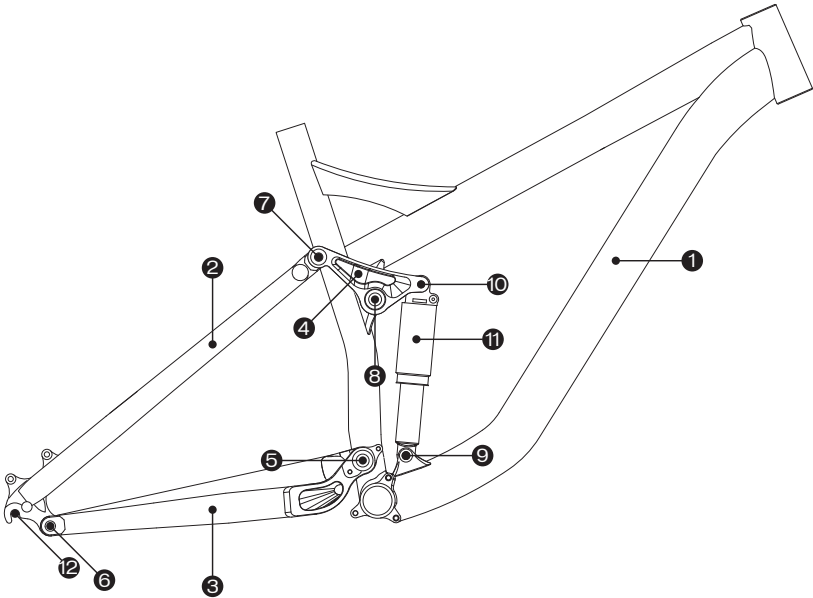
The Specialized Pitch is equipped with bolt-on down tube cable guides. For proper housing placement and function, the hydraulic rear brake housing goes in the larger middle slot, the gear cables go on the outside.

**NOTE:** Only use 4mm gear housing.

**Do not overtighten the guide bolts!**



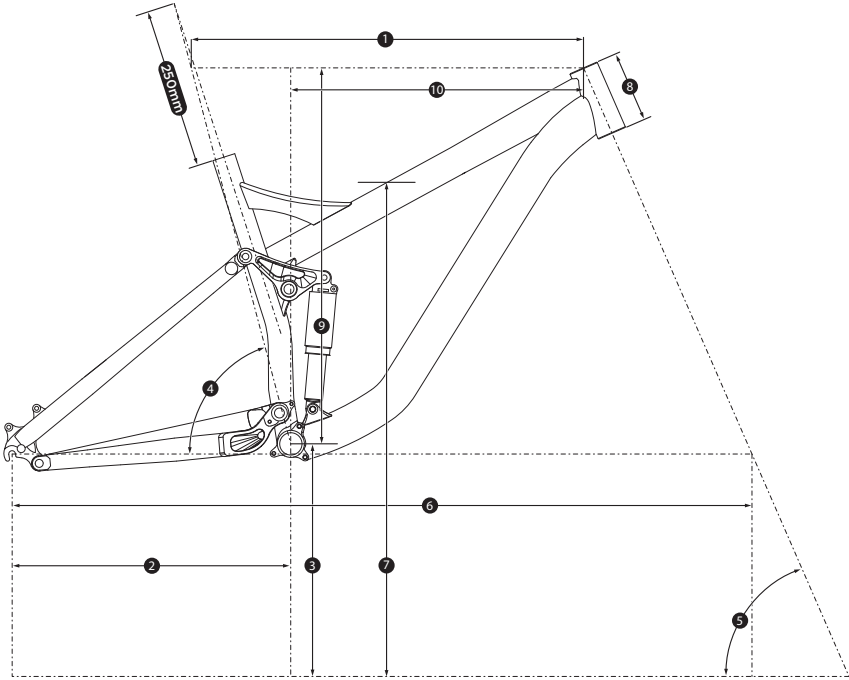
## FRAME FEATURES



1. Main Frame	5. Main Pivot / DMD	9. Lower Shock Eyelet
2. Seatstay	6. Dropout (Horst) Pivot	10. Upper Shock Eyelet
3. Chainstay	7. ↑-Link @ Seatstay Pivot	11. Shock
4. ↑-Link	8. ↑-Link @ Frame Pivot	12. Replaceable Derailleur Hanger

# FRAME GEOMETRY

1. Top Tube Length <sup>1</sup>	4. Seat Tube Angle <sup>3</sup>	7. Standover Height <sup>2</sup>	10. Reach
2. Chainstay Length	5. Head Tube Angle	8. Head Tube Length	
3. BB Height	6. Wheelbase	9. Stack	



TT length is the Horizontal Measurement from the center-line of the HT at the top of the HT to the center-line of the projected seat tube.

<sup>2</sup> Stand Over height is measured vertically at the centerpoint of the TT measurement.

<sup>3</sup> Effective Seat Tube Angle is measured from BB to 250mm above seat collar.

Headset: 11/8"

Seatpost diameter: 30.9mm

Front derailleur clamp: E-Type Direct Mount (DMD)

Alloy Frame Seat Collar: 34.9mm

Rear hub spacing: 135mm

BB shell: 73mm

Derailleur Hanger: 9895-4020

Eye to Eye: 200mm (7.875")

Shock Stroke: 57.2mm (2.25")

# FRAME GEOMETRY

## PITCH

	SMALL		MEDIUM		LARGE		X-LARGE	
1	565	22.24"	586	23.07"	620	24.41"	645	25.39"
2	421	16.57"	419	16.57"	419	16.57"	419	16.57"
3	356	14.02"	350	14.02"	350	14.02"	350	14.02"
4	74°		74°		74°		74°	
5	67°		67°		67°		67°	
6	1126	44.33"	1148	45.20"	1183	46.57"	1211	47.68"
7	742	29.21"	748	29.49"	759	29.88"	765	30.12"
8	102	4.02"	108	4.25"	128	5.04"	150	5.91"
9	559	22.01"	565	22.24"	581	22.87"	603	23.74"
10	430	16.93"	450	17.72"	480	18.90"	496	19.53"

# SHOCK SETUP

## SETTING SAG

Pitch sag: Set the sag at 25 to 33% (14-17mm) of shock stroke.

Position the blue compression lever in the "Open" position to allow 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.

**NOTE:** See the attached charts for starting air pressures to dial in the sag. The charts are only a starting point, actual sag needs to be checked and adjusted on the bike, while riding, and at regular intervals. Please refer to your shock owner's manual for additional setup information.

## SETTING COMPRESSION

**FOX RP2:** The ProPedal adjustment has two lever positions, on or off.

- ProPedal - Slow speed compression to improve efficiency while still allowing the shock to absorb medium and large size hits.
- Open - Very little compression damping for the most supple ride possible.

**ROCKSHOX ARIO:** The Ario adjustment has two lever positions, locked out or open.

## SETTING REBOUND

Set rebound damping adjuster to rider preference. Typically a slower rebound for slow speed, bigger hits to eliminate kickback, or faster rebound for higher speeds and smaller hits, so the suspension does not dive and has time to rebound between bumps. Refer to chart below for specific weight settings.

# PITCH AIR CHART

## LEGEND

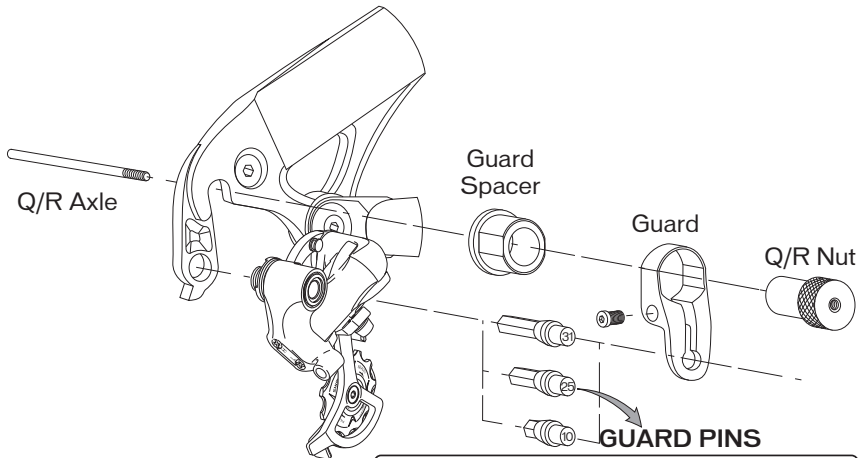
Rebound: Counter-clockwise clicks from full firm	Climbing/Asphalt	Sag
Compression: Counter-clockwise clicks from full slow	Smooth hardpack	Stroke
Fox RP2	Trail riding	Travel
	Downhill/Technical	

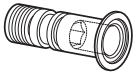
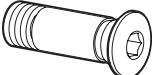
		ENDURO					
		25-33% 14-17mm		56mm		150mm	
		FOX RP2				ROCKSHOX ARIO	
RIDER WEIGHT		PSI			PSI		
LBS	(KG)						
90	(41)	70	6-7	 On	45	8-20	 Lockout
100	(45)	75			55		
110	(50)	85			65		
120	(54)	95			75		
130	(60)	105	4-5	 On	85	5-11	 Lockout
140	(64)	115			95		
150	(68)	125			105		
160	(73)	135			115		
170	(77)	145	2-3	 Off	125	3-8	 Open
180	(82)	155			135		
190	(86)	165			145		
200	(91)	175			155		
210	(95)	185	0-1	 Off	165	0-3	 Open
220	(100)	195			175		
230	(104)	205			185		
240	(109)	215			195		
250	(113)	225			205		
260	(120)	235			215		
270	(127)	245			225		
280	(134)	255			235		

# DERAILLEUR GUARD

The Specialized Derailleur guard is available separately through your local Specialized dealer. The guard works with solid or Q/R axle types and is compatible with all Mountain bike models using the Rev2 Alloy Mtn Derailleur Hanger.

Guard Part#	9896-4030	Hanger Part#	9895-4021
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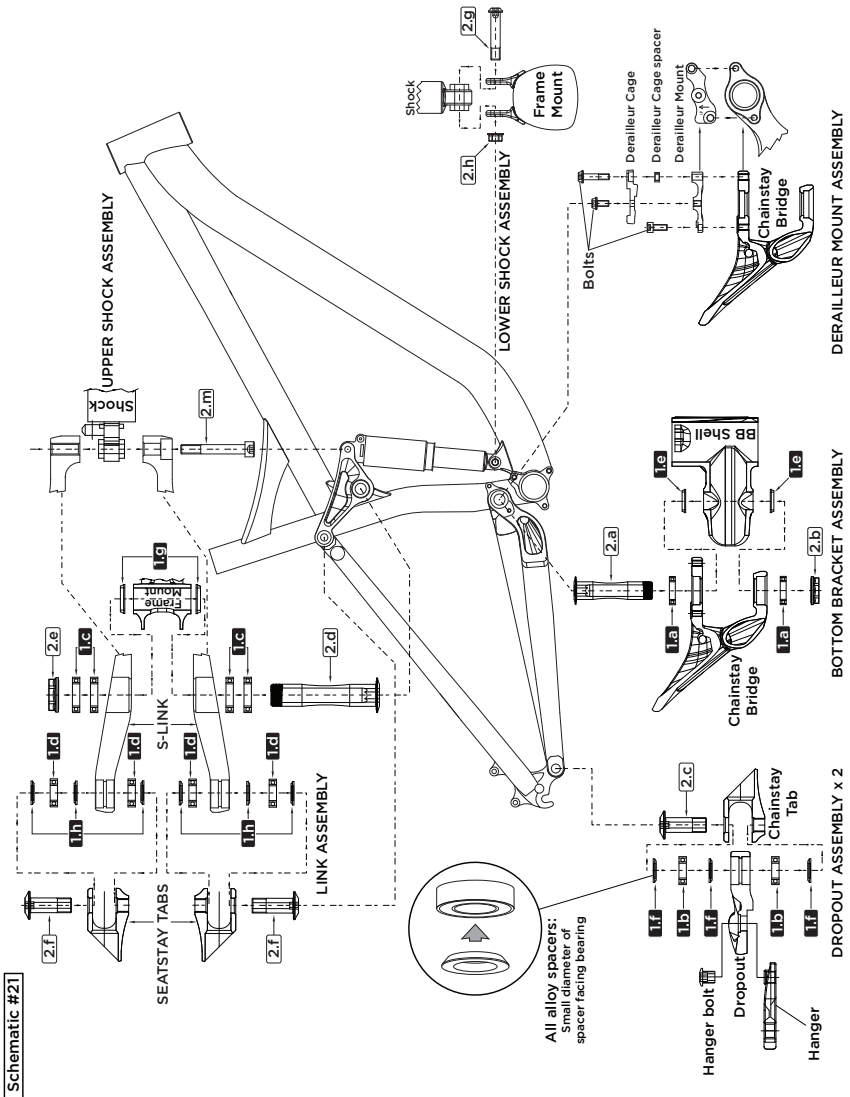


	<p><b>Long (31mm):</b> All SRAM derailleurs All Shimano Shadow derailleurs</p>
	<p><b>Medium (25mm):</b> Shimano XTR / XT / LX (All Shimano derailleurs with countersunk hanger bolt)</p>
	<p><b>Short (10mm):</b> (All Shimano derailleurs without countersunk hanger bolt)</p>

## Derailleur Guard Installation (Q/R option):

1. Install rear derailleur on derailleur hanger.
2. Place rear wheel in frame and install Q/R, with springs and without Q/R end nut.
3. Insert appropriate derailleur guard pin in derailleur.
4. Place guard sleeve in derailleur guard.
5. Slide derailleur guard and sleeve over guard pin and Q/R.
6. Install supplied Q/R nut and tighten Q/R.
7. Torque guard pinch bolt to 80 in-lbf (9 N-m).

# FRAME SCHEMATIC



**NOTE** - Bearing and Bolt Kits are available only through your local Specialized dealer. To retain your warranty and for your safety, all maintenance should be performed by your local Specialized dealer.

# FRAME PIVOT SPECIFICATIONS

Part#	Qty	Part Description	Part Specification
1.a	2	BB Bearing	6802-RS Full Complement Bearing - 24mm O.D. x 15mm I.D. x 5mm Thick
1.b	4	Dropout Bearing	6800-2RS Bearing - 19mm O.D. x 10mm I.D. x 5mm Thick
1.c	4	S- Link @ Frame Bearing	6802-RS Full Complement Bearing - 24mm O.D. x 15mm I.D. x 5mm Thick
1.d	4	S- Link @ Seatstay Bearing	6800-2RS Bearing - 19mm O.D. x 10mm I.D. x 5mm Thick
1.e	2	BB Spacer	Alloy Spacer - 20mm O.D. x 15mm I.D. x 3mm Thick, Chamfered
1.f	6	Dropout Spacer	Alloy Spacer - 13mm O.D. x 10mm I.D. x 2mm Thick, Chamfered
1.g	2	S-Link @ Frame Spacer	Alloy Spacer - 20mm O.D. x 15mm I.D. x 3mm Thick, Chamfered
1.h	6	S-Link @ Seatstay Spacer	Alloy Spacer - 13mm O.D. x 10mm I.D. x 2mm Thick, Chamfered

Part#	Qty	Part Description	Part Specification	Torque in"lb
2.a	1	BB Axle	Alloy Axle - M15 Thread x 64.5mm Shaft Length, 8mm Allen Hex Head	200-230 B
2.b	1	BB Nut	Alloy Nut - M15 Thread x 23.5mm O.D., 17mm Socket (use 6-point 19mm socket)	200-230
2.c	2	Dropout Bolt	Alloy Bolt - M10 Thread x 28mm Shaft Length, 4mm Allen Hex Head	70-90B
2.d	1	S- Link @ Frame Axle	Alloy Axle - M15 Thread x 71.5mm Shaft Length, 8mm Allen Hex Head	200-230 B
2.e	1	S-Link @ Frame Nut	Alloy Nut - M15 Thread x 23.5mm O.D., 17mm Socket (use 6-point 19mm socket)	200-230
2.f	2	S- Link @ Seatstay Bolt	Alloy Bolt - M10 Thread x 28mm Shaft Length, 4mm Allen Hex Head	70-90 B
2.g	1	Lower Shock Eye Bolt	Alloy Bolt - M8 Thread x 47.5mm Shaft Length, 4mm Allen Hex Head	100-120B
2.h	1	Lower Shock Eye Nut	Alloy Nut - M8 Thread x 13.5mm O.D., 11mm Socket	100-120
2.i	1	Upper Shock Eye Bolt	Alloy Bolt - M8 Thread x 55mm Shaft Length, 6mm Allen Hex Head	120-140B

## SETUP DATA

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



**SPECIALIZED BICYCLE COMPONENTS**

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

[www.specialized.com](http://www.specialized.com)