

DECREE 1.5 TECHNICAL MANUAL

» INTRODUCTION

DECREE 1.5

Congratulations on purchasing a Felt Decree 1.5. As with all of our bikes and components, our aim is to provide the rider with the best product and riding experience. Read this manual supplement thoroughly, as it's to help you set your bike up correctly, and care for it.

For further information, visit:

FELTBICYCLES.COM

» CONTENTS

INTRODUCTION

Fast Explained.....	2-3
Geometry.....	4

SETUP

Shock Setup	5
Flip Chips	6
Headtube Cable Guides.....	6
Bottom Bracket Cable Guides	7

CABLE ROUTING

Rear Brake Cable/Hose Routing	8-9
Rear Shifter Cable/Hose Routing.....	10-11
Dropper Post Cable/Hose Routing.....	12-13

MAINTENANCE

Evaluation	14
Pivot Location / Torque Values	15
Main Pivot	16-17
Seat Tube Pivot.....	18-19
Seat Stay Pivot.....	20-21
Shock Mount Pivot.....	22-23

REPLACEMENT PARTS

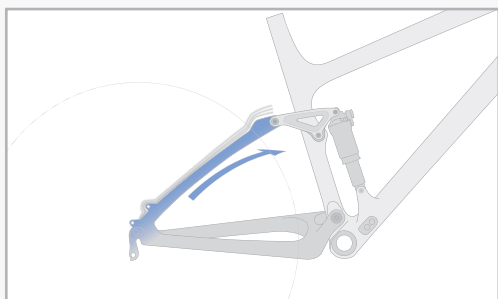
Master Parts List.....	24
------------------------	----

CONTACT INFORMATION

Contact	25
---------------	----

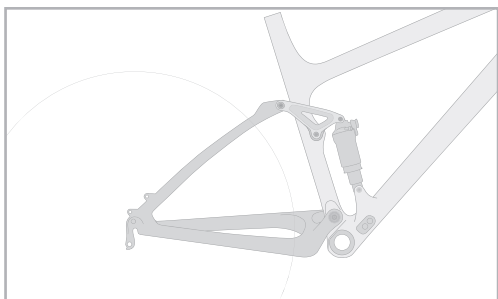
» FAST EXPLAINED

FAST, or Felt Active Stay Technology, is a linkage-driven, single pivot system with flexible carbon stays. By replacing the pivot near the dropout with flexible carbon stays a lighter, stiffer, and overall snappier frame can be made.



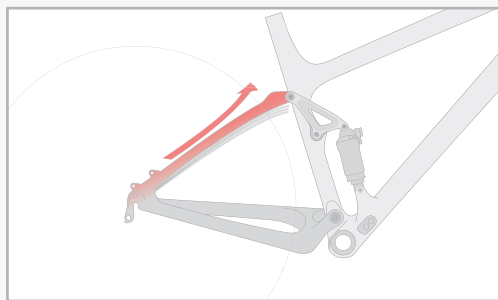
COMPRESSED

0% Travel (Top-Out): In order for the suspension to reach full extension, the rear triangle is required to compress.



NEUTRAL

30% Travel (Sag): At the sag point (approximately 30%), the rear triangle is neutral.



EXTENDED

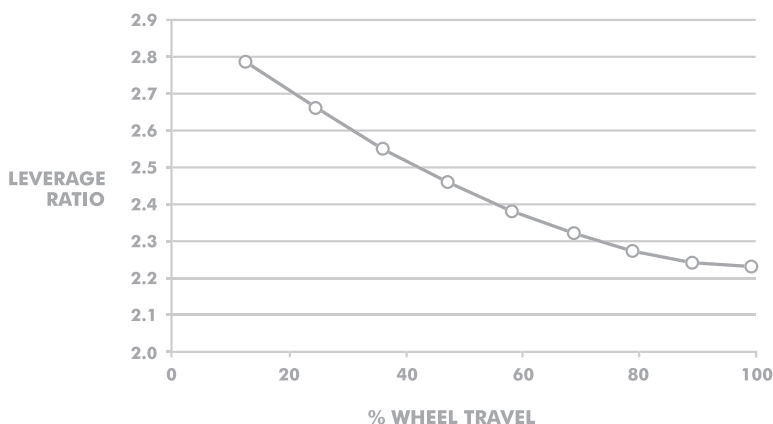
100% (Bottom-Out): As the suspension gets deeper in the travel, the rear triangle is required to extend.

» FAST EXPLAINED CONT.

Efficient Pedaling: In order to provide efficient pedaling, FAST relies on both ideal anti-squat values as well as the flexible carbon stays. As the suspension moves away from the sag point in either direction, a force is created from either compressing or extending the stays. This force acts on the shock and helps return it back to sag. This provides a stable, responsive platform for pedaling.

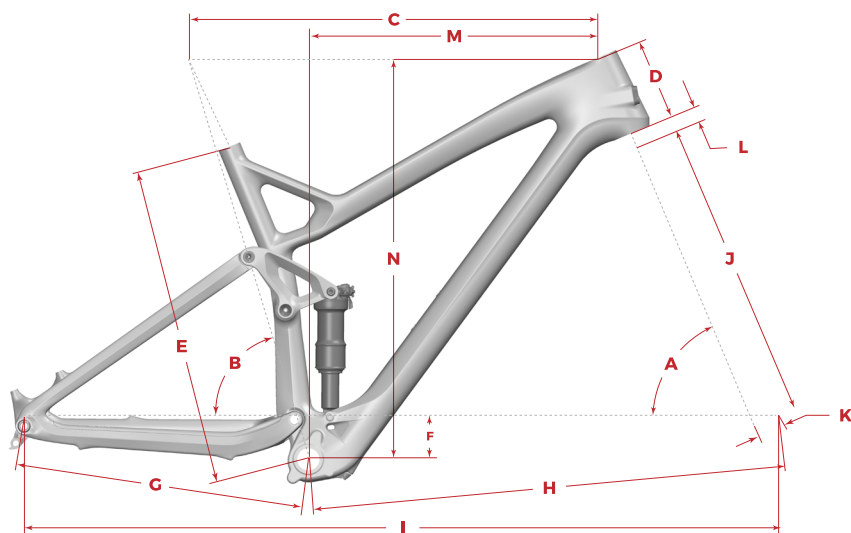
Large Impacts: Support for large impacts is provided in two ways: decreasing leverage ratio and carbon flex. The leverage ratio is decreasing which makes it progressively harder to compress the suspension as it moves through the travel. The carbon stays add to this by contributing an additional spring force as they are extended through the travel.

LEVERAGE RATIO



Small-Bump Sensitivity: With the pedaling performance and large impact support handled by the linkage design and flexible carbon stays, the shock can be run with minimal compression damping. This frees the shock up to remain active and absorb the smallest of bumps.

» GEOMETRY



	S (16")	M (18")	L (20")	XL (22")	Size
A	67	67	67	67	Head Tube Angle
B	73.2	73.2	73.2	73.2	Seat Tube Angle
C	565	595	625	655	Top Tube Horizontal
D	90	105	125	145	Head Tube
E	395	430	485	540	Seat Tube
F	12	12	12	12	BB Drop
G	428	428	428	428	Chainstay
H	676	708	740	772	Front Center
I	1104	1136	1168	1200	Wheelbase
J	529	529	529	529	Fork Length
K	42	42	42	42	Rake
L	12	12	12	12	Lower HS Stack
M	391	417	441	465	Reach
N	576	590	609	627	Stack

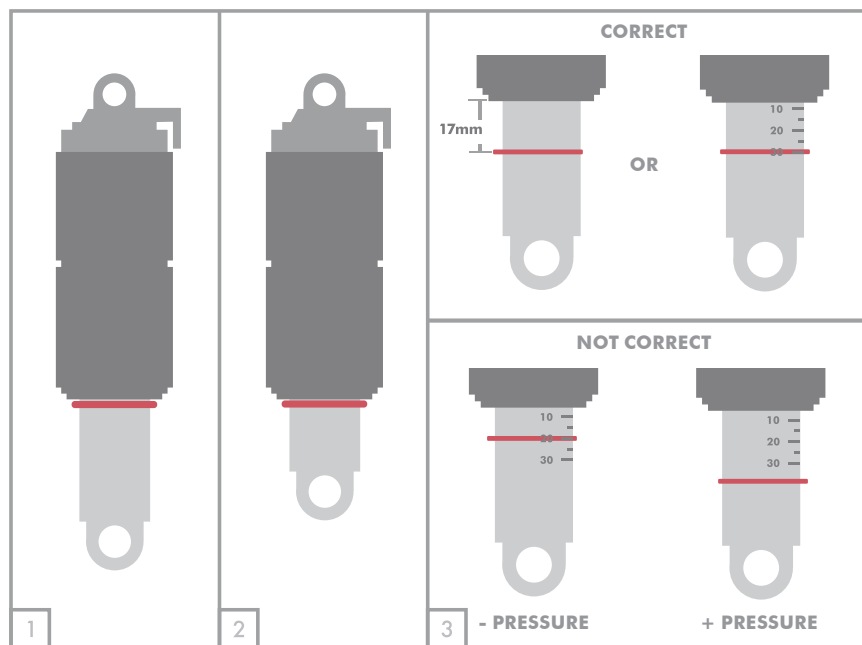
***Geometry chart reflects low/slack flip chip position**

» SHOCK SETUP

It is very important to have the correct amount of sag so that the suspension can be in the part of its travel that is most efficient and compliant. Felt recommends starting at 30% and adding/subtracting up to 5-10% to fine tune to your personal preference.

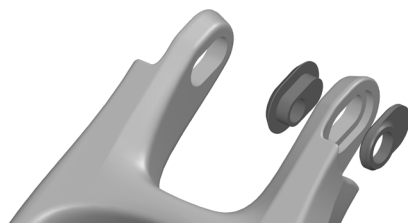
To measure sag, follow these 4 steps:

1. Push the o-ring to the top of the shock shaft.
2. Sit on the bike with the seat at full ride height to compress the shock. Bounce a few times, then push the o-ring back to the top of the shaft.
3. Gently get off the bike, taking care not to change the position of the o-ring. On some shock models, the sag gradients will be printed on the shaft. In this case, simply read your sag percentage as it is printed on the shock shaft. If there are no sag gradients, measure the distance of the o-ring from the top of the shaft. To achieve 30% sag, the o-ring should be 17mm from the top of the shaft. If there is too much sag ($>30\%$) add air pressure, if there is not enough sag ($<30\%$), reduce air pressure.
4. Repeat process until desired sag is achieved.



» FLIP CHIPS

The geometry can be adjusted by rotating eccentric chips located in the seat stay pivot. By changing the orientation of these chips, the bottom bracket height will be raised or lowered by 10mm and the head angle will be slackened or steepened by 1 degree.



BOTTOM BRACKET
+/- 10MM

HEAD ANGLE
+/- 1 DEG.



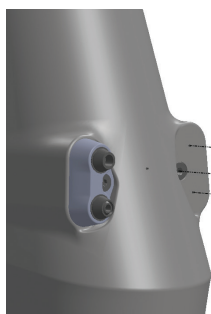
LOW & SLACK



HIGH & STEEP

» HEAD TUBE CABLE GUIDES

The head tube cable guides contain rubber reducers for all cable sizes that are interchangeable and can be arranged to fit each rider's setup and personal preferences.



Brake (5mm)



Blank Plug



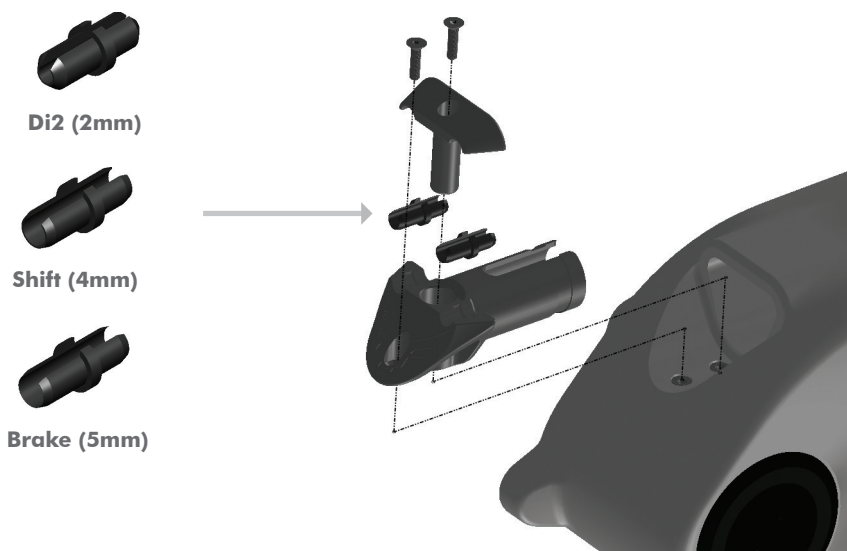
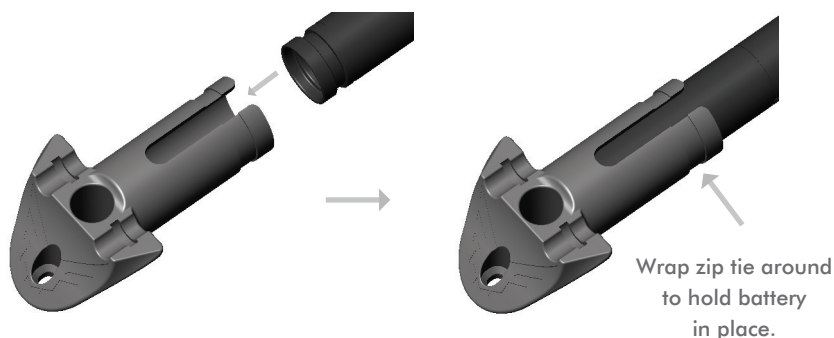
Di2 (2mm)



Shift (4mm)

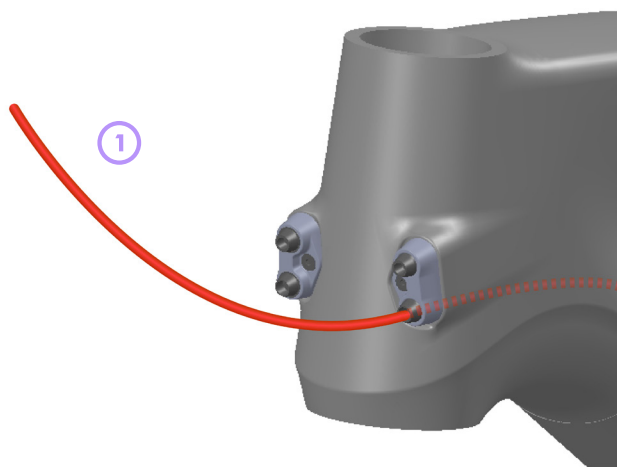
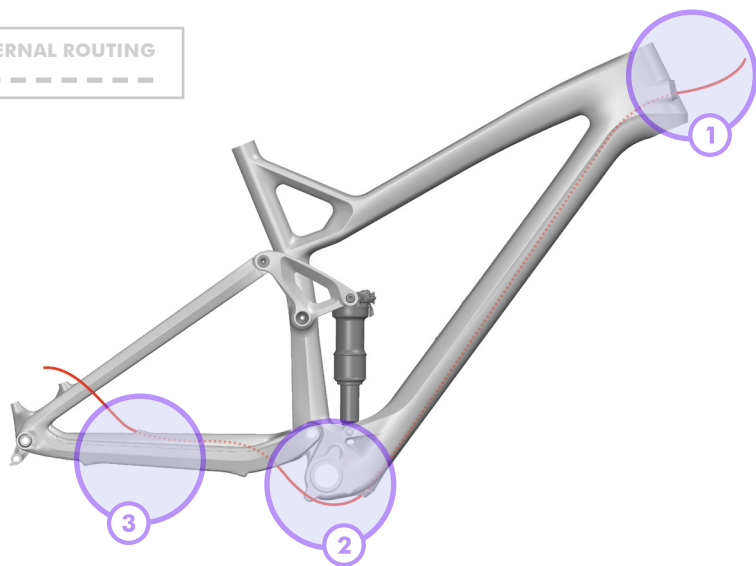
» **BOTTOM BRACKET CABLE GUIDES**

The bottom bracket cable guide can be adapted to different configurations with rubber reducers for different sizes of cables. It can also be used as a battery holder.

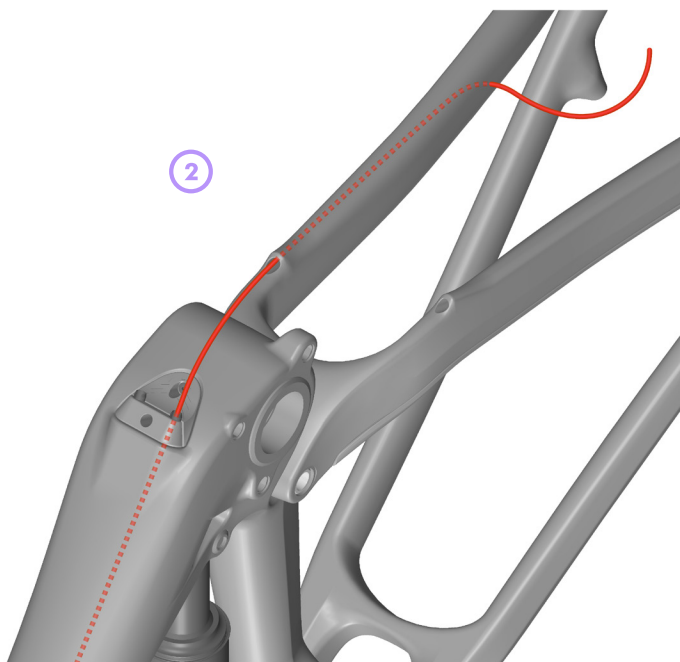
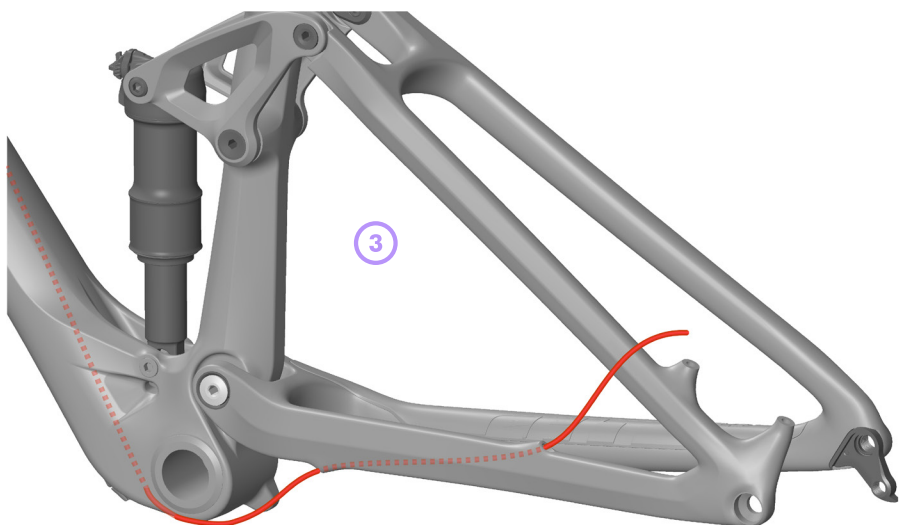


» ROUTING REAR BRAKE

INTERNAL ROUTING

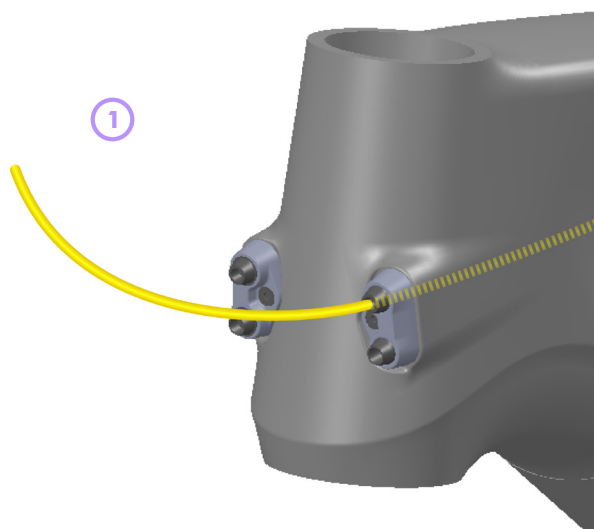
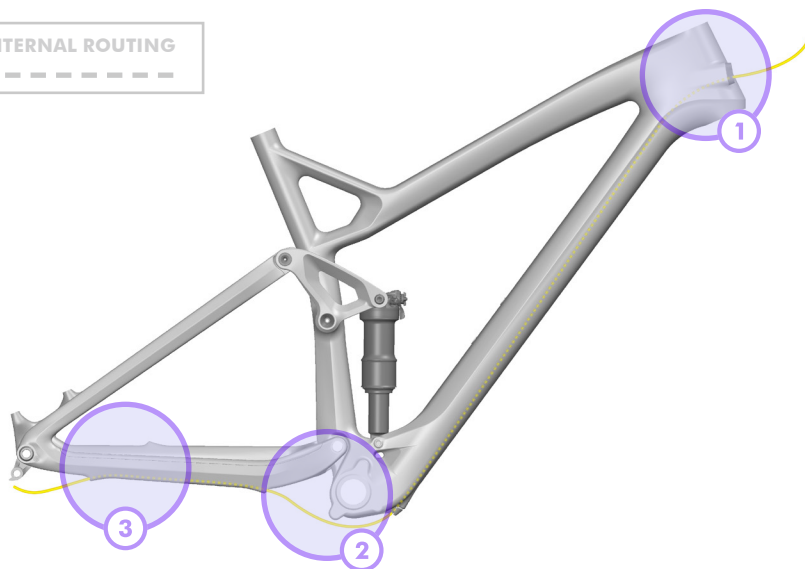


» ROUTING REAR BRAKE CONT.

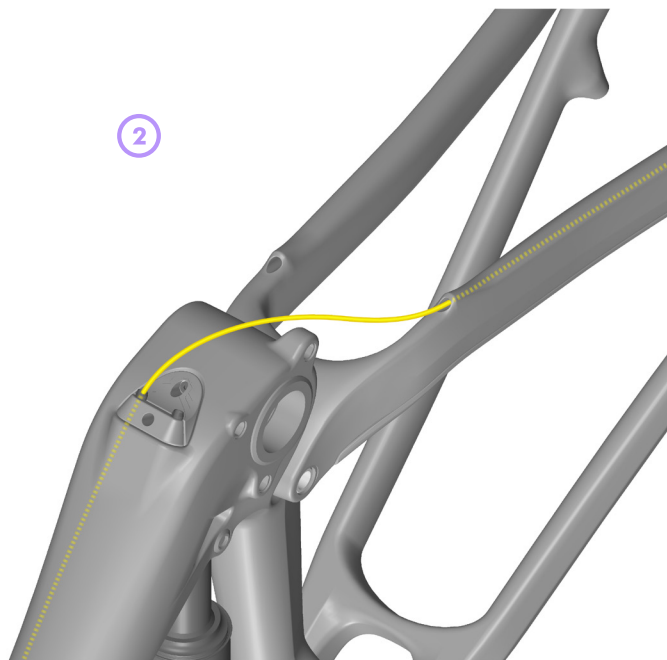
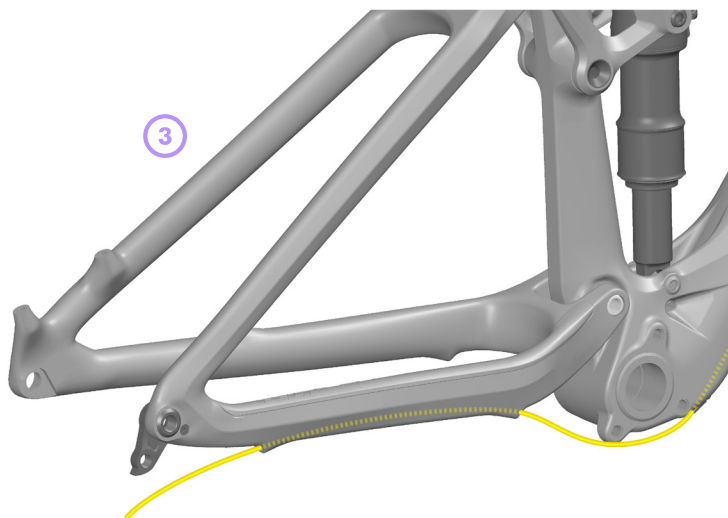


» ROUTING REAR SHIFTER

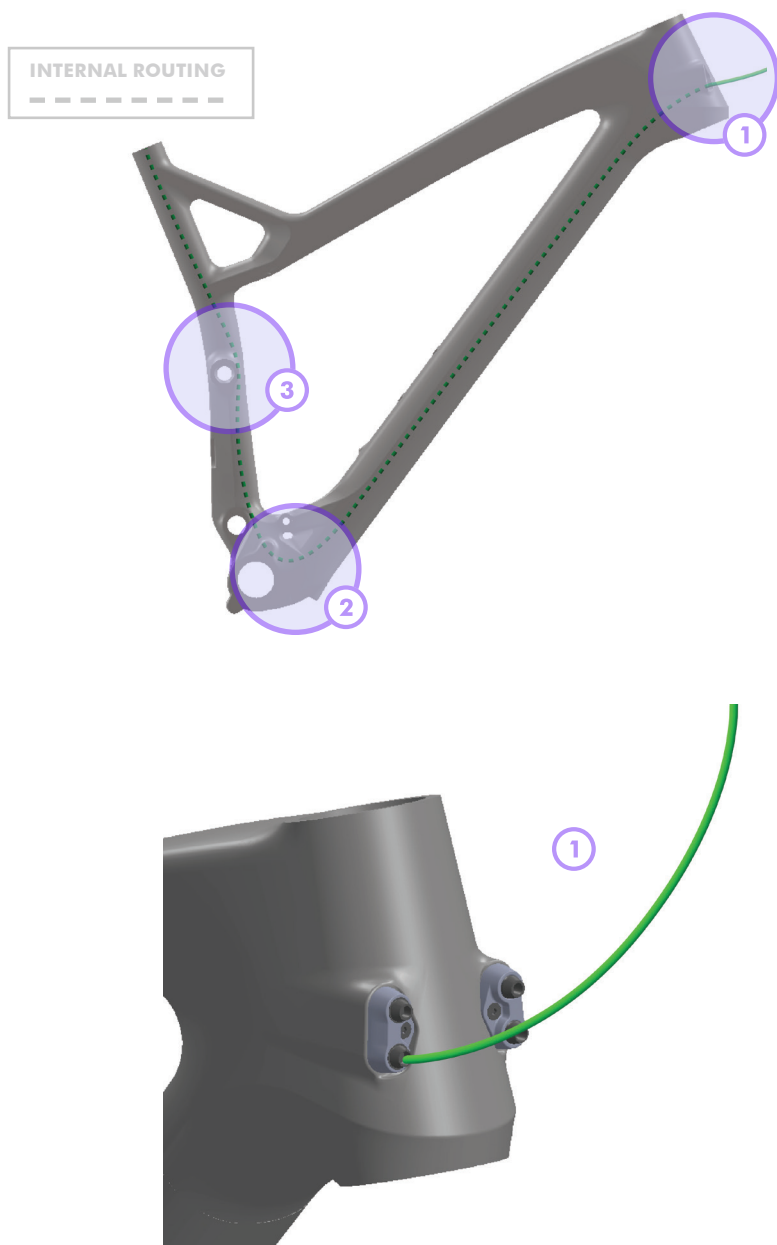
INTERNAL ROUTING



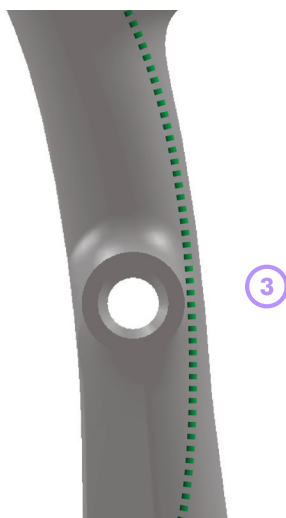
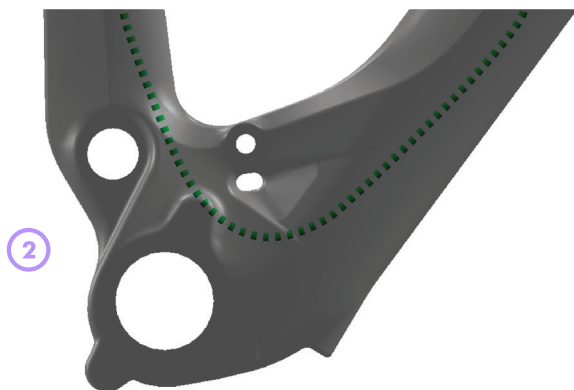
» ROUTING REAR SHIFTER CONT.



» ROUTING DROPPER POST



» ROUTING DROPPER POST CONT.

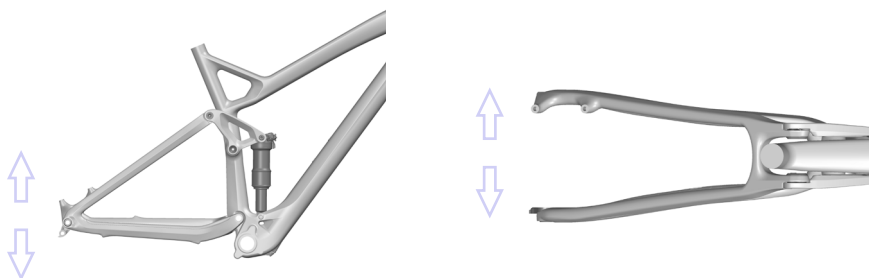


» EVALUATION

In order to achieve optimum suspension performance, Felt recommends performing a simple pivot checking procedure after every 100 hours of riding or annually, whichever comes first. If any issues are discovered, please refer to the bearing removal/installation section or take your bike to the nearest Felt dealer.

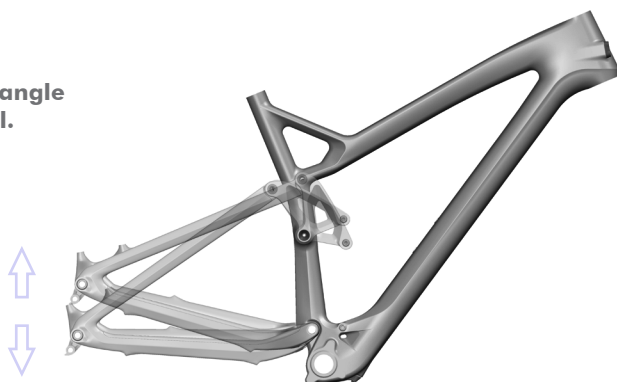
Pivot Checking Procedure

1. Check torque on all pivot bolts. If bolts are loose, remove, clean and apply Loctite 242, then tighten to correct torque (see technical section for torque values).
2. With the shock installed, apply pressure vertically and horizontally to feel for any play in the pivots. If play is discovered, please refer to the technical section for more information and instructions for bearing removal/installation.



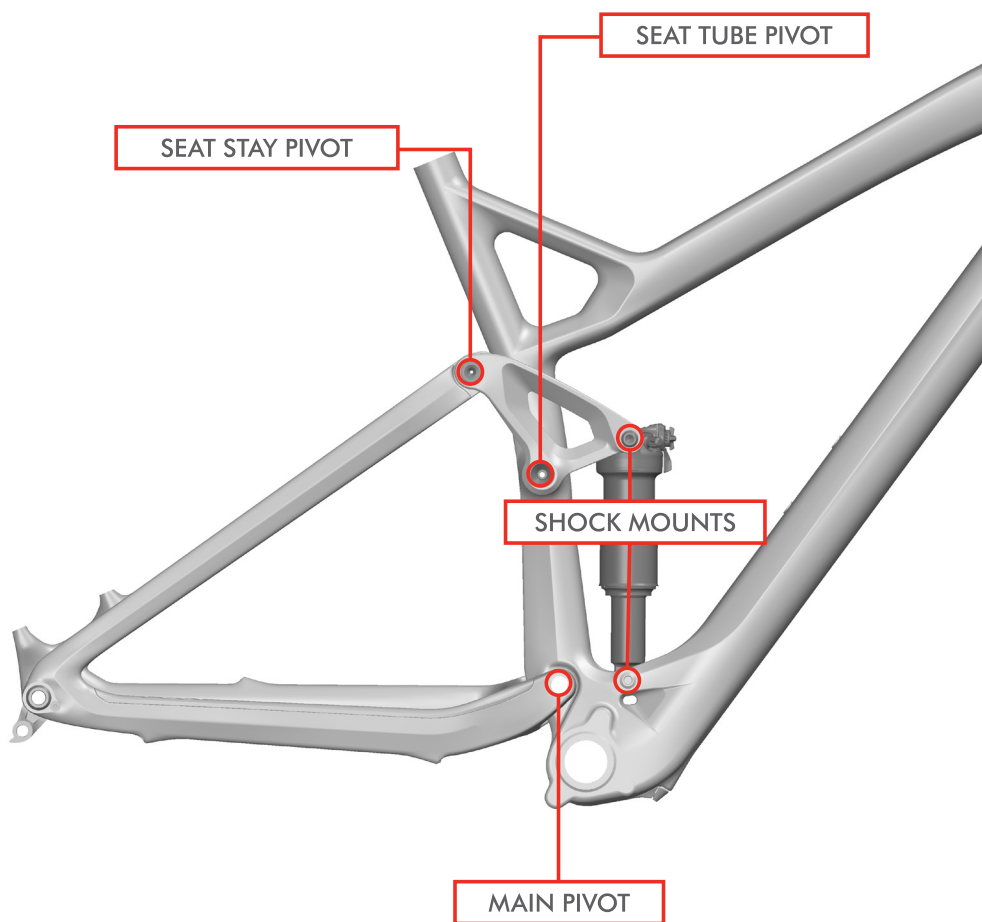
3. With the shock removed, move the suspension through its travel. There should be little to no resistance. If there is any resistance, please refer to the technical section for more information and instructions for bearing removal/installation.

Move Rear Triangle through travel.



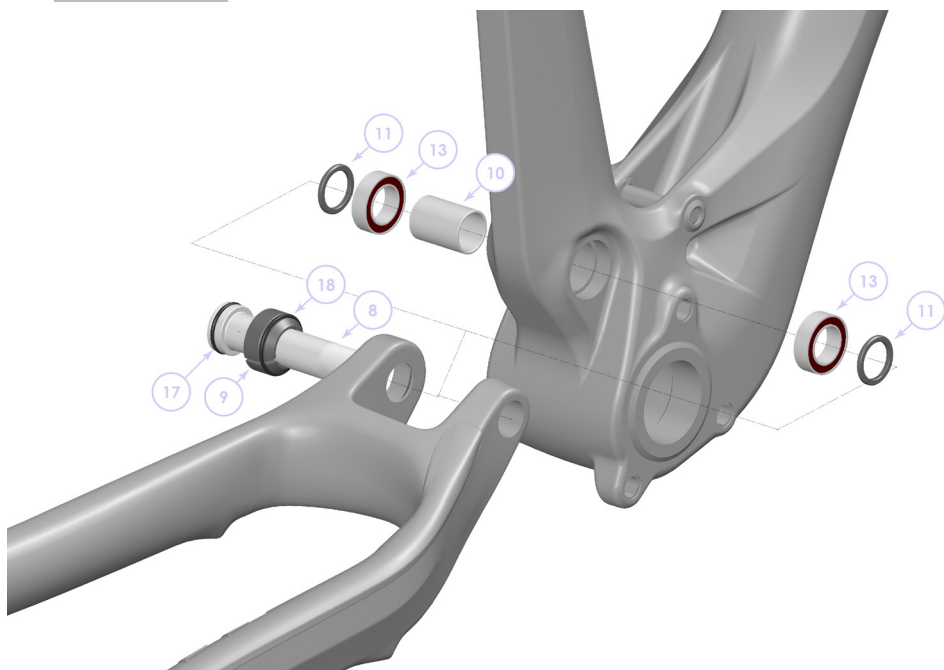
» PIVOT LOCATION

Seat Stay Pivot	12N-m
Seat Tube Pivot	12N-m
Main Pivot	12N-m
Shock Mounts	10N-m



» MAIN PIVOT

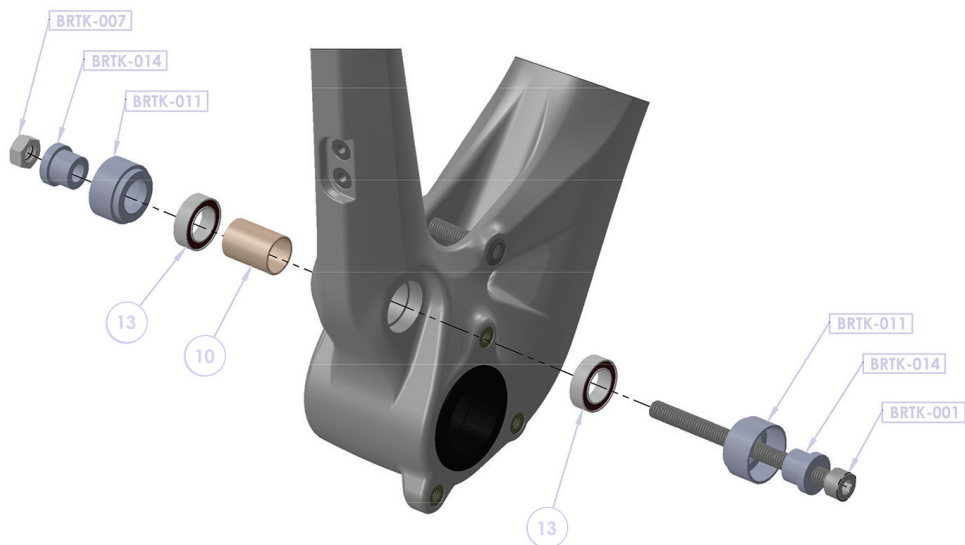
EXPLODED



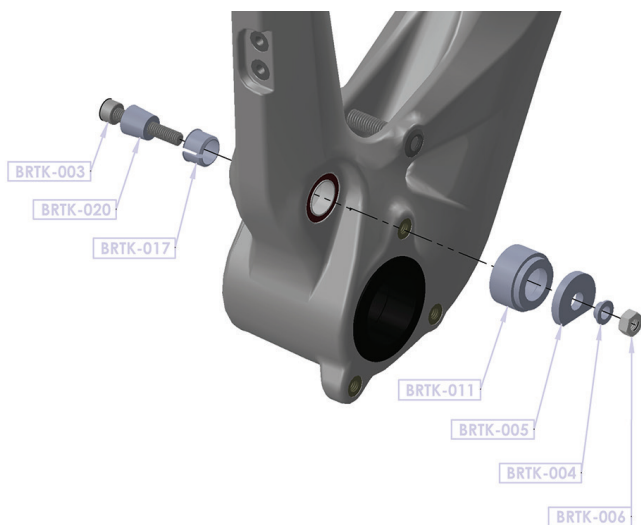
item no.	description	qty.
8	Collet Bolt - 64mm	1
9	Collet Cone	1
10	Main Pivot Spacer (25mm Long)	1
11	2mm Spacer	2
13	3802 15x24x7 Bearing	2
17	O-Ring - 18 x 1.5mm	1
18	O-Ring - 22 x 1.5mm	1

» MAIN PIVOT CONT.

INSTALLATION

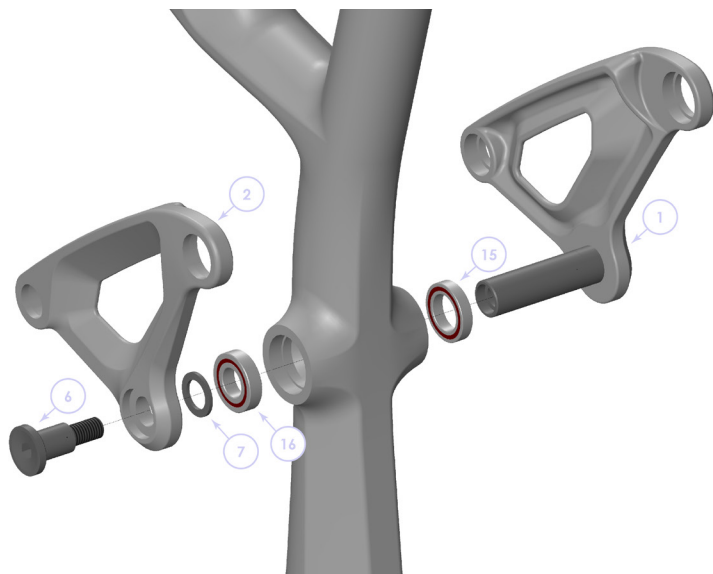


REMOVAL



» SEAT TUBE PIVOT

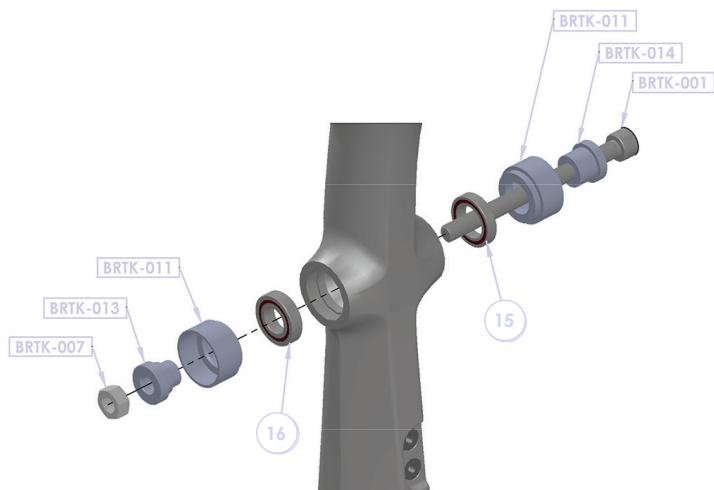
EXPLODED



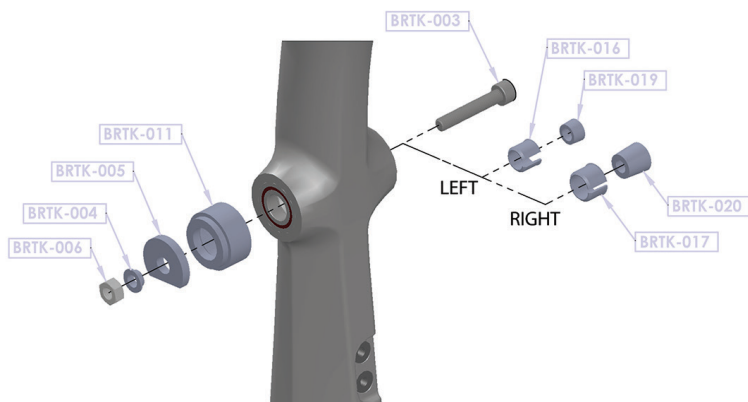
item no.	description	qty.
1	Decree Shock Link - Right	1
2	Decree Shock Link - Left	1
6	Seat Tube Pivot Bolt	1
7	Seat Tube Pivot Spacer	1
15	6802 15x24x5 Bearing	1
16	6901 12x24x6 Bearing	1

» SEAT TUBE PIVOT ^{CONT.}

INSTALLATION

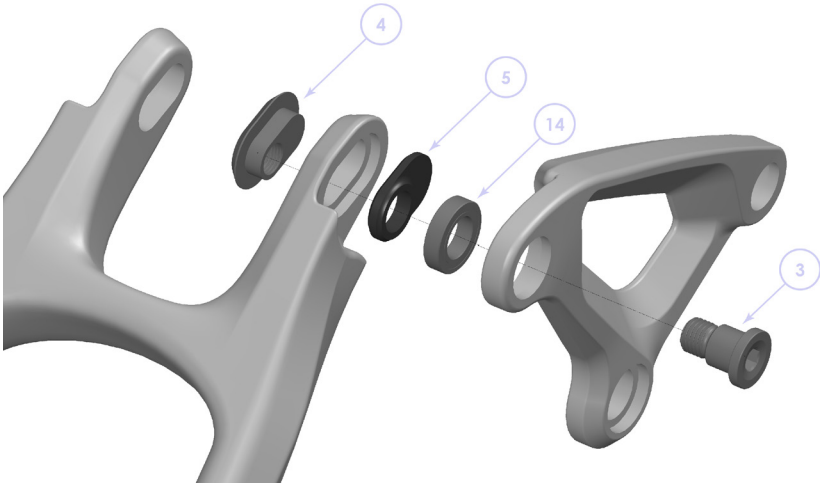


REMOVAL



» SEAT STAY PIVOT

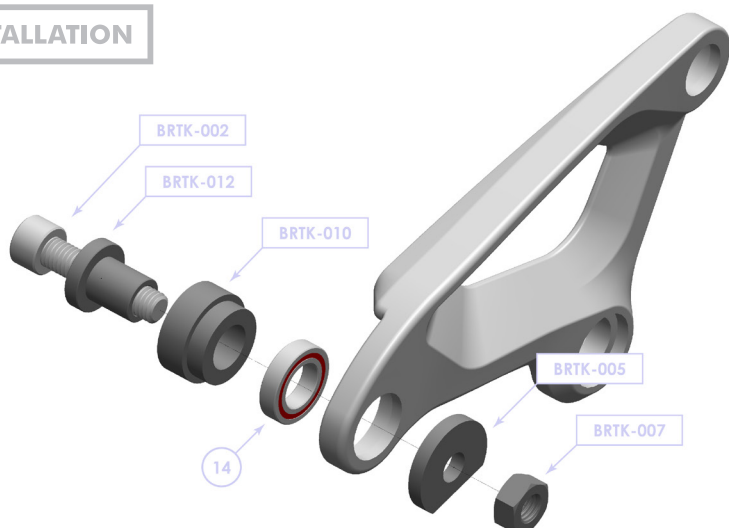
EXPLODED



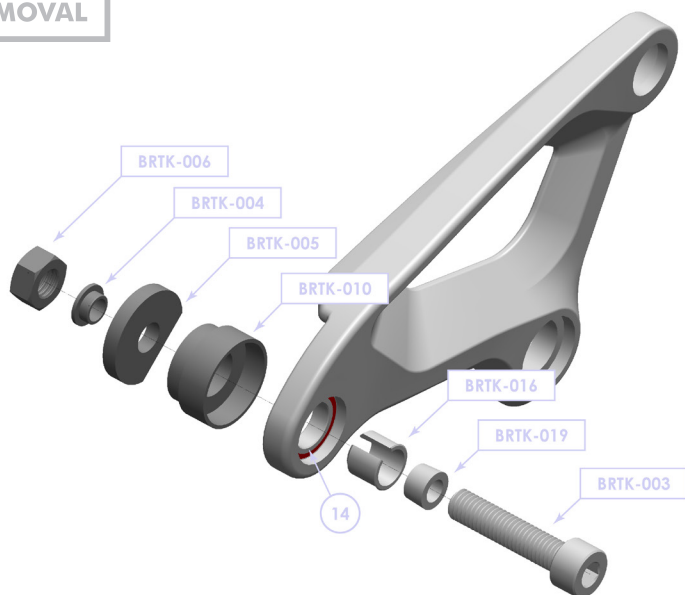
item no.	description	qty.
3	SS Yoke Screw (R2) 18.5mm	2
4	Decree Flip Chip Inside V2	2
5	Decree Flip Chip Outside V2	2
14	6801 12x21x5 Bearing	2

» SEAT STAY PIVOT CONT.

INSTALLATION

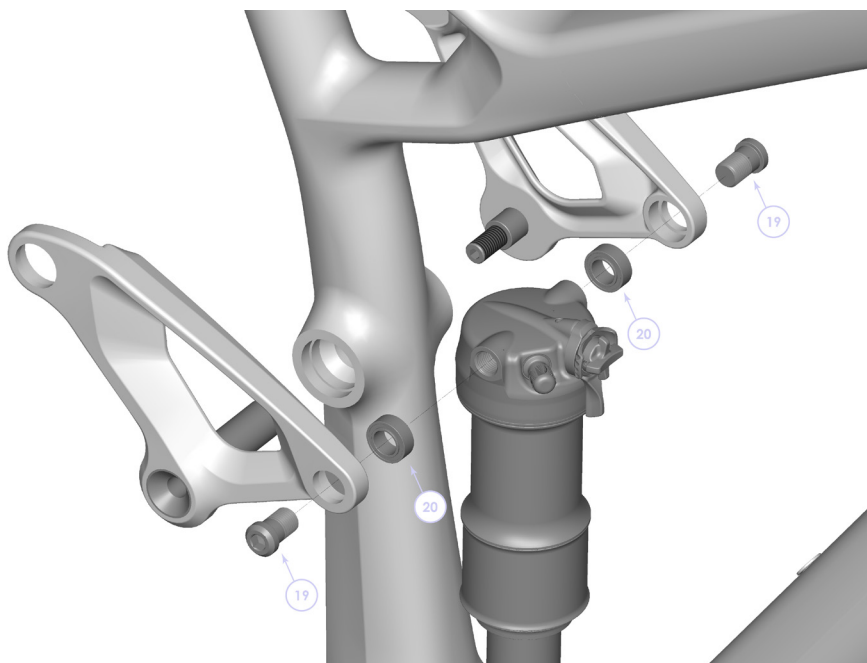


REMOVAL



» SHOCK MOUNT PIVOT

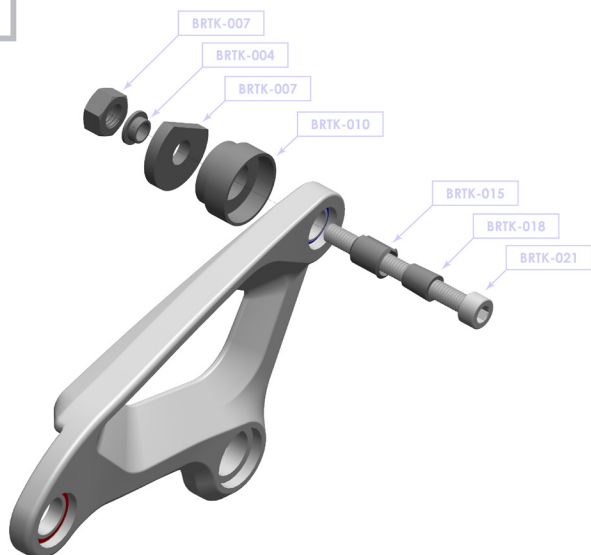
EXPLODED



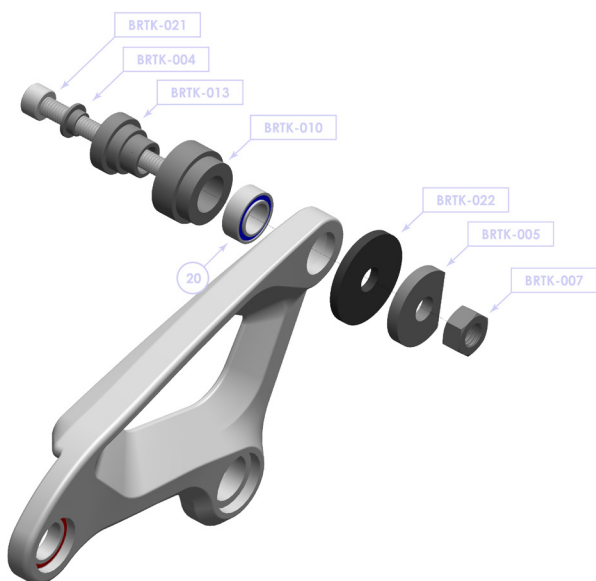
item no.	description	qty.
19	Trunnion Mounted Screw	2
20	1017 10x17x7 Bearing	2

» SHOCK MOUNT PIVOT CONT.

INSTALLATION



REMOVAL



MASTER PARTS LIST: DECREE

item no.	description	qty.
1	Decree Shock Link - Right	1
2	Decree Shock Link - Left	1
3	SS Yoke Screw (R2) 18.5mm	2
4	Decree Flip Chip Inside V2	2
5	Decree Flip Chip Outside V2	2
6	Seat Tube Pivot Bolt	1
7	Seat Tube Pivot Spacer - Left	1
8	Collet Bolt - 64mm	1
9	Collet Cone	1
10	Main Pivot Spacer (25mm Long)	1
11	2mm Spacer	2
13	3802 15x24x7 Bearing	2
14	6801 12x21x5 Bearing	2
15	6802 15x24x5 Bearing	1
16	6901 12x24x6 Bearing	1
17	O-Ring - 18mm x 1.5mm	3
18	O-Ring - 22mm x 1.5mm	1
19	Trunnion Mount Screw	2
20	1017 10x17x7 Bearing	2

****Felt offers a bearing rebuild kit as well as a complete hardware rebuild kit.**

There is also a tool kit for proper removal and installation of the bearings.

The contents of each are displayed below. Individual parts may also be ordered. Contact your local dealer for more information.

» **CONTACT INFORMATION**

Felt Racing, LLC
30452 Esperanza
Rancho Santa Margarita, CA 92688
United States

WWW.FELTBICYCLES.COM