



SUSPENSION FRAME SERVICE - BLACKTHORN / CASSIDY CONVERSIONS

At Salsa, we believe that a sense of adventure makes life better. The bicycle can be so much more than just a bike; it's a path to new places, new people, and amazing experiences.

Thank you for your purchase. We hope it makes a good riding experience even better!

Salsa. Adventure by bike.®

▲ WARNING: Cycling can be dangerous. Bicycle products should be installed and serviced by a professional mechanic. Never modify your bicycle or accessories. Read and follow all product instructions and warnings including information on the manufacturer's website. Inspect your bicycle before every ride. Always wear a helmet.

Compatibility & Intended Use

This is a guide for converting a Salsa Cassidy to a Salsa Blackthorn, or a Blackthorn to a Cassidy. Both models were designed using Salsa's Split Pivot+ design methodology, which allows for one chassis to be configured to other distinct bike models by swapping in a specific link set, rear shock, and fork.

▲ WARNING: Only use paired control and shock link sets. Never mix control link and shock links. Doing so will void the warranty and may result in damage or failure of the frame and possible serious injury.

Required Items

To convert a Blackthorn to a Cassidy:

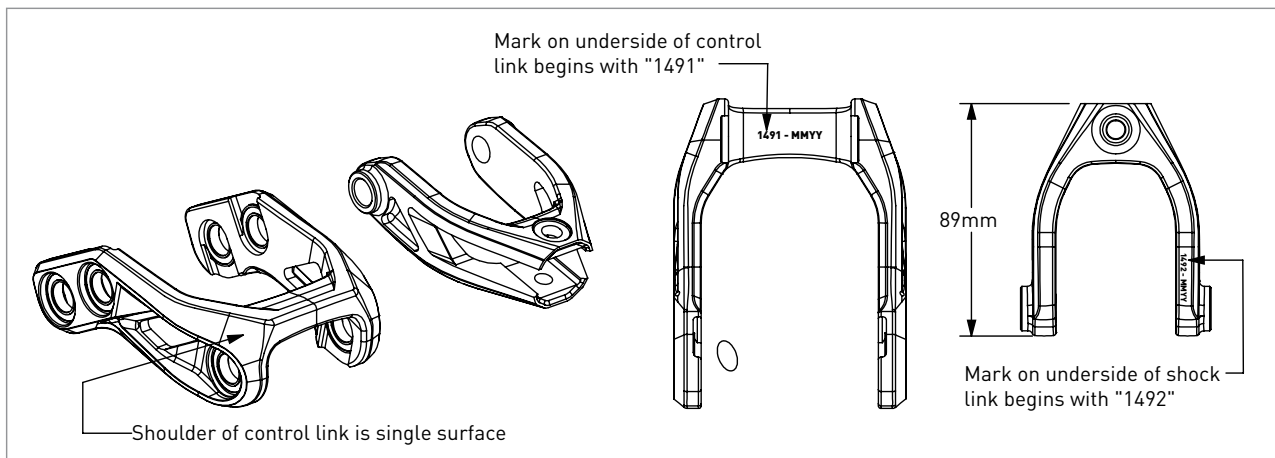
- A 2604 Cassidy Link Set
- A 230 x 62.5 mm Rear Shock*
- A 170–180 mm Suspension fork* †

To convert a Cassidy to a Blackthorn

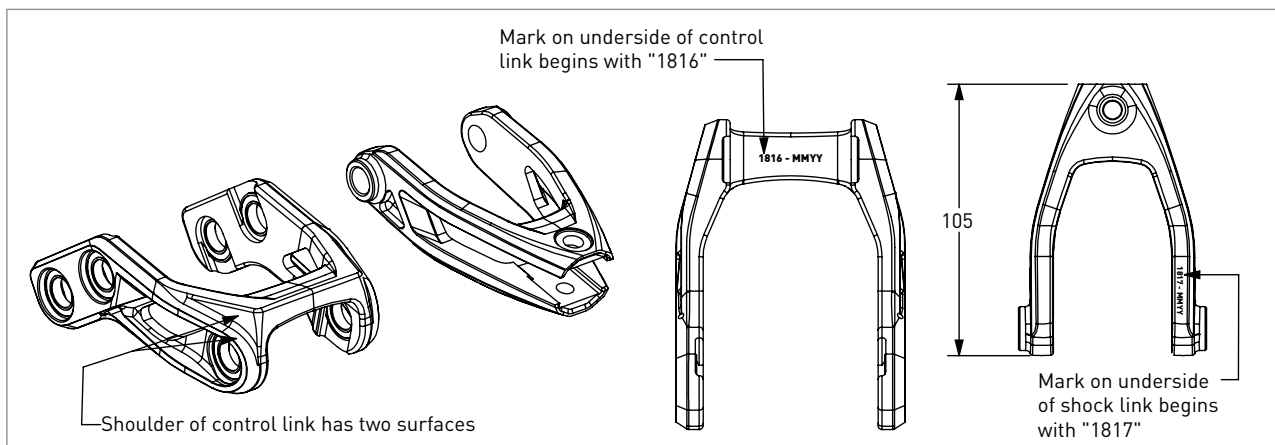
- A 2605 Blackthorn Link Set
- A 210 x 52.5 mm rear shock*
- A 140–160 mm suspension fork* †

* Refer to tables and notes below for further specifications

† Depending on your fork, you may be able to adjust it to the proper axle-to-crown length to complement your desired rear travel (see "Specifications for Compatible Forks" table below), rather than replacing the fork. Please consult your fork manufacturer to determine whether or not your fork has this capability and to obtain the necessary parts and service for travel adjustment.



2604 Cassidy Link Set



2605 Blackthorn Link Set



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Specifications for Compatible Front Suspension Forks

Model	Wheel Size	Target Fork Travel (Axle-to-Crown)	Recommended Travel Range	Max Allowable Axle-to-Crown	Target Offset	Recommended Offset Range	Lower Headset Spec (Steerer spec)	OEM Hub Size	OEM Front Rotor Size
Cassidy	29 / 27.5+	180 mm (589 mm)	160-180 mm	596 mm	43 mm	37-51 mm	ZS56 40 (1.5" tapered)	Ø15 x 110 mm	200 mm
Blackthorn		160 mm (569 mm)	140-160 mm						

⚠ WARNING:

Failure to meet the following criteria voids the frame warranty and can result in catastrophic damage to the frame, causing injury to the rider.

- Do NOT exceed maximum allowable axle-to-crown
- Verify that there is no contact between the frame and the fork crown, control knobs, and front tire (at full compression) throughout the entire steering range

* Follow fork manufacturer's instructions for volume spacer configuration and settings for chosen travel

Note: Some forks may have a different front brake mount size than the OEM mounting hardware and rotor

Model	Link Set	Shock Eye-2-Eye	Stroke	Max Allowable Stroke	Front Reducing Hardware	Rear Reducing Hardware	Minimum Compression Ratio	Verified Shock Tunes	
Cassidy	2604 (1491 + 1492)	230 mm	62.5 mm	62.5 mm	Ø8 x 30 mm	NONE / NO BUSHING (Ø15 x 12.7 mm BARE EYELET)	3.0	RockShox SDLX	ML1 320 3.5T
								Fox Float X2	D7JG
								Other	see note**
Blackthorn	2605 (1816 + 1817)	210 mm	52.5 mm	55.0 mm*	Ø8 x 30 mm	NONE / NO BUSHING (Ø15 x 12.7 mm BARE EYELET)	3.0	RockShox SDLX	ML1 320 3.5T
								Fox DPX2	D4JQ
								Other	see note**

Specifications for Compatible Rear Shocks

⚠ WARNING:

Failure to meet the following criteria voids the frame warranty and can result in catastrophic damage to the frame, causing injury to the rider.

- Use only metric shocks with eye-to-eye values listed above. Do not use imperial shock sizes.
- Do not exceed maximum allowable shock stroke listed above
- Never pair a different shock size or stroke to the link set(s) specified above
- Do not use a shock with compression ratios lower than specified above (frequent and harsh bottom-outs can occur)
- Do not use a coil spring shock with either of the Cassidy or Blackthorn link sets (frequent and harsh bottom-outs can occur)
- User must check for adequate clearance through all points of travel in both high and low settings Adequate clearance is 3 mm or greater to the frame and all points on the shock (other what is directly mounted to the frame or link), and 5 mm or more between the seatstay bridge and back of seat tube

* The Blackthorn link set can also be run with a 210 x 55 mm shock to increase the rear travel from 140 mm to 146 mm

** For best suspension performance, Salsa recommends "light" compression tunes and "medium" rebound tunes. This may vary by shock make and model. Compression ratio does not vary, and generally must be 3.0 or greater for most shocks and riders. We recommend checking with both the shock manufacturer and Salsa customer support before ordering any non-OEM rear shock.



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Tools, Supplies, & Additional Instructions

Consult the following instruction sets for tools, supplies, and specifications required for conversion parts not covered in this document:

- Shock Mount Hardware Instructions
- Flip Chip 2.0 Hardware Instructions
- Control Link Pin Hardware Instructions
- Control Link Bolt Hardware Instructions
- Suspension Setup Guide
- Instructions provided with the stem installed on the bike
- Instructions provided with the headset installed on the bike
- Instructions provided with the front brake installed on the bike
- Instructions provided with the suspension fork that will be installed
- Instructions provided with the rear shock that will be installed

We highly recommend this conversion only be performed by a professional bicycle mechanic familiar with the components referenced in the list of instructions above.

General Conversion Procedure (Either Model)

- Procure the necessary link set, rear shock, and fork for the desired conversion as previously described in this document
- Secure the bike in a repair stand and remove the front wheel
- Remove the fork from the frame (this requires partial disassembly of front brake caliper, brake hose, top cap, and stem) and set it aside
- Cut steerer of new fork, following fork manufacturer's instructions, to match existing fork's steerer length, install star nut and new crown race that matches headset spec
- Install new fork, re-assembling brake caliper, brake hose, stem, and top cap to manufacturer's recommendations, then adjust headset preload and torque stem to manufacturer's recommendation
- Review Flip Chip 2.0 Hardware and Shock Mount Hardware Instructions to remove existing rear shock and set it aside
- Review Control Link Bolt Hardware and Control Link Pin Hardware Instructions to remove existing control link
- Install the new link set, referencing specifications in Control Link Bolt Hardware and Control Link Pin Hardware Instructions, and minding orientation shown
- Install the new rear shock, referencing specifications in Flip Chip 2.0 Hardware and Shock Mount Hardware Instructions
- Set up suspension with the rider per the Suspension Setup Guide instructions, then record shock and fork pressure settings at proper sag

Warranty

Salsa Cycles warrants this new Salsa product against defects in materials and workmanship for two (2) years from the original date of retail purchase by the consumer. This limited warranty is expressly limited to the repair or replacement of the original product, at the option of Salsa Cycles, and is the sole remedy of the warranty. This limited warranty applies only to the original purchaser of the Salsa product and is not transferable. In no event shall Salsa Cycles be liable for any loss, inconvenience or damage, whether direct, incidental or consequential or otherwise resulting from breach of any express or implied warranty or condition, of merchantability, fitness for a particular purpose, or otherwise with respect to this product except as set forth herein.

This warranty does not cover the following:

- Damage due to improper assembly or follow-up maintenance or lack of skill, competence or experience of the end user
- Products that have been modified, neglected, used in competition or for commercial purposes, misused or abused, involved in accidents or anything other than normal use
- Damage or deterioration to the surface finish, aesthetics or appearance of the product
- Normal wear and tear
- Labor required to remove and/or refit and re-adjust the product within the bicycle assembly

To the extent not prohibited by law, these warranties are exclusive and there are no other express or implied warranties or conditions including warranties or conditions of merchantability and fitness for a particular purpose.

Proof of purchase is required before a warranty claim is processed. Salsa Cycles therefore strongly encourages warranty registration at salsacycles.com. Failure to register will not affect consumer rights under the limited warranty stated above, so long as the consumer can show in a reasonable manner proof of original ownership and the date the Salsa Cycles product was purchased.

If you have any questions contact warranty@salsacycles.com or visit www.salsacycles.com/support for more warranty information.

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