



TRAVEL CONVERSION BLACKTHORN 2.0 & MORAINÉ 1.0

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 adjusting the rear suspension travel amount on Blackthorn 2.0 or Moraine 1.0 frames. These bikes are designed with Salsa's Split Pivot+ design methodology, which allows riders to increase or decrease rear suspension travel by changing the rear shock size, stroke, and in some cases, the shock link.

⚠ 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.

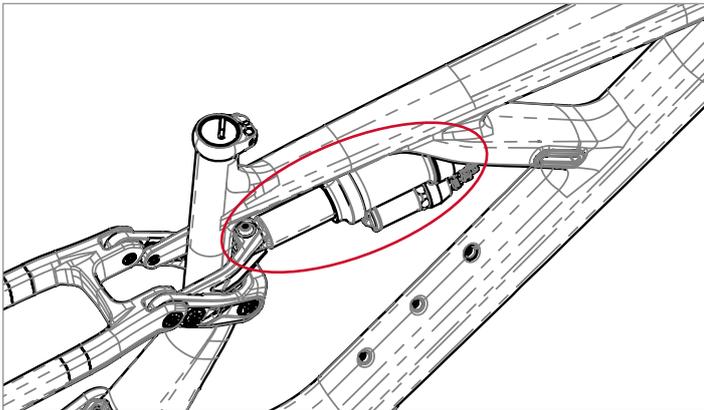


Figure 1

Required Items for Travel Adjustment

To convert a Blackthorn 2.0 "145" or Moraine 1.0 "145" (long travel) to "125" (short travel) mode, you will need:

- a 3046 shock link
- a 190mm eye-to-eye rear shock*
- a 130–140mm suspension fork* †

To convert a Blackthorn 2.0 "125" or Moraine 1.0 "125" (short travel) to "145" (long travel) mode, you will need:

- a 3056 shock link
- a 210mm eye-to-eye rear shock*
- a 150–160mm suspension fork* †

To make a slight reduction in rear travel to any Blackthorn 2.0 or Moraine 1.0, you will need:

- Rear shock travel reduction spacer(s)*
- Fork travel reduction spacer(s)*

*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 Table 3 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.

Tools, Supplies, & Additional Instructions

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

- Salsa 1557 Flip Chip Hardware Instructions
- Salsa 4020 Collet Pin Instructions
- Salsa Gen 4 Shock Link Bolt Type 1 Instructions
- Salsa 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.

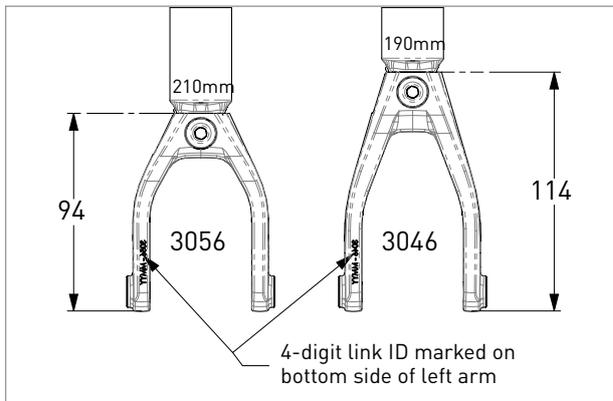


Figure 2 - Shock Links

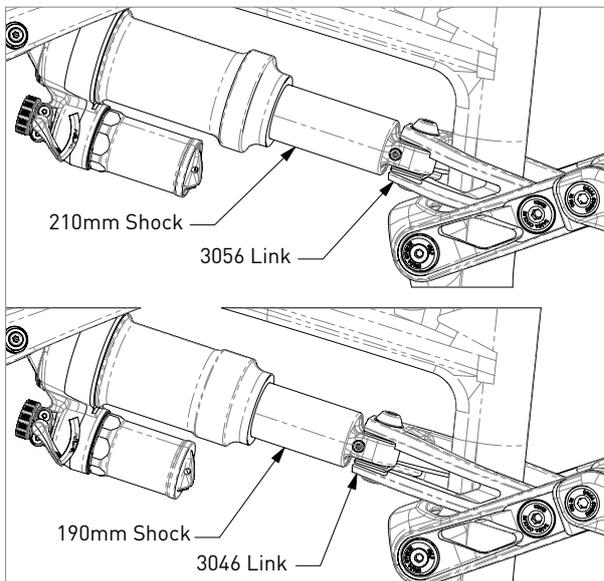


Figure 3 - Shock and Shock Link Configurations



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Rear Shock Specifications

▲ **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 of the size(s) and stroke(s) listed above. Do not use imperial shock sizes or any other shock size/stroke.
- Never pair the 3056 shock link with 190mm shock size
- Never pair the 3046 shock link with a 210mm shock size
- Do not use an air shock with compression ratios lower than specified above (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 3mm or greater to the frame and all points on the shock (other than what is directly mounted to the frame or link), and 8mm or more between the tire and back of seat tube

*For best suspension performance, Salsa recommends “light” compression tunes and “light digressive” or “linear” rebound tunes. This may vary by shock make and model. Compression ratio does not vary, and generally must be 2.7 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.

Fork Specifications

▲ **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
- Use only eMTB-rated suspension forks on Moraine.
- * 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 Variant	Use Shock Link #	With Rear Shock Size (mm e2e)	At a Shock Stroke of (mm)	For Rear Wheel Travel of (mm)	Pair with a Front Fork Travel of (mm)
Blackthorn/Moraine long travel (“145”)	3056	210	55.0	146	160
			52.5	140	150
			50.0	134	
			47.5	128	140
Blackthorn/Moraine short travel (“125”)	3046	190	45.0	122	
			42.5	116	130
			40.0	110	

Table 1 - Shock Link and Rear Shock Travel Pairings

Shock Size	Stroke	Stroke Reduction Spacer Size	Front Eyelet Type/ Hardware	Rear Eyelet Type/ Hardware	Minimum Compression Ratio
210	55.0	--	Standard Ø10 x 30	Standard No Bushing (Ø15)	2.7
	52.5	2.5			
	50.0	5.0			
	47.5	7.5			
190	45.0	--			
	42.5	2.5			
	40.0	5.0			

Table 2 – Rear Shock Hardware Configuration

General Conversion Procedure

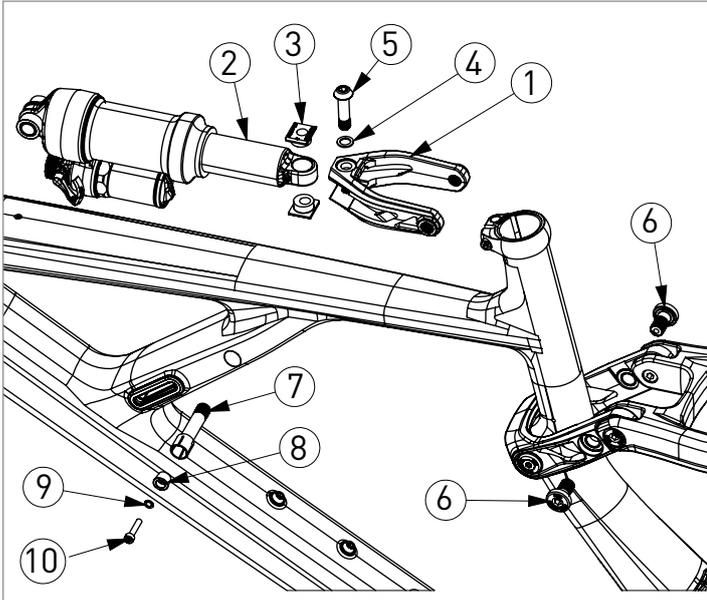


Figure 4 – Conversion Procedure

1. Procure the correct size rear shock and front fork, and shock link model, for the desired amount of travel as previously described in this document. If this is being achieved via servicing existing units, have the service performed
2. Secure the bike in a repair stand
3. If a new fork is being fitted:
 - First remove the existing fork (this requires partial disassembly of front brake caliper, brake hose, top cap, and stem) and set it aside.
 - Cut the steerer tube 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.
4. Install the new or serviced fork, reassembling brake caliper, brake hose, stem, and top cap to manufacturer's recommendations, then adjust headset preload and torque stem to manufacturer's recommendation.
5. If a new rear shock is being fitted:
 - First remove the rear wheel, the links and shock are easier to manipulate without the extra weight of the rear wheel pulling on the linkage.
 - Review 1557 Flip Chip, 4020 Collet Pin, and Gen 4 Shock Link Bolt Type 1 Hardware instructions to remove existing rear shock and link and set them aside.
 - If the new or serviced rear shock is of a 210mm size, preassemble it with the 3056 shock link (1) and 1557 flip chip hardware (2-5). Do NOT tighten to shock fixing bolt (5) yet.
 - If the new or serviced rear shock is of a 190mm size, preassemble it with the 3046 shock (1) link and 1557 flip chip hardware (2-5). Do NOT tighten to shock fixing bolt (5) yet.

- ▲ WARNING:** If a Fox Float X2, RockShox Vivid, or similar shock is being installed, ensure the air fill valve is positioned so that it will not contact the front triangle at bottom out. Rotate the shaft side assembly 180 degrees relative to the body side of the shock if needed to reposition the air fill valve.
6. Install the new rear shock/ rear shock + link assembly into the frame:
 - Attach the rear shock + link assembly to the control link by loosely threading both lower shock link bolts (6), then tighten both bolts to spec as outlined in the Gen 4 Shock Link Bolt Type 1 instructions.
 - Align the forward shock eyelet to the front triangle. Install and torque the 4020 collet pin hardware (7-10) assembly as outlined in the 4020 Collet Pin hardware instructions
 - Lastly, torque flip chip fixing bolt (5) to spec as outlined in the 1557 Flip Chip hardware instructions
 7. Reinstall the rear wheel
 8. 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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SALSA CYCLES

6400 West 105th Street, Bloomington, MN 55438

Tel: 877-668-6223 Fax: 952-983-6210

www.salsacycles.com