Ibis Ripley

Frame Tuning Guide

Ripley Technology

You've just purchased the finest softtail ever built. The Ripley has numerous features which combine to give you an extremely comfortable high performance ride. The Ripley is in a class of its own: the world's only aluminum Softtail. Its 1.25" of rear wheel travel equals that of typical titanium softtails, and at 4.4 lbs. it weighs the same, yet it costs a fraction of that of a titanium softtail.

In order to attain long travel, superior front end torsion and excellent lateral rigidity, the Ripley has a highly evolved and integrated system of components and features. To maximize the performance and pleasure you experience while riding your Ripley, we recommend you familiarize yourself with the frame and its features by reading through this guide, and spending an appropriate amount of time on setup and tuning.

And don't forget to activate your warranty!

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Quick Guide

Impatient are we? Although we recommend you read this manual in its entirety, here is the quick and dirty tuning guide:

Step 1—Set the sag of the shock (the amount of travel you see when you sit on the saddle without moving) to 0.3-0.4 inches. Adjust the sag with a Shimano (TL-UN74S) or Park (BBT-2) BB tool or with either a 19mm or 3/4" socket by turning the preload adjuster (part # 11 pg. 9) at the bottom of the shock. Righty tighty increases spring force/decreases sag.

Step 2—Ride the bike for a few hours to allow the spring (part #8 pg. 9) to set.

Step 3—Check sag occasionally, as the springs will continue to find their groove thang.

Step 4—Lube the shock every 20 hours of riding (or as needed) by pulling up the shock boot and injecting each of the two chamfered holes with SRAM Jonnisnot®. You're finished when you see lube coming out of the non chamfered holes. **DO NOT USE ANY OTHER LUBES**

Step 5—Ride

Key Components

Chainstays

Perhaps the most striking and technologically unique feature of the Ripley is the flat chainstay. This structure is able to provide significant vertical movement and lower levels of stress than round stays. Since our flat stay is only .25" tall, for a given amount of travel the plate has one third the bending stress of a .75" round tube. The result is our stay can provide travel equal to that seen on other softtails, but with far less stress. As with any spring—and our chainstay is essentially a leaf spring—lower stress equals longer life.

The chainstays are designed as a planar truss to increase lateral stiffness. In fact, the Ripley chainstays are significantly stiffer side-to-side than the round chainstays used on other softtails.

The CDE Shock

Due to the Ripley's significantly increased suspension travel, we needed to design a shock absorber appropriate to the application. As a result, the Ripley uses our Critically Damped Elastomer shock, a simple engineering marvel with few moving parts. It is reliable, lightweight, user-friendly, and provides excellent travel with minimal maintenance.

In the first part of its travel, the CDE shock is supple and undamped, which allows it to be very active on small amplitude/high frequency bumps (small bumps). On higher amplitude/low frequency bumps (the big hits) the shock becomes progressively stiffer and the damping kicks in. The purpose of the damper is to absorb bump energy to keep you on the bike and the tire on the ground. Most short travel softtails leave out the damper. But a good damper is critical to performance particularly as travel increases.

We don't recommend the substitution of any other rear shock. The CDE achieves 1" of plush, damped travel in a 3" long shock. Replacement air/oil shocks require nearly 5" of shock length to achieve this much shaft travel.

Das Boot

Because we like to build bikes that last a long time and require minimal maintenance, we've built the Ripley shock as a sealed system. Since there is a large change in air volume inside the shock when the shock goes through its range of motion, we needed to design a shock boot that absorbs all the excess air without ballooning and trying to suck nasty stuff into its nicely sealed inner environment. Using a bunch of fancy math that most of us forget after our last calculus final, we've designed a custom boot that accomplishes this goal.

Tuning and Maintenance

Shock Tuning Guidelines

The Ripley provides a wide range of adjustment based on rider weight, size of bike and personal rider preference. The primary adjustment you need to make is to add preload for heavy riders, or back it off for light riders.

Ibis offers tuning kits with softer and stiffer springs, and you are invited to call us any time for help in tuning.

The factory-set spring configuration for the Ripley is measured with the adjuster (part # 11 pg. 9) mid-travel (factory preload settings on next page). Turning the adjuster out two turns will give you the light preload (left picture below), and turning the adjuster in two complete revolutions will provide you with the heavy preload configuration (right picture below). There are 4 complete turns of adjustment available on the shock, each corresponding to approximately 15 pounds of rider weight adjustment.

Note: Do not adjust farther than the two extremes (4 turns apart). You will know when you are at either extreme by a visual inspection of the adjuster. If the bottom of the adjuster is flush with the bottom of the shock mount (2" diameter piece) you are at maximum preload. The adjuster won't turn any further. If you need more preload, first use a harder main spring (part #8 page 9). If you need even more preload, install a new supple spring (part # 4 pg. 9).

If you begin to see the o-ring groove on the side of the adjuster, you are at the minimum preload setting. If you are not getting enough sag and you are at this setting call us to get a softer spring.

Minimum Shock Preload

Maximum Shock Preload

Initial Set Up

Use the following table as a guideline for setting up the Ripley for the first time, and then go put a few hours riding on the bike. The numbers in the boxes represent the rider's weight. If you fall outside of these weights, contact Ibis for different shock tuning set-ups.

Frame Size	Light Preload (minus two turns)	Factory Preload (mid-travel)	Heavy Preload (plus two turns)
Extra Small	100-120 lbs.	120-140 lbs.	140-160 lbs.
Small	120-140 lbs.	140-160 lbs.	160-180 lbs.
Medium	140-160 lbs.	160-180 lbs.	180-200 lbs.
Large	160-180 lbs.	180-200 lbs.	200-220 lbs.
Extra Large	180-200 lbs.	200-220 lbs.	220-240 lbs.

Breaking In The Shock

Important: The microcellular polyurethane springs in the Ripley shock will actually take some time to break in and take a set. Four hours of riding will be adequate to set the springs. Once the sag has been set after the break in period, heavier and more aggressive riders should check the sag every couple of months.

Measuring and Setting Sag

After your break-in period you'll need to adjust the sag. When you sit on the bike, the shock should sag 0.3-0.4". You can fine-tune the shock to provide the appropriate sag.

To measure the sag, we recommend using a tape measure to record the unsagged distance between the rear axle and the seat post bolt (see photo). Now sit on the bike in your riding position, bounce up and down a couple times gently to make sure you get an accurate reading, and have someone and re-measure the distance. The difference between the first and second measurement is known as the sag. To increase the sag, turn adjuster screw counter-clockwise. Clockwise adjustment decreases sag (duh).

Setting the Sag

Lubrication

Rules number 1, 2, 3, 4 and 5: Do Not Mix Lubes

The Ripley comes factory lubed with SRAM Jonnisnot Silicon based lubricant. It comes in a syringe, and the Ripley shock sleeve lube port is designed to be lubricated using this syringe.

Please do not use any other lubricants, use only SRAM Jonnisnot. Polyalaolephin based lubes attack polyurethane, and will ruin the springs! Also, mixing of lubes can result in unknown and possibly detrimental reactions, skin rash, bloated feelings general melancholy and a tendency to vote across party lines.

1—Use only SRAM Jonnisnot (available at bike shops and from Ibis)
2—NEVER mix lubricants.
3—Cut off all but 1/2" of the Jonnisnot syringe tip.
4—Clamp the seatpost in a bike repair stand, getting all weight off the rear wheel of the bike. Using your hands, pull the shock apart so the shock is at maximum extension. This will align the lube ports with the chamfers on the damper discs.
5—Lift the bottom of the shock boot up, revealing the lube ports. Lube any two opposite ports in the shock sleeve, the adjacent ports are to verify the pentetration of grease. Lube only two ports, not all four.
6—Inject grease into the lube port until it comes out the adjacent port. This will take considerable pressure on the syringe, and approximately 30 seconds of injection to fill the shock. (Note: If you run a lot of preload and are unable to inject grease, it's likely that the lube ports are misaligned with the damper disc chamfers. Loosen the shock adjuster until you are able to inject grease. Reset the preload when you are done.)
7—Wipe away any excess grease and replace the shock boot.

Lubing with Jonnisnot

Burping Das Shock Boot

It's no accident that the shock boot is **not held on with zip ties**. Unless you're in a nasty environment with lots of mud or dust, you don't need to zip tie the boot to the frame. Once the boot is set into place, it will find its own length without any intervention by the user.

If you would like to zip tie the boot, there are a couple of steps you to follow.

1—Set the over all boot length to 3.1 inches end to end.
2—Pull up the one end of the boot slightly to allow equilibrium between the inside and outside air. The technical term for this is "burping the boot".
3—Zip tie

Following these three steps will allow proper expansion and contraction of the boot.

Disassembly

To simply lube the shock, you do not need to disassemble the shock. Instead, go to the lube instructions above. Should you wish to disassemble the shock for cleaning or replacement of any parts, use the following instructions:

1—When working on the Ripley shock, **always use a bicycle repair stand, and clamp the seatpost, not the frame. When the shock is disassembled, the plate chainstays could be vulnerable to damage if you do not perform these steps properly.**
2—After placing the bike in the stand, remove the rear wheel.
3—Unscrew adjuster (part #11 pg. 9) all the way, using a Shimano (TL--UN74S) or Park (BBT-2) BB tool. You may also use a 19mm or a 3/4" socket wrench to remove the adjuster.
4—Remove the main spring (part #8 pg. 9). The spring can be coaxed out by compressing the shock by hand slightly. If you are replacing the main spring only, proceed to reassembly step 5.
5—Remove the central bolt (part #7 pg. 9) with a 5mm hex (aka allen wrench). You may need to compress the shock slightly to reach the bolt head with the wrench.
6—Slide the boot off the shock

Removing the Upper Stack

body (also known as the shock sleeve-part #2 pg. 9)

7—Push the supple spring out (pg 7). If you are replacing the supple spring not the main spring, proceed to reassembly step 4.

8—Slide the boot off the frame.

9—Loosen the pinch bolt on the frame and remove the aluminum shock body, taking care not to spread the frame apart.

Inspection

While the shock is apart, inspect the boot for cracks or holes, replace if necessary. Also check the shock body for gouges or worn anodization. Small longitudinal scratches along the shock inner bore will not affect performance, large gouges will. Replace if necessary. Inspect the main shock spring and supple spring for bulging or cracks, and inspect the inner sleeve for wear or damage. Replace worn components.

Reassembly

1—Using a cloth, clean all the parts you are reassembling, including threads in shock sleeve and adjuster. Do not use solvents, as they could attack the spring material.

2—Slide shock sleeve into frame, tighten pinch bolt to 40 inch pounds.

3—Slide boot onto 1" frame stub.

4—Upper Spring:

a) Spread a small amount of lube on the inside bore of the supple spring.

b) Insert inner sleeve into the supple spring (you'll need to push hard).

c) Remove excess lube from each end of inner sleeve, use q-tip to remove from lube from inside the supple spring.


Supple Spring

Important: Be sure to remove excess grease or Loctite will not adhere.

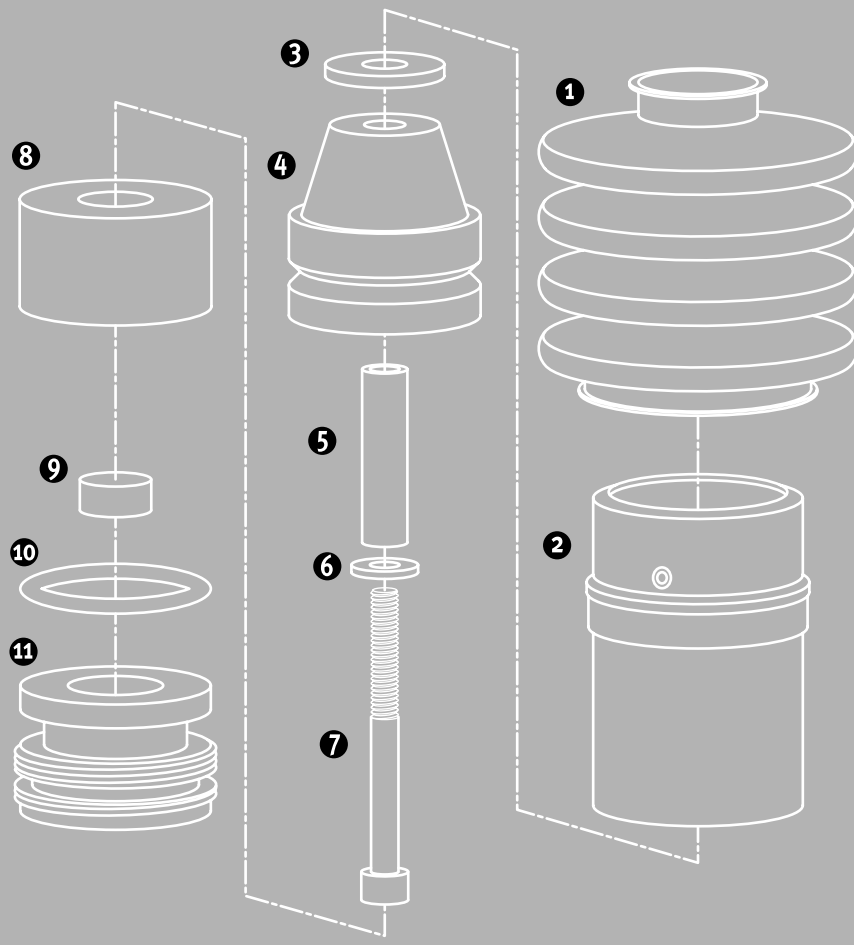
d) Lube the outside surface (the portion which glides on the shock body) of the supple spring liberally and reinsert.

e) Apply light grade thread lock (Loctite® Threadlocker 242) to first half inch of central bolt threads, insert and tighten to 60 inch pounds.

Important: this is a critical measurement, and improper torque can cause failure of the shock bolt.

5—Lubricate the outside of the main spring, insert.
6—Pull down on shock to release pressure and thread in shock adjuster. You should be able to turn two full turns by hand before needing to use the wrench.
7—Set the preload and sag as mentioned above.
8—Ride. A lot.

Shock Diagram



What They're Called

1—Shock Boot
2—Shock Body
3—Seat Washer
4—Supple Spring
5—Inner Sleeve
6—Center Bolt Washer
7—Center Bolt
8—Main Spring
9—Bottom Out Bumper
10—O-Ring
11—Adjuster

Ordering Parts

To keep you Ripley all dressed up and looking good, we've got replacement parts, tuning kits, and lots of friendly advice. Use the following part numbers for ordering replacements. Call us for advice.

Item	**Ibis Part Numbers**
Shock Body	ZAR-SHOCKSLEEVE
Inner Sleeve	ZAR-INNERSLEEVE-R
Adjuster	ZAR-ADJUSTER-R
Center Bolt	ZAR-CENTERBOLT
Center Bolt Washer	ZAR-WASHER
Seat Washer	ZAR-SEATWASHER
Supple Spring - Extra Light	ZAR-MCUCYLEL-R
Supple Spring - Light	ZAR-MCUCYLL-R
Supple Spring - Medium	ZAR-MCUCYLM-R
Supple Spring - Heavy	ZAR-MCUCYLH-R
Supple Spring - Extra Heavy	ZAR-MCUCYLEH-R
Main Spring - Extra Light	ZAR-MCUSPREL-R
Main Spring - Light	ZAR-MCUSPRL-R
Main Spring - Med	ZAR-MCUSPRM-R
Main Spring - Heavy	ZAR-MCUSPRH-R
Main Spring - Extra Heavy	ZAR-MCUSPREH-R
O-Ring	ZAR-O-RING
Boot	ZAR-SHOCKBOOT
SRAM Jonnisnot Lube	ZAR-JONNISNOT
Seat Collar (1.418")	XX-COLLARM-R

Ibis Lifetime Warranty

IMPORTANT – PLEASE READ:YOU MUST ACTIVATE YOUR NEW PRODUCT WARRANTY WITHIN 14 DAYS OF PURCHASE BY CALLING IBIS AT 800-283-0943 OR BY VISITING OUR WEBSITE: www.ibiscycles.com/warranty

Subject to the limitations, terms and conditions set forth below, Ibis LLC ("IBIS") warrants to the original owner of each IBIS frame ("Frame") that when new, such Frame is free of defects. This Lifetime Limited Warranty ("Frame Warranty") covers IBIS Frame for the lifetime of the Frame[1]. This Warranty does not apply to paint/finish or third party components attached to the Frame such as front forks, wheels, drive train, brakes, seatpost, handlebar and stem or any third party suspension-related parts or components.

Subject to the limitations, terms and conditions set forth below, ibis LLC ("IBIS") warrants to the original owner of each IBIS rear shock that is provided with an Ibis soft tail Frame ("Rear Shock"), that when new, such Rear Shock is free of defects. This Three Year Limited Warranty ("Rear Shock Warranty") covers factory installed IBIS Rear Shocks for three years from the date of purchase.

In order to initiate coverage under the Frame Warranty or Rear Shock Warranty, the original owner must register the Frame[2] with IBIS within 14 days of purchase. In order to exercise a claim under this Warranty, the Frame and/or Rear Shock must be presented to IBIS or an authorized IBIS dealer, together with a receipt, or other proof of purchase, which identifies the Frame by serial number. Should the Frame and/or Rear Shock be determined by IBIS to be covered by this Warranty, it will be repaired or replaced, at the sole option of IBIS, which will be conclusive and binding. If repaired or replaced, the original owner will receive a credit towards the cost of such repair or replacement based on the number of years since original purchase of the Frame and IBIS' standard warranty schedule. This Warranty does not include the cost of travel or shipment to and from an authorized IBIS dealer or IBIS factory. Such costs, if any, shall be born by the original owner.

This Warranty does not apply to normal wear and tear, nor to claimed defects, malfunctions or failures that result from abuse, neglect, improper assembly, improper maintenance, alteration, collision, crash or misuse. This Frame and/or Rear Shock have not been designed, engineered, distributed, manufactured, or sold for uses in trick riding, ramp riding, jumping, aggressive riding, riding on severe terrain, riding in severe climates, riding with heavy loads, commercial activities, or any similar activities. Such uses may damage the Frame and/or Rear Shock, can cause serious injury to the rider, and in all cases will void this Warranty. This Warranty is made only to the original owner of a new IBIS Frame and/or Rear Shock purchased from an authorized IBIS dealer and is not transferable.

An authorized IBIS dealer should periodically check IBIS Frame for indicators of stress and/or potential failure, including cracks, deformations, corrosion, paint peeling, dents, and any other indicators of potential problems, inappropriate use, or abuse. These are important safety checks that can prevent accidents, bodily injury and shortened Frame life. This Warranty does not cover malfunctions or failures caused by delay in bringing a problem or potential problem to the attention of IBIS or an authorized IBIS dealer.

This is an integrated and final statement of the IBIS Warranty. IBIS does not authorize anyone, including its dealers, to extend any other warranties, express or implied, for IBIS. No other representation, and no statement of anyone but IBIS, including a demonstration of any kind by anyone, shall create any warranty regarding IBIS Frame or Rear Shock. IBIS's liability under this Warranty shall be no greater than the amount of the original purchase price of the Frame or Rear Shock and in no event shall IBIS be liable for incidental or consequential damages.

All other remedies, obligations, liabilities, rights, warranties, express or implied, arising from law or otherwise, including but not limited to any claimed implied warranty of merchantability, any claimed implied warranty arising from course of performance, course of dealing or usage of trade, and any claimed implied warranty of fitness, are disclaimed by IBIS and waived by the original owner of the Frame.

1 Titanium, steel, and aluminum frames are warranted for life to the original owner. Aluminum frames are subject to a valuation schedule, which governs the value of the repair and/or replacement.
The Ripley chainstay carries a lifetime warranty. Should any other portion of the Ripley frame fail, its repair or replacement will be based on the terms and conditions above, and this Aluminum Frame Valuation Schedule:
First 5 years from original purchase: Frame replacement or repair at no charge.
Years 6-7: Frame replacement or repair at current prices, with 75% of original frame price credited to original buyer.
Years 8-10: Frame replacement or repair at current prices, with 50% of original frame price credited to original buyer
After Year 10: Frame replacement or repair at current prices, with 25% of original frame price credited to original buyer.

2 Product must be registered by completing an official Ibis Registration Form (accompanied with Frame, or available on the Ibis Website or at an Authorized Ibis Dealer).

Owner's Responsibility and Proper Maintenance

All Ibis Bicycle frames should be periodically checked by an authorized Ibis dealer for indicators of stress and/or potential failure, including cracks, deformations, corrosion, paint peeling, dents, and any other indicators of potential problems, inappropriate use, or abuse. These are important safety checks that can help prevent accidents, bodily injury to the rider and shortened product life of an Ibis frame. This Warranty does not cover malfunctions or failures caused by delay in bringing a problem or potential problem to the attention of Ibis or an authorized Ibis dealer.

Other useful information and specifications:

The **Ripley** geometry is optimized for **80mm travel** forks. It is also fine to use a longer travel fork, but do so at your own risk as hair loss and weird fetishes may result. To match the rear suspension, we recommend you set your fork with an initially active tuning (i.e. plush).

Care and feeding of your Ripley frame is simple. Try to prevent major gouges from marring the powdercoated finish. If you do gouge it, we recommend enamel from a hobby store as touch up. We can't provided touch up, because we apply the paint in powder form and then bake it on.

Specs: Bottom Bracket: 73mm English Front Der: 34.9 mm(1 3/8") top pull

Seat Post Diameter: 31.6 mm Drop Out Spacing: 135mm

Please fill in the following information:

Frame Size _____ Where Purchased _____

Serial Number _____ _____

Date purchased _____ _____

Tuning Info: Once you've tuned your bike, we recommend you jot down your settings for future reference, and reordering of components.

Adjuster Preload Setting, turns (0 being in the middle, factory preset).

-2 -1 0 +1 +2

Sag Setting _____ Rider Weight (don't lie!) _____

A final reminder, did you contact Ibis to complete your **warranty registration**?

Hint: www.ibiscycles.com/warranty or call us at 800-283-0943.

Contact Information

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