

OTHER HELPFUL HINTS

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BASIC MAINTENANCE

All cartridge bearing full suspension frames use the highest quality, full complement, max pack grease, sealed cartridge bearings. These require very little, or no maintenance. It is not recommended that you remove the plastic seal on the bearing. They are removable to clean and lubricate if necessary, this however is unlikely to be necessary with any frequency. Routinely inspect the frame and components for wear.

TORQUE SPECS

On full suspension models, torque specs for the main pivot bolts (12mm diameter, 8mm hex head) is 20 ft./lbs. Rear pivots on 4-bar linkage frames (8mm bolts) is 15 ft./lbs. *(please use common sense and do not over tighten bolts.)*

SEAT POST INSERTION

It is required that there **must be at least 4"**, or 10cm of seat post insertion into the frame. The use of layback seat posts is strongly discouraged and will void your warranty. Failure to maintain proper seat post insertion will void your warranty, and the damage it may cause could lead to serious injury. The use of a laid back seat post up to 1" is acceptable, greater than this is not recommended and will also void your warranty.

DISK BRAKE MOUNTS

All Ellsworth mountain bike frames are equipped with International Standard 51mm disc brake mounts. There are no compatibility issues with brake manufacturers who comply with the International Standard. 74mm mount brakes will require an adapter that may need to be modified. Modification of any kind to the frame will void the warranty. Check with the manufacturer of disk brakes to insure the proper combination of caliper and adapter for your bike. We suggest the use of 6" rotors in the rear. The Joker, Dare & Moment are the only approved models to use an 8" rotor.

ENJOY THE RIDE!

If you have any further questions about your frame, its setup, maintenance, features or warranty, please feel free to contact our Customer Service Department weekdays, 8:30am to 5:00pm PST.

ELLSWORTH HANDCRAFTED BICYCLES, INC.
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2005 OWNERS MANUAL



THOSE THAT RIDE...
KNOW

CONGRATULATIONS!

You have just purchased a state-of-the-art, high performance bicycle frame. No expense has been spared in the design materials, CNC construction, materials or workmanship of this product.

Please read the warranty form and return it to Ellsworth Handcrafted Bicycles, Inc. within 30 days to validate the registration your new frame. We take great pride in the design and execution of our products, and stand behind them with Limited Warranty to the original purchaser. As the warranty states it is for design or manufacturing defects. It is crucial to understand the proper set up and maintenance of your new bicycle frame and its equipment. This is the owner's responsibility in order to insure the performance and durability this bike was designed to provide. Failure to follow proper set up could jeopardize your warranty. Please take the time to read through this manual thoroughly and understand the information within. With proper setup and maintenance, your new Ellsworth frame will bring you a lifetime of riding enjoyment.

WARNING! *Bicycling is inherently dangerous. Proper equipment setup is crucial in helping to prevent equipment failure and resulting injury or death. Use of this bicycle does not bestow any of the following: superhuman powers, ability to perform insane aerial stunts, anti-gravity qualities, or absolution from a lack of COMMON SENSE! Always wear protective gear, and obey all traffic laws, street and trail signage.*

REAR SHOCK SET UP

Rear shock setup on our full suspension models is crucial for maximum riding performance. We manufacture the world's most efficient suspension designs, which may provide you with efficient pedaling regardless of sag or load settings. However, incorrect setup can result in loss of performance but most importantly could cause damage to the frame. The shock should be set up to bottom less than 10% of the time, and should never bottom very hard. If after following these setup instructions, you find you are still frequently bottoming your suspension, please call customer service. It is likely that your shock is not functioning properly, or you are too heavy for the spring or suspension medium (air shock) that you are currently using.

MEASURING SAG

Sag improves the characteristics of the suspension. Ellsworth uses fully-active suspension designs, and as such, they are designed to have some sag in the system. XC riders may want less, and competition DH racers may want more. Big drop freeriders will need to set the bike up to take the hit, rather than ride perfectly up to that hit. Set up is completely dependent on how and what you ride. For all Ellsworth frames, recommended sag is 1.5-40% of the total travel at the shock. e.g., The Truth has a stroke of 2" at the shock, 25% of 2" is 0.5". Therefore the sag should be 0.5". This is easily measured using a dab of grease on the shock shaft, and carefully mounting the bike, so as not to put excessive motion to the shock with your body weight. With the correct setup, the distance between the shock body and where the grease has been wiped clean will be 0.5" in this example. You can add preload (reducing the amount of sag) by either adding air to the shock, or tightening the spring collar, and the reverse to increase the amount of sag by decreasing the amount of preload. It is possible to get the correct sag with a spring that is too heavy or too light. After you have the sag correct, carefully monitor your suspension's function to determine its "high velocity" or "dynamic" performance. It should not bottom while riding with any significant frequency. If you're doing big drops or "hucking" the bike to a flat landing, you will need to forget all about the sag or static performance of your shock, and focus entirely on preventing it from bottoming when you're hucking it off your garage roof to the flat concrete driveway. This is an extreme example, but important for the owner to conceptualize so that the suspension setup and its importance in performance and the bike's durability is understood. If you are unsure about this set up, please find a qualified dealer and have them familiarize you with the concepts, so you can give good feedback in tuning the suspension to your riding style.

SETTING AIR PRESSURE

Air pressure will depend on which air shock you have. Start with settings that yield 15-20% static sag. Adjustments should be made from there. If you are unsure about the set up of an air shock, please seek the assistance of a qualified Ellsworth Dealer. You can locate an Ellsworth Dealer on our website, www.ellsworthbikes.com, or by calling customer service at 760-788-7500.

REAR SHOCK COMPATABILITY & APPLICATION



Amount of Travel	<i>ESB</i>	<i>TRUTH</i>	<i>distance</i>		<i>MOMENT</i>	<i>Id</i>	<i>Fare</i>
4" or 100mm	6.5 x 1.5	7.875 x 2.0	6.5 x 1.5	-	-	-	-
5" or 125mm	-	-	7.875 x 2.0	-	-	7.5 x 2.0	-
5" or 125mm	-	-	-	7.5 x 2.0*	7.875 x 2.0	7.875 x 2.0	-
6" or 150mm	-	-	-	7.875 x 2.25*	7.875 x 2.25	-	-
7" or 180mm	-	-	-	-	-	-	-
8" or 200mm	-	-	-	-	-	-	8.5 x 2.5

Figure in bold/red indicate standard option. *Option with shock shuttle.

ANY other shock, regardless of the manufacturer, that is not specified by each model will void the warranty. The shock manufacturer is responsible for the warranty of any shock sold on our frame, or any shock they represent to be applicable on our frame. Your warranty does not cover frame damage due to shock failure, fit, misuse, or misapplication. Bike shocks provide two functions. First they suspend the rider with the spring, and second they dampen the velocity and energy of an impact to the rear wheel. Serious injury can result if your shock is not functioning correctly or is not set up properly to provide these two functions.

FORK LENGTH & TRAVEL RECOMMENDATIONS

Model	Recommended Fork Travel	Max Fork Length (axle to crown)
<i>ESB</i>	80-130mm (3 to 5")	<508mm (less than 20")
<i>TRUTH</i>	80-105mm (3 to 4")	<490mm (less than 19.25")
<i>distance</i>	80-130mm (3 to 5")	<508mm (less than 20")
	125-180mm (5 to 7")	No maximum limitations necessary
<i>MOMENT</i>	125-150mm (5 to 6")	<600mm (less than 23.6")
<i>Id</i>	125-150mm (5 to 6")	<600mm (less than 23.6")
<i>Fare</i>	> 125mm (more than 5")	No maximum limitations necessary
<i>SHOCK/ESB</i>	120±20mm (4 to 5.5")	<600mm (less than 23.6")
<i>ONE</i>	80±10mm (3 to 3.5")	<490mm (less than 19.25")
enlightenment	80±10mm (3 to 3.5")	<490mm (less than 19.25")