SUSPENSION SEATPOST

Model No. SP-060 SLIM

Section 0. Contact info

HERMANN HARTJE KG
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Section 1. Features

1. High-quality 3D forged 1-piece AL-7075 alloy seatpost body.

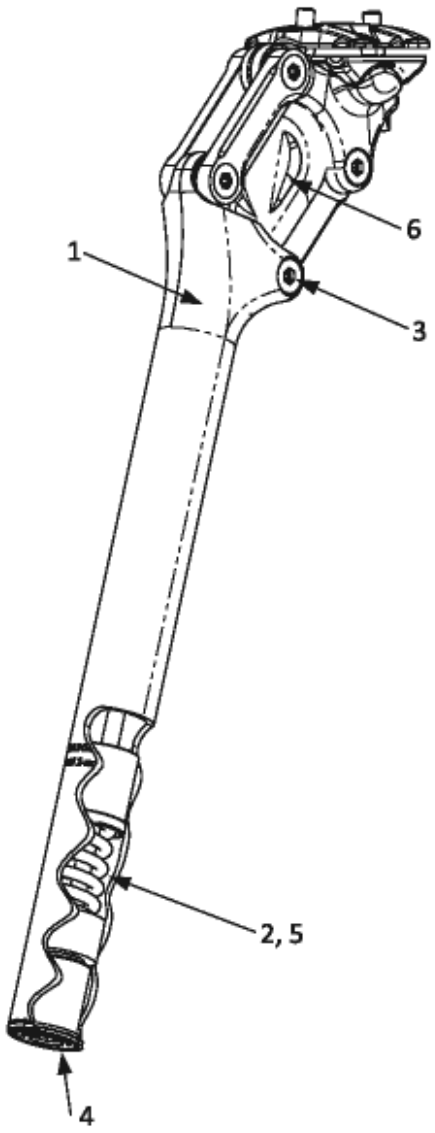
2. Patented internal tensional linkage suspension.

3. Side-play-free linkage.

4. Pre-load adjustment.

5. Spring-rate options.

6. Integrated finger protector.



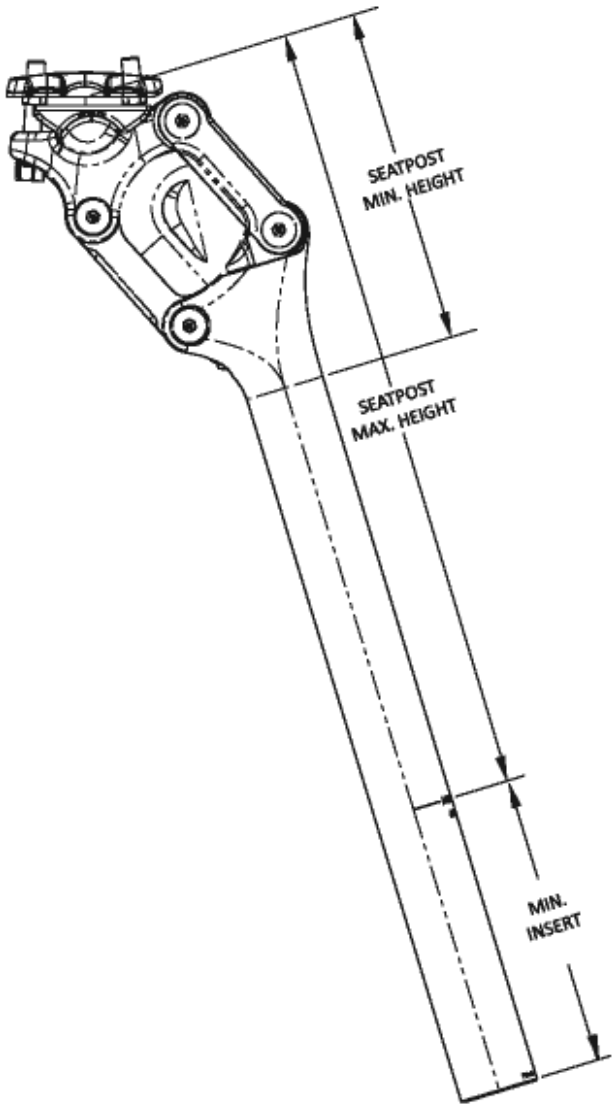
Section 2. Specifications

Saddle Clamp:
Fits saddles with Ø7mm rails
Seatpost Diameter:
Ø27.2mm
Ø31.6mm

Optional Seat-Tube Reducers: most sizes available
Outer Construction: Forged and CNC AL 7075 and AL6061 Alloy with CroMo hardware

Seatpost Nominal Length: 350mm
Seatpost Minimum Frame Insertion: 100mm
Seatpost Minimum Height, at zero-travel: 113mm
Seatpost Maximum Height, at zero-travel: 266mm
Weight: approximately 585g

Seatpost Nominal Length: 400mm
Seatpost Minimum Frame Insertion: 100mm
Seatpost Minimum Height, at zero-travel: 113 mm
Seatpost Maximum Height, at zero-travel: 316mm
Weight: approximately 620g



Seatpost Travel:
22mm vertical + 14mm horizontal

Spring Type:
Coil Steel Compression Spring

Spring Options:

Spring Rate (Stiffness)	Spring Identification Colour	Total Rider Weight
Normal	Champagne	<70kg
Firm	Silver	70~85kg
Extra Firm	Black	>85kg

Spring Adjustments:
Pre-Load

Section 3. Parts Overview

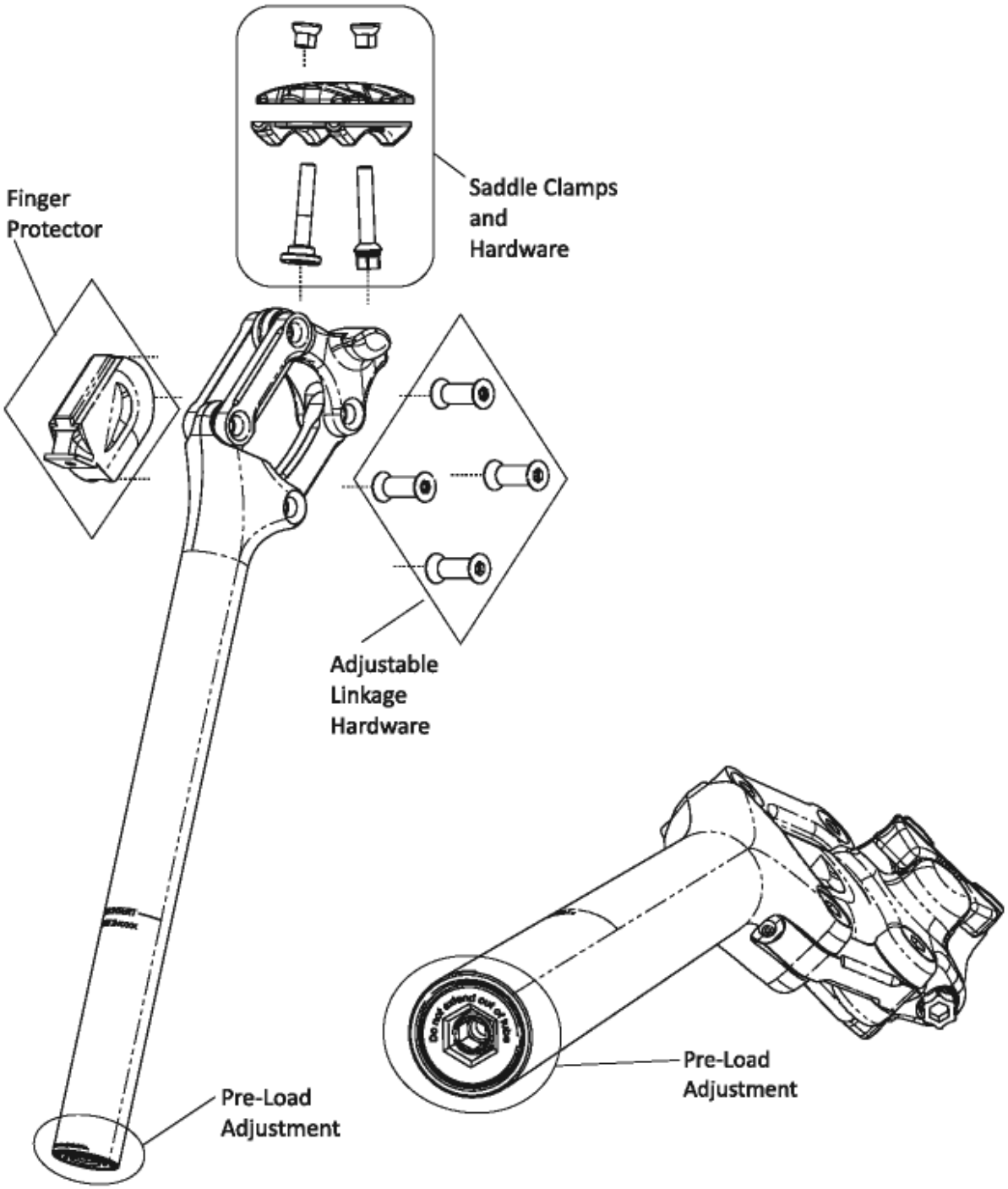


FIGURE 3 – Unique Features and Adjustments

Section 4. Installation of the Saddle and the Seatpost

/!\ CAUTION:
All bicycle maintenance and installation should be installed by a qualified bicycle service technician or mechanic, in accordance with the manufacturer's installation specifications. If you are not fully qualified or experienced in the field of bicycle maintenance, then defer to a professionally trained bicycle service technician or mechanic.

/!\ WARNING:
Improperly installed products are at risk to fail suddenly and/or unexpectedly, causing the rider to lose control, potentially causing SERIOUS INJURY OR DEATH.

/!\ CAUTION:
Check your frame's exact seat tube inner diameter.
Using the incorrect size of seatpost in your bicycle frame can lead to one or more of a damaged frame, a damaged seatpost, personal injury or death.

/!\ CAUTION:
Do not clamp your bike in a work stand by any part of the upper seatpost's suspension linkage mechanism.

Tools Required
Allen Keys: 5mm
Torque Wrench
Grease
Carbon Paste (optional)

1. Insert the seatpost into the bicycle frame:

1. For aluminum or steel frames: Apply a thin coating of grease to the seatpost's external tube.
2. For carbon fibre frames: Apply a thin coating of friction paste (instead of grease) to the seatpost's external tube.

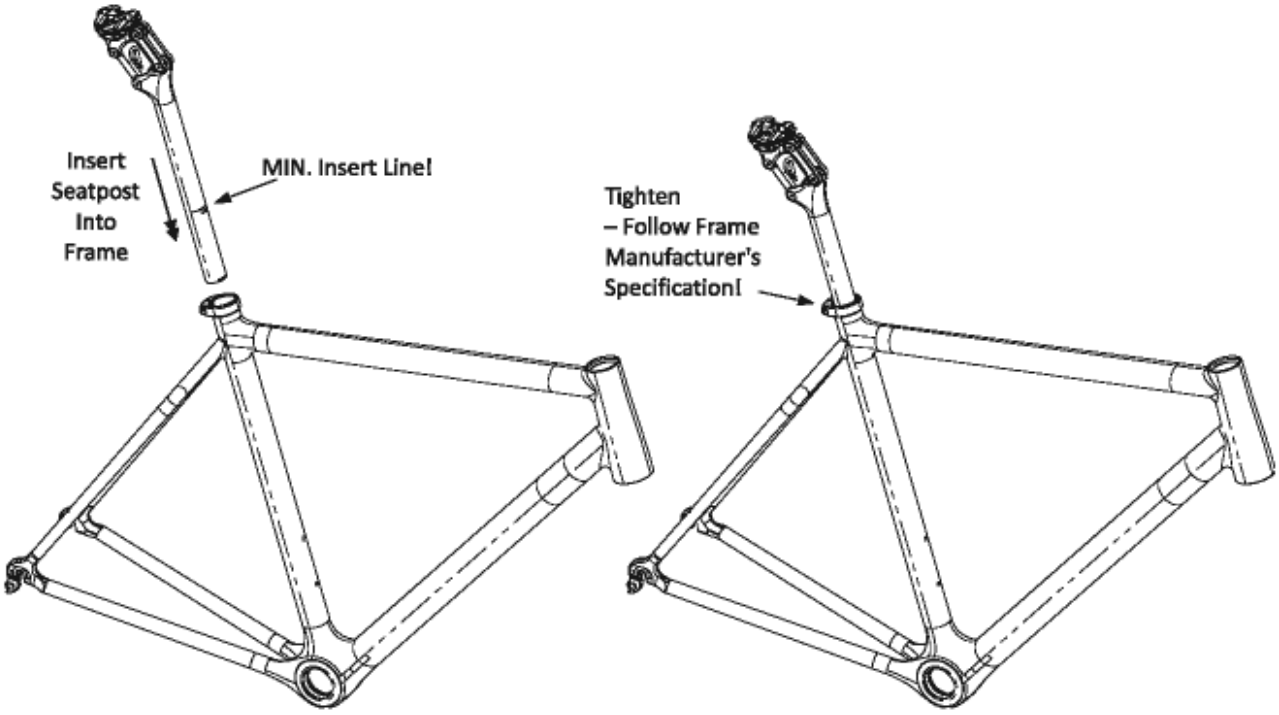
If a reducer is required between the seatpost and the frame, insert it into the seat tube of the bicycle frame.

Then insert the seatpost into the seat tube with the linkage orientated towards the back of the bicycle to allow proper suspension movement. If the linkage is oriented forwards, then it may not function as intended.

Make sure that the Minimum Insertion Mark on the seatpost is not visible. If it is then the seatpost may be too short and may require either a longer seatpost or a taller frame. The bicycle or frame manufacturer may have a different specification for the minimum insertion of a seatpost into their frame. Always follow the more conservative Minimum Insertion specifications!

/!\ WARNING: If the seatpost is not inserted to at least the minimum insertion mark, then the seatpost could possible damage the frame and/or the seatpost, which could then cause breakage or failure during use, potentially causing Serious Injury or Death.

Temporarily tighten the seatpost into the frame, using the clamping mechanism on the frame.



2. Install the saddle to the seatpost.

Remove the rubber finger-guard from between the linkage.
Loosen the saddle clamp bolts with a 4mm allen key, until the clamps are open enough to accept a saddle.

/*\ NOTE: The bolt threads should have a thin layer of grease on them. If they are not turning smoothly, then fully unscrew them, re-grease them and re-assemble them before installing the saddle.

/*\ NOTE: The seatpost clamps are intended to be used with saddles that have round 7mm rails only.

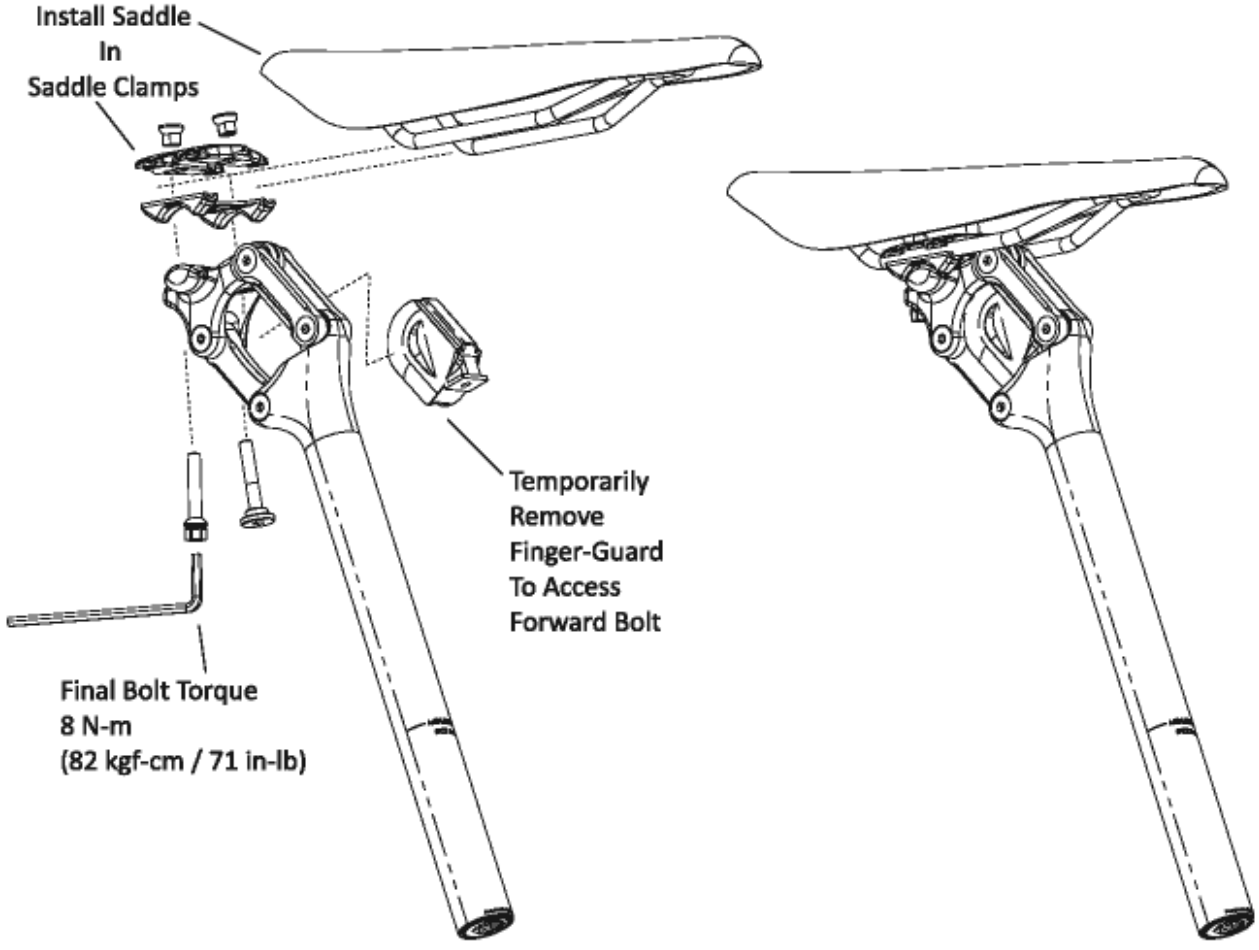
Install the saddle's rails between the saddle clamps. Set the desired fore-aft position of the saddle in the saddle clamps.

Tighten the saddle clamp bolts incrementally, alternating between the forward and rearward bolts until the saddle is at the desired tilt position. Tighten the forward bolt and loosen the rearward bolt to adjust the saddle nose more downwards. Tighten the rearward bolt and loosen the forward bolt to adjust the saddle nose more upwards.

After confirming the desired saddle level and fore/aft position, tighten the saddle clamp bolts to 8 N-m / 82 kgf-cm / 71 in-lb torque.

Reinstall the rubber finger-guard between the linkage.

/!\ WARNING: Failure to reinstall the finger guard is dangerous and may cause SERIOUS INJURY OR DEATH if any part of the human body were to get caught in the linkage as it moves.



3. Confirm the saddle height.

Set the desired saddle height by loosening the seatpost clamping mechanism on the frame and sliding the seatpost up or down in the frame.

After the desired saddle height adjustment is achieved, then re-tighten the seatpost clamping mechanism of the frame following the specifications of the frame or bicycle manufacturer.

4. Re-check and inspect the installation.

/!\ CAUTION:
After installation, be sure to test for all proper clearances between the seatpost, saddle, bicycle and accessories. Check that the suspension movement does not cause the seatpost or saddle to impact any part of the frame, rear-wheel, rear-fender, rear-rack, rear-lights, or any other part of the bicycle or accessory. Also, make sure that there is sufficient clearance for any saddle-mounted accessories, such as saddle-bags, rear-lights, bottle-carriers, etc.

/!\ WARNING: Failure to ensure a proper and thorough installation can result in sudden failure, potentially causing SERIOUS INJURY OR DEATH. Check all bolts, fasteners for proper torque specification.

Torque Specifications:

1. Saddle clamp bolts: 8 N-m / 82 kgf-cm / 71 in-lb torque.
2. Frame seatpost clamping mechanism - Follow the frame manufacturer's specifications.

5. Set the Pre-Load and/or Change The Spring Rate

If the suspension is riding too high in the travel, then increase the pre-load.
If the suspension is riding too low in the travel, then reduce the pre-load.

>> Preload adjustment instructions are in the Service Section.

If the pre-load adjustment range is too limited, then change the internal spring.

< 70 kg (Gold/Champagne)
< 85 kg (Silver)
> 85 kg (Black)

>> Spring replacement instructions are in the Service Section.

Section 5. Maintenance

Our products are precision-manufactured with aerospace materials and industry-leading materials and tolerances. Always keep your product clean and maintained to maximize product life and reduce potential repairs.

Each Ride	As Necessary
1. Wipe the seatpost with a clean rag. Inspect for any abrasion damage. 2. Note smooth movement of the suspension linkage.	1. Make sure the pivots of the suspension linkage are lightly lubricated between the linkage arms. 2. Remove side-play from the linkage following the instructions in the Service Section

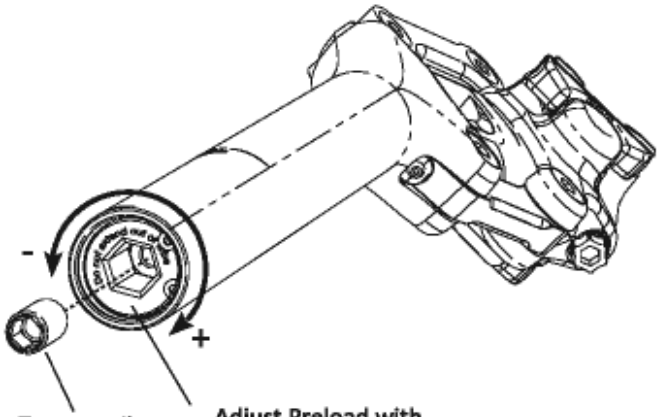
Section 6. Service

1. Pre-load adjustment
Tools Required
- 6mm allen key.
- 10mm allen key.

a. The pre-load adjustment plug is in the bottom of the seat post tube. The seatpost must be removed from the bicycle's frame to access the pre-load adjuster. Therefore, it is recommended to mark the seatpost insertion height in the frame with a simple mark of a piece of tape or pen-marker.

b. To adjust the pre-load:
step 1: Loosen the stop-nut with a 6mm allen key.
step 2: Turn the adjuster plug with a 10mm allen key, turning the plug clockwise to make the seat post stiffer, or turning the plug counterclockwise to make the seat post softer.
step 3: Re-tighten the stop nut to set the pre-load adjuster.

c. There is a pre-load indication etching mark in the inner of the seat tube. The figure shows the min pre-load and max pre-load condition. Set the adjuster plug between the pre-load travel mark without exceeding the maximum and the minimum lines. If the adjustment cannot be achieved between the lines, then it may be necessary to change the internal springs.




MIN. Preload Position At C-Clip

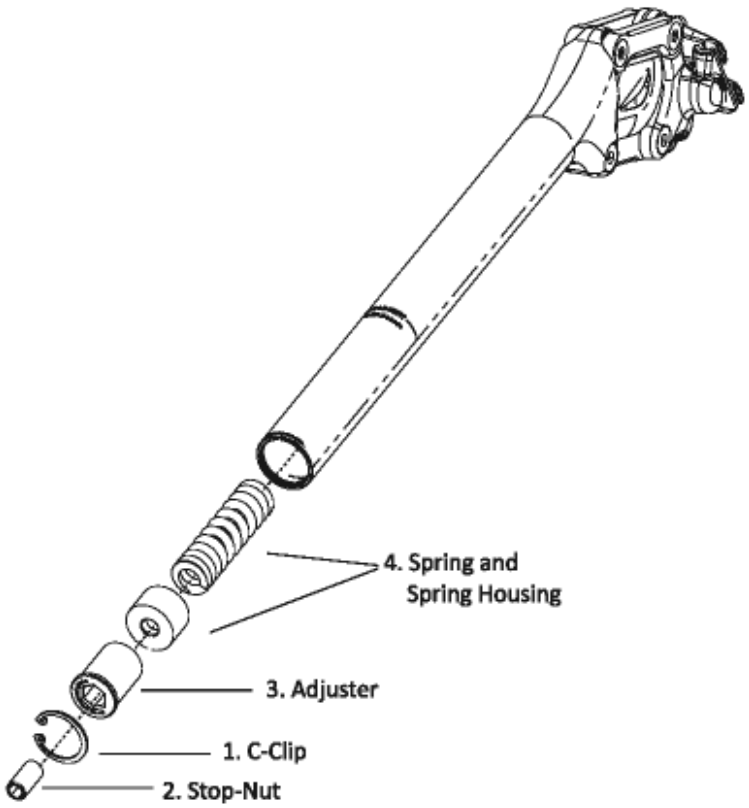

MAX. Preload Position At MAX. Line

2. Spring Replacement
Tools Required
- C-clip pliers
- 6mm allen key
- 10mm allen key

a. The access to the spring is through the pre-load adjustment plug at the bottom of the seat post tube. Therefore, the seatpost must be removed from the bicycle's frame to access the pre-load adjuster. Therefore, it is recommended to mark the seatpost insertion height in the frame with a simple mark of a piece of tape or pen-marker on the seatpost tube.

b. To replace a new spring

Step 1: Remove the c-clip with c-clip pliers.
Step 2: Remove the stop-nut with a 6mm allen key.
Step 3: Remove the adjuster plug with a 10mm allen key
Step 4: Remove the plastic spring-housing and spring.
Step 5: Re-assemble it with new spring in reverse step.

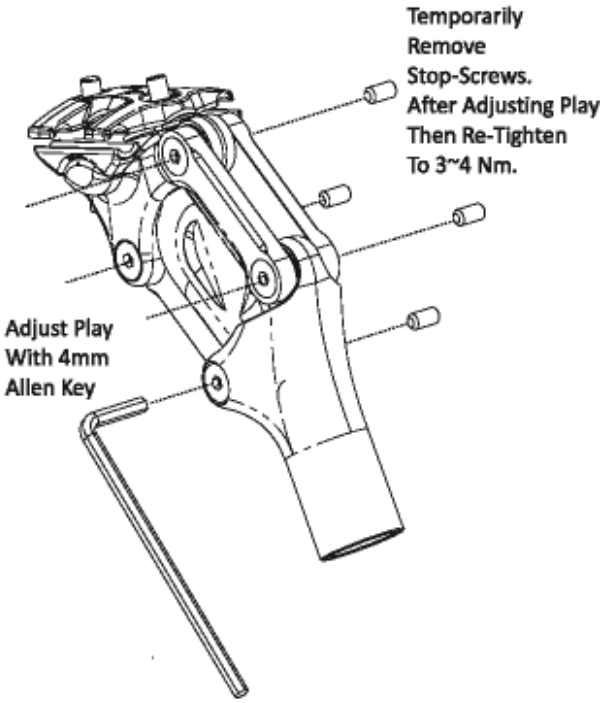


3. Side-play adjustment

Tools Required

- 4mm allen key
- 2.5mm allen key
- light grease or oil

Side-play (noticeable as lateral movement of saddle nose) may develop with time as a result of heavy riding. It is not unusual and can be easily taken up with normal adjustments. A very tiny and minimal amount of side! play is normal to allow free movement of the suspension linkage mechanism, but excessive side-play can cause undesirable saddle movement and excessive pivot wear. Therefore, it is necessary to periodically remove excessive side play. It's simple to determine which pivot has side-play and to get rid of the play easily by following steps, using patented pivot mechanisms.



Step 1. Use a 2.5mm allen key to remove the stop screw.
Step 2. Use a 4mm allen key to tighten the screw to decrease play.
Step 3. Apply light oil or grease between the pivots, before re-tightening, if necessary.
Step 4. Re-tighten the 2.5mm hex screw up to 3~4 Nm torque.