

# POST-MODERNE

## SUSPENSION SEATPOST

### Model No. PM-705N/PM-705N2



Rev. 2022-05-19

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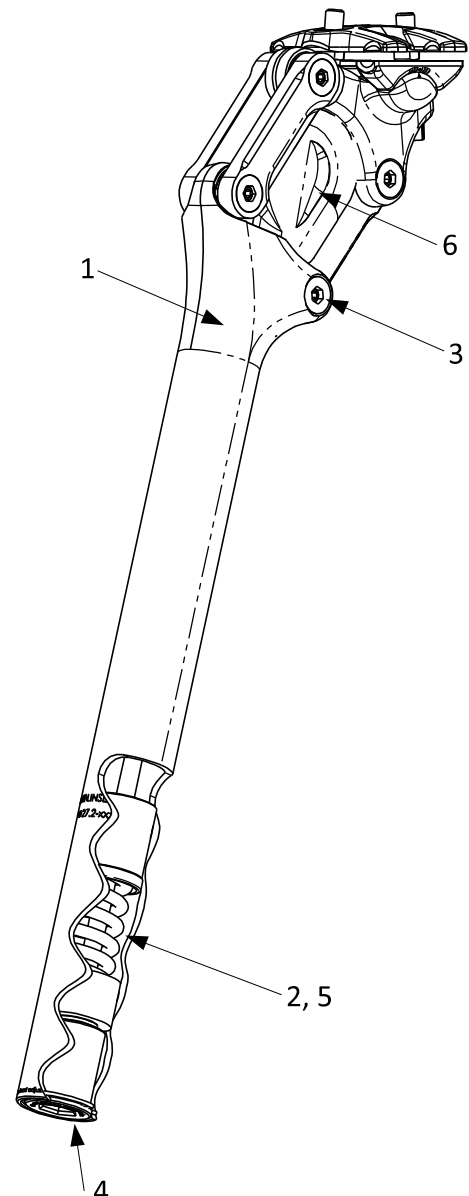
Moderne Tech Corporation

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Yangmei, Taoyuan 326

#### 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 - Available in All Markets

> Ø30.9, Ø31.6mm - May be available in some markets, check with your local agent.

### Optional Seat-Tube Reducers:

> Most sizes available from Post Moderne, inquire from your local agent.

### Outer Construction:

> Forged and CNC AL 7075 and AL6061 Alloy with CroMo hardware

### Spring Type:

> Coil Steel Compression Spring

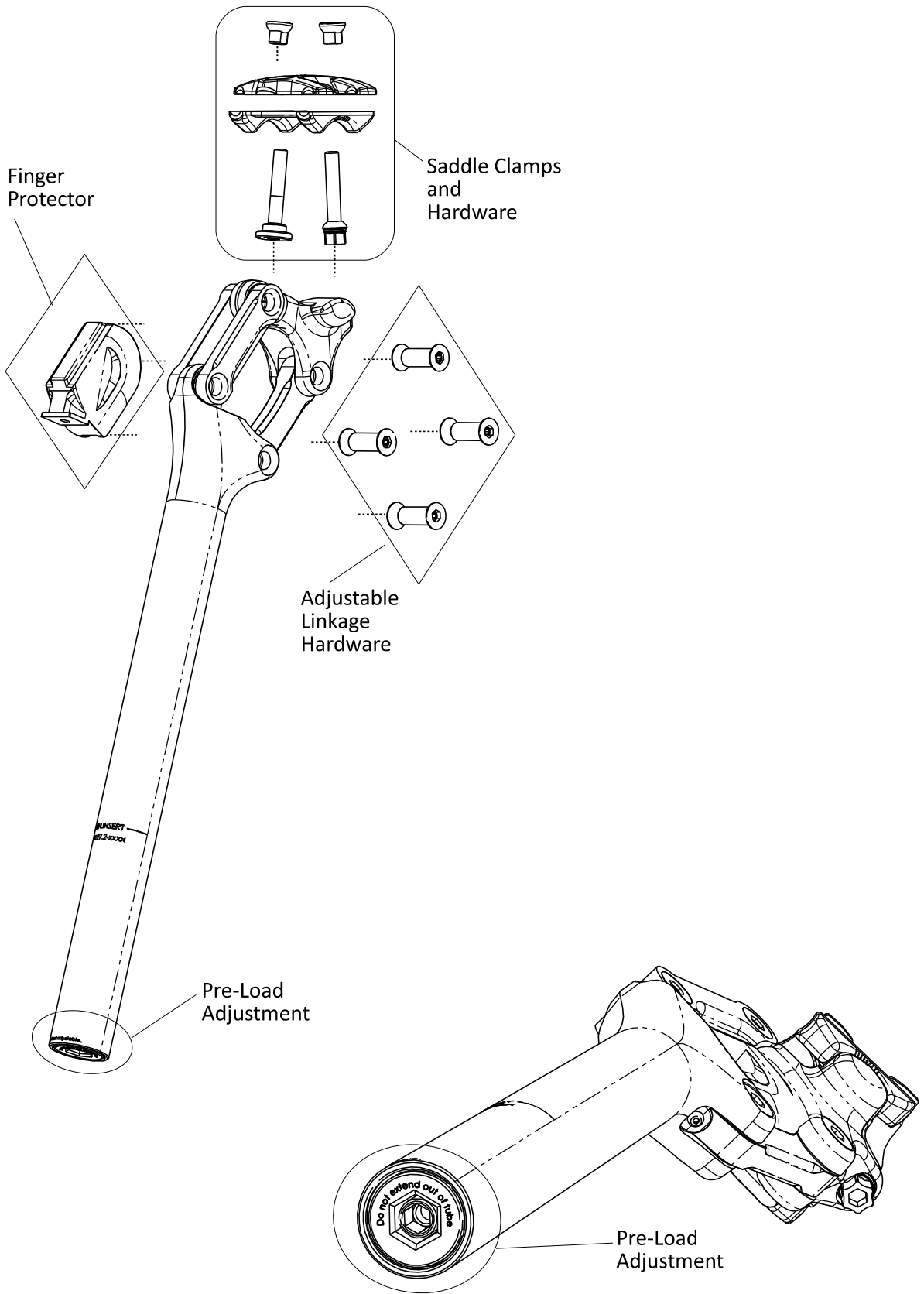
### Spring Options:

Spring Rate (Stiffness)	Spring Identification Colour	Total Rider Weight
Normal	Champagne	<70kg
Firm	Silver	70~85kg
Extra Firm	Black	85~100kg
Extrene Firm	Champagne+Green	100~120kg

### Spring Adjustments:

> Pre-Load

**SECTION 3. Parts Overview**



## **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:**

This seatpost has been safely tested & approved to ISO 4210 regulations together with a compatible saddle. Replacement with any incompatible saddle may damage the seatpost and/or cause injury to the rider.

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. PM-705N has an outer diameter of  $\varnothing 27.2\text{mm}$ . It will only fit in frames specifically designed to fit  $\varnothing 27.2\text{mm}$  seatposts. If your frame's seat-tube inner diameter is less than smaller than  $\varnothing 27.2\text{mm}$ , then PM-705N is not compatible. If your frame's seat tube inner diameter is larger, specifically if it is sizes  $\varnothing 30.9\text{mm}$  or  $\varnothing 31.6\text{mm}$ , then an adapter is available from Post Moderne.

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)

#### 4.1 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.

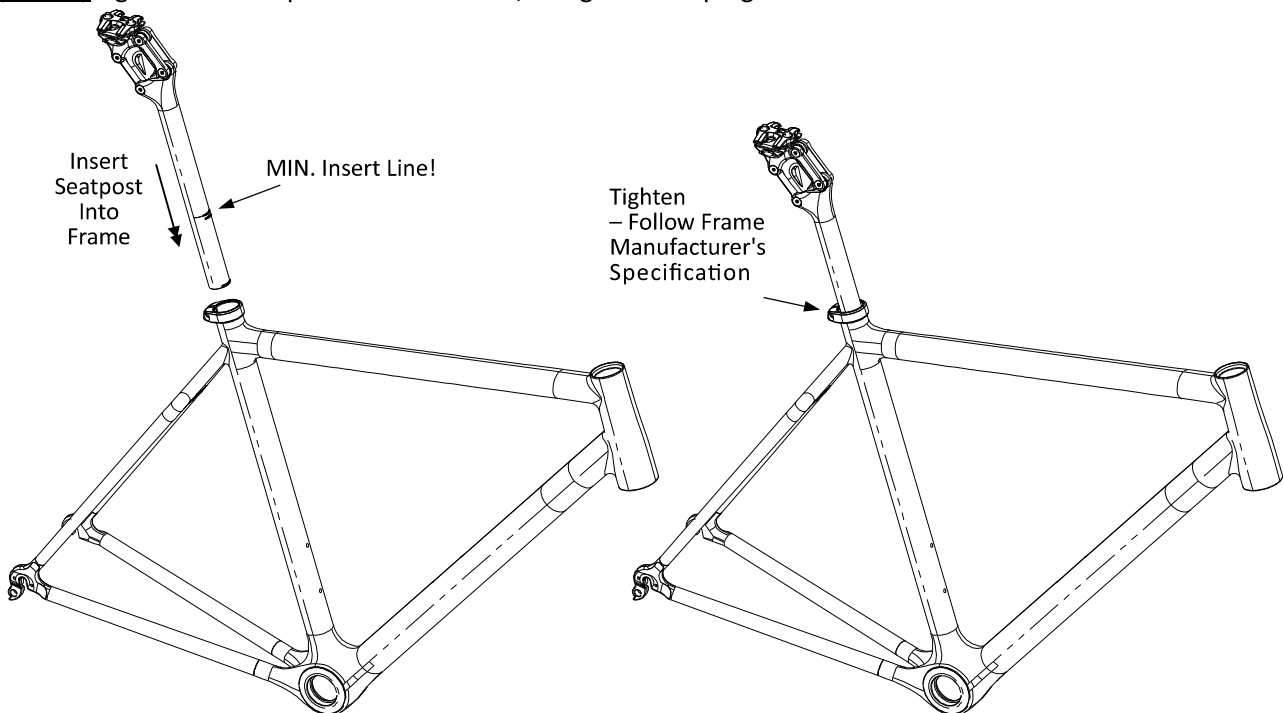
If a reducer is required between the seatpost and the frame, insert it into the seat tube of the bicycle frame.

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 orientated 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 possibly 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.



#### 4.2 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.

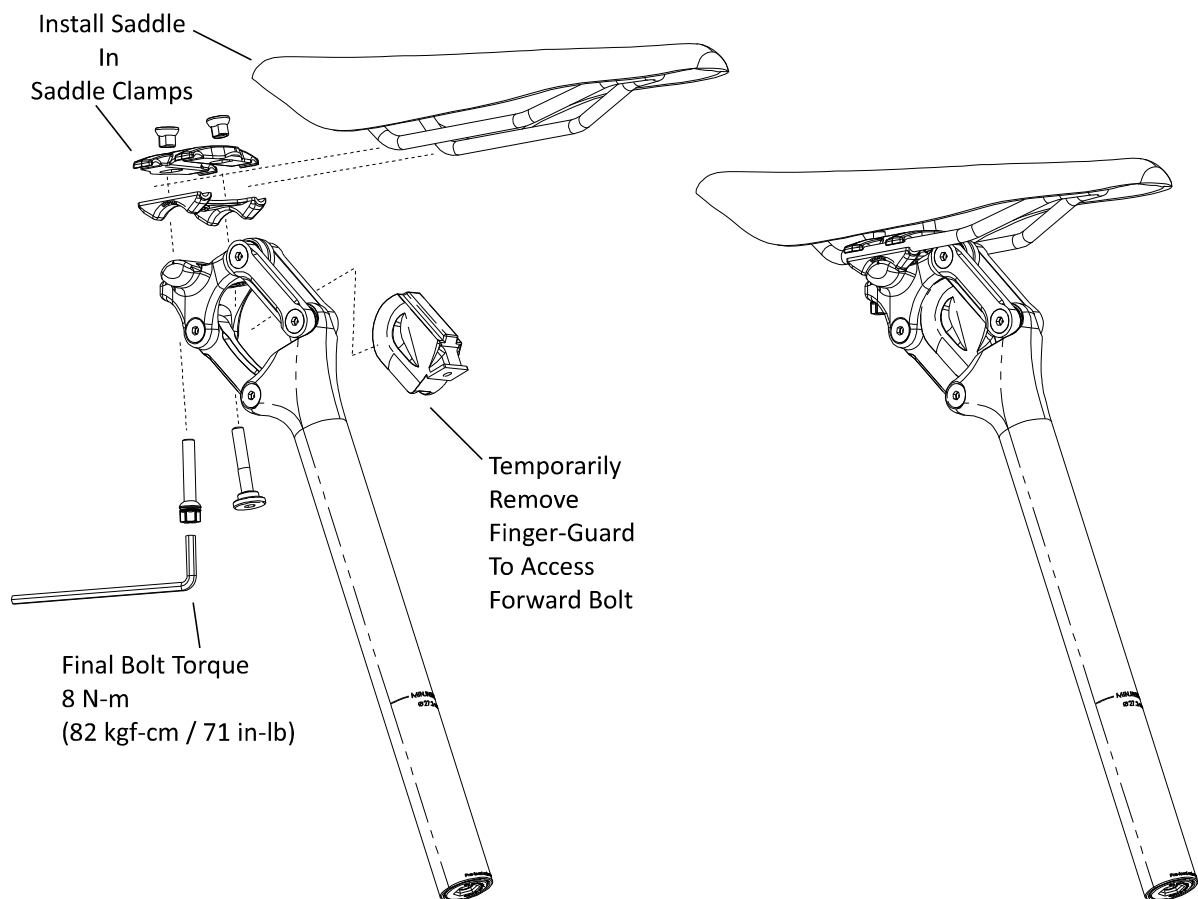
Install the saddle's rails between the saddle clamps. Set the desired fore-aft position of the saddle in the saddle clamps.

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.



#### 4.3 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.

#### 4.4 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.

#### 4.5 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: SECTION 6. Service**

If the pre-load adjustment range is too limited, then change the internal spring. The stock standard spring (Champagne colour) is suitable up to 70 kg of total rider weight (body weight + clothes and accessories). There are two firmer springs available: one up to 85 kg of total rider weight (Silver colour spring) and another for greater than 85 kg of total rider weight (Black colour spring).

**>> Spring replacement instructions are in: SECTION 6. Service**

### **SECTION 5. Maintenance**

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

#### **5.1 Each Ride**

- > Wipe the seatpost with a clean rag. Inspect for any abrasion damage.
- > Note smooth movement of the suspension linkage.

#### **5.2 Periodically**

- > Make sure the pivots of the suspension linkage are lightly lubricated between the linkage arms.
- > Remove side-play from the linkage following the instructions in the Service SECTION 6.3

## 5.3 Troubleshooting Noise

### a. Pivots

Oil the pivots (linkage hardware) of the suspension linkage.

Step 1: Use a general lubricating oil.

Step 2: Drip oil between the linkage-arms where the pivots are located.

Step 3: Allow to penetrate.

(Note: It might be necessary to turn the seatpost and/or bicycle upside-down to oil the lower pivots.)

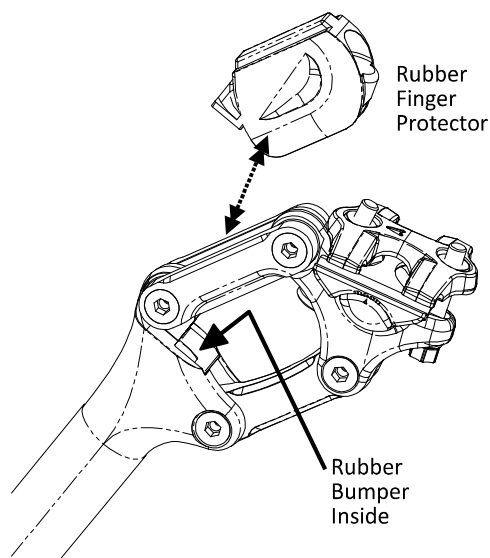
Step 4: Wipe excess oil afterwards.

### b. Rubber Bottom-Out Bumper

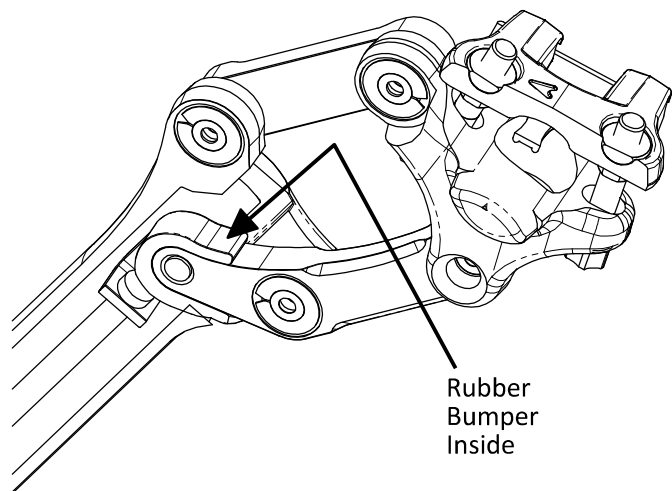
Step 1: Remove the rubber Finger Protector

Step 2: Apply some sticky grease with a finger or swab onto the hidden Rubber Bumper at the bottom of the lower linkage.

Step 3: Reinstall the rubber Finger Protector



Cut-Away View:



### c. Spring

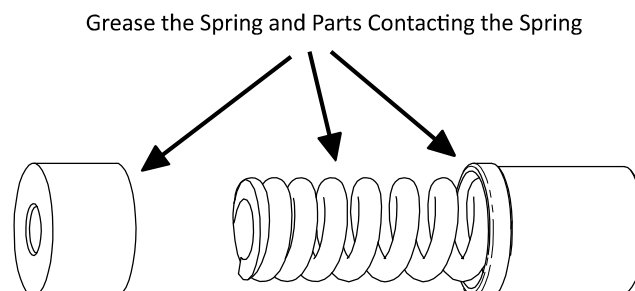
Step 1: Remove seatpost from frame.

Step 2: Remove the spring (see SECTION 6.2)

Step 3: Add sticky grease to Spring and Spring Housing

Step 4: Replace spring

Step 5: Re-Install seatpost into frame





## SECTION 6. Service

### 6.1 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.

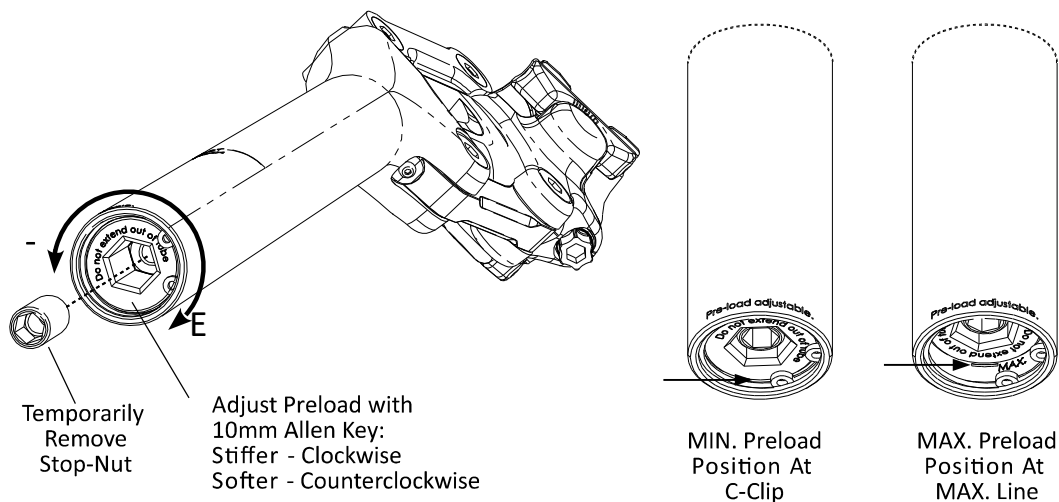
b. To adjust the pre-load:

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.



### 6.2 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

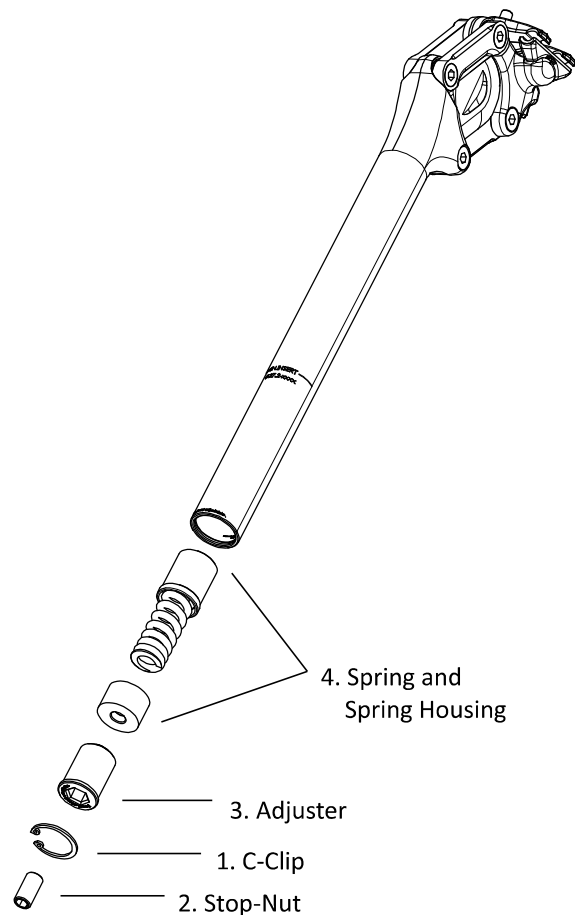
Step 1: Remove the c-clip with c-clip pliers.

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.



### 6.3 Side-play adjustment

#### Tools Required

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

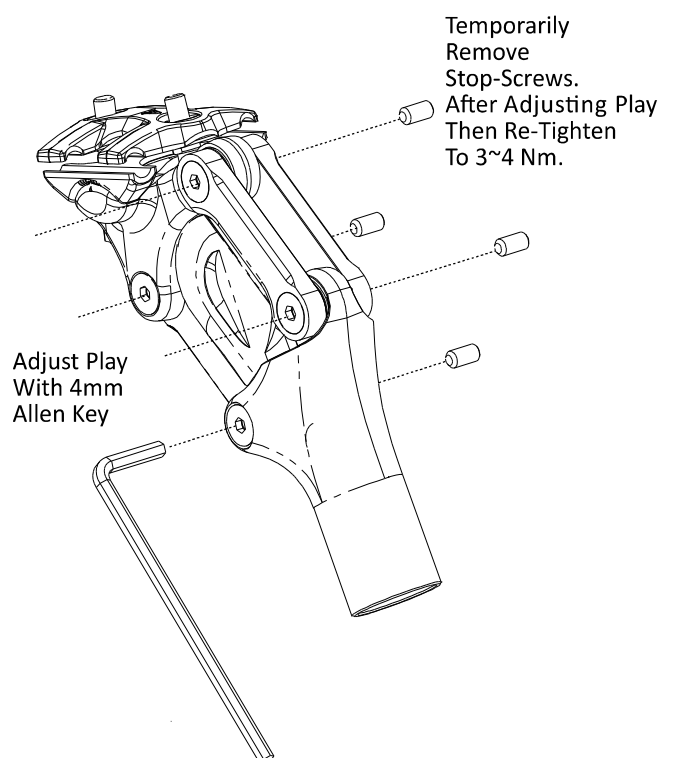
Side-play (noticeable as lateral movement of saddle nose) may develop with time as a result of heavy riding. It is not unusual and can be easily taken up with normal adjustments. A very tiny and minimal amount of side-play is normal to allow free movement of the suspension linkage mechanism, but excessive 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 Post Moderne's 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.



## **Section 7. Warranty**

### **LIMITED ONE (1) YEAR WARRANTY ON SUSPENSION PRODUCTS**

Subject to the limitations, terms and conditions hereof, Post Moderne warrants, to the original retail owner of each new Post Moderne suspension seatpost, that the Post Moderne seatpost product, when new, is free from defects in materials and workmanship. This warranty expires one (1) year from the date of the original Post Moderne suspension product retail purchase from an authorized Post Moderne dealer or from a Post Moderne authorized Original Equipment Manufacturer where Post Moderne suspension is included as original equipment on a purchased bicycle or similar vehicle, unless otherwise dictated by requirement of law.

### **TERMS OF WARRANTY**

This warranty is conditioned on the Post Moderne suspension product being operated under normal conditions and properly maintained as specified by Post Moderne. This warranty is only applicable to Post Moderne suspension purchased new from an authorized Post Moderne source and is made only to the original retail owner of the new Post Moderne suspension product and is not transferable to subsequent owners. This warranty is void if the Post Moderne suspension product is subjected to abuse, neglect, improper or unauthorized repair, improper or unauthorized service or maintenance, alteration, modification, accident or other abnormal, excessive, or improper use.

Should it be determined, by Post Moderne in its sole and final discretion, that a Post Moderne suspension product is covered by this warranty, it will be repaired or replaced, by a comparable model, at Post Moderne's sole option, which will be conclusive and binding. THIS IS THE EXCLUSIVE REMEDY UNDER THIS WARRANTY. ANY AND ALL OTHER REMEDIES AND DAMAGES THAT MAY OTHERWISE BE APPLICABLE ARE EXCLUDED, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR PUNITIVE DAMAGES.

This limited warranty does not apply to normal wear and tear, malfunctions or failures that result from abuse, improper assembly, neglect, alteration, improper maintenance, crash, misuse or collision.

This limited warranty gives the consumer specific legal rights. The consumer may also have other legal rights which vary from country to country. Some countries do not allow the exclusion or limitation of incidental or consequential damages or warranties, so the above limitations or exclusions may not apply to you. If it is determined by a court of competent jurisdiction that a certain provision of this limited warranty does not apply, such determination shall not affect any other provision of this limited warranty and all other provisions shall remain in effect.

THIS IS THE ONLY WARRANTY MADE BY Post Moderne ON ITS SUSPENSION PRODUCTS AND COMPONENTS, AND THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION HEREIN. ANY WARRANTIES THAT MAY OTHERWISE BE IMPLIED BY LAW INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED.