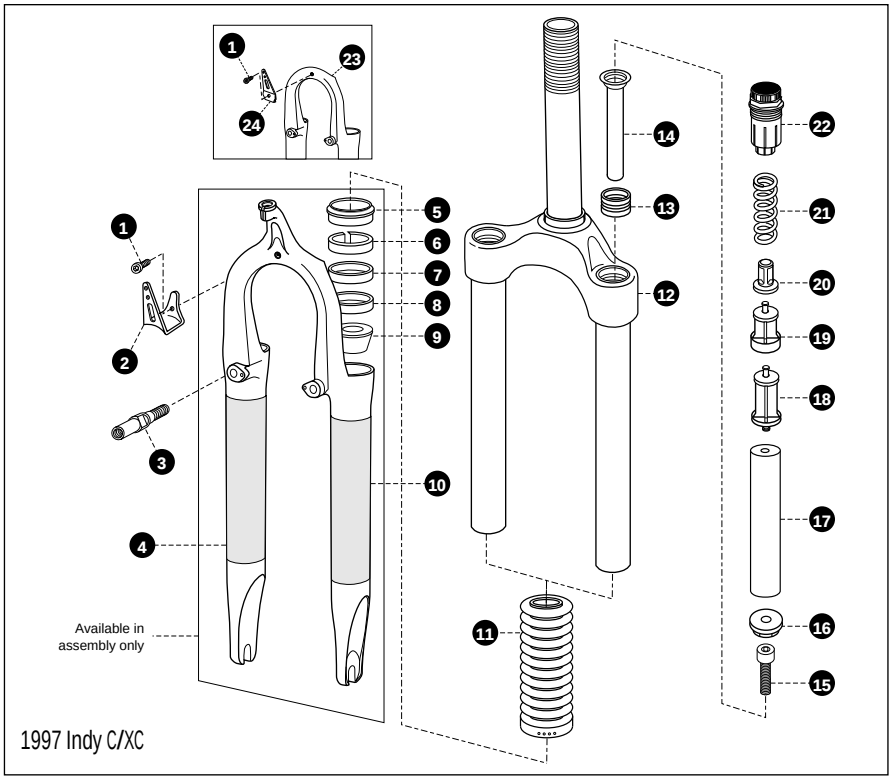
1997 Type II Spring and Spring Rate Adjuster Kits

100# spring
120# spring
140# spring
160# spring

SRAs for Indy XC/SL, Judy C/XC/DH/SL

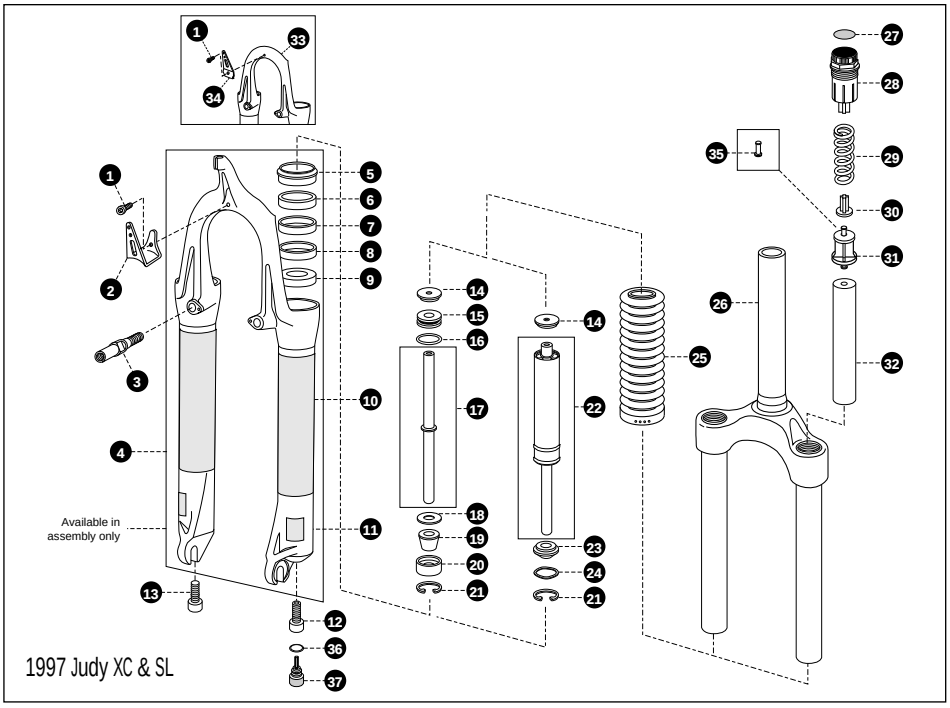
Instruction Sheet PN 60203 for Kit PN 59131

version 1, Oct. 1996



1997 Indy C/XC

1	Reflector Bracket Screw	14	Plunger
2	Reflector Bracket	15	Plunger Bolt
3	Brake Post	16	Plunger Cap
4	Lower Tubes/Brace, 1 piece	17	MCU Bumper
5	Resi-wiper Seal	18	MCU Spacer
6	Seal Spacer	19	Urethane Spacer
7	Upper Bushing	20	Spring Stop Spacer, 5
8	Lower Bushing	21	Tuning Spring
9	Bottom Out Bumper	22	Top Cap Assembly
10	Panel Decal, Indy XC (red)	23	Lower Tubes/Brace, 1 piece, No Hanger
11	Fork Boot	24	Reflector Bracket, No Hanger
12	Crown/Steerer/Upper Tubes		
13	Top Out Bumper		† Threadless Steerer



1997 Judy XC & SL

1 Reflector Bracket Screw
2 Reflector Bracket
3 Brake Post
4 One-Piece Lower Leg Assembly
5 Resi-Wiper Top Seal
6 Spacer
7 Upper Bushing
8 Lower Bushing
9 Bottom Bumper
10 Judy Panel Decal
11 Judy Decal (left and right)
12 Hollow Shaft Bolt
13 Shaft Bolt
14 Shaft End Plate
15 Upper Shaft Guide
16 Upper Shaft Guide O-ring
17 Neutral Shaft Assembly (63mm)
18 Flat Washer
19 Top Out Bumper
20 Lower Shaft Guide
21 Cartridge Retaining Ring
22 Cartridge Assembly
23 Cartridge Washer
24 Wavy Washer
25 Fork Boot
26 Crown/Steerer/Upper Tube Assembly
27 Top Cap Decal
28 Top Cap Assembly
29 Tuning Spring
30 Spring Stop Spacer
31 MCU Stop
32 MCU Bumper
33 One-Piece Lower Leg Assembly (Hangerless)
34 Hangerless Reflector Bracket
35 MCU Stop for 80mm Travel Setup
36 Damping Adjuster O-ring
37 Damping Adjuster Knob*
*Standard on SL, aftermarket option on XC

1997 Type II Spring System Tuning Kit

The new RockShox Type II Spring System makes our '97 line easy to adjust for a wide range of rider weights. Here is an overview of the standard configurations, options and some informantion on how to adjust your Type II Spring System for the perfect ride.

Standard Type II Spring Configuration (production forks)

Judy C/XC/DH/SL: 140 LB coil spring; medium spring rate adjuster (SRA); 1 MCU elastomer

Indy XC/SL: 110 LB coil spring; medium spring rate adjuster (SRA); 1 MCU elastomer

How To Get Started

Sit on your bike in a stationary position. The fork should compress a bit. This is what we call sag. You should have ~5mm of sag in a fork with 63mm of travel, and ~10mm of sag in a fork with 75-80mm of travel. Our forks are set up for the 140 to 180 lb, all-around rider who spends equal amounts of time riding every off-road terrain imaginable. Because you are probably not that rider, you can benefit from making tuning adjustments that suit your specific needs. If you do not have the correct sag, then read the sections on *Preload Adjustment* and *Coil Spring Adjustment.*

Preload Adjustment

The preload adjuster can help you adjust the amount of sag in your fork. Turn the knob towards the "–" to increase the amount of sag (softer) or towards the "+" to reduce the amount of sag (harder). If you are still not achieving the correct amount of sag, then you should adjust the coil springs.

Spring Rate Adjusters

Before you change the spring rate adjusters, please do the following exercises. Ride the fork as it is in order to get a sense of how it feels. Does it bottom out on big bumps? Does it feel too stiff? Once you understand how it feels, then you are ready to change it. There are 3 sizes of spring rate adjusters: small, medium and large. Your fork comes with a medium spring rate adjuster. The spring rate adjuster (SRA) can help you adjust the feel of your fork over big bumps. The longer the SRA, the earlier the spring stops working and the MCU takes over. If your fork bottoms out on large bumps, switch to the long SRA. If you are lighter in weight and your fork is too stiff or you are not getting enough action from your spring, then you should go to the short SRA.

Coil Spring Adjustment

If the standard spring is too stiff on small bumps, then you should try the lighter spring. If the standard spring feels too soft, or you have too much sag, try a heavier weight spring. Once you have changed the coil spring, you can fine tune the sag with the preload adjuster.

MCU Elastomers

The MCUs act to regulate your forks performance over big bumps. Adjusting the SRA will impact the performance of the MCU as described above. There is only one elastomer for 1997 — no more red and blue ones.

Tuning the Type II Spring System

Spring Rate Adjustments

1. Unscrew the top cap using a 22mm wrench or socket. Remove the spring stack assembly and clean the stack with degreaser. Wipe dry. (Fig. 1)
2. Pull the MCU and spacer from the spring rate adjuster, coil spring, and top cap.
3. Separate the spring rate adjuster from the coil spring.
4. Snap the appropriate spring rate adjuster into the coil spring.

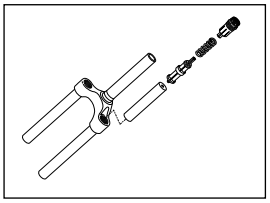
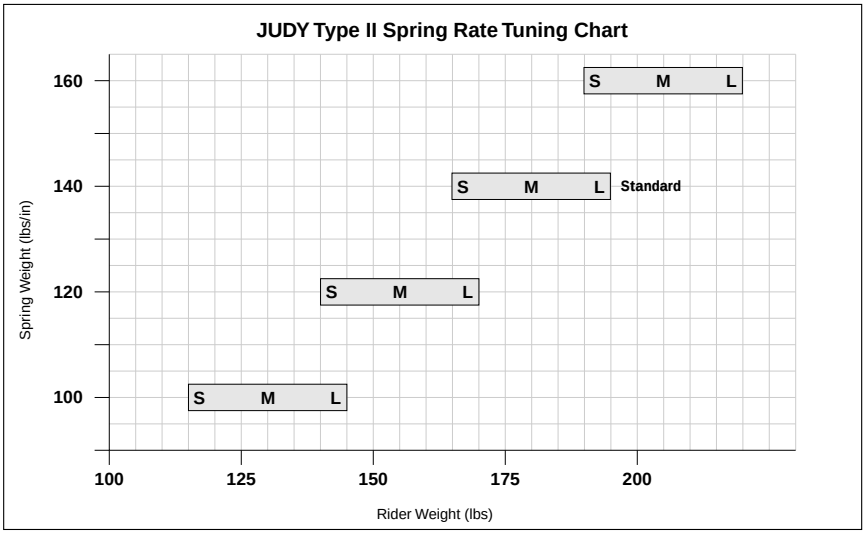
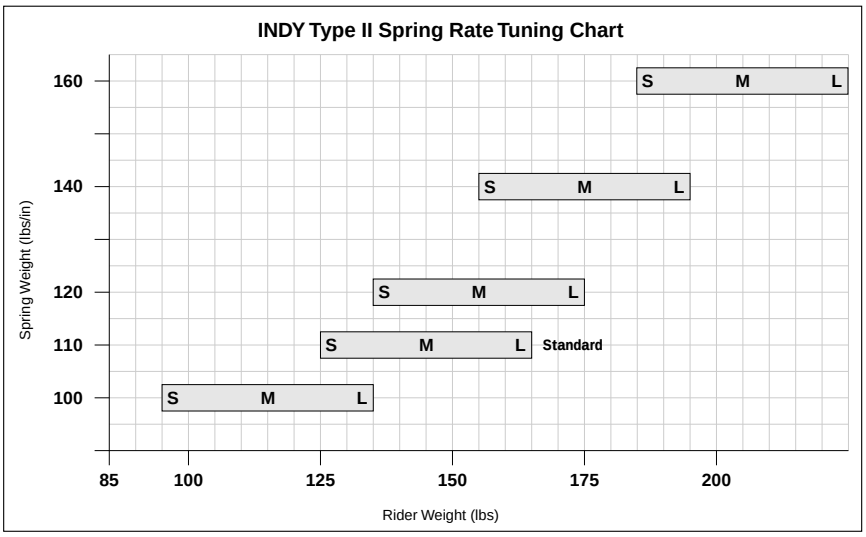


Fig. 1

5. Snap the MCU/spacer assembly onto the spring rate adjuster.
6. Install the clean and greased spring stack assemblies into the upper tubes, starting the top cap threads by hand. Do not cross-thread.
7. Tighten the top cap until it is flush with the upper tube.
8. Using a 22mm socket and beam-style torque wrench, torque top cap assembly to 20-30 IN-LBS (2.3-3.4 Nm). This should be between 30-60° of clockwise wrench movement once the cap is flush with the upper tube. After riding you may need to adjust the top cap knobs to obtain the same sag/preload feel. (see Preload Adjustment, oppposite)





The Spring Charts above shows approximate rider weight ranges for different coil spring weights. The "S", "M" and "L" designations indicate which spring rate adjuster you would probably use for your particular weight and the spring you have chosen. This chart is only a general guide, and can be affected by terrain and riding style. Adjusting the spring rate adjuster regulates the point at which you switch from using a combination of coil spring and MCU to using just the MCU. If you are outside the range of your coil spring based on weight or riding style, you may want to switch to the next coil spring weight in that direction.

Coil Spring Adjustment

Note: the coil spring stops must be the same in each leg.

1. Unscrew the top cap using a 22mm wrench or socket. Remove the spring stack assembly and clean the stack with degreaser. Wipe dry. (Fig. 1)
2. Remove the coil spring from the spring rate adjuster, MCU spacer(s) (if applicable), and MCU.
3. Snap the appropriate coil spring onto the spring rate adjuster/MCU assembly.
4. Attach the top cap to the coil spring.
5. Install the clean and greased spring stack assemblies into the upper tubes, starting the top cap threads by hand. Do not cross-thread.
6. Tighten the top cap until it is flush with the upper tube.
7. Using a 22mm socket and beam-style torque wrench, torque top cap assembly to 20-30 IN-LBS (2.3-3.4 Nm). This should be between 30-60° of clockwise wrench movement once the cap is flush with the upper tube. After riding you may need to adjust the top cap knobs to obtain the same sag/preload feel. (see Preload Adjustment, oppposite)

Type II Spring Replacement

The Type II spring system in Judy and Indy forks provide cutting edge performance with the lively action of a coil spring and the light weight progressiveness of an MCU. However, over time the springs can wear out, compromising performance. This is evident in compression set, when the coil spring and the MCU are shorter in a resting state than they were when new. Follow the table listed below as a guide to know when to replace the Type II Spring System. Follow directions to clean and grease spring stack found in the Maintenance procedures, ***After every week or 8 hours of riding,*** in the Owner's Manual, for removal and installation.

Type II Spring System Specification Table

Model	Coil		MCU	
	Nominal	Replace	Nominal	Replace
All INDYs	51 mm	46 mm	115 mm	109 mm
63mm JUDYs	51 mm	46 mm	100 mm	94 mm
80mm JUDYs	51 mm	46 mm	115 mm	108 mm

Torque Tightening Values

Crown Bolts (Indy XC only)	60 in-lb	6.8 Nm
Top Cap Assemblies	30 in-lb	3.4 Nm
Brake Posts	60 in-lb	6.8 Nm
Plunger Bolts	120 in-lb	13.6 Nm

Type II Retrofit Kits

There is a separate Type II Spring System Kit for old Judy forks ('95 & '96) so our customers can upgrade their old Judy forks to the Type II Spring System.

Important Instructions and Service Tips

Use the proper spring kit for each fork model. ***The Indy SL kit cannot be used for an Indy C or XC*** as the leg inside diameter is smaller. When changing your coil springs and spring rate adjusters, do not bend the system, as the connections are for compression and not built for side loads.

Tip: First, pull off the MCU, then disassemble the coil and spring rate adjuster. Service your Type II Spring System by greasing the outside of the MCU elastomer and coating the coils with a thin layer of Judy Butter.

Tip: 1997 Loong Travel Judys (80mm) use a 117mm MCU attached directly to the SRA. There is no MCU spacer.