

# MAZDA MOTORSPORTS

By **PENSKE**  
RACING SHOCKS

## MX-5 CUP ADJUSTABLE COILOVER SHOCKS

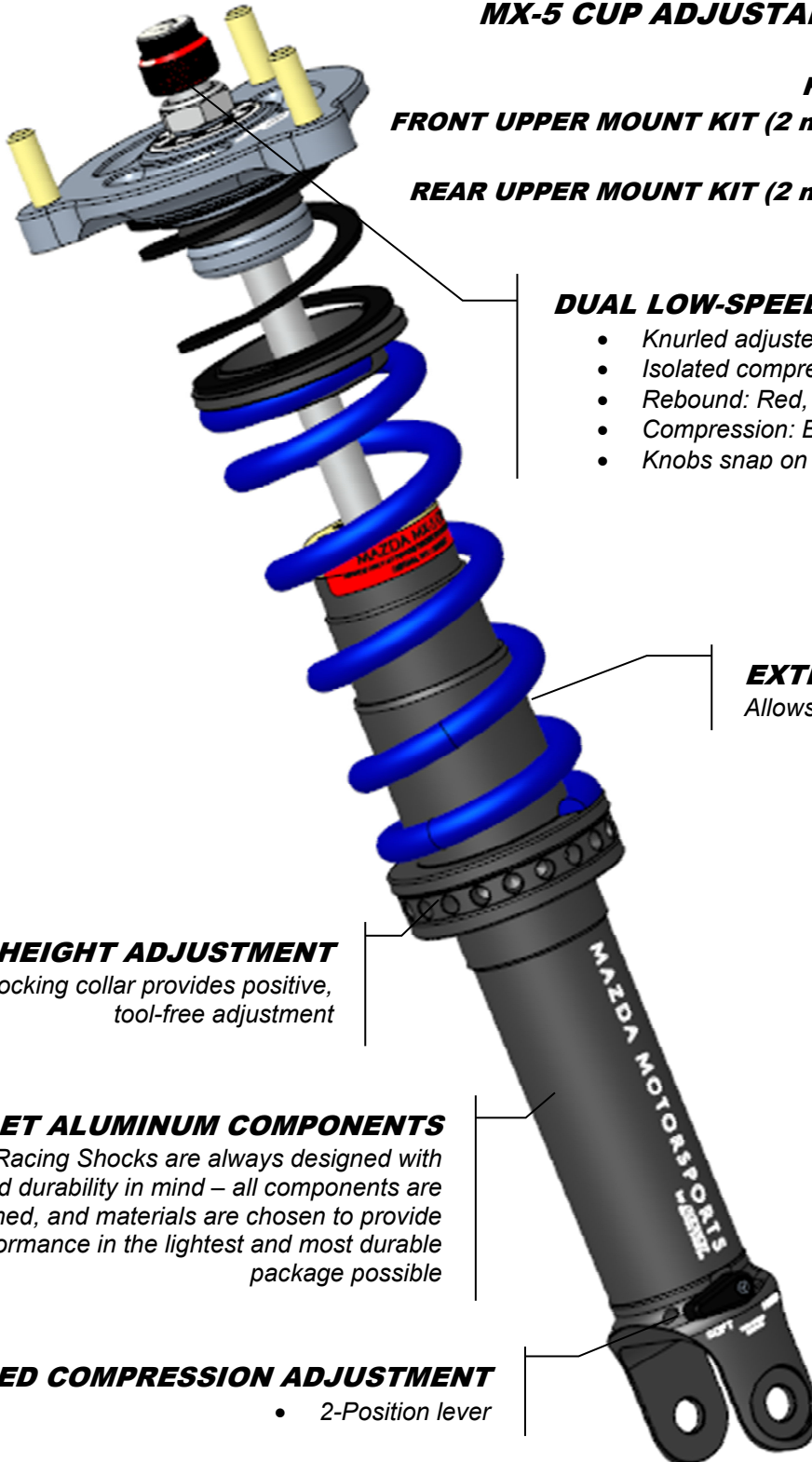
### MAZDA PART NUMBERS:

**FRONT SHOCK: 0000-04-5630**

**FRONT UPPER MOUNT KIT (2 mounts per kit): 0000-04-5636**

**REAR SHOCK: 0000-04-5640**

**REAR UPPER MOUNT KIT (2 mounts per kit): 0000-04-5646**



### DUAL LOW-SPEED DAMPING ADJUSTMENT

- Knurled adjuster knobs
- Isolated compression and rebound adjustment
- Rebound: Red, 12 total clicks of adjustment
- Compression: Black, 12 total clicks of adjustment
- Knobs snap on and off to allow for ease of assembly

### EXTENDED SPRING GUIDE

Allows for smooth spring operation

### RIDE HEIGHT ADJUSTMENT

Knurled locking collar provides positive, tool-free adjustment

### BILLET ALUMINUM COMPONENTS

Penske Racing Shocks are always designed with performance and durability in mind – all components are CNC machined, and materials are chosen to provide maximum performance in the lightest and most durable package possible

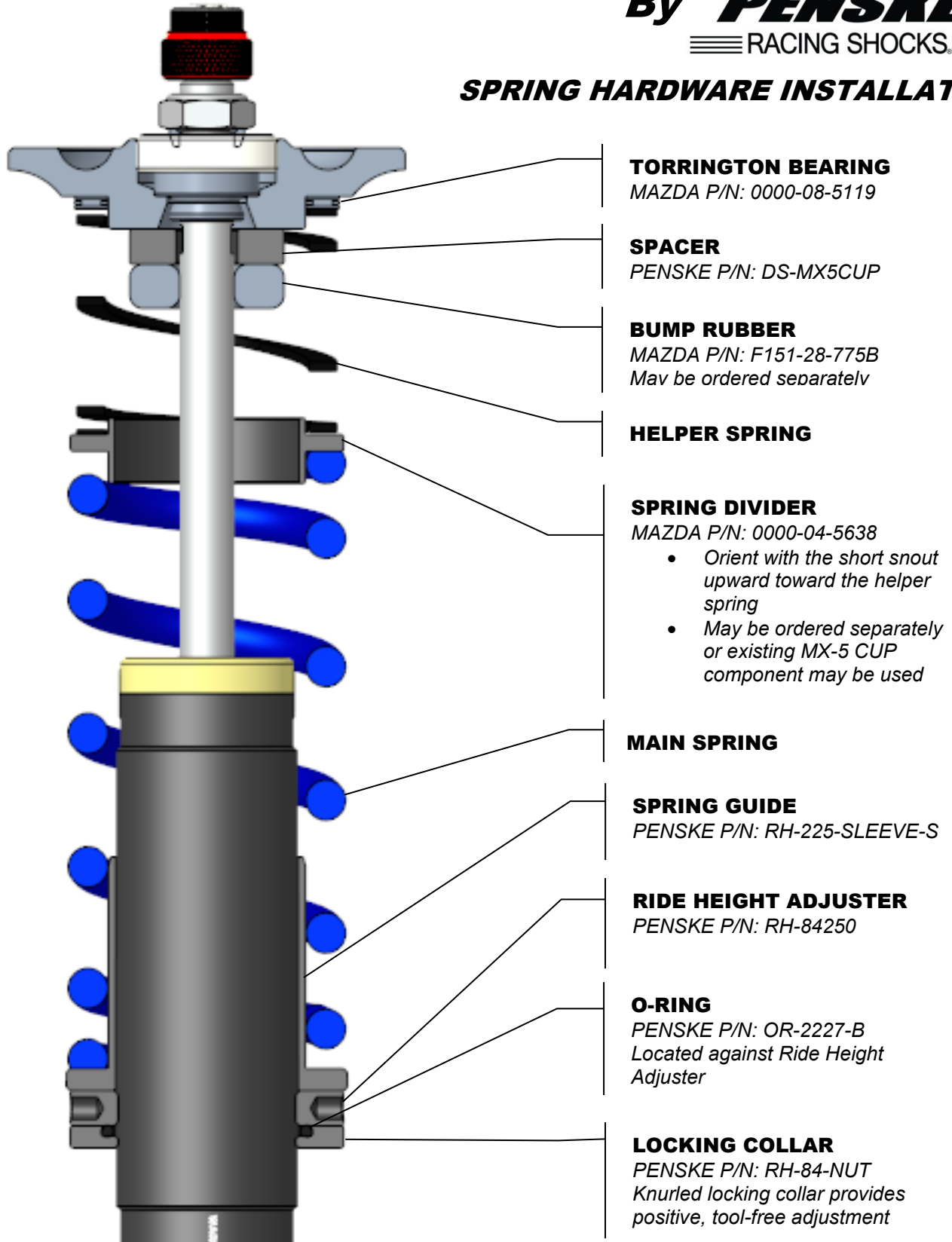
### HIGH-SPEED COMPRESSION ADJUSTMENT

- 2-Position lever

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## SPRING HARDWARE INSTALLATION



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## **MOUNTING PLATE**

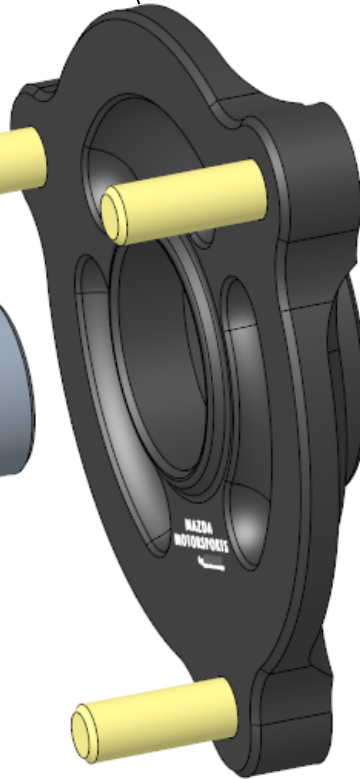
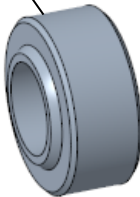
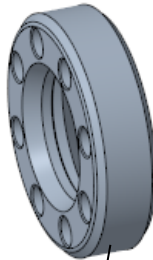
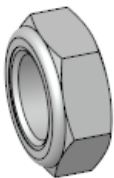
FRONT PENSKE P/N: HG-MX5CUP-F, 3 bolt  
REAR PENSKE P/N: HG-MX5CUP-R, 2 bolt

## **M10 x 1.25 STUDS**

For use with stock mounting nuts

## **SPHERICAL BEARING**

PENSKE P/N: MO-COM10T



## **MOUNTING SPACER**

PENSKE P/N: BU-MX5CUP  
2 Places both with larger diameter facing outward

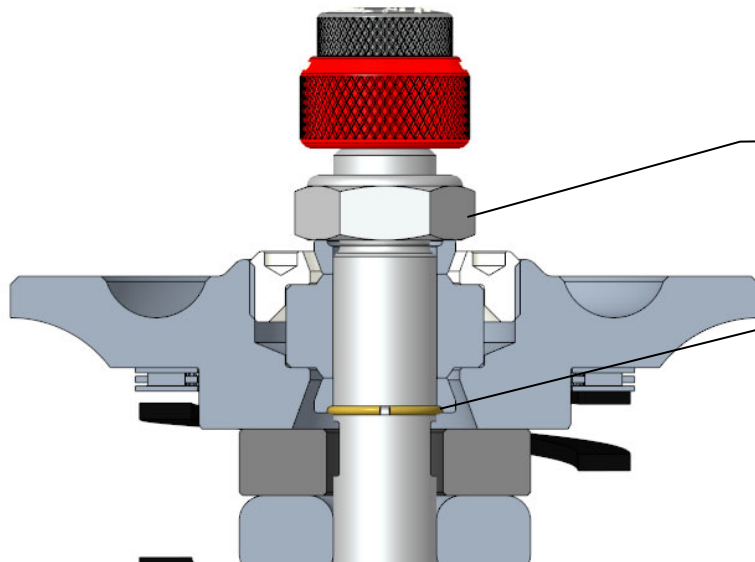


## **SPACER**

PENSKE P/N: DS-MX5CUP  
Bump rubber support

## **BEARING NUT**

PENSKE P/N: NT-MX5CUP-MT  
Torque: 50ft-lb  
LOCTITE 243 (blue)



## **SHAFT LOCKNUT**

PENSKE P/N: NT-4J-NYLOC  
Torque: 40ft-lb

## **RETAINING RING**

PENSKE P/N: RR-58

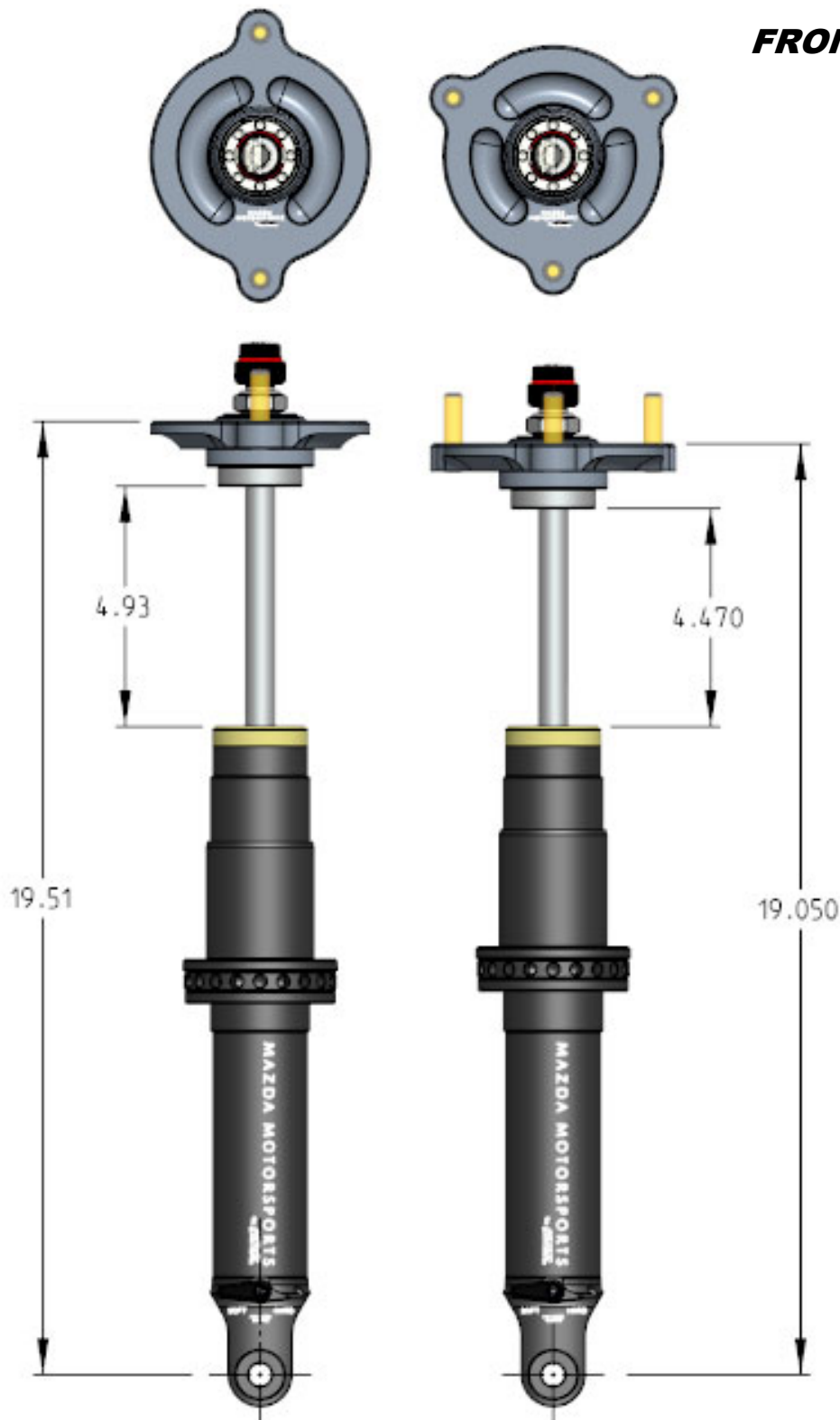
# MAZDA MOTORSPORTS

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**REAR**

**FRONT**

**FRONT/REAR COMPARISON**



# MAZDA MOTORSPORTS

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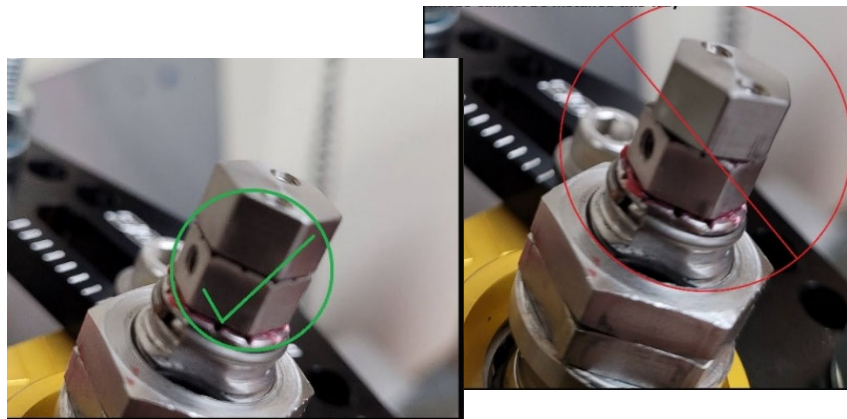
## **ASSEMBLY INSTRUCTIONS**

Newly purchased shocks will include the locknut and adjuster knobs mounted to the shaft. The knobs snap on and off using a clip and groove design. The steps below are for initial assembly. These steps can also be used to assemble and disassemble the full shock assembly for service.

- Use a 24mm wrench to back off the retaining nut until it contacts the red rebound knob. The shaft can be held with a 14mm open end wrench on the flats.
- Slowly unscrew the nut until the adjuster knobs pop from the shaft. Try to keep your finger over the knobs to keep them from shooting from the shaft or damage may result.



- The knobs will come loose, but the hex shaped adjusters should stay with the shaft. As seen below, the two hex shapes may need to be aligned to remove the knobs completely. You may need to move the black vs. red knobs by one click to achieve this.



- The hex adjusters will remain in place while you install the spring package and upper mount.
- Install the spring and bump rubber package as shown on page 2
- Install the Mounting Spacers on the shaft, one above and one below the upper mount as shown on page 3
- Re-install the locknut using a 24mm socket and a 14mm wrench holding the flats on the shaft, Torque to 40 ft-lb
- Be sure that both hexes are aligned, slide the knobs on and bottom them against the snap ring. Snap the knobs over the ring using a quick blunt force. A light tap from a rubber mallet is usually enough to snap the knobs in place.

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## ***DAMPING ADJUSTMENT GUIDE***

### **DUAL BLEED LOW-SPEED ADJUSTER**

#### **Notes:**

- The red and black low speed damping knobs are located at the top of the shock above the upper mount
- The Compression adjuster is the BLACK knob, The Rebound adjuster is RED knob
- Clockwise is + /hard , Counterclockwise is -/soft
- There is a positive stop in the full hard position, DO NOT force the adjuster beyond the full hard stop
- There is no positive stop at full soft, full hard is the reference point for setting the number of clicks
- The Black Compression knob will turn along with the Red Rebound knob; this is not changing the compression setting. The Red Rebound knob should not turn when the Black Compression knob is turned
- There are approximately 12 effective clicks of adjustment for each of the low-speed adjusters
- Minus 6 clicks on both adjusters is a good starting point
- The bleed adjusters are an effective way to tune driver feel and weight transfer characteristics of the racecar

#### **To set the dual bleed adjusters, follow these steps in order;**

- Back off compression a few clicks counterclockwise to make sure it's not at full hard
- Turn Rebound clockwise to full hard
- Turn compression clockwise to full hard
- Adjust compression counterclockwise counting clicks to desired setting
- Adjust rebound counterclockwise counting clicks to desired setting

It is not necessary to repeat this procedure for every adjustment, only to initially set the knob positions. For example, to increase rebound 2 clicks, just turn the rebound adjuster 2 clicks clockwise.

#### **To check the adjuster settings;**

- First turn RED Rebound knob clockwise and count number of clicks until it stops at full hard, Then turn BLACK Compression knob clockwise and count number of clicks until it stops at full hard

For further Tech info, refer to the dual bleed tech bulletin:

<https://f.hubspotusercontent00.net/hubfs/8000307/Resources/Tech%20Sheets/dual%20bleed%20tech.pdf>

### **HIGH SPEED COMPRESSION ADJUSTER**

#### **Notes:**

- The BLACK Two-position Lever is located at the bottom of the shock
- Clockwise position is HARD, Counterclockwise is SOFT
- SOFT setting is recommended as a starting point with the HARD setting to be used for added stability
- Note, the HARD setting may not be as compliant over the curbs

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