

BC

BR TYPE

Height Adjustable Coilover Damper Kit --- Instructions

MODEL

FOREWORD

- Thank you for purchasing BC Racing shocks.
- Please read these instructions carefully before installation.
- These products are designed and produced by Taiwan Bor-Chuann Enterprise Co., Ltd.
- This product has one year guarantee; please save your receipt from the vendor when you purchase the shock absorber.
- Please use the product in accord with applicable laws of your country. We are not responsible for illegal installation and use.
- Please make sure your kit is the correct application for your vehicle. Please don't attempt installation if you can't make sure.
If the application is not correct for your car after you install the kit, we will not accept returns unless it is our mistake in assembling.
- If you find the specification of the product is error or parts are missing or broken, please contact your supplier immediately.

Taiwan Bor-chuann Enterprise Co., Ltd.

N o.34 -9 , Sihde S. Rd., Wufong Township, Taichung County 413 , Taiwan

TEL :886 -4-233 9-9693 FAX:886 -4-2339-9193

E-mail: bor.chuann@msa.hinet.net <http://www.bcec.com.tw>

Product Instructions

- BC's shock absorbers are designed and produced to fit original factory dimensions.
- The damping and spring rates (hardness) of this product are different from the original factory characteristics
- It is not necessarily legal to drive on public roads with these shock absorbers installed. Please use the shock absorbers in accord with the law in your country.
- BC is not responsible for any indirect accident , damage, danger, or death by which our company produce.
- This product has highly compressed nitrogen . Don't expose it to heat or fire. Doing so may create a risk of explosion.
- In any situation, please don't disassemble shocks by yourself without our guidance. We are not responsible for injury or failure of the product, caused by unauthorized disassembly.

Before Installation

- Please read the contents of these instructions completely before installing.
- These instructions should be passed on to any subsequent users of the product.
- This document is may not be copied all or in part according to the law.
- BC Racing does not guarantee any notification when this product is revised.
- These should be installed by professional personnel (professional license).
- Any disassembly of brake systems requires professional knowledge and technology.
- Before installation, please inspect the components for completeness. If there are missing or damaged components, please contact your vendor.
- Do not install components not intended for your vehicle . Doing so may possibly damage the product and the vehicle components.
- BC is not responsible for any accident , injury, or death , caused by incorrect installation, assembly, or modification of the product.
- BC Racing will not be responsible if any problems result from installment instruction.

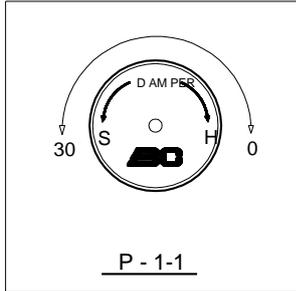
Installation

- This product needs to be installed by professional technical personnel. The installers need to read these instructions completely before installing.
- The installers must wear proper protective gear to avoid injuring when installing.
- Some car types need to use the OEM upper mount, which must be removed from the factory shock or strut assembly.
Important: To disassemble:
Before removing top nut, a spring compressor must be used to compress the spring. Confirm the spring is compressed, and the spring has left the spring upper seat.
Please loosen the spring compressor smoothly and carefully remove the shock when you loosen the spring compressor.
- Please use only the upper mount supplied by BC or OEM mount depending on application. It is not recommended to use other manufacturers' mounts. If mounts other than OEM or BC mounts are used, BC is not responsible for any potential consequences.
- When installing this product, take care not to strike the piston rod. Damage to the piston rod may cause oil leaks and failure of the shock.
- Please note the position and direction (left or right) of initial shock absorber when you are installing.
- When disassembling or installing the upper mount, do not use an air impact wrench because excessive torque may cause stripped threads or broken bolts.
- If an air impact wrench must be used, make sure the torque is limited by lowering the air pressure.
- BC is not responsible for damage to the product caused by improper use of air impact wrenches.
- After adjusting the length, please use spanner wrenches to tighten all lock rings. If this step is not completed properly, noise or damage to the product or vehicle may result.
- Making sure to properly secure brake lines and ABS sensor wires, and to tighten lower mount. Failure to do this properly may damage the product or vehicle, and cause an unsafe condition.

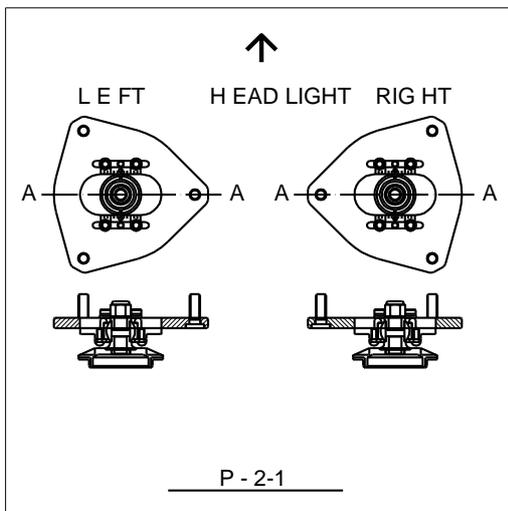
After installation

- Please adjust HIGH/LOW setting of shock absorber to control ride height according to local laws and regulation of vehicles.
- BC is not responsible for violation of local laws and regulations.
- Recheck tightness of lock rings and nuts regularly.
- Do not allow dirt and sand to contaminate the piston rod. Regular cleaning of the piston rod and other components will prolong the life of the product.
- Before re-adjusting height, clean dirt, sand, and grease off the cylinder threads and mounting components to avoid jamming that would make height adjustment impossible.
- Keep in mind that changing spring rates (softer or harder) will change the ride height.
- When springs are changed, preload and ride height will need to be readjusted.
- After installing, please confirm all components of shock absorber whether they are tightened already.
- Please confirm all nuts, spring pallet, bracket pallet, and stable line (oil tube, ABS, brake) whether they have tightened.
- Failure to check all fasteners for tightness after installation may result in noise or danger.

DAMPING ADJUSTMENT (30 LEVELS)

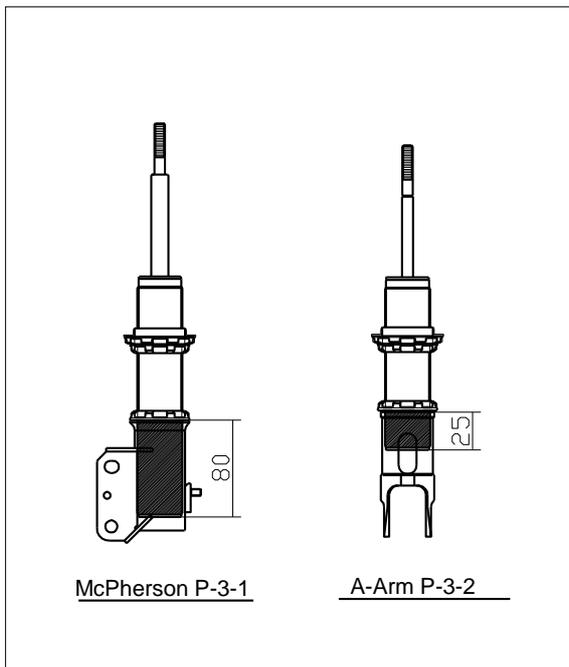


- Direction H (HARD) is hard -- clockwise-- turning H to bottom is level 0.
- Direction S(SOFT) is soft-- counterclockwise -- turning S to top is level 30.
- Factory setting is level 8
- When adjusting damping, turn in direction H clockwise all the way to the bottom, then turn counterclockwise to your desired setting.
- When damping is adjusted, damping levels should match on the left and right sides of the car; however, front and rear levels may be adjusted to individual needs and preferences.



Pillow ball upper mount w/camber

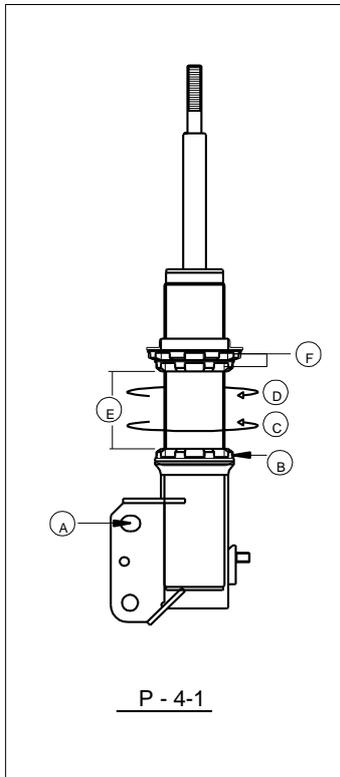
- Installing pillow ball upper mount
- Note: some vehicles do not have this option
- Tighten the four camber adjusting screws before mounting, then retighten them after installing.
- When installing the camber plate, note the diagram; line A-A should be at a 90 degree angle to the centerline of the vehicle.
- After installation, the four camber adjusting screws may be loosened to adjust the camber angle.
- After adjustment to the correct camber angle, retighten all screws again.



Caution--Ride Height Adjustment

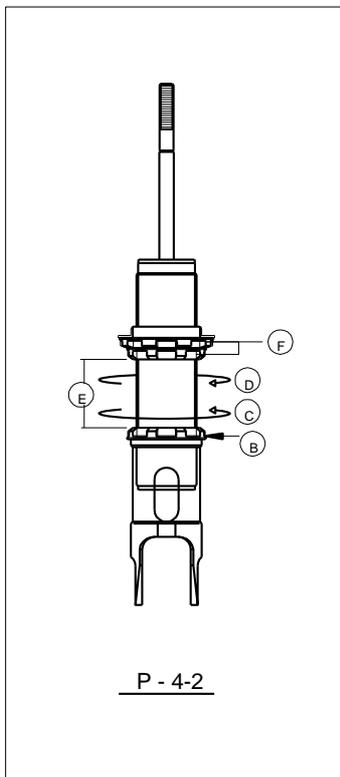
- The minimum safe connection for lower mount:
When adjusting ride height, pay attention to the depth the lower cylinder is screwed into the lower mount to avoid stripped threads or other damage to the product and to ensure maximum strength of the connection between the parts for safety.
- A arm suspension: not less than 25mm.
(Diagram P-3-2)
- McPherson suspension: Not less than 80mm.
(Diagram P-3-1)

How to adjust ride height



<McPherson> P-4 -1

- Raise one end of the vehicle off the ground and support securely.
- Loosen bolt (A) (Ride height already set, but needs to be readjusted)
- Measure distances (E)
- Use spanner wrench to loosen locknut (B)
- Turn cylinder in direction (C) to raise vehicle body.
- Turn cylinder in direction (D) to lower vehicle body. Retighten locknut (B) and bolt (A)
- Any looseness will result in noise and affect driving safety.
- If unnecessary or if spring length is unchanged, do not loosen or move locknut (F)
- Don't use locknut (F) to tighten spring to raise vehicle height or increase stiffness. If this is done it will cause ride discomfort and compromise safety.
- Don't loosen locknut (F) to loosen spring to lower vehicle height. This can result in shortened shock life and compromised vehicle safety.



<A-Arm> P-4 -2

- Raise one end of the vehicle off the ground and support securely.
- Measure distances (E)
- Use spanner wrench to loosen tightened locknut (B)
- Turn cylinder in direction (C) to raise vehicle body.
- Turn cylinder in direction (D) to lower vehicle body. Retighten locknut (B)
- Any looseness will result in noise and affect driving safety.
- If unnecessary or if spring length is unchanged, do not loosen or move locknut (F)
- Don't use locknut (F) to tighten spring to raise vehicle height or increase stiffness. If this is done it will cause ride discomfort and compromise safety.
- Don't loosen locknut (F) to loosen spring to lower vehicle height. This can result in shortened shock life and compromised vehicle safety.

Raise / Lower suspension

Item instruction

- 1 Adjustable height strut
- 2 Adjustable lock nut
- 3 Spring
- 4 Cylinder

Ride height adjustable

Before adjustment, clean 1 2 by airbrush first.

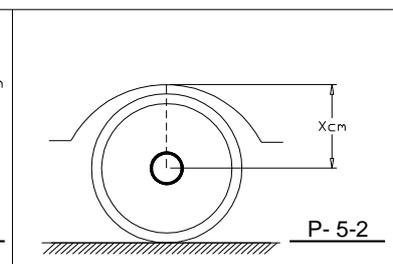
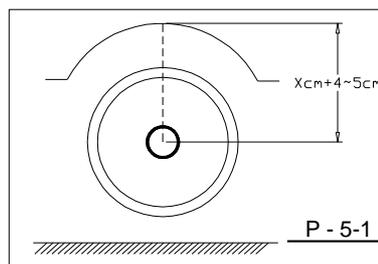
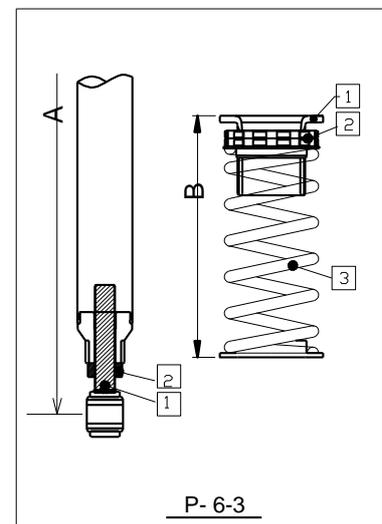
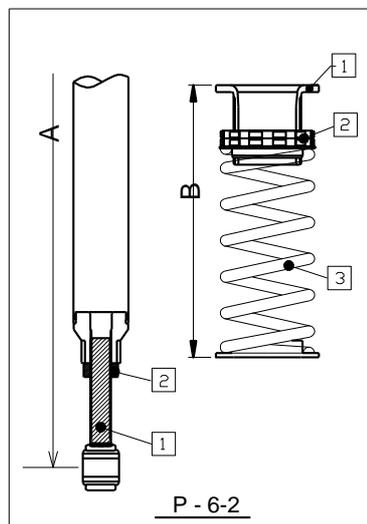
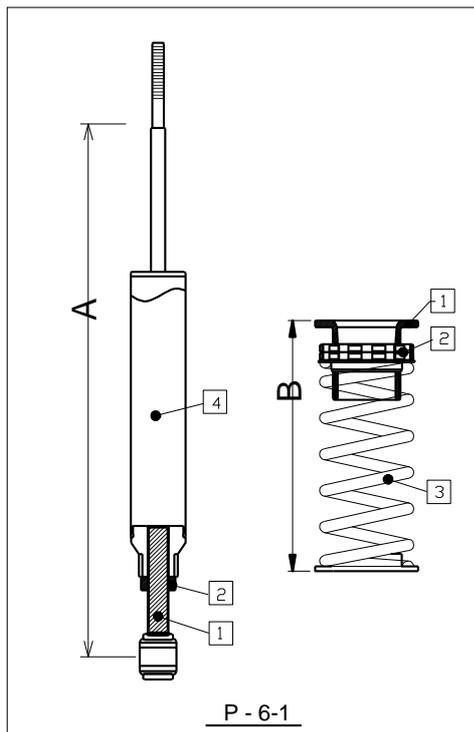
Please adjust **A** and **B** to longer together.

- (P-6-2)

Lower

Please adjust **A** and **B** to shorter together.

- (P-6-3)



Please

- When you adjust the height, please adjust **A** and **B** together.
Don't adjust **A** or **B** individually.

Ex.1 Just adjust A to longer- -- Spring would be too loose

Ex.2 Just adjust A to shorter -- -Spring would be too constrictive(bounce)

Ex.3 Just adjust B to longer- -- Spring would be too constrictive (bounce)

Ex.4 Just adjust B to shorter -- -Spring would be too loose

- Please check vehicle suspension travel after adjustment. (P-5-1) (P-5-2)

Normal stretch distance is 40-50MM.

- After adjustment, please check 1 and 2 for tightness.

Frequently asked Questions and Checklist

- The specifications of product is not accord with your car.

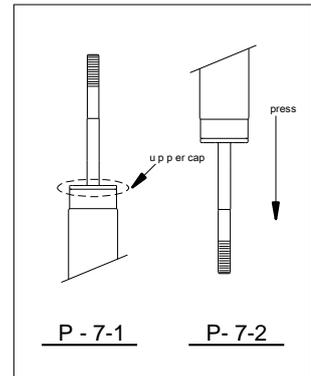
A: Please contact the merchant immediately.

- Oil leaking

A: This situation should be evaluated by professional personnel.

Signs of oil on the exterior of the shock do not necessarily indicate leakage from the shock. Pull back the dust cover and check for a large accumulation of oil around the upper cap. If so, remove the shock assembly and clean up the top cap and the piston and perform a shock function test (full compression to full rebound) on the ground three times. If oil then appears around the piston, this signifies leakage of the shock.

Leakage of the shock is usually accompanied by noise.



- Noise

A: This situation should be evaluated by professional personnel.

Undercarriage noises have a lot of causes. The shock is only one of many potential causes. In case of noise, check all bolts and locknuts for tightness, especially in the top mount, and check to make sure the spring is properly preloaded.

A: When shock absorber has noise, it is usually breakdown with cylinder (leaking oil is unable to work normally), upper mount , or tilt rod.

- Damping can 't be adjusted.

A: When you adjust damping , the knob pivot doesn't stop.

Hexagon rod of adjusting knob is rounded.
the fixed mount of adjusting knob doesn't properly contact the piston rod.

Hexagonal socket in piston rod is deformed.

Hexagon socket in adjusting rod is plugged with debris.

A: When you adjust damping , the knob will not turn.

when adjusting to the hardest or softest position, be careful to not use excessive force at the limit. This may cause the internal adjuster parts to become jammed.

Use less force on the adjuster and the problem will not recur.

