



## OPERATIONAL MANUAL

Thank you for purchasing our products.

We pride ourselves on supplying the most technically advanced, best developed and highest quality unit for your application.

We employ technicians who are the most competent in their field to ensure every unit we supply offers you the best performance.

Our technical support is available to you no matter how large or small your enquiry and you will always receive helpful, friendly advice from us.

Please read this manual thoroughly before installing the products and keep for future reference.

MeisterR Adjustable Suspension units are referred to in this manual as the "Coilovers".

**All MeisterR Coilovers units are subjected 1 year Warranty against manufacturing defects.**

Incorrect fitting can result in damage to the Coilovers, dangerous handling problems and will void the Warranty.

Wheel alignment and height adjustment will be required after fitting the Coilovers.

All MeisterR Coilovers can be dismantled to provide easy access for overhaul, repair or maintenance.

Dismantling of the shock absorber unit or any portion of the shock absorber unit should **NOT** be performed as it contains pressurised gas. Any attempt to do so will void the Warranty.

Please contact MeisterR for any information regarding Warranty, Spares and Repairs.

MeisterR Ltd.

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EMAIL: [info@MeisterR.com](mailto:info@MeisterR.com)



## **PREFACE**

### **CAUTION – READ BEFORE INSTALLATION**

- Before installation please verify that all necessary parts are included
- Note that product design improvements and changes may be made without notice.
- Ensure that all components of the MeisterR coilovers are tightened before installation.

Items that require tightening are:

Locking nut or pillowball bearing upper locking nut,

Springs seat

Locking collar

Bracket locking collar

Camber plate bolts (if applicable)

Stabilizer links (if applicable) and/or any other parts.

- Do not install the coilovers in vehicles other than the one specified by MeisterR. If Coilovers are installed into a vehicle other than specified, damage may be caused to vehicle and/or the Coilovers, which will void Warranty.



## IMPORTANT PRODUCT INFORMATION

- Coilovers contain pressurised gas. Do not dispose of in fire. Please consult a specialist recycler to dispose of the Coilovers safely.
- Do not attempt to machine or modify any part of the Coilovers.
- Do not grip the shaft with any tool, as any mark on the shaft may cause leakage and damage to the seals
- Do not use impact wrenches of any sort to tighten bolts or nuts. The torque settings set out in the Vehicle's workshop manual should be adhered to in fitting the Coilovers
- These fitting instructions are only a general guide, as the specific design of the Coilovers may vary from model to model and may also be changed without notice for improved performance. **Please contact MeisterR if in doubt.**
- When fitting the Coilovers, ensure that there is no contact or interference with the tyres, body or other suspension components
- Some Coilovers do not have fittings for brake lines, ABS sensor wires, etc. These items must be secured with specialised fittings. **Please ensure brake lines are secured and free from contact at any steering angle as abrasion against moving parts may cause brake failure.**
- When setting height and camber, ensure that the tyres do not contact the body, Coilovers or other suspensions components at any steering angle or at any point in the suspension' compression or droop. Any contact could cause abrasion, resulting in a tyre failure.
- If snow chains are fitted, only rubber-net type chains should be used. Steel chains are likely to interfere with the Coilovers and cause damage
- If there is any unusual noise, strange steering behaviour or handling abnormality after fitting, stop driving the car immediately, remove the coilovers and return to the Distributor if any fault is found.
- Periodically check for any loosening of nuts or lock nuts. Check for any fluid leak from the shaft seal. A leaking damper should be replaced immediately.



## INSTALLATION

### PREPARATION

- Before jacking the vehicle, measure the distance from the centre of the wheel to the top underside of the wheel arch.
- Write these measurements down as a reference point for height adjustment after fitting the coilovers. It is important to adjust the height evenly to maintain safe handling characteristics.
- The vehicle must be on a hard level surface to be jacked safely.
- Use a trolley type floor jack (not a scissor jack) and support the car with axle stands. Do not attempt to fit suspension using only a jack, as the car will not be sufficiently stable. Serious injury or death may result from improper preparation.
- It is recommended to install the front pair first and then the rear pair, by doing so the entire car does not need to be supported by axle stands.
- Ensure that the axle stands are located in a suitable location as specified by the vehicle's owner's manual.

1. Remove wheels

2. Remove original coil/spring assembly (do not undo the top nut on the original shock absorber, as the spring may be under tension).

3. Insert the new Coilovers and loosely bolt the top mount into place before fitting the base. It may be necessary to use a floor jack to raise the hub when fitting the base.

Optional: Coat all contact surfaces between the damper body and adjustment brackets with white lithium grease to prevent corrosion build up.

4. Do not fully tighten the top mount until car is on the ground, as premature tightening can damage the bolt thread.

5. When the top mount and base have been secured and tightened to the vehicle manufacturer's specifications, tighten the spring base so that the spring cannot move up or down. The spring comes with 2mm pre-tension from the factory (some models have more). Check pre-tension before installation and ensure they are evenly pre-tensioned per axle. More spring tension may be required after fitting.

6. After setting the height (refer to next section) tighten the nuts on the top mount according to the vehicle manufacturer's specifications. A four wheel alignment will be required once the height has been set.

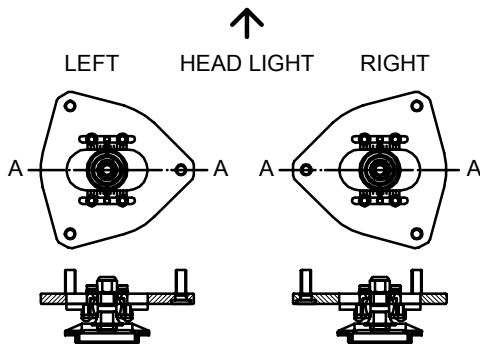
# Advanced Suspensions by **MEISTER**

## DAMPING ADJUSTABLE (32 LEVELS)



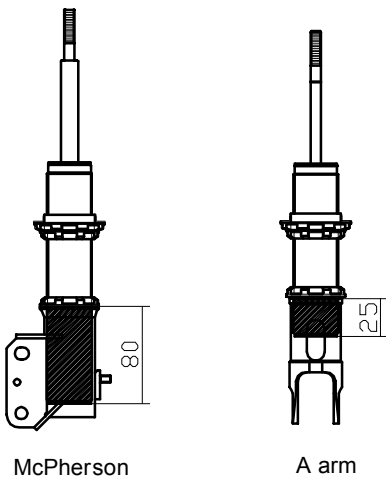
- **NB: Do not use excessive force on the adjusting knob or permanent damage may be caused (See Trouble Shooting and Checks page 8).**
- Clockwise direction (**HARD**) is to stiffen damping. Turn the adjustment knob clockwise until it stop at Level 0 - hardest setting.
- Anti-clockwise direction (**SOFT**) is to soften damping. Turn the adjustment knob anti-clockwise until it stop at Level 32 - softest setting.
- Damping can be adjusted at any time after installation of the Coilovers.
- To adjust the damping, turn the damper knob clockwise toward Hard until the adjustment knob stops. Then turn the damper knob anti-clockwise towards Soft until the desired level of damping is reached.
- Please ensure the damping adjustment levels are the same between axles (driver side and passenger side). The damping level can be different on the front and the rear dependent on driver preferences.

## CAMBER PILLOWBALL UPPER MOUNT



- Applicable on specified car models.
- Please tighten the four retaining bolts first before installation.
- Bolts should be torque up to the specified setting ( 16.7 ~ 18.6 Nm / 1.7 ~ 1.9 kgf/m )
- When installing the camber plate, please pay attention to the chart. The Axis AA should be 90 degree angle with the vehicle body.
- The four bolts can be released and adjusted to the desired camber angle. These must be tighten to the correct specification once desired camber angle is achieved.

## RIDE HEIGHT ADJUSTMENT SAFETY

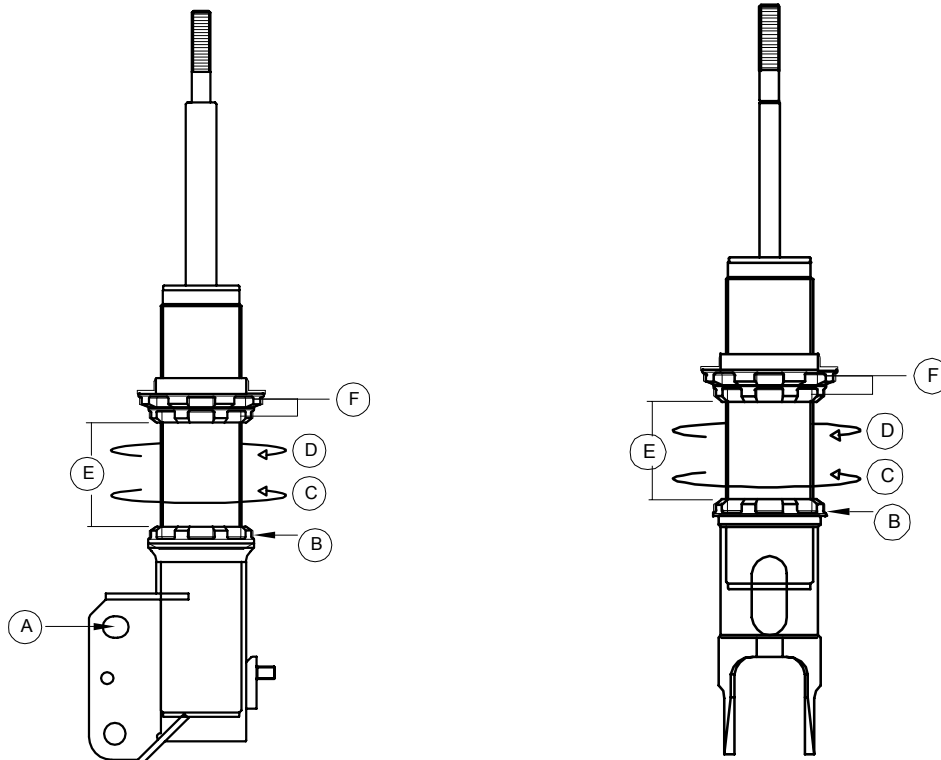


- Safe ride height adjustments for lower mount:  
When adjusting ride height, ensure the amount of the damper locked into lower mount.  
This ensures structural integrity and avoids damage from distortion. These are the minimum value for safety
- A-arm suspension: cannot be less than 25mm.
- MacPherson suspension: cannot be less than 80mm

If in doubt, please Contact MeisterR for further information regarding installation of the Coilovers.

# Advanced Suspensions by **MEISTER**

## HOW TO ADJUST RIDE HEIGHT MACPHERSON STRUT                      A-ARM



The below instructions applies to both MACHPHERSON STRUT & A-ARM

- Measure distances E
- Use a C spanner to loosen locking collar B
- Turn the damper body along C direction to turn damper body out of the lower bracket and raise ride height.
- Turn the damper body the opposite direction to lower the cars' ride height.
- Tighten the locking collar B after the desired ride height is reached.
- Any loose collar will create noise and affect driving safety.
- Only when adjusting the springs pre-load, should collar F be loosened or moved.
- Do not use collar F to tighten the spring to increase cars' ride height or increase hardness. This will affect suspension movement resulting in uncomfortable ride quality.
- Do not loosen the collar F to reduce the ride height. This can cause springs to become loose. This will result in poor ride quality and possibly cause damage to dampers.
- Springs must be "loaded" at all time.
- Any damaged from improper ride height adjustments will void the Warranty.

# Advanced Suspensions by **MEISTER**

## INSTALLATION OF SPRING ADJUSTER FOR SEPARATE DAMPER & COIL SETUP

Install the spring adjuster first.

Ensure rubber insulation is present & the mounting bolts are secure (if applicable).

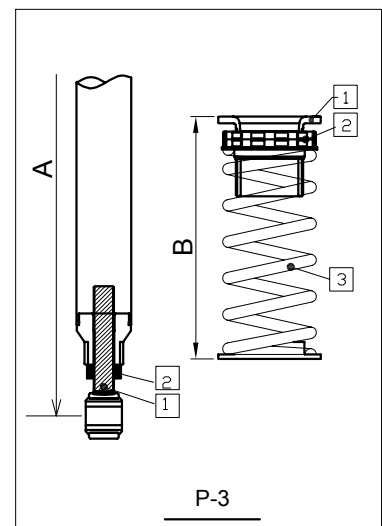
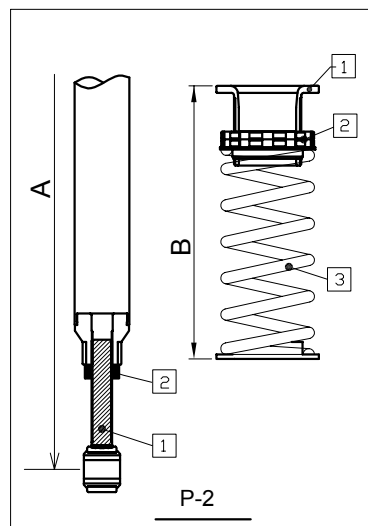
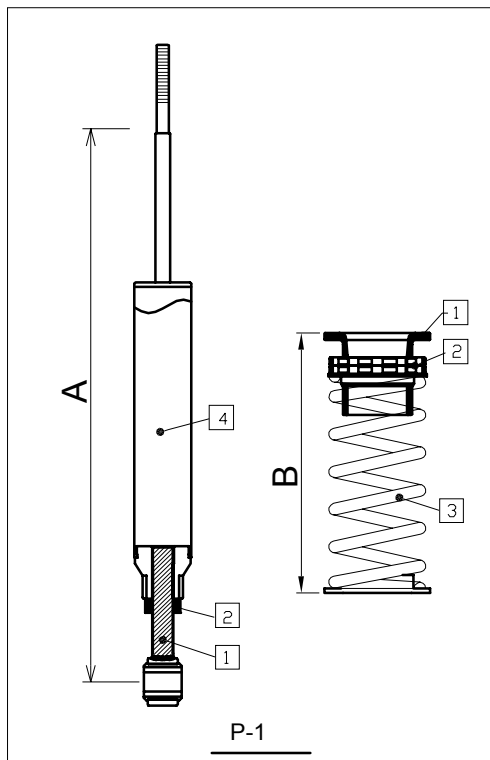
Once the spring adjuster is installed, secure the springs in place by preloading the spring by 5mm

## HEIGHT ADJUSTMENT

### PARTS

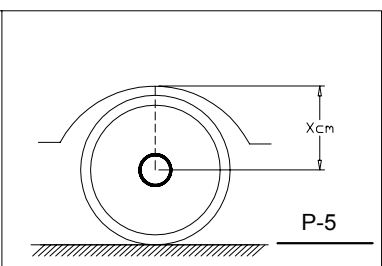
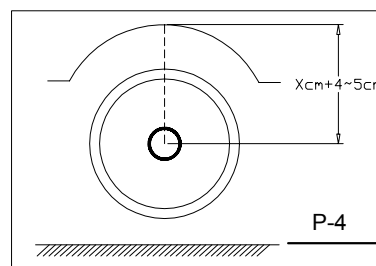
- 1 = SPRING ADJUSTER
- 2 = LOCKING COLLAR
- 3 = COIL SPRING
- 4 = DAMPER

- Rear ride height is determined by the overall length B of the spring adjuster and coil spring.
- Adjust the locking rings to achieve the desired ride height.
- Refer to diagram P-2 for raising and P-3 for lowering ride height
- After the adjustment is done make sure the locking rings and the lower mounts are tightened firmly.
- To adjust the damper travel, only adjust the damper length A.
- Overall ride height can be adjusted by adjusting B only.



### NOTE:

- Diagram P-4 shows the distance between the center of the wheel to the wheel arch while the car is on jacks. The distance decreases by 40-60mm, this is normal after the car is lowered to the ground (P-5).





## TROUBLE SHOOTING AND CHECKS

**Q: What if the specification of the products is different from my car?**

A: Please contact the Distributor immediately.

**Q: What if oil sludge is found on the damper?**

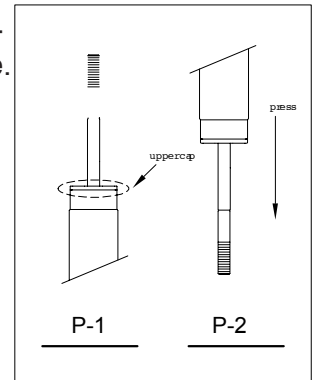
A: If you are in any doubt about performing these tests, we recommend you seek professional advice from an appropriate mechanic. It must be first be determined whether the external oil sludge is from the damper or another source. First check the dust cover and upper cap for excessive amount of oil sludge (P-1).

Secondly, remove the damper and perform the "Press Test" on the ground (P-2).

Press the piston rod against the ground into the damper body and the piston rod should return in a smooth manner all the way to the top.

If the piston rod returns smoothly all the way up to the top without oil leaks, then the damper is functioning correctly.

A failed damper will usually make a knocking noise while in operation.



**Q: What if the suspension makes abnormal noises?**

A: Please seek professional advice from an appropriate mechanic. Underbody noises can be caused by many components and the dampers are only one. If there are noises check all nuts, screws and collars to ensure nothing has loosened.

Check bushes, drop links and ball joints for wear as these are common causes of noises.

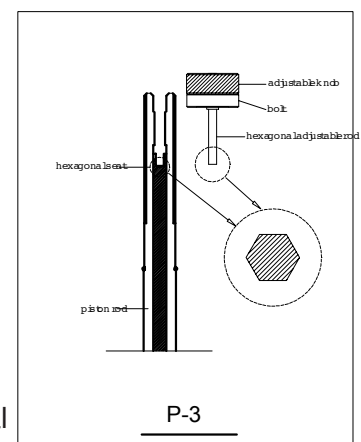
Also ensure there are no contacts between any moving parts and the body. When Coilovers make noises, it is usually caused by a failed damper, loose top-mount locking nut, loose locking collars, loose spring or metal to metal contact with body.

**Q: When I am adjusting the damper, the damper knob does not stop?**

A: The hexagon rod of the adjustment knob may be rounded off. The hexagon rod may not be mounting properly onto the piston rod. The hexagonal mount of piston rod may be deformed.

**Q: When I am adjusting the damper, the damper knob does not move.**

If the adjustment knob is stuck from corrosion try removing the adjustment knob and spray a little WD40 into the hole of the damper shaft to help loosen the stuck internal parts. It is possible to damage the internal adjustment mechanism from excessive force. Do not apply heavy force to the adjustment knob once the knob has reach the end of its adjustments.







## IMPORTANCE NOTICE

- Purchasers take full responsibility for proper installation, setting, adjustment and any alignment/tracking related issues.
- The removal and fitting of brake and suspension parts requires specialized skills.  
**INSTALLATION OF THE COILOVERS SHOULD ONLY BE DONE BY ASE CERTIFIED MECHANICS** (or equivalent)
- **MEISTERR COILOVERS ARE NOT TYPE-APPROVED AND IT MAY BE ILLEGAL TO DRIVE ON GENERAL ROADS WITH NON TYPE-APPROVED ADJUSTABLE COILOVERS INSTALLED. MEISTERR TAKES NO RESPONSIBILITY FOR SUPPLIED PARTS THAT ARE PROHIBITED BY LOCAL, COUNTY, STATE, FEDERAL, AND COUNTRY LAW.**  
It is the consumers/purchaser's sole responsibility to ensure that these products are deemed legal for general road use. Please check you local motor vehicle laws and regulations regarding installation and use of adjustable suspension systems for general road use. (e.g. Minimum Ride Height, Minimum Headlight Height, Modified Suspension Component, Necessary Certification, etc.)
- MeisterR takes no responsibility for any violations of vehicles code, rules, laws or regulations.
- MeisterR will not take any responsibility for errors and/or omission in these installation instructions.
- Increased noise from performance suspension unit is normal, and does not affect the performance or safety of the products. Therefore noise related issue are not covered under Warranty.
- MeisterR takes no responsibility for damage, injuries, or death caused directly or indirectly by this Coilovers.
- MeisterR takes no responsibility of any labour cost or any other expenditure incurred by the purchaser / consumer for faulty parts, installation, or removal of MeisterR Coilovers.
- By installation and/or use, the purchaser/consumer agrees the above stated notices. Your Statutory Right are not affected.

### Need More Help?

Please go to the Technical Section of the MeisterR website at  
<http://www.MeisterR.com>

Or

E-mail us at [info@MeisterR.com](mailto:info@MeisterR.com)