



THANK YOU FOR PURCHASING AIRONE COILOVERS

INSTALLATION INSTRUCTIONS

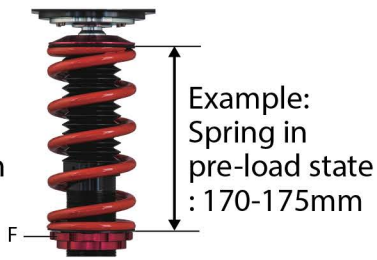
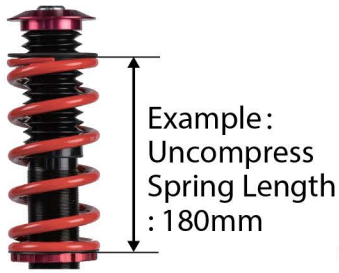
Before starting the installation work, please read the following carefully:

- Ensure that this product is compatible with the vehicle model, including chassis number, vehicle version & year, or manufacturer.
- Carefully check if the coilover components meet the specification, including spring rate & length, cartridge model, and other accessories.
- Please strictly follow this installation instructions.

·This product comes with a 1 (one) year limited warranty on manufacturing defects.
·Please use this product in accordance with the relevant laws of your country. We are not responsible for illegal use and installation.
·Please ensure that this coilover is compatible with your car model and year before installation.
Do not attempt installation before reading this guide as incorrectly installed products are not eligible for refund.

Front Coilover Installation Guide

(The guide is for general reference only. Actual product may vary)



Use the C-Wrench found in the package



Tighten the interlocked ring to lock in place

Setting the Spring Pre-load

Adjust the spring seat ring (marked F) upward to 5mm-10mm of pre-load.

Example: If the spring in current state measures 180mm length, after pre-load it should measure to 175-170mm. After adjusting pre-load, use the C-wrench to tighten the lock ring to lock it in place.

Note 1: Please do not use the lock ring F to adjust the height of the vehicle or to increase the stiffness as it may cause an uncomfortable driving experience.

Note 2: Do not use the lock ring F to loosen the spring to lowering the vehicle height as it will shorten the life of the absorber body



Guide for setting the safety thread for front lower mount bracket :

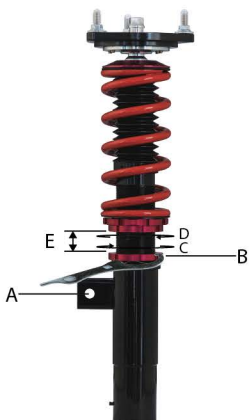
Ensure the recommended safe height of the cartridge inside the lower mount bracket when adjusting the ride height. Be alert of the cartridge's length in the lower mount bracket to not exceed the recommended length which may damage the shock absorber and compromise on the safety and integrity.

Front Lower Mount Bracket : Set a minimum 50mm of thread depth

Adjusting vehicle height:

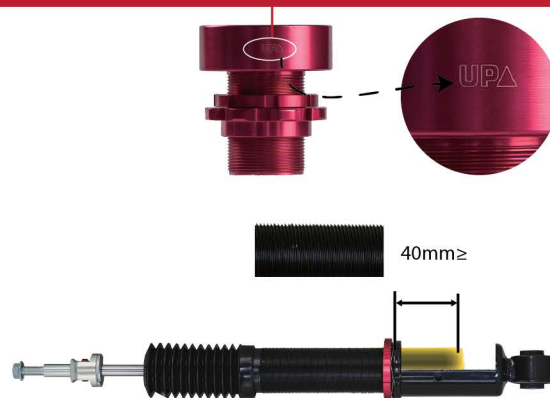
1. Release the sway bar end link A from the lower mount bracket if applicable (may need re-adjustment on new adjusted vehicle height)
2. Measure the distance marked E
3. Use the C-wrench to loosen the lock ring B
4. Referring to Discerning the illustration on the left, rotate the lower mount bracket toward position C to increase the vehicle height, or position D to lower the vehicle height.

*Once the preferred height is set, please remember to tighten the lock ring B as failure to do so may cause noise issue and affect driving safety



Rear Coilover Installation Guide

Before installation, ensure correct orientation as marked

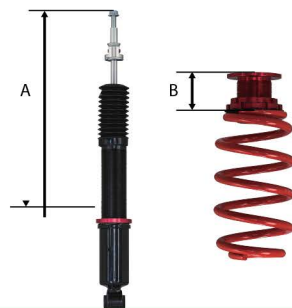


Guide for setting the safety thread for rear lower mount bracket :

Ensure the recommended safe height of the cartridge inside the lower mount bracket when adjusting the ride height. Be alert of the cartridge's length in the lower mount bracket to not exceed the recommended length which may damage the shock absorber and compromise on the safety and integrity.

Rear Lower Mount Bracket :
Set a minimum 40mm of thread depth

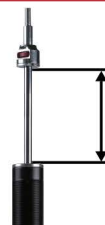
Adjustment of Rear Coilover Height :



To increase Height,
Extend A & B distance at equal length
To lower Height,
Reduce A & B distance at equal length

Acceptable Stroke Travel Range

Lifted Up Position



Example:
The stroke of the cylinder cartridge is 150mm

On the Floor Position



Example:
The stroke of the cylinder cartridge is 100mm
(Release handbrake before measuring)

Adjust the travel of the stroke only when vehicle height is set !

The stroke's length of the front and rear coilovers should be 1/3 of the total piston's length when rested on the ground.

Once the setting is completed, check the rear coil spring to make sure there is no freeplay

Installation Guide for Oe Absorber Mount



Install the OE absorber top mount and lock it with the nut provided.

The tightening torque of the piston rod nut is 35Nm or 26ft-lbs.

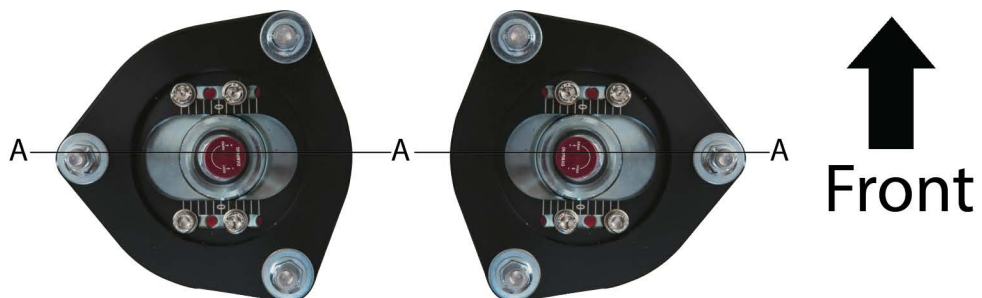
The strut assembly to the chassis must be installed in accordance with the manufacturer's recommended specification.

Suggest to apply thread locker on the mounting screw on the top before installation!

Installing Camber Adjustable Pillow Ball Top Mount (Optional)



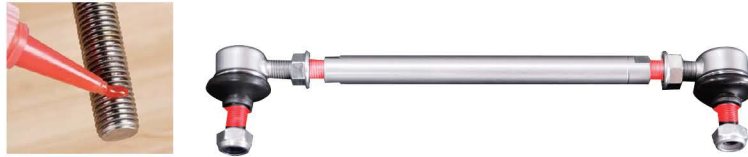
Before installation, tighten all four camber adjustment screw



When installing the pillowball mount, please look at the drawing above. the orientation of A to A should be 90° in relation to the front facing of the vehicle.



Once the coilover has been installed on the vehicle, you may loosen the camber adjustment screw to adjust the camber angle. After setting the desired camber angle, **tighten the four camber adjustment screws again**



When installing the adjustable sway bar end link, set the total length then apply thread locker to prevent loosening. (Apply at the area marked in red)

Airone MS Series Coilver Adjustment Guide



Airone MS Series is designed with 30 levels of adjustable damping. The adjustment knob for damping is located at the top of the absorber body and is pre-fixed, thus no tools are required to make adjust-



Clockwise arrow directed at H(HARD) is the hard adjustment. Turning to the extreme right is the level 0. Anti-clockwise arrow directed at S(SOFT) is the soft adjustment. Turning to the extreme left is the level 30. To adjust the damping, please turn it to the zero level and turn it anti-clockwise to tune to your preference. Both the left and right coilovers should have the same damping level.

Factory Default Damping Pressure

Each shock absorbers are varying in the damping pressure depending on the models and is not universal. Setting the damping level:

Example: The damping is initially set at 5th level.

Turn the adjustment knob to the extreme clockwise to reach level 0. Starting from level 0 (hardest), turn the setting anti-clockwise to soften the damping to your preference. Each level should be indicated by a clicking sound or a small resistance.

ATTENTION



1. When installing the suspension, it is recommended to use a car lift or hoist. Secure the vehicle to ensure safety.
2. Suspension components can only be installed by professional technicians using professional tools.
3. It is strictly prohibited to use pneumatic or impact wrenches to install or remove the shock absorber piston.
4. It is strictly prohibited to disassemble or cut open the shock absorber and its component. The internal contains pressure and presents a risk of explosion.
5. If the vehicle is equipped with a ride height sensor, it must be removed before dismantling the bracket or damper assembly to avoid damage.
6. Use the manufacturer-recommended tools to dismantle the original brackets or use appropriate spring compressors to dismantle the manufacturer installed suspension systems.
7. The suspension height during normal driving may drop an additional 5-10 millimeters (0.2-0.4 inches), which is normal.
8. Adjust the suspension layout according to the specifications of the vehicle manufacturer. If a certain value cannot be achieved due to height differences, adjust to the optimal value within the permissible range closest to the vehicle manufacturer's specifications.
9. For vehicles equipped with ESP electronic stability system, DSC dynamic stability control system, or EPC electronic throttle control system, newly modified suspension components may cause engine fault codes error. This is temporary, and once the vehicle's electronic system adapts to the new components and height, everything will should return to normal. In some models, this phenomenon will disappear after driving approximately 3-5 miles or by turning the steering wheel from full left to full right. For other models, resetting via the manufacturer's diagnostic port tool must be performed by qualified technicians.
10. There may be oil and grease on the piston rod and the on the seal of the absorber body. This may be caused by the use of a special grease during assembly. At the same time, more oil will be used when assembling the cartridge assembly. Do not worry about this being the cause of the malfunction, as this part is also prone to dirt and grime accumulation.

Tightening Torque of Piston Rod Nut:

M8 = 25Nm (18ft-lbs), M10x1 = 20Nm (15ft-lbs), M10x1,25 = 20Nm (15ft-lbs), M12x1,25 = 35Nm (26ft-lbs), M12x1,5 = 40Nm (29ft-lbs), M14x1,5 = 50Nm (37ft-lbs), M16x1,5 = 50Nm (37ft-lbs)



Common Issue that may Appear:

Chassis Noise

This situation requires professional judgment.

Chassis noise occurs in many situations, and shock absorbers may be one of them.

When shock absorbers make noise, there is usually damage to the cylinder block, upper suspension or tilted rod.

If oil leakage is found, the coilover may not work properly and require servicing.

Abnormal Noise from Shock Absorber

Check whether the Top Mounts and Locking Rings are tight.

Check if the spring is loose.

Check whether the sway bar end link's ball joint has been tighten.

Damping Adjustment Issues

If there is no clicking or slight pressure when adjusting damping, the hexagonal bar of the adjustment knob might be exhausted worn out.

The nut of the adjustment knob does not fully lock on the piston.



Congratulations, your installation is completed !

Please drive for 500 KM and return to the installer for secondary checking.

- 1、 To check the vehicle height
- 2、 To check the piston stroke
- 3、 To check if the front and rear springs are loose
- 4、 To check the damping clicks are the same as when it was first installed
- 5、 To do wheel alignment after the suspension height has been settled down

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