


<b>Installation Instructions</b>		
Instruction No.	686 61 002	




## INSTALLATION INSTRUCTIONS

**Before you start installation work,  
please read the following carefully:**

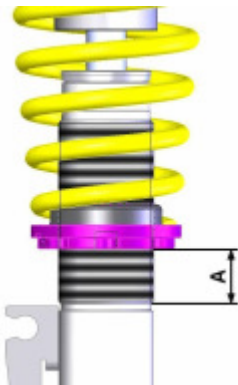
- Ensure that the TUEV certificate matches the vehicle specifications (front and rear axle weights vehicle identification number (VIN)) etc...
- The suspension components must match the suspensions application specifications (springs and shock/struts identification numbers).
- You must comply with the installation instructions.

KW Coilovers for automobile [suspensions](#) are designed for easy installation. If not otherwise stipulated in these instructions, all suspension components are installed and removed in accordance with the manufacturer's specifications for installing and removing standard springs and damper components.

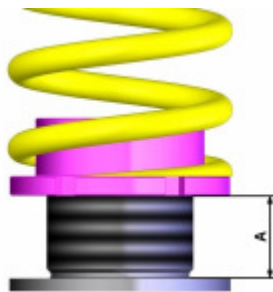
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<b>Technical data</b>	<b>Coilover part number ... 61 002</b>			
Vehicle model	Chevrolet Camaro type <<F>> CAR		max. permissible front axle load: 1000 kg	
	<b>front axle</b>		<b>rear axle</b>	
Spring signature	KW 6101		KW 9006	
Coilover strut / Shock absorber signature	610 1002		610 1102	
Approximate adjustment range* A in mm	minimal:	maximal:	minimal:	maximal:
	75mm	100mm	0mm	25mm
Approximate wheel hub center to fender edge measurement** B in mm	minimal:	maximal:	minimal:	maximal:
	330mm	360mm	345mm	370mm

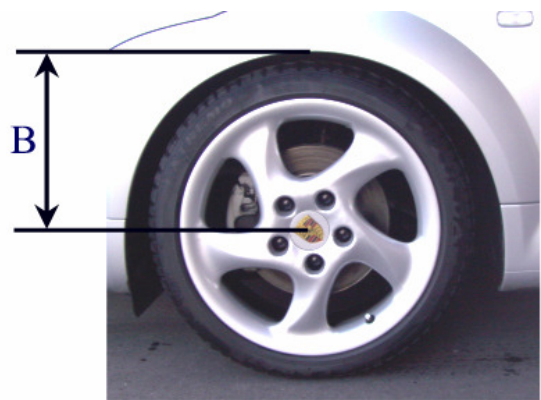
**Calculating the adjustment range:** (Photos are examples only)



Remaining thread measurement of Strut A



Remaining thread measurement A



Measurement B  
Wheel hub center wheel arch

**Please enter your actual vehicle measurement in the spaces below:**


Coilover article #	Vehicle type	Measurement A		Wheel hub center to wheel arch Measurement B	
		Front	Rear	Front	Rear

\* The remaining thread measurement is approximate and is only intended as a general guide. Actual results may vary due to various axle weights.

\*\* **IMPORTANT:** The allowable measurement between wheel hub center and fender edge as indicated above, may not exceed this measurement when using standard fenders.

**Warning**

- The suspension components may only be installed by trained technical personnel using the proper tools.
- The General Installation instructions, as well as the Technical Inspectorate (German TUEV) documents must be read BEFORE attempting installation.
- Never use impact wrenches or guns to install or remove shock absorber piston hardware.
- Never disassemble or cut open shock absorbers and/or shock absorber inserts. They contain oil under pressure. Danger of explosion.
- Before driving on public highways, carry out the work steps on page 6, items 13, 14, and 15 after installation.

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### General Mounting Specifications:

- The suspension components may only be installed by trained technical personnel using the proper tools.
- We recommend the use of a vehicle hoist or lift when installing the suspension. If a lift is not available and jacking equipment is used, make sure that the vehicle is secured with commercial wheel blocks and jack stands to ensure safety.
- Caution:** If the vehicle is equipped with ride height sensors, they should be removed before removal of struts or dampers, otherwise damage may occur.
- The struts should be removed as specified by manufacturer's instructions.
- Manufacturer recommended tools for removal of the original struts, or a suitable spring compressor, must be used in order to remove most factory mounted suspension systems.
- Mount the complete suspension system as described on the following pages.
- Never use impact drivers to install nuts on the piston rods as permanent damage may occur. It is imperative that you do not damage the piston rod surface, through use of pliers etc, as the smallest damage will result in seal damage, and will not be covered under warranty.
- Stay within the lowering range specified in the table above.  
**Example:** With a specified range of 20-60 mm, 40 mm is your height adjustment range.
- Install the suspension components in the vehicle as specified by the vehicle manufacturers in their documents and/or as described below.
- Except as noted, all torque values must comply with manufacturer recommended specifications.
- After assembly and installation is complete, the vehicle should be rolled onto level ground. Once on level ground, measure the vehicle height and adjust to the customer's requirements, within the prescribed lowering range.  
**Caution:** Wheel hub center - wheel arch maximum measurement in the above table must not be exceeded! Also take into account minimum road clearances specified in the following table.  
**Caution:** It is common for the vehicle suspension to settle by an additional 5-10 mm.
- Once the final height is found, ensure that the set screw on each spring collar is tightened to prevent movement of the spring perch. On vehicles with separate shock/spring combinations, no set screw is necessary. **Caution:** Do not over tighten the set screw. Maximum torque is **1-2 Nm**.
- Vehicle alignment specifications should be set as close to manufacturers recommended settings as possible.
- Examine the clearance between the tires and the suspension over the full range of motion of the wheel. The minimum clearance between the suspension and the tire is 5 mm. If this clearance is less than 5 mm, wheel spacers may be necessary. With strut designs that are located close to the wheel, but that have no steering functions, use 100-mm spacers on diagonally opposed wheels (e.g. front right, rear left). In this position, you must be able to achieve the minimum clearance required. You can also check the clearance between tire and body.  
**Caution:** With torsion beam trailing arm axles, this method is not sufficient. The wheel must be under full load as well as test driven to properly calculate the clearances of 5 mm from any other components.
- All components that are controlled by vehicle ride height (headlights, brake bias regulator, etc.) must be adjusted as specified by the vehicle manufacturer instructions and procedures.

### General Instructions for Use:

- When adjusting the vehicle height, make sure that the threads are clean and free of debris. After initial cleaning, move the perch by 10 mm downwards, and then clean the area that you desire to adjust the perch (up or down).
- During height adjustment on separate shock and spring systems, remove the perch from the vehicle to adjust the height.
- After adjusting the vehicle height, repeat steps 11 through 14 from the above general mounting specifications.
- In the area of the piston rod and the sealing package of the new and used damper might be oil and grease collected. This could either be caused by using a special black grease during assembling the washer or due to accumulation of streak oil. Further more oil is used during assembling the cartridge and rod guide. There is no reason of worrying about any damage, as in this area also dust and dirt used to be collected.

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### Front axle:



Supplied coilover strut with fixed supporting disc.

Insert original supporting bearing and mount it with the supplied stop nut. The original dust cover is not applicable. Tightening torque for the piston rod is 25 Nm. Please install the strut unit to manufacturers recommended settings regarding tightening torque and fixing specifications.



After you have completed installation of the suspension, check the clearance of the tyres to the front suspension strut. The minimum clearance at the narrowest point is 5 mm and must, where necessary, be provided using commercially available, Technical Inspectorate (German TUEV) approved spacers.



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### Rear axle:



Mount the rear axle adjustment between spring and axle, the original spring supporting disc. You have to remove this part to correct (screw up the threaded ring) the car height. Die Einbauhinweise des Federbeines in das Fahrzeug entnehmen Sie bitte den Unterlagen des Fahrzeugherstellers.

Tightening torque for the piston rod is 25 Nm. Please install the damper unit to manufacturers recommended settings regarding tightening torque and fixing specifications.