

STREET PERFORMANCE

* Schematische Darstellung



EINBAUANLEITUNG

INSTALLATION INSTRUCTIONS

FÜR JEDEN ANSPRUCH DAS RICHTIGE FAHRWERK.

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DE Allgemeine Informationen und Sicherheitshinweise

Fahrwerkskomponenten sind sicherheitsrelevante Bauteile, die entscheidend für die Sicherheit des Fahrzeugs und seiner Insassen sind. Diese Bauteile sind ausschließlich für das jeweils angegebene Fahrzeugmodell zugelassen und dürfen weder verändert noch modifiziert werden. Die Montage sämtlicher Fahrwerkskomponenten darf nur von geschultem Personal unter Verwendung geeigneter Werkzeuge durchgeführt werden. Unsachgemäße Änderungen oder Verwendungen führen zum Erlöschen der Gewährleistung und können dazu führen, dass die Person, die das Produkt verwendet, für Schäden an Personen oder Sachwerten haftbar gemacht wird

Vor der Montage müssen folgende Punkte geprüft werden:

- Das Gutachten muss mit den technischen Daten des Fahrzeugs übereinstimmen.
- Die zu verbauenden Teile müssen mit dem Gutachten übereinstimmen.
- Alle spezifischen Montageanweisungen sind genau einzuhalten.



Gefahr

Stoßdämpfer und Stoßdämpfereinsätze dürfen auf keinen Fall zerlegt werden. Dämpfer stehen unter Druck. Explosionsgefahr!!!

Für die Montage sind spezielle Werkzeuge und fundiertes Fachwissen zwingend erforderlich.

Die aktuell geltenden Unfallverhütungsvorschriften für die jeweiligen Tätigkeiten sind in jedem Fall strikt einzuhalten.

Die Kolbenstangenbefestigungsmuttern dürfen niemals durch einen Schlagschrauber bewegt werden!

Eine unsachgemäße Montage oder fehlerhafte Handhabung kann schwerwiegende Folgen haben, darunter: Kontrollverlust über das Fahrzeug, schwere Unfälle oder erhebliche Schäden an Personen und Sachwerten.

Der Hersteller schließt jegliche Haftung für Schäden oder Verletzungen aus, die durch unsachgemäße Montage, fehlerhafte Handhabung oder Abweichungen von den Montageanweisungen entstehen

Bewahren Sie Kleinteile, Verpackungsmaterialien und scharfkantige Gegenstände unbedingt außerhalb der Reichweite von kleinen Kindern auf. Es besteht eine erhebliche Verletzungs- und Erstickungsgefahr.



Warnung

Die Fahrwerksmontage sollte ausschließlich auf geeigneten und geprüften Hebebühnen erfolgen.

Die originalen Fahrwerkskomponenten sind nach den Richtlinien des Fahrzeugherstellers zu demontieren.

Verwenden Sie für Demontage und Montage nur die vom Fahrzeughersteller empfohlenen Werkzeuge.

Die Befestigungsmuttern der Kolbenstangen dürfen ausschließlich mit geeignetem Spezialwerkzeug angezogen werden.

Die Kolbenstange darf niemals mit einer Zange oder ähnlichem festgehalten werden, da selbst kleinste Oberflächenverletzungen zu einem Defekt und zum Gewährleistungsausschluss führen können.

Alle Verschraubungen sind gemäß den Angaben des Fahrzeugherstellers anzuziehen, sofern nicht in der Montageanleitung abweichende Angaben gemacht werden.

Vor der Montage müssen alle Achsteile gründlich gereinigt und auf Mängel untersucht werden.

Nach der Montage ist die Fahrwerksgeometrie gemäß den Vorgaben des Fahrzeugherstellers neu einzustellen. Sollten die Höhenabweichungen eine genaue Einstellung verhindern, ist ein optimaler Wert nahe des Toleranzbereichs zu wählen.

Bei Fahrzeugen mit Fahrerassistenzsystemen (z. B. Radarsensoren und Kamerasystemen) muss bei Änderungen wie einer Tieferlegung und einem vergrößerten Einfederweg die korrekte Justierung der relevanten Sensoren gemäß Herstellervorgaben sichergestellt und nachgewiesen werden.



Hinweis

Lesen Sie die gesamte Bedienungsanleitung und alle mitgelieferten Dokumente sorgfältig durch, bevor Sie das Produkt verwenden. Bei Fragen oder Unklarheiten zur Montage nehmen Sie bitte Kontakt mit uns auf.

Im Bereich der Kolbenstangenabdichtung kann sich bei neuen und bereits gefahrenen Stoßdämpfern Öl oder Fett ansammeln. Dies entsteht durch die Verwendung von Fett bei der Montage des Dichtrings. Zudem kann durch die Dämpferprüfung etwas Schlepplöl austreten. Diese Ansammlungen sind normal und kein Hinweis auf einen Defekt.

Falls das Fahrzeug mit Höhensensoren (z. B. für Niveauregulierung oder Scheinwerferhöhenverstellung) ausgestattet ist, müssen die Sensoren vor dem Ausbau der Federbeine oder Stoßdämpfer demontiert werden, um Schäden zu vermeiden.

Altteile sind umweltgerecht und gemäß den örtlichen Vorschriften zu entsorgen. Detaillierte Informationen finden Sie in den nachfolgenden Entsorgungshinweisen.

EN General Information and Safety Instructions

Suspension components are safety-critical parts that are essential for the safety of the vehicle and its occupants. These components are approved exclusively for the specified vehicle model and must not be altered or modified in any way. All suspension components must only be installed by trained professionals using the appropriate tools. Improper modifications or use will void the warranty and may result in the person using the product being held liable for any damage to persons or property.

Before installation, the following points must be checked:

- The certificate must match the technical data of the vehicle.
- The parts to be installed must correspond with the certificate.
- All specific installation instructions must be strictly followed.



Danger

Shock absorbers and shock absorber inserts must never be disassembled. The dampers are under pressure. Risk of explosion!!!

Special tools and extensive technical knowledge are absolutely required for installation.

The currently applicable accident prevention regulations for the respective activities must be strictly adhered to.

The piston rod mounting nuts must never be moved using an impact wrench!

Improper installation or faulty handling can have serious consequences, including:

Loss of control over the vehicle, severe accidents, or significant damage to persons or property.

The manufacturer disclaims any liability for damages or injuries resulting from improper installation, incorrect handling, or deviations from the installation instructions.

Keep small parts, packaging materials, and sharp objects out of the reach of young children. There is a significant risk of injury and choking.



Warning

The suspension installation should only be performed on suitable and tested lifting platforms.

The original suspension components must be removed according to the vehicle manufacturer's guidelines.

Only use the tools recommended by the vehicle manufacturer for disassembly and assembly.

The piston rod mounting nuts must only be tightened with appropriate special tools.

The piston rod must never be held with pliers or similar tools, as even the smallest surface damage can lead to a defect and void the warranty.

All fastenings must be tightened according to the vehicle manufacturer's specifications, unless the installation instructions provide different details.

Before installation, all axle components must be thoroughly cleaned and checked for defects.

After installation, the suspension geometry must be adjusted according to the vehicle manufacturer's requirements. If height deviations prevent an exact adjustment, an optimal value close to the tolerance range should be selected.

For vehicles with driver assistance systems (e.g., radar sensors and camera systems), any modifications such as lowering or increased compression travel must ensure the correct adjustment of the relevant sensors in accordance with the manufacturer's specifications, and this must be verified.



Notice

Read the entire user manual and all accompanying documents carefully before using the product. If you have any questions or uncertainties regarding the installation, please contact us.

In the area of the piston rod seal, oil or grease may accumulate on both new and used shock absorbers. This results from the use of grease during the installation of the seal and may also occur due to residual oil leakage during shock absorber testing. These accumulations are normal and are not an indication of a defect.

If the vehicle is equipped with height sensors (e.g., for ride height adjustment or headlamp leveling), the sensors must be removed before disassembling the struts or shock absorbers to prevent damage.

Old parts must be disposed of in an environmentally responsible manner and in accordance with local regulations. Detailed information can be found in the disposal instructions provided below.

DE Entsorgungshinweise für Stoßdämpfer, Federn, Zubehör und Verpackung**Stoßdämpfer****Nicht öffnen, nicht erhitzen**

- Begründung: Das Gehäuse kann platzen, Öl kann auslaufen, da der Stoßdämpfer unter Druck steht.

Nicht achtlos wegwerfen, nicht im Hausmüll entsorgen

- Begründung: Stoßdämpfer enthalten Mineralöl, das schwere Umweltschäden im Erdreich, Grundwasser oder in Gewässern verursachen kann.
- Empfehlung: Entsorgung über einen Rohstoffhandel oder Recyclinghof.

Federn und Zubehör

- **Federn**
Entsorgung im Stahl- oder Mischschrött
- **Höhenverstellungen, Federteller (nicht aus Kunststoff)**
Entsorgung im Mischschrött
- **Federteller, Zwischenringe (aus Kunststoff)**
Entsorgung im Plastikmüll
- **Schrauben, Muttern, Stabstangen, Domlager**
Entsorgung im Mischschrött
- **Steuergeräte, Stilllegungen**
Entsorgung im Elektroschrött

Verpackung

- **Karton**
Entsorgung im Papiermüll
- **Verpackungsschaum, Inletts, Umreifungsband**
Entsorgung im Plastikmüll

EN Disposal information for Shock Absorbers, Springs, Accessories and Packaging**Shock absorbers**

- **Do not open or heat up the shock absorbers.**
Reason: Housing can burst, oil can leak, the shock absorber is under pressure
- **Do not throw away shock absorbers carelessly, do not dispose them in household waste.**
Reason: Shock absorbers contain mineral oil. Mineral oil causes serious environmental damage to soil, ground-water, or waters. Disposal only via raw materials trading, recycling centers or specialist garage.

Springs and Additions

- **Springs**
Disposal in steel or mixed scrap
- **Height adjusters, spring plates (not made of plastic)**
Disposal in mixed scrap
- **Spring plates, spacer rings (made of plastic)**
Disposal in plastic waste
- **Screws, nuts, tie rods, strut bearings**
Disposal in mixed scrap
- **Control units, Cancellation Kits**
Disposal in electronic waste

Packaging

- **Carton**
Disposal in paper waste
- **Packaging foam, Inlets, Plastic strap**
Disposal in plastic waste

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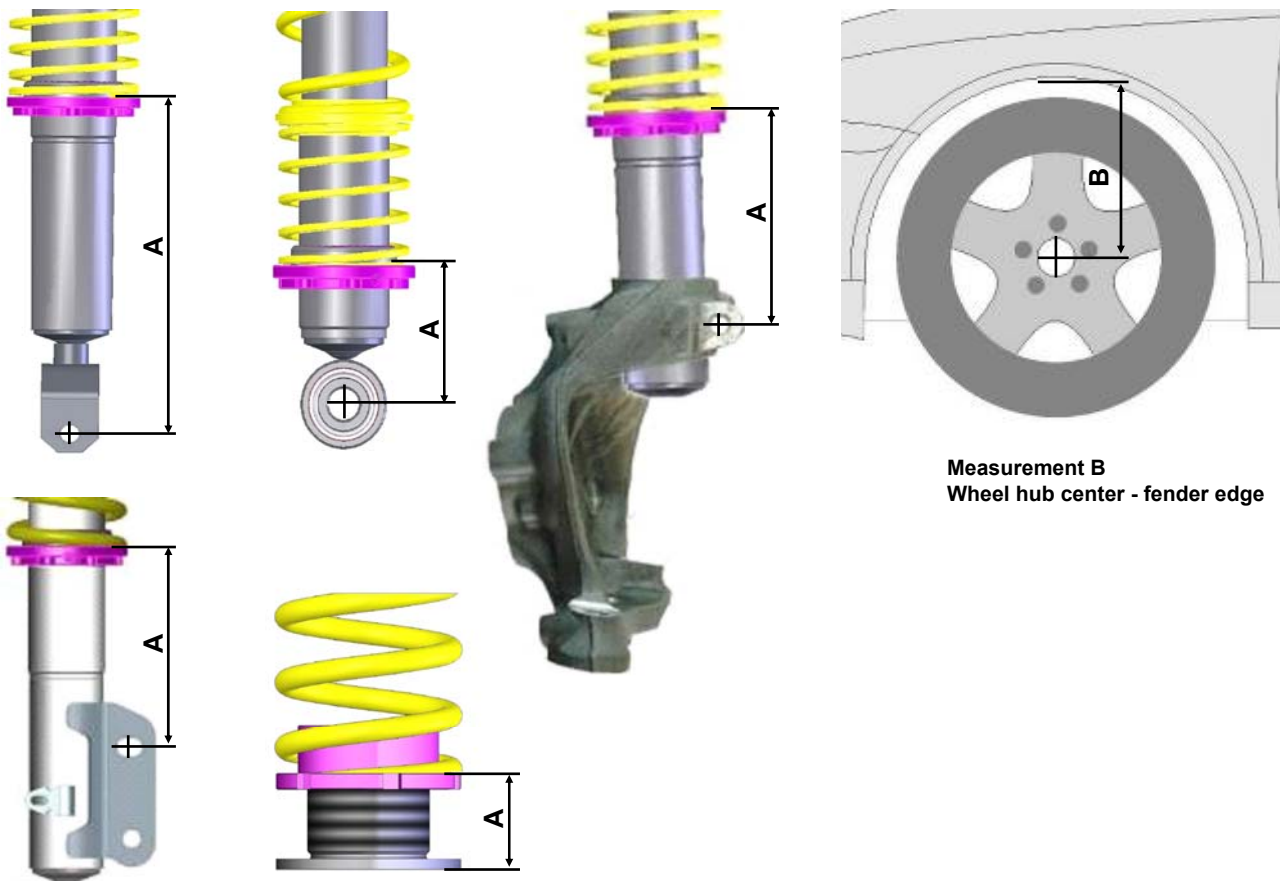
**Before you begin installation,
please read the following carefully:**

- **Ensure that the certificate matches the vehicle specifications (front vehicle identification number (VIN)) etc...**
- **The suspension components must match the suspensions application specifications (springs and shock/struts identification numbers).**
- **The instructions have to be strictly observed.**

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. At the time of printing all instructions and specifications are correct. However please check with your local KW dealer or the KW website www.kwsuspensions.com (US-program only) www.kwautomotive.de (European program) for the latest updates.

Technical data				
Vehicle model	Ford Fiesta ST Type JA8		max. permissible front axle load: - 855 kg	
	front axle		rear axle	
Spring marking	1018		3009	
Coilover strut / Shock absorber marking	300 1029 L / R		300 1129	
Adjustment dimension A Front axle: Fastening screw - spring contact surface Rear axle: Height adjustment support surface - spring contact surface or fastening screw - spring contact surface	min:	max:	min:	max:
	170 mm / 6.7 in	195 mm / 7.7 in	17 mm / 0.67 in	42 mm / 1.65 in
Permissible measurement B Wheel hub center – fender edge	min:		min:	
	310 mm / 12.2in		310 mm / 12.2 in	

Calculating the adjustment range (distance measurement A) : (Photos are examples only)



Measurement B
Wheel hub center - fender edge

Please enter the adjusted height of the modified car into the list:

Coilover part no	Vehicle type	Measurement A		Wheel hub center - fender edge Measurement B	
		Front	Rear	Front	Rear

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

Danger:

Always follow the latest accident prevention regulations (not applicable for North America) for each step to prevent any serious bodily harm or injury.

1. 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 stand to ensure safety.
2. The suspension components may only be installed by trained technical personnel using the proper tools.
3. The General Installation instructions, as well as the Technical Inspectorate documents must be read BEFORE attempting installation.
4. Never use impact wrenches or guns to install or remove shock absorber piston hardware.
5. Never disassemble or cut open shock absorbers and/or shock absorber inserts. They contain oil under pressure. Danger of explosion.
6. Before driving on public highways, carry out the work steps on page 7, items 11 through 14 after installation.
7. The suspension regulation (when available) needs to be disabled through an authorized dealer.
8. Please take care in any case that fittings (for example fittings of shock absorber housings or fittings of the lower control arm in the housing of the wheel bearing) are free of dust and oil. (see manufacturer guideline)

General Instructions for Use:

1. 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 (0.4 Inches) downwards, and then clean the area that you desire to adjust the perch (up or down).
2. During height adjustments on separate shock and spring systems, remove the perch from the vehicle to adjust the height.
3. After adjusting the vehicle height, repeat steps 11 through 14 from page 7.
4. In the area of the piston rod and the sealing package of the new and used damper there 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 and damage, as in this area also dust and dirt used to be collected.

Tightening torque for the piston rod nut:

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

Copyright

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General Mounting Specifications:

1. We recommend the use of a vehicle hoist or lift when installing the suspension.
2. **Caution:** If the vehicle is equipped with ride height sensors, they should be removed before removal of struts or dampers, otherwise damage may occur.
3. The struts should be removed as specified by manufacturer's instructions.
4. 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.
5. Mount the complete suspension system as described on the following pages.
6. 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.
7. Stay within the lowering range specified in the table on page 3.
Example: With a specified range of 20 - 60 mm (0.8 - 2.3 Inches), 40 mm (1.5 Inches) is your height adjustment range.
8. 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 (0.74-1.47 ft-lb).
9. Install the suspension components in the vehicle as specified by the vehicle manufacturers in their document.
10. Except as noted, all torque values must comply with manufacturer recommended specifications.
11. 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 table of page 3 must not be exceeded! Also take into account minimum road clearances specified in the table on page 7 (only valid for Germany!).
Caution: It is common for the vehicle suspensions to settle by an additional 5 - 10 mm (0.2 - 0.4 Inches)
12. 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 4 mm (0.16 Inches). If this clearance is less than 5 mm (0.2 Inches), wheel spacers may be necessary. With strut designs that are located close to the wheel, but that have no steering functions, use 100 mm (3.9 Inches) spacers on diagonally opposed wheel (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 (0.2 Inches) from any other components.
13. The geometry of the suspension needs to be adjusted according the regulations of the vehicle manufacturer. If a value cannot be reached due to the difference in the height, a optimal value next to the tolerance range of the vehicle manufacturer needs to be adjusted.
14. All components that are controlled by vehicle ride height (e.g. headlights, brake bias regulator etc.) must be adjusted as specified by the vehicle manufacturer instructions and procedures.
15. For vehicles with ESP, DSC or EPC your new suspension components may cause an engine fault code to appear. This is only temporary as the vehicle electronics adjust to the new components/height. On some models this will end after driving approximately 3-5 miles, or through turning the steering wheel from full left to full right. On other models, this must be reset through the factory diagnostic port by a qualified technician.
16. If Vehicles have Driver Assistant Systems and the ride high is lowered by an increase of the compression travel, it must be proofed that all relevant sensors (like Radar Sensor or Camera Systems) be adjusted according to the Manufacture Specifications

Front axle:

Supplied coilover strut.

Place the OE thrust bearing onto the spring.



Install the original support bearing unit and fasten it with the supplied stop nut. Tightening torque for the piston rod is 35 Nm (26 ft-lb). Install the strut in accordance with the original factory assembly procedure.



Caution: The fastening on the piston rod must **never be tightened using an impact wrench**. Always use **suitable special tools for shock absorbers** during installation. Even the smallest damage to the piston rod surface can cause failure and will void the warranty.



After installing the suspension, the clearance of the tires to the front axle strut must be checked. The minimum distance must not be less than 5 mm at the narrowest point and, if necessary, must be restored using spacers.

Rear axle:

Supplied damper.



The OE top mount must be drilled out to 10 mm in the area of the piston rod mounting for Variant 2, Variant 3, ST XA and ST XTA. Afterwards, the machined area must be treated with suitable corrosion protection.



Note: During drilling work, appropriate personal protective equipment must be worn. In particular, safety glasses and suitable hand protection must be used.

Install the original support bearing unit and fasten it with the supplied stop nut.
Tightening torque for the piston rod is 25 Nm (18 ft-lb).
Install the damper in accordance with the original factory assembly procedure.



Caution: The fastening on the piston rod must **never be tightened using an impact wrench**.

Always use **suitable special tools for shock absorbers** during installation. Even the smallest damage to the piston rod surface can cause failure and will void the warranty.



Rear axle:

Install the rear axle height adjustment between the spring and the chassis.
The original spring pad is not used.



Caution: Before installing the height adjustment, the contact surfaces must be cleaned.



Note: To adjust the vehicle height (by turning the threaded ring), the rear axle adjustment must be removed from the vehicle.

At the bottom end of the spring, the original spring support is reused.