Contents:

certificate (removable) **for:**

VW Golf VII B16 DampTronic

Installation Instructions

Before installation please observe the following points:

- Read all information in this manual carefully. All suspension components are fitted and removed acc. to the manufacturer's specifications for installing and removal, if not otherwise required in these instructions.
- Check that your vehicle type is listed in the certificate as being specified for this kit.
- Check the product for all components before starting installation!
- Check that dimensions and fastening points are comparable between the original and BILSTEIN shock absorbers.
- Directional references (left, right, front, rear) are always with reference to the driving direction.
- Remove the negative battery pole.
- The tested vehicles are left- hand drive vehicles.

After installation please observe the following points:

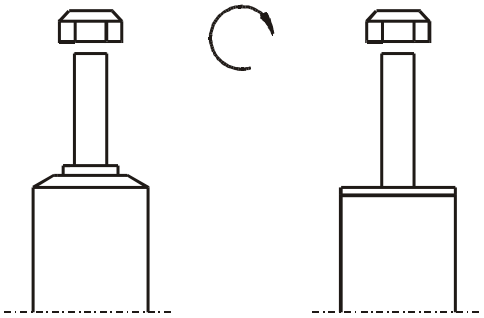
- Set the vehicle height by adjusting spring plates. Only use the supplied spanner wrenches.
- All rubber- mounted strut/ damper attachments must not be fully tightened until AFTER the suspension system is loaded (wheels on the ground). Other mounting fasteners (for example brackets) must be securely tightened BEFORE load is placed on the suspension system.
- Because the vehicle has been lowered, freedom of movement for all wheel-/ tire- combinations must be checked.
- Connect the negative battery pole.
- After installing the suspension system, caster and camber must be checked and adjusted according to manufacturer's specifications. Check and reset load- dependent brake compensator and ABS system according to manufacturer's specifications.
- Check and adjust headlight setting.

The installed location of the BILSTEIN damptronic2 cable system is optional. The system components may be located anywhere in the vehicle in accordance with the specifications of manufacturer and BILSTEIN.

After installation the new vehicle level has to be recalibrated at a Volkswagen workshop by using the diagnostic unit.

list of torques

M8	M 10	M 12	M 14	M 16	Thread
13	25	45	72	110	Torque Nm
10	19	34	54	83	Torque ft lb



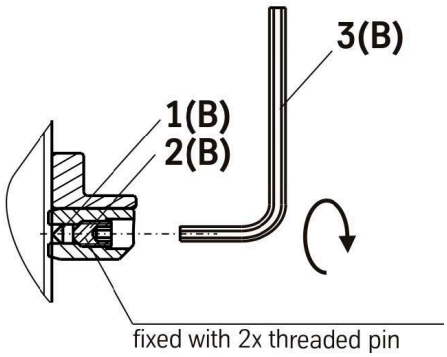
Do not use an impact tool to loosen or tighten fasteners due to possible damage to the product.
Self- locking nuts must only be <u>used once</u>!

All diagrams are generalized and not to scale!

Possibly brackets, etc. specific to strut are not shown!

front axle hight adjustment

Detail
Fixing of Spring plate



Fix the spring plate with the rubber pins/ balls (1) and set screw (2) by using the auxiliary tool (hex key (3)).

The tightening torque 7+1Nm has to be realized with suitable tooling.

After several adjustments (approx. 5-10 times) the rubber bullets/pins should be replaced, otherwise the thread on damper tube might be damaged.

In cases of loss or damage of the bullets/ pins it is possible to make replacement pins out of a commercially available O-ring:

Cross section: 4,5mm; cut length: 5,2mm; material: NBR 80

mounting instruction for front axle left/ right

Removal

Place vehicle on a wheel- free car hoist, lift it and remove wheels.

Vehicles equipped **with xenon headlight** the movable element of sensor for the headlamp levelling controller must removed before.

Pay attention that support wires of brake system are strain-free during removal. Stabilization by suitable means is demanded.

Remove bottom mounting.

If necessary release brake hose/ brake hose holder/ stabilizer/ ABS- hose and/ or swing- support at strut.

Detach cable connection from strut.

Remove top fixing nuts from support bearing. **Do not remove central nut at this time!**

Remove complete strut and clamp it in an appropriate strut vice.

Using a suitable spring compressor, compress suspension spring until support bearing is free to move.

Release centre nut and remove original mounting parts and coil spring. Please refer to diagram to identify which parts will be replaced with BILSTEIN- supplied components.

Installing

Fit original/ BILSTEIN mounting parts on strut in reverse order to removal.

The original spring pad, bumper and dust cover must be reused!

Before releasing the spring, care is to be taken to ensure that the spring rests in the cut outs of top and bottom spring plate!

Fit assembled BILSTEIN strut to the vehicle in reverse order to removal.

Installation of cable harness

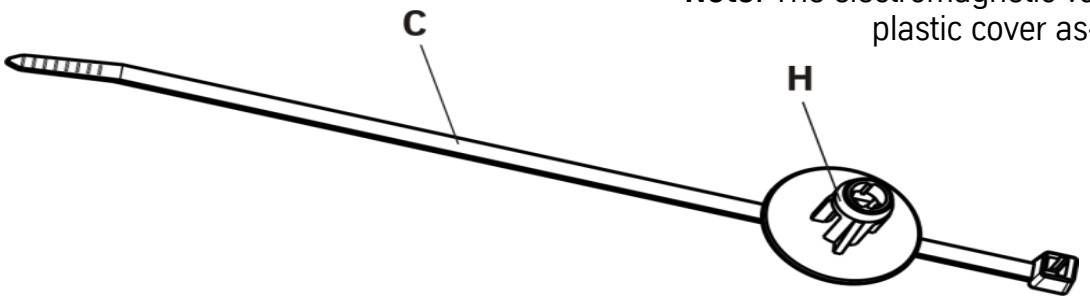
Fix the delivered adapter wire to the electromagnetic valve and then to the vehicles wire.

Fix the plug connection to welded pin (**P**) with the delivered cable clip (**C**) to the strut.

The cable clip sockets (**H**) must snap into the welded pin (**P**). The cable clip socket can be removed from welded pin non-destructive by rotation.

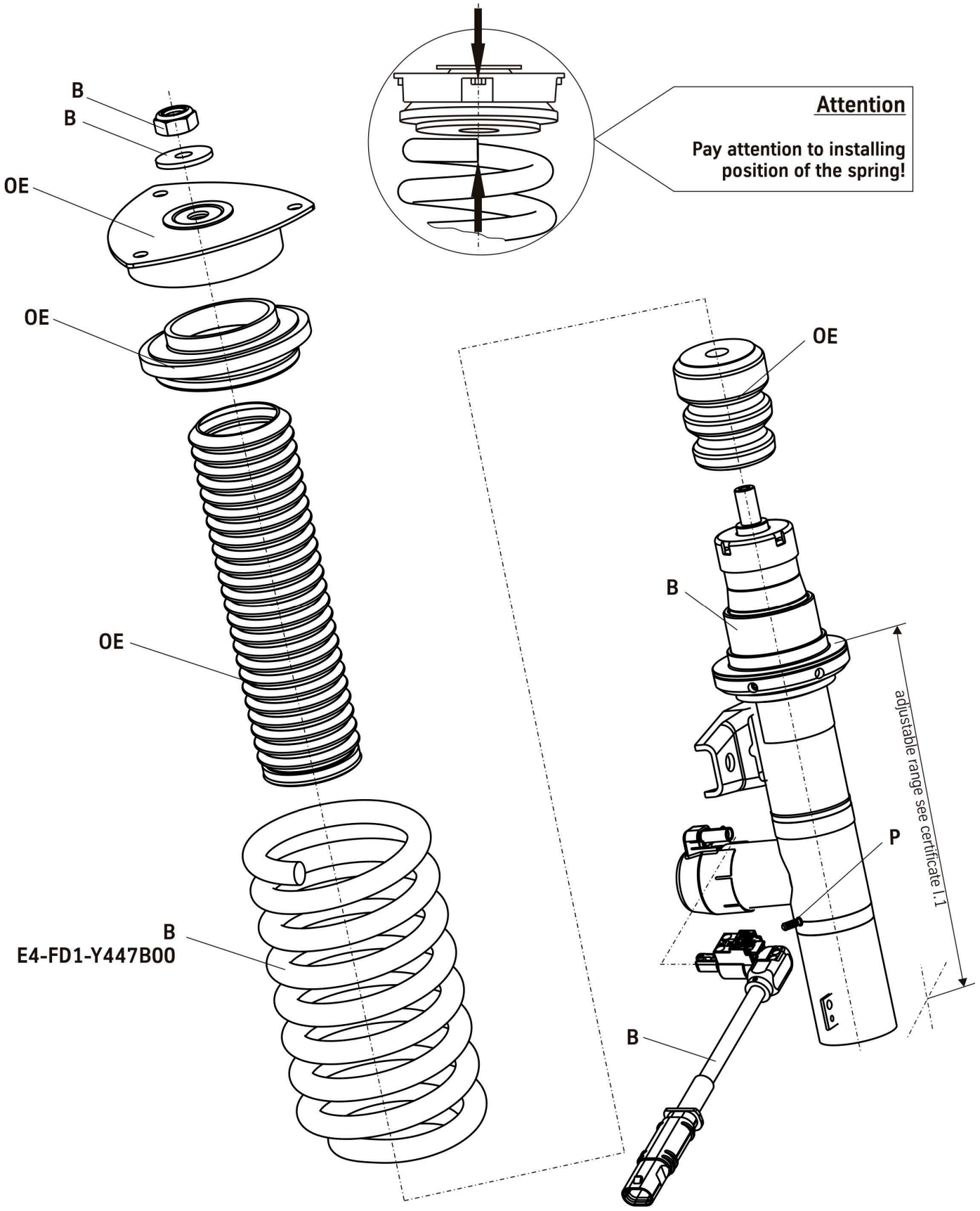
Do the fitting with maximum steer angle!

Note: The electromagnetic valve is equipped with plastic cover as-delivered condition!



OE= Original Equipment

B= Delivered by BILSTEIN



IFM

Institute for Vehicle Technology and Mobility

TÜV NORD Mobilität

TÜV NORD PART CERTIFICATE

TGA-Art: 8.1

Nr.: TU-026365-A0-014_1K

on the compliance of a vehicle when parts are properly installed and fitted to the car in accordance with §19 Par.3 No.4 StVZO

for the part / scope of modification		*Height adjustable suspension system*
of the type	:	**49-255874**
from the manufacturer	:	**ThyssenKrupp Bilstein GmbH** **Postfach 1151** **58240 Ennepetal**

0. ***Instructions for vehicle owner***

note from the translator: *The following instructions refer to the German regulations. In other countries different regulations may apply. In any case carefully read and follow the technical guidelines given for your safety and driving pleasure!*

Performance and confirmation without delay of modification acceptance:

With the modification the type approval of the vehicle will expire if the modification acceptance provided for in StVZO § 19 Par. 3 is not performed and confirmed without delay or if conditions laid down are not complied with !
After performance of the technical modification, the vehicle must be presented without delay together with the present TÜV Nord part certificate to an officially recognised inspector or tester at a Technical Inspection Centre or an inspection engineer from an officially recognised inspection organisation to perform and confirm the specified modification acceptance.

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer : ThyssenKrupp Bilstein GmbH

object tested : *Height adjustable suspension system*

type : 49-255874

Compliance with instructions and conditions:

The instructions and conditions given in III. and IV. must be complied with.

availability of documents:

After the acceptance procedure the certificate with confirmation of the modification acceptance must be available in the car and presented to authorised persons on demand; this will not apply once the vehicle documents have been amended.

Amendment of vehicle documents:

The vehicle owner must apply, in accordance with the provision in the confirmation concerning correct modification, for the competent licensing authority to amend the vehicle documents.

Further conditions can be found in the confirmation of correct modification.

I. *Area of use*

Vehicle manufacturer	**Volkswagen, VW**	
model: sales name	**Golf 7, 2WD und 4WD**	**Golf 7 Variant / Golf 7 Sportsvan, 2WD und 4WD** ***Station wagon and Sportsvan***
Type of vehicle	**AU**	**AUV**
EC type approval No.)*	**e1*2007/46*0623*..** **e1*2007/46*0624*..**	**e1*2007/46*0627*..**

*)
with regard to Directive 70/156/EEC or 2007/46/EC as last amended by Directive xxxx/xx/EC

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer : ThyssenKrupp Bilstein GmbH

object tested : *Height adjustable suspension system*

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further limitations: ***only for vehicles with multi link axle***

I.1 ***Limitations of area of use .....***

FRONT AXLE:	*related to permissible axle loads and adjustment dimensions:*
Spring design and Damper- / strut design	**E4-FD1-Y447B00** *(mainspring)*
	23-273719 *with electronical damper force adjustmentand (DT2) 55 mm clambing*
for permissible axle loads	***up to max.*** **1090 kg**
	230 mm *to* 245 mm
with permissible adjustment range of spring plate height	*related to spring seat till centre of upper strut fixation-bolt*
for permissible axle loads	***up to max.*** **1110 kg**
	235 mm *to* 245 mm
with permissible adjustment range of spring plate height	*related to spring seat till centre of upper strut fixation-bolt*

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer : ThyssenKrupp Bilstein GmbH

object tested : *Height adjustable suspension system*

type : 49-255874

I.2 *Limitations of area of use .....*

REAR AXLE:	*related to permissible axle loads and adjustment dimensions:*
Spring design and Damper- / strut design	**E4-FD1-Y411B00** *(mainspring)*
	20-273729 *with electronical damper force adjustment (DT2)*
for permissible axle loads	***up to max*** **1050 kg**
for version	***does not apply to 4WD***
	40 mm *to* 75 mm
for permissible axle loads	***up to max*** **1100 kg**
for version	***and all the rest of 4WD***
	45 mm *) *to* 75 mm
with permissible adjustment range of spring plate height	*related to adjustable spring plate till original springseat*

**) When utilizing the serious raised load on reae axle with trailer operation upt to max. 1160 kg spring seat height rear +5mm*

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer : ThyssenKrupp Bilstein GmbH

object tested : *Height adjustable suspension system*

type : 49-255874

II. ***Description of the part / Scope of modification***

Lowering of the body and change of suspension tuning by means of special suspension springs and dampers.

Front axle *complete strut with main spring on height adjustable spring plates , original bump stop, bump travel: original, lowering up to 40 mm*

Rear axle *Mainspring on special height adjustable spring seats, original bump stops, bump travel : original*
lowering up to 40 mm

II.1 *Description of* ***FRONT AXLE SUSPENSION PARTS***

II.1.1 ***Springs***

Design	*coil spring*
Identification *Manufacturer's mark :* *Type / Location of marking*	**E4-FD1-Y447B00** *(mainspring)* *Bilstein and date of manufacture coded* *printed on area of centre coil*
Surface protection	*powder coating*
Characteristic	progressive
Outer diameter	145,5
Wire diameter	13,25
untensioned length	215
Total number of coils	5,6

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer : ThyssenKrupp Bilstein GmbH

object tested : *Height adjustable suspension system*

type : 49-255874

II.1.2 ***Damping***

Design	*complete strut / two pipe, gas pressure*
Damping-charcteristic	*electronically adjustable*
Identifcation	**23-273719** **B16 Damp Tronic II (DT2)** **55 mm**
of the type / KIT-number	**49-255874**
Manufacturer's mark :	Bilstein
Type of marking	*rolled in and foil sticker*
Surface protection special height adjustable spring seat	*galvanisation*
Surface protection damper	*paint*

II.1.3 ***Height adjustment system***

Type:	*Spring plate nut with counter nut (p.c. with locking screw) on damper tube thread*
Permissible adjustment range	*see page 3*

II.1.4 ***Bump stops and bump travel***

type of part / system: *manufacturer:*	*original PUR bumpstop* *o.e. part*
mounting position:	*on the piston rod*
height / ∅	*original*
bump travel	*original*

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer : ThyssenKrupp Bilstein GmbH

object tested : *Height adjustable suspension system*

type : 49-255874

II.2 *Description of* *REAR AXLE SUSPENSION PARTS*

II.2.1 *Springs*

Design	*coil spring*
Identifcation	**E4-FD1-Y411B00** *(mainspring)*
Manufacturer's mark : *Type / Location of marking*	*Bilstein and date of manufacture coded* *printed on area of centre coil*
Surface protection	*powder coating*
Characteristic	lineare
Outer diameter	121,5
Wire diameter	13,0
untensioned length	215
Total number of coils	5,6

II.2.2 *Damping*

Design	*two pipe, gas pressure*
Damping-charcteristic	*electronically adjustable*
Identification: *of the type / KIT-number* *Manufacturer's mark :* *Type of marking*	**20-273729** **B16 Damp Tronic II (DT2)** **49-255874** Bilstein *rolled in and foil sticker*
Surface protection	*paint*

II.2.3 *Height adjustment system*

Type:	*special spring seat (threaded tube with springseat nut) sticked on upper original spring seat*
Permissible adjustment range	*see page 4*

II.2.4 *Bumpstops and bump travel*

Damping-charcteristic	*electronically adjustable*
type of part / system: *manufacturer:*	*original PUR bumpstop* *o.e. part*
mounting position:	*on the piston rod*
height / ∅	*original*
bump travel	*original*

III. *Notes on possible combination with other modifications*

III. *Wheel/tyre combinations*

Series wheel/tyre combinations

There are no technical objections against the use of all O.E. wheel/tyre combinations.

Special wheel/tyre combinations

There is also no technical reason to object to the use of special wheel/tyre combinations, provided the following conditions are met:

- *Special TÜV assessments or approvals have been obtained for the relevant wheel/tyre combination and the necessary conditions are met.*
- *If the series bump travel limitation has to be modified as a result of conditions laid down in these test reports (e.g. change of O.E. bump stops or installation of additional bump travel limiters), the characteristic line of the axle suspension has to be verified and assessed new (assessment according to §21 StVZO)*

III.2 *Aerodynamic devices, special exhaust systems etc.*

The ground clearance in unladen state is reduced by the installation of special springs. It is the approximately equivalent of that of a partially laden series vehicle. When the vehicle is loaded to the admissible axle loads the ground clearance does not change as compared to the series vehicle. If spoilers, rear aprons and special exhaust systems are mounted, however, the reduced angle of slope must be noted (travelling on ramps etc.).

III.3 *Trailer coupling*

The specified minimum height of the coupling ball above the road surface with the permissible total weight of the vehicle (acc. DIN 74058) is 350 mm.

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer : ThyssenKrupp Bilstein GmbH

object tested : *Height adjustable suspension system*

type : 49-255874

IV. *Notes and conditions*

Notes and conditions for the installation shop and modification acceptance

IV.1 *Headlamp adjustment must be checked.*

IV.2 *After modification an axle alignment must be carried out on the vehicle.*

IV.3 *The bump stops must correspond to the descriptions in this report. Additional bump travel limiters are not allowed.*

IV.4 *The limitations with regard to the area of use (see Point 1) must be observed.*

IV.5 *The adjustment range of the spring plates is only approved within the range of the values given in Point 1.*
Adjustment must be carried out so that the body is level when the vehicle is empty apart from the driver.
The lowest approved adjustment and the permissible adjustment range are to be entered, stating the fixed axle reference points. (Example, see below).

IV.6 *For controlling purposes the distance between centre of wheel and edge of wheel housing above is to be measured and entered into the confirmation of the installation.*

IV.7 *The sensors adjustment of the height of the vehicle must be checked by Installation instruction and the instructions of the car manufacturer*

IV.8 *The cables from the dampers to the control box must be installed properly.*

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer : ThyssenKrupp Bilstein GmbH

object tested : *Height adjustable suspension system*

type : 49-255874

Notes and conditions for mounting:

Disassembly and installation must be carried out in accordance with the manufacturer's instructions as contained in the workshop manual and the delivered installation manual of Bilstein.

Amendment of vehicle documents:

Correction of the vehicle documents is necessary, but has been postponed.
The competent licensing authority must be notified by the vehicle owner accordingly the next time they deal with the vehicle documents. The following example is suggested for the entry:

item	*entry*
(height)	*to remeasure*
22	*MODIFIED SPECIAL SUSPENSION, THYSSENKRUPP BILSTEIN GMBH, TYPE: 49-255874 *), CONSISTING OF SPRINGS, IDENTIFICATION F/R: E4-FD1-Y447B00 / E4-FD1-Y411B00 AND DAMPERS, IDENTIFICATION: F/R:: 23-273719 / 20-273729; PERMISSIBLE ADJUSTMENT RANGE FRONT: 230 TILL 245 MM DISTANCE SPRING PLATE TO CENTRE OF UPPER FIXING BOLT OF STRUT; 40 TILL 75 MM **); FROM SPRING SEAT TO ORIGINAL SPRINGSEAT*SUSPENSION TRAVEL: FRONT ORIGINAL / REAR ORIGINAL*CONTROL MEASUREMENT: ..... MM***

***) depending on permitted axle loads*

V. *Basis of tests and test results*

The test vehicle and the modification parts were subjected to a test in accordance with the test conditions regarding raising / lowering of vehicles contained in VdTÜV Merkblatt 751.
The test conditions were fulfilled.

TÜV Nord part certificate No.: TU-026365-A0-014_1K

Manufacturer	:	ThyssenKrupp Bilstein GmbH
object tested	:	*Height adjustable suspension system*
type	:	49-255874

VI. *Annexes*

installation instruction

VII. *Concluding certification*

It is hereby certified that the vehicles described under area of use satisfy the regulations of StVZO in the current version after modification and implemented and verified modification acceptance, provided the notes / conditions given in the present TÜV Nord part certificate are observed.
The manufacturer (owner of the TÜV Nord part certificate) has furnished evidence (Reg-Nr.: 97031) that he maintains a quality system in accordance with Annex XIX, Section 2 StVZO.
The TÜV Nord part certificate consists of pages 1 – 12 including the annexes listed under VI. and it may only be reproduced and passed on in its unabbreviated form.
The TÜV Nord part certificate shall cease to be valid if technical modifications are made to the vehicle part or if modifications made to the vehicle type described affect use of the part and in the case of any changes to the statutory specifications.

Removal

Place vehicle on a wheel-free car hoist, lift it and remove wheels.

Pay attention that support wires of brake system are strain-free during removal. Stabilization by suitable means is demanded.

Detach cable connection from shock absorber inside wheel housing.

Remove top and bottom fixing mount from support bearing.

Remove shock absorber and original mounting parts.

Installation

Fit BILSTEIN and/ or original mounting parts in BILSTEIN shock absorber in reverse order to removal.

Original dust cover and original bumper must be reused.

Fit BILSTEIN shock absorber to the vehicle in reverse order to removal.

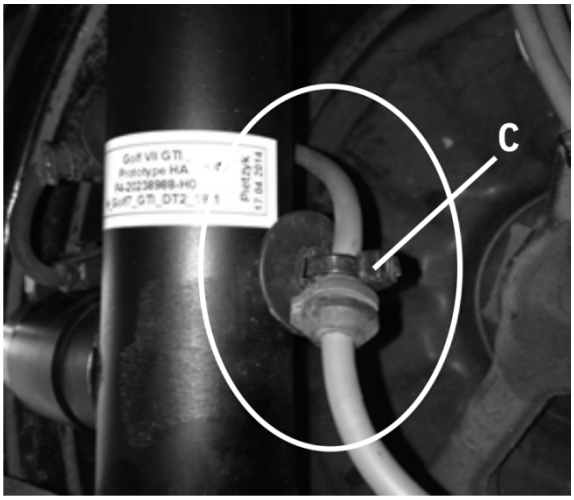
The cable ends (4) of shock absorber are delivered without fitted plug. The cable must fitted to support bearing first without plug. Then OE grommet (5), BILSTEIN grommet (6) and plug housing (7) can be fitted and connected to the vehicles cable harness.

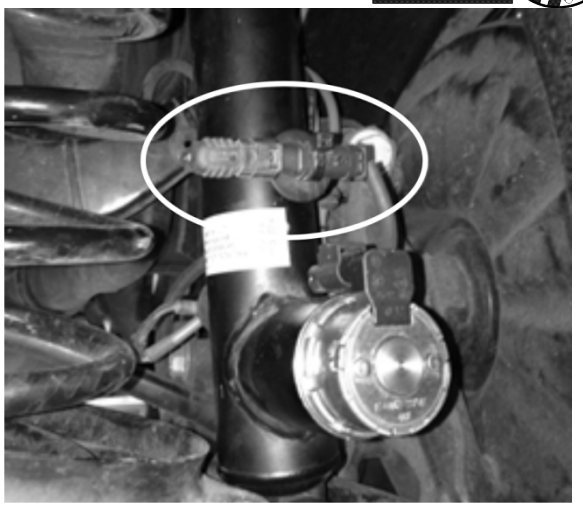
Installation of cable harness

Fix the delivered adapter wire to the electromagnetic valve and then to the vehicles wire.

Fix the plug connection to welded pin (**P**) with the delivered cable clips (**C**) to the strut. The cable clip sockets (**H**) must snap into the welded pins (**P**).

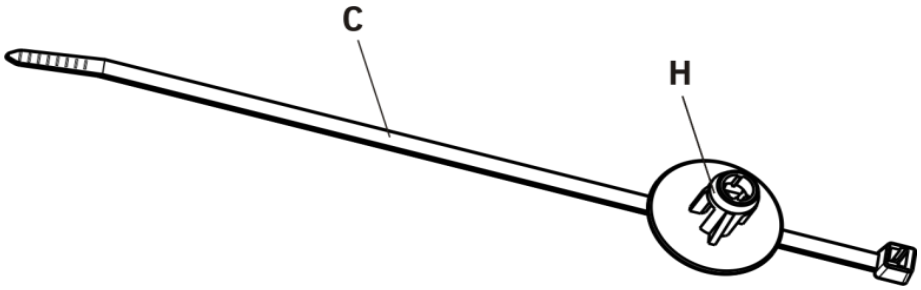
The cable clip sockets can be removed from welded pins non- destructive by rotation.





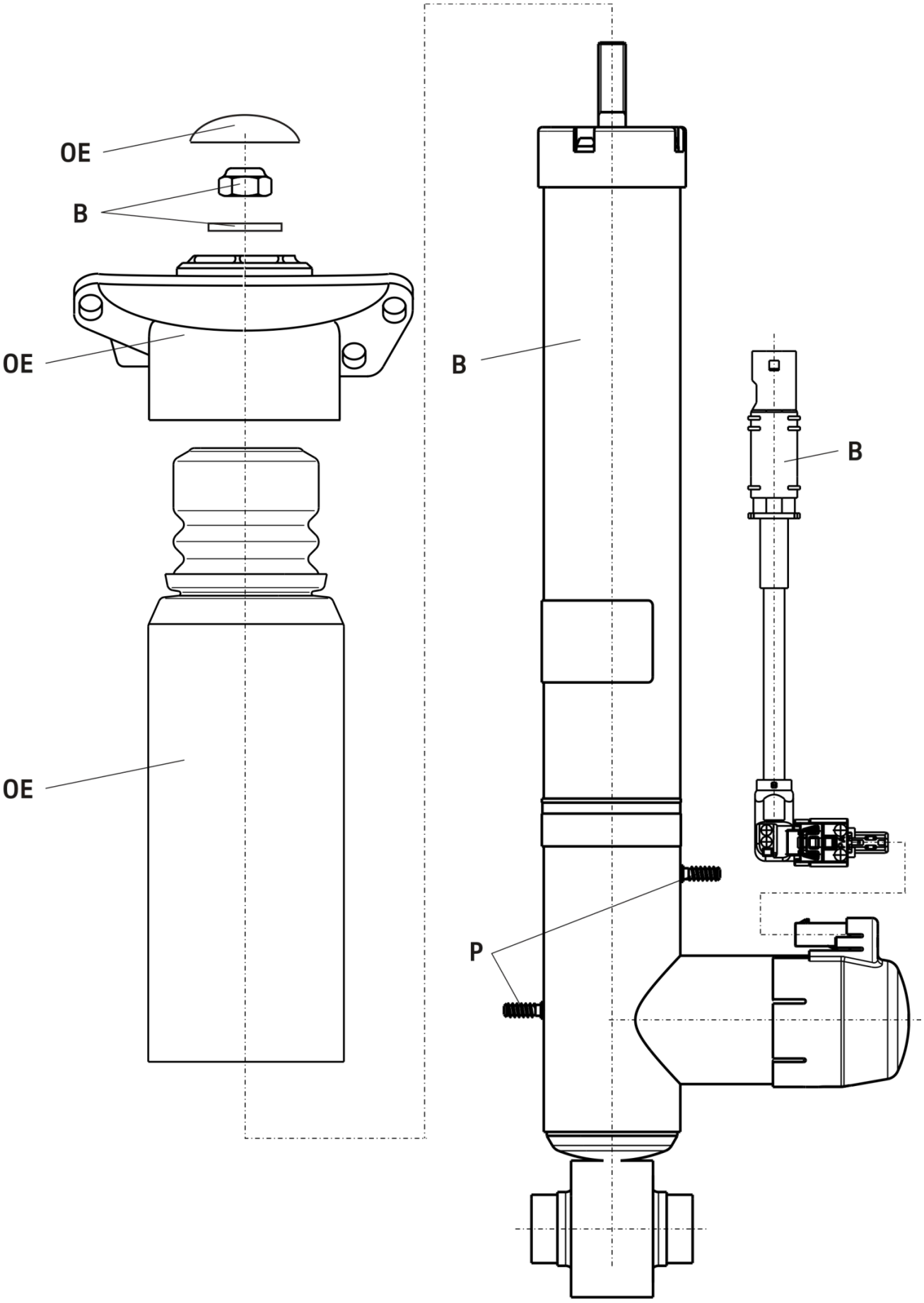
Note:

The electromagnetic valve is equipped with plastic cover as-delivered condition!



OE= Original Equipment

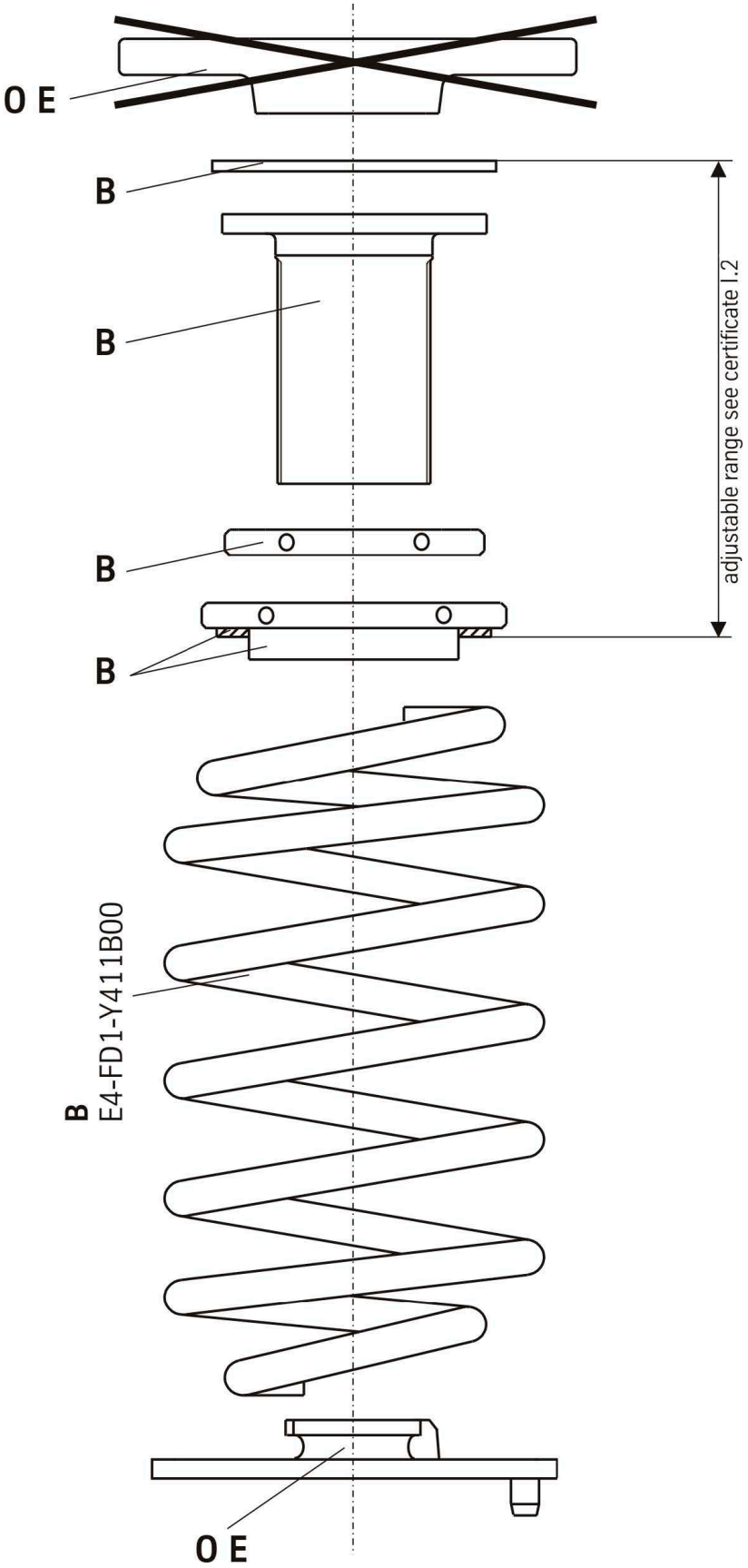
B= Delivered by BILSTEIN



adjustment assembly for rear axle

OE= Original Equipment

B= Delivered by BILSTEIN



Learn more about performance suspension parts we have.