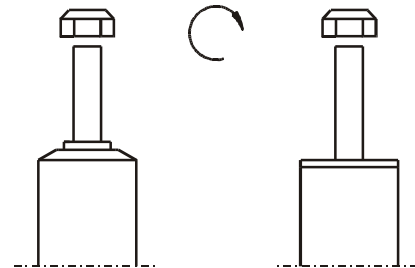


position **9** = **soft** (clockwise direction)
 position **1** = **firm** (counter- clockwise direction)

During the adjustment you will hear a positive „click“ at each position of the adjustment.

list of torques

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



DO NOT USE IMPACT TOOLS FOR LOOSENING OR TIGHTENING FASTENERS, BECAUSE THIS MAY DESTROY THE THREADS. SELF- LOCKING NUTS MUST ONLY BE USED ONCE!

ALL DIAGRAMS ARE GENERALIZED AND NOT TO SCALE!
 BRACKETS, ETC. SPECIFIC TO STRUT ARE NOT SHOWN!



**After installation please observe
the following points:**

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 aim. -

Because the vehicle has been lowered, freedom of movement for all wheel-/ tire- combinations must be checked. -

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. Make sure that the bump stop and dust cover are correctly and properly fastened.

Remove

Place vehicle on a chassis hoist, lift it and remove wheel

The lower control arm must be supported by suitable means!

Remove bottom mount.

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

Remove complete shock absorber and clamp it in an appropriate strut vise.

Compress suspension spring until tension on support bearing is released.

Release center nut and remove original mounting parts. Please refer to diagram to identify which parts will be replaced with BILSTEIN- supplied components. Top spring rubber pad for front axle do not reuse.



Install

Assemble BILSTEIN and/ or original mounting parts, as well as the new BILSTEIN spring on BILSTEIN shock absorber in reverse sequence of removal.



IMPORTANT! Spring plates must not be adjusted outside the ranges specified below!

Fit assembled shock absorber to the vehicle in reverse sequence of removal.

The correct mounting position of the suspension springs can be determined by the printing on the springs; install them with the print upright.



Remove shock absorber

Place vehicle on a chassis hoist, lift it and remove wheels.

The lower control arm must be supported by suitable means!

Remove bottom mount.

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

Remove complete shock absorber and clamp it in an appropriate strut vise.

Using a suitable spring compressor, compress suspension spring until tension on support bearing is released.

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

IMPORTANT! 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).

Manufacturer	MAZDA
ABE-/ EG- BE- No.	e11*2001/116*0199*..
type designation	SE
model	RX- 8

FRONT	maximum permissible axle load 860 kg (2530 lb)	
spring part number	main spring E4-FD1-Y412A00	helper spring E4-FD1-Y504A01
shock absorber part number	BE5-B027 without damping force adjustment or BM5-B030 with damping force adjustment	
permissible adjustment range	255 – 280 mm* = 25 mm range	
* measurement:	top edge of spring seat down to the center of bottom mounting screw	

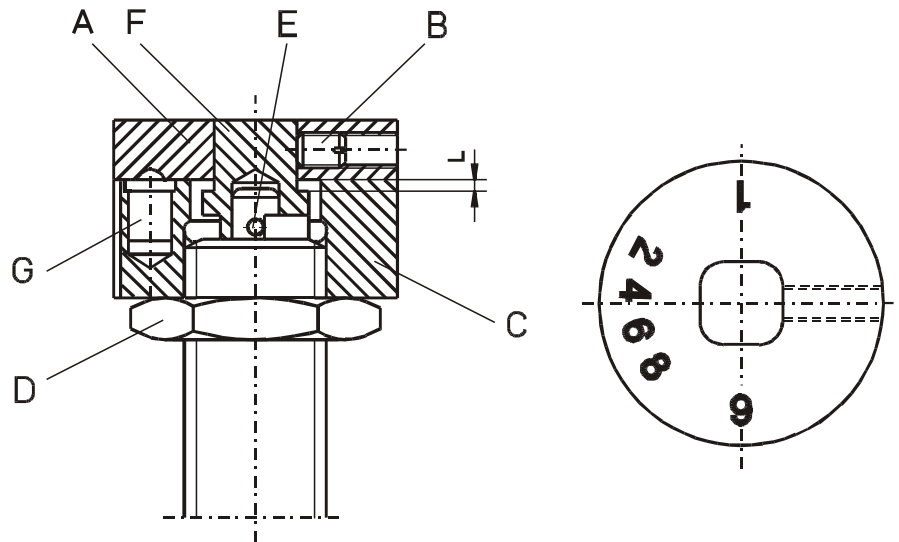
REAR	maximum permissible axle load 1030 kg (2266 lb)	
spring part number	main spring E4-FD1-Y805A00	
shock absorber part number	BE5-B028 without damping force adjustment or VM3-B031 with damping force adjustment	
permissible adjustment range	105 – 120 mm* = 15 mm range	
* measurement:	top edge of spring seat down to bottom mounting screw	

- There are no technical objections against the use of all O.E. 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 acc. to §21 StVZO).
- The ground clearance in unladen state is reduced by the installation of special springs. It is the approximate 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.).
- 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.

B16- 9 step- pin adjustment

The preassembled adjustment unit must be removed before the shock absorber installation can be completed.

- A- adjusting knob
- B- set screw
- C- adjusting head
- D- counter nut
- E- adjusting pin
- F- square rod stop
- G- spring- loaded detent ball



position **9** = **soft** (clockwise direction)

position **1** = **firm** (counter- clockwise direction)

Disassembly B16

The adjusting knob (A) must be positioned on 9 (see sketch).

Loosen the set screw (B) by an 1,5 mm hex key and remove the adjusting plate.

Hold the adjusting head (C) with an appropriate tool (SW 21 spanner), and loosen the lock nut (D; SW 17).

Now the adjusting head and lock nut can be removed, to install the shock absorber.

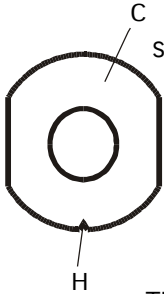
The installation of the shock absorbers must be done according to the mounting instructions.

Improper installation will render the adjustment function inoperative!!

Assembly B16

The square rod stop (F) must be turned in clockwise direction fully to its stop (soft).

Assemble first the lock nut, then the adjusting head. Do not thread the top of the adjusting head (C) past the stop at the bottom edge of the square section (F). A gap (L) of 0 to 1 mm is necessary!



Orient the score mark (H) on adjusting head in the center of any of the four sides of the square rod stop. Then lock the parts together by screwing the lock nut up to the adjuster head.

The adjusting knob (A) must be placed flat on the adjusting head, so that the spring-loaded detent ball (G) is slightly preloaded. During adjustment the ball must snap with a positive „click“ into the notches on the lower side of the knob.

Position 9 must be positioned directly above the score mark on the adjusting head (C). Then tighten the set screw (B).

The adjusting knob (A) should move easily and with distinct „clicks“ at each adjustment position. If not, disassemble the adjuster mechanism and reassemble according to the instructions

Install shock absorber

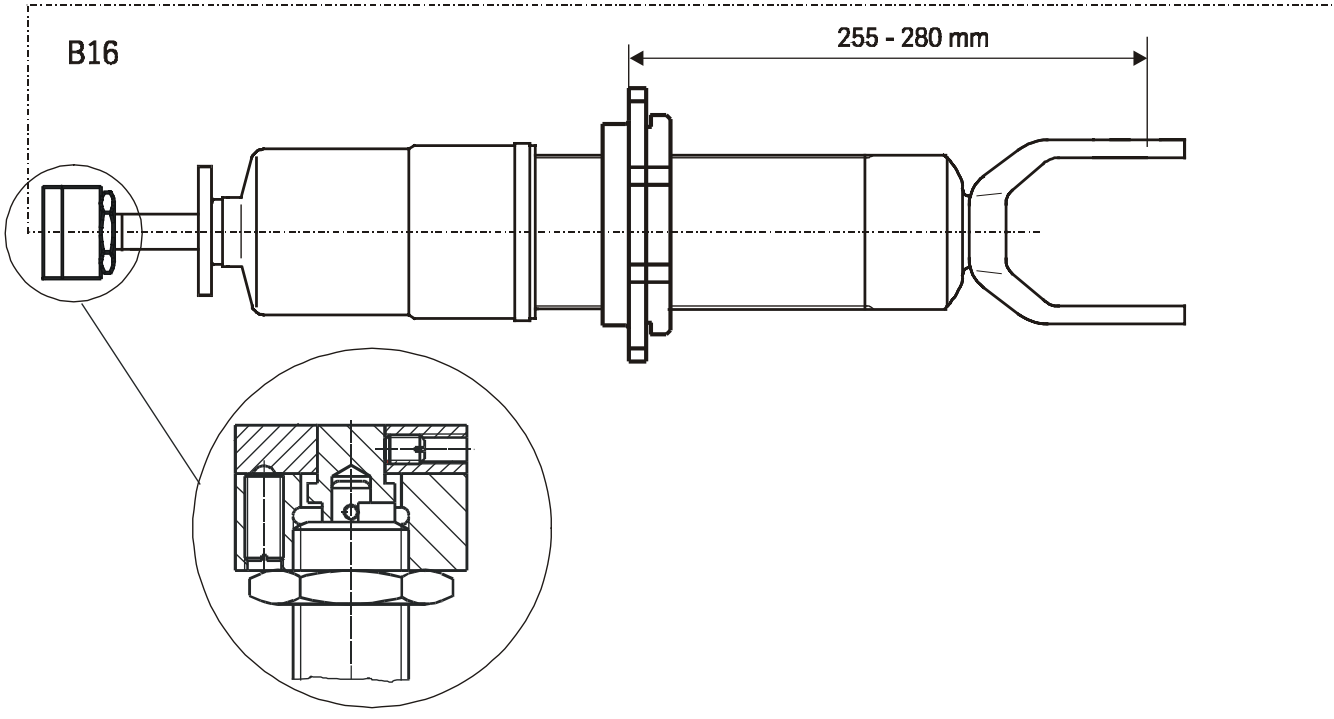
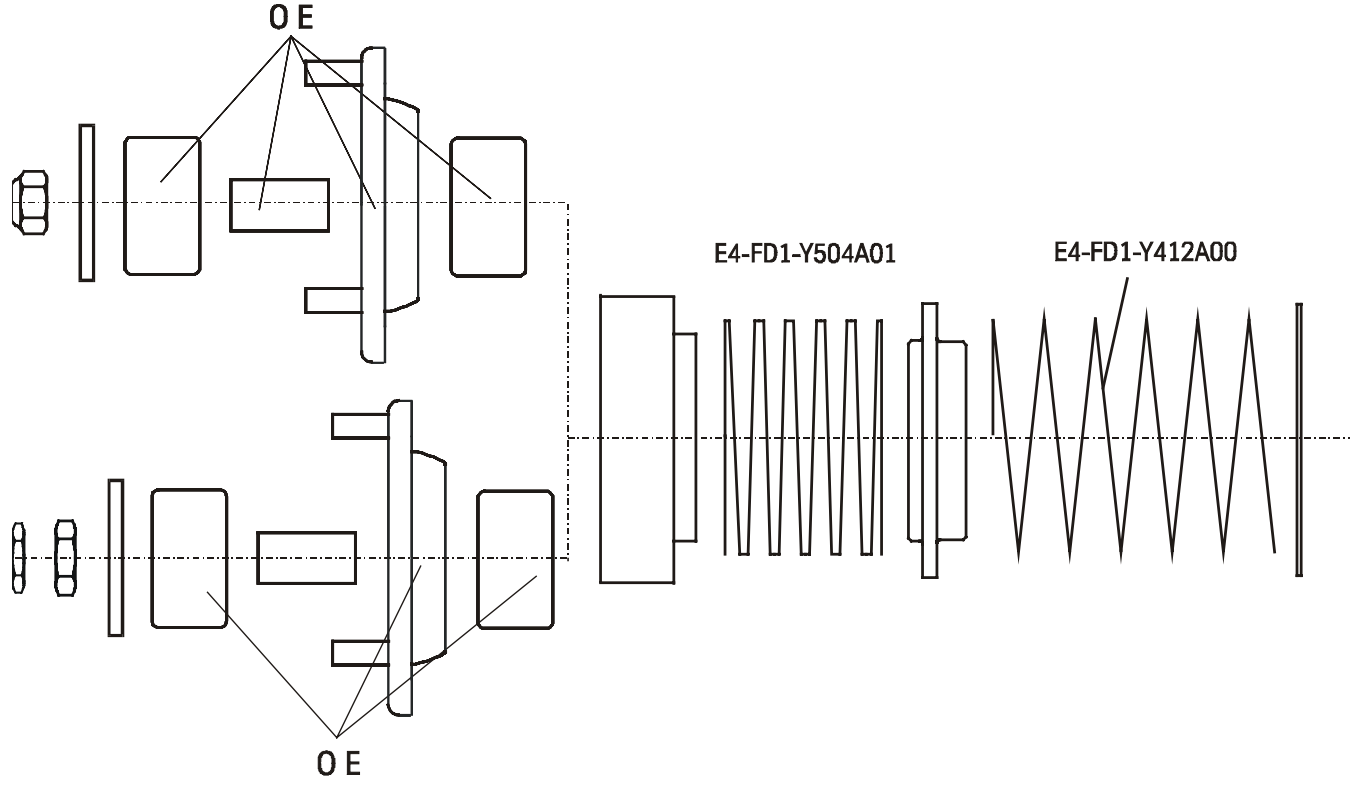
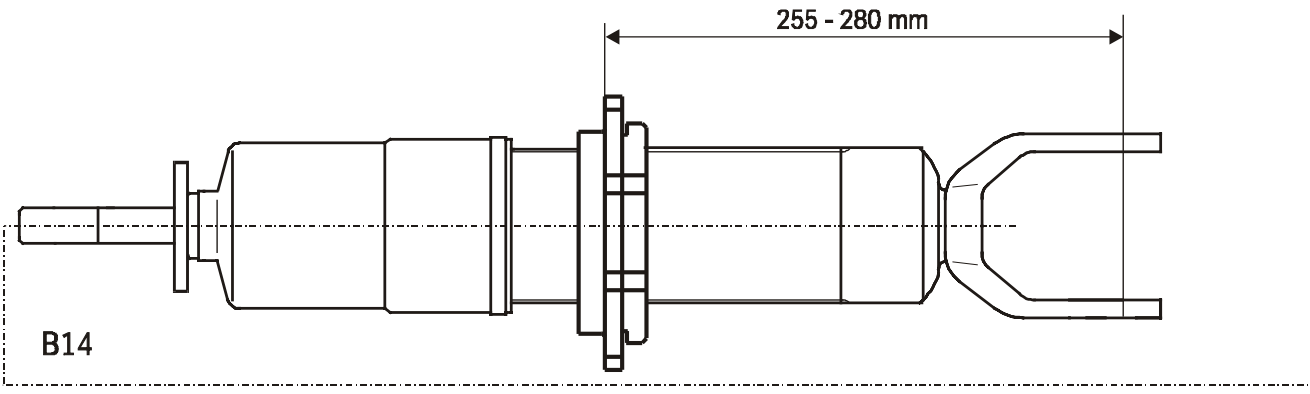
Assemble BILSTEIN and/ or original mounting parts, as well as the new BILSTEIN spring on the BILSTEIN strut in reverse sequence of removal.

IMPORTANT! Spring plates must not be adjusted outside the ranges specified below!

The correct mounting position of the suspension springs can be determined by the printing on the springs; install them with the print upright.

Fit assembled shock absorber to the vehicle in reverse sequence of removal.

ront axle



rear axle

