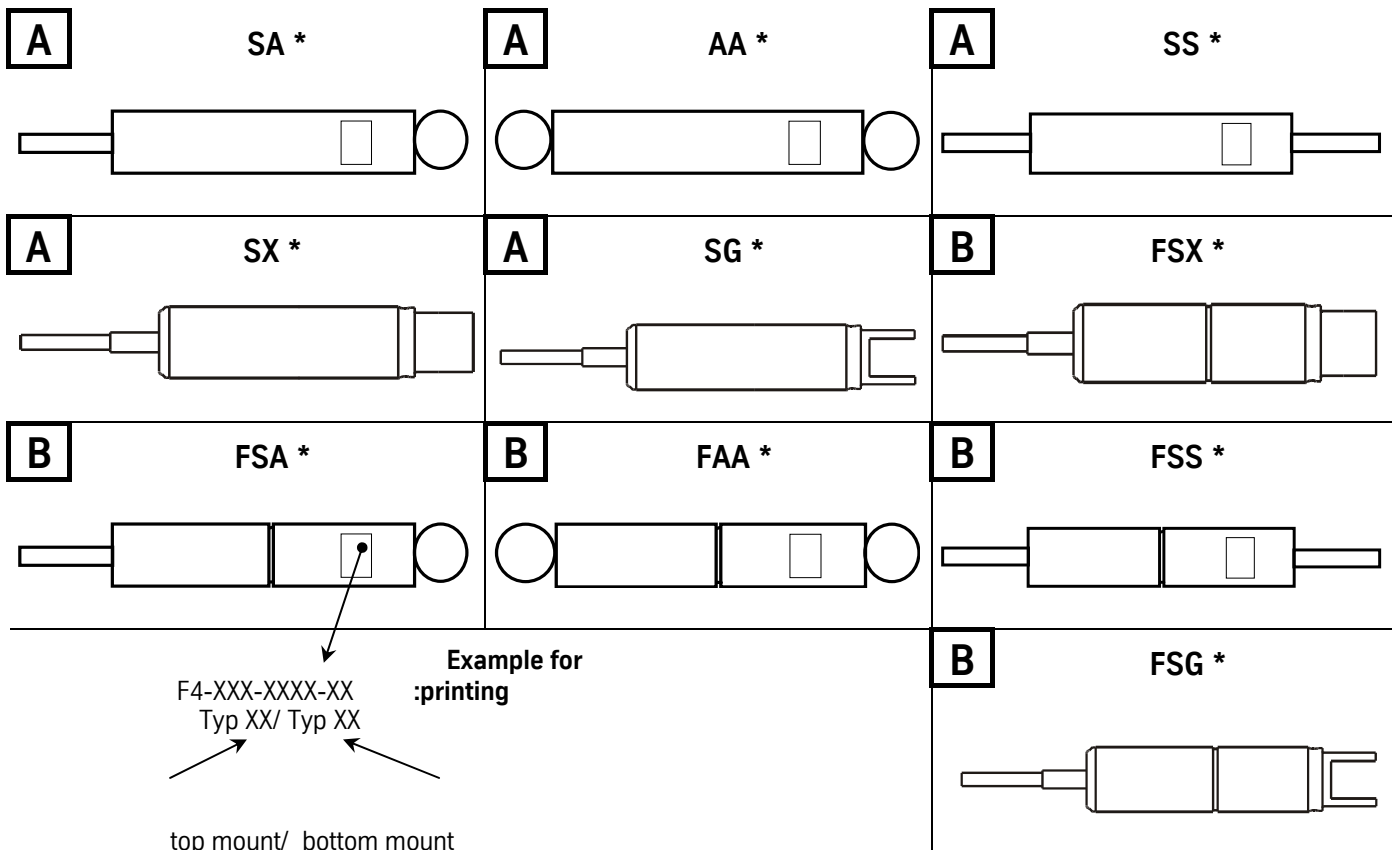




ALL DRAWINGS ARE GENERALIZED!
BRACKETS, ETC. SPECIFIC TO
STRUT ARE NOT SHOWN!

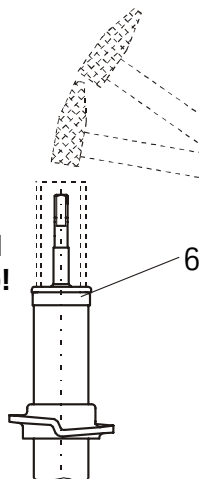
TYPES OF SHOCK ABSORBER

• see application guide side 1



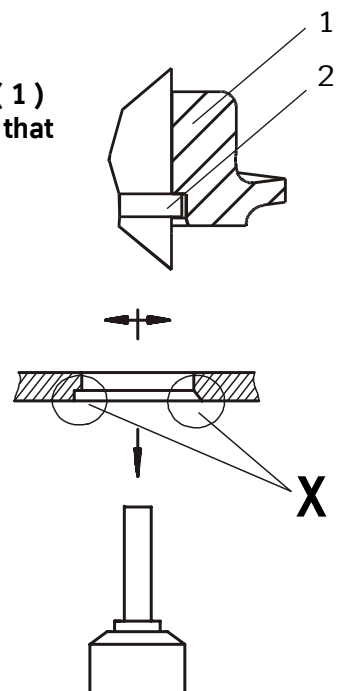
If no dust cover is delivered by BILSTEIN, original dust cover must be reused or replaced.

Do not damage the piston rod when knocking a top cap (6)!



When fitting the spring plate (1) care must be taken to ensure that the circlip ring (2) is seated correctly!

X = Fitting of plates with chamfer (if exist)





A SPRING CARRIED SHOCK ABSORBER

(FSA *, FAA *, FSS *, FSX *)

1. BILSTEIN shock absorber with original spring
2. BILSTEIN shock absorber with BILSTEIN spring
3. Original shock absorber with BILSTEIN spring

Remove

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 centre nut at this time!

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

Compress suspension spring until tension on support bearing is released.

Release nut and remove original (mounting parts) just as original spring. Please check, which original mounting parts will be renewed with mounting parts supplied by BILSTEIN.

Fitting

Fit BILSTEIN and/ or original mounting parts just as the new BILSTEIN spring on the strut in reverse sequence of removal.



Before releasing the spring, care is to be taken to ensure that the ends of the spring rest in the cut outs of the top and bottom spring plates.

The mounting position of the suspension springs can be read by the imprint- have them installed just the way you read the imprint.

Fit assembled shock absorber to the vehicle in reverse sequence of removal. For to guarantee correct fitting of mounting parts, it is necessary to compare the Type- No, printed on damper-label with the charts on the following pages.

All self- locking nuts must be replaced.
Tightening torques see list on page 3.

E4-WM5-Y217A00 MOUNTING INSTRUCTION



B

STANDARD SHOCK-ABSORBER

(SA *, AA *, SS *, SX *)

1. BILSTEIN shock absorber with original spring
2. BILSTEIN shock absorber with BILSTEIN spring
3. Original shock absorber with BILSTEIN spring

Removal

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

Remove bottom mount.



The lower control arm must be supported by suitable means!

Remove top fixing mount.

Remove shock absorber from vehicle.

Remove original mounting parts.

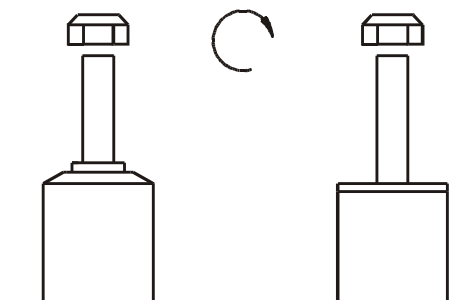
Installing

Fit BILSTEIN and/ or original mounting parts on shock absorber in reverse sequence of removal.

Fit assembled shock absorber to the vehicle in reverse sequence of removal. For to guarantee correct fitting of mounting parts, it is necessary to compare the Type- No, printed on damper- label with the charts on the following pages.

All self- locking nuts must be replaced.
Tightening torques see list below.

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





<p>Typ1</p> <p>OE</p> <p>Original Arbauteile - Original Equipment Original mounting parts</p>	<p>Typ2</p>	<p>Typ3</p>	<p>Typ4</p>	<p>Typ5</p>	<p>Typ26</p>	<p>Typ27</p>	<p>Typ28</p>	<p>Typ29</p>	<p>Typ30</p>
<p>Typ6</p>	<p>Typ7</p>	<p>Typ8</p>	<p>Typ9</p>	<p>Typ10</p>	<p>Typ31</p>	<p>Typ32</p>	<p>Typ33</p>	<p>Typ34</p> <p>Slothead nut torque to min. 48 Nm (35 lbf ft) and insert cotter pin</p> <p>Damper body</p> <p>Vehicle</p>	
<p>Typ11</p>	<p>Typ12</p> <p>oder/ or</p>	<p>Typ13</p>	<p>Typ14</p>	<p>Typ15</p>	<p>Typ35</p>	<p>Typ37</p>	<p>Typ38</p>	<p>Typ39</p>	<p>Typ40</p>
<p>Typ16</p>	<p>Typ17</p>	<p>Typ18</p>	<p>Typ19</p> <p>44 ad Nm 33 ad lbf ft</p>	<p>Typ20</p>	<p>Typ36</p>	<p>Typ37</p>	<p>Typ38</p>	<p>Typ39</p>	<p>Typ40</p>
<p>Typ21</p>	<p>Typ22</p>	<p>Typ23</p>	<p>Typ24</p>	<p>Typ25</p>	<p>Typ41</p>	<p>Typ42</p>	<p>Typ43</p>	<p>Typ44</p>	<p>DC-G⁺-Typ</p> <p>Bei Fahrzeugen mit Kurzschass erfolgen die beiden Schrauben ø 22/5 dicht!</p>



MOUNTING INSTRUCTION

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 the product for all components before starting installation!
- Check that dimensions and fastening points are comparable between the original and BILSTEIN shock absorbers.
- Remove the negative battery pole.
- Directional references (left, right, front, rear) are always with reference to the driving direction.
- The tested vehicles are left- hand drive vehicles.

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 setting.
- If the vehicle has been lowered, freedom of movement (clearance) 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.
- Connect the negative battery pole.

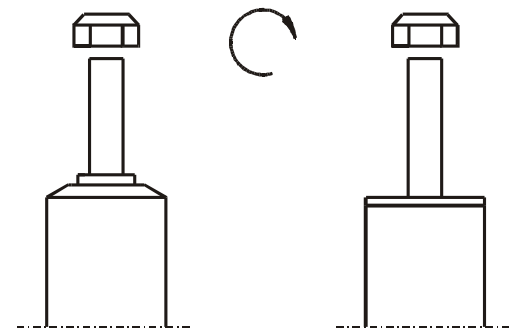
E4-WM5-Y519A00

MOUNTING INSTRUCTION



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 used once!**

Note!
Vehicles with 2WD have no left/right strut version on front axle.

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

E4-WM5-Y519A00

MOUNTING INSTRUCTION



Removal left/right

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.

Remove bottom mount.

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 tension on support bearing is free to move.

Installation left/right

Fit original/ BILSTEIN mounting parts on strut in reverse order as removal, except for bump stop, since BILSTEIN- strut has built in bump stop. Please refer to diagram to identify which parts will be replaced with BILSTEIN- supplied components also. If there is no dust cover and/ or no spring washer delivered by BILSTEIN, the original one is to be reused.



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

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 BILSTEIN strut to the vehicle in reverse order as removal.

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MOUNTING INSTRUCTION



OE= Original Anbauteile
Original Equipment

B= BILSTEIN Lieferumfang
Delivered by BILSTEIN

