



How to change front
suspension strut on
TOYOTA Corolla Saloon
(_E18_, ZRE1_) –
replacement guide

SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

Important!

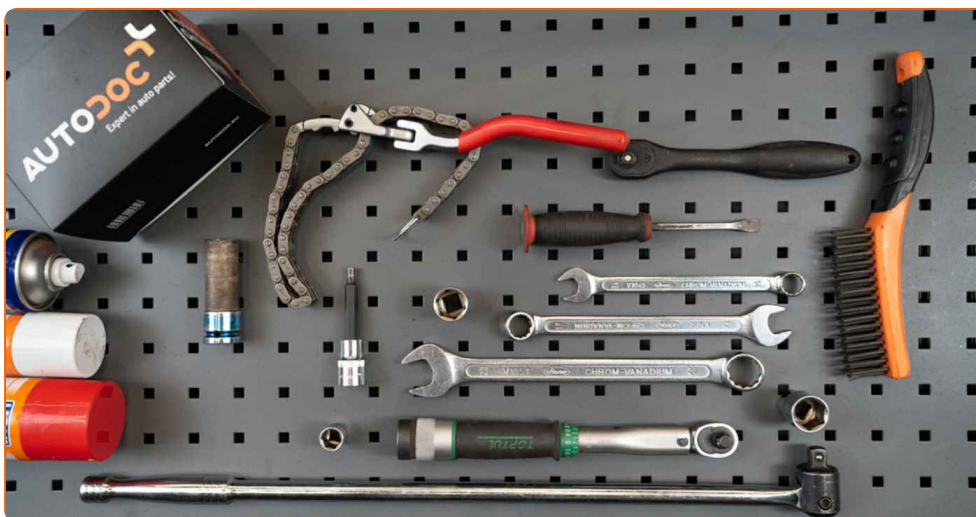
This replacement procedure can be used for:

TOYOTA Corolla Saloon (_E18_, ZRE1_) 1.3 (NRE180_), TOYOTA Corolla Saloon (_E18_, ZRE1_) 1.4 D-4D (NDE180_), TOYOTA Corolla Saloon (_E18_, ZRE1_) 1.6 (ZRE181_), TOYOTA Corolla Saloon (_E18_, ZRE1_) 1.8 VVTi (ZRE172), TOYOTA Corolla Saloon (_E18_, ZRE1_) 1.6 (ZRE171_)

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: TOYOTA AURIS (NRE15_, ZZE15_, ADE15_, ZRE15_, NDE15_) 1.8 Hybrid (ZWE150_)

REPLACEMENT: SUSPENSION STRUT – TOYOTA COROLLA SALOON (_E18_, ZRE1_). TOOLS YOU MIGHT NEED:



- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Combination spanner #14
- Combination spanner #17
- Combination spanner #22
- Drive socket # 14
- Drive socket # 17
- Drive socket # 21
- Drive socket # 22
- HEX bit no.H6.
- Wheel impact socket #21
- Ratchet wrench
- Torque wrench
- Tap wrench
- Crow bar
- Chain wrench
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

Buy tools

Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_).
 AUTODOC experts recommend:

- Both shock struts of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock struts of the front suspension.
- Please note: all work on the car – TOYOTA Corolla Saloon (_E18_, ZRE1_) – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

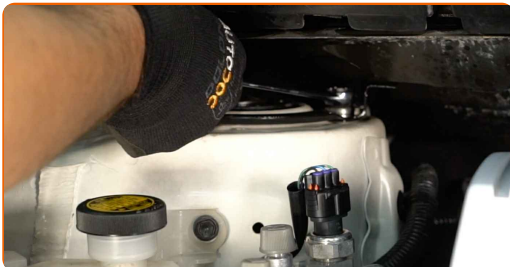
1 Open the bonnet.

2 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

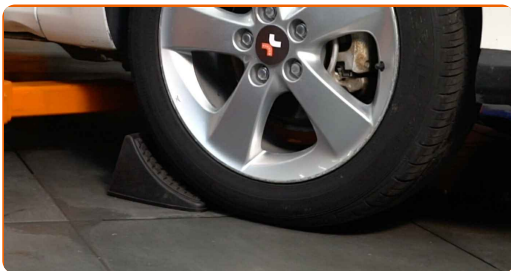
3 Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.



4 Loosen the upper fastener of the shock strut mount. Use a combination spanner #14.



5 Secure the wheels with chocks.

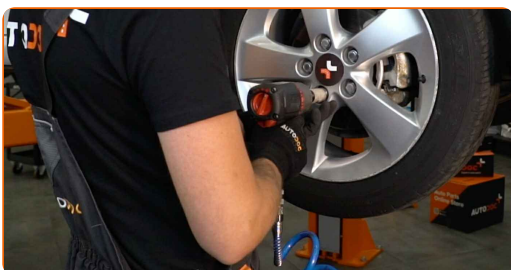


6 Loosen the wheel mounting bolts. Use wheel impact socket #21.



7 Raise the front of the car and secure on supports.

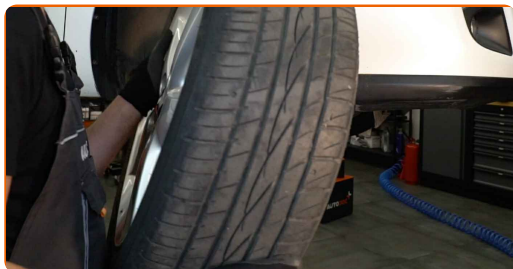
8 Unscrew the wheel bolts.



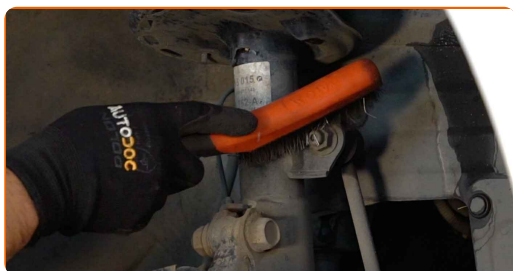
AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while unscrewing the fastening bolts.
TOYOTA Corolla Saloon (_E18_, ZRE1_)

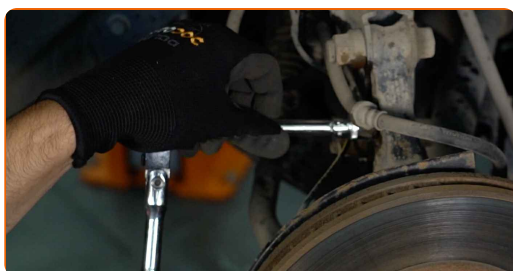
9 Remove the wheel.



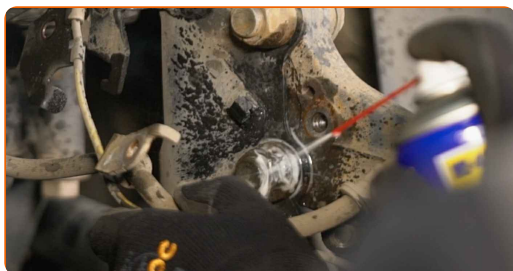
10 Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.



11 Disconnect the wiring and the brake hose from the bracket on the shock strut. Use a drive socket #14. Use a ratchet wrench.



12 Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.



13

Unscrew the fastener connecting the stabilizer link to the shock strut. Use a combination spanner #17. Use HEX No.H6. Use a ratchet wrench.



14

Remove the stabilizer rod.

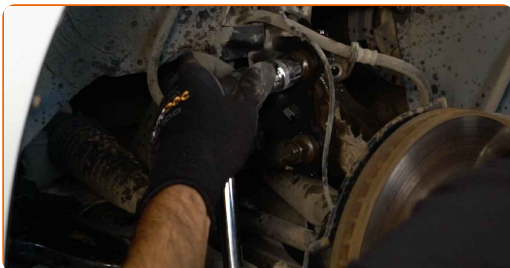


Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_).
AUTODOC recommends:

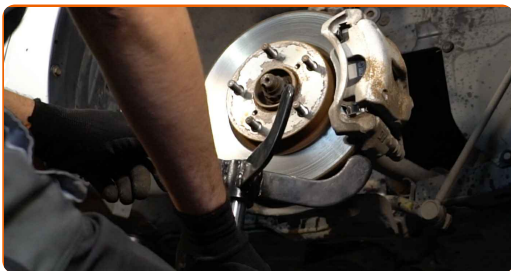
- Examine stabiliser bushes. Replace them if needed.

15

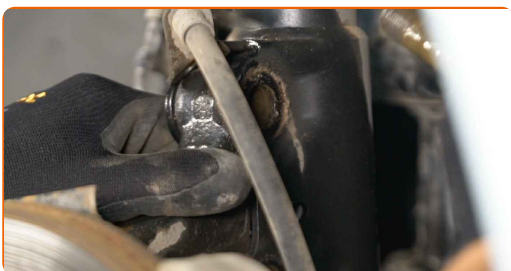
Unscrew the lower fastener connecting the shock strut to the steering knuckle. Use a combination spanner #22. Use a drive socket #22. Use a tap wrench.



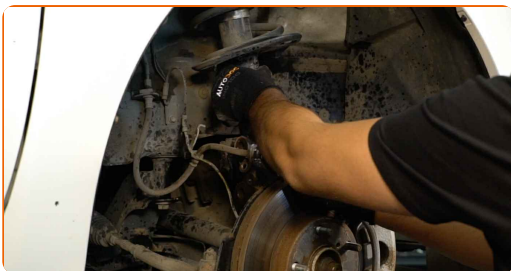
16 Prop up the steering knuckle. Use a hydraulic transmission jack.



17 Remove the fastening bolts.



18 Disconnect the steering knuckle from the shock absorber strut.



19 Unscrew the top fastening of the shock strut mount.



Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_). Tip:

- To avoid injuries, hold the shock strut when undoing the fastening bolts.

20

Remove the suspension strut.



21

Set the shock absorber strut on the spring compressor tool.

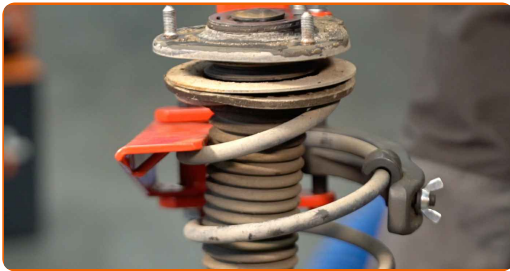


Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_). Tip from AUTODOC experts:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

22

Compress the spring.



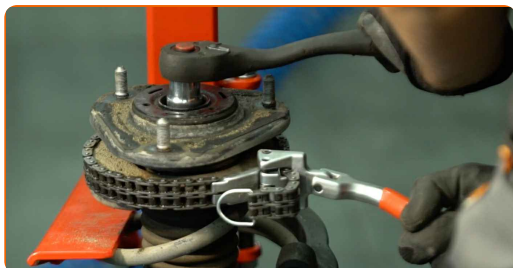
23 Remove the shock strut mount cap. Use a crowbar.



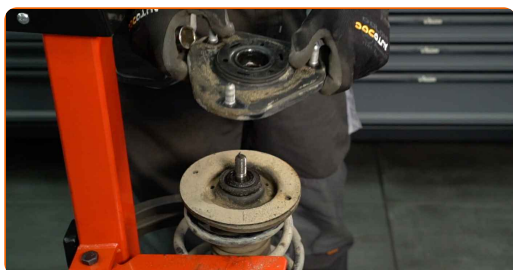
24 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.



25 Remove the strut piston rod nut. Use a chain wrench. Use a drive socket #21. Use a ratchet wrench.



26 Remove the shock absorber mount, boot and bump stop. Use a crowbar.



AUTODOC recommends:

- Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_). Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

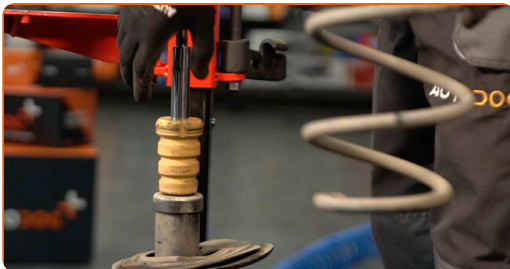
27

Release the coil spring.



28

Remove the spring.



29

Remove the old shock absorber from the hydraulic coil spring compressor.



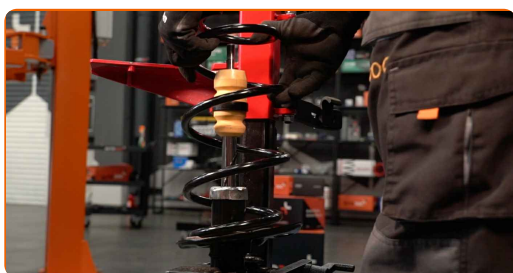
**Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_).
Professionals recommend:**

- Before installing a new shock absorber you should pump it manually 3-5 times.

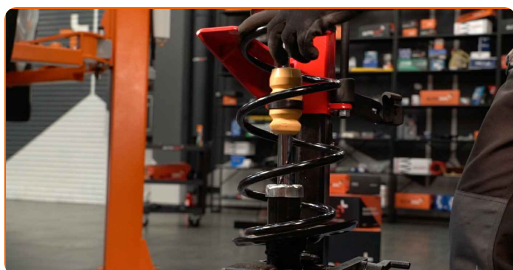
30 Install the new shock absorber on the hydraulic coil spring compressor.



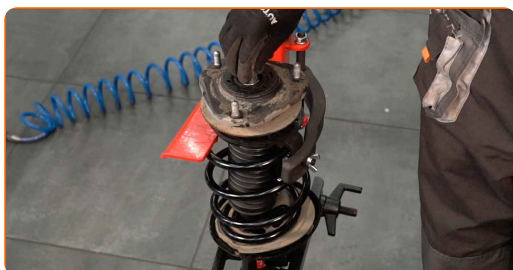
31 Install the spring on the shock absorber.



32 Compress the spring.



33 Install the mount, the boot and the bump stop on the shock absorber.



34 Tighten the shock strut piston rod nut. Use a chain wrench. Use a drive socket #21. Use a torque wrench. Tighten it to 47 Nm torque.



Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_). Tip from AUTODOC experts:

- Check to make sure the spring is positioned correctly. Avoid its misalignment.

35

Treat the shock strut rod. Use copper grease.



36

Install the shock strut mount cap.



37

Decompress the spring.



38

Remove the assembled shock strut.

39 Install the shock strut into the wheel arch.



40 Screw the top fastening of the shock strut mount. Do not tighten it.



AUTODOC recommends:

- Important! Hold the suspension strut while screwing in the fastening bolts.
TOYOTA Corolla Saloon (_E18_, ZRE1_)

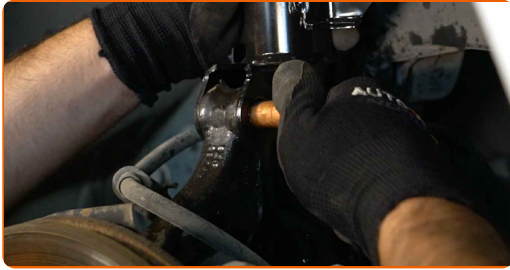
41 Clean the mounting seats of the shock strut. Use a wire brush. Use WD-40 spray.



42 Fix the shock absorber strut on the steering knuckle.



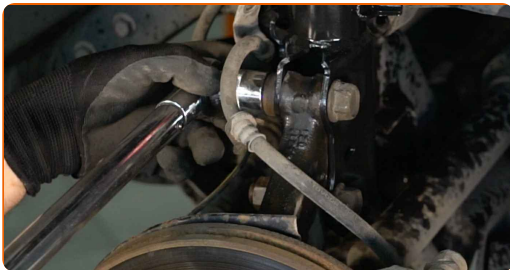
43 Install the fastening bolts.



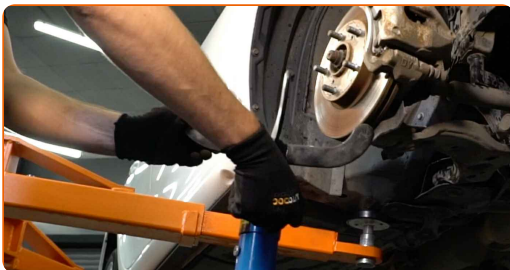
44 Screw in the fastener that connects the shock strut to the steering knuckle. Use a combination spanner #22. Use a drive socket #22.



45 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a drive socket #22. Use a torque wrench. Tighten it to 240 Nm torque.



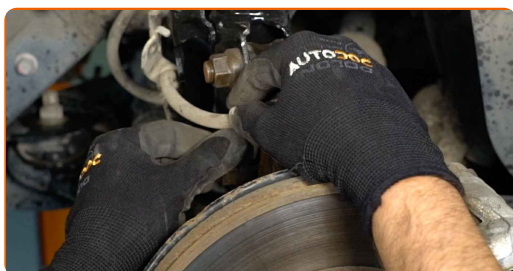
46 Remove the support from under the steering knuckle.



AUTODOC recommends:

- Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_). Lower the transmission jack smoothly, without jerks, to avoid damaging components and mechanisms.

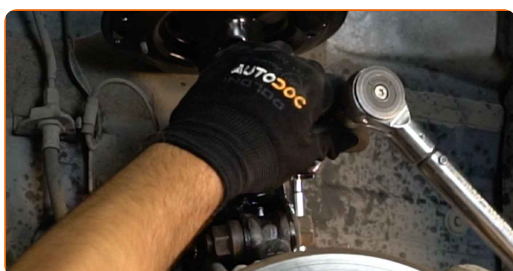
47 Fasten the brake hose on the strut. Connect the fastener of the ABS sensor cable to the shock absorber strut. Use a drive socket #14. Use a ratchet wrench.



48 Install the transverse stabilizer link.



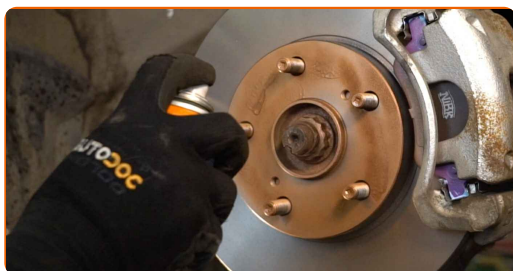
49 Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #17. Use a torque wrench. Tighten it to 74 Nm torque.



50 Treat the shock strut fasteners. Use copper grease.



51 Treat the surface where the brake disc contacts the wheel rim. Use copper grease.



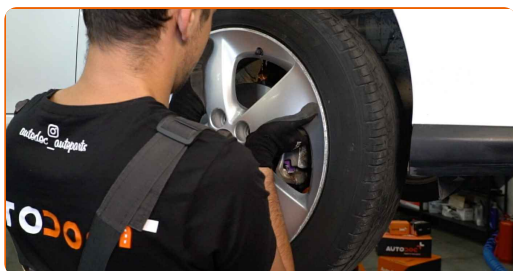
52 Clean the brake disk surface. Use a brake cleaner.



Replacement: suspension strut – TOYOTA Corolla Saloon (_E18_, ZRE1_). Tip:

- After applying the spray, wait a few minutes.

53 Install the wheel.

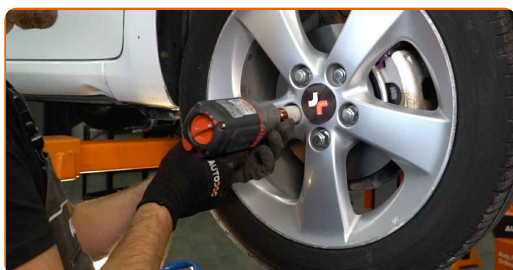


AUTODOC recommends:

- Important! Hold the wheel while screwing in the fastening bolts. TOYOTA Corolla Saloon (_E18_, ZRE1_)

54

Screw in the wheel bolts. Use wheel impact socket #21.



55

Lower the car.

56

Tighten the upper fastener of the shock absorber strut mount. Use a drive socket #14. Use a torque wrench. Tighten it to 50 Nm torque.



57

Treat the fasteners of the shock strut mount. Use copper grease.

58

Remove the fender protection cover.

59

Close the hood.

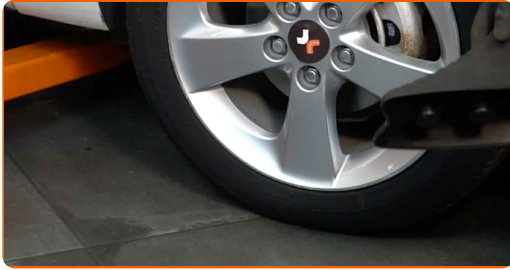
60

Tighten the wheel bolts using a criss-cross pattern. Use a torque wrench. Tighten it to 103 Nm torque.



61

Remove the jacks and chocks.



WELL DONE! 

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