



How to change spark
plugs on **ALPINA B3**
Estate (E46) –
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:

ALPINA B3 Estate (E46) 3.3, ALPINA B3 Estate (E46) 3.3 All-wheel Drive, ALPINA B3 Estate (E46) 3.4 S

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: BMW 5 Saloon (E39) 520i 2.0

REPLACEMENT: SPARK PLUGS – ALPINA B3 ESTATE (E46). LIST OF THE TOOLS YOU'LL NEED:



- High-temperature anti-seize lubricant
- Drive socket # 10
- Spark plug socket # 16
- Ratchet wrench
- Torque wrench
- Telescoping magnet
- Crow bar
- Fender cover

[Buy tools](#)

Replacement: spark plugs – ALPINA B3 Estate (E46). Tip from AUTODOC experts:

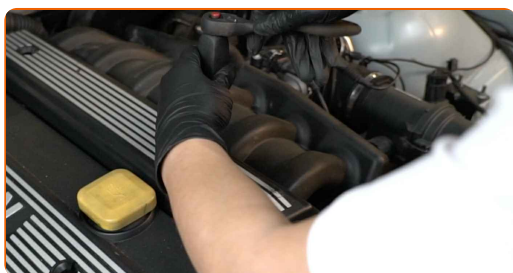
- The replacement procedure is the same for all spark plugs.
- All work should be done with the engine stopped.

REPLACEMENT: SPARK PLUGS – ALPINA B3 ESTATE (E46). USE THE FOLLOWING PROCEDURE:

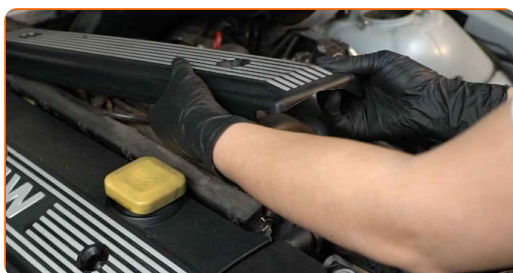
1 Open the bonnet.

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

3 Unscrew the engine cover fastener. Use a drive socket #10. Use a ratchet wrench.



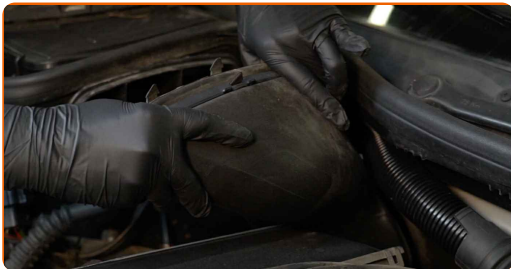
4 Remove the engine cover.



Replacement: spark plugs – ALPINA B3 Estate (E46). Tip:

- Do not apply excessive force when removing the part. Otherwise you may damage it.

5 Detach the air duct housing from the air filter housing.



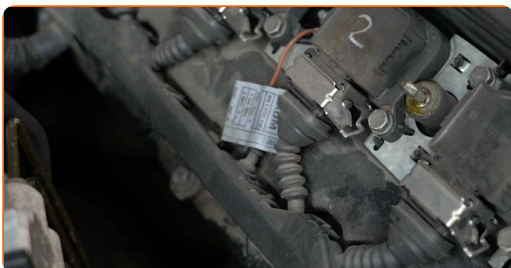
6 Unscrew the engine cover fastener. Use a drive socket #10. Use a ratchet wrench.



7 Unscrew the oil filler plug.



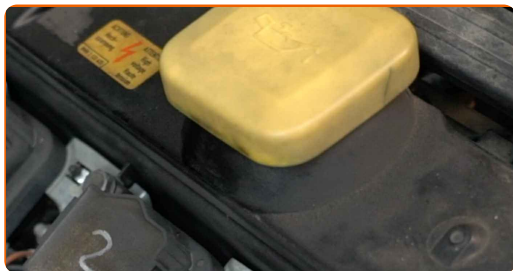
8 Remove the engine cover.



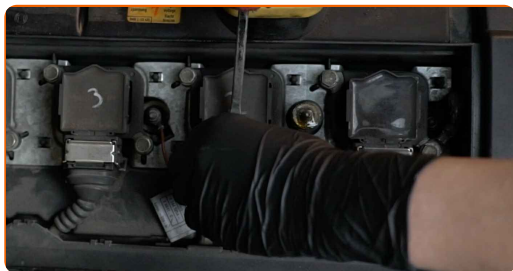
AUTODOC recommends:

- Replacement: spark plugs – ALPINA B3 Estate (E46). To avoid damaging the part when removing it, do not use excessive force.

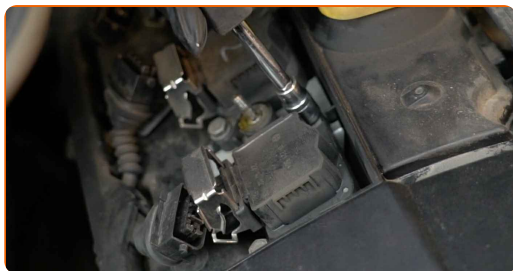
9 Tighten the oil filler cap.



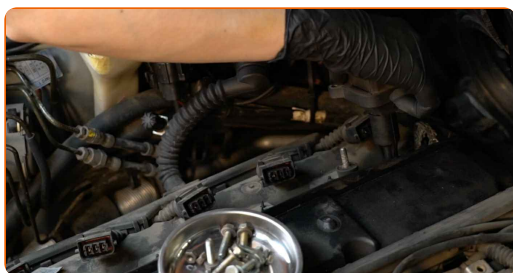
10 Unplug the connectors from the ignition coils. Use a crowbar.



11 Unscrew the fasteners of the ignition coils. Use a drive socket #10. Use a ratchet wrench.



12 Take out the ignition coils from the spark plug wells.



Replacement: spark plugs – ALPINA B3 Estate (E46). AUTODOC recommends:

- Remember the sequence of steps for ignition coil demounting.

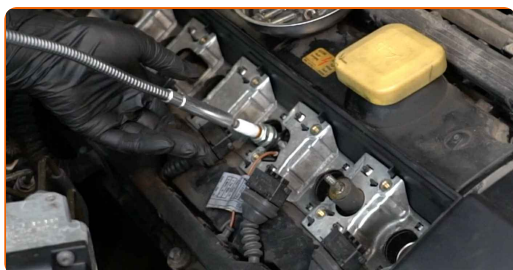
- 13** Clean dirt, dust and debris from inside the spark plug wells.



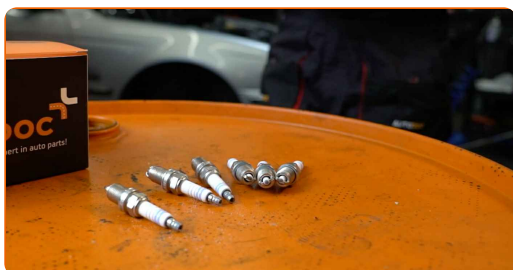
- 14** Unscrew the spark plugs. Use the spark plug socket #16. Use a ratchet wrench.



- 15** Take out the spark plugs. Use a telescoping magnet.

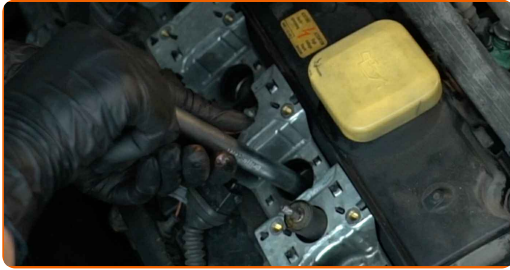


- 16** Apply a thin layer of a special high temperature anti-seize lubricant to the threads of the new spark plugs.



17

Install the new spark plugs into their mounting seats. Use the spark plug socket #16.



18

Screw new spark plugs and tighten them. Use the spark plug socket #16. Use a torque wrench. Tighten it to 26 nm torque.

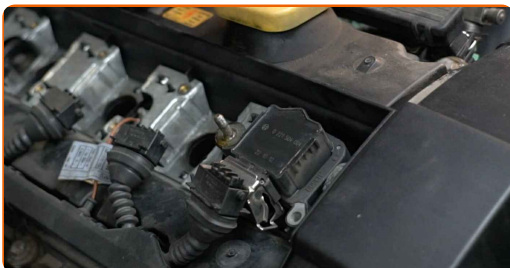


Replacement: spark plugs – ALPINA B3 Estate (E46). Tip from AUTODOC experts:

- Don't tighten the plugs with excessive force. Exceeding tightening torque can damage the thread connection.
- Be careful when working with a spark plug wrench. Its skewing can cause damage to the threaded connection.

19

Install the ignition coils to the spark plug wells. Make sure you hear a click indicating that it is locked in place.

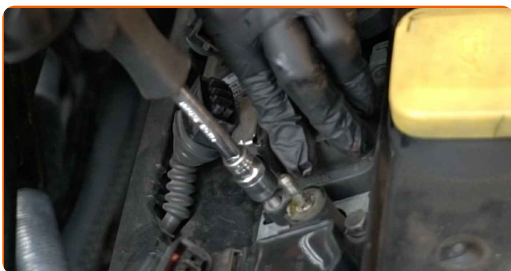


AUTODOC recommends:

- Replacement: spark plugs – ALPINA B3 Estate (E46). Follow the installation steps.

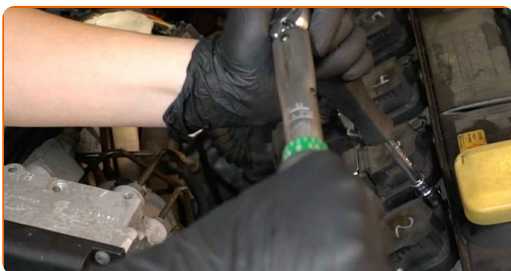
20

Tighten the fasteners of the ignition coils. Use a drive socket #10. Use a ratchet wrench.



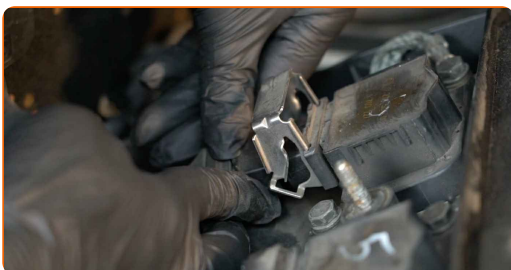
21

Tighten the ignition coil fasteners. Use a drive socket #10. Use a torque wrench. Tighten it to 11 nm torque.



22

Plug in the connectors of the ignition coils.

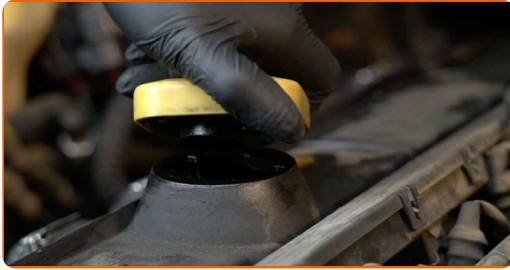


23

Unscrew the oil filler plug.

24

Remove the oil filler cap.



25

Install the engine cover and secure it.



Replacement: spark plugs – ALPINA B3 Estate (E46). Tip:

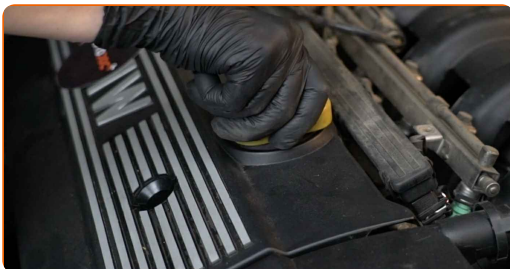
- Make sure the engine cover is properly seated. It should not be displaced with respect to the guiding fasteners.
- Do not apply excessive force when installing the part. Otherwise you may damage the fasteners.

26

Install the oil filler cap.

27

Tighten the oil filler cap.



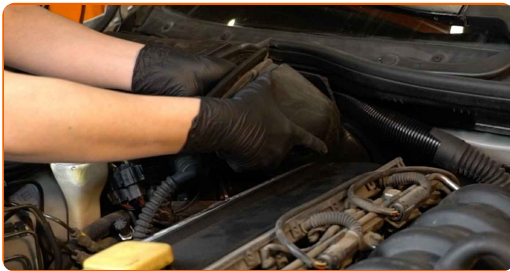
28

Screw in the engine cover fasteners. Use a drive socket #10. Use a ratchet wrench.



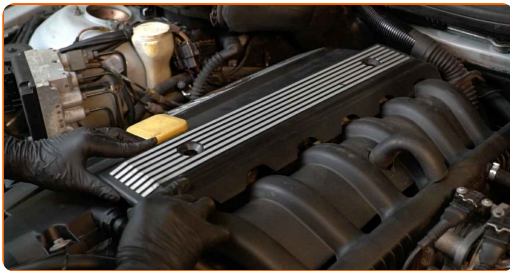
29

Install the air duct housing.



30

Install the engine cover and secure it.

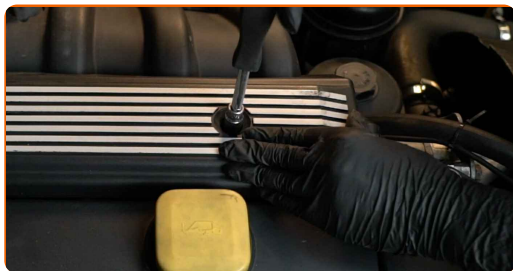


Replacement: spark plugs – ALPINA B3 Estate (E46). AUTODOC experts recommend:

- Make sure the engine cover is properly seated. It should not be displaced with respect to the guiding fasteners.
- Do not apply excessive force when installing the part. Otherwise you may damage the fasteners.

31

Screw in the engine cover fasteners. Use a drive socket #10. Use a ratchet wrench.



32

Remove the fender protection cover.

33

Close the hood.

34

Run the engine for a few minutes. This is necessary in order to make sure that the component operates properly.

35

Shut off the engine.

WELL DONE! 

VIEW MORE TUTORIALS

AUTODOC – TOP QUALITY AND AFFORDABLE CAR PARTS ONLINE

AUTODOC MOBILE APP: GREAT DEALS AND CONVENIENT SHOPPING





 GET IT ON
Google Play

 Download on the
App Store

Download

A GREAT SELECTION OF SPARE PARTS FOR YOUR CAR

SPARK PLUGS: A WIDE SELECTION

ⓘ **DISCLAIMER:**

The document contains only general recommendations that may be useful for you when you perform repair or replacement work. AUTODOC shall not be liable for any loss, injury, damage of property occurring in the repair or replacement process due to incorrect use or misinterpretation of the provided information.

AUTODOC shall not be liable for any possible mistakes and uncertainties in this guide. The information provided is for information purposes only and cannot replace advice from specialists.

AUTODOC shall not be liable for incorrect or hazardous usage of equipment, tools and car parts. AUTODOC strongly recommends to be careful and observe the safety rules when performing repair or replacement works. Remember: usage of low quality auto parts does not guarantee you the appropriate level of road safety.

© Copyright 2023 – All the contents of this website, in particular texts, photographs and graphics, are protected by copyright. All rights, including reproduction, publication, editing and translation rights, are reserved by AUTODOC SE.