



Haynes
shows you how

BMW 3-Series (92-98) & Z3 (96-98) Haynes Online Manual

3 Ignition coil - removal and installation

Four-cylinder models

Removal

1 Each spark plug is fed by its own coil, and coils are mounted together on the right-hand suspension tower in the engine compartment.

2 Disconnect the battery negative lead. **Caution:** *If the radio in your vehicle is equipped with an anti-theft system, make sure you have the correct activation code before disconnecting the battery.*

3 On early models, disconnect the spark plug wires from the coils, noting their locations to ensure correct installation (mark the leads if necessary), then unclip the cover from the top of the coils.

4 On later models, unclip the cover from the top of the coil assembly and disconnect the spark plug wire from the coil (see illustration) . If all the coils are to be removed, ensure that the spark plug wires are marked to avoid confusion on installation.

3.4 Unclip the cover from the top of the coil assembly - four-cylinder model



5 Lift the securing clip and disconnect the wiring plug from the relevant coil (see illustration) . Again if all the coils are to be removed, ensure that the wiring is marked.

3.5 Disconnecting a coil wiring plug - four-cylinder model



6 Unscrew the coil securing nuts and/or bolts, noting the location of any ground wires or brackets secured by the bolts, then withdraw the coil(s) (see illustration) .

3.6 Unscrewing a coil securing nut - four-cylinder model



Installation

7 Installation is a reversal of removal, ensuring that the spark plug wires and coil wiring plugs are correctly reconnected. Where applicable, ensure that any ground leads and/or brackets are in place on the coil securing bolts.

Six-cylinder models

Removal

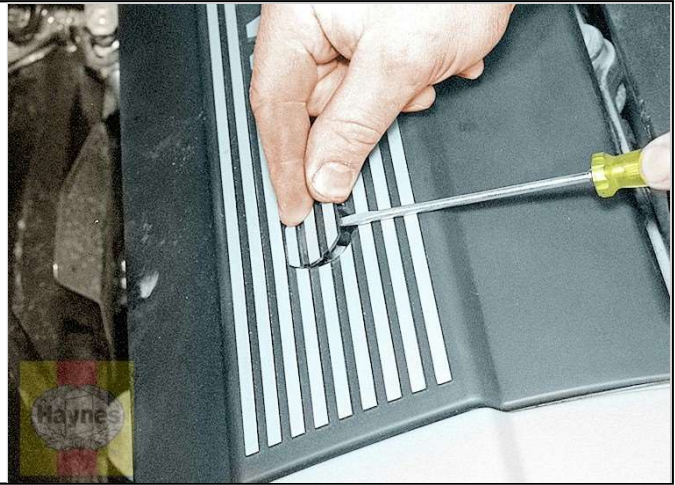
8 Each spark plug is fed by its own coil, and the coils are mounted directly on top of the spark plugs, in the valve cover.

9 Disconnect the battery negative lead. **Caution:** *If the radio in your vehicle is equipped with an anti-theft system, make sure you have the correct activation code before disconnecting the battery.*

10 Remove the engine oil filler cap.

11 Remove the plastic cover from the top of the valve cover. To remove the cover, pry out the cover plates and unscrew the two securing nuts, then lift and pull the cover forwards. Manipulate the cover over the oil filler neck (see illustrations) .

3.11a Pry out the covers for access to the securing nuts . . .



3.11b . . . then remove the plastic cover from the cylinder head - six-cylinder model



12 Lift the securing clip, and disconnect the wiring plug from the relevant coil (see illustration) . If all the coils are to be removed, disconnect all the wiring connectors, then unscrew the nut securing the coil wiring ground lead to the stud on the front of the timing chain cover - the wiring harness can then be unclipped from the camshaft cover and moved to one side.

3.12 Disconnecting a coil wiring plug - six-cylinder model



13 Unscrew the two coil securing nuts, noting the locations of any ground leads and/or brackets secured by the nuts (note that where one of the nuts also secures a metal wiring bracket, it may be necessary to unscrew the bracket securing nut from the adjacent coil, allowing the bracket to be removed to enable coil removal) (see illustrations) . Note that the coil connectors are spring-loaded, so the top of the coil will lift as the nuts are unscrewed.

3.13a Unscrewing a coil securing nut. Note the location of the ground lead (arrow) - six-cylinder model



3.13b Where applicable remove the bracket . . .



14 Pull the coil from the camshaft cover and spark plug, and withdraw it from the engine (see illustration) .

3.14 . . . then withdraw the coil - six-cylinder model



Installation

15 Installation is a reversal of removal, but ensure that any ground leads and brackets are in position as noted before removal. The ground leads connect to the studs for No. 3 and 6 cylinder coils.

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