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Your Vehicle: 2010 Audi Q7 Quattro (4LB) V6-3.0L DSL Turbo (CATA)



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Service and Repair

Engine Control Module (J623)

Special tools, testers and auxiliary items required

- ⌘ Hot Air Blower (VAS 1978/14A) with nozzle attachment from the Wiring Harness Repair Set (VAS 1978 B)
- ⌘ Vehicle Diagnostic Tester
- ⌘ Small commercially available locking pliers

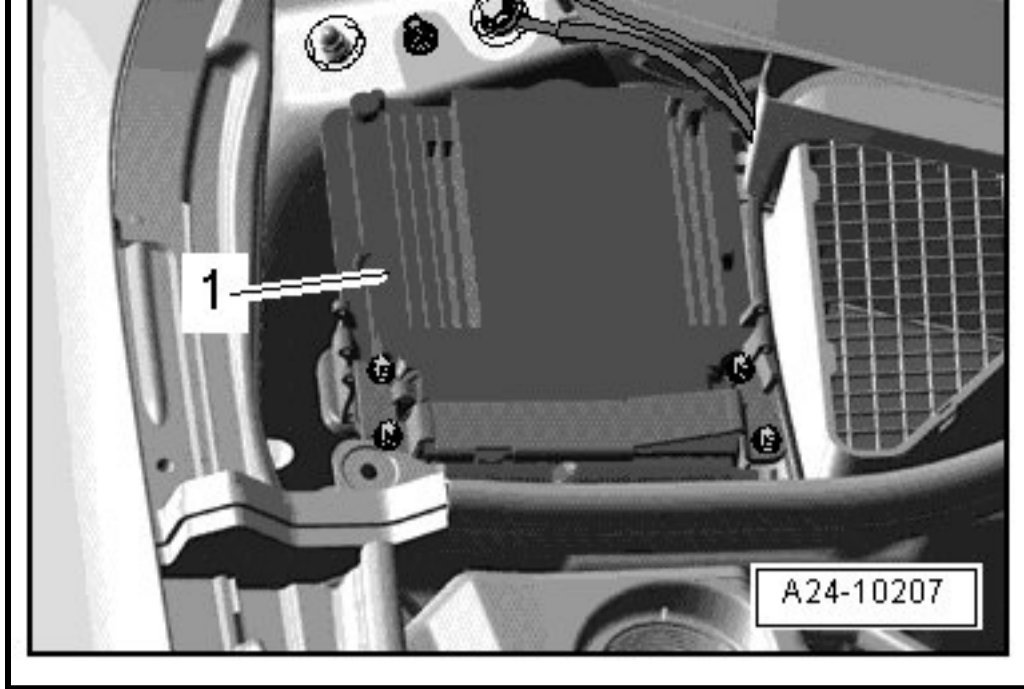
Removing

- Store the injector adaptation values before removing the Engine Control Module (ECM).

The injector adaptation values of the faulty ECM can be stored as a file in the vehicle diagnostic tester with Guided Fault Finding or Guided Functions.

- ⌘ If the injector adaptation values from the faulty ECM are no longer readable, they must be manually entered and adapted in the new ECM.
 - After storing the file, turn the ignition off.
 - Remove ignition key.
 - Remove front rubber seal on the plenum chamber.
 - Unclip the plenum chamber cover on the right side and lift it up slightly.
 - Grasp under plenum chamber cover and unclip the ECM - **1** - from bracket.



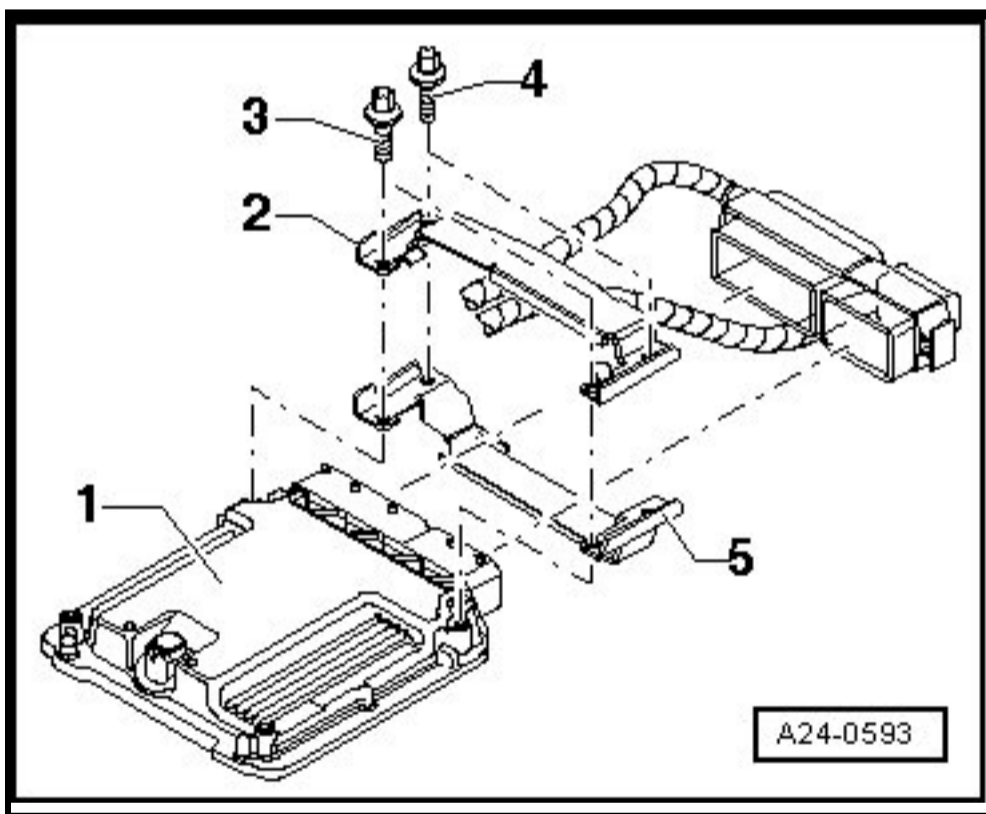


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- ⌘ Ignore - 2 -.
- ⌘ ECM remains connected at wiring harness.

The ECM - 1 - is secured in a protective housing - 5 - with retaining tabs - 2 - and shear bolts - 3 and 4 - to make it harder to access it.

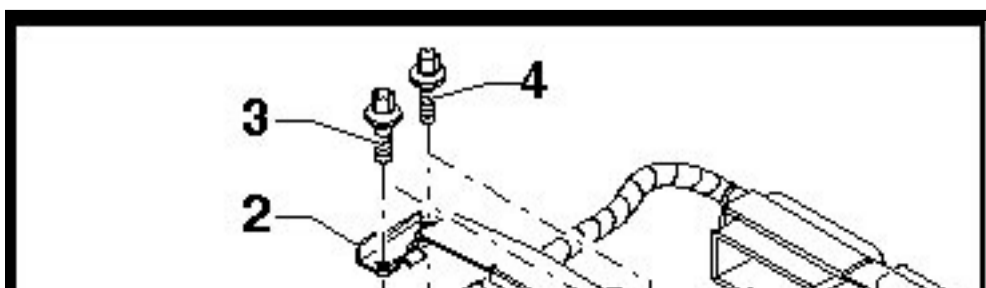


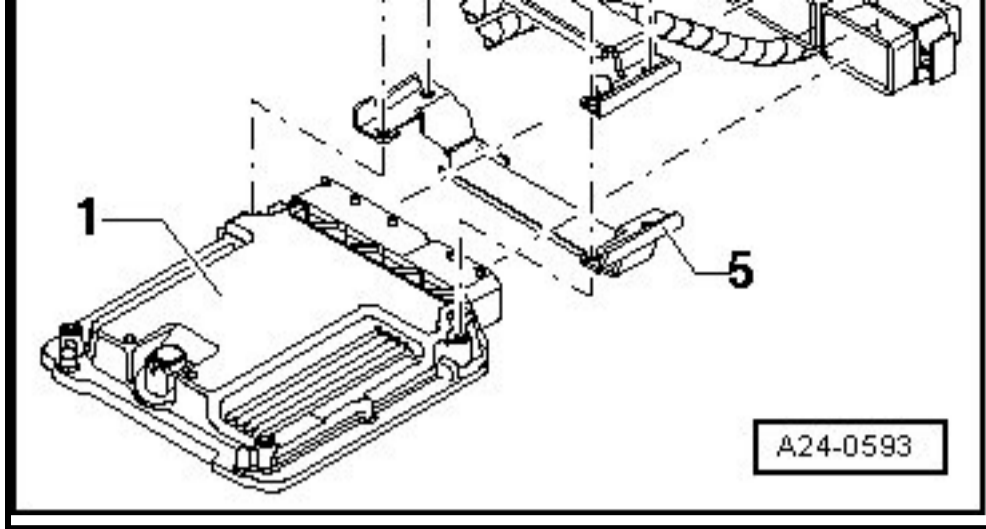
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The threads of the shear bolts - 4 - (that are not screwed into the ECM) are coated with a locking compound. For this reason, the threads must be heated with the heat gun to remove both bolts.

The threads of both shear bolts - 3 -, that are screwed into the ECM, are not coated with a locking compound. The threads in the ECM housing must not be heated and do not require to be heated (unintentional heating of the ECM).

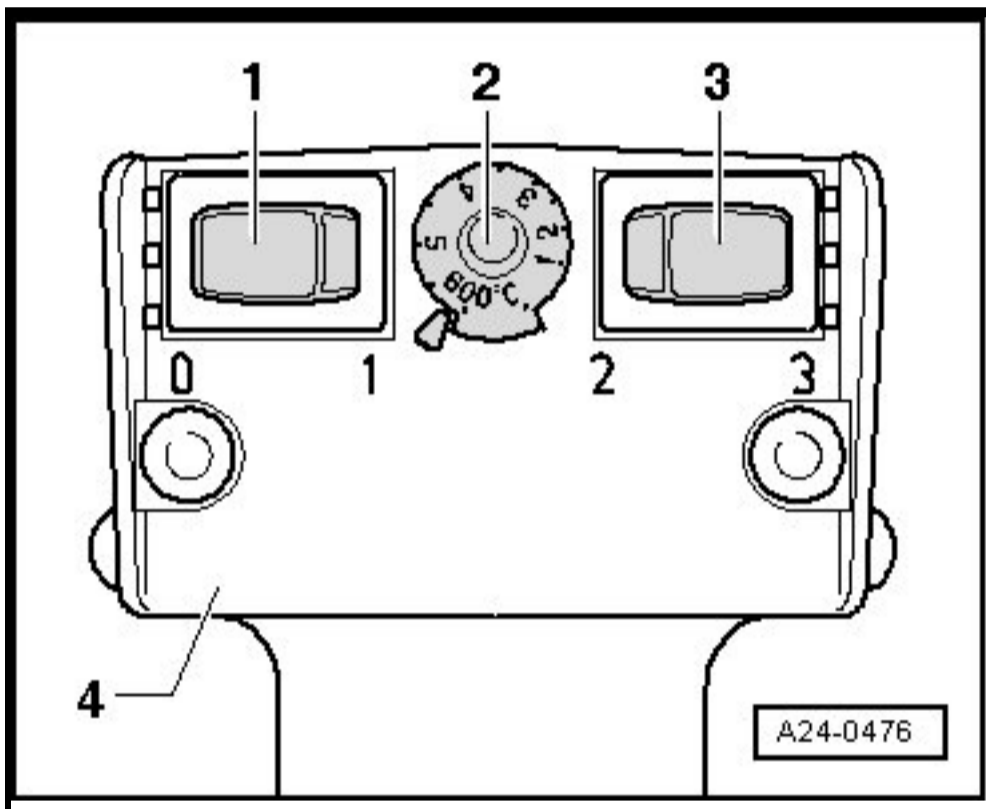




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- Set the adjustment on the heat gun as shown in the illustration, with the temperature potentiometer - 2 - set to maximum heat and the two-stage airflow switch - 3 - set to level 3.

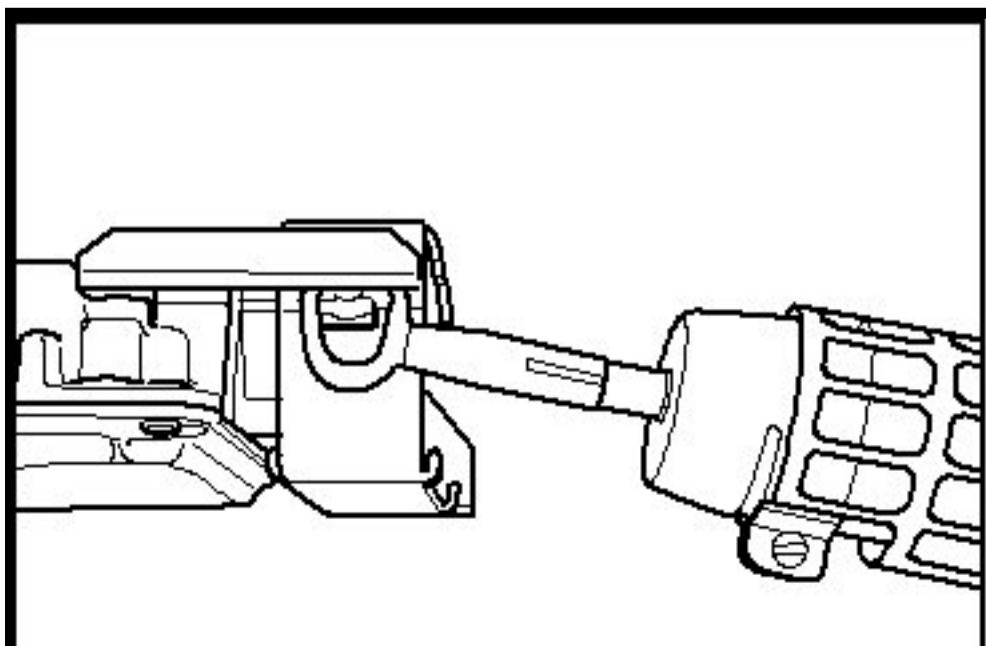


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By heating the threads, the retaining tabs, shear bolts and parts of the metal housing become very hot. Do not burn yourself on this! Make sure that only the threads are heated as much as possible, and not any of the surrounding parts. Possibly cover these parts.

- Warm threads on connector-side shear bolts for approximately 25 to 30 seconds.

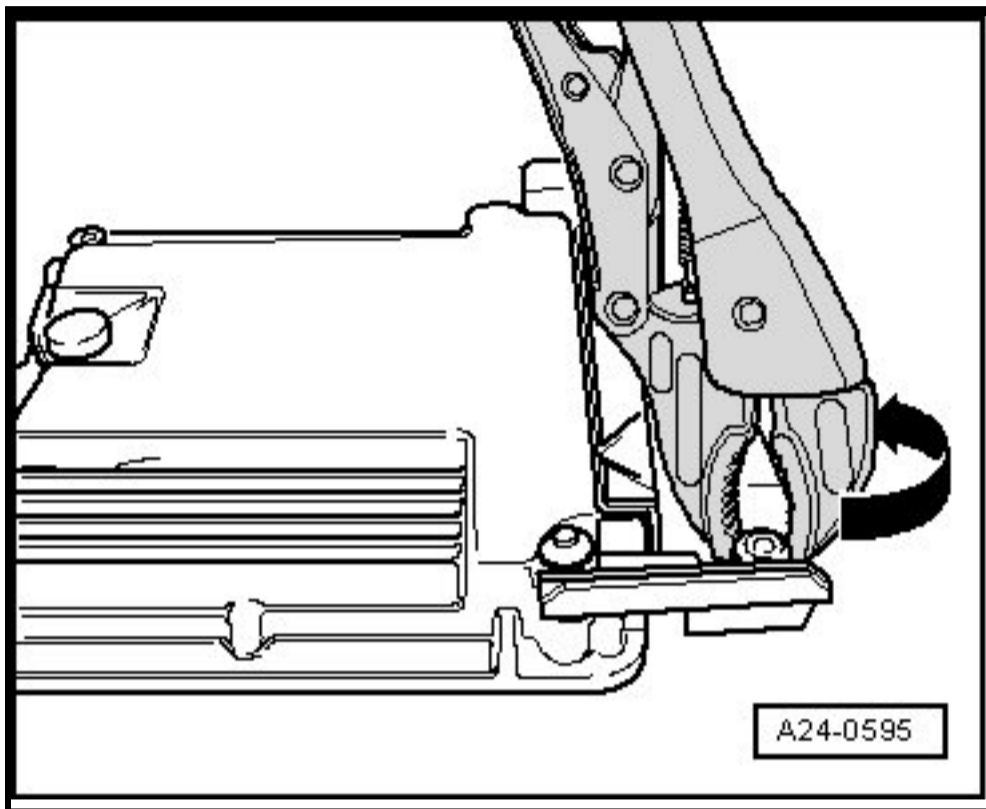


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- Remove shear bolts with locking pliers (see direction of - **arrow** -).
- The shear bolts installed in the ECM do not need to be heated for removal. They can be removed without heat.



Zoom

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- Separate the protective housing from the ECM connectors.
- Disengage the connectors from the ECM and disconnect the connector.
- Remove old ECM and install the new ECM.

Installing

Install in reverse order of removal.

- The ECM must absolutely be equipped with the protective housing again.
- Clean the threaded holes of residue and locking compound for the new shear bolts. Cleaning can be performed with a thread cutter (tap).
- Always use new shear bolts.
- After replacing the ECM in vehicles with the common rail, all the other adaptation values from the injector quantity calibration and the injection pressure calibration must be adapted in the ECM because the injector quantity calibration and the injection pressure calibration influence engine performance and emissions.
- The actual kilometer must be stored in the ECM via an adaptation on vehicles with a particulate filter.

The procedures to follow after connecting the new ECM are described in Guided Fault-Finding and Guided Functions. Use a vehicle diagnostic tester.

- ⌘ The cruise control system or adaptive cruise control system must be activated by coding in the ECM, if applicable.