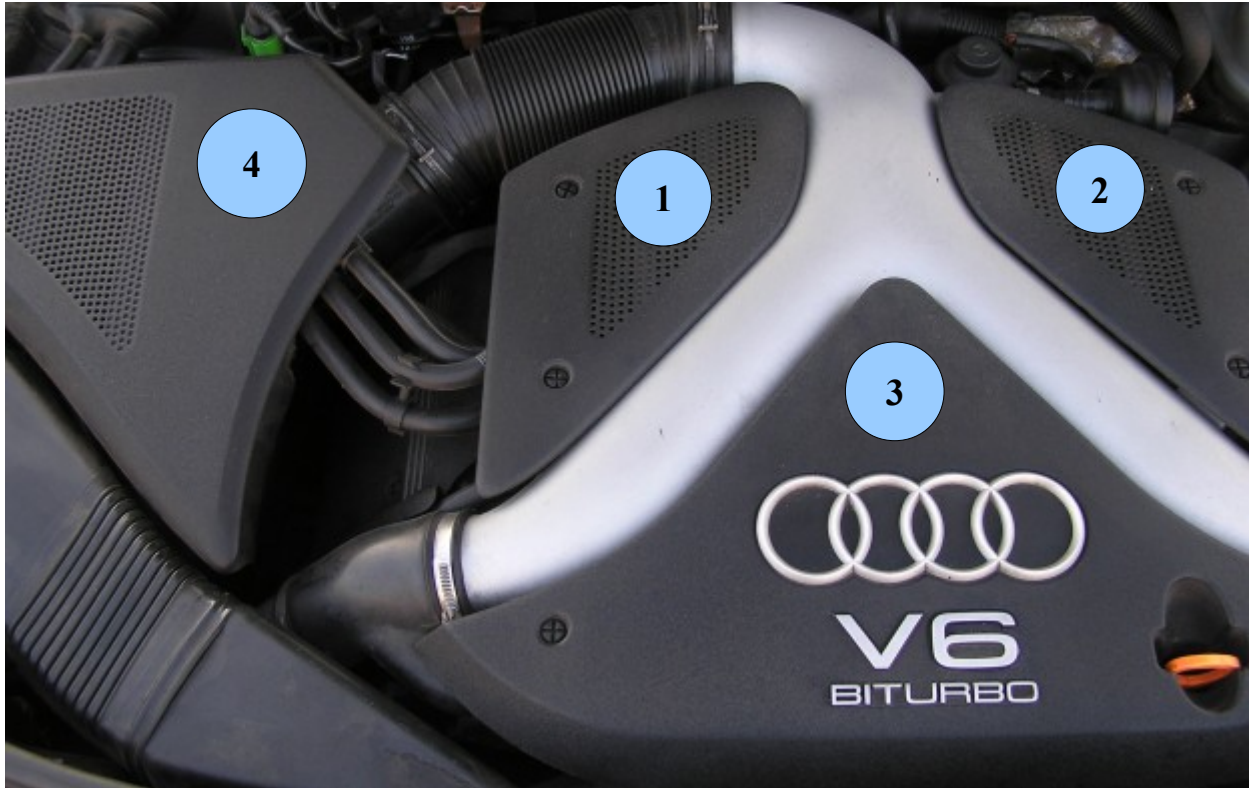


# G235 & G236 EGT Sensor Repair/Regeneration Manual

( Ver.1.1 based on the 2.7BiT A6 with GPL )

1. Remove the engine (1,2,3) and the air filter (4) beauty covers



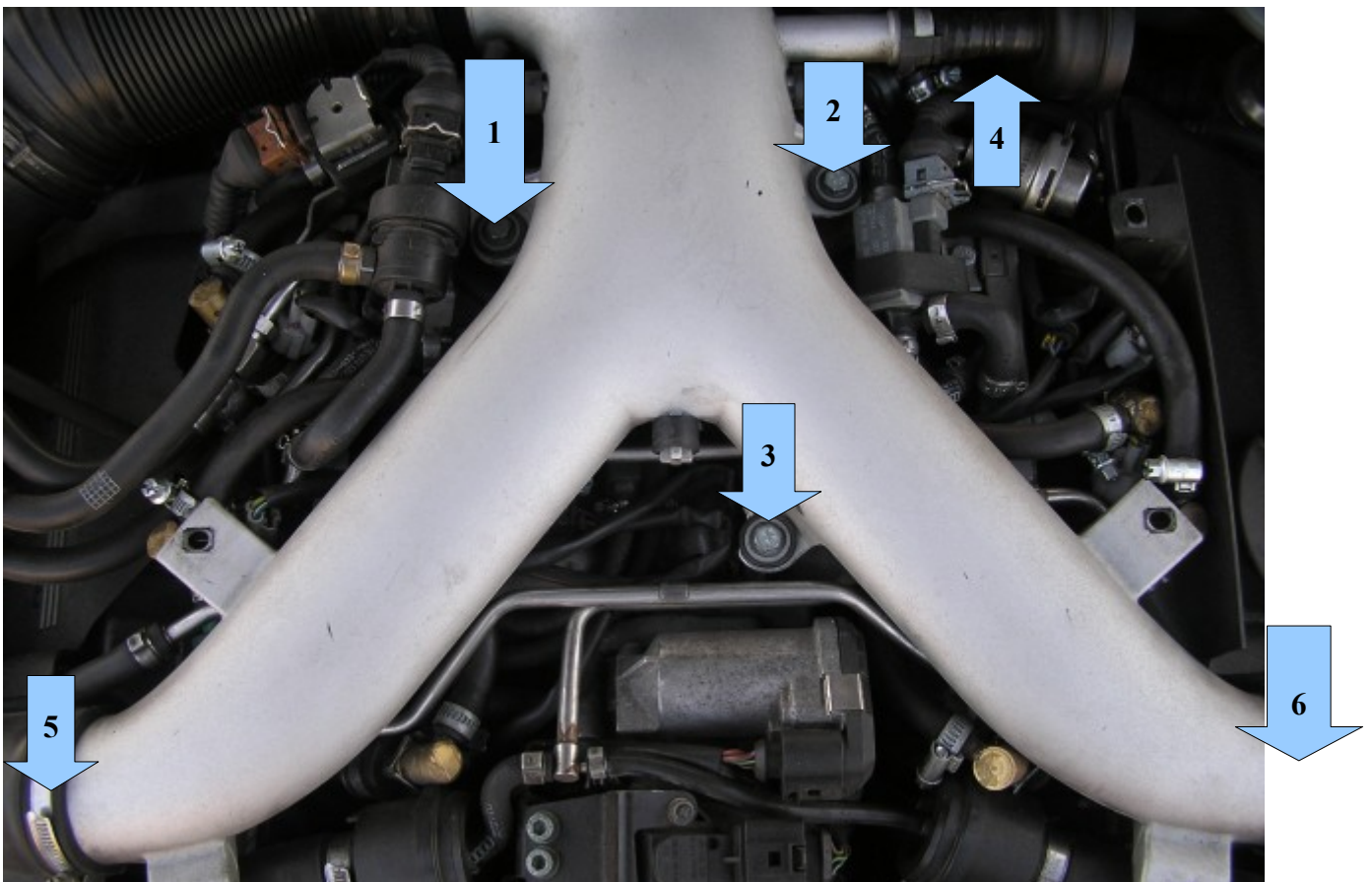
2. Disconnect MAF housing from the air box filter (two clips - one marked No.1 on the picture, the other on the opposite side of MAF. Additionally, you can remove MAF. When removing MAF be careful of the rubber ring gasket in the MAF housing flange.



3. Remove the pipe connecting MAF with „Y” air distributor.

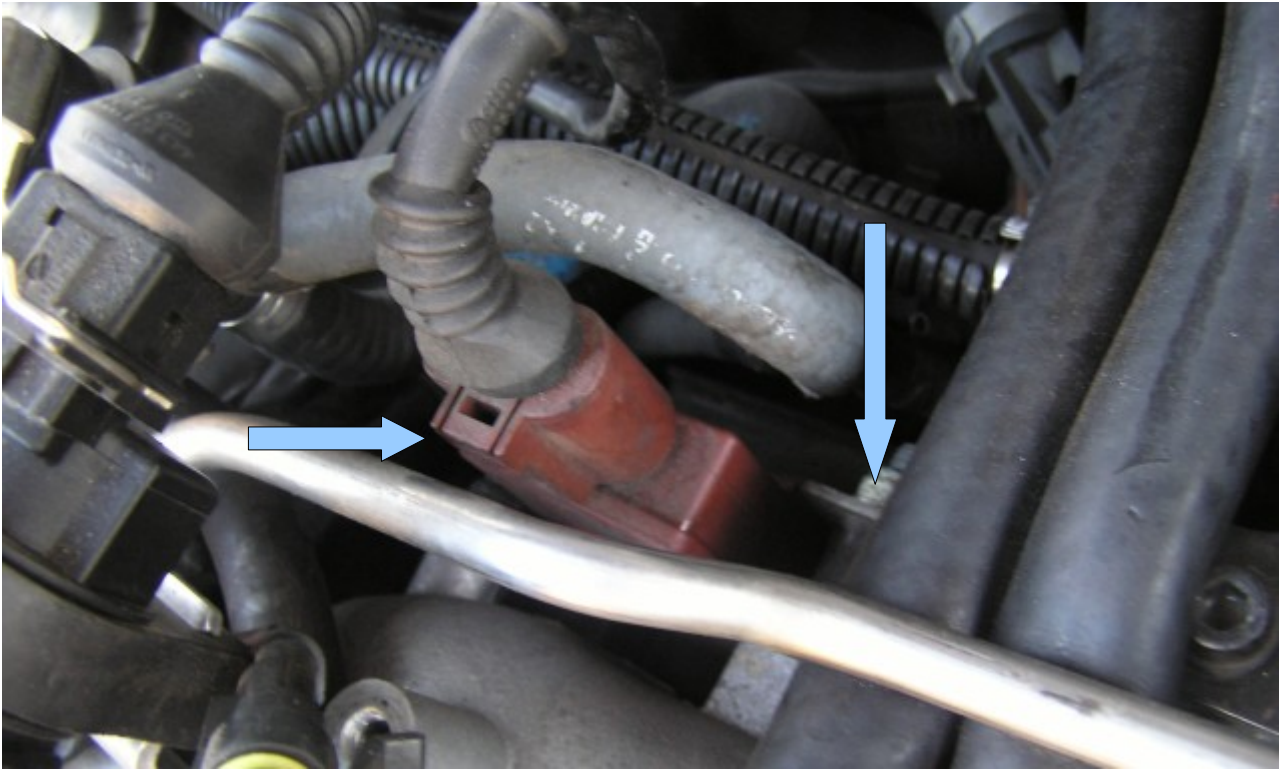


4. Remove the „Y” air distributor. To do this, unscrew three M6 screws (1, 2, 3), disconnect the pressure limiting valve (4) and release two clamps located near DV's (5 and 6). Then remove the „Y” air distributor. After this operation, two EGT's are easily accessible (in AJK, AGB engines EGT's are placed symmetricly to the longitude motor axis, in ARE, BES both EGT's are on the right side of the engine in the same place)





5. Unscrew EGT electronics (2 nuts M6).

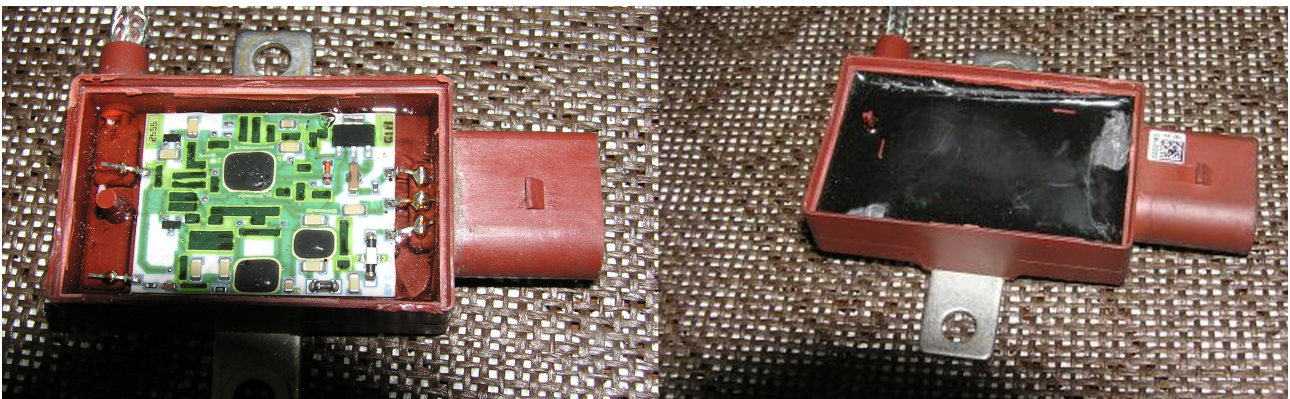


6. Open EGT electronic housing. There is no uniform recipe to do this. Sensors could be levered near connector, but depending on how it is glued by the producer, sometimes it's easier, sometimes harder to open it.



Steps 5 and 6 can be replaced - it even seems, that it may be even easier to open electronic housing, as it is still bolted to the intake manifold.

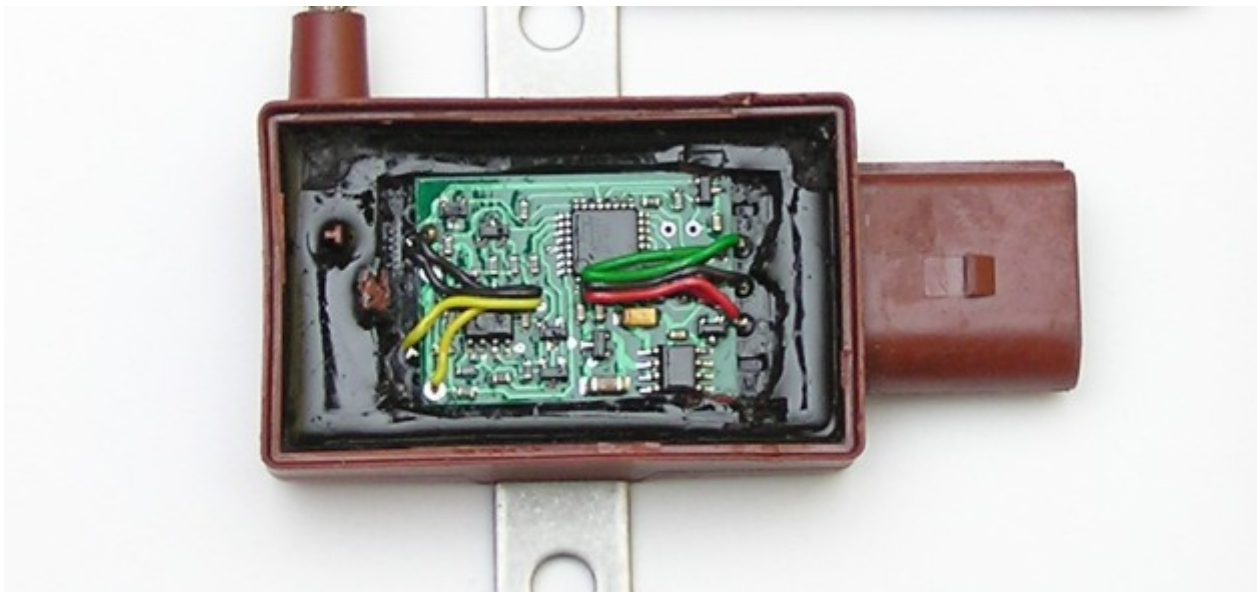
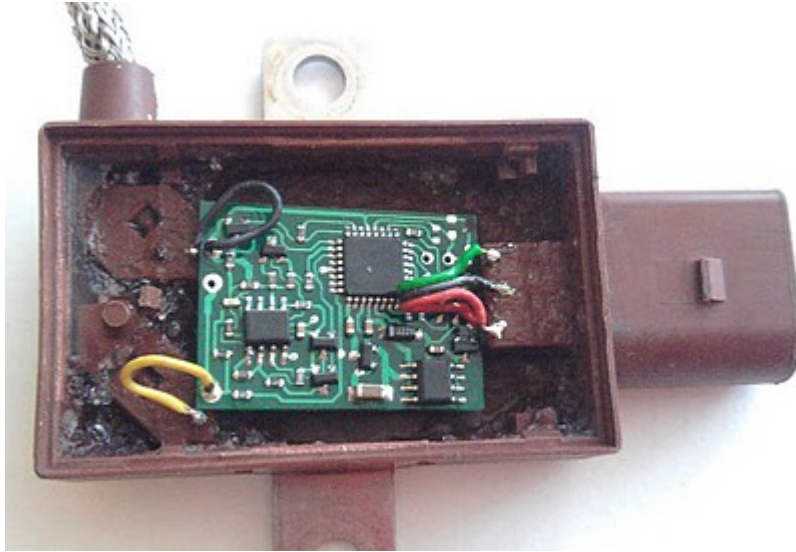
7. Once the EGT electronic housing is opened, the old electronic should be removed. Depend on version of the EGT sensor, electronics could be protected by various substances. Once again, there is no uniform recipe for the removal - this step should be done according to yours own invention. The easiest way is to remove transparent silicone (photo below - left), the hardest covering substance is black rubber (photo below - right). When removing the protective substance, be careful not to damage the electrical thermpcouple and external connector connections.



8. After removing the protective substances desolder (or cut), old electronics and disassemble it. Be careful not to damage electrical connections.



9. Solder new electronics as it is shown in the pictures below. Wires should fit on the pins/solder contacts.



It is recommended to fix electronic circuit by double sided tape. After soldering, check if soldering did not cause short circuits, especially on the EGT connector side. Optionally, you can protect soldering places by any kind of protective coating. The circuit is already protected.

10. Stick the EGT sensor "lid".
11. Put things together in reverse order.
12. Enjoy a well done job :-)

**Note:** Steps 7, 8 and 9 shall be performed without removing the sensor from the car. The pictures were captured on the disassembled sensor only for description clarity.



**Note:** Every actions taken to remove the old electronics and soldering a new, should by absolutely performed with an EGT sensor disconnected from the engine wiring.

**Note:** Almost all cases of EGT sensor malfunctioning are connected with electronic malfunction, so follow the steps outlined in this manual restores the full functionality of the EGT probe. However, the reason for failures could also be thermocouple damage (element screwed into the exhaust manifold), or the cable connection between the thermocouple and electronic housing. In the above mentioned cases, the regeneration does not bring expected result.

Since not damaged thermocouple with wiring could be treated as a short circuit, than it is easy to diagnose such cases by testing continuity even with simplest multimeter.