

# Climatronic Air Quality Sensor Operation and Location

- The air quality sensor detects noxious substances in the ambient air (primarily petrol and/or diesel fumes).
- The Climatronic control unit -J255- evaluates the signal from the air quality sensor -G238-. The air conditioning system is actuated depending on the degree and manner of ambient air pollution.

At an ambient temperature higher than approx. +2° C, air recirculation is actuated even when there is a minimal increase in noxious substances in the ambient air.

At an ambient temperature between approx. +2° C and approx. -5° C, air recirculation is not actuated until there is a strong increase in noxious substances in the ambient air. The compressor is also switched on at the same time.

At an ambient temperature less than approx. -5° C, air recirculation is not actuated until there is a strong increase in noxious substances in the outside air, but only for approx. 15 seconds, and the compressor is not started. When the concentration decreases, the air conditioning system is switched back to fresh air mode.

- The “automatic air recirculation” function can be switched off at any time. If the function is active, the compressor will be switched on even at an ambient temperature below +2° C when “automatic air recirculation” is required. However, even with this function, it is not possible to operate the compressor at temperatures below -5° C.
- On vehicles with “automatic air recirculation”, the air conditioner compressor can also be switched on at temperatures down to approx. -5° C even if the recirculated air function has been activated manually.
- So that the air conditioning system does not operate continually in air recirculation mode in areas with consistently high levels of pollutants, the “intelligent” sensor adapts its sensitivity to the prevailing environmental pollution.
- If the level of noxious substances in the ambient air remains relatively high over a long period of time, the intelligent sensor starts to adapt to the change in environmental conditions so that, generally, the demand for recirculated air lasts less than 12 minutes in areas where the ambient air exhibits a constant level of pollution. If a series of pollution peaks occur, the air conditioning system may operate over a longer period of time in air recirculation mode.
- A certain amount of time is required for repositioning of the air conditioning system flaps. To prevent noxious substances from entering the passenger compartment while the flaps are closing (e.g. when driving through a cloud of diesel smoke) a dust and pollen filter with an activated charcoal layer is installed. A saturated filter cannot perform this task and should be renewed.
- To prevent too frequent operation of the recirculation/fresh air flap, the flap is not actuated immediately if there is a minimal increase in noxious substances in the ambient air (the sensor does not send a request to the Climatronic control unit -J255-). The effect of the activated charcoal filter in the dust and pollen filter is adequate for this.
- To prevent the air recirculation/fresh air flap from switching too frequently, the sensor’s request for “automatic air recirculation” continues for at least 25 seconds (minimum waiting period) even if the air pollutants decrease to a level that no longer requires air recirculation.
- If the air conditioner compressor is switched off (e.g. in ECON mode), the maximum period of “automatic air recirculation” is limited to approx. 15 seconds by the Climatronic control unit -J255- so that condensation does not develop on the windows.
- To clear condensation from windows as quickly as possible, the Climatronic control unit -J255- does not permit air recirculation in the “defrost” mode.
- The air quality sensor -G238- requires approx. 30 seconds to become operational once the ignition has been switched on (warm-up time). During this time, the sensor can send no request for “automatic air recirculation” to the Climatronic control unit -J255-.
- The air quality sensor -G238- is a highly sensitive electronic component which direct contact with solvents, fuels and certain chemical compositions could damage beyond repair. For this reason, do not install sensors that may have come into contact with these substances.

Removing and installing air quality sensor.

- The air quality sensor -G238- is installed on the air intake grille in the front right (from the driver’s perspective) of the plenum chamber.
- The air quality sensor -G238- is a highly sensitive electronic component which direct contact with solvents, fuels and certain chemical compositions could damage beyond repair.

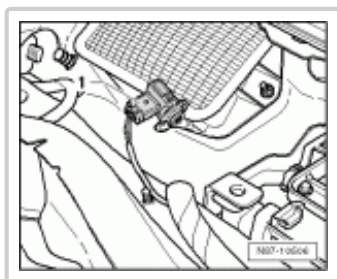
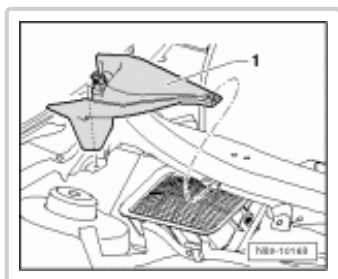
- Do not install a sensor that has been kept, for example, in a tool box.
- Do not place a removed sensor in an area where it can come into contact with solvents, fuels and certain chemical compounds (fluids or vapours).

## Removing

1. Remove plenum chamber cover.
2. Remove cover -1- from plenum chamber (see picture 1).
3. Separate connector on air quality sensor -G238- (see picture 2).
4. Release air quality sensor -G238- and turn out of retainer on air intake grille (see picture 2).

## Installing

- Installing is a reverse of the removing order.



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August 29th, 2009 | Category: [Air Conditioning](#), [Mark V](#)

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### **Automatic recirculation HVAC fault - doesn't switch on poor air quality**

September 6, 2010 at 8:21 pm · Reply

[...] Golf sells through the dealers for under \$150. Information on how the sensor operates is here – Climatronic Air Quality Sensor Operation and Location website: <http://www.my-gti.com> Reply With Quote + Reply to [...]

### **Luftgütesensor nachrüsten : Seite 2 : Ich greife das Thema nochmal auf :) Hab heute den Sensor ei...**

October 23, 2011 at 6:35 am · Reply

[...] <http://www.my-gti.com/.../...air-quality-sensor-operation-and-location> [...]



Boby

January 4, 2012 at 9:31 pm · Reply

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