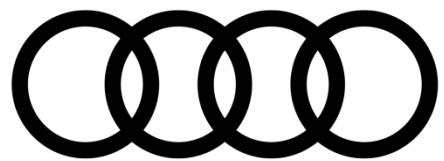


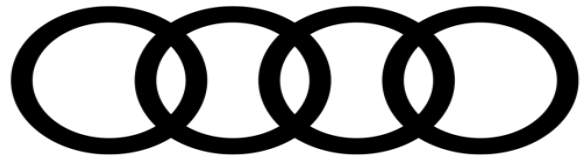
ATU (Audi Technical Update)

Summer 2018



Body

Summer 2018



ATU topic

Audi Premium Air Quality in the Audi A8

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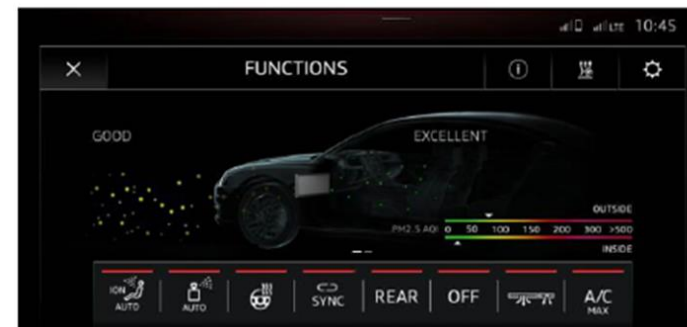
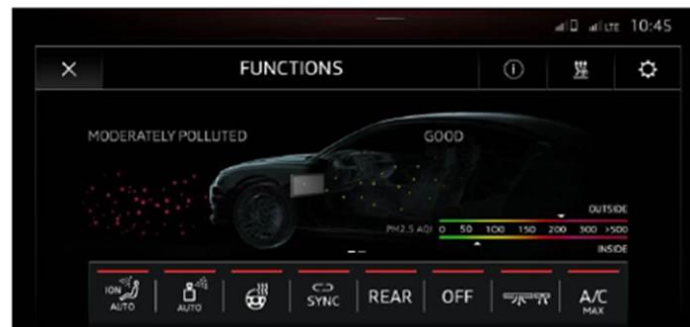
01. Air Quality Display

- There is a trend of increasing pollution in cities all over the world.
- Increasing levels of air pollution mean that this topic is becoming ever more important.



Air quality display in the vehicle:

- Quantity-based air quality display on the MMI:
 - Particulate sensor measuring PM2.5 values of air inside and outside the vehicle.
 - Area around vehicle and vehicle interior marked in the corresponding colors.



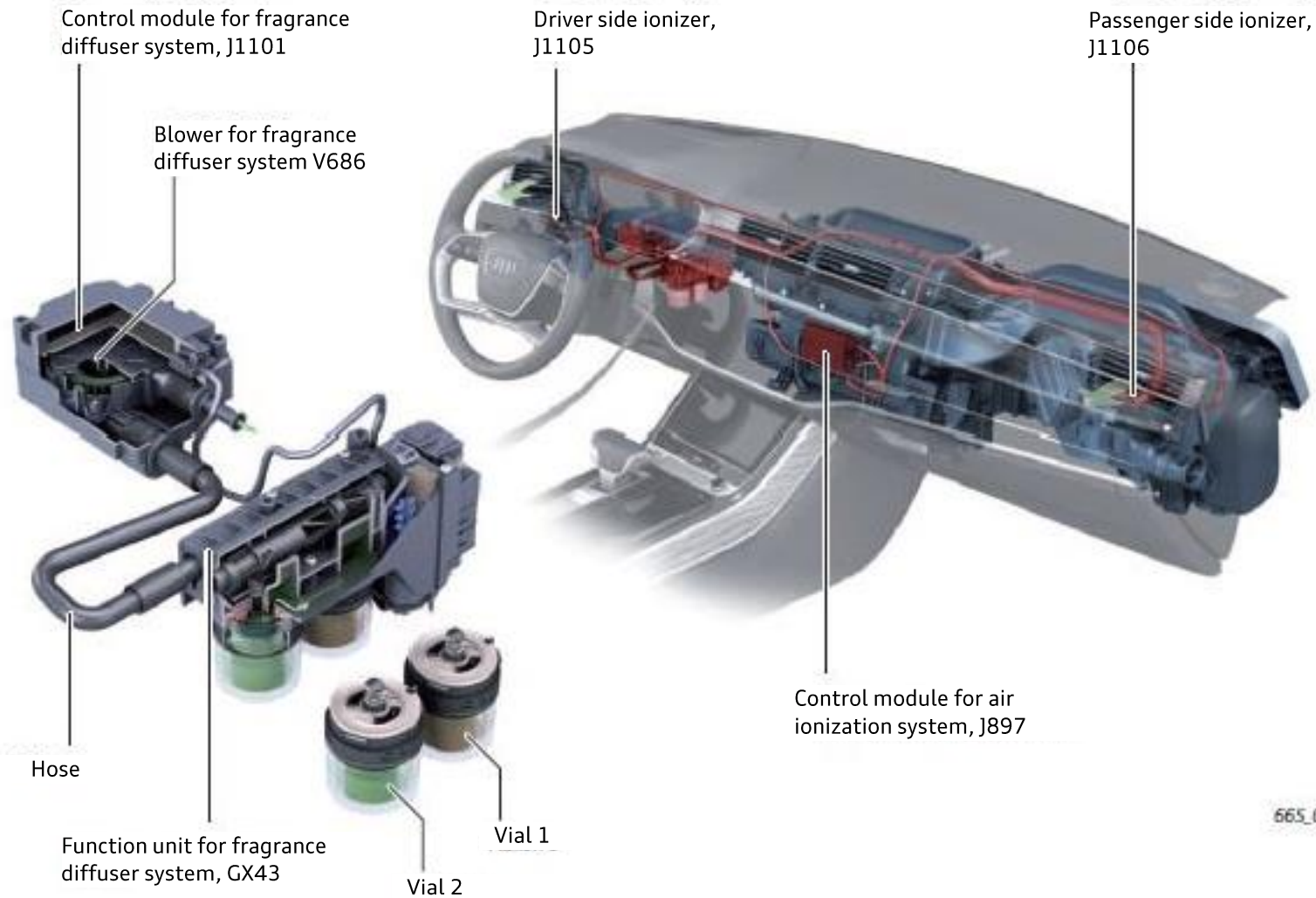
02. PR Numbers

- › 2V9 Audi aroma unit (AAU) and ionizer
- › 2V3 AAU, ionizer and particle reduction system (PRS)
- › 2V6 Fresh air intake with dust filter (PRS)

03. Ionizer

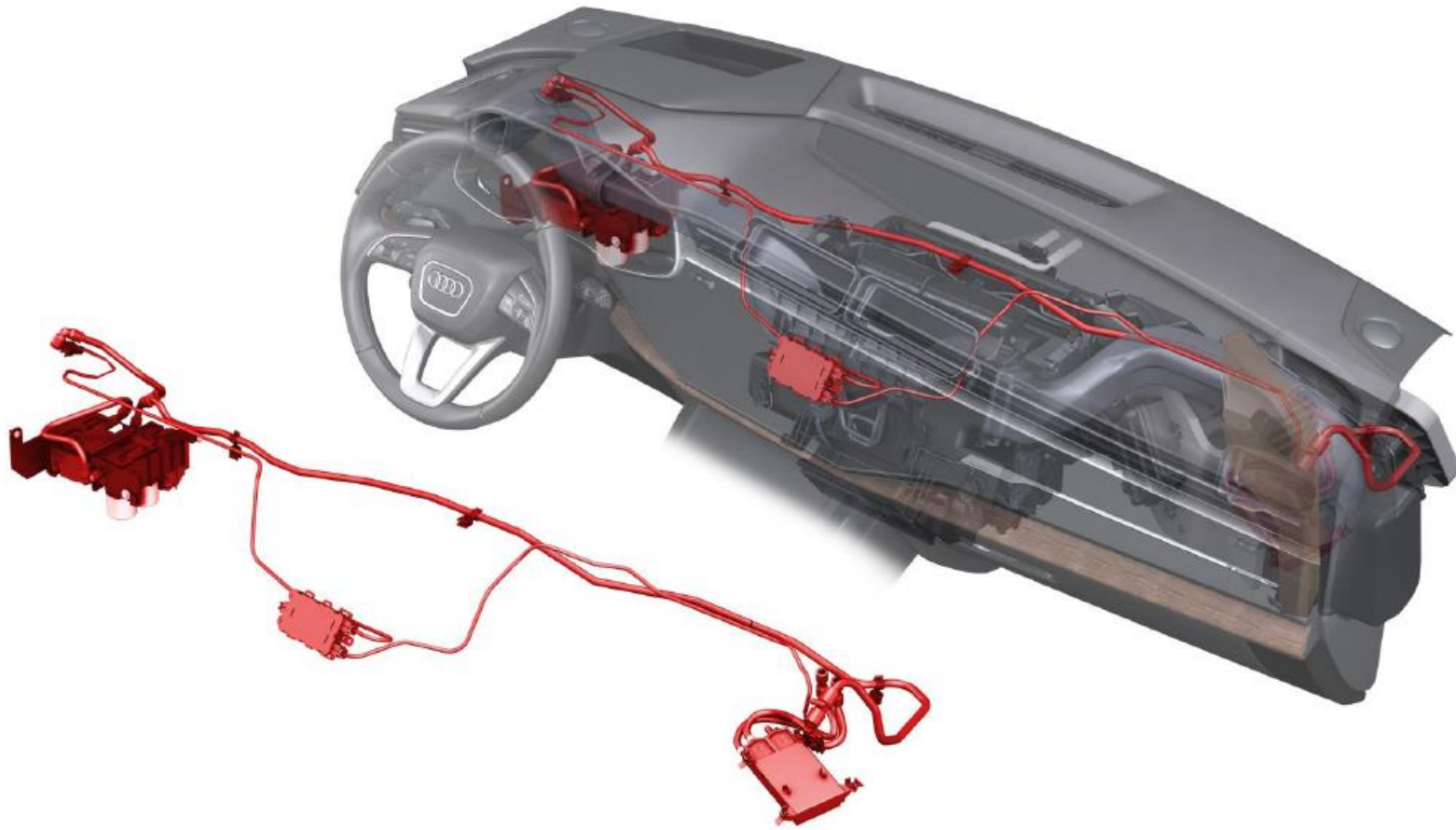
3.1 Component overview

Illustration of the aroma system and air quality



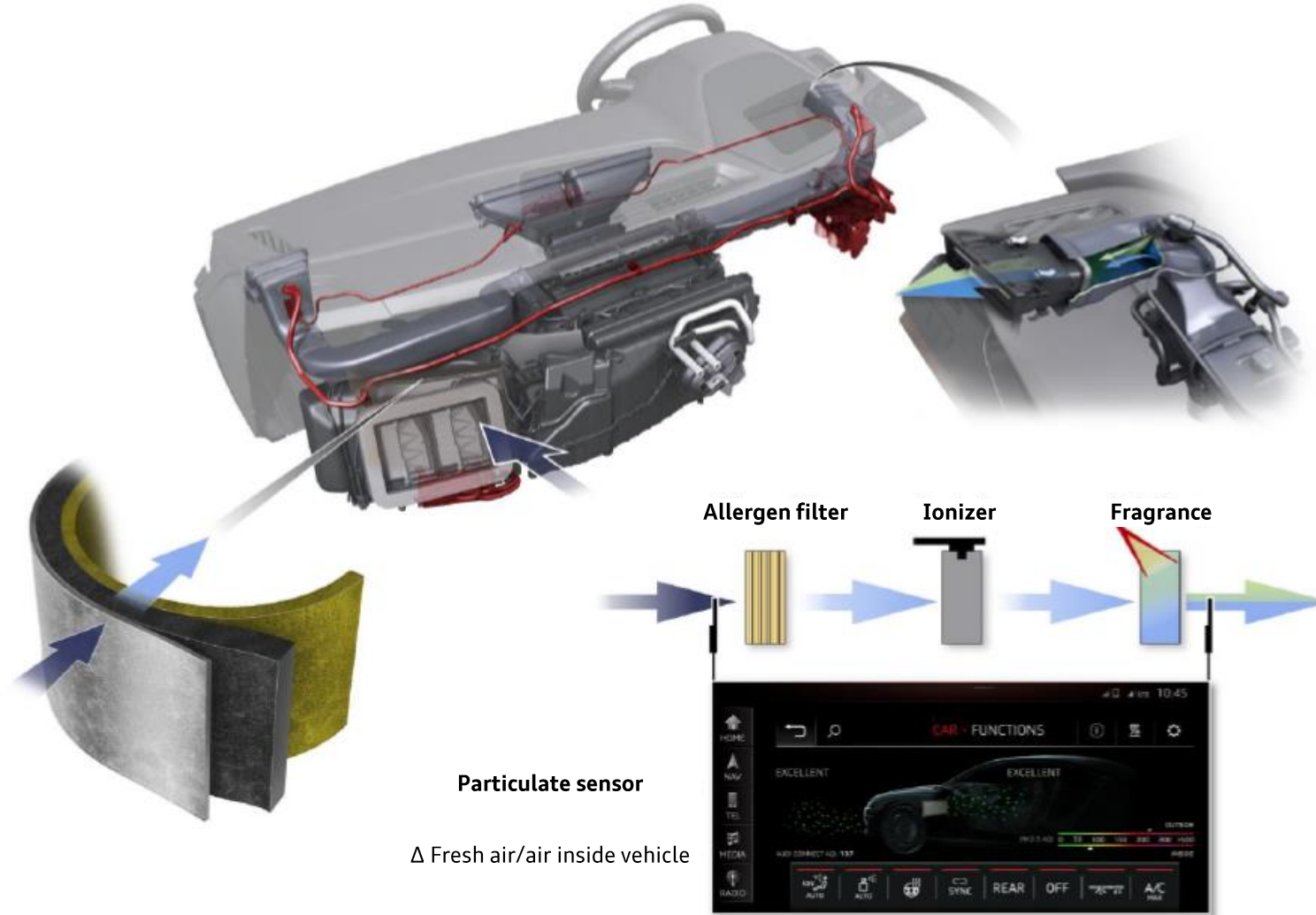
03. Ionizer

3.1 Component overview



03. Ionizer

3.2 System explanation



03. Ionizer

3.2 System explanation

Premium air quality:

- › 3-layer filter:
 - › Separation of particulate matter and gases.
 - › Bio functional effect (basis: polyphenol).
 - › Anti-allergen effect (bacteria and mold).
- › Ionizer:
 - › Generation of up to 40,000 negative ions/cm³.
- › Aromatic effect which appeals to sense of smell:
 - › Summer scent and winter scent (one vial of each scent, each with four intensities).
- › Air quality display via sensor measurement.



Visualizing and presenting best-in-class air quality:

- › “Air pollution is the greatest ecological risk to health today” (WHO).
- › Visualizing the quality of the filter.
- › Audi ensures good health and a sense of well-being in the vehicle.
- › Healthier living, relaxed and concentrated driving.



03. Ionizer

3.2 System explanation

Ionizer:

- › Supplier: Paragon.
- › Generates up to 40,000 negative ions/cm³ (comparable to hiking in mountains, and around waterfalls).
- › Generates high voltage at the emitter, up to 7kV (current rating approx. 0.5 μA).
- › LIN component; terminal 15 participant.
- › Supply via side dash vents.
- › Can be switched on via MMI.

Benefits for customers:

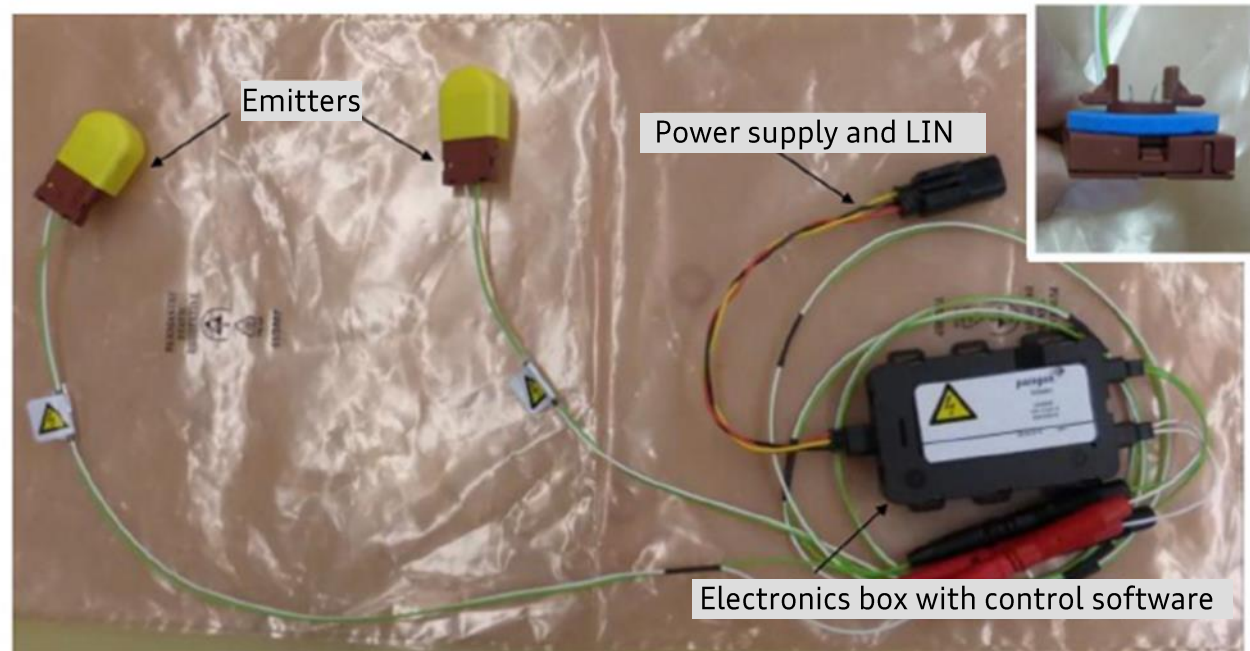
- › Harmless for customers (as demonstrated by third party measurements).
- › Small dust particles collect and fall to the ground.
- › Odor can be dissipated in some cases (note: ozone).
- › In some cases there is a feeling of freshness (subjective, driving through tunnels).
- › Softer hair (comparable to a ionizing hairdryer).
- › Positive effect on general well-being – cannot be measured.

03. Ionizer

3.3 Known fault messages

Identification of faults (typical faults):

- 1st possible fault: Ionizer defective.
- 2nd possible fault: Ionizer electrode needle (2), short to earth.
- 3rd possible fault: Ionizer electrode needle (2), open circuit.



04. Aroma unit

4.1 Component overview



04. Aroma unit

4.2 System explanation

Components of the summer fragrance



Components of the winter fragrance



04. Aroma unit

4.2 System explanation

Technical features of aroma unit – AAU (Audi aroma unit):

- › Blower and vial unit (supplier: Mahle); hose (Schlemmer).
- › LIN component; terminal 30 participant (2 minute run-on).
- › One vial of each scent: winter (Cool Blue) and summer (Acqua Summer) – Robertet, Grasse.
- › Operation via HMI; four intensity levels (subtle, low, medium, and strong).
- › Active substances were checked for safety and approved.
- › Consumption: stage 4; operation: approximately 50 h; display is reduced by 1% (series).
- › Difficult to characterize the fragrances, as they are a matter of subjective perception.
- › Recommendation: “subtle” or “low” setting for a feeling of freshness (owner’s manual).

Electronic integration of AAU:

- › LIN slave from BCM 1; can be flashed via ODIS in after-sales service.
- › The AAU receives various parameters via LIN; these are used to adjust/set the fragrance intensity.

04. Aroma unit

4.3 Known fault messages

Identification of faults (typical faults):

- 1st possible fault: Aroma system control module defective.
- 2nd possible fault: Aroma system control module implausible message.
- 3rd possible fault: Aroma system pump defective.

04. Aroma unit

4.4 Service information

Service:

- › Both vials should be replaced every two years as part of vehicle inspection service.
- › Storage compartment on driver side must be removed/fitted.
- › Replace regardless of consumption.



Thank you!