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## TECHNICAL POSSIBILITY TO CONTROL MOSQUITOES IN AND ON THE VEHICLE USING AN AIR QUALITY SYSTEM

Axel Unger  
*Bertrandt Ingenieurbüro GmbH*

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## TECHNICAL POSSIBILITY TO CONTROL MOSQUITOES IN AND ON THE VEHICLE USING AN AIR QUALITY SYSTEM

### Technical task:

Especially in summer, there can be mosquitoes in or on the vehicle. These insects are annoying for the customer. A corresponding device for this is not available on the vehicle today.

### Initial situation:

Today's vehicles are equipped with simple scenting and/or ionization devices. These are mostly M-equipment and are currently switched on or off by the customer. This equipment is used to improve the air quality, but currently no special use cases are preset.

### Solution:

The core of the idea is an air quality system that is preferably located in the vehicle interior. This should be operable via HMI with an "anti-mosquito mode". For this purpose, the ionizer and the scenting system should be specially controlled.

When activating the "anti-mosquito mode" or "anti-insect mode", the following shall be carried out:

- The ionizer is controlled
- The air conditioning is active
- A special scent is introduced into the interior via the scenting system

The intensity of the ionization and scenting can be automatically adjusted depending on the "mosquito density". This evaluation of the mosquito density can be done e.g. by an indoor camera.

Furthermore the control of the air quality system can be done by a detection (opening of windows and/or opening of doors). Thus, insects outside the vehicle can be repelled and would not fly into the vehicle interior.

If the "natural mosquito repellent" has been carried out successfully, the air quality system can be used again in another mode.

A further expansion stage would be the possibility of activating the mode even when the vehicle is closed (without occupants). For this purpose, a notice on the vehicle should be visible in some way.

Furthermore, the air conditioner or the fan of the air conditioning system can be used to support the process.

The integration of an "insect map (hot spots)" via navigation can be used to extend the functionality.

### Technical implementation:

- Vehicle with air quality system in the interior
- Scent system with special scent against insects
- Appropriate sensor technology in the vehicle interior
- Control unit with corresponding software
- Operating and display unit for the user to activate this mode

### Advantages:

- With this device the customer has the possibility to use his air quality system as a defense against insects/mosquitoes.
- Main users could be the Scandinavian customers/vehicles.
- The drivers/passengers are supported in the expulsion of the insects and thus have a comfort gain.

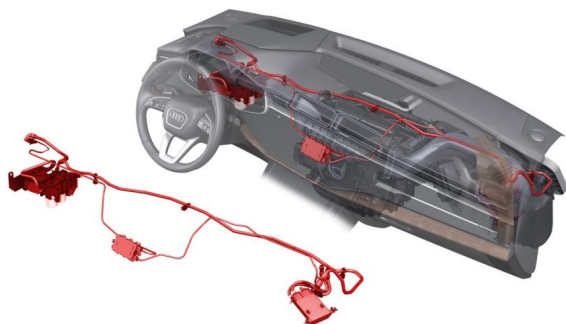


Fig. 1: Installation of the air quality system