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## DISK WIPER AS A STATUS INDICATOR FOR

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## DISK WIPER AS A STATUS INDICATOR FOR CHARGING CONDITION OR TANK CONTENT

### Technical task:

The object of the technical innovation is to provide an external readout of the state of charge or tank contents of the vehicle.

### Initial situation:

In today's vehicles, the display of various levels of the vehicle is limited to the instruments, which are visible from the inside. Thus, for example, the tank contents or the state of charge of the battery only in the vehicle, usually only with activated ignition, readable. In the meantime, it is possible to query the range and similar status values by means of connectivity services via smartphone or other remote services. It is also possible to display via colored LEDs (inside and / or outside the vehicle). To inquire about a particular fill status, you must either get into the car or start the app on your smartphone.

### Solution:

The windscreen wipers (front and / or rear), which are clearly visible from almost all viewing angles of the vehicle, are used as indicators of e.g. used the state of charge (SOC state of charge) of the HV battery. For this purpose, different scale values are introduced around the disks in black printing. While the vehicle is parked, it can therefore be seen at a glance at the front or rear window, for example, which state of charge the HV battery in the vehicle has. The relevant states are known to the control units in the vehicle and the windscreen wiper can also be actuated so that it normally stops in the middle, for example. (Maintenance position).

### Advantages:

- Status is instantly visible from the outside at a glance.
- Potential savings of costs, weight and installation space possible.

### Possible application:

- All battery electric and plug-in hybrid vehicles.

technical innovation

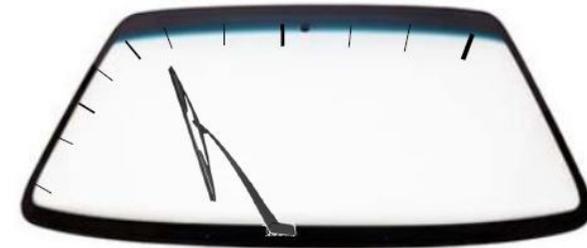


Abb. 1: Beispieldarstellung für 50 % SOC



Abb. 2: Gegenwärtige Darstellungen im Schwarzdruck an der Windschutzscheibe