Fuel, Exhaust & Engine Electrical

Auto Start Stop System



All versions of the Panamera with the Porsche Doppelkupplung (PDK; optional for Panamera S, standard for Panamera 4S and Panamera Turbo) are equipped with the Auto Start Stop function.

This function switches off the combustion engine under defined conditions when the vehicle is stopped and therefore contributes to reducing fuel consumption when the vehicle is stationary. The Auto Start Stop function can be deactivated and activated by button in the center console. In addition, both the engine and transmission as well as the battery must have reached operating temperature and the speed threshold of 1 mph (2 km/h) must have been exceeded once.

For the driver, use of the Auto Start Stop function does not mean that he/she has to change his/her driving behavior. The driver does not have to perform any additional activities for an engine stop and restart.

Depending on country, the Auto Start Stop function is either switched on automatically when the ignition is switched on (e.g. Japan and some European countries) or must be activated each time the ignition is switched on (e.g. USA and RoW). Fuel consumption is reduced by up to 5% in the NEDC (up to 10% in the urban cycle)



Note!

When the Start Stop system is switched off, the pushoutton indicator light is illuminated "red".



The goal was to exploit the fuel-saving potential of the Auto Start Stop function for the driver. In order to permit realization of the Auto Start Stop function, the starter was reinforced and designed for the increased number of engine starting operations. In addition, the battery charge and aging condition as well as temperature are monitored in order to ensure the restart capability.

The vehicle assists the driver when the engine is switched off by maintaining the brake pressure on uphill slopes. This was integrated as an additional function in Porsche Stability Management (PSM). This prevents the vehicle from rolling away opposite to the driving direction when the engine is switched off.

The most important comfort and safety functions continue to operate even when the engine is switched off. For example, the audio and communication systems still operate and the lighting, airbag systems and PSM remain available. These functions are supplied with power from the battery for this purpose. Voltage changes when the engine stops and restarts are partially compensated and their effects therefore reduced.

The air conditioning ensures temperature comfort. For this purpose, it uses the residual heat of the engine for heating or the residual cooling energy in the cooling system to cool the passenger compartment. If there is a risk of the passenger compartment temperature deviating significantly from the preselected value, the engine is automatically restarted in order to guarantee continued climate comfort for the passengers.