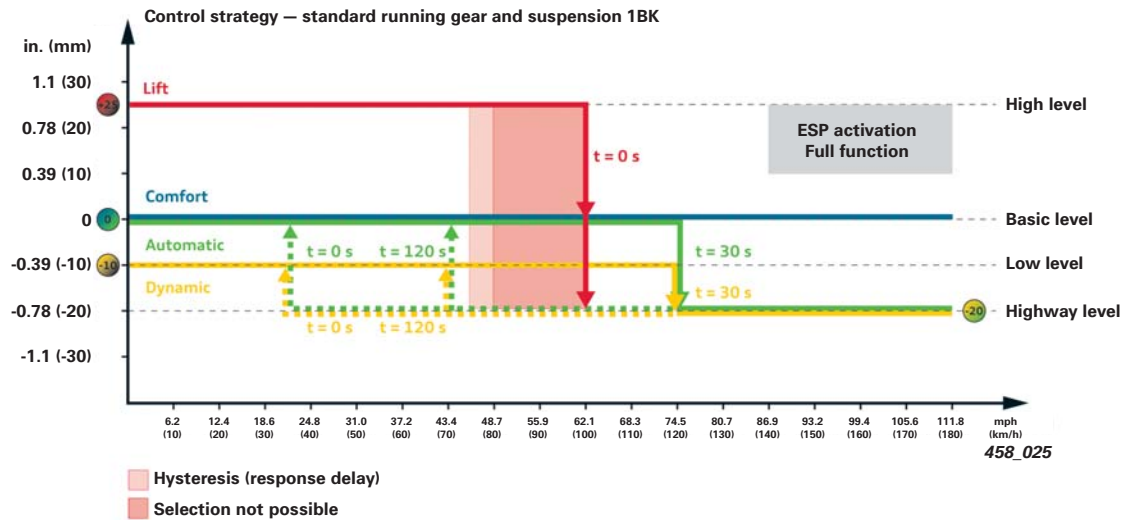


The control algorithms differ depending on the running gear and suspension variant.

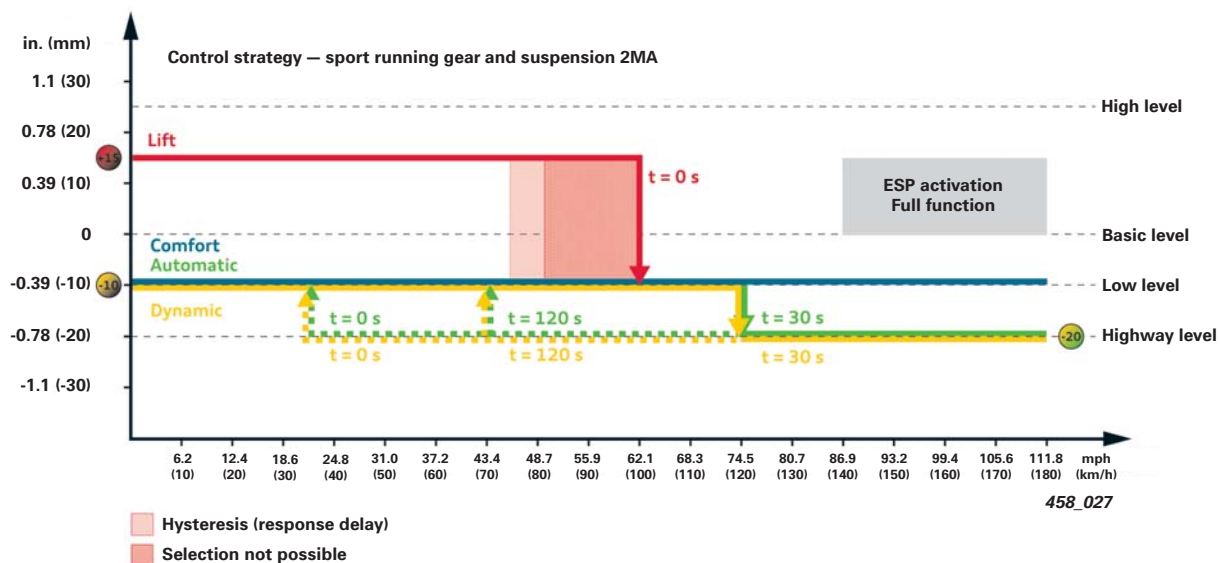


The control system enables four different vehicle height modes (levels). Starting from the basic level, lift mode can be set by raising the vehicle by 0.98 in (25 mm). Lift mode is immediately and automatically deactivated on reaching or exceeding a vehicle speed of 62.1 mph (100 km/h). This mode can be selected up to a speed of 50 mph (80 km/h).

The level is lowered 0.39 in (10 mm) by activating dynamic mode. In automatic and dynamic mode, the level is further reduced to highway level, 74.5 mph (120 km/h) below the basic level, when the vehicle is driven at a speed of 74.5 mph (120 km/h) for 30 seconds.

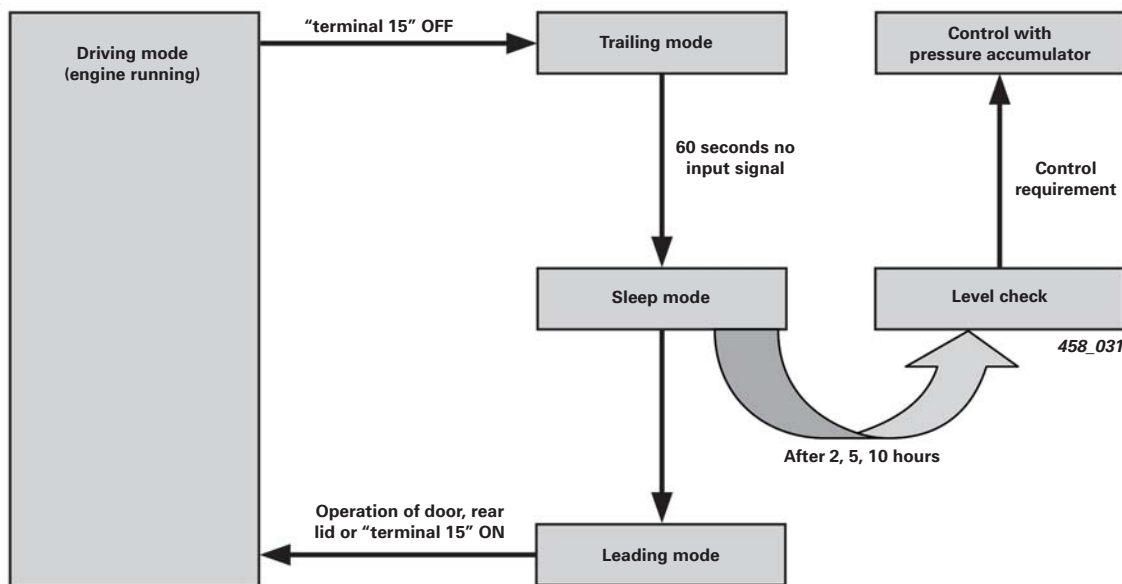
The vehicle is not lowered to highway level in comfort mode. Highway level is deactivated automatically when vehicle speed drops below 43.4 mph (70 km/h) for a duration of 120 seconds or immediately when the speed drops below 21.7 mph (35 km/h).

When activating comfort mode, the basic level is set together with a comfort-orientated damper control. ESP full function is deactivated/activated automatically from a speed of 86.9 mph (140 kmh) when ESP sport mode is switched ON by pressing the ESP button.



Characteristics of the Control Strategy

- When control procedures (changing the vehicle level) are made while driving, the left and right front dampers are moved the same amount. Dimensional changes to the left and right rear dampers are made individually.
- When changes to the level are made for adaptations or when learning control positions during service work, the dimensional changes are done individually at each damper. This helps ensure accuracy of the system.
- After the ignition has been switched OFF, the control module remains active for 60 seconds and waits for further input signals. If no signals are received, energy-saving sleep mode is activated.
- In sleep mode, the vehicle level is checked by Level Control System Control Module J197 after two, five, and 10 hours. J197 supplies operating voltage to the vehicle level sensors and reads their measured values.
- If J197 recognizes that control intervention is required, the system checks to see if there is sufficient accumulator pressure for this purpose, which would need to be a minimum of 43.5 psi (3 bar) higher than the pressure in the air spring to be regulated. If this is the case, the vehicle level is then corrected.
- No further control procedures take place if accumulator pressure is too low. When the anti-theft alarm system is activated, the level is raised to ensure the difference in level does not exceed 0.3°.



- The door/trunk lid signals are no longer sent via discrete lines to J197 but rather via the bus systems
- Vehicle level can drop greatly during prolonged vehicle downtimes. To ensure the vehicle is set to a defined minimum level when starting, compressor operation starts immediately after the ignition is switched ON. This occurs even before the engine starts running, as long as there is a sufficient charge level in the vehicle battery.