

# Adjusting the level lift for W124 and all other Mercedes from the 70s to the 90s

The SLS already existed afaik in the /8 and the system did not get mayor changes up to the W124 and W126. Somewhen other control valves were introduced, but thats all. Therefore this description can be used for any Mercedes from that era.

## Basics

While vehicles with a regular suspension got the usual shock absorbers on the rear axle, vehicles with SLS have a sophisticated system with two hydraulic cylinders instead of dampers and two damping nitrogen balls (in Germany we call them bull's eggs ☺), which makes it possible to move the vehicle even with heavy loads at a constant level. Nevertheless, this system is quite simple and can be serviced and adjusted by every experienced screwdriver. This manual deals with the adjustment of the level lift after changing the springs. It doesn't matter whether it's standard springs or shorter sports springs that are used, the process is the same.

## Idealy only the following tools are required

**a pit or two ramps**  
**two 10 open-end wrenches**  
**a drill 4mm**

The vehicle must always be standing on its wheels during this work, preferably on a pit or on ramps. It is important that the rear axle is relaxed and not spring-loaded or just left by the jack. The car should be in running order with a full tank, additional weight is not required.

The enclosed photo shows the individual elements control valve, setting lever (Stellhebel) and adjustable control rod (verstellbare Regelstange).

The adjustable control rod is mounted at the top to the stabilizer and at the bottom to the setting lever. The control rod and setting lever are driven by the rotary motion of the stabilizer and transmit the motion to the valve.. The setting lever regulates the oil flow in the system. If the setting lever moves upwards, more hydraulic fluid is fed into the system and the body rising. If it moves downwards, the pressure drops and the vehicle also sinks. In horizontal position the base pressure will be maintained.

Starting the job, the connection between the control rod and the setting lever is released. To do this, unscrew the M6 nut from the lower ball head. The setting lever is turned downwards and the engine is started. By lowering the setting lever the vehicle now sinks to the level specified by the springs. Before the adjustment must now first check whether the vehicle has the desired height at the rear axle. To do this, you drive or roll the car with the engine running a few yards back and forth, then it sat down completely on the springs.

**IMPORTANT:** If the rear of the car is too low, its not allowed to raise the rear with adjusting it over the control valve to the correct position. Doing it this wrong way the car is pushed up out of the springload and the nitrogen balls (bull's eggs) then must carry the whole load of the car alone and they will break earlier than necessary! The vehicle height may only be adjusted using springs and different thick rubber spring pads! If the car is too high or too low, it must be adjusted with springs and the rubber spring pads. Only then the level lift can be adjusted!

When the vehicle has the desired height, adjustment is an easy thing. The adjusting lever is still turned downwards. With the engine running, it is now turned upwards very slowly. It is important that the angle of the lever at the top or bottom never exceeds 45°, this will destroy the seals in the valve! With the lever now very slowly moved upwards, you pay attention to the body. As soon as the body lifts, you stop the upwards and slowly turns downwards again. By fine-tuning the up and down movement, you can develop the neutral position. If the valve is intact, the setting lever should be horizontal. Then take the 4 mm drill bit and insert it through the hole in the setting lever into the hole in the valve body. This way the setting lever is blocked and the control rod can be adjusted to the correct length by loosening the two lock nuts. The control rod has a right-hand thread and a left-hand thread - if the lock nuts of the twoball heads are released, you can twist the middle part of the control rod and the adjust the length. Connect control rod and setting lever, thighten the lock nuts and remove the drill - done!



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