

2020 Audi Q7 Quattro (4MG) V6-3.0L Turbo (DCBD) Hybrid

Vehicle > Accessories and Optional Equipment > Camera > Forward Looking Camera > Description and Operation > Components

DRIVER ASSISTANCE SYSTEMS FRONT CAMERA

Driver Assistance Systems Front Camera

→ **Driver Assistance Systems Front Camera, Calibrating**

Driver Assistance Systems Front Camera, Calibrating

→ **Driver Assistance Systems Front Camera, Calibrating, Q7 Before Product Improvement**

→ **Driver Assistance Systems Front Camera, Calibrating, from Product Improvement**

Driver Assistance Systems Front Camera, Calibrating, Q7 Before Product Improvement

- ♦ Vehicle Diagnostic Tester
- ♦ Wheel Alignment Computer
- ♦ Setting Device - Basic Set -VAS6430/1A-
- ♦ Adapter VAS6430/9 -VAS6430/9-, only for surface mounted hoist with a dimension greater than 300 mm.

Procedure

- For surface mounted hoist with a dimension greater than 300 mm the -VAS6430/1A- with the -VAS6430/9- must be set higher.
- Check the DTC memory and correct any malfunctions before beginning the calibration.
- Check if the -VAS6430/1- is in the center position and is locked.
- Check if the Driver Assistance Systems Front Camera -R242- fits correctly in the bracket and the viewing range for the camera is not blocked.
- Check of the visible area of the Driver Assistance Systems Front Camera -R242- is free.
- "Activate vehicle lift mode" on equipment versions with air suspension. Refer to Owner's Manual or "Standard Vehicle Height, Initiating and Locking". Refer to → Standard Vehicle Height, Initiating and Locking.

There Are Two Choices for Calibrating:

The "Quick Access"

This procedure should be selected for the following activities if only the calibration will be performed.

- ♦ The test plan in the Vehicle Diagnostic Tester requires a recalibration.
- ♦ The Driver Assistance Systems Front Camera -R242- was removed and installed or replaced.
- ♦ The Driver Assistance Systems Front Camera -R242- bracket was removed and installed or replaced.
- ♦ The lens was replaced (window heating faulty).

- ♦ The inside of the black cut-out was cleaned.
- ♦ The wire for the Driver Assistance Systems Front Camera -R242- was replaced.
- ♦ The connector for the Driver Assistance Systems Front Camera -R242- was touched.
- ♦ The windshield was removed and installed or replaced.
- ♦ The standard vehicle height is reprogrammed.

The "Complete Alignment"

This procedure should be selected for the following activities if a calibration and a wheel alignment will be performed.

- ♦ The rear axle toe was adjusted.
- ♦ the vehicle suspension was changed, for example, changing from standard to Sport suspension.
- Both procedures are programmed in the wheel alignment computer. The respective procedure is performed automatically. It is only necessary to select the appropriate program for the procedure that will be performed.

Note the Preparation Work for Calibrating Assistance Systems. Refer to → Preparation Work for Calibrating Driver Assistance Systems.

Calibrating Without a Previous Axle Alignment

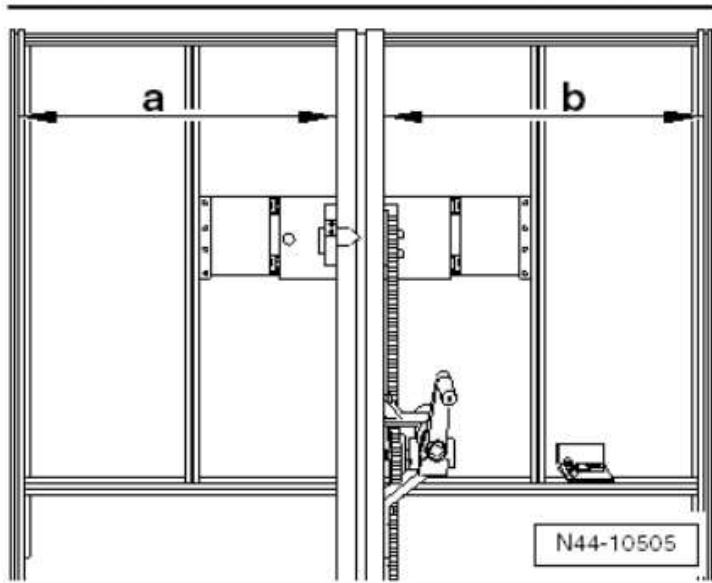
- Switch off the ignition when the vehicle has come to a stop. This is the only way to ensure that the rear axle steering is in the straight-ahead position.
- Select the front camera calibration procedure in the alignment computer.
- Install quick-action clamps on the wheels.
- Install the measuring sensors on the wheels.
- Carry out wheel run-out compensation.

Calibrating With a Previous Axle Alignment

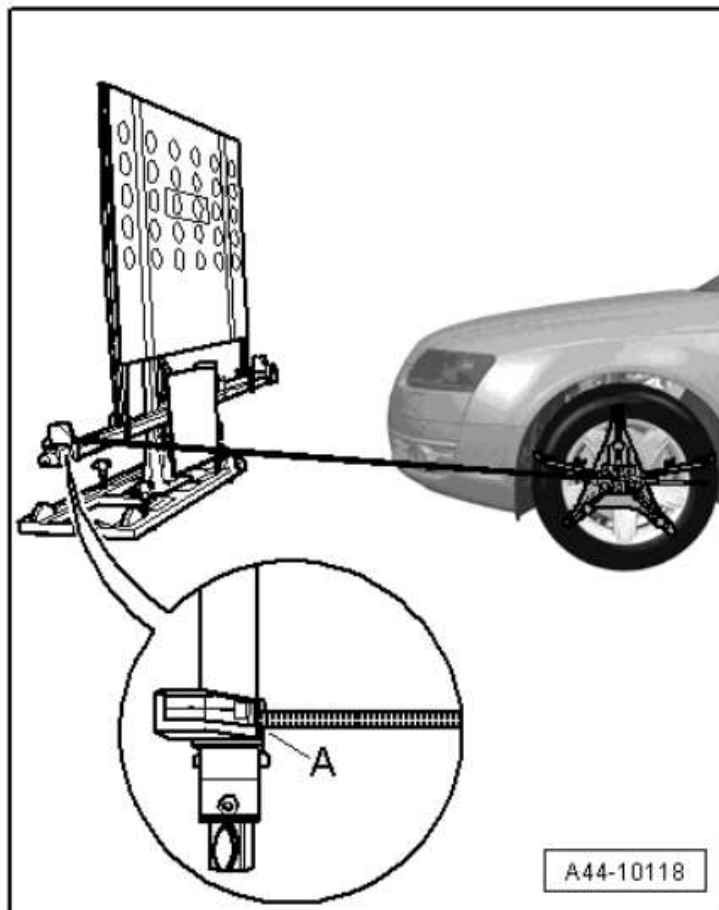
- Switch off the ignition when the vehicle has come to a stop. This is the only way to ensure that the rear axle steering is in the straight-ahead position.
- Connect the battery charger. Refer to → 27 - Electrical Equipment - Battery; Battery, Charging.
- Position the front wheels so they are straight.
- Connect the Vehicle Diagnostic Tester to the vehicle and guide the diagnostic cable through the open window.
- Turn off all vehicle exterior lamps.
- Close all vehicle doors.

Calibrating/Adjusting Procedure with or Without a Previous Axle Alignment

- Select the front camera calibration procedure in the alignment computer.
- Make sure the calibration board is positioned in the center and is locked in place.



- Dimension -a- = dimension -b-.
- Position the -VAS6430/1A- at a distance of -A- $150\text{ cm} \pm 2.5\text{ cm}$ from the center of the wheel hub on the front wheels to the beam on the -VAS6430/1A- as shown in the illustration.



- The -VAS6430/1A- must not be moved on the calibration beam.
- Mount the front wheel measuring sensors -1- to the -VAS6430/1A-.