

Audi Q7 - Electrical System

Self-Study Programme 364

The Audi Q7 stands for 100% premium-quality electronics!

There has been an enormous increase of the number of electronic control units over the past few years. The majority of innovations made are only possible thanks to increasingly sophisticated electronics. Without this development, many of the in-car comfort features which today are taken for granted would not be viable. To keep pace with the increasing complexity of new vehicles, continuous learning is essential. The Self-Study Programmes by AUDI are an efficient advanced learning tool as they enable you keep abreast of technical developments.

To be able to offer customers with this diversity of functions and equipment options, a multiplicity of different electronic control units are required in the Audi Q7. The control units do not work separately as independent nodes, rather they are interconnected via efficient bus systems. Depending on the quantity of data to be exchanged, the MOST bus, an optical data bus, a CAN bus or a LIN bus is utilised. Data is also exchanged across the various bus systems. A separate control unit provides the interface between the various systems. Each control unit is therefore supplied efficiently with the information and vehicle operating variables which it requires for optimal functioning.



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Self-Study Programme 364 introduces you to the network topology of the Audi Q7, and provides you with an overview of the positions in the vehicle in which electrical components are located. In addition to obtaining service-related information on the control units, you will learn the installation location of each control unit and become familiar with its tasks. You quickly and efficiently gain an insight into the electronics in the Audi Q7.



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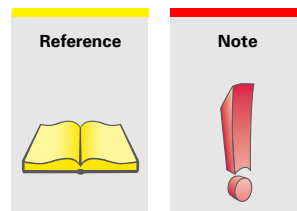
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This self-study programme teaches the design and function of new vehicle models, new automotive components or new technologies.

The self-study programme is not a workshop manual!
All values given are intended as a guideline only, and refer to the software variant valid at the time of publication of the SSP.

Please refer to the relevant Service Literature for current inspection, adjustment and repair instructions.



Overview

Fuses and relays

The fuse and electrics boxes

Fuse and relay carriers can be found in the following locations in the new Audi Q7:

- Dash panel, left and right adjacent the A-post
- Engine compartment, rear left
- Onboard power supply control unit
- Electronics box under the left seat
- Luggage compartment, right

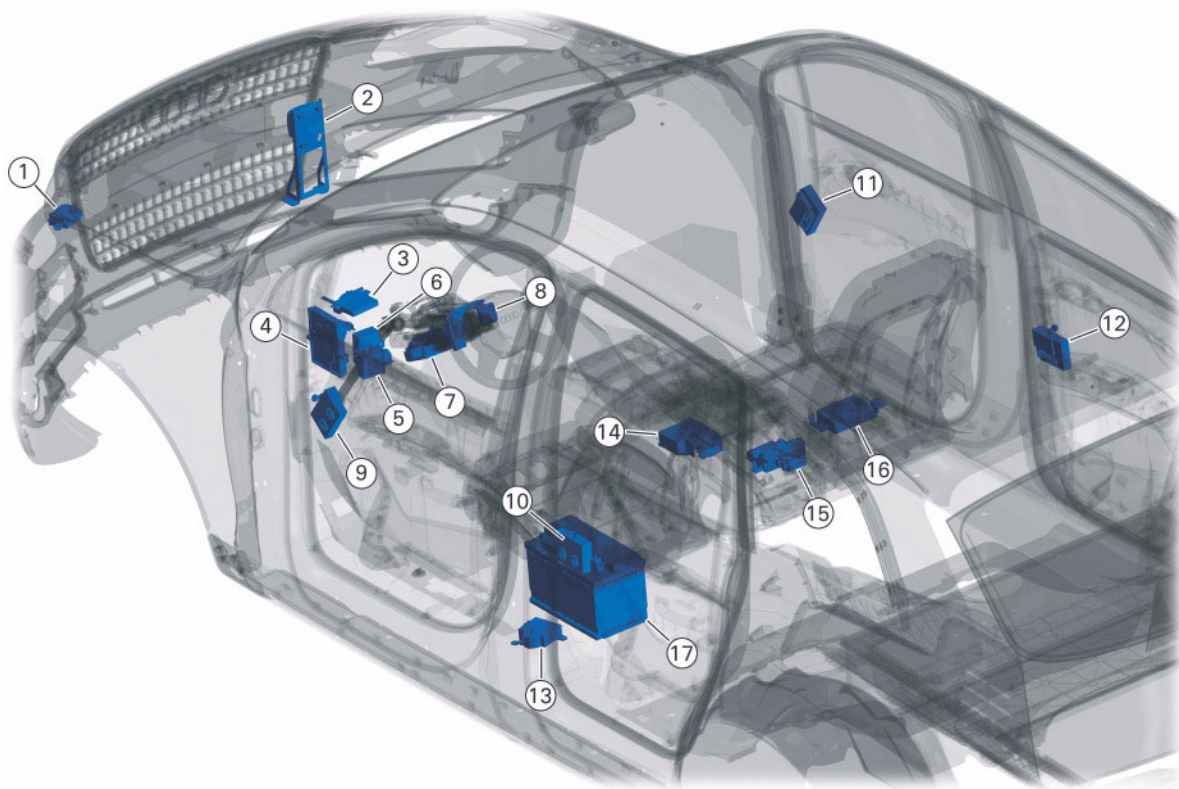
For details of fuse and relay assignments, please refer to the current service literature.



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Overview

Installation overview - control units



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Legend

- 1 Garage door operation control unit J530
- 2 Adaptive cruise control unit J428
- 3 Data bus diagnostic interface J533
- 4 Onboard power supply control unit J519
- 5 Headlight range control, control unit J431
- 6 Tyre pressure monitor control unit J502
- 7 Entry and start authorisation control unit J518
- 8 Steering column electronics control unit J527
- 9 Driver door control unit J386
- 10 Rear left door control unit J388
- 11 Front passenger door control unit J387
- 12 Rear right door control unit J389
- 13 Energy management control unit J644
- 14 Airbag control unit J234
- 15 Onboard power supply control unit 2 J520
- 16 Seat adjustment control unit with memory, front passenger J521
- 17 Battery A