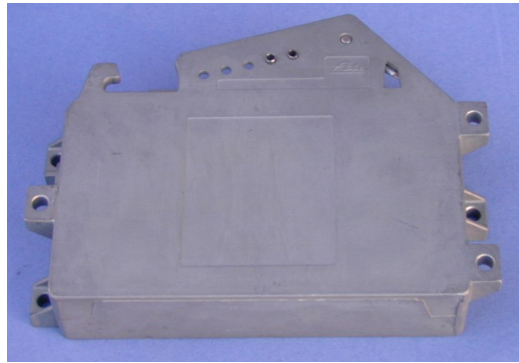


ABS ECU



Function

The ABS control unit is the electronic processing unit for the ABS system. The control unit has to ensure that the wheels don't skid during operation of the brakes. The control unit uses sensors to determine wheel speed. Depending on the conditions, the control unit activates actuators.

Diagnostic test:

Check connector(s): Inspect the connector(s) and if necessary clean or fix them to make sure the connection is good. When you suspect the control unit is faulty make sure all sensors, actuators and the communication with other control units function properly. Furthermore check the supply voltage and ground connections of the control unit:

Turn ignition off. Remove ECU connector.

Locate the supply voltage connections. Turn ignition on, measure voltage between corresponding connector terminal(s) and the negative terminal of the battery, these should equal battery voltage. If not check wiring and fuse. Turn ignition off. Locate the ground connections. Measure resistance between corresponding connector terminal(s) and the negative terminal of the battery, these should be < 1 ohm.

ABBREVIATIONS:

ABS

Anti Blocking System

ABS prevents that the wheels block during braking. The vehicle will stay on course and can be steered even at full braking.

ASR

Anti Spin Regulation

ASR prevents the driving wheels from spinning during acceleration. This is done by adapting the engine's moment of rotation and by braking the wheels that have a tendency to spin. When carrying out an operation in the engine control unit and the brake system, the slip is adapted to an acceptable level depending on the situation.

BAS

Brake assistant

Device that enhances the braking pressure when a dangerous situation arises during an emergency braking, because it has become evident that most drivers do not step sufficiently hard on the brake pedal in such situations.

When the ABS control unit registers an emergency braking – the braking pressure is increased within a specified time limit – the brake assistant enhances the braking pressure up the ABS regulation range. Thus the maximum braking effect is achieved so that the braking distance is shortened considerably.

EBV

Electronic Braking Force Distribution

EBV prevents the rear wheels from blocking before the front wheels until the ABS function takes over.

EDS = ETS

Electronic Differential Lock

EDS makes it possible to set the vehicle in motion on a surface with variable friction on the left and the right side. This is done by braking the wheel that spins.

ESP

Electronic Stability Programme

ESP prevents the vehicle from skidding by performing an operation in the engine control unit and the ABS system.

MSR

(Motor Schlepptomoment Regulierung)/ Engine Braking Torque

MSR prevents the driving wheels from blocking due to the engine braking torque that arises during accelerator pedal release or during downgearing.