

Document title AIRmatic control unit, component description

Document number gf3222p5109fl

MODEL 212

up to model year 2014

with CODE 488 (Steel/air suspension)

without CODE 489 (AIRMATIC (air suspension with continuous damper adjustment))

MODEL 212

up to model year 2014

with CODE 489 (AIRMATIC (air suspension with continuous damper adjustment))

without CODE 488 (Steel/air suspension)

Shown on model 212.0 with CODE 489
(AIRmatic (air suspension with continuous
variable damping))

N51/3 AIRMATIC control unit



P32.22-2432-04

Location

The AIRmatic control unit is mounted under the front-passenger footplate.

Task

The AIRmatic control unit has the following tasks:

- Reading in of sensors, pickups and signals
- Evaluation of input factors
- Actuation of components

Reading in of sensors, pickups and signals

The input factors are read in via the following connections:

- Direct lines
- Chassis CAN (CAN E)

Direct lines

The following components are read in via direct lines:

- Circuit 30g (switched battery positive)
- circuit 31
- Left rear level sensor (B22/7)
- Left front level sensor (B22/8)
- Right front level sensor (B22/9)
- Right rear level sensor (B22/10)
- Left front body acceleration sensor (B24/3)
- Right front body acceleration sensor (B24/4)
- Left rear body acceleration sensor (B24/5)
- AIRmatic pressure sensor (Y36/6b1)

Chassis CAN

The AIRmatic control unit is a subscriber on the chassis CAN and receives signals from, for example, the following control units:

- Electronic Stability Program control unit (N30/4) (except CODE 233 (DISTRONIC PLUS), except CODE 990 (AMG vehicles), except hybrid)

- Premium Electronic Stability Program control unit (N30/7) (with CODE 233 (DISTRONIC PLUS) or with CODE 990 (AMG vehicles), except hybrid)
- Regenerative braking system control unit (N30/6) (with hybrid)

Evaluation of input factors

The input factors that have been read in are evaluated by the integrated microprocessor and the affected components are then actuated.

Actuation of components

Components are actuated with the following lines:

- Direct lines
- Chassis CAN

Direct lines

The following components are actuated via direct lines:

- AIRmatic pressure reduction valve (A9/1y1)
- AIRmatic relay (K67)
- Left front level control valve (Y36/6y1), with CODE 489 (AIRmatic (air suspension with continuous variable damping))
- Right front level control valve (Y36/6y2), with CODE 489 (AIRmatic (air suspension with continuous variable damping))
- Left rear level control valve (Y36/6y3)
- Right rear level control valve (Y36/6y4)
- AIRmatic central reservoir filling valve (Y36/6y5)
- Left front axle damping valve unit (Y51)
- Right front axle damping valve unit (Y52)
- Left rear axle damping valve unit (Y53)
- Right rear axle damping valve unit (Y54)

Chassis CAN

The AIRmatic control unit is a station on the chassis CAN and sends signals to, for example, the following control unit:

- Instrument cluster (A1)

Wiring diagram of AIRmatic control unit

PE32.22-P-2101-97DAA