

MODEL 212.0 /2 up to 28.2.13

Function requirements, general

- No overvoltage or undervoltage
(operating voltage range $U \geq 7 \leq 17.5$ V)

Standing/parking lights, general

The standing lights/parking lights actuation serves the marking of the parked vehicle in darkness.

The standing/parking lights actuation is comprised of the following subfunctions:

- **Function sequence for standing lights actuation**
- **Function sequence for lights on reminder**
- **Function sequence for parking lights actuation**

The front SAM control unit actuates the following components:

- Left front lamp unit (E1)
 - Left front standing light and parking light (E1e3)
- Right front lamp unit (E2)
 - Right front standing light and parking light (E2e3)
- Additional with code (460) Canada version or code (494) USA version:
 - Left front side marker lamp (E6/1)
 - Right front side marker lamp (E6/2)

The trailer recognition control unit actuates the following components of the trailer via the trailer socket (X58) (with code (550) Trailer hitch):

- Taillights
- License plate lights

Additional function requirements for lights on reminder

- Standing lights ON
- Driver door OPEN
- Circuit 15C OFF

Function sequence for lights on reminder

The logic for requesting the lights on reminder function is stored in the front SAM control unit.

The left front door control unit (N69/1) sends the status of the driver door and the electronic ignition lock control unit (N73) sends the status of circuit 15 over the interior CAN to the front SAM control unit.

If in model 212.0 up to 30.11.09 except model 212.077 with active rear fog light actuation, circuit 15C is switched off and the driver door is opened, the instrument cluster actuates the warning buzzer and shows a corresponding message on the multifunction display. The request to deactivate rear fog light actuation via the exterior lights switch prevents the automatic actuation of the rear fog light the next time the vehicle is driven with the low beams switched on.

Function sequence for parking lights actuation

By turning the exterior lights switch to the left parking lights position or the right parking lights position, the parking lights actuation is requested for the corresponding side of vehicle.

The front SAM control unit reads in the status of the exterior lights switch and transmits the request via the interior CAN to the rear SAM control unit and, if necessary, to the trailer recognition control unit.

Function sequence for standing lights actuation

Turning the exterior lights switch (S1) to the standing lights position requests actuation of the standing lights.

The front SAM control unit with fuse and relay module (N10/1) reads in the status of the exterior lights switch in model 212.0 up to 30.11.09 except model 212.077 via the instrument panel LIN (LIN 1) and directly in model 212.077, 212.2 and model 212.0 as of 1.12.09, and transmits the "Standing lights on" request via the interior CAN (CAN B) to the rear SAM control unit with fuse and relay module (N10/2) and also to the trailer recognition control unit (N28/1) in vehicles with code (550) Trailer hitch. The front SAM control unit also sends the "standing light indicator lamp ON" request over interior CAN to the instrument cluster (A1), which then switches on the instrument scale illumination.

The rear SAM control unit actuates the following components:

- Left rear lamp unit (E3)
 - Outer left brake light and taillight (E3e11)
 - Outer left background light (E3e15)
- Inner left rear lamp unit (E3/1)
 - Inner left brake light and taillight (E3/1e4)
 - Inner left background light (E3/1e6)
- Right rear lamp unit (E4)
 - Outer right brake light and taillight (E4e11)
 - Outer right background light (E4e15)
- Inner right rear lamp unit (E4/1)
 - Inner right brake light and taillight (E4/1e4)
 - Inner right background light (E4/1e6)
- Left license plate lamp (E19/1)
- Right license plate lamp (E19/2)

The front SAM control unit receives this information and from it generates the request for output of the lights on reminder function and transmits this to the instrument cluster via the interior CAN. The instrument cluster then actuates the warning buzzer (A1h1). The message "switch light off" appears in the multifunction display (A1p13) of the instrument cluster.

The standing lights may be on due to the low beams having been manually switched on, due to the auto on/off headlamps or the daytime running lights, or they can be switched on manually via the exterior lights switch.

If the standing lights have been activated because of the manually activated low beams, auto on/off headlamps or the daytime running lights, and the driver door is opened at circuit 15C ON, the standing lights are switched off.

Left parking light:

The front SAM control unit actuates the following components:

- Left front headlamp unit
 - Left front standing light and parking light

The rear SAM control unit actuates the following components:

- Left rear lamp unit
 - Outer left brake light and taillight
- Inner left rear lamp unit
 - Brake light and left inner taillight (with code (460) Canada version or code (494) USA version)

The trailer recognition control unit actuates the left taillight on the trailer.

Right parking light:

The front SAM control unit actuates the following component:

- Right front headlamp unit
 - Right front standing light and parking light

The rear SAM control unit actuates the following components:

- Right rear lamp unit
 - Outer right brake light and taillight
- Inner right rear lamp unit
 - Brake light and right inner taillight (with code (460) Canada version or code (494) USA version)

The trailer recognition control unit actuates the right taillight on the trailer.

i If in vehicles up to 31.5.11 the interior CAN is in "bus idle", the parking lights actuation is stored in the rear SAM control unit and the trailer recognition control unit, until the front SAM control unit requests a deactivation. Even when this results in the on-board electrical system voltage failing and the on-board electrical system battery (G1) being completely discharged.

In vehicles as of 1.6.11 the standing light, parking light function is switched off, when the on-board electrical system management determines that the engine's starting capability is impaired through the discharged on-board electrical system battery.

 PE	Electrical function schematic, standing light/ parking lights actuation		PE82.10-P-2054-97DAA
	Overview of exterior lights system components		GF82.10-P-9998FL