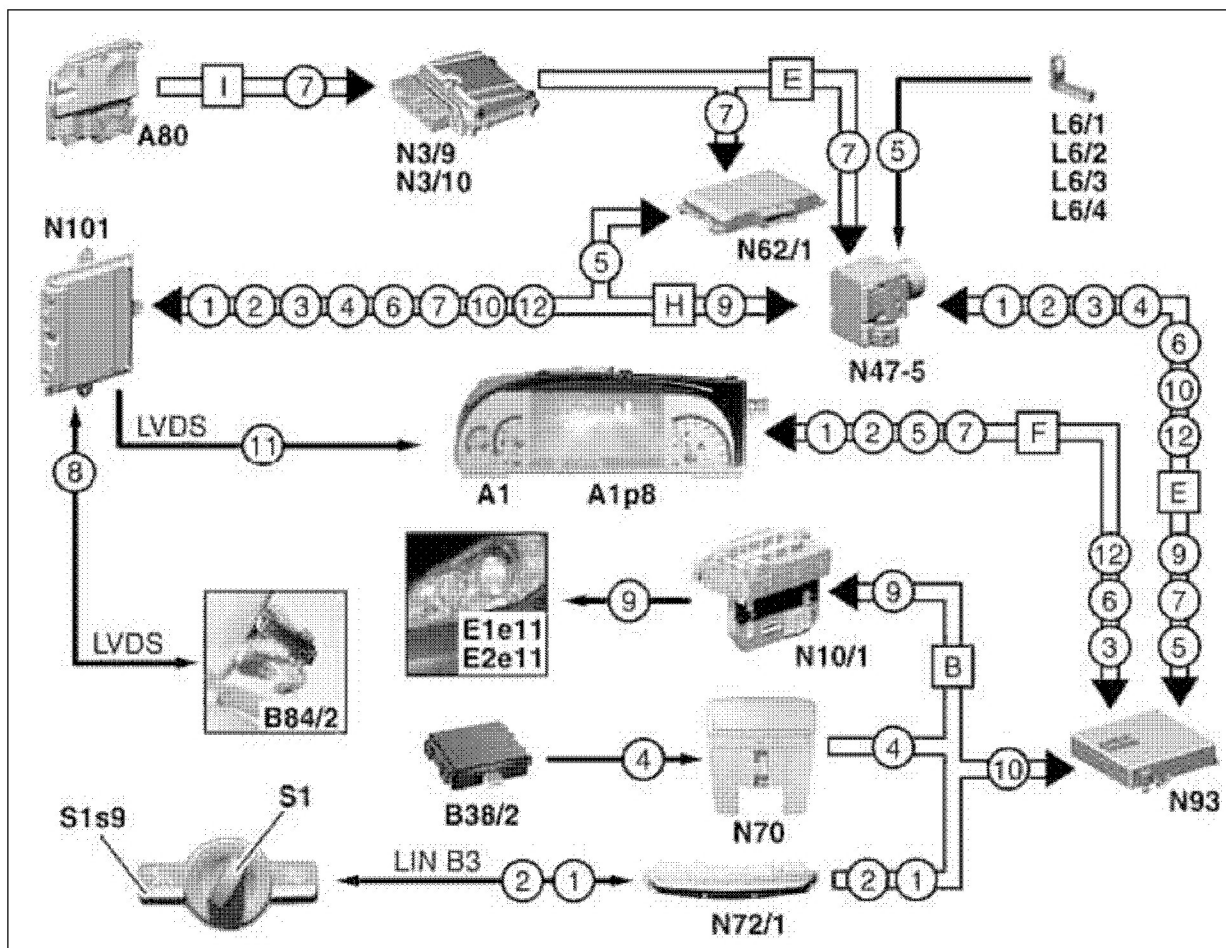


MODEL 221.0 /1, 216.3
with CODE (610) Night vision assist
up to Model Year 8

- 1 Night Vision Assist system, on/off
- 2 Rotary light switch in "AUTO" position
- 3 Daytime running lamps activated
- 4 Intensity level
- 5 Wheel speeds
- 6 Vehicle speed
- 7 Drive position status
- 8 Camera image transfer
- 9 Actuation of left and right infrared lamps
- 10 Status of left and right infrared lamps
- 11 Display transfer
- 12 Display transmission faulty



P54.30-9019-06

- A1 Instrument cluster
- A1p8 Electronic speedometer
- A80 Intelligent servo module for DIRECT SELECT
- B38/2 Rain/light sensor
- B84/2 Night vision assist camera
- E1e11 Left infrared lamp
- E2e11 Right infrared lamp
- L6/1 Left front rpm sensor

- N70 Overhead control panel control unit
- N72/1 Upper control panel control unit
- N93 Central gateway control unit
- N101 Night vision assist control unit
- S1 Rotary light switch
- S1s9 Night vision assist button
- B Interior CAN

L6/2 Right front rpm sensor
L6/3 Left rear rpm sensor
L6/4 Right rear rpm sensor
N3/9 CDI control unit (with diesel engine)
N3/10 ME-SFI [ME] control unit (with gasoline engine)
N10/1 Front SAM control unit with fuse and relay module
N47-5 ESP control unit
N62/1 Radar sensors control unit (SGR)
(with code (233) Distronic Plus)

Function

With the night view assist system the course of the road is displayed visually in darkness in order to recognize obstacles before they become visible in the conventional headlamp beam.

To this end, the road in front of the vehicle is illuminated by infrared lamps.

Infrared light is invisible to the human eye. Oncoming traffic is thus not dazzled.

The night view assist camera mounted in the area of the overhead control panel control unit is designed for infrared light and records the direction of the road.

During the picture display the electronic speedometer is displayed as a bar graph. The Night View Assist camera recordings are shown in the instrument cluster.

Function requirements

- Circuit 15 ON
- Rain/light sensor detects twilight or night
- Active low beam
- Drive position "R" not engaged
- Vehicle speed above 15 km/h

Function sequence

The night view assist system is activated by pressing the night view assist button.


E Chassis CAN
F Central CAN
H Vehicle dynamics CAN
I Drive train sensor CAN

LIN B3 Upper control panel LIN

LVDS Low-Voltage Differential Signaling

The display corresponds to the view through the windshield when the high beam is switched on. This means that the driver still enjoys a "high beam" visible area.

The infrared lamps are activated depending on the degree of darkness and the speed of the vehicle.

 The night view assist camera operates like a conventional camera, but with an increased infrared light spectrum. For this reason a picture is not displayed when the infrared lamps are not activated.

After enable by the night view assist control unit the multifunction display in the instrument cluster changes speedometer display and the display appears.

Extremely bright picture areas, which could dazzle the driver, are suppressed and thus the driver is able to perceive the other content in the picture (e.g. obstacles, pedestrians or cyclists). The brightness distribution is processed in the night view assist control unit.

The rain/light sensor detects three brightness levels:

- Day: Night view assist deactivated (no display)
- Twilight: Night view assist partially activated (display only)

The request is read in by the upper control panel control unit via the upper control panel LIN and transmitted by the ESP control unit to the night view assist control unit via the central gateway control unit.

- Night: Night view assist system fully activated (display and infrared lamps active)

	Night vision assist, location of components		GF54.30-P-0005-01SX
	Night vision assist, networking of components		GF54.30-P-0005-02SX
	Instrument cluster, component description	A1 Model 221	GF54.30-P-6000SX
	Intelligent servo module (ISM) component description	A80 Model 221 with transmission 722.6 Model 221 with transmission 722.9	GF27.19-P-4015SXA GF27.19-P-4015SX
	Rain/light sensor, component description	B38/2	GF54.21-P-6000SX
	Night vision assist camera, component description	B84/2	GF54.30-P-6220SX
	Lamp unit, component description	E1, E2 Model 221	GF82.10-P-2017SX
	Wheel rpm sensor, component description	L6/1, L6/2, L6/3 and L6/4	GF42.45-P-5134SX
	Driver-side SAM control unit with fuse and relay module, component description	N10/1	GF54.21-P-6010SX
	Description of components in ESP control unit	N47-5	GF42.45-P-5118SX
	Component description for radar sensors control unit	N62/1 Model 221 with engine 272, 273 and Code (233) Distronic Plus	GF30.30-P-3301SX
	Overhead control panel control unit, component description	N70	GF82.20-P-5216SX
	Upper control panel control module component description	N72/1	GF54.21-P-6040SX
	Central gateway control unit, component description	N93	GF54.21-P-4170SX
	Night vision assist control unit, component description	N101	GF54.30-P-6200SX
	Rotary light switch, component description	S1 Model 221	GF82.10-P-4106SX