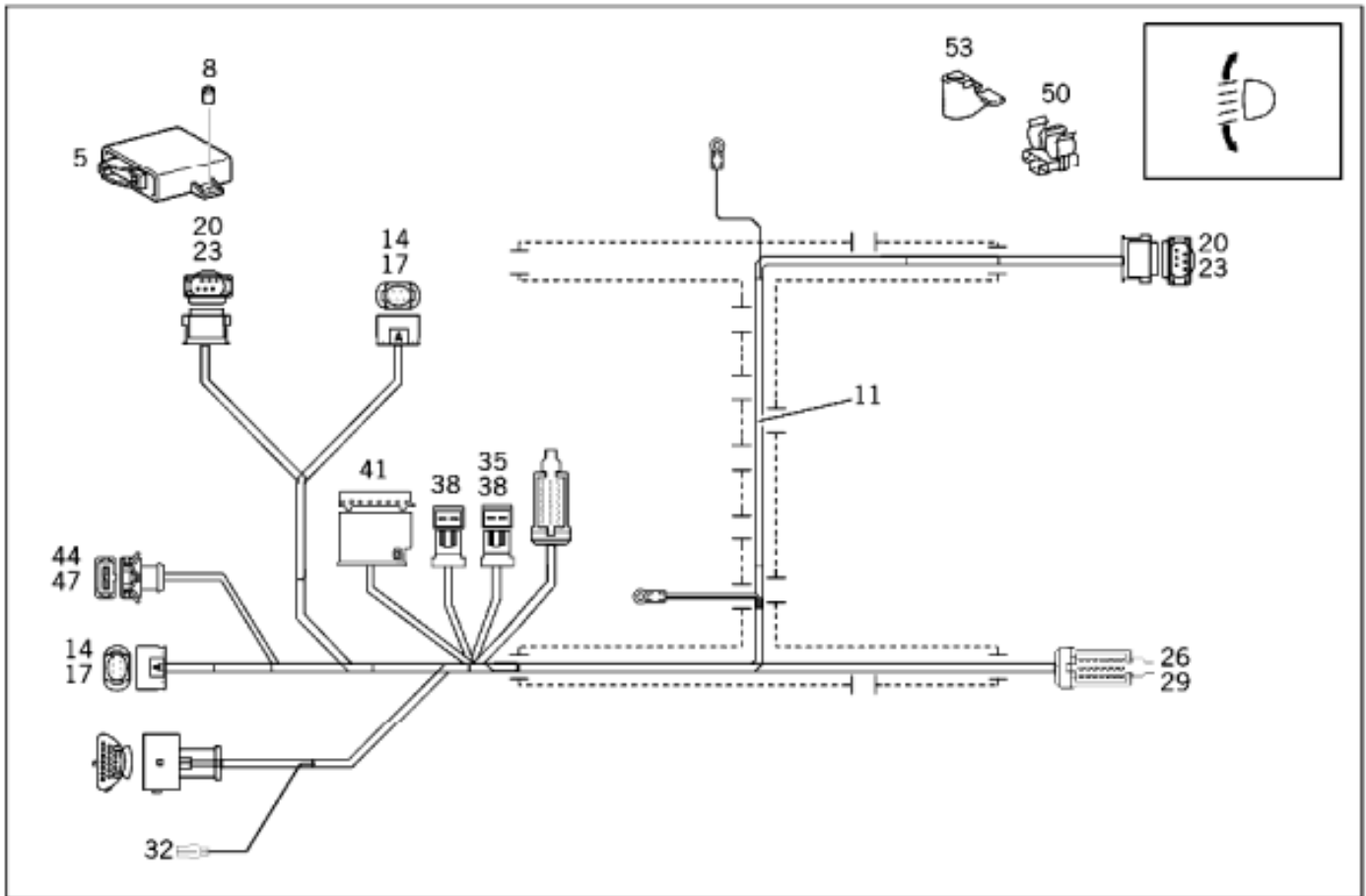


Îããëü / Ñëñðàìü / Óçãë: 82 ELECTRICAL SYSTEM

Îãããëü=210065 Êàðàëíã=45P Ñëñðàìà: 82 ELECTRICAL SYSTEM

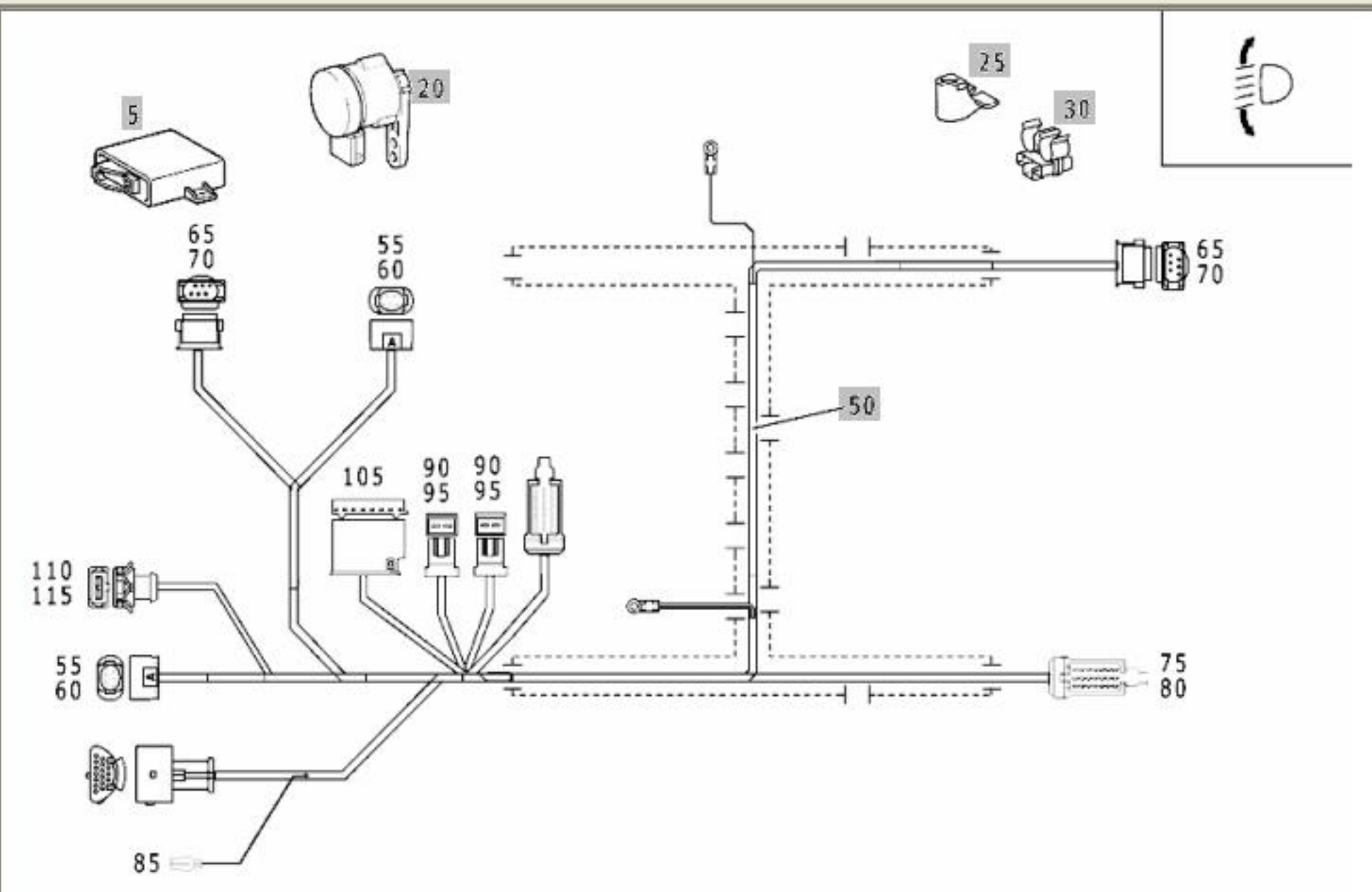
Ëëëðñðàððëý: 215 Óçãë: LIGHT RANGE ADJUSTER ELECTRIC



¹	Êíã	Çàìãíã	Ê-ãí	Âãð-ò	Íãçããíëã	Ëíóìðíàððëý	Ïðëíã-àíëý
005	A2108202526	2108206126	-		CONTROL UNIT		
005	2108206126		001		CONTROL UNIT	LIGHT RANGE ADJUSTER ELECTRIC	*880 *881
005	2108206426		001		CONTROL UNIT	LIGHT RANGE ADJUSTER ELECTRIC	*890
008	0029943045		002		LOCK	CONTROL UNIT	
011	2105405213		001	L	CABLE HARNESS	LIGHT RANGE ADJUSTER ELECTRIC	*880 *881
011	2105405313		001	R	CABLE HARNESS	LIGHT RANGE ADJUSTER ELECTRIC	*880 *881
011	2105407735		001	L	ELECTRIC CABLE	LIGHT RANGE ADJUSTER ELECTRIC	*890
011	2105407835		001	R	ELECTRIC CABLE	LIGHT RANGE ADJUSTER ELECTRIC	*890

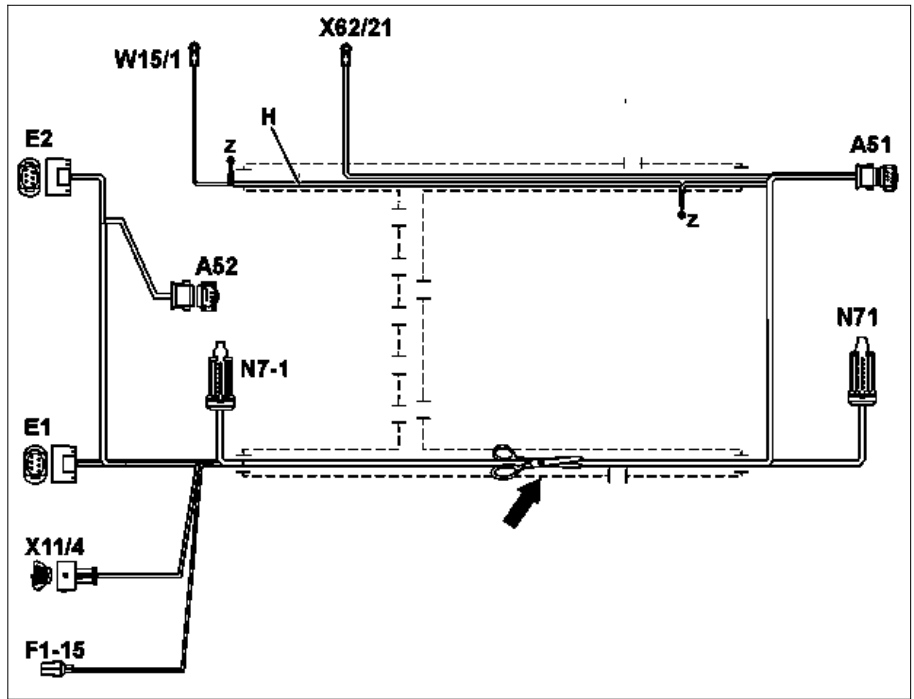


✓	Item no.	Part number	Designation/description	Quantity	Version
<input type="checkbox"/>	55	A 210 545 69 28	• PIN BUSHING HOUSING LIGHTING UNIT	002	
<input type="checkbox"/>	60	A 008 545 53 26	• CONTACT SPRING 0.5-1.0 MM2	NB	
<input type="checkbox"/>	65	A 210 540 36 81	• CLUTCH TURNING ANGLE SENSOR 6-PIN MQ5	002	
<input type="checkbox"/>	70	A 008 545 63 26	• FEMALE CONTACT 0.5-0.75 MM2 MQ5	NB	
<input type="checkbox"/>	75	A 017 545 42 28	• PIN BUSHING HOUSING CONTROL UNIT	002	
<input type="checkbox"/>	80	A 011 545 81 26	• CONTACT SPRING 0.5-1.0 MM2 JPT	NB	
<input type="checkbox"/>	85 <input type="checkbox"/>	A 000 540 53 05	• REP.SET CONTACT FUSE BOX 2.5 MM2 [002] CONNECTORS MUST ALSO BE	NB	
<input type="checkbox"/>	90	A 032 545 88 28	• PLUG FUSE AND RELAY BOX,DRIVER 2-PIN SPT	002	
<input type="checkbox"/>	95	A 004 545 52 26	• CONTACT SPRING 1.0-2.5 MM2 SPT	NB	
<input type="checkbox"/>	95	A 004 545 00 26	• FEMALE CONTACT 2.5-4.0 MM2 SPT	NB	
<input type="checkbox"/>	105 <input type="checkbox"/>	A 000 540 46 05	• ELECTRICAL CABLE SAM CONTROL UNIT 0.75 MM2 MQ5 [002] CONNECTORS MUST ALSO BE	NB	
<input type="checkbox"/>	110	A 034 545 53 28	• PIN BUSHING HOUSING HEADLAMP WIPER,/WASHER PUMP 2-PIN JPT	002	
<input type="checkbox"/>	115 <input type="checkbox"/>	A 000 540 28 05	• ELECTRICAL CABLE 2.5 MM2 JPT	NB	



1 Prepare wiring harness as shown in illustration.

- H Extended cable
- z Cable connector
- A51 Headlamp range adjustment rear axle sensor
- A52 Headlamp range adjustment front axle sensor
- E1 Left headlamp unit
- E2 Right headlamp unit
- F1-15 Fuse 15, circuit 15
- N7-1 Light module
- N71 Headlamp range adjustment control module
- W15/1 Ground, right footwell
- X11/4 Datalink connector
- X62/21 ASR wheel speed signal/ electronic traction system (ETS) rear left cable connector

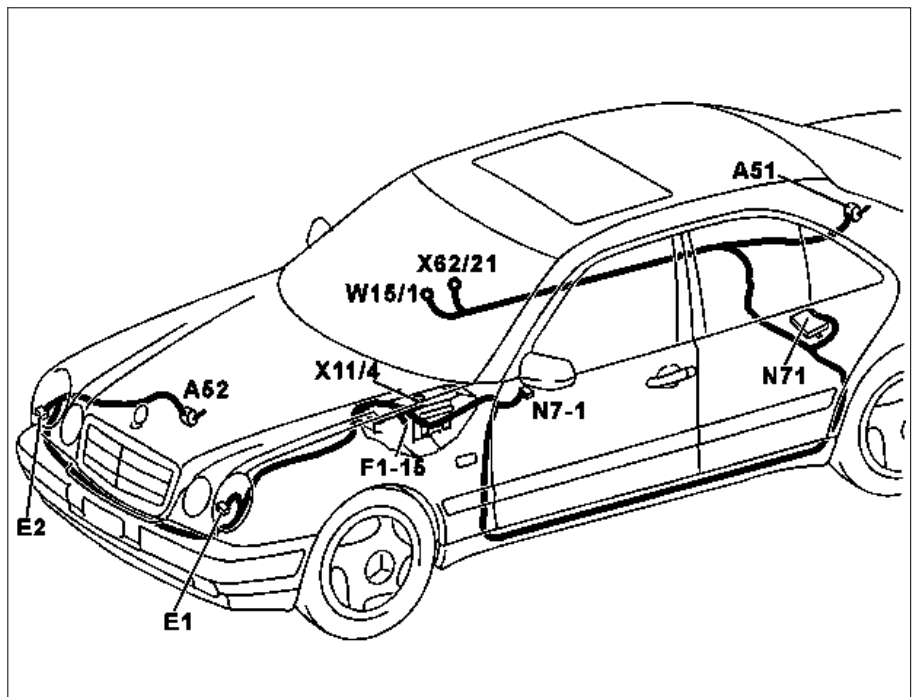


P82.10-0474-57

- | | |
|--|--|
| <p>2 Modify wiring harness as shown in illustration. Cut open wiring harness insulation for this step (arrow).</p> <p>3 Cut through brown cable about 10 cm behind the round cable lug and strip insulation on both sides over about 15 mm.</p> <p>4 Cut commercially available brown cable with cross-section of 1.5 mm² to length of 1.8 m and strip insulation at both sides over about 15 mm.</p> | <p>5 Turn cable with round cable lug and brown cable together and solder together with cable connector (Z).</p> <p>6 Connect other ends of the brown cables with cable connector (Z) as described in steps 3-4.</p> <p>7 Re-enclose wiring harness with PVC insulating tape.</p> |
|--|--|

8 Route wiring harness of xenon headlamps in vehicle as shown in the illustration.

- A51 Headlamp range adjustment rear axle sensor
- A52 Headlamp range adjustment front axle sensor
- E1 Left headlamp unit
- E2 Right headlamp unit
- F1-15 Fuse 15, circuit 15
- N7-1 Light module
- N71 Headlamp range adjustment control module
- W15/1 Ground, right footwell
- X11/4 Datalink connector
- X62/21 ASR wheel speed signal/ electronic traction system (ETS) rear left cable connector

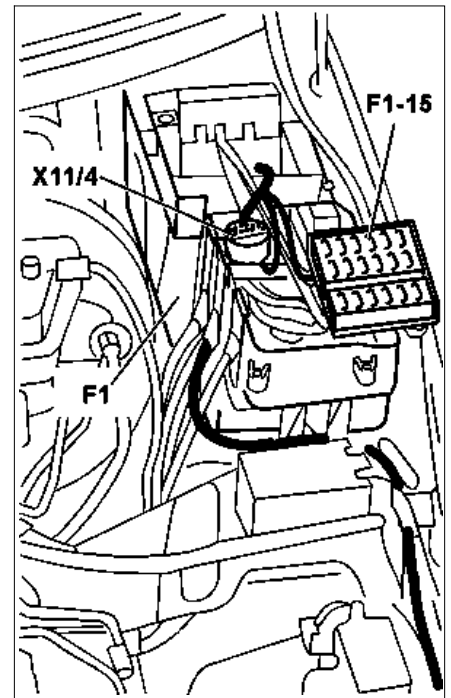


P82.10-0476-57

- 9 Route black/purple and purple cables into the fuse and relay box (F1).
- 10 Connect black/purple cable to fuse box receptacle "A" assignment 15.
- 11 Insert 15A fuse at fuse carrier assignment 15.
- 12 Insert purple cable at data link connector (X11/4) receptacle 35.
- 13 Route 6-pin sockets (3 in total) from interior through the fuse and relay box (F1) into the engine compartment.

i Remove grommet of wiring harness; is not required.

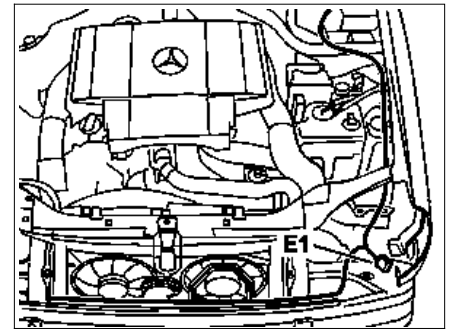
F1-15 Fuse 15, circuit 15



P82.10-0479-17

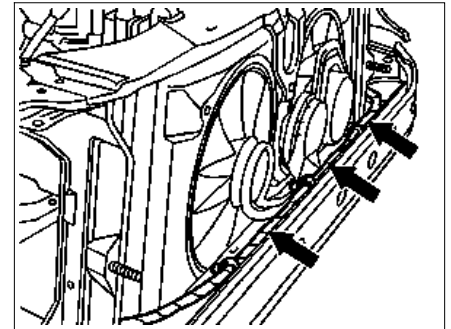
- 14 Route 6-pin sockets at left wheelhousing to the left headlamp opening and attach.

E1 Left headlamp unit (socket)



P82.10-0480-13

- 15 Route other branches of the 6-pin sockets in front of the radiator to the right headlamp opening and attach with cable straps (arrows).

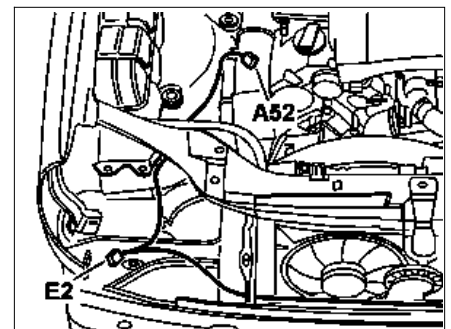


P82.10-0481-13

- 16 Route longest branch with 6-pin socket from the right headlamp opening along the main wiring harness to the right of the front axle and attach.

A52 Headlamp range adjustment front axle sensor (socket)

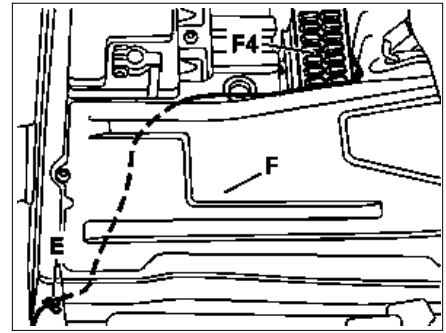
E2 Right headlamp unit (socket)



P82.10-0482-13

- 17 Route extended brown cable, green/black cable and 6-pin socket below the plate (F) of the rear seat bench behind the rear fuse box (F4) to the right cable duct and attach with omega clips (E).

i Rework plate (F) so that wiring harness does not chafe or is squeezed.

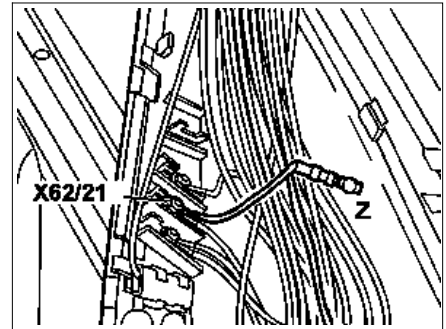


P82.10-0483-13

- 18 Route extended brown cable and green/black cable in cable duct to the cable connector (X62/21).

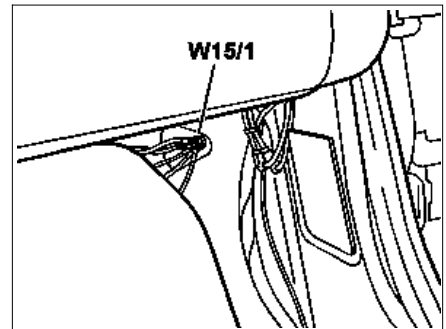
- 19 Connect green/black cable to the cable connector (X62/21).

z Cable connector



P82.10-0484-13

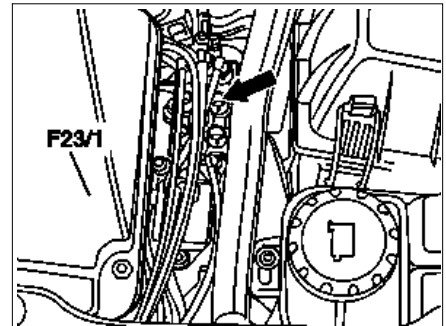
- 20 Connect extended brown cable at the ground point (W15/1).



P82.10-0485-13

- 21 Detach purple vacuum line at vacuum distributor (arrow) ahead of the control module box (F23/1) (is no longer required).

- 22 Install xenon headlamps and connect wiring harness.



P82.10-0487-13

Models without stationary heater/ heater booster

- 23.1 Make hole (15) in area of fuel pump assembly at spacing G with \varnothing 28 mm.

⚠ Danger!

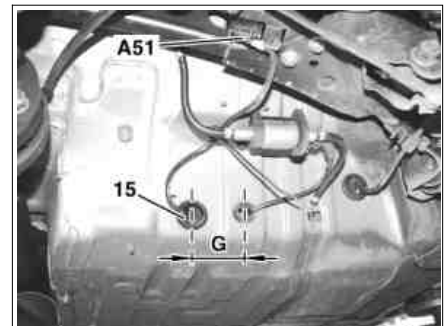
Do not damage cables of rear fuse box.

Models with stationary heater/ heater booster

- 23.2 Use grommet of fuel metering pump.

- 24 Route 6-pin socket to rear axle sensor behind rear fuse box to the outside.

G 40 mm



P82.10-2526-01

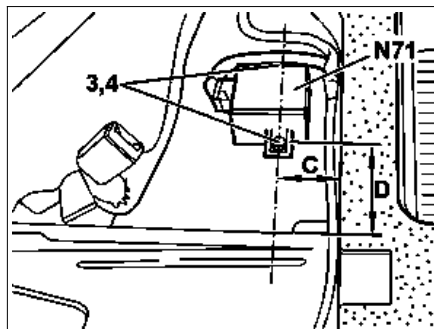
- 25 Make holes for attaching headlamp range adjustment control module (N71) with a drift according to spacings C and D in the area below the left rear seat.

i Use headlamp range adjustment control module (N71) as a template.

- 26 Attach headlamp range adjustment control module (N71) with bolts (3) and washers (4).
27 Connect socket to the headlamp range adjustment control module (N71).

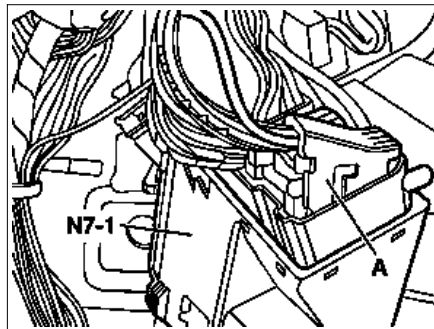
Location below left rear seat

- 3 Bolt BZ4.8X13
C Spacing 80 mm
D Spacing 230 mm



P82.10-0475-13

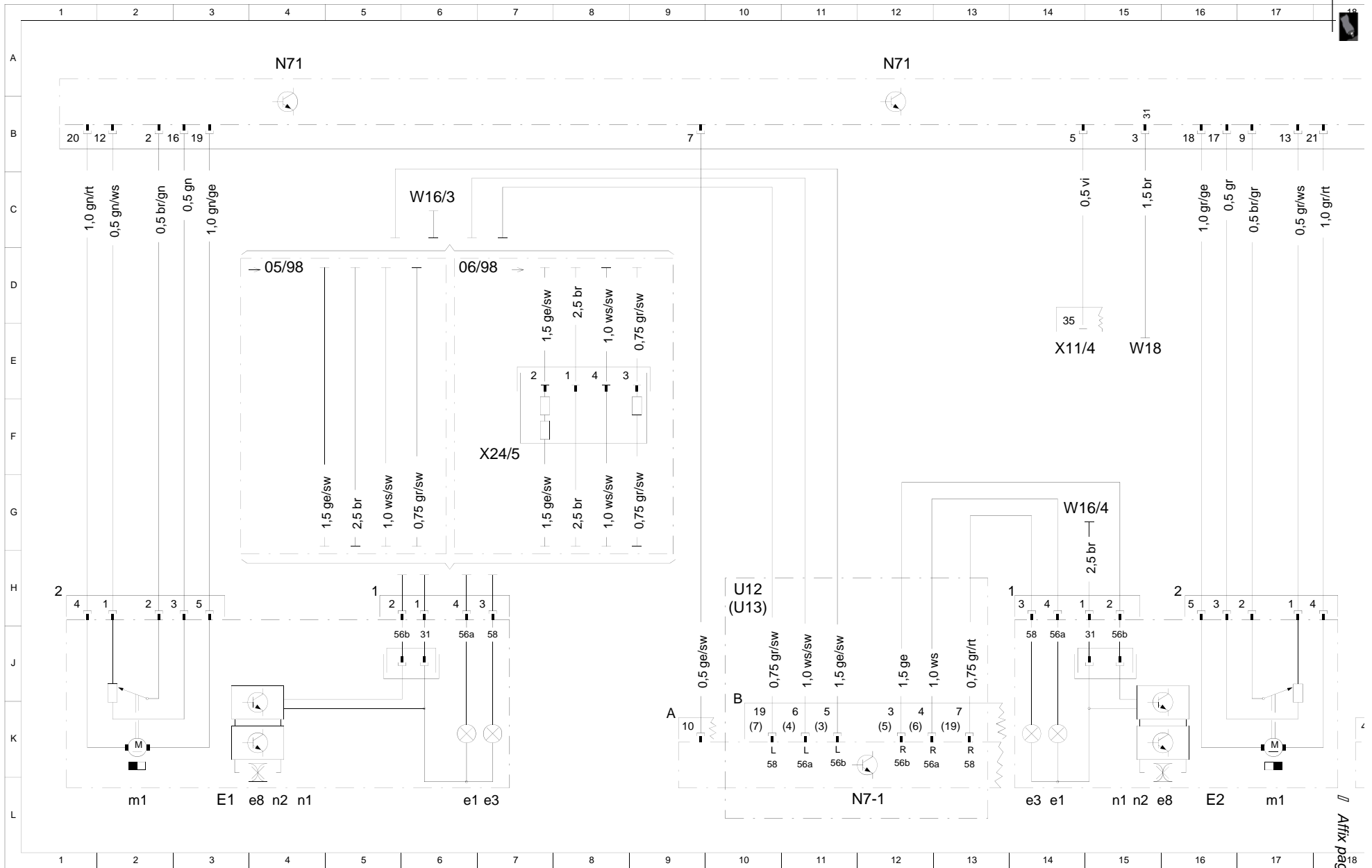
- 28 Insert yellow/black cable into receptacle 10 of the 21-pin socket "A" of the light module (N7-1).
29 Install new trim ring at light module (N7-1).
30 Tie back headlamp range adjuster (do not disconnect).



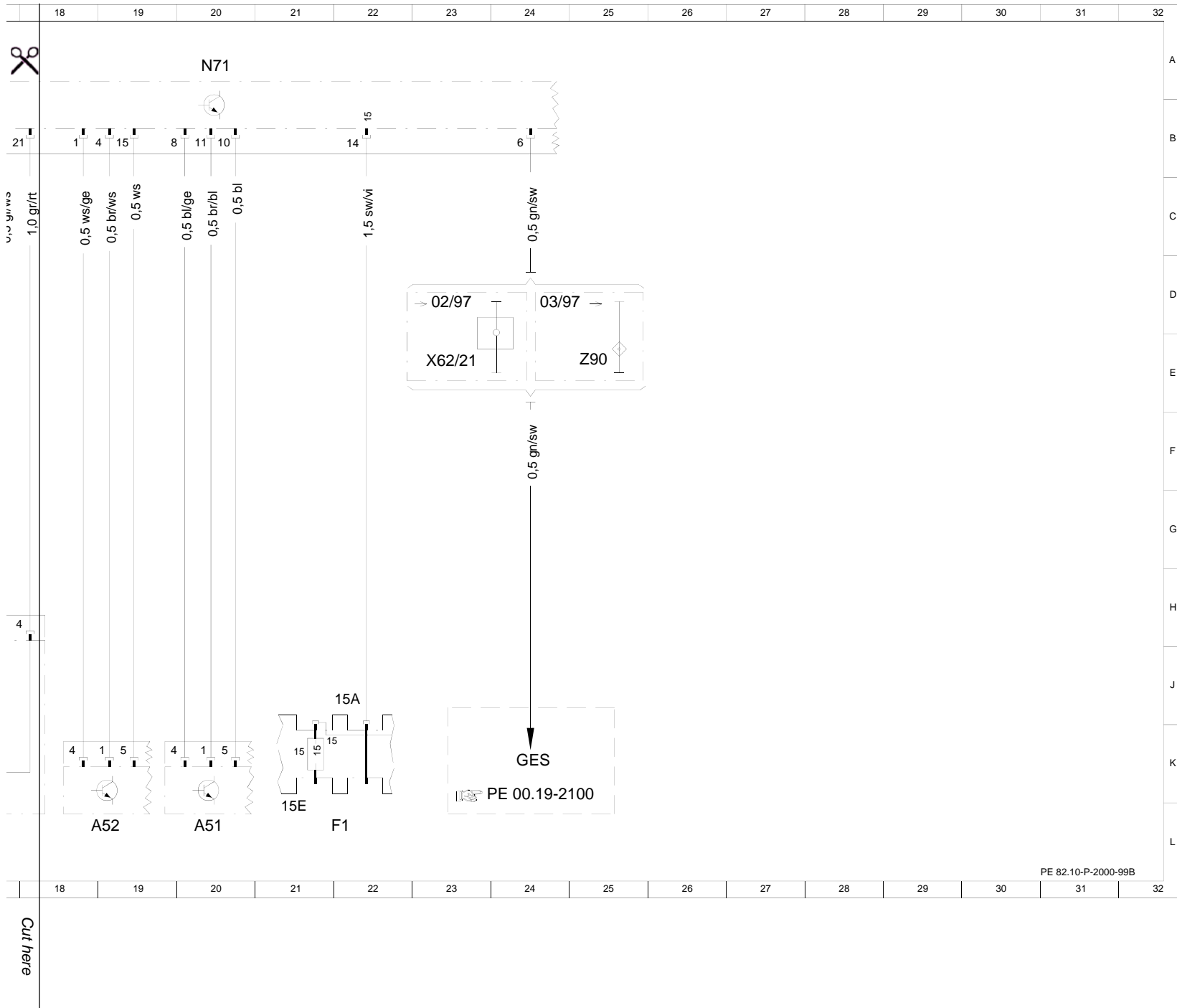
P82.10-0541-13

Document number: pe82.10-p-2000-99b
Document title: Wiring diagram of exterior lights

Code:	Designation:	Position:
A51	Headlamp range adjustment rear axle sensor	20 L
A52	Front axle sensor (headlamp range adjustment)	19 L
E1	Left front lamp unit	3 L
E1e1	Left high beam	6 L
E1e3	Left standing and parking lamp	7 L
E1e8	Left low beam xenon headlamp	4 L
E1m1	Left headlamp range adjustment motor	2 L
E1n1	Xenon headlamp control unit	4 L
E1n2	Xenon headlamp ignition module	4 L
E2	Right front lamp unit	16 L
E2e1	Right high beam	14 L
E2e3	Right standing and parking lamp	14 L
E2e8	Right low beam xenon headlamp	16 L
E2m1	Right headlamp range adjustment motor	17 L
E2n1	Xenon headlamp control unit	15 L
E2n2	Xenon headlamp ignition module	15 L
F1	Fuse and relay box	22 L
F1f15	Fuse 15	21 K
N7-1	Light module	12 L
N71	Headlamp range adjustment control unit	4 A
N71	Headlamp range adjustment control unit	12 A
N71	Headlamp range adjustment control unit	20 A
U12	Valid for left-hand drive vehicles	10 H
U13	Valid for right-hand drive vehicles	10 H
W16/3	Power ground (left wheelhouse)	6 C
W16/4	Power ground (right wheelhouse)	14 G
W18	Ground (left front seat crossmember)	15 E
X11/4	Data link connector	14 E
X24/5	Headlamp harness connector	7 F
X62/21	Terminal block (left rear traction system VSS [GES] sensor)	23 E
Z90	Left rear axle VSS [GES] connector sleeve	25 E



⤴ Affix page 2 here

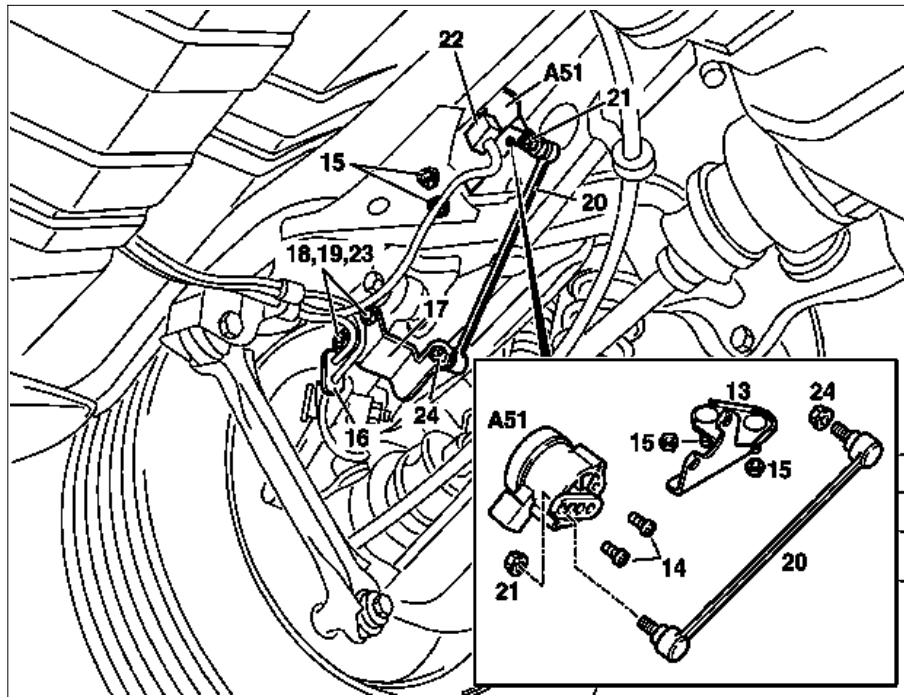


PE82.10-P-2000-60B	Legend for wiring diagram of exterior lights	MODEL 210 with CODE (612b) Xenon headlamps	
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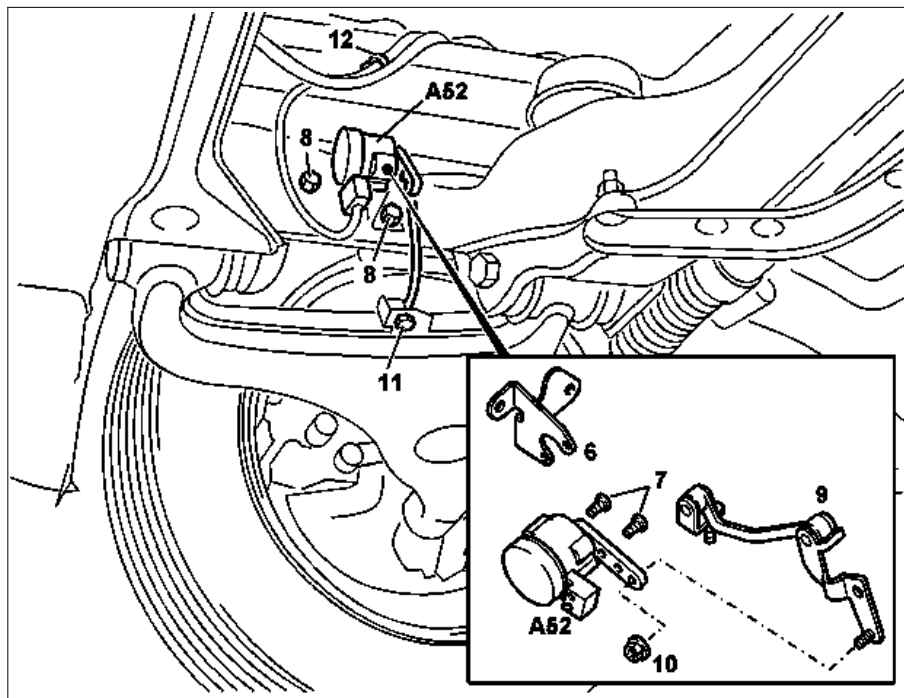
Item	Designation	Coordinate
A51	Rear axle sensor (headlamp range adjustment)	20L
A52	Front axle sensor (headlamp range adjustment)	19L
E1	Left front headlamp unit	3L
E1e1	High beam	6L
E1e3	Standing and parking lamp	7L
E1e8	Low beam xenon headlamp	3L
E1m1	Headlamp range adjustment motor	2L
E1n1	Xenon headlamp control module	4L
E1n2	Xenon headlamp ignition module	4L
E2	Right front headlamp unit	16L
E2e1	High beam	14L
E2e3	Standing and parking lamp	14L
E2e8	Low beam xenon headlamp	15L
E2m1	Right headlamp range control motor	17L
E2n1	Xenon headlamp control module	15L
E2n2	Xenon headlamp ignition module	15L
F1	Fuse and relay box	22L
F1f15	Fuse 15	21K
N7-1	Light module	12L
N71	Headlamp range adjustment control module	4A 12A 20A
U12	Valid for LHS	10H
U13	Valid for right hand drive	10H
W16/3	Ground (output ground-left wheel housing)	6C
W16/4	Ground (output ground - right wheel housing)	14G
W18	Ground (left front seat crossmember)	15E
X11/4	Data link connector (DTC readout)	14E
X24/5	Headlamp wiring harness connector	7F
X62/21	Terminal block (left rear traction system VSS [GES] sensor)	23E
Z90	Left rear axle VSS [GES] connector sleeve	25E

- 1 Assemble rear axle sensor (A51) and install, as shown in illustration.
- 2 Plug in 6-pin socket at rear axle sensor (A51).

- 13 Holder
 14 Bolt M5x8 (self-locking)
 15 Nut M8 (self-locking)
 16 Cable clip
 17 Fixture
 18 Bolt M6x20
 19 Nut M6 (self-locking)
 20 Lever
 21 Nut M6 (self-locking)
 22 6-pin socket of rear axle sensor
 23 Washer
 24 Nut M6 (self-locking)
 A51 Headlamp range adjustment rear axle sensor



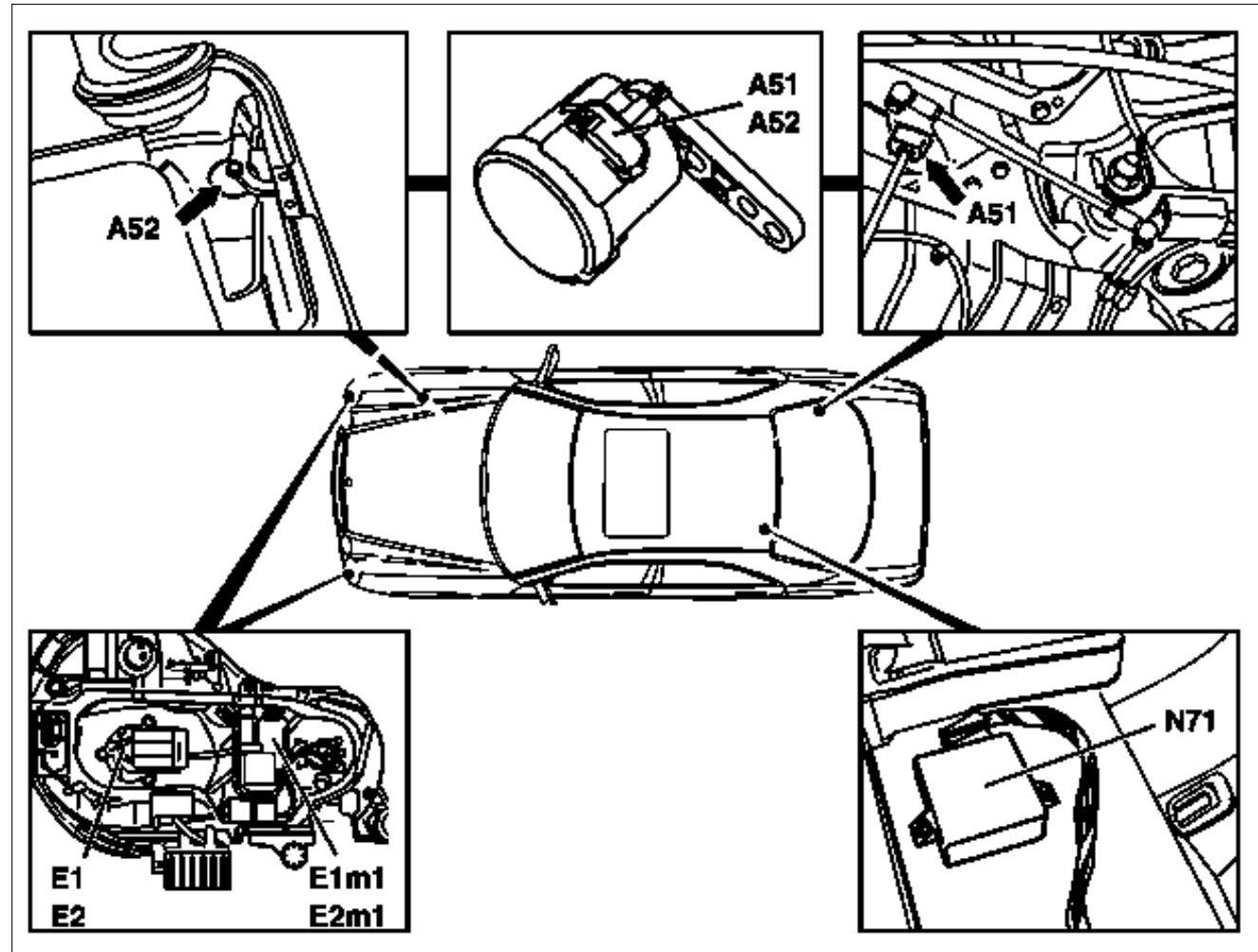
- 1 Assemble front axle sensor (A52) and install, as shown in illustration.
 - 2 Plug in 6-pin socket at front axle sensor (A52).
- 6 Holder
 - 7 Bolt M5x8 (self-locking)
 - 8 Bolt B6.3x16
 - 9 Lever
 - 10 Nut M6 (self-locking)
 - 11 Nut M6 (self-locking)
 - 12 Omega clip
- A52 Headlamp range adjustment front axle sensor












The axle sensors (A51 and A52) may look different depending on the vehicle production period and sensor manufacturer.

- A51 Rear axle sensor (headlamp range adjustment)
- A52 Front axle sensor (headlamp range adjustment)
- E1 Left front headlamp unit
- E1m1 Left headlamp range adjustment motor
- E2 Right front headlamp unit
- E2m1 Right headlamp range adjustment motor
- N71 Headlamp range adjustment control module



P82.10-0293-06

Test program - Electrical system Testing

⇒		Scope of test	Measuring instrument/ test connector	Operation/requirement	Specified value	Possible cause/remedy
1.0		Headlamp range adjustment control module (N71) Voltage supply	18 —   — 16	Disconnect connector from headlamp range adjustment control module (N71). Ignition: ON	11-14V	Model 129 Fuse F1-f10 in fuse and relay box (F1) Model 140 Fuse F4-f4 in fuse box in trunk (F4) Cables ⇒ 1.1
1.1		Control voltage	18 —   — 10	Remove connector from headlamp range adjustment control module (N71). Low-beam headlamp: ON	11-14V	Model 129 Fuse F1-f6 in fuse and relay box (F1) Model 140 Fuse F3-f7 in 35-unit fuse box (F3) in fuse and relay box (F1) Cables ⇒ 1.2
1.2		Check diagnosis cable for continuity	N71 9 —   — X11/4 35	Remove connector from headlamp range adjustment control module (N71).	< 5 Ω	Cable