

**Model 166.0**  
 up to model year 2016  
 with code 460 (Canada version)

**Model 166.0**  
 up to model year 2016  
 with code 494 (US version)

**Model 166.0**  
 up to model year 2016  
 with code 496 (Mexico version)

**Nm** Ground points

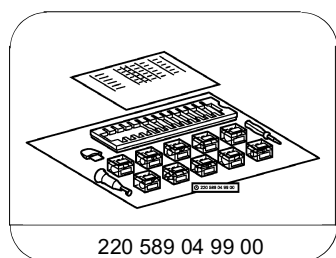
Number	Designation	Model 166
BA00.19-P-1006-01G	Right rear center section ground point W7 Nm	10

**Nm** Ground points

Number	Designation	Model 166
BA00.19-P-1007-01G	Trailer hitch ground point W7/9 Nm	10

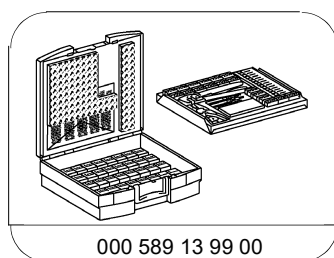
**Nm** Ground points

Number	Designation	Model 166
BA00.19-P-1016-01G	Left footwell ground point W15/2 Nm	10



220 589 04 99 00

New passenger car wiring harness repair kit

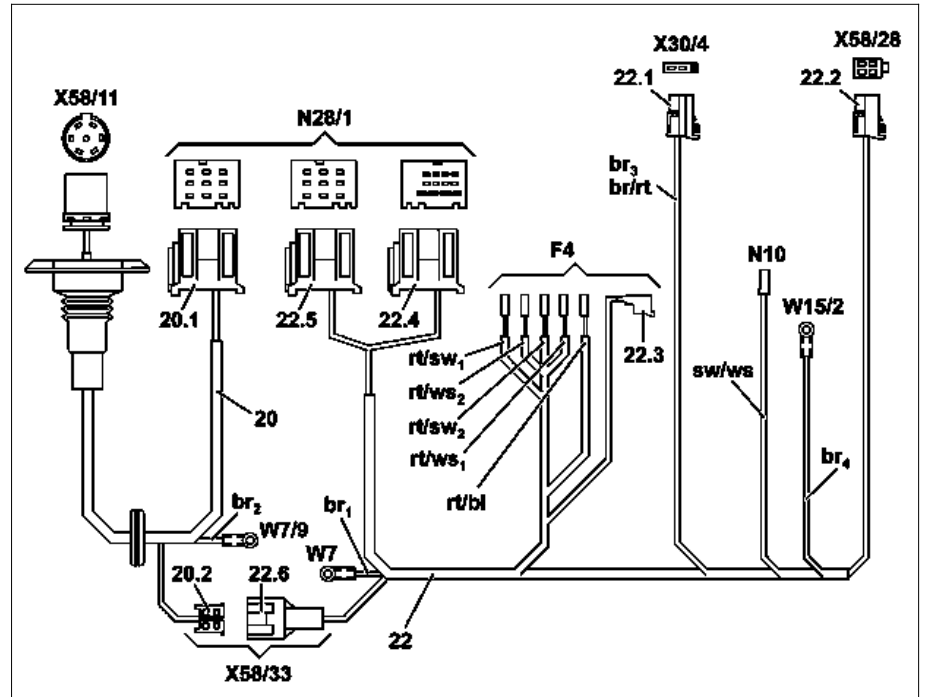


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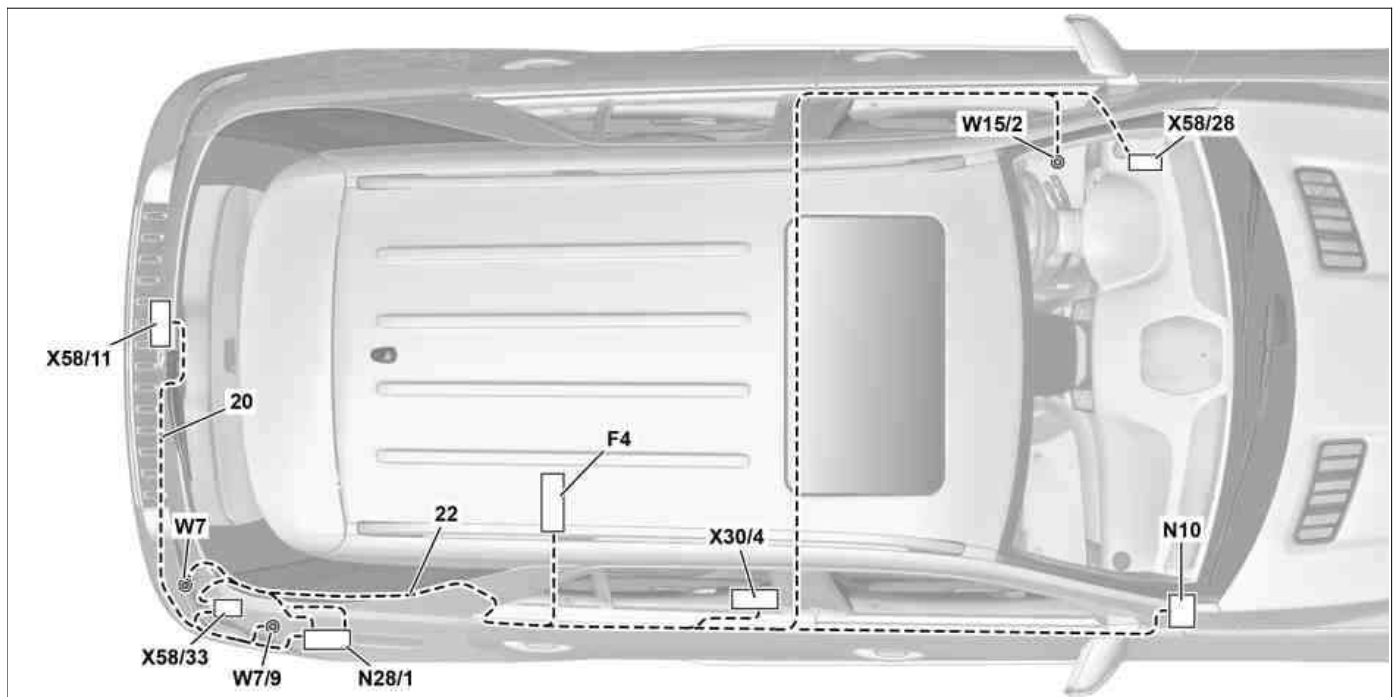
Wiring harness repair kit, basic

## Connection scheme

- 20 Trailer hitch wiring harness
- 20.1 Black 16-pin coupling
- 20.2 White 2-pin coupling
- 22 Control unit wiring harness
- 22.1 Black 2-pin connector
- 22.2 Green 4-pin connector
- 22.3 Blue fuse holder
- 22.4 Blue 12-pin coupling
- 22.5 Red 12-pin coupling
- 22.6 White 2-pin plug
- F4 Rear fuse box
- N10 SAM control unit
- N28/1 Trailer recognition control unit
- W7 Right rear center section ground point
- W7/9 Trailer hitch ground point
- W15/2 Left footwell ground point
- X30/4 Right potential distributor electrical connector (CAN)
- X58/11 Trailer socket (7-pin)
- X58/28 Electric-Brake-Control electrical connector
- X58/33 Vehicle interior/trailer hitch electrical connector
- br<sub>1</sub> Brown line
- br<sub>2</sub> Brown line
- br<sub>3</sub> Brown line
- br<sub>4</sub> Brown line
- br/rt Brown/red line
- rt/bl Red/blue line
- rt/sw<sub>1</sub> Red/black line
- rt/sw<sub>2</sub> Red/black line
- rt/ws<sub>1</sub> Red/white line
- rt/ws<sub>2</sub> Red/white line
- sw/ws Black/white line



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## Routing diagram

- 20 Trailer hitch wiring harness
- W7/9 Trailer hitch ground point

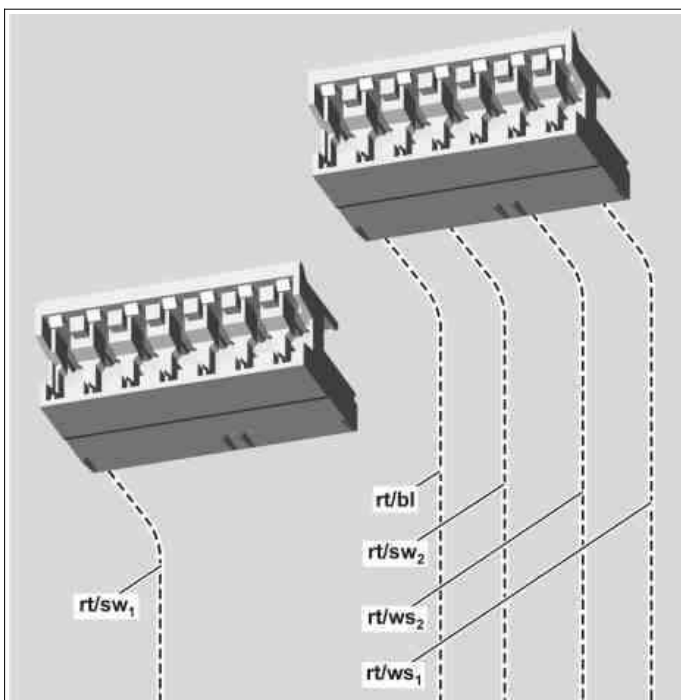
22 Control unit wiring harness  
 F4 Rear fuse box  
 N10 SAM control unit  
 N28/1 Trailer recognition control unit  
 W7 Right rear center section ground point

W15/2 Left footwell ground point  
 X30/4 Right potential distributor electrical connector (CAN)  
 X58/11 Trailer socket (7-pin)  
 X58/28 Electric-Brake-Control electrical connector  
 X58/33 Vehicle interior/trailer hitch electrical connector

- 1 Note down contact cavity assignment of green fuse holders at branch-off lines of control unit wiring harness.

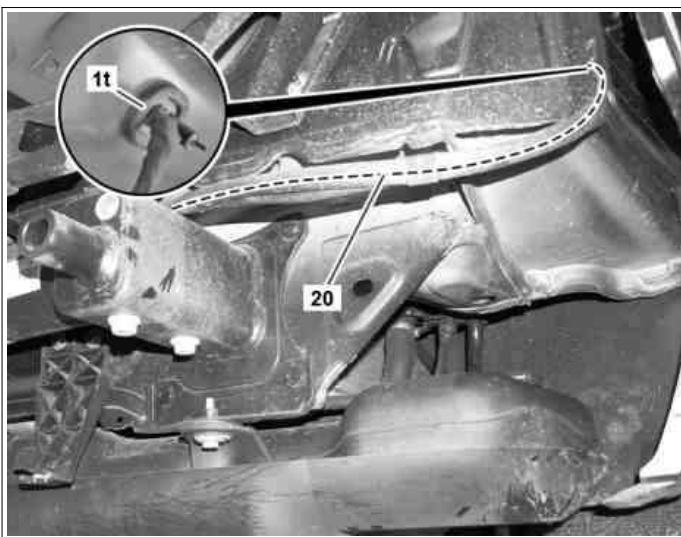
**i** The contact cavities of the green fuse holders are numbered.

- 2 Remove red/black line (rt/sw<sub>1</sub>) from the green fuse holder.
- 3 Remove red/blue line (rt/bl), red/black line (rt/sw<sub>2</sub>) and red/white lines (rt/ws<sub>1</sub>, rt/ws<sub>2</sub>) from green fuse holder.



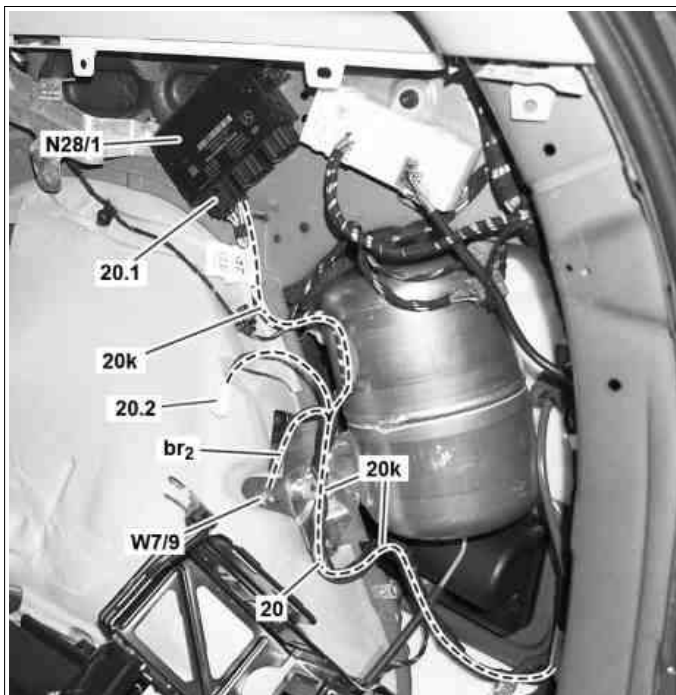
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- 4 Remove stop plug at bottom from right sidewall and route trailer hitch wiring harness (20) into vehicle.
- 5 Insert grommet (1t) into the right sidewall.
- 6 Fasten trailer hitch wiring harness (20) to the rear center section using felt bands.



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- 7 Route trailer hitch wiring harness (20) to trailer recognition control unit (N28/1) and fix in place using clamps (20k).
- 8 Connect black 16-pin connector (20.1) to trailer recognition control unit (N28/1).
- 9 Connect brown line (BN<sub>2</sub>) of the trailer hitch wiring harness (20) to trailer hitch ground point (W7/9) Nm.

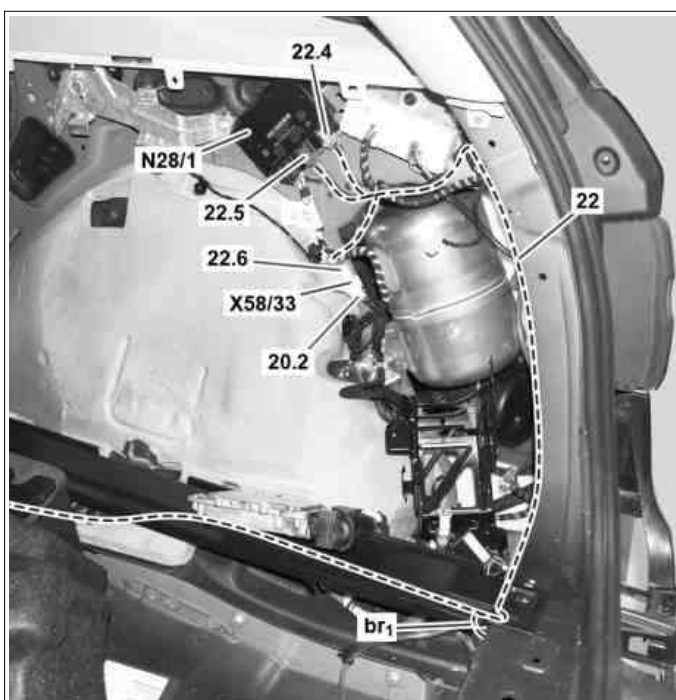


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- 10 Connect blue 12-pin connector (22.4) of control unit wiring harness (22) to trailer recognition control unit (N28/1).
- 11 Connect red 12-pin connector (22.5) of control unit wiring harness (22) to trailer recognition control unit (N28/1).
- 12 Connect white 2-pin plug (22.6) to white 2-pin connector (20.2).

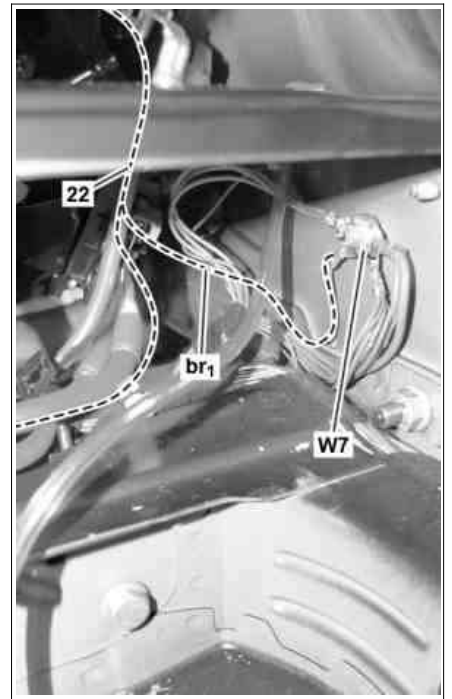
i This makes the electrical connection for the vehicle interior/trailer hitch (X58/33).

- 13 Route control unit wiring harness (22), as shown, along existing wiring harnesses to the crossmember under the right rear seat and fix in place using cable ties.
- 14 Route brown line (BN<sub>1</sub>) of control unit wiring harness (22) to right side of rear center section.



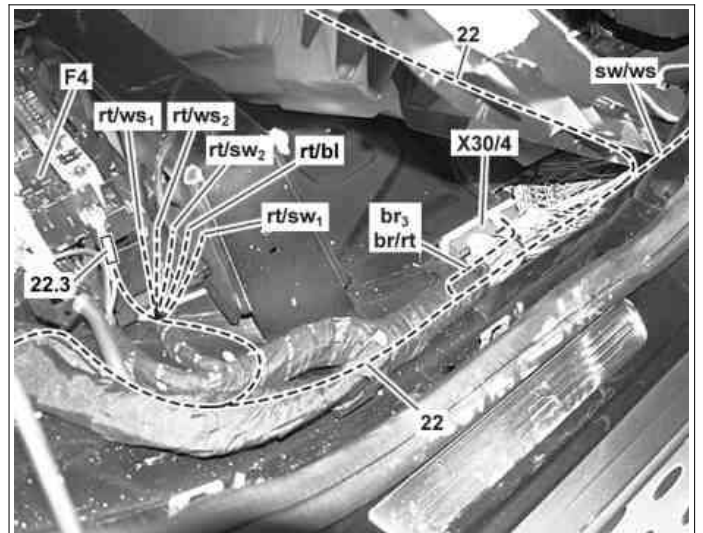
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- 15 Connect brown line (br<sub>1</sub>) of the control unit wiring harness (22) to right rear center section ground point (W7)  $\overline{\text{Nm}}$ .



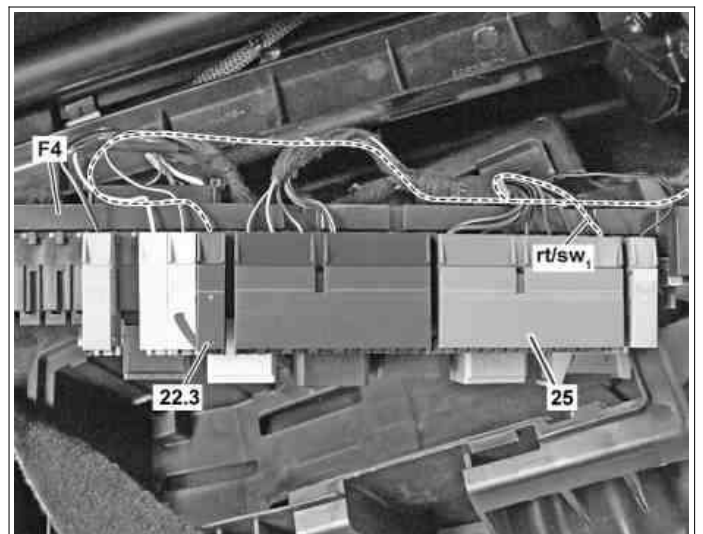
P31.19-2616-03

- 16 Lift right rear floor covering.
- 17 Route branch-off line with the blue fuse holder (22.3), the red/blue line (rt/bl), the two red/black lines (rt/sw<sub>1</sub>, rt/sw<sub>2</sub>) and the two red/white lines (rt/ws<sub>1</sub>, rt/ws<sub>2</sub>) to rear fuse box (F4).
- 18 Route twisted brown line (BN<sub>3</sub>) and brown/red line (BN/RD) to right potential distributor electrical connection (CAN) (X30/4).



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- 19 Detach green fuse holder (25) from rear fuse box (F4).
- 20 Install red/black line (rt/sw<sub>1</sub>) in contact cavity 1 of the green fuse holder (25).
- 21 Attach green fuse holder (25) to rear fuse box (F4).
- 22 Attach blue fuse holder (22.3) to rear fuse box (F4).

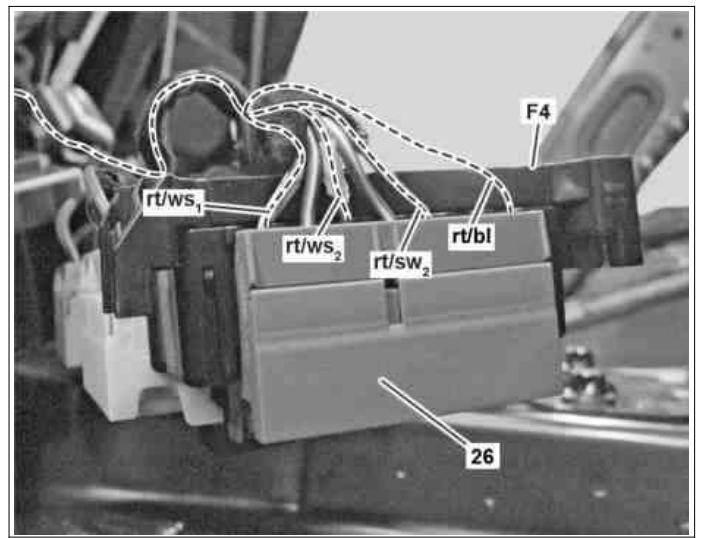


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- 23 Detach green fuse holder (26) from rear fuse box (F4).
- 24 Install red/blue line (rt/bl), red/black line (rt/sw<sub>2</sub>) and red/white lines (rt/ws<sub>1</sub>, rt/ws<sub>2</sub>) in the green fuse holder (26).

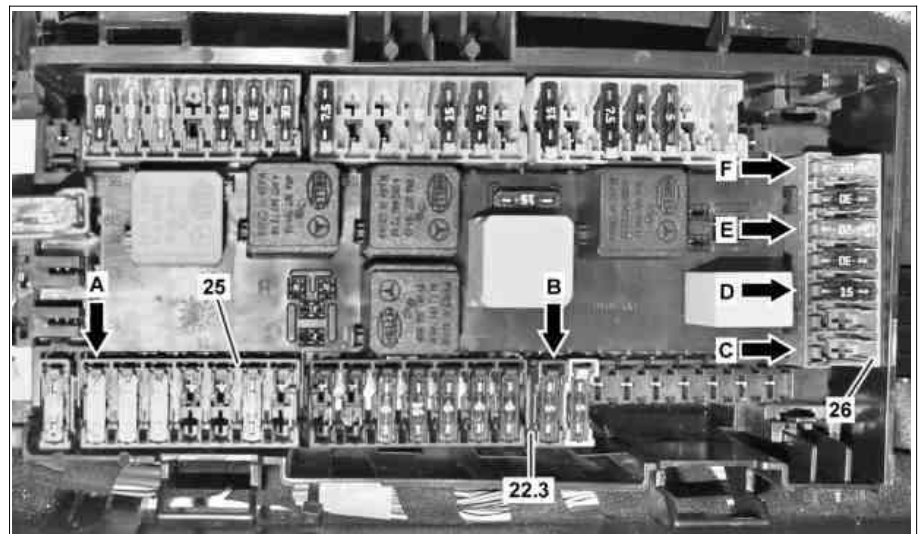
**i** Observe previously noted contact cavity assignments.

- 25 Attach green fuse holder (26) to rear fuse box (F4).



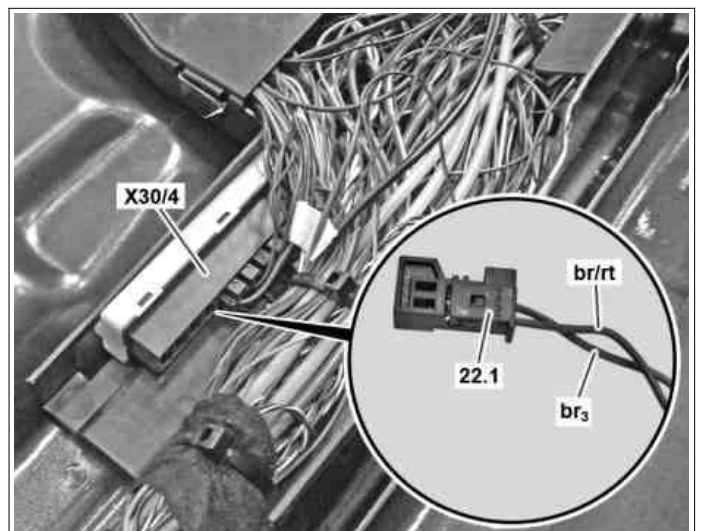
P31.19-2643-11

- 26 Insert electrical fuse 101 with a fuse rating of 20 amps into slot 1 (arrow A) of the green fuse holder (25).
- 27 Insert electrical fuse 115 with a fuse rating of 5 amps into slot (arrow B) of the blue fuse holder (22.3).
- 28 Insert electrical fuse 126 with a fuse rating of 15 amps into slot 3 (arrow A) of the green fuse holder (26).
- 29 Insert electrical fuse 124 with a fuse rating of 30 amps into slot 1 (arrow A) of the green fuse holder (26).
- 30 Insert electrical fuse 128 with a fuse rating of 20 amps into slot 5 (arrow A) of the green fuse holder (26).
- 31 Insert electrical fuse 130 with a fuse rating of 20 amps into slot 7 (arrow A) of the green fuse holder (26).



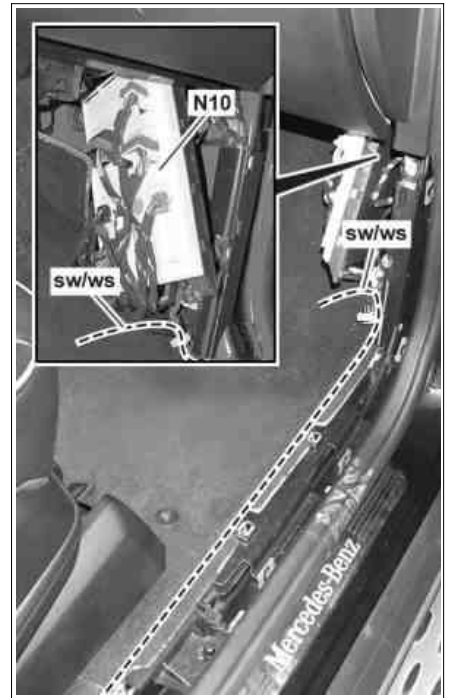
P31.19-2646-05

- 32 Install black 2-pin connector (22.1) with twisted brown line (br<sub>3</sub>) and brown/red line (br/rt) into any free slot of the right potential distributor electrical connection (CAN) (X30/4).



- 33 Route black/white line (BK/WH) along existing lines to SAM control unit (N10) and fix in place using cable ties.

**i** Use a pull-through device.



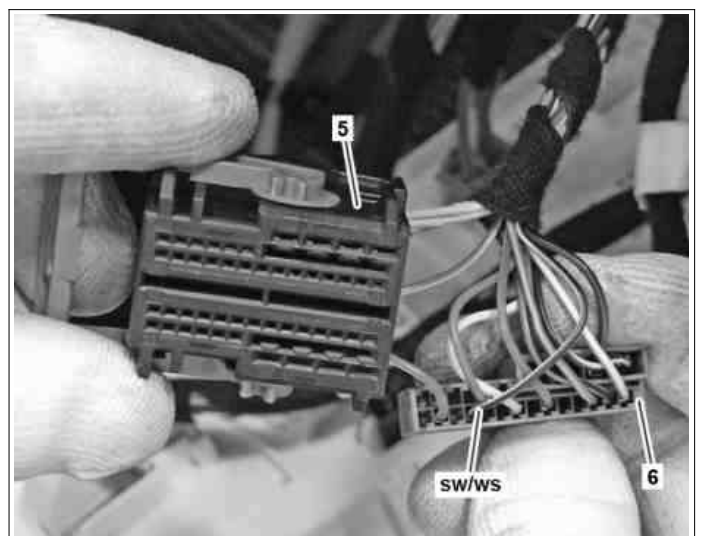
P31.19-2647-03

- 34 Detach black, 48-pin connector (5) from SAM control unit (N10).



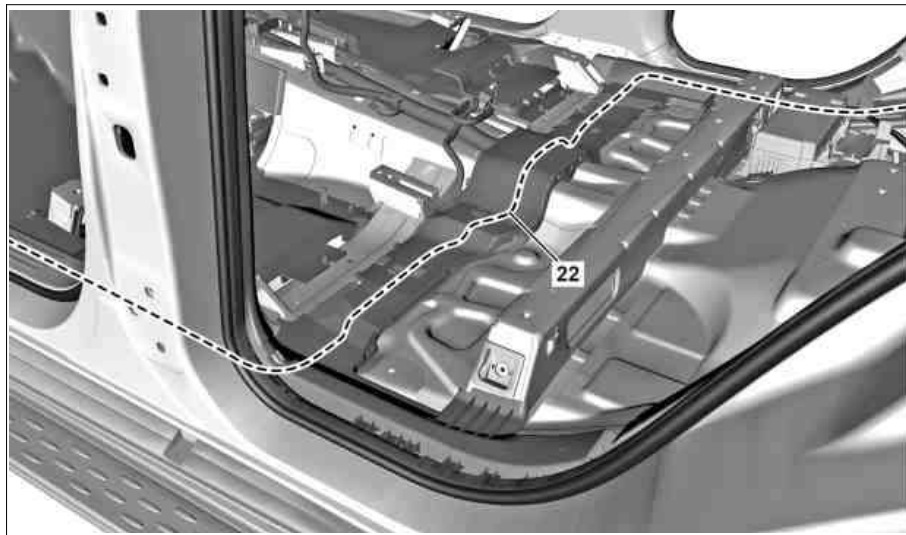
P31.19-2567-11

- 35 Remove gray, 24-pin connector insert (6) from the carrier body of the black, 48-pin connector (5).
- 36 Install black/white line (sw/ws) in contact cavity chamber 35 of the gray 24-pin connector insert (6).
- 37 Install gray, 24-pin connector insert (6) into the carrier body of the black, 48-pin connector (5).
- 38 Connect black, 48-pin connector (5) to SAM control unit.



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- 39 Fold back rear floor covering.
- 40 Open cable ducts of frame floor assembly up to driver footwell.
- 41 Route control unit wiring harness (22) in cable ducts up to the driver footwell and fix in place using cable ties.
- 42 Close cable ducts of frame floor assembly.
- 43 Fold back rear floor covering and straighten.



P31.19-2651-05

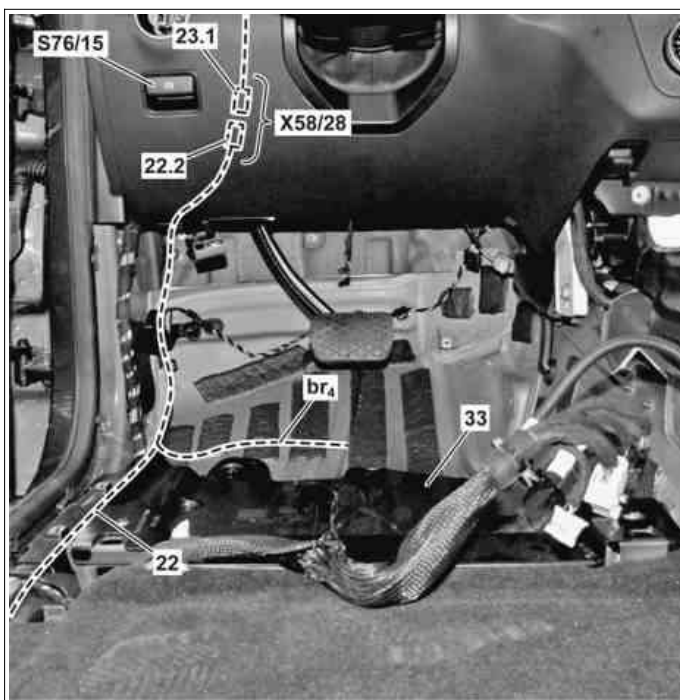
- 44 Route branch-off line with green, 4-pin connector (22.2) behind the instrument panel to the 4-pin, plug connector (23.1) and fix in place using cable ties.

**i** The 4-pin, plug connector (23.1) is located at the right next to the electric parking brake switch (S76/15).

- 45 Connect green 4-pin connector (22.2) to 4-pin plug (23.1).

**i** This serves to make the electrical connection for the Electric Brake Control (X58/28).

- 46 Remove footwell cover (33).



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- 47 Route brown line (BN<sub>4</sub>) to right footwell ground point (W15/2) and fix in place using cable ties.
- 48 Mount round cable lug with Ø 6 mm onto the brown line (br<sub>4</sub>).

**i** The crimper is included in the **S** basic wiring harness repair kit and the **S** passenger car supplementary wiring harness repair kit.

- 49 Connect brown line (BN<sub>4</sub>) to left footwell ground point (W15/2) **Nm**.

- 50 Install footwell cover again.



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