



MBLight Beam Effects Module

Installation Guide

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WARNING

This device is designed solely for use by properly trained and qualified automotive electronics experts, who are familiar with the dangers related to handling electrical equipment and systems. This manual intends to serve as a guide in the installation of an adapter, failure to follow these instruction could result in a hazardous condition, destruction of car equipment and the retrofit adapter.

DISCONNECT ANY CHARGING EQUIPMENT BEFORE INSTALLATION AND CODING:

car battery charger, notebook charger, etc.

There are NO user serviceable parts contained in a retrofit adapter. Unscrewing or opening your adapter will render your warranty void. Should your retrofit adapter require repair, please contact us directly and we will assist you.

The manufacturer shall not be legally responsible for any equipment damage or personnel injury caused by incorrect installation by unqualified technicians.



Preface

This document will help you install the MBLight Beam Effects Module for Mercedes Benz W290, W290FL and cars equipped with MultiBeam Hedlights (W118, W167, W177, W205FL, W213, W213FL, W222FL, W238, W238FL, W247, W253FL, W257, W257FL, W463(2019->>))

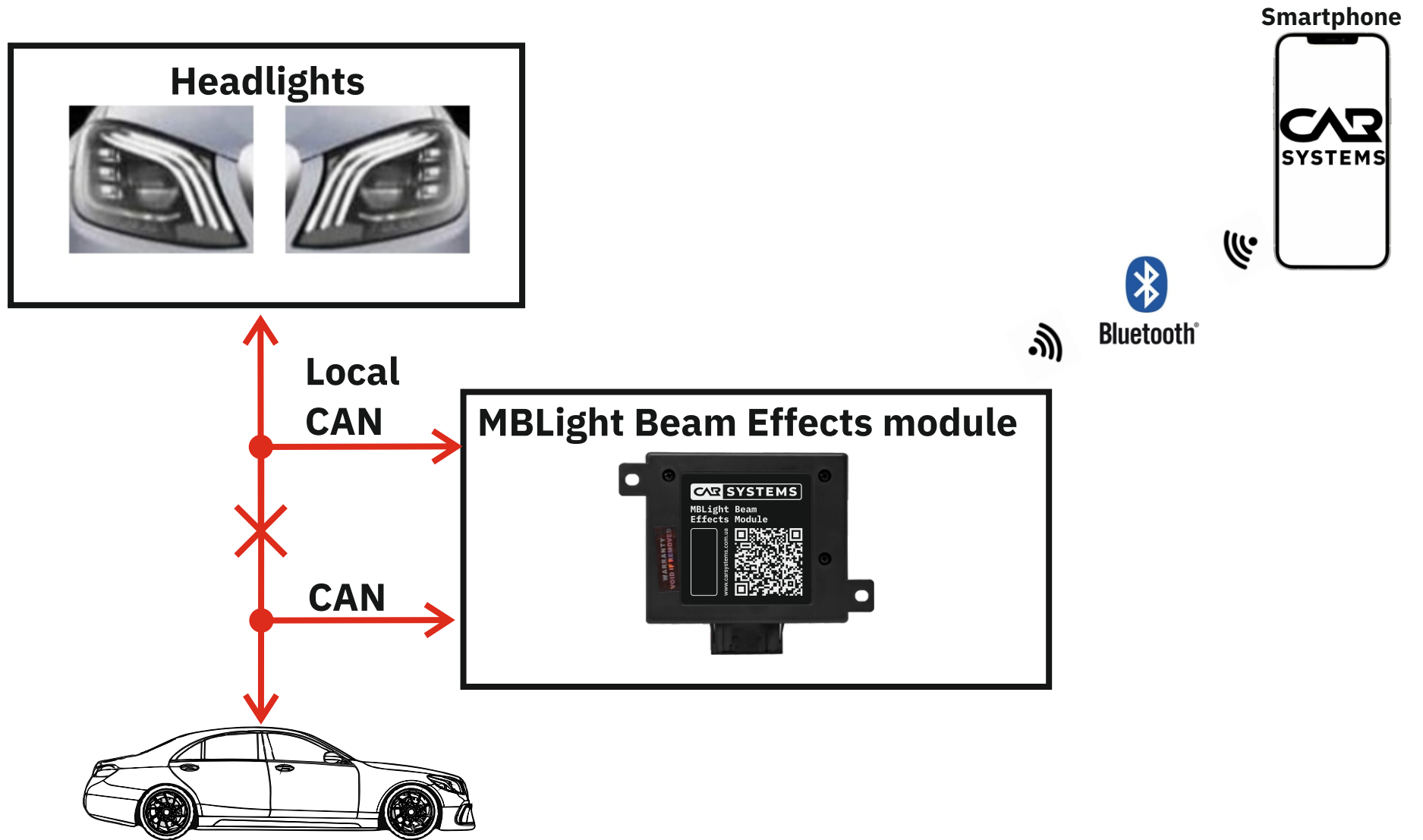
Audience

This document is intended for CarSystems customers, partners, and employees to get familiar with MBLight Beam Effects Module. It provides instructions and graphical content for a user to get started with his first installation.

Pre Installation Skills

This document expects that you are familiar with automotive electronics, knowledge and experience in that field. High automotive diagnostic skills are welcome.

Facelift Block Diagram



PER CAN Potential Distributor, positive point and ground point location

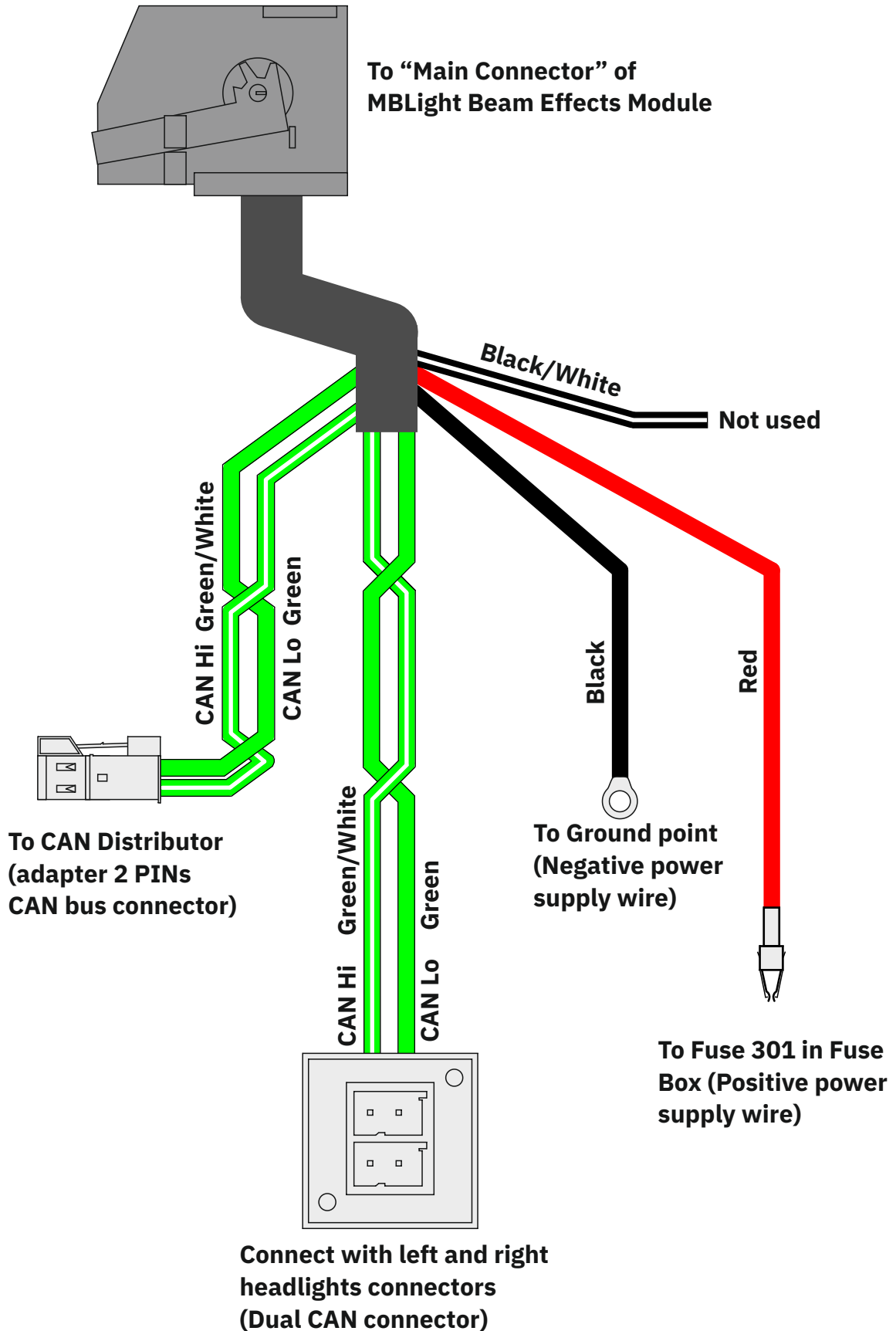
Retrofit adapter connection points - depending on the car body model (see the table below)

Body type	PER CAN Distributor	PER CAN Color	Positive point	Ground point	Notation
W118	X30/27	Green/White Green	Fuse f118 (F152/4)	W15	pages 21-23
W167	X30/27	Green/White Green	Fuse f201 (F152/1)	W15/2	pages 24-26
W177	X30/27	Green/White Green	Fuse f118 (F152/4)	W15	pages 27-29
W205 Facelift	X30/27	Green/White Green	Fuse f212 (K40/6)	W15/5	pages 30-32
W213	X30/27	Green/White Green	Fuse f220 (K40/6)	W15/5	pages 33-35
W213 Facelift	X30/27	Green/White Green	Fuse f220 (K40/6)	W15/5	pages 36-38
W222 Facelift	X30/27	Green/White Green	Fuse f308 (F1/3)	W85/2	pages 39-41
W238	X30/27	Green/White Green	Fuse f214 (K40/6)	W15/5	pages 42-44
W238 Facelift	X30/27	Green/White Green	Fuse f206 (K40/6)	W34	pages 45-47
W247	X30/27	Green/White Green	Fuse f118 (F152/4)	W34	pages 48-50
W253 Facelift	X30/27	Green/White Green	Fuse f220 (K40/6)	W34	pages 51-53
W257	X30/27	Green/White Green	Fuse f207 (K40/6)	W15/5	pages 54-56
W257 Facelift	X30/27	Green/White Green	Fuse f206 (K40/6)	W15/5	pages 57-59
W290	X30/27	Green/White Green	Fuse f206 (K40/6)	W15/5	pages 60-62
W290 Facelift	X30/27	Green/White Green	Fuse f206 (K40/6)	W15/5	pages 63-65
W463(19->>)	X30/27	Green/White Green	Fuse f204 (K40/6)	W29/1	pages 66-68

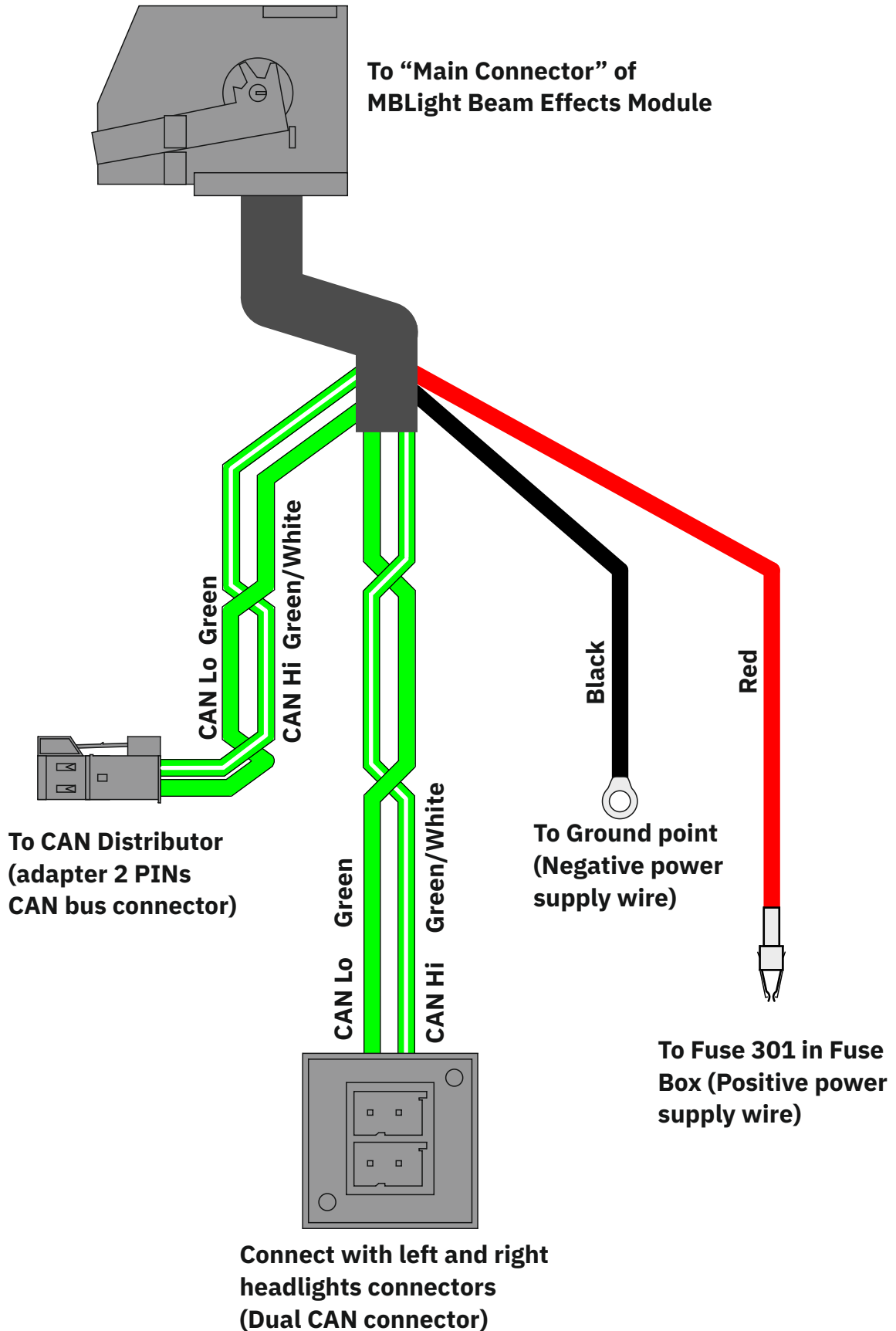
Beam Effects Module connection points



Wiring Harness (for W222FL)



Wiring Harness (for all other models)



Module installation

When CAN Distributor, fuse box and ground point identified, you can start the installation.

Start with connecting the black wire from the module to the ground point. Connect the red wire to the fuses in Fuse Box and install the fuse which we supply in the kit. Now you can connect male connector to CAN Distributor. Then you should disconnect the Left and Right headlights 2 PINs CAN bus plugs from the Peripheral CAN Distributor and connect to dual connector from the beam effects module. To do this you first need to identify these two headlights CAN bus plugs in the CAN Distributor. It is really easy, you need to turn on the ignition and remove one by one 2 PINs plugs from the CAN distributor when the headlight plug is disconnected the headlight without CAN bus connection enters limp-home mode and the headlight low beam start to illuminate. When 2 headlights connectors are identified you can connect them to a dual connector from the adapter.

Strobe activation/deactivation

Attention! The use of a stroboscope on public roads may be prohibited in your country. Use this feature at your own risk. The manufacturer and the seller are not responsible for any direct or indirect damage caused as a result of using this function.



1. Press and hold the hang up button (on the steering wheel) to enter the strobe mode.
2. Use the high beam flashing lever to turn on the strobe. The stroboscope will flash as long as you hold the lever.
3. To exit the strobe mode, press and hold the hang up button.

Software. Main features.

We provide MBLight software for iOS10 and above.

With the MBLight app you'll get the most of your multibeam headlights! Custom animation and light effects - configured and controlled from your phone.

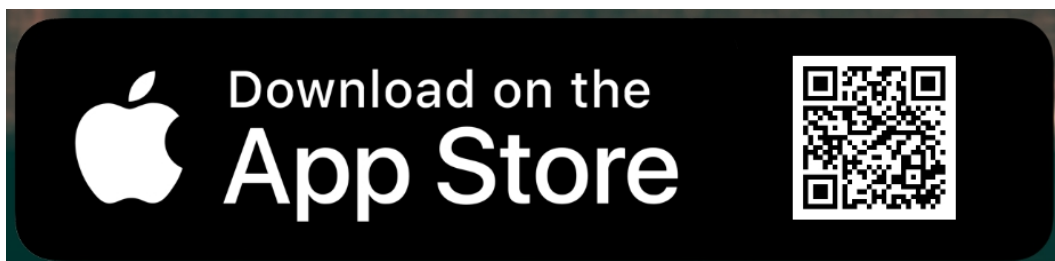
With MBLight app you can:

- **Select the text animation that will be played when you lock the car**
- **Select the text animation that will be played when you unlock the car**
- **Select a custom animation that will be played when you lock the car**
- **Select a custom animation that will be played when you unlock the car**
- **Select an animation from the animation library**
- **Create your own animation**
- **Edit animation**
- **Use the spotlight function**

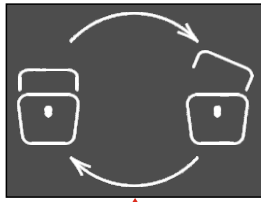
You can download this application by link:

<https://apps.apple.com/app/mblight/id1534711306>

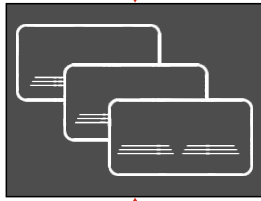
or with QR-code:



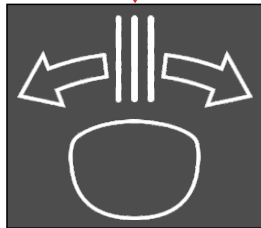
Software. Main menu.



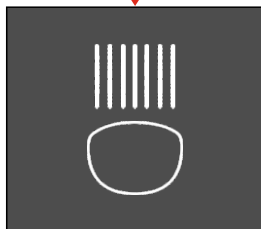
Lock/Unlock car config



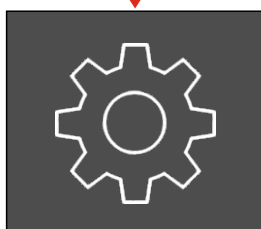
Animations library



Spot light

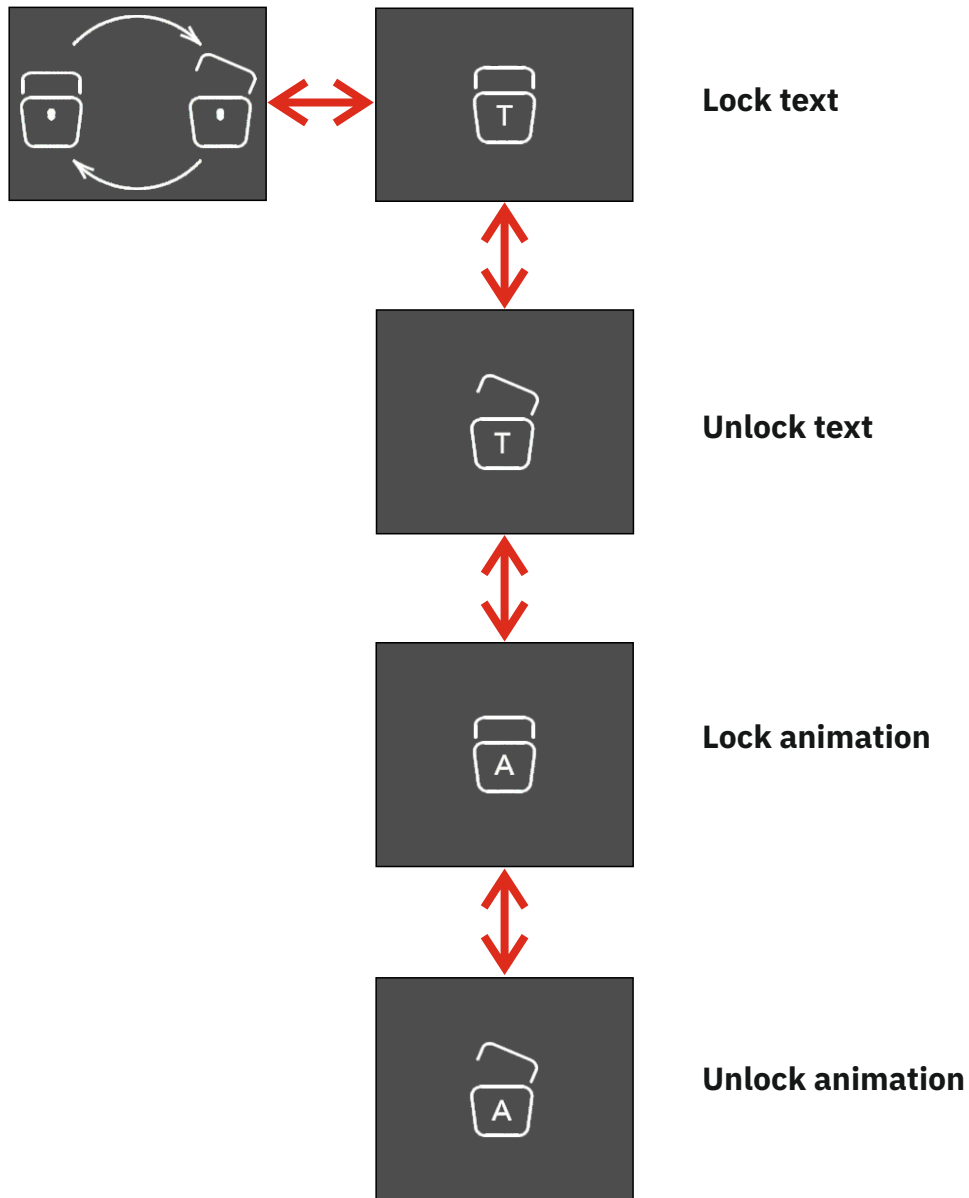


Club strobe

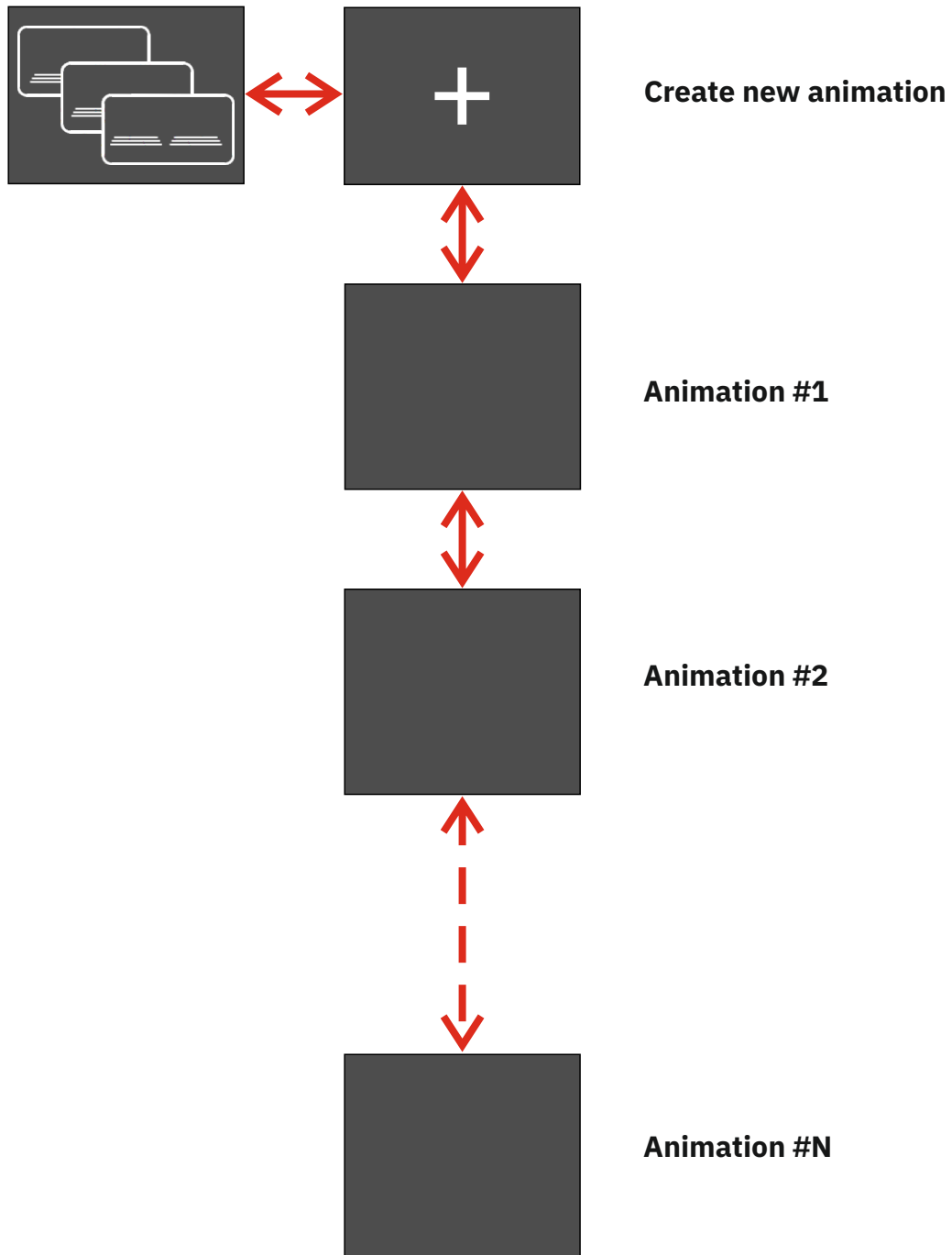


Settings

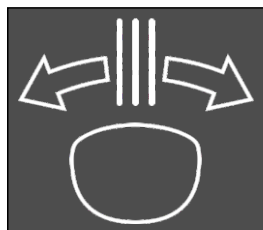
Software. Submenu Lock/Unlock car config.



Software. Submenu Animation library.

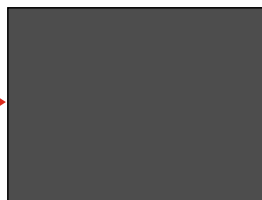
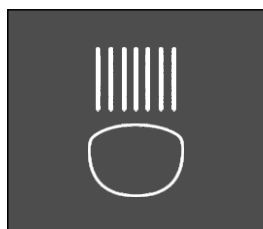


Software. Submenu Spot light.



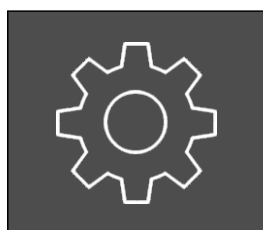
Start Spot light mode

Software. Submenu Club strobe.



Start Club strobe mode

Software. Submenu Settings.

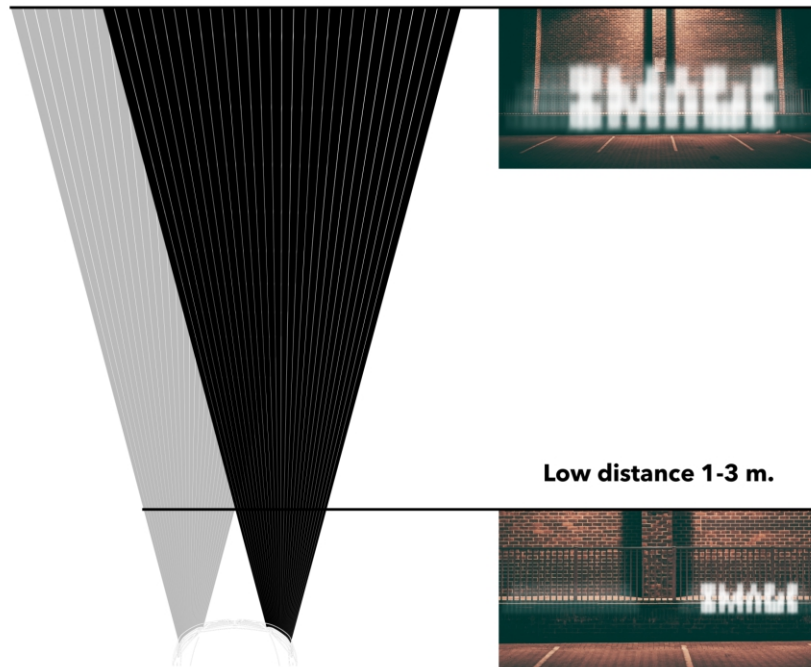


**Headlights configuration,
software and hardware
information**

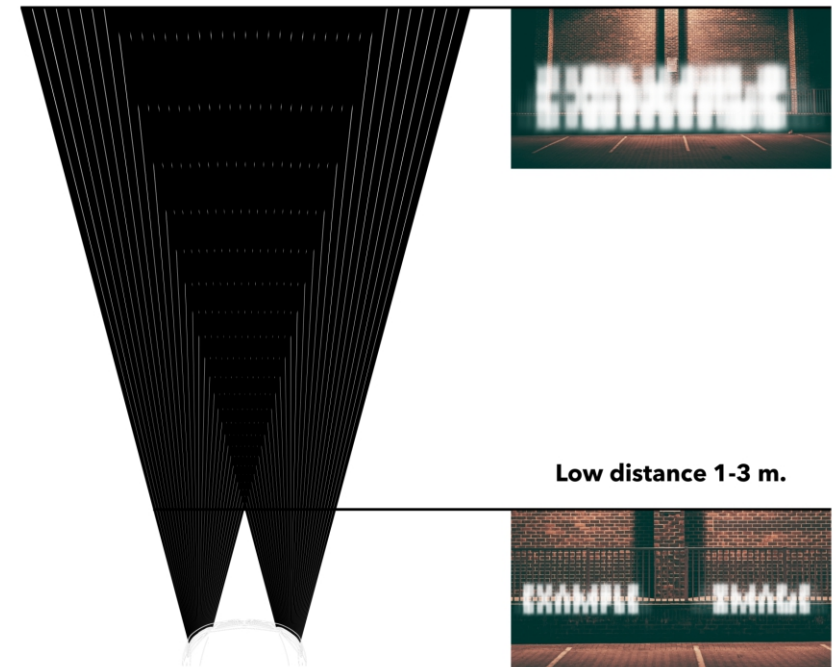
Application and headlights limitations

The quality of the animation depends on the distance between the front of the car and the wall. Also, the quality of the animation is affected by the simultaneous use of headlights. Better to use them one at a time.

Use only right light animation:

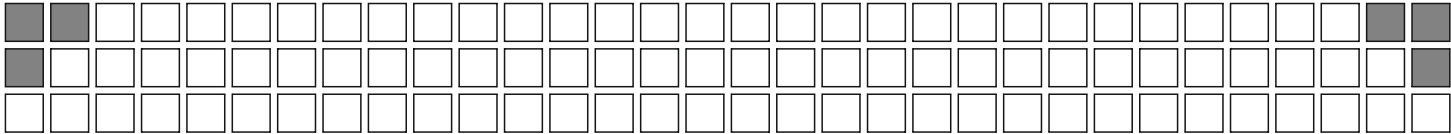


Use both lights animation:



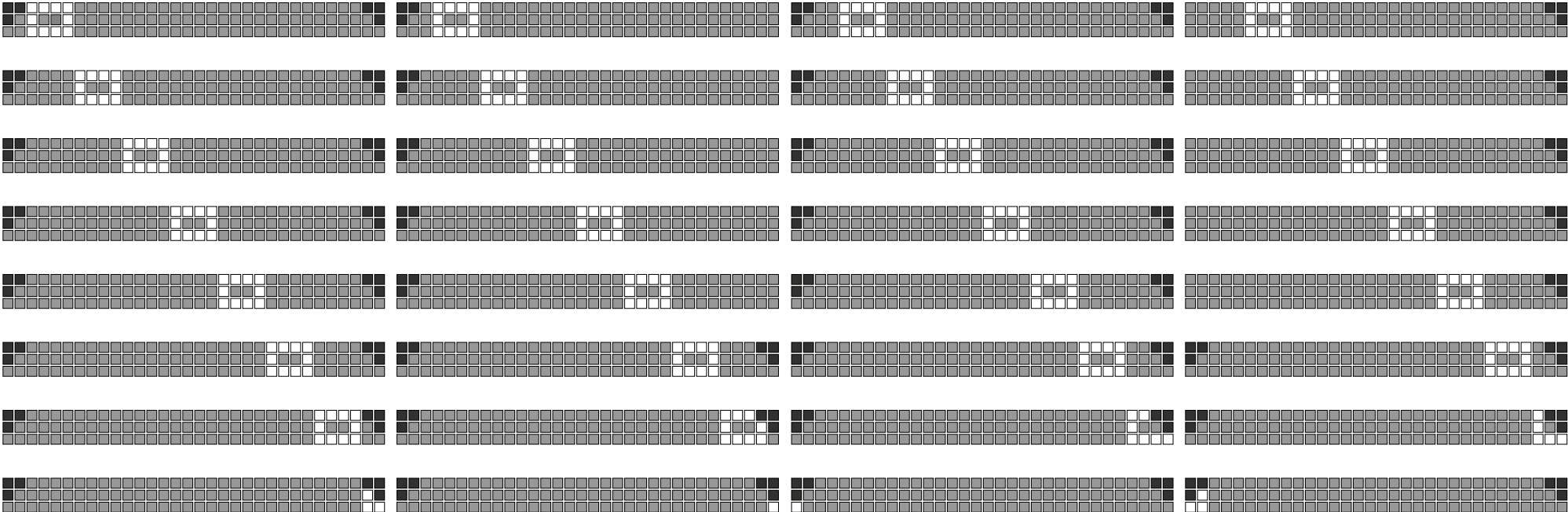
Pixels matrix limitations.

Image from every headlight consist of pixels matrix (32 x 3). 3 pixels on each side are not available.



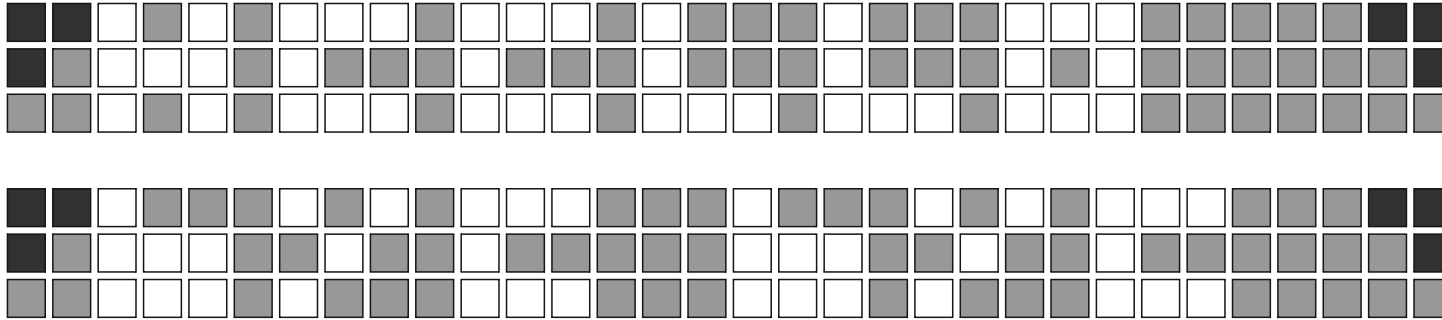
Animation limitations.

Animation is only 32 frames for each video scene.



Text scrolling limitations.

Scrolling text length is 15 symbols in lock and unlock mode.



Package list

1. MBLight Beam Effects module - 1pcs
2. Wiring harness - 1pcs
3. Fuse - 1pcs

Contacts

- 
Mail: support@carsystems.com.ua
- 
Telephone: [+38 \(096\) 809-00-11](tel:+380968090011)
- 
Skype: [carsystems.support](https://www.skype.com/add?contact=carsystems.support)
- 
Viber: [+38 \(096\) 809-00-11](tel:+380968090011)
- 
Telegram: [@CarSystems_Support](https://www.telegram.com/add?contact=@CarSystems_Support)

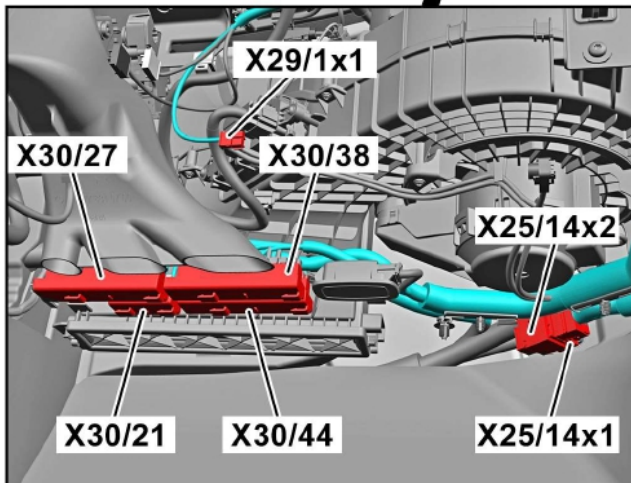
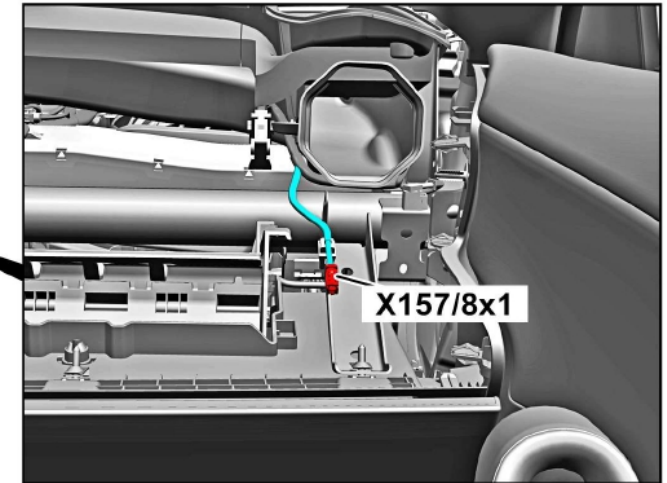
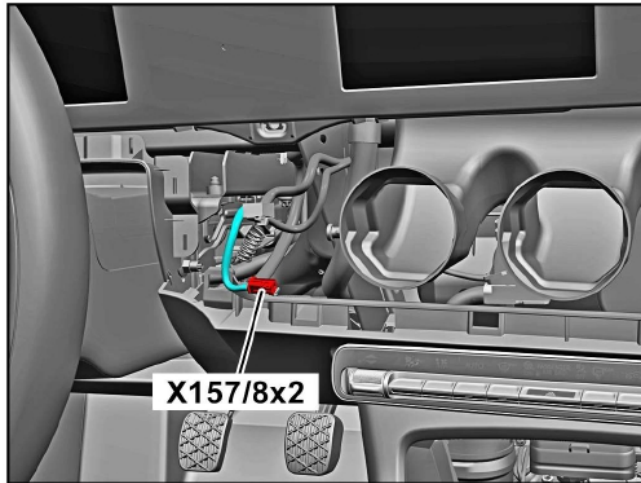
We provide technical support during our working hours:

**Monday to Friday (except public holidays),
from 10:00 to 19:00 (UTC+2:00).**

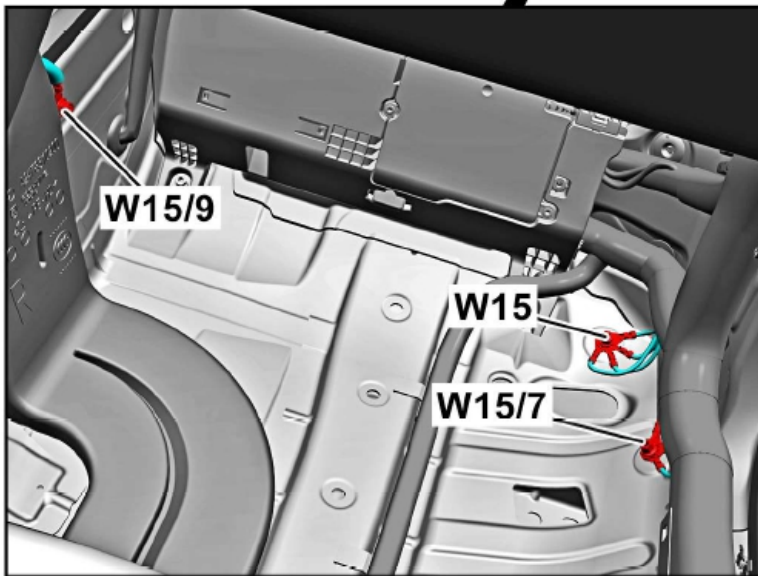
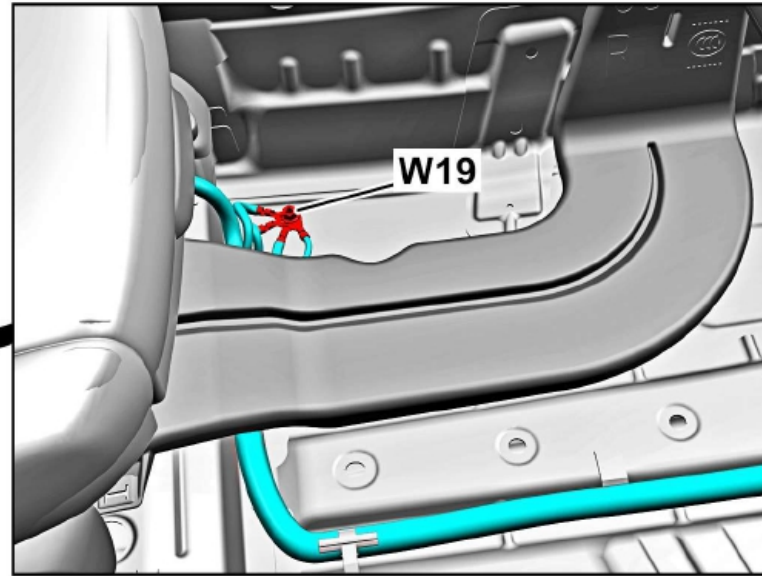
Due to the increasing amount of unsolicited emails we tightened anti-spam. If your letter has not been delivered, please contact us via Skype or through the inquiry form in our website **carsystems.com.ua**



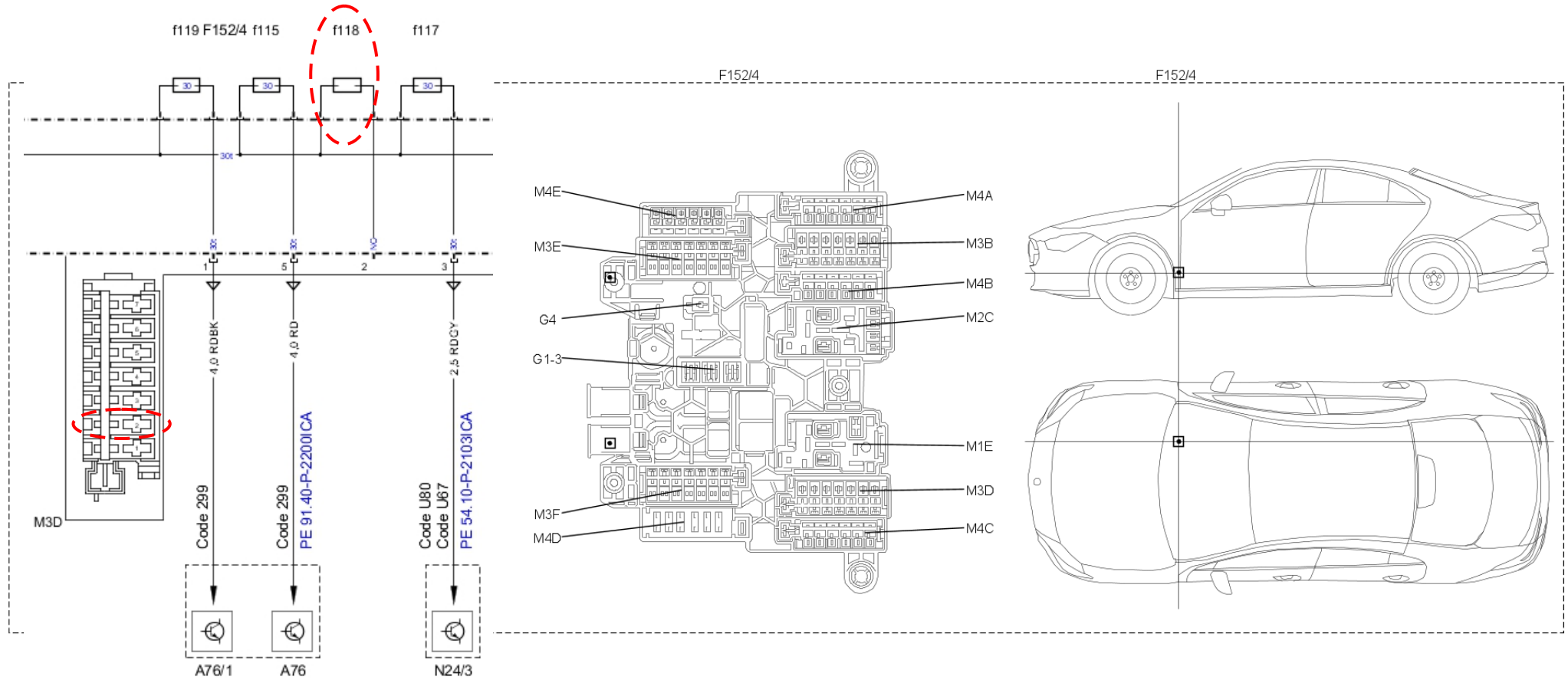
Appendix 1. W118 X30/27 location



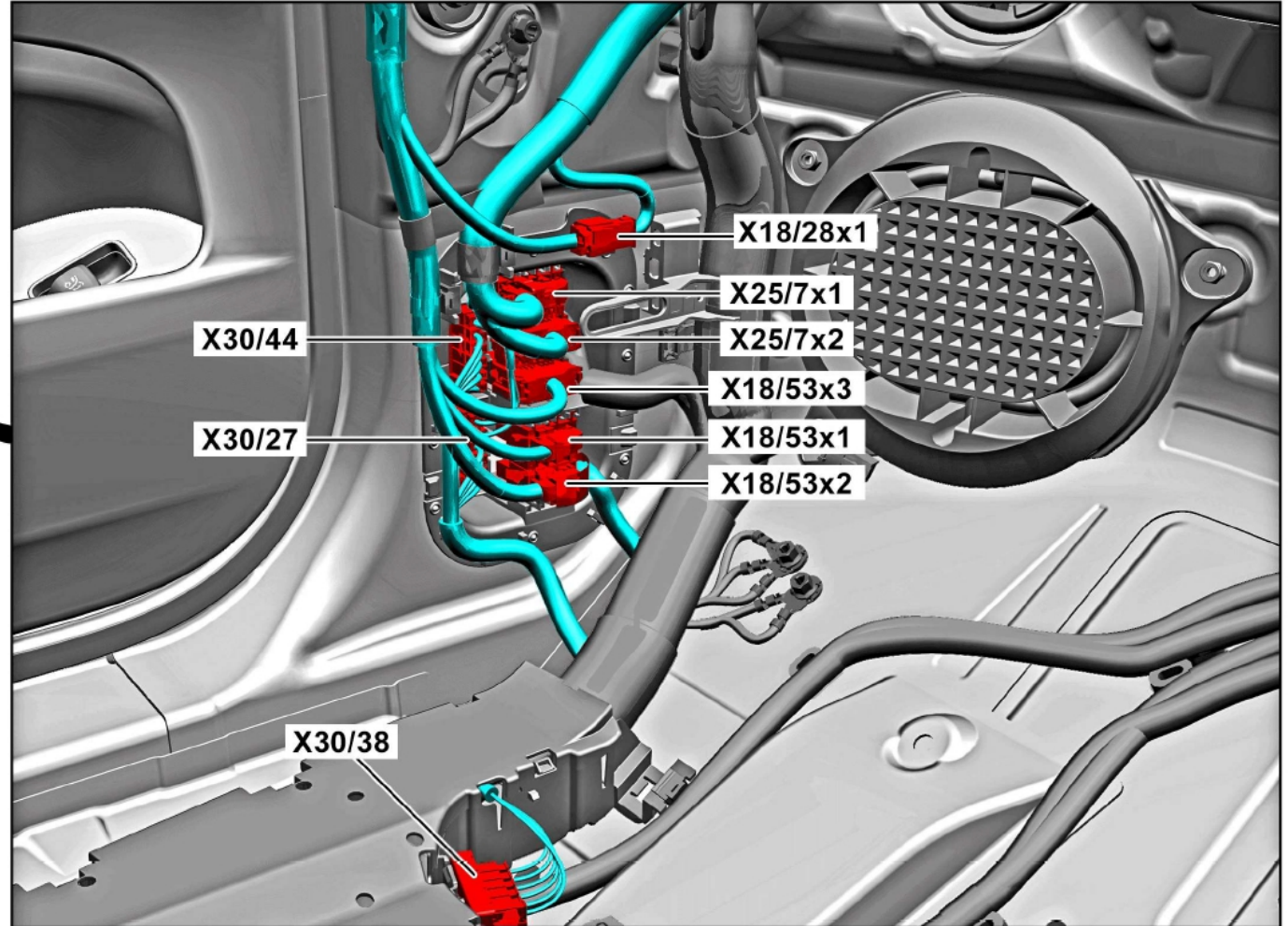
Appendix 2. W118 ground point W15 location



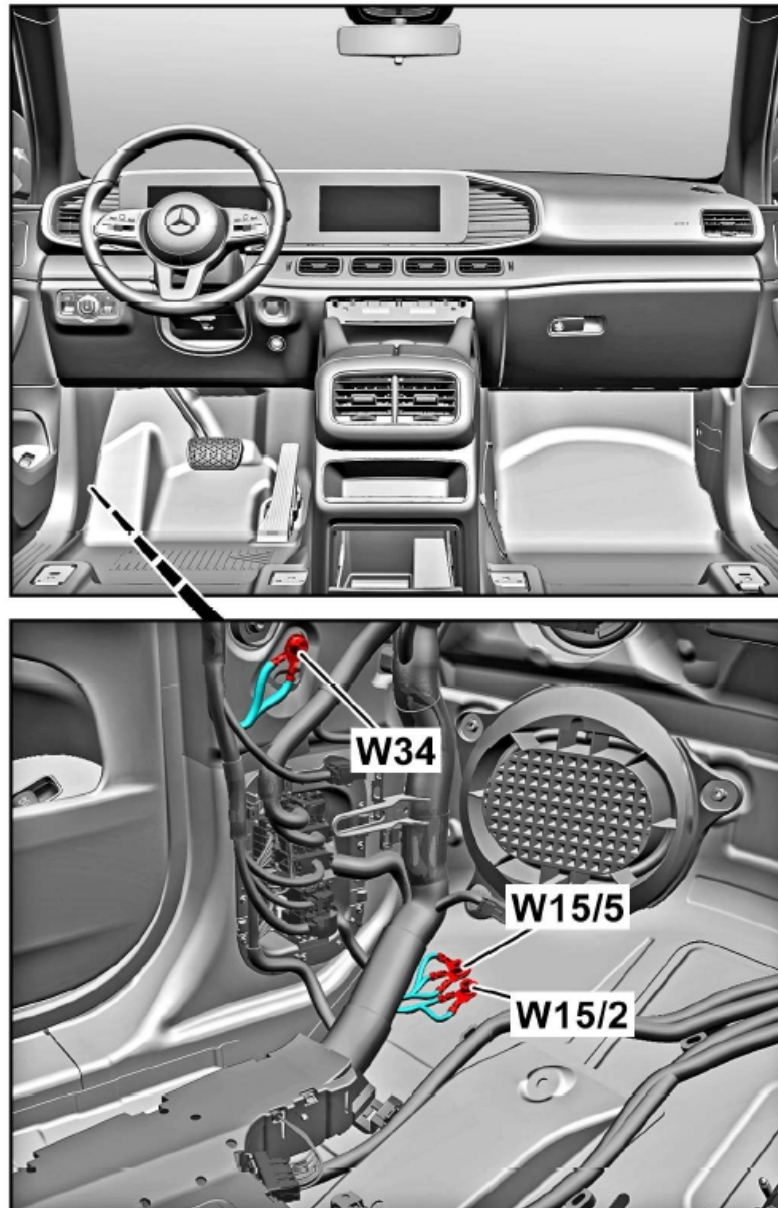
Appendix 3. W118 F152/4 fuse and relay module location



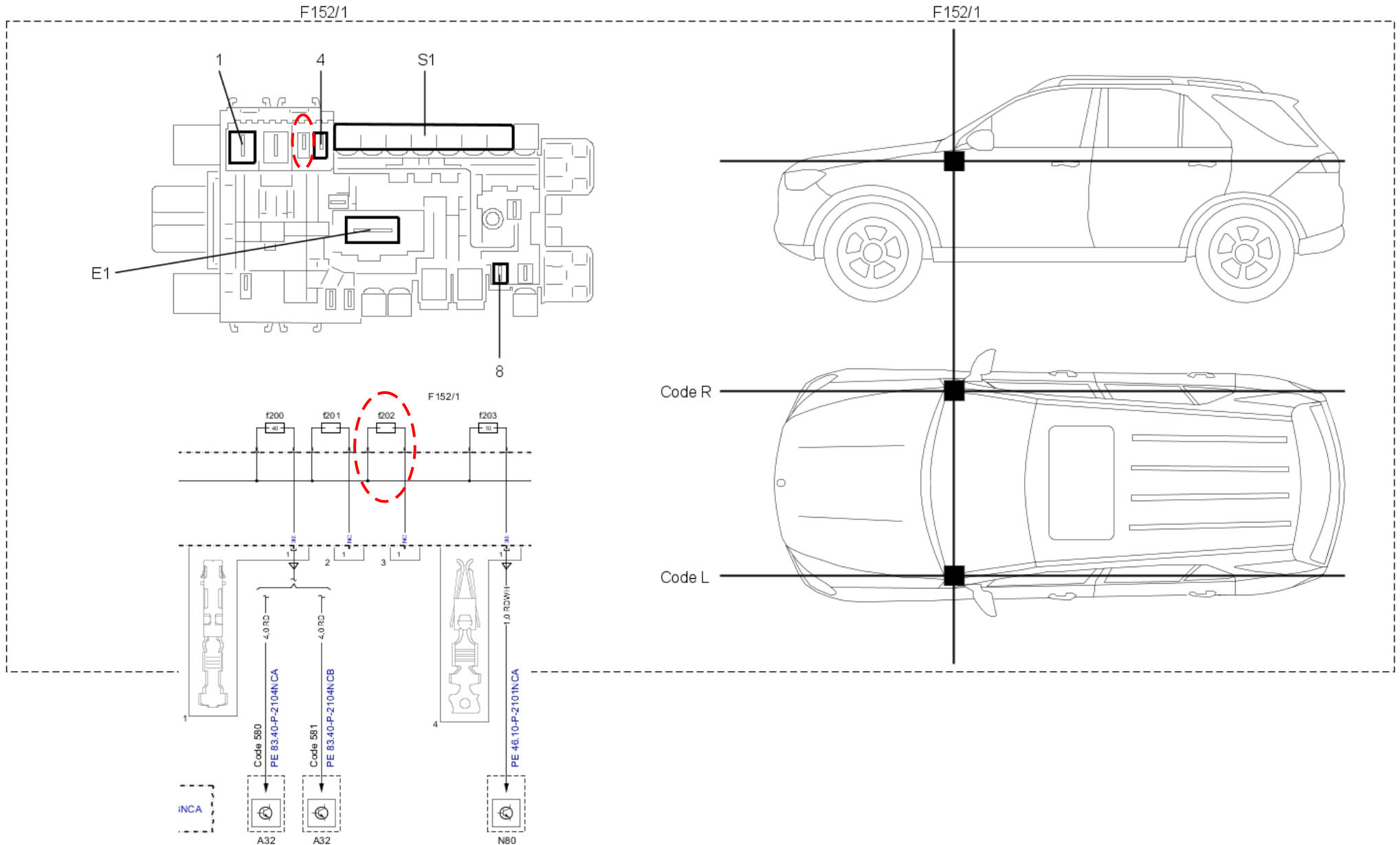
Appendix 4. W167 X30/27 location



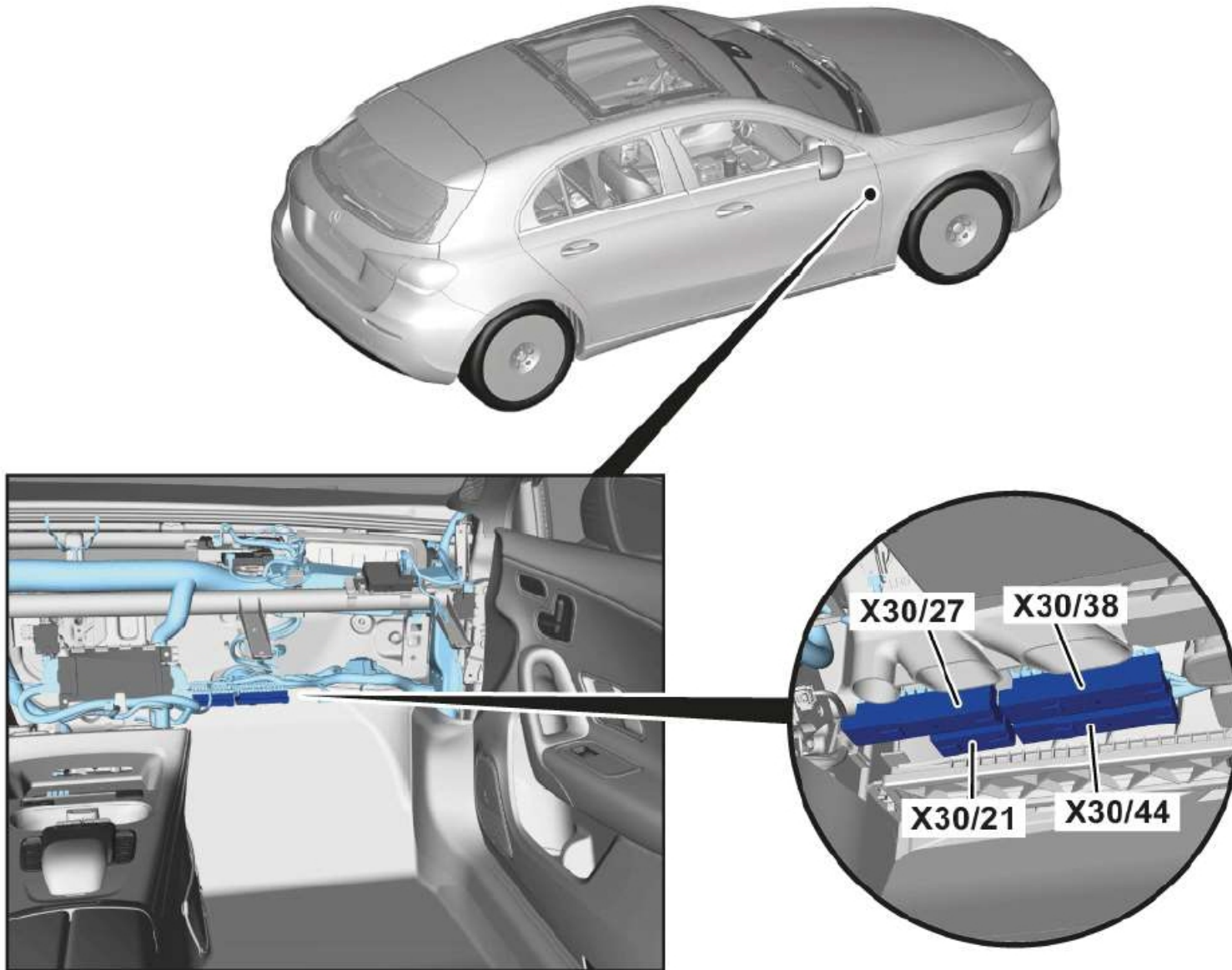
Appendix 5. W167 ground point W34 location



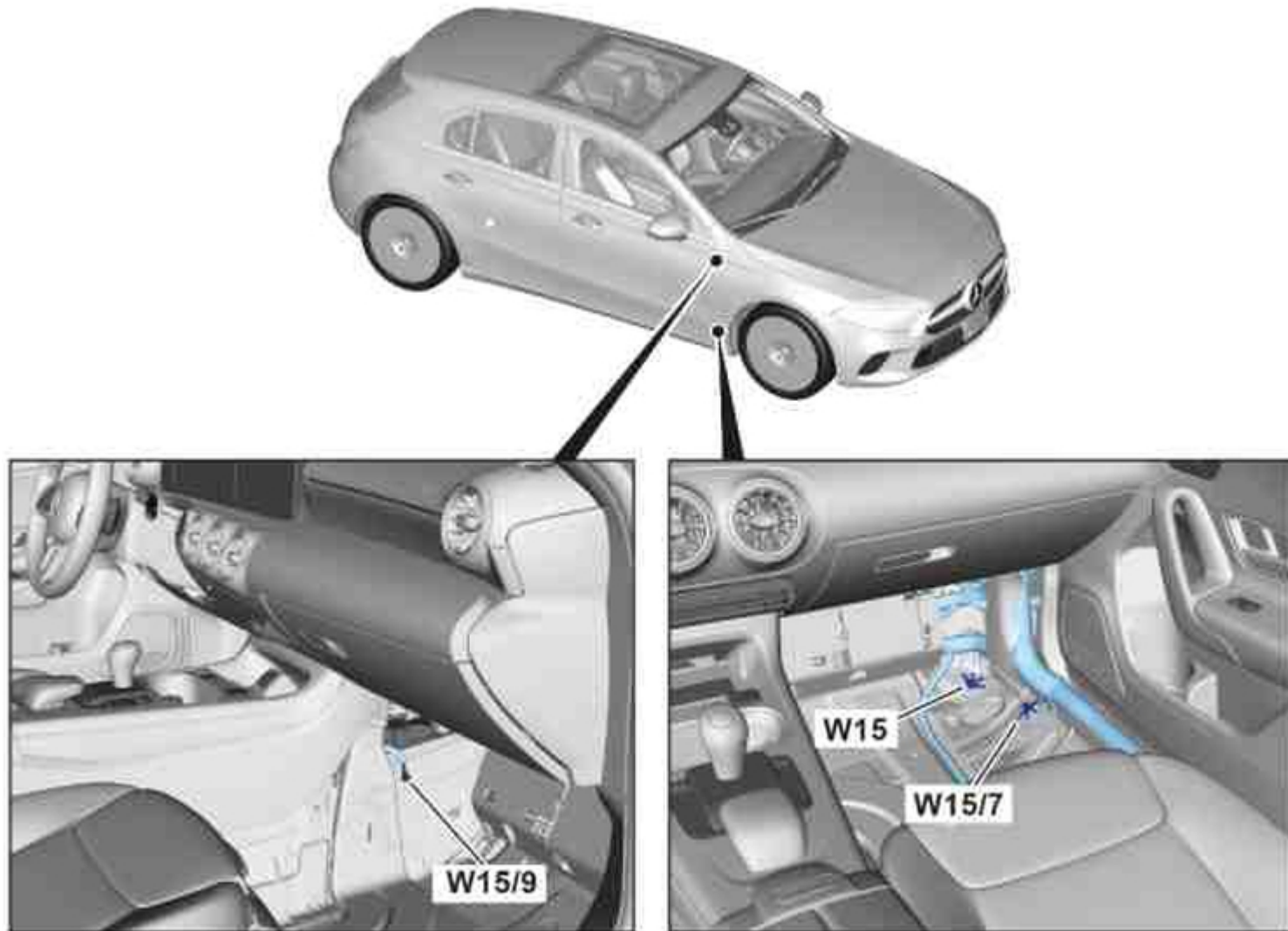
Appendix 6. W167 F152/1 fuse and relay module location



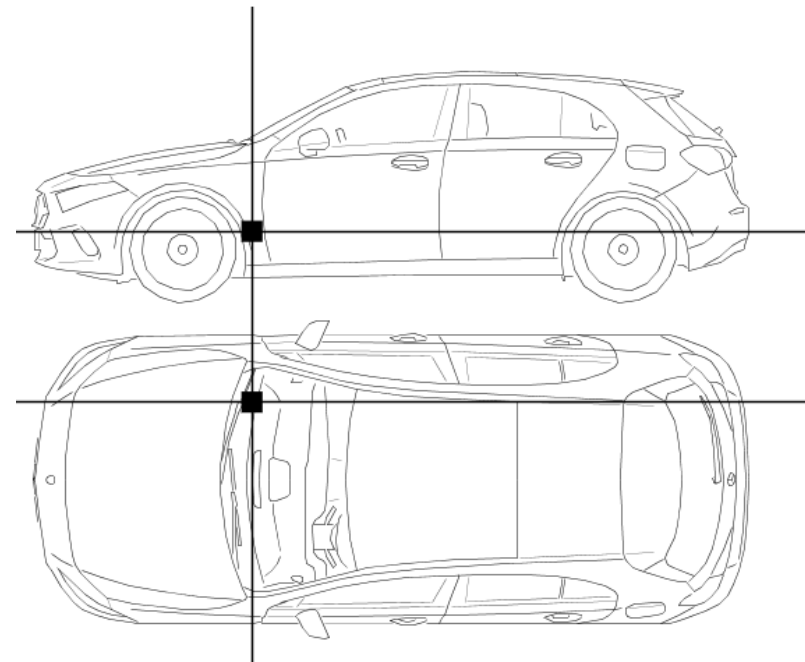
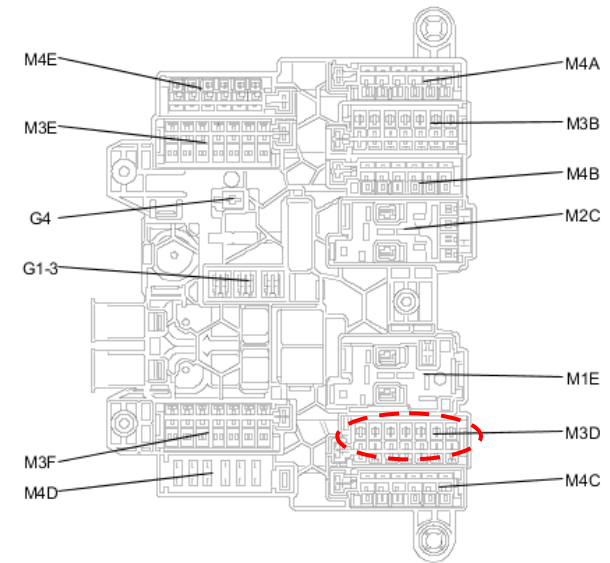
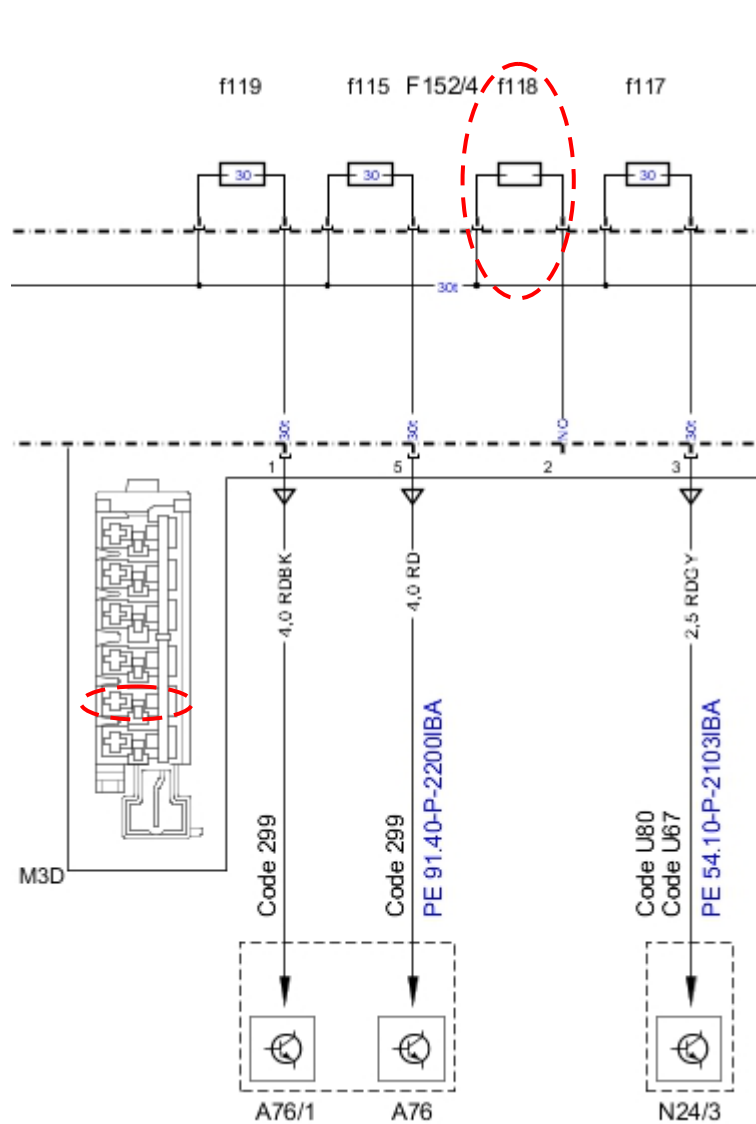
Appendix 7. W177 X30/27 location



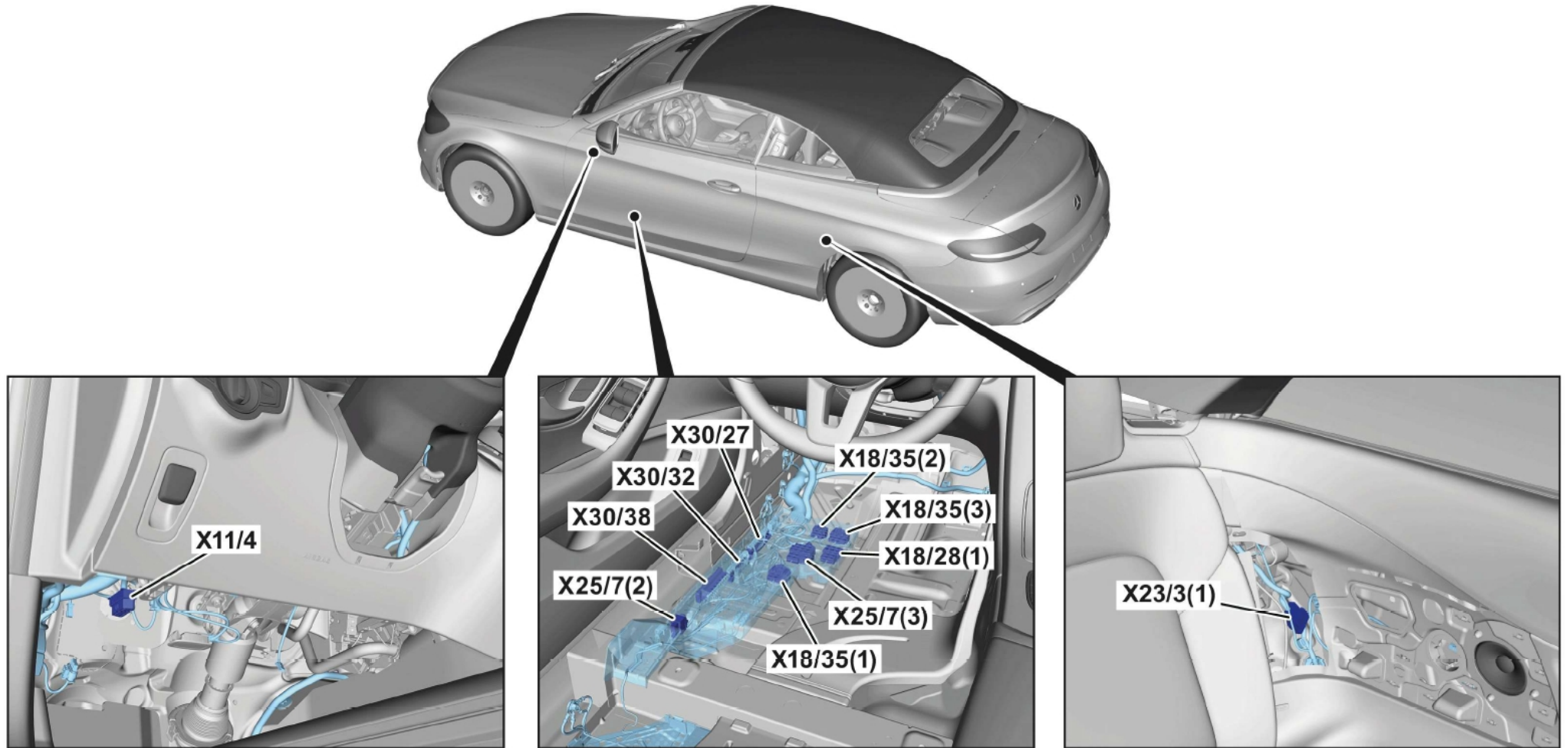
Appendix 8. W177 ground point W15/7 location



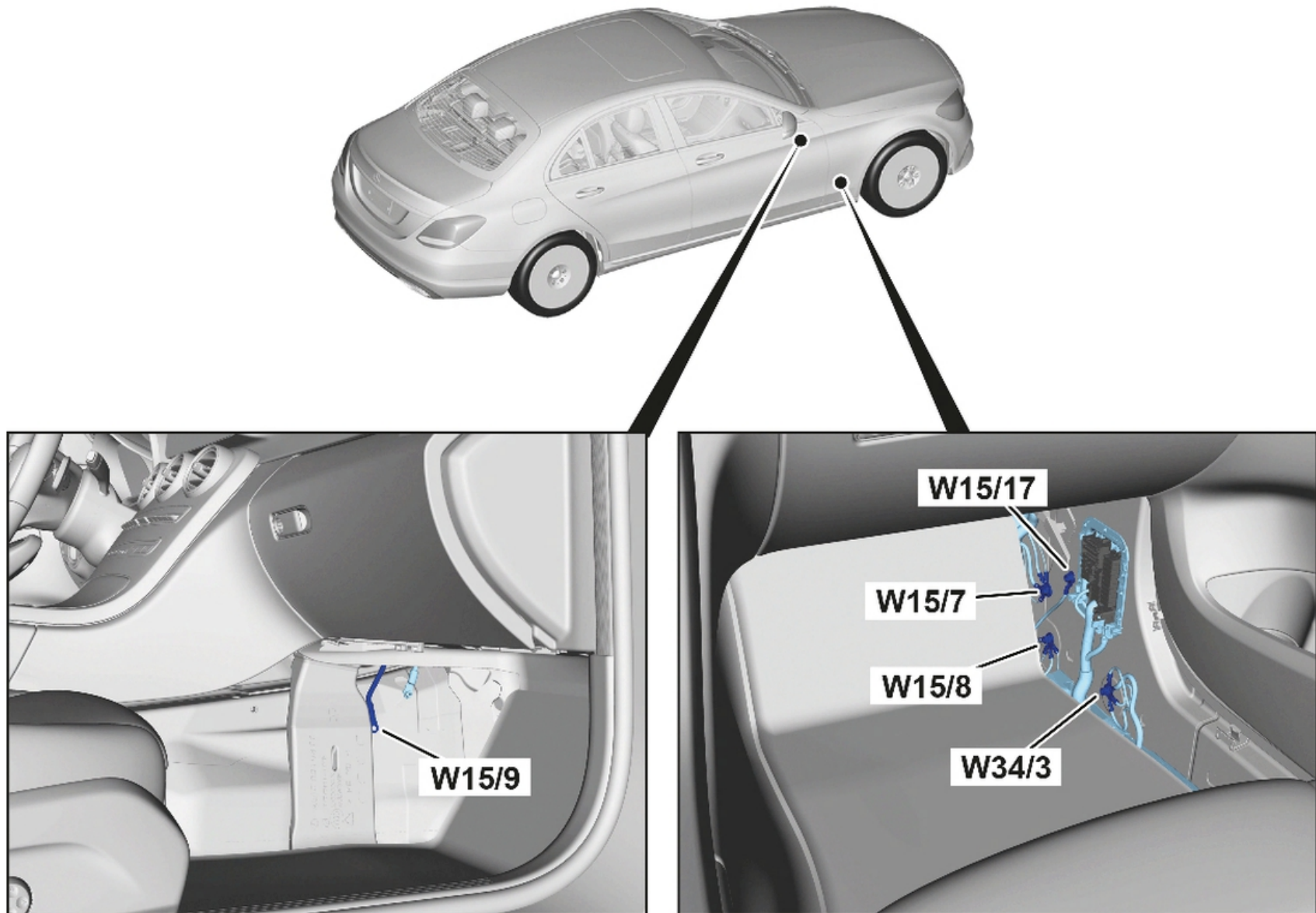
Appendix 9. W177 F152/4 fuse and relay module location



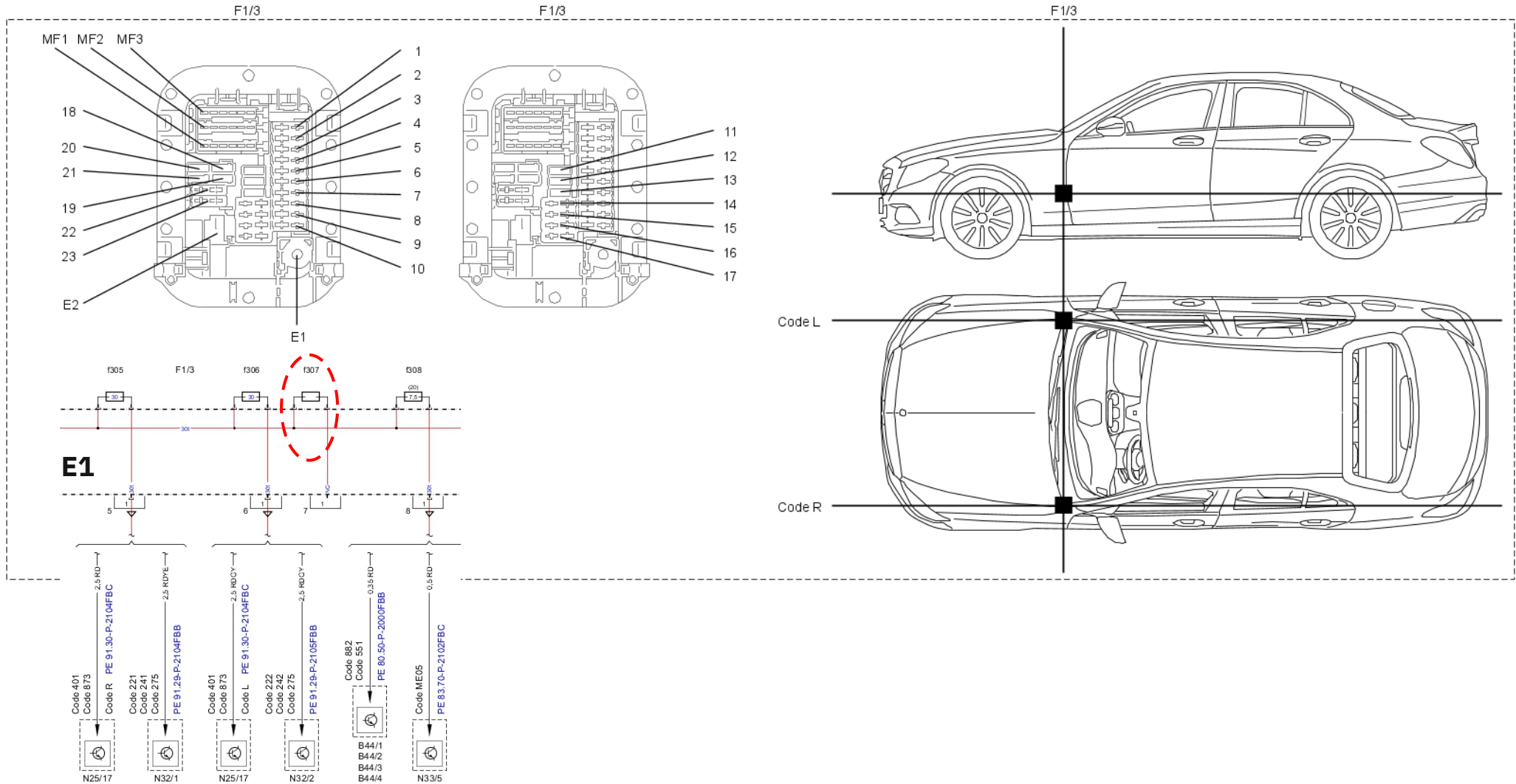
Appendix 10. W205FL X30/27 location



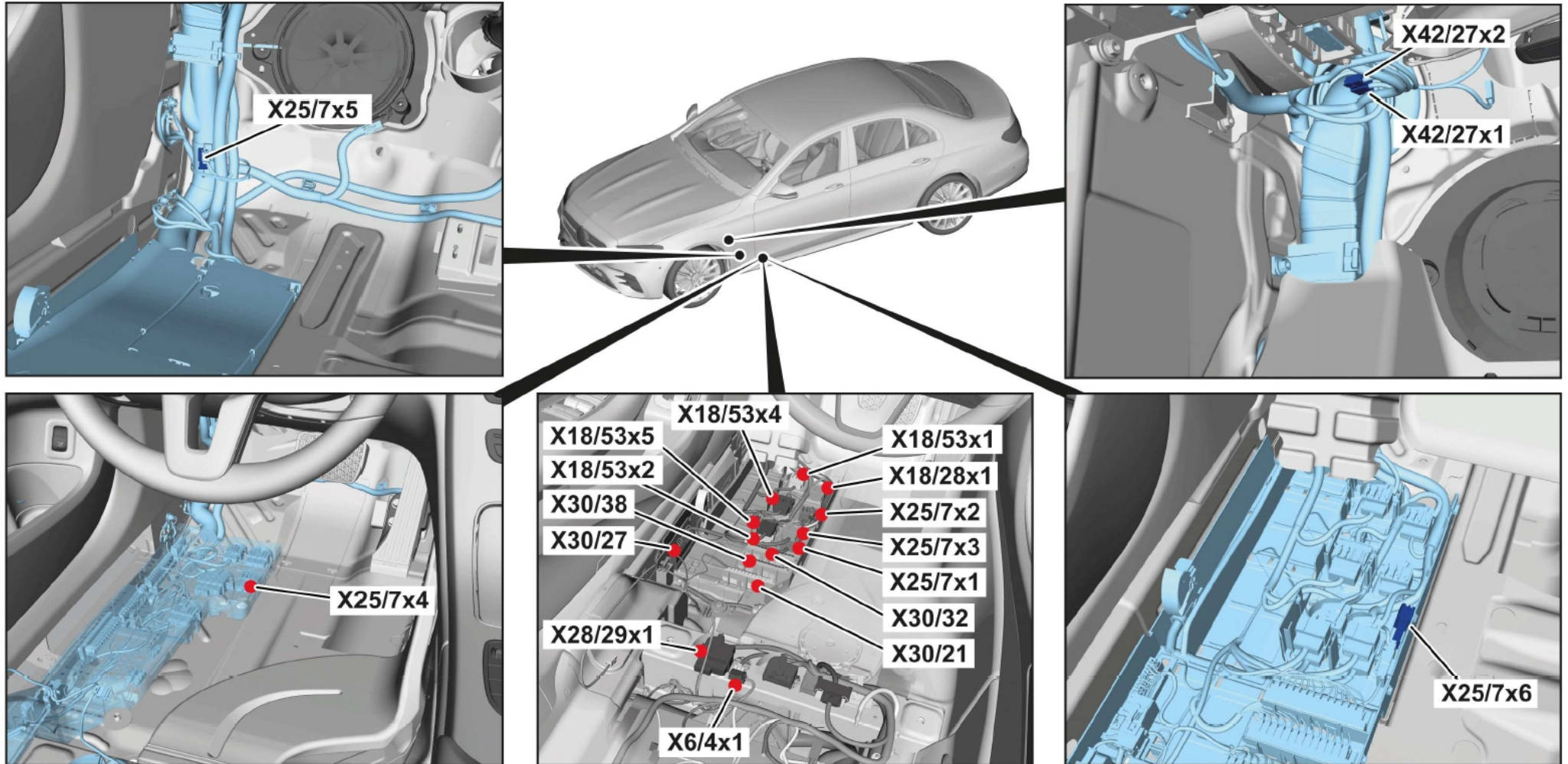
Appendix 11. W205FL ground point W15/7 location



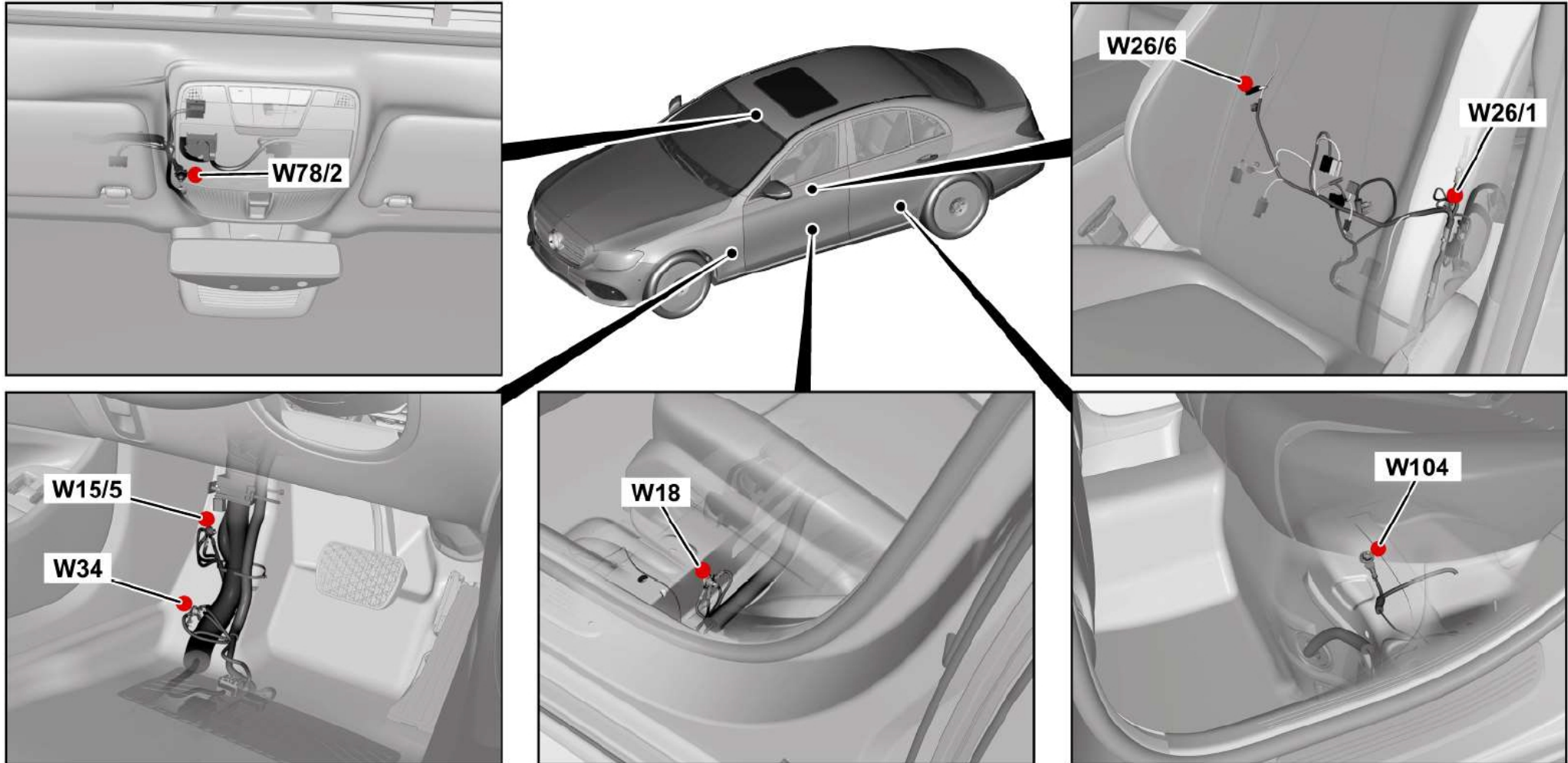
Appendix 12. W205FL F1/3 fuse and relay module location



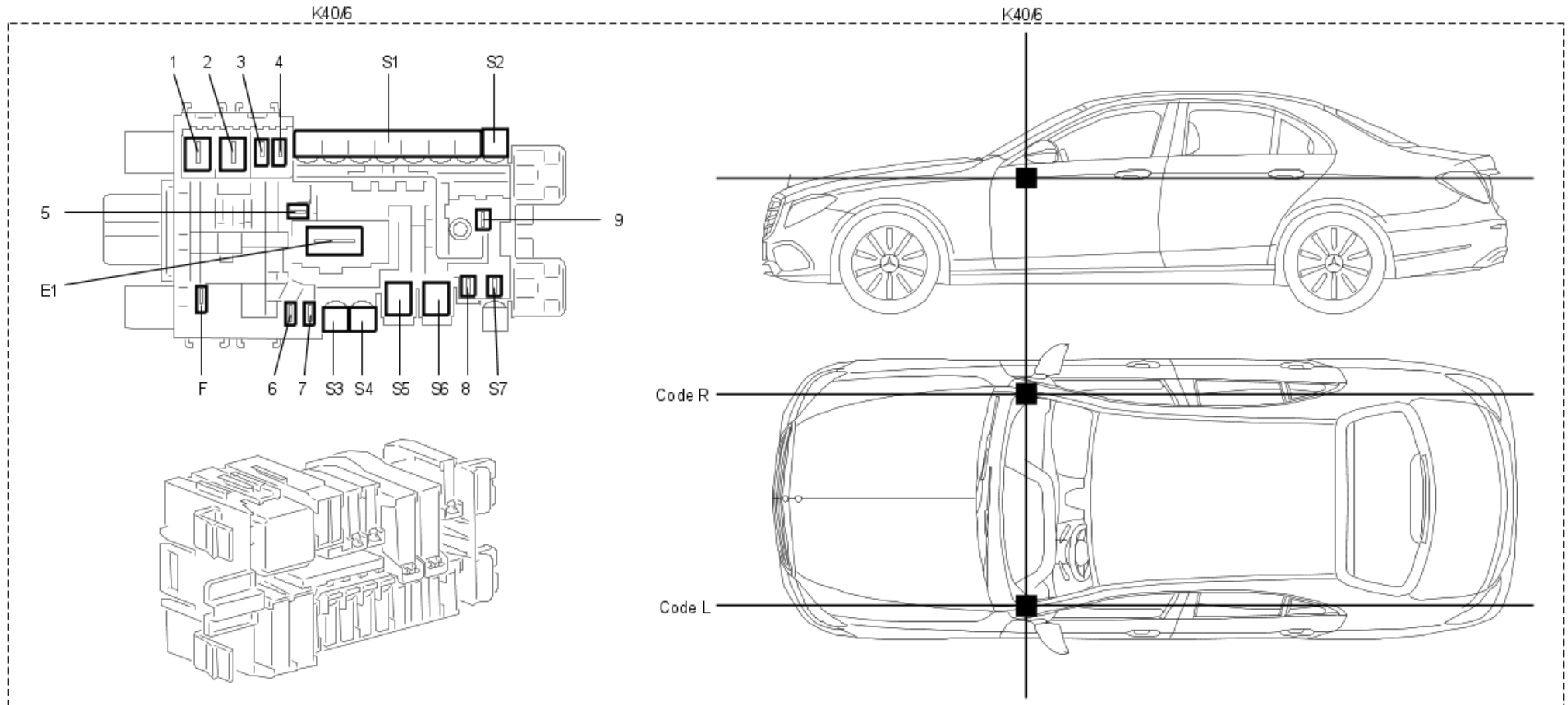
Appendix 13. W213 X30/27 location



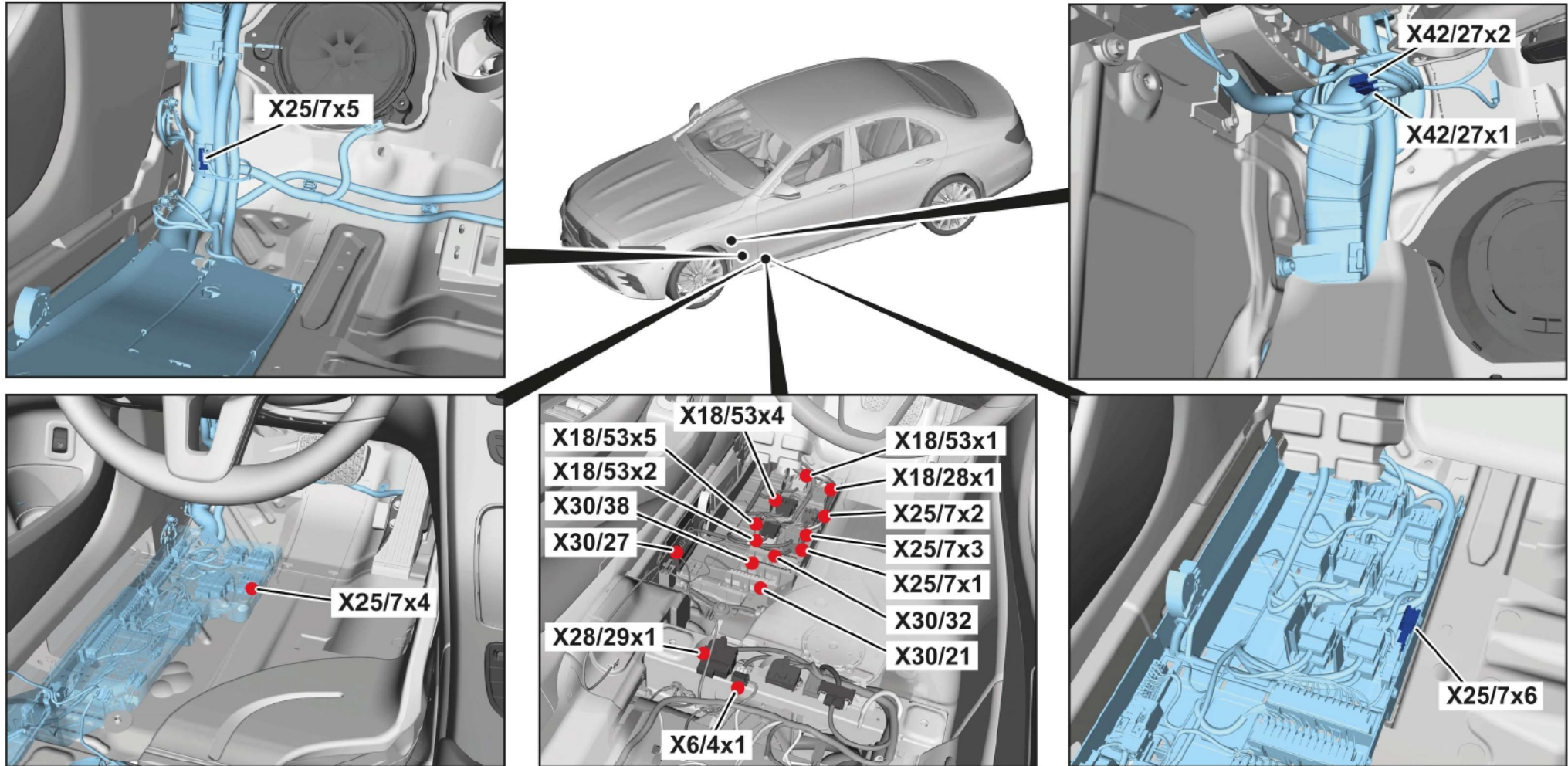
Appendix 14. W213 ground point W34 location



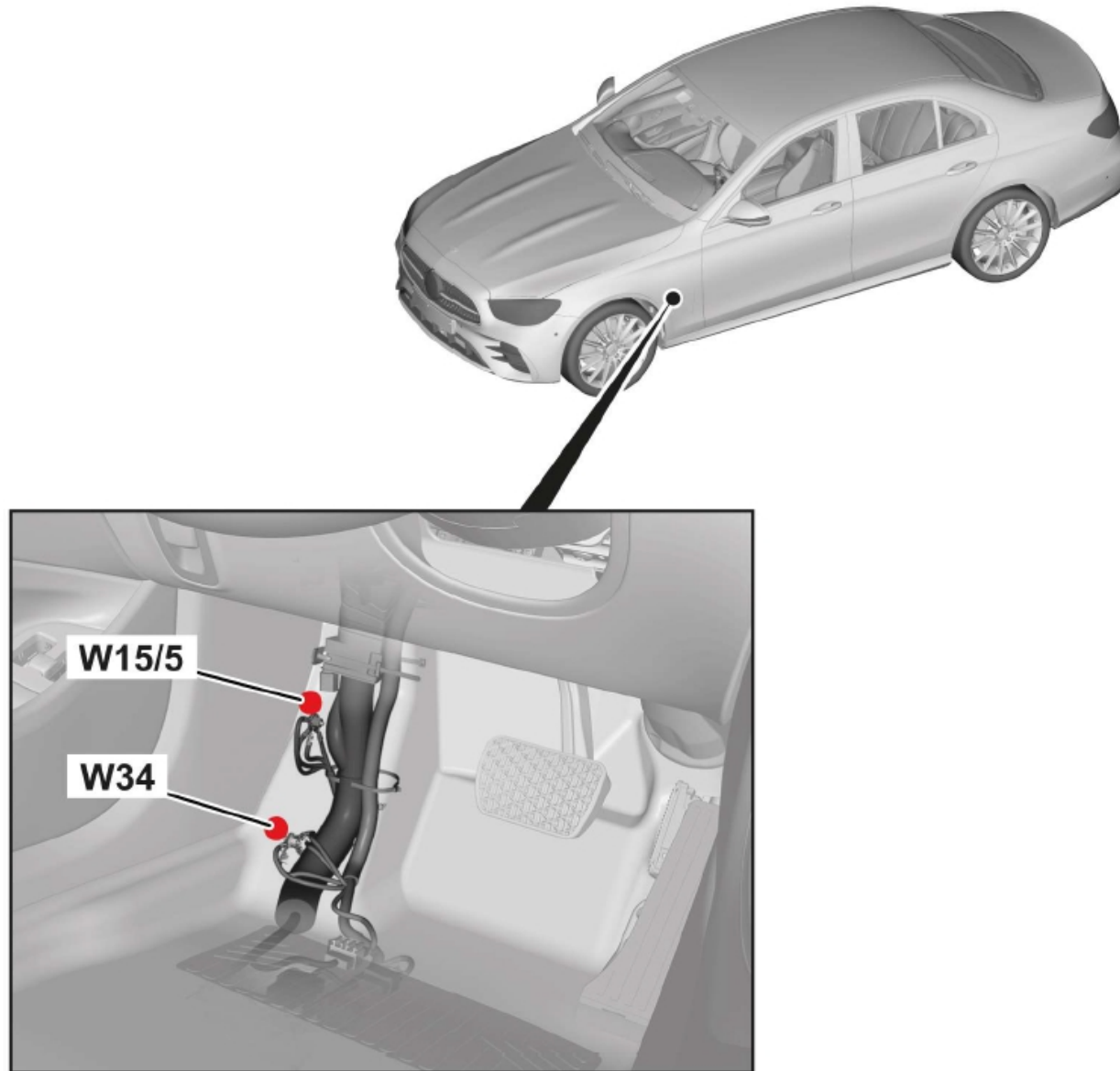
Appendix 15. W213 K40/6 fuse and relay module location



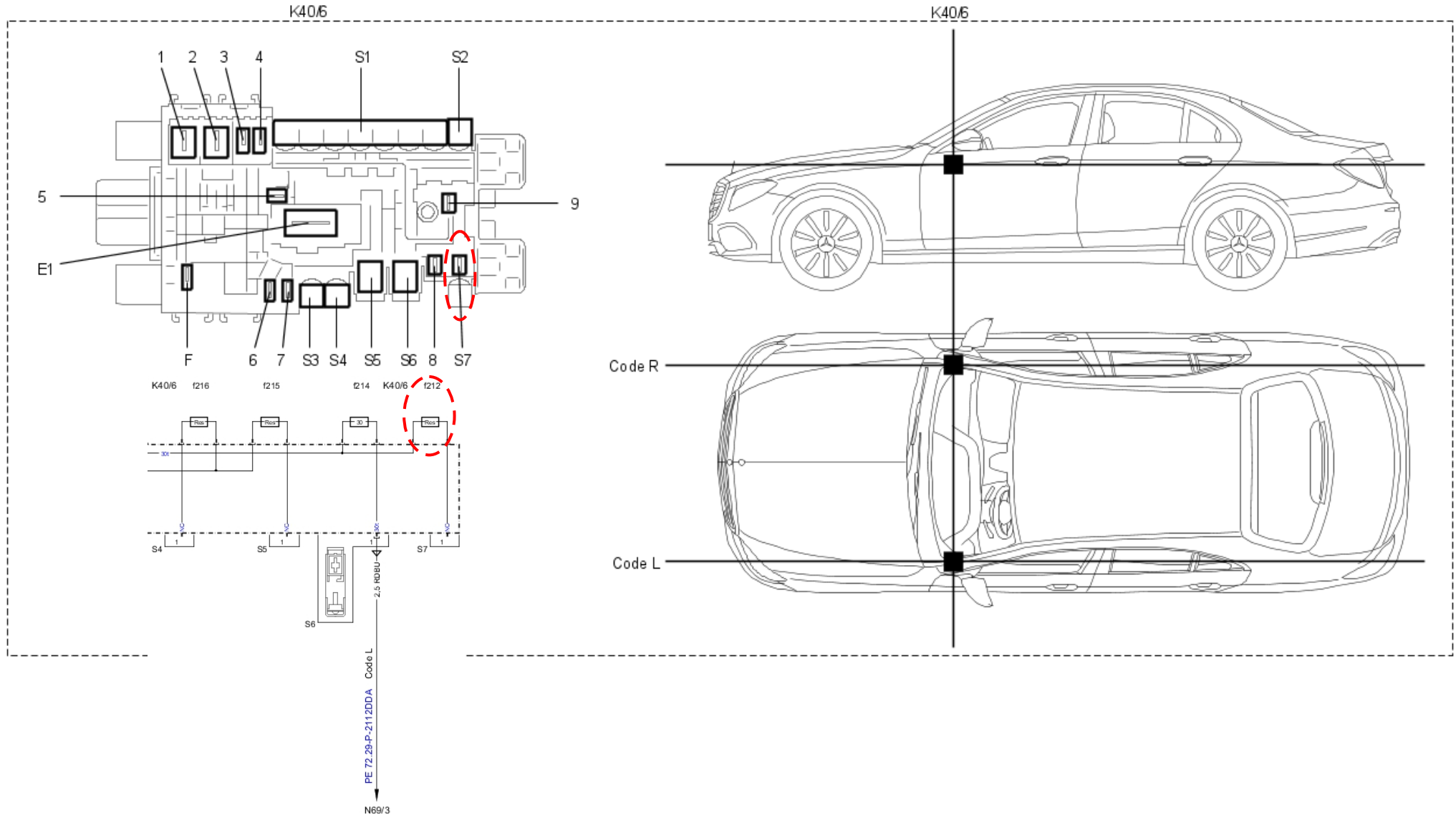
Appendix 16. W213FL X30/27 location



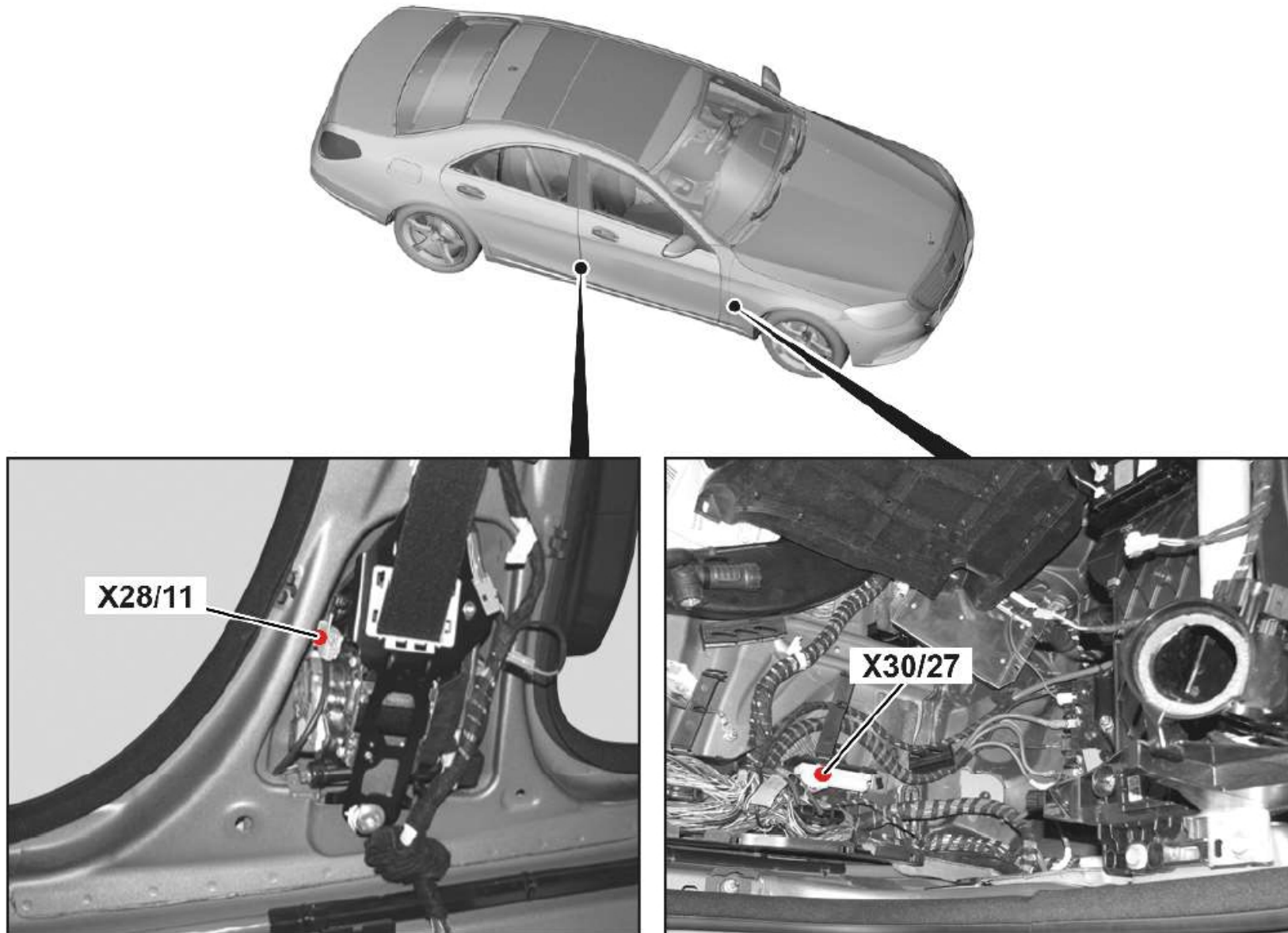
Appendix 17. W213FL ground point W15/5 location



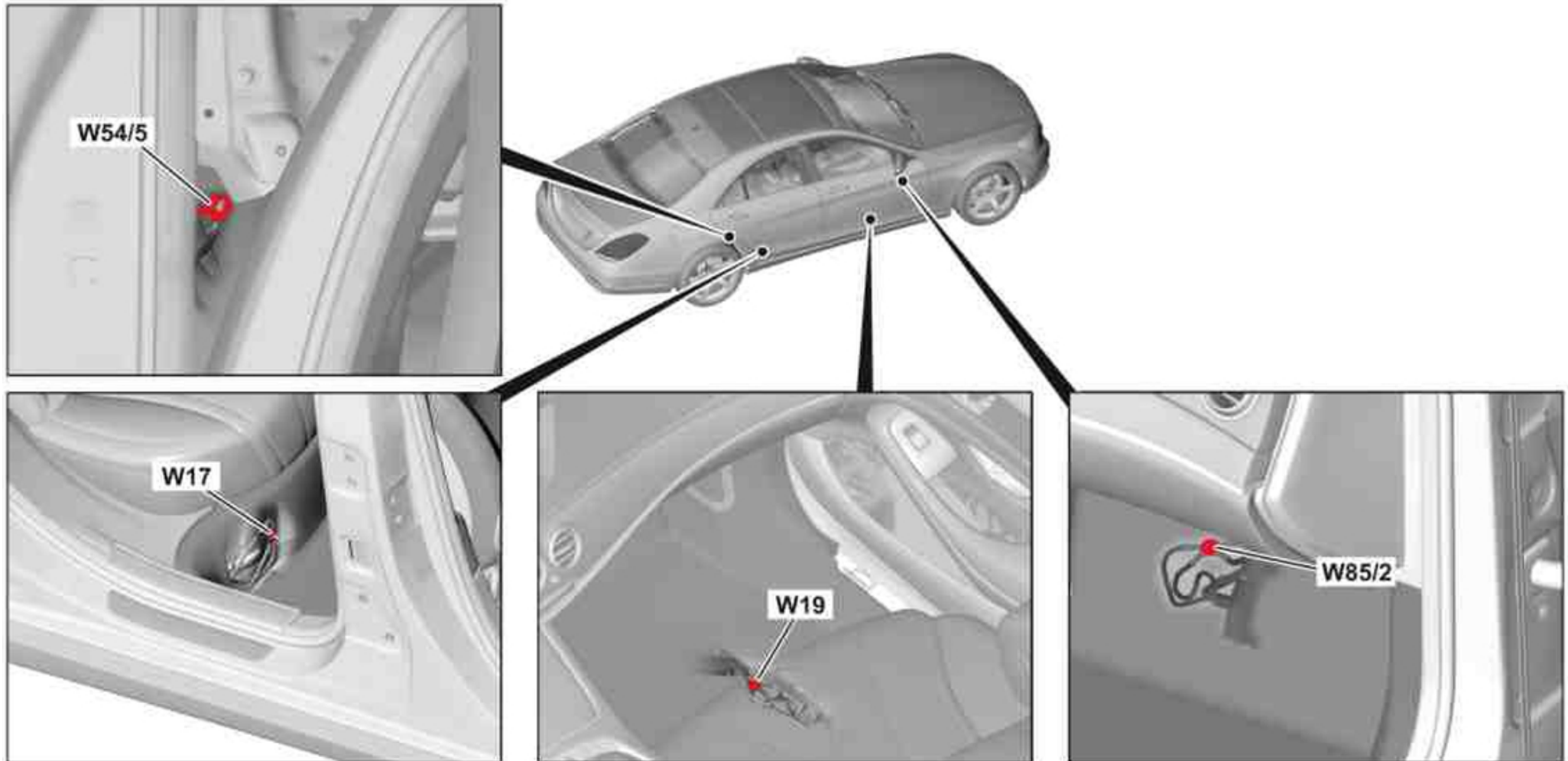
Appendix 18. W213FL K40/6 fuse and relay module location



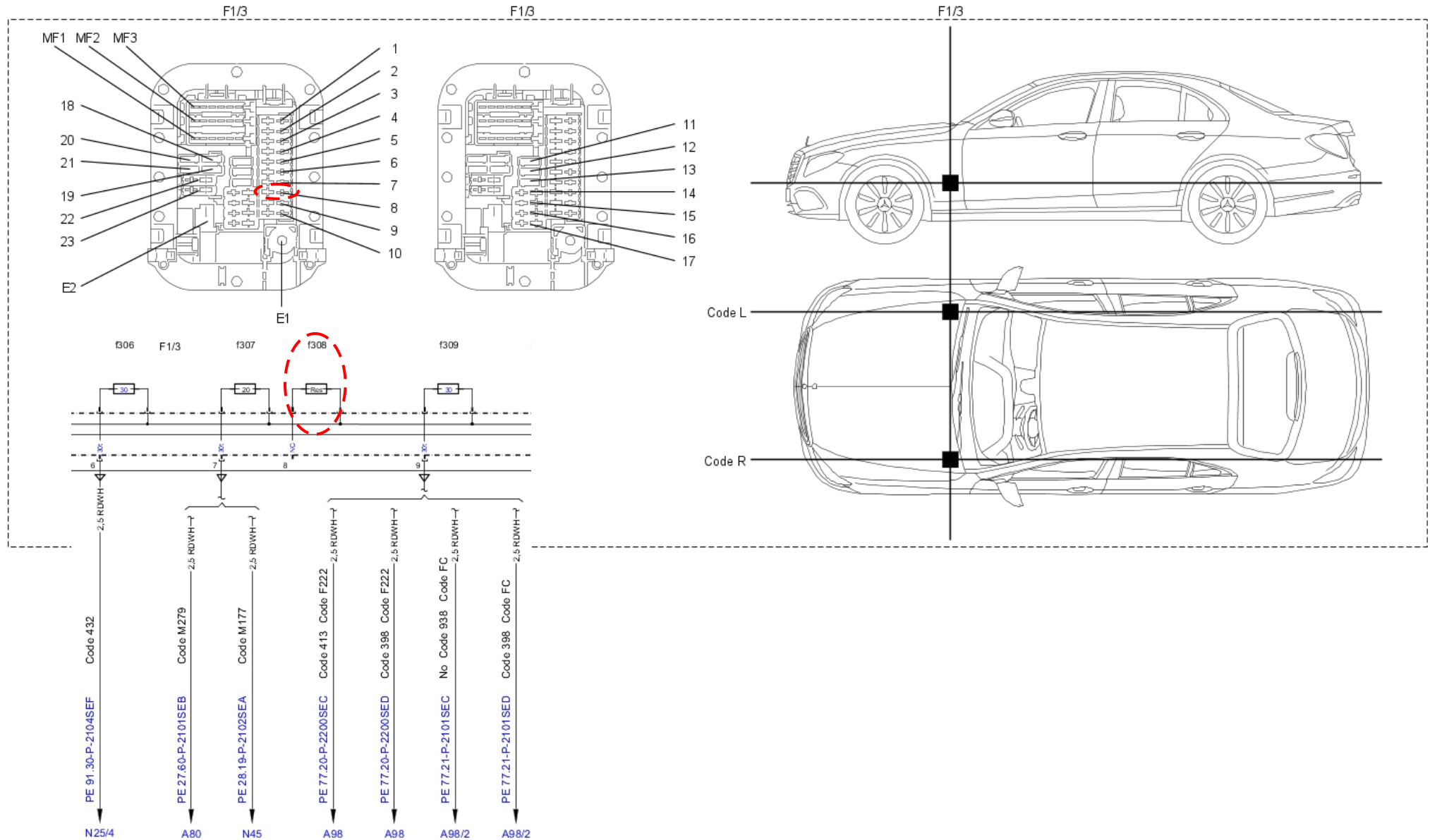
Appendix 19. W222FL X30/27 location



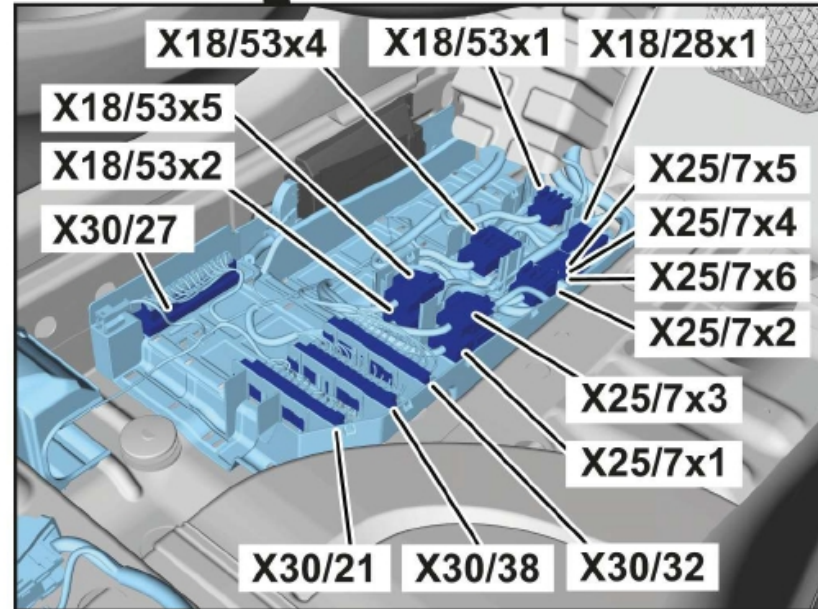
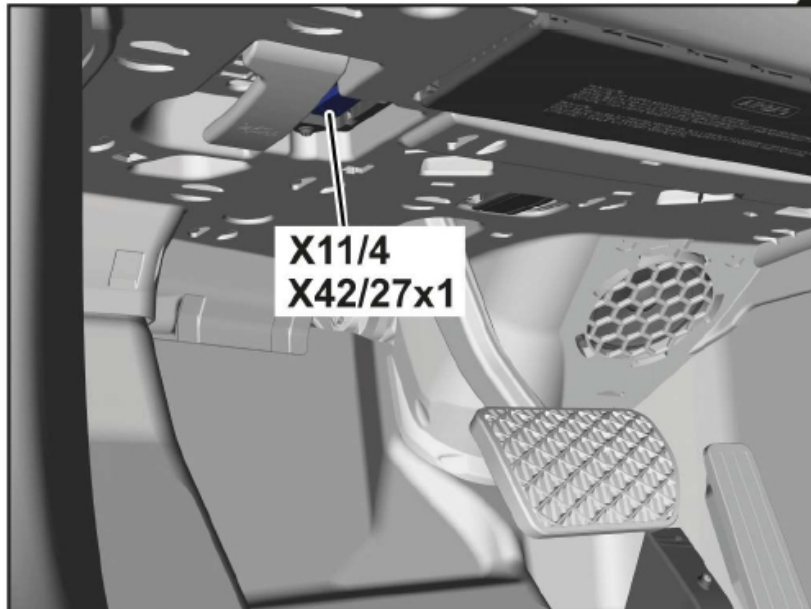
Appendix 20. W222FL ground point W85/2 location



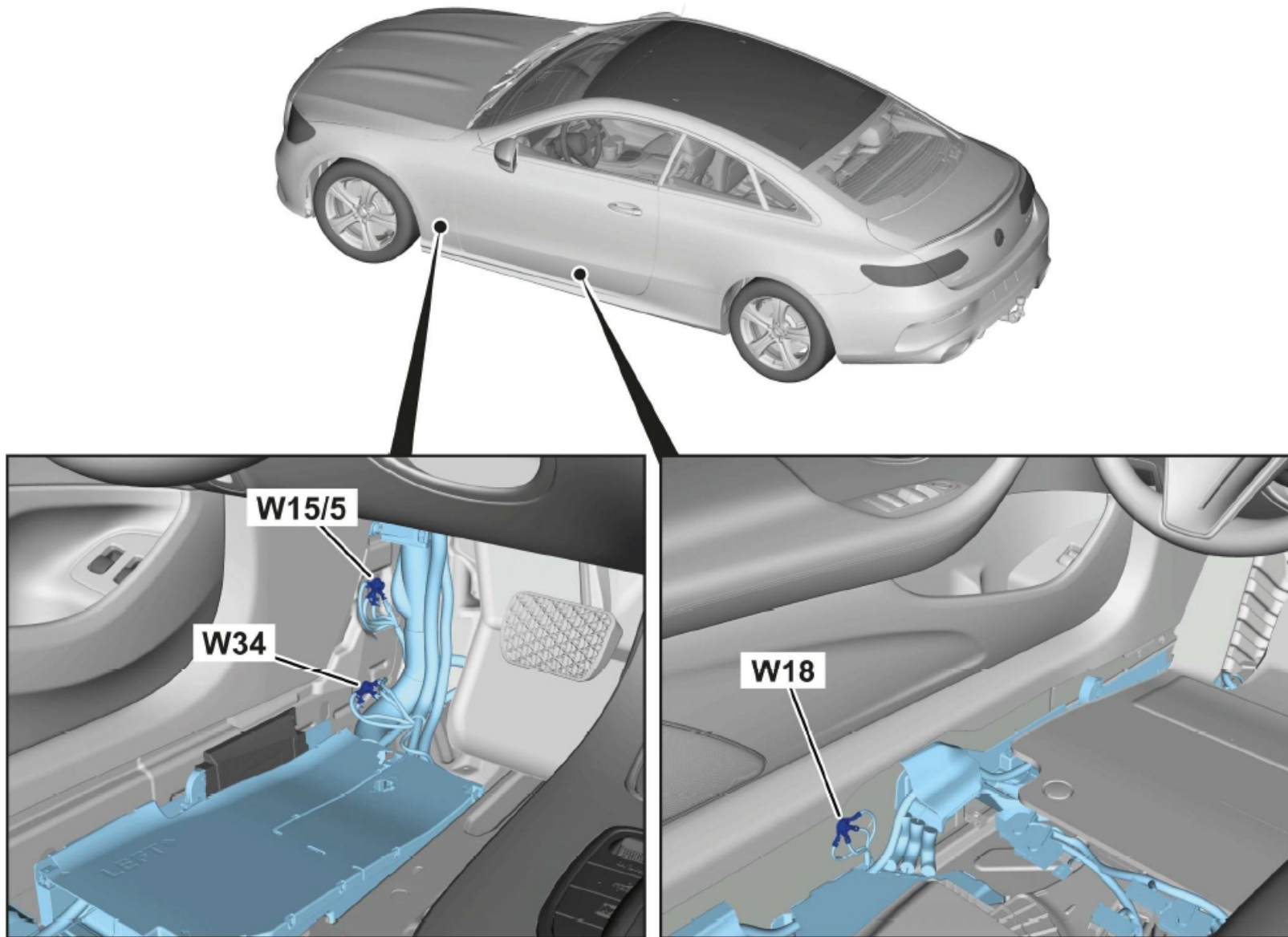
Appendix 21. W222FL F1/3 fuse and relay module location



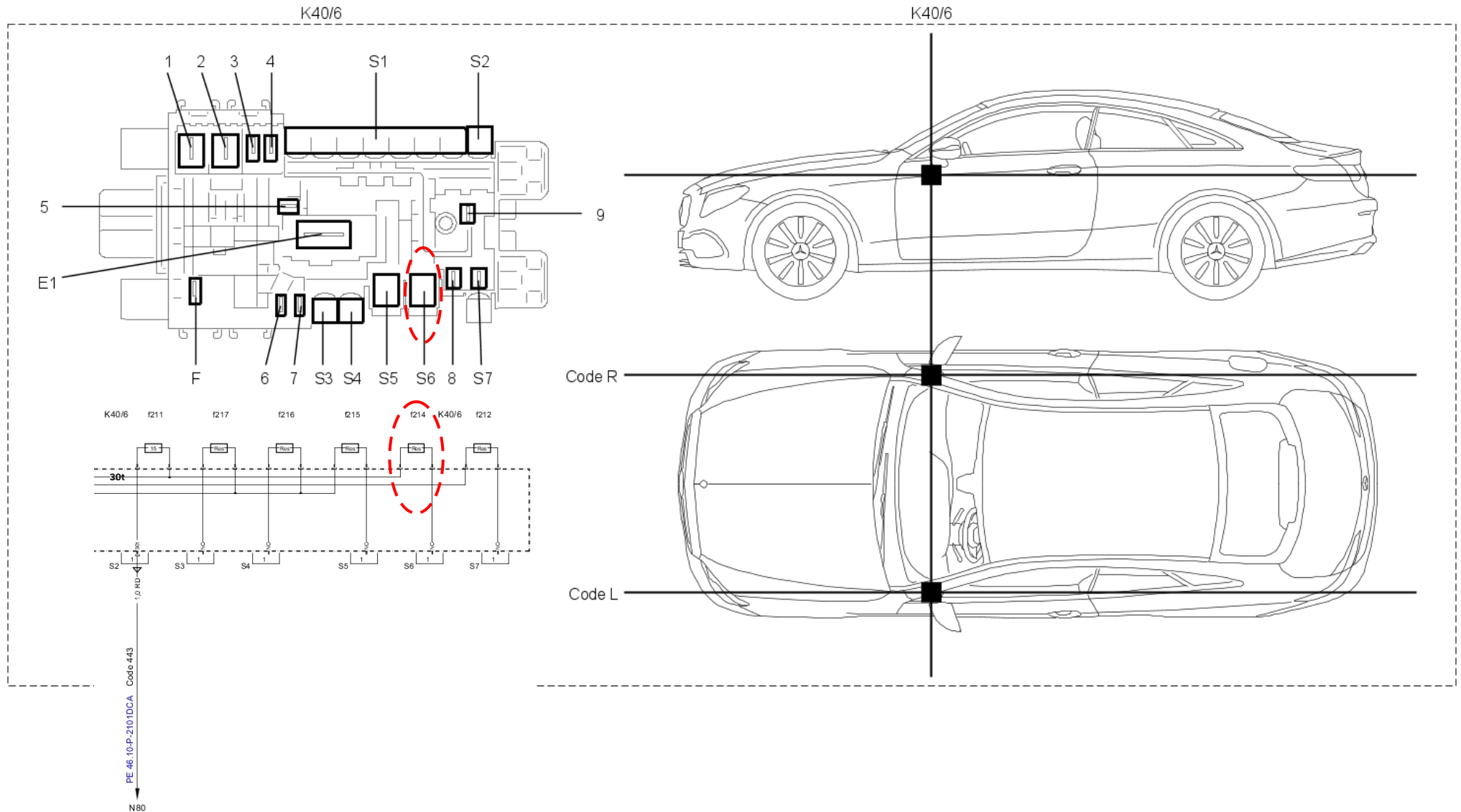
Appendix 22. W238 X30/27 location



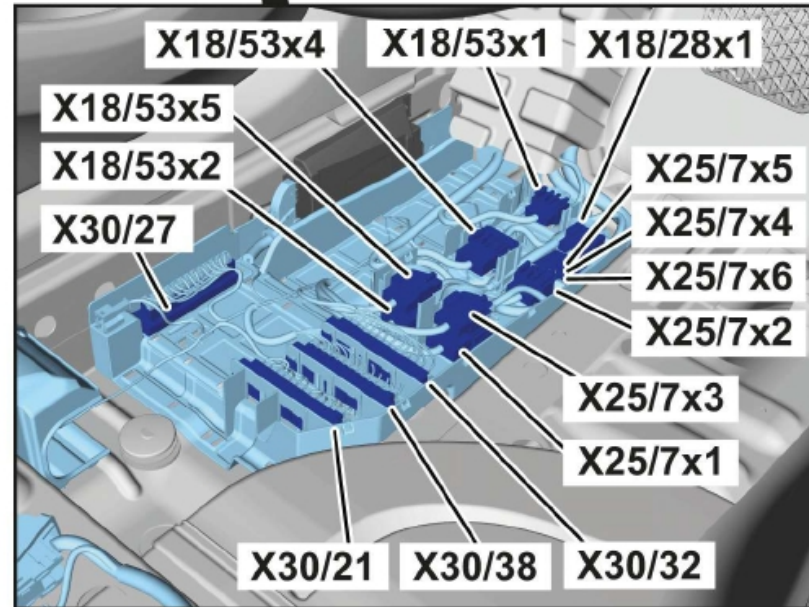
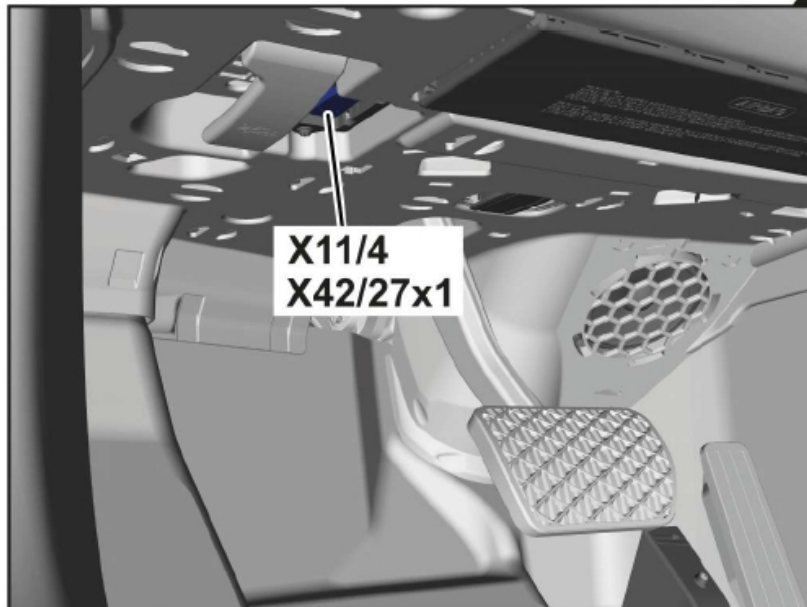
Appendix 23. W238 ground point W34 location



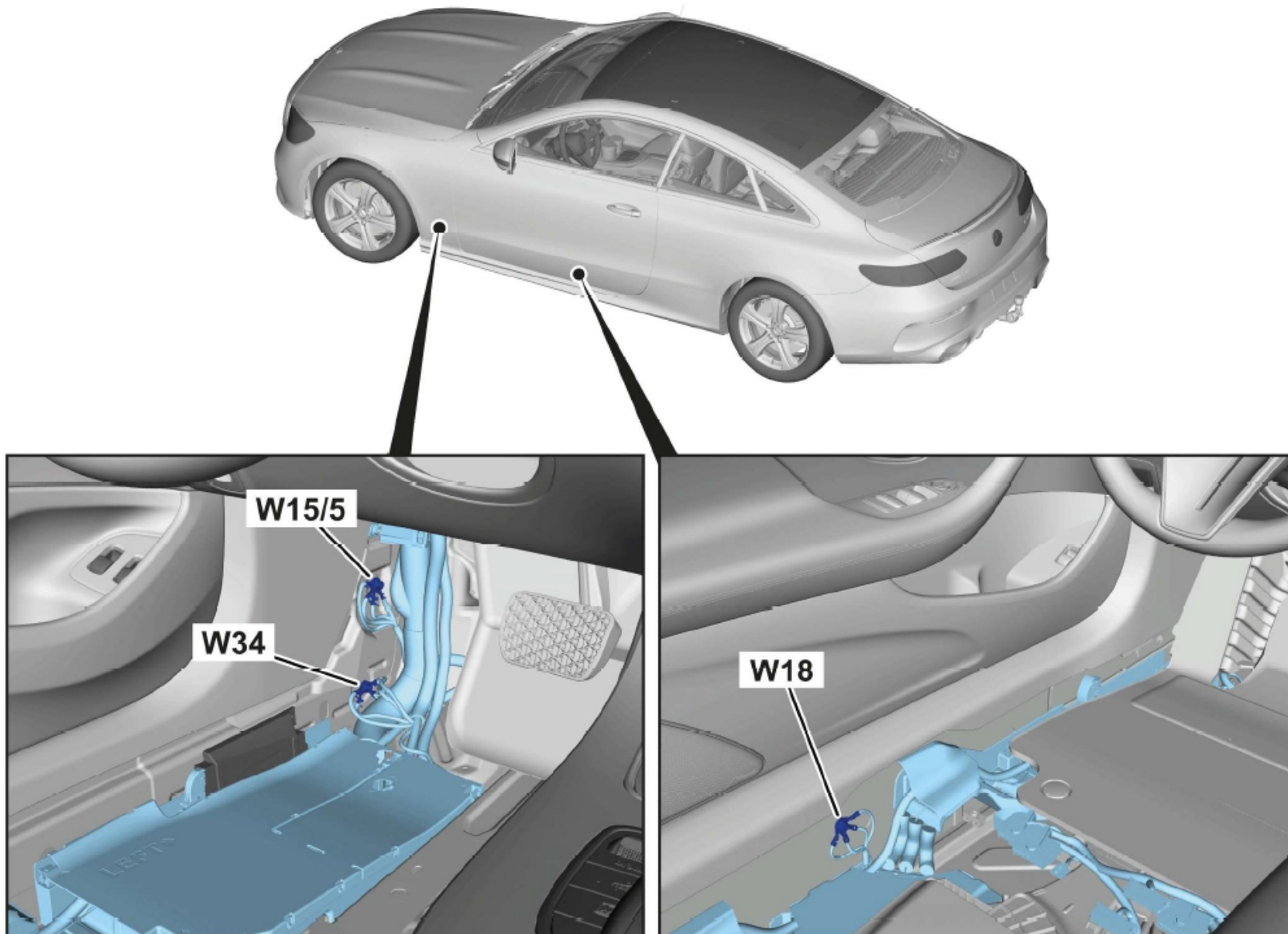
Appendix 24. W238 K40/6 fuse and relay module location



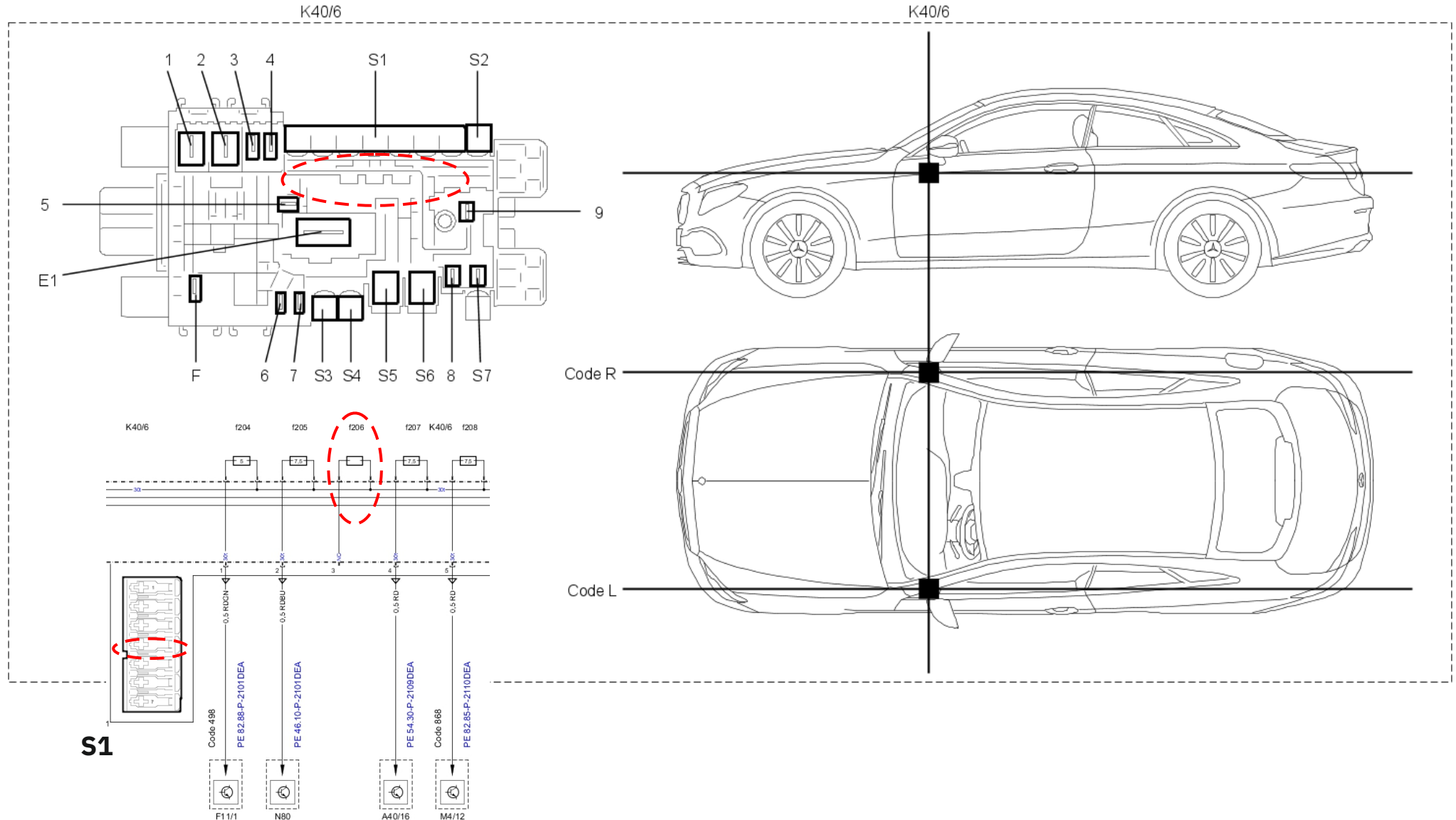
Appendix 25. W238FL X30/27 location



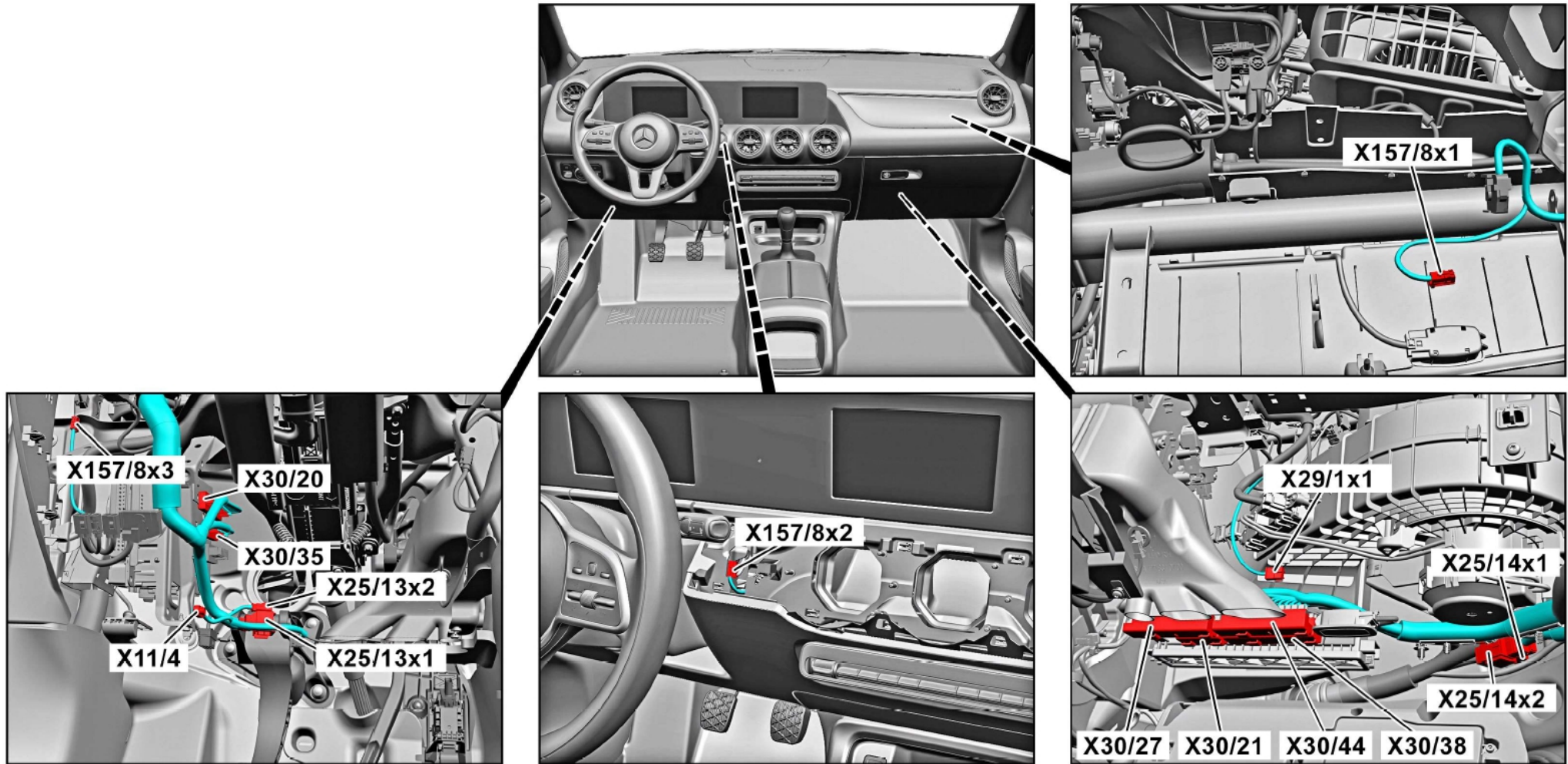
Appendix 26. W238FL ground point W34 location



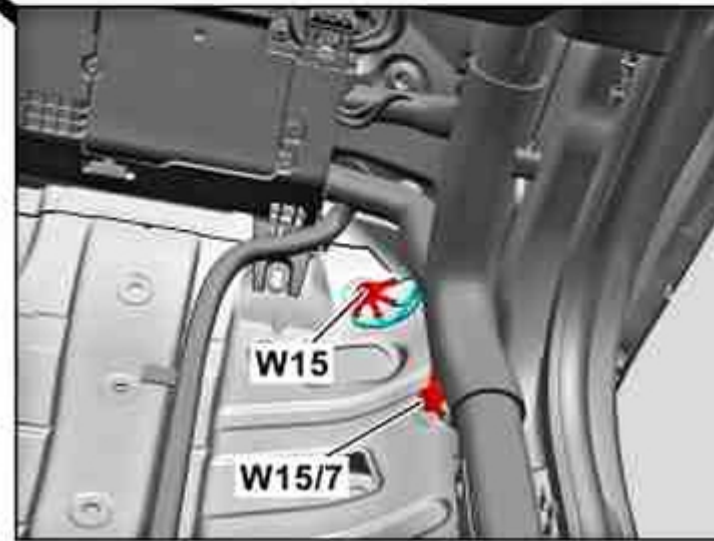
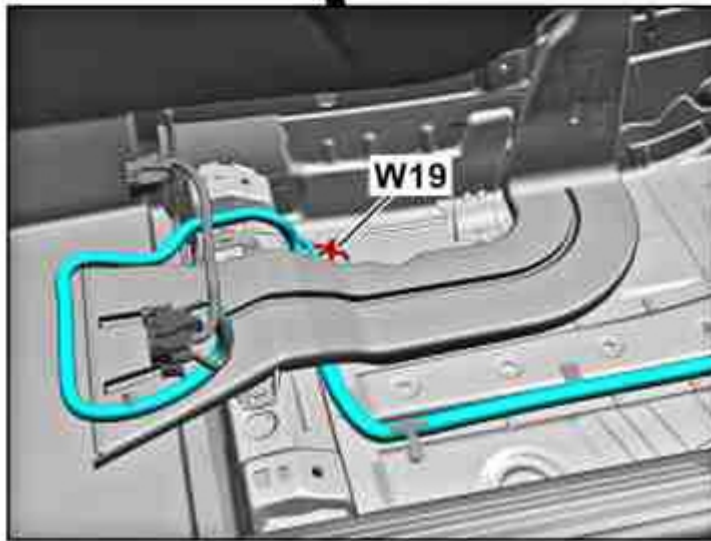
Appendix 27. W238FL K40/6 fuse and relay module location



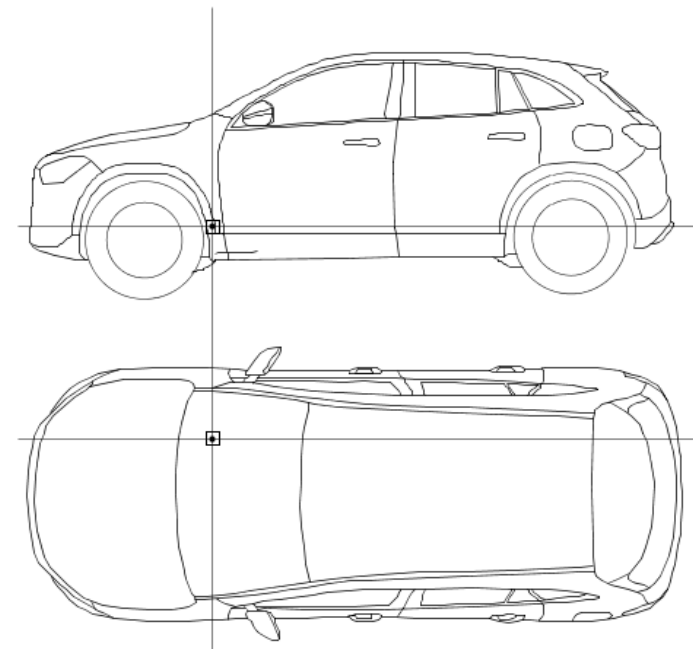
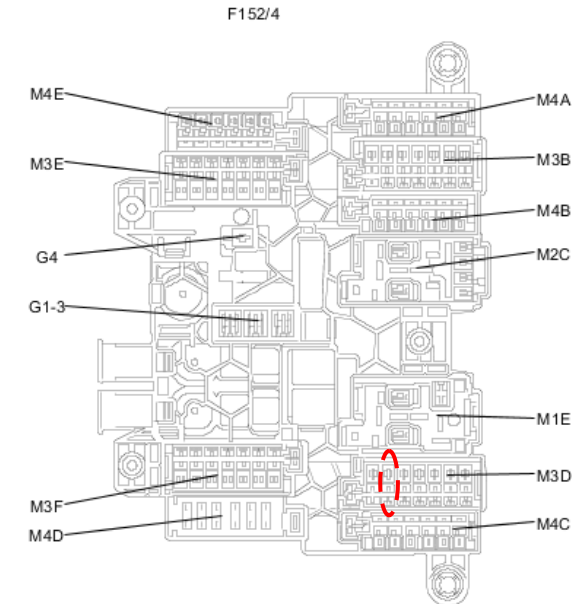
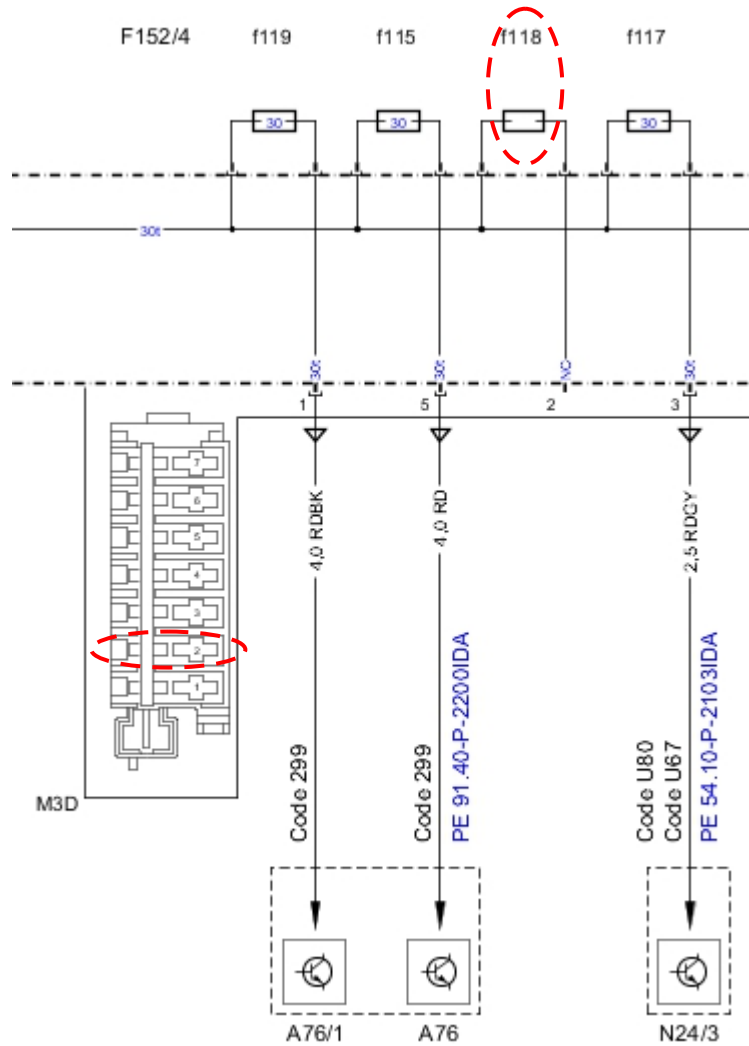
Appendix 28. W247 X30/27 location



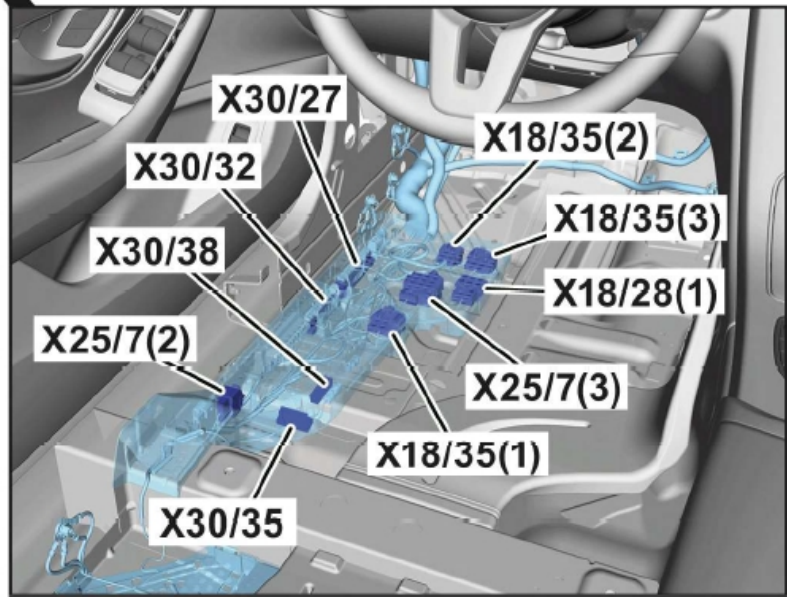
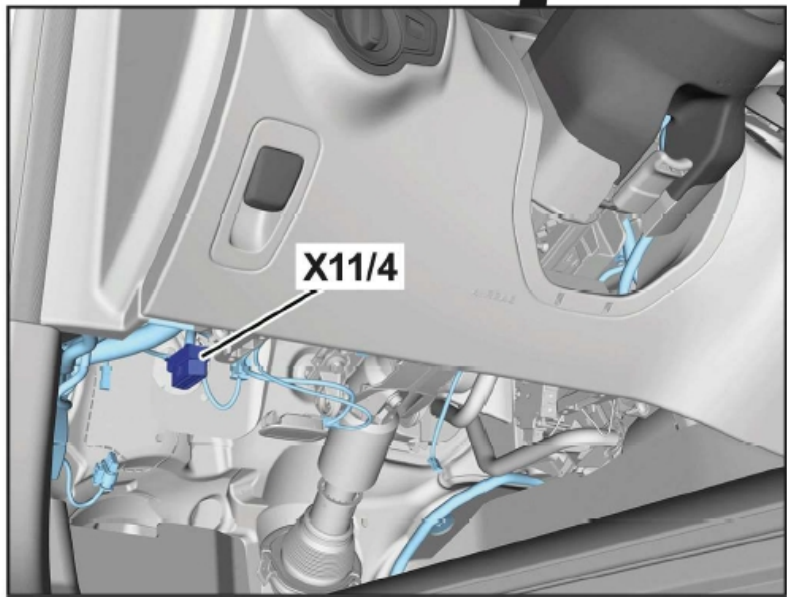
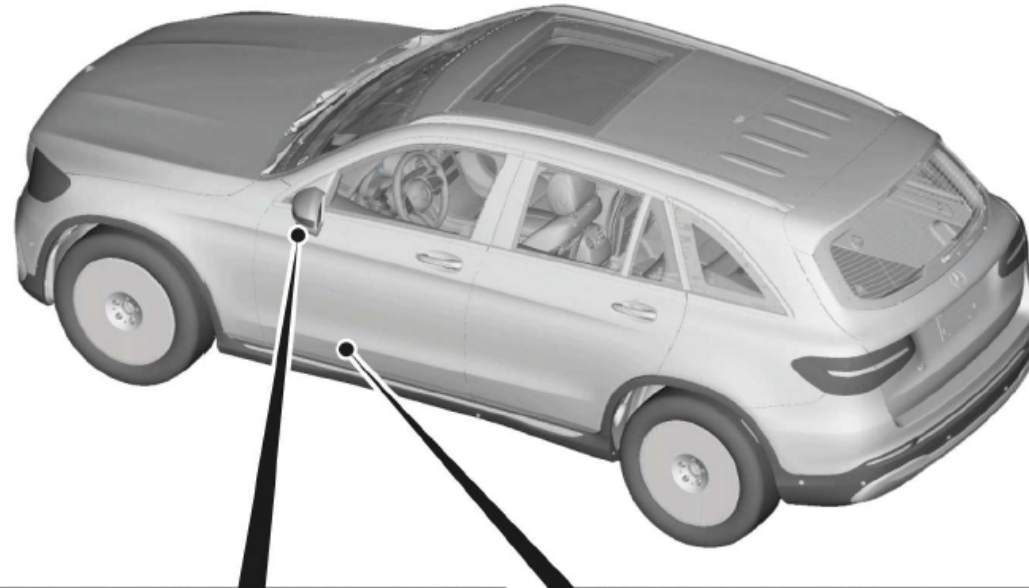
Appendix 29. W247 ground point W15 location



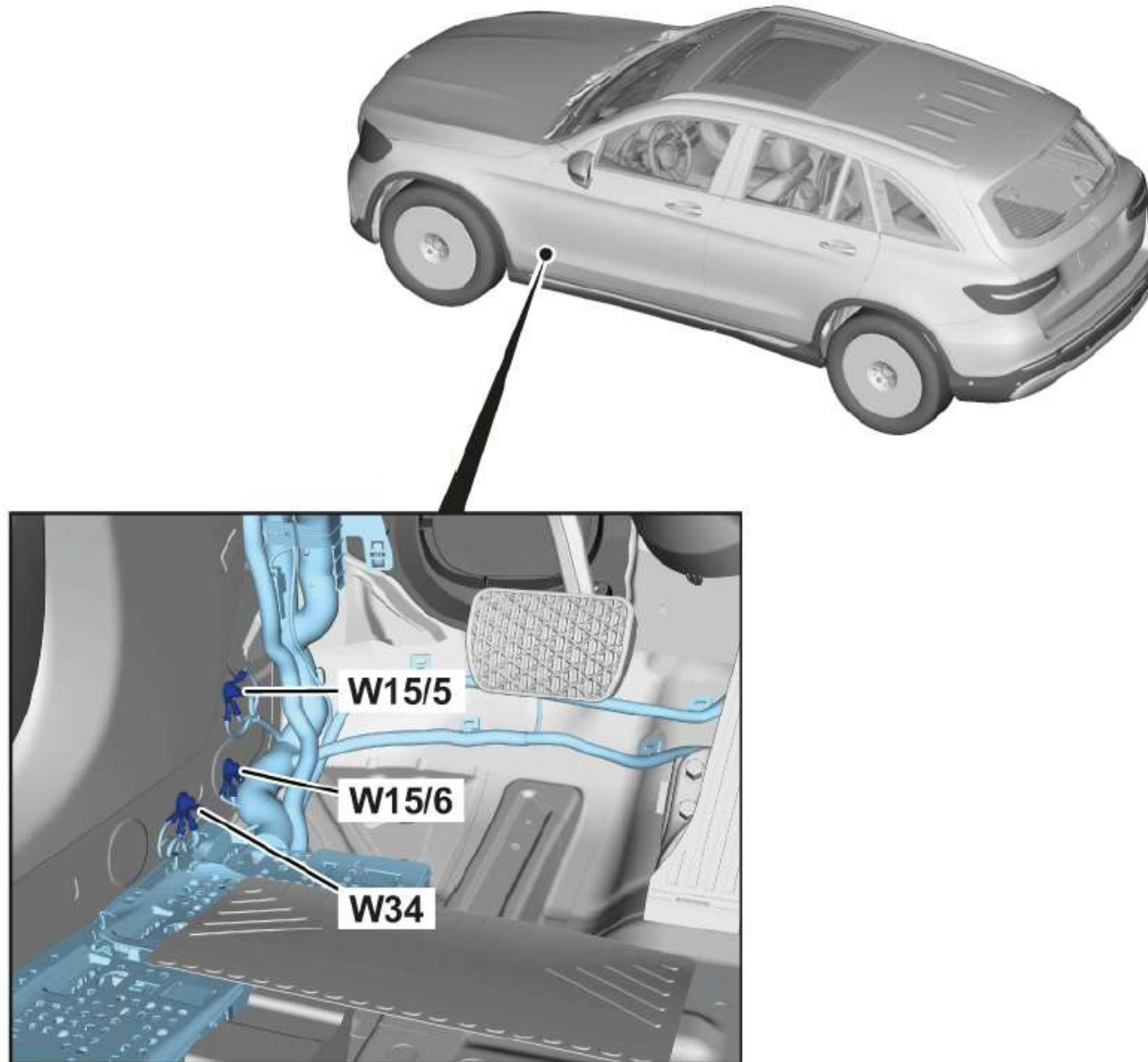
Appendix 30. W247 F152/4 location



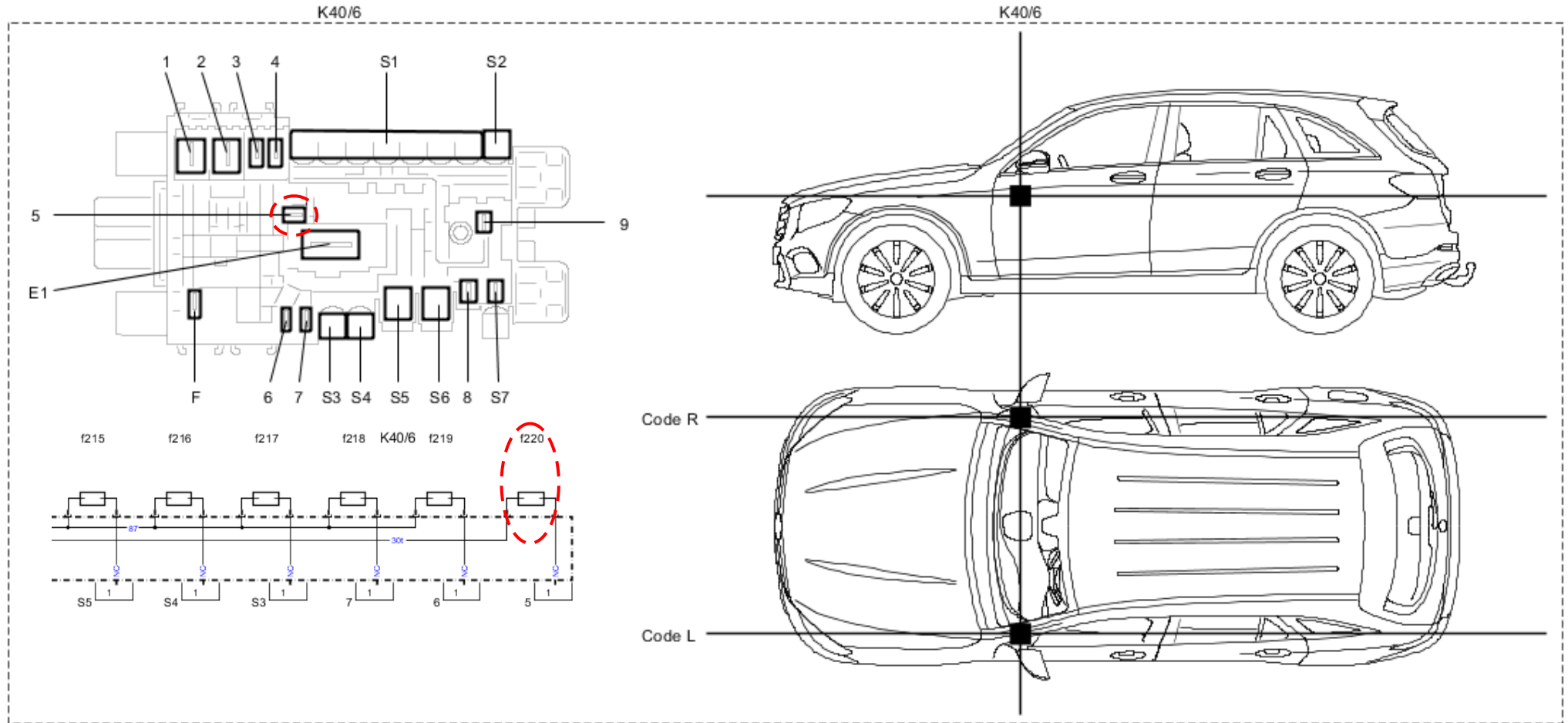
Appendix 31. W253FL X30/27 location



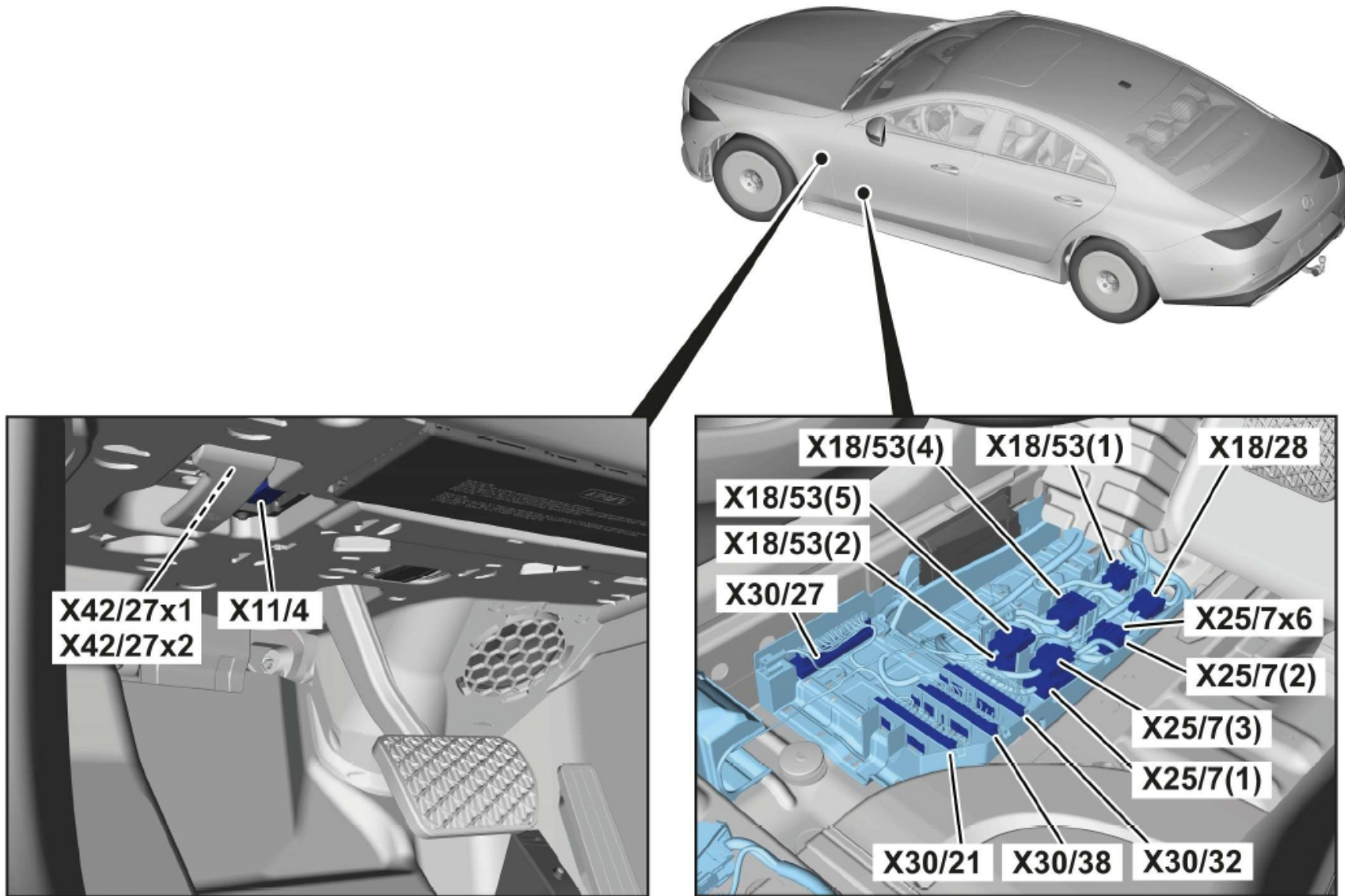
Appendix 32. W253FL ground point W34 location



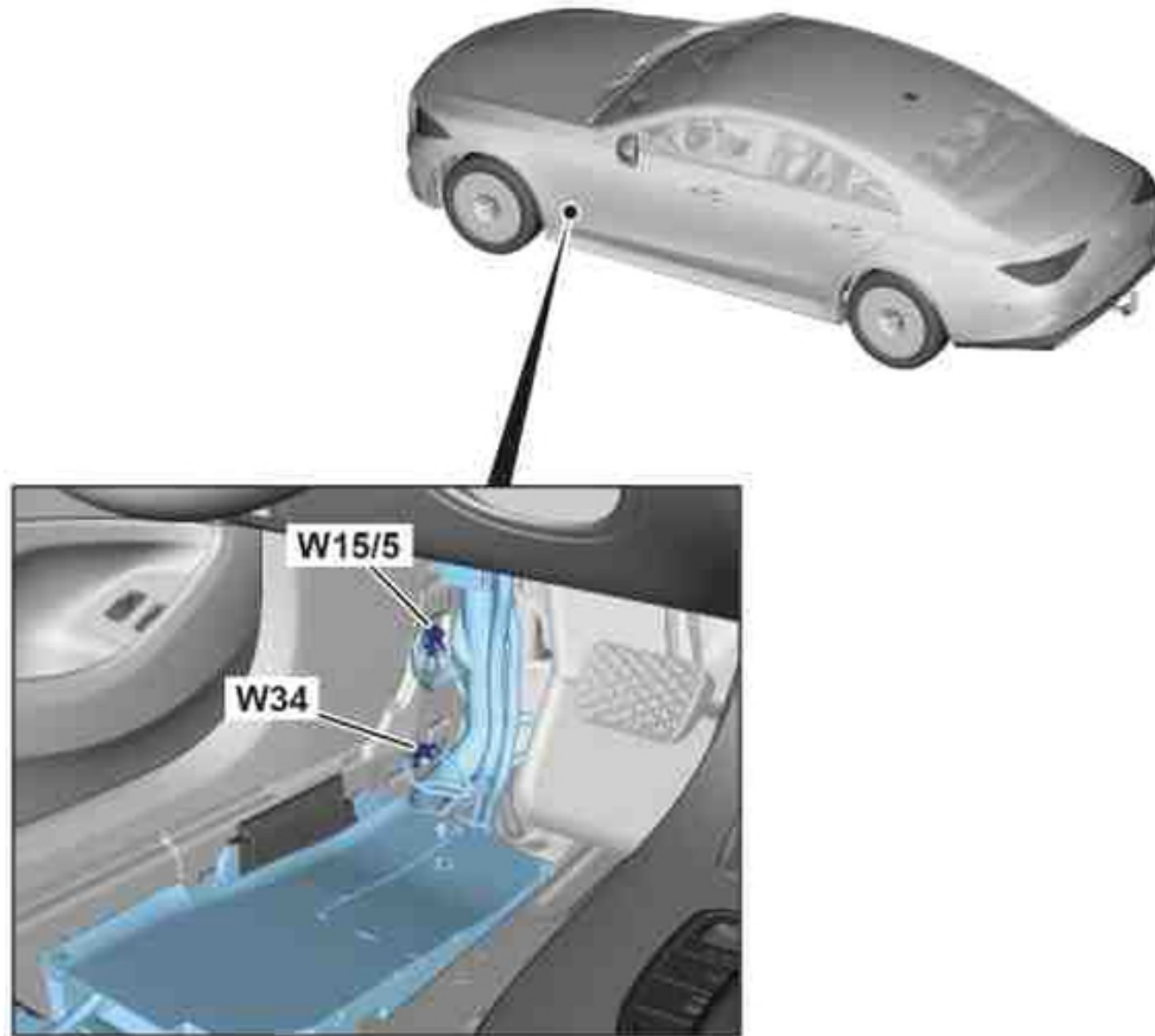
Appendix 33. W253FL K40/6 fuse and relay module location



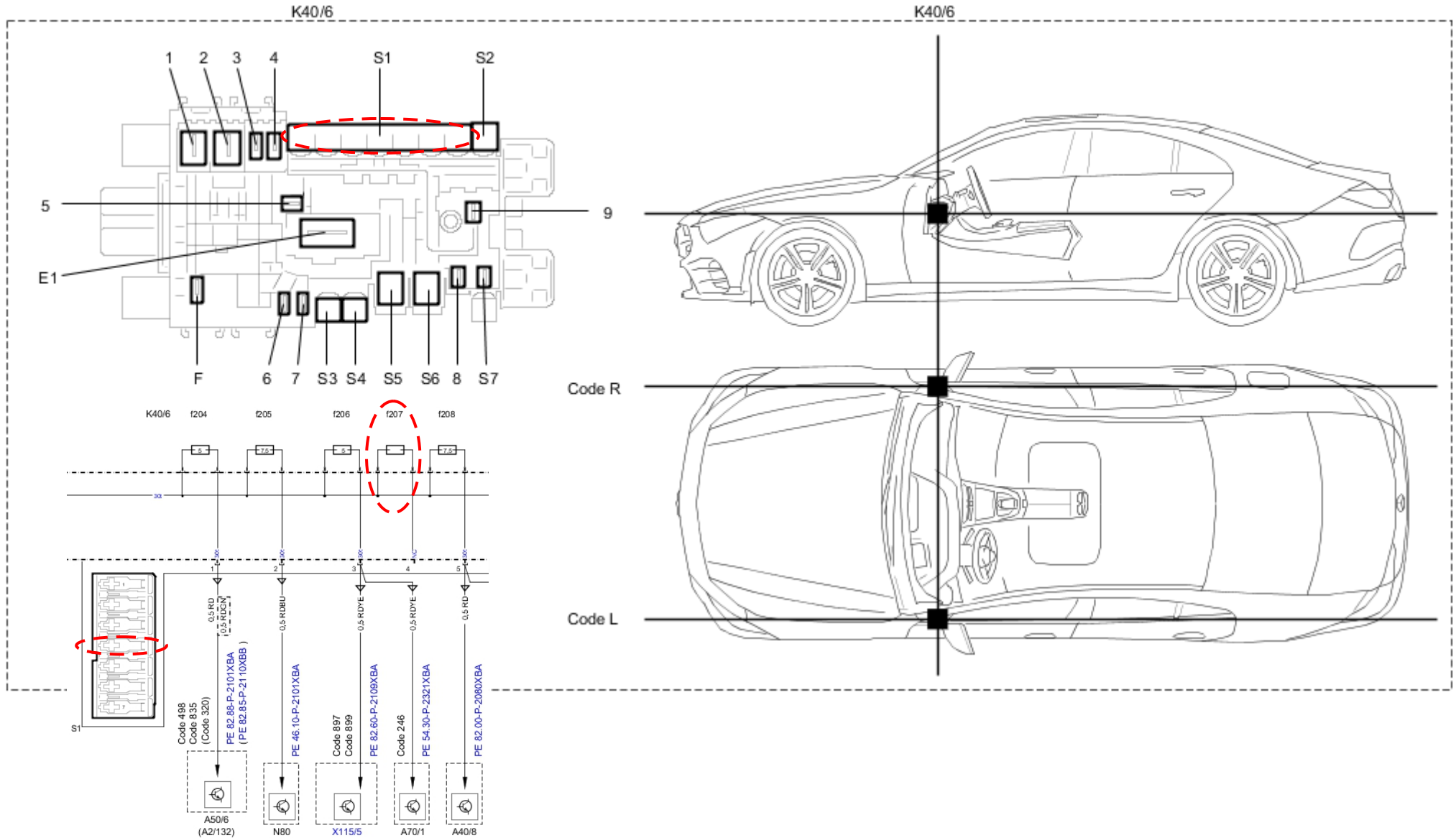
Appendix 34. W257 X30/27 location



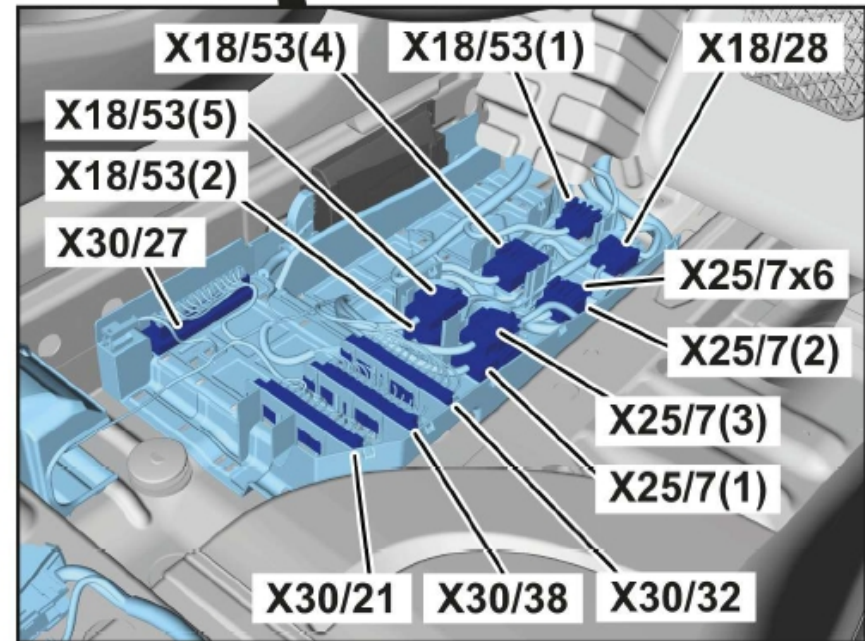
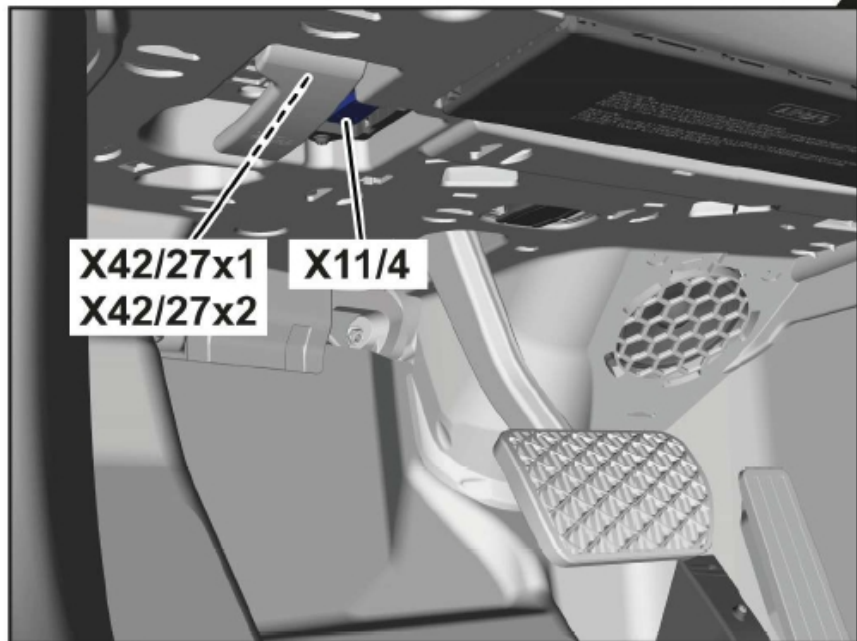
Appendix 35. W257 ground point W34 location



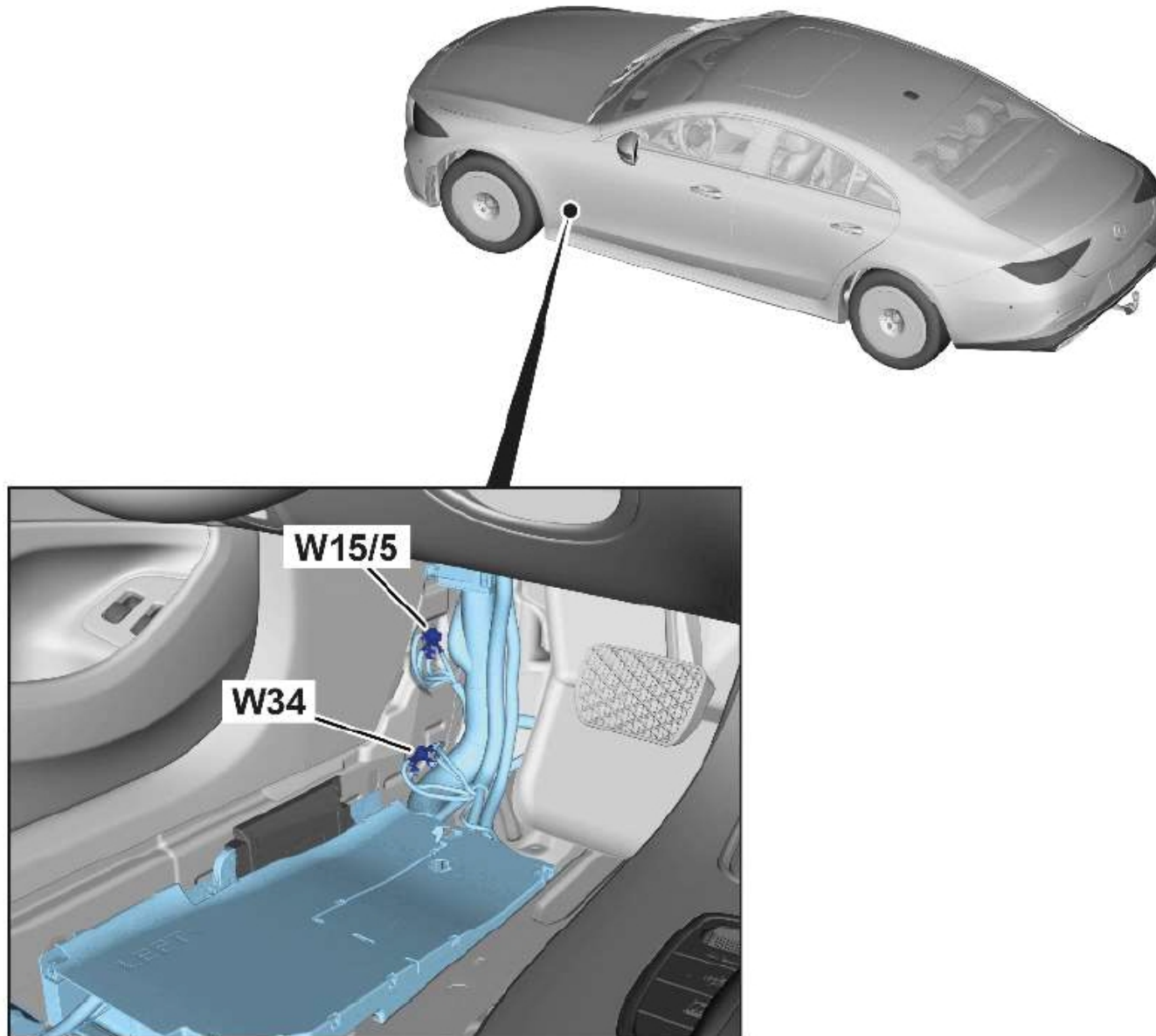
Appendix 36. W257 F1/3 fuse and relay module location



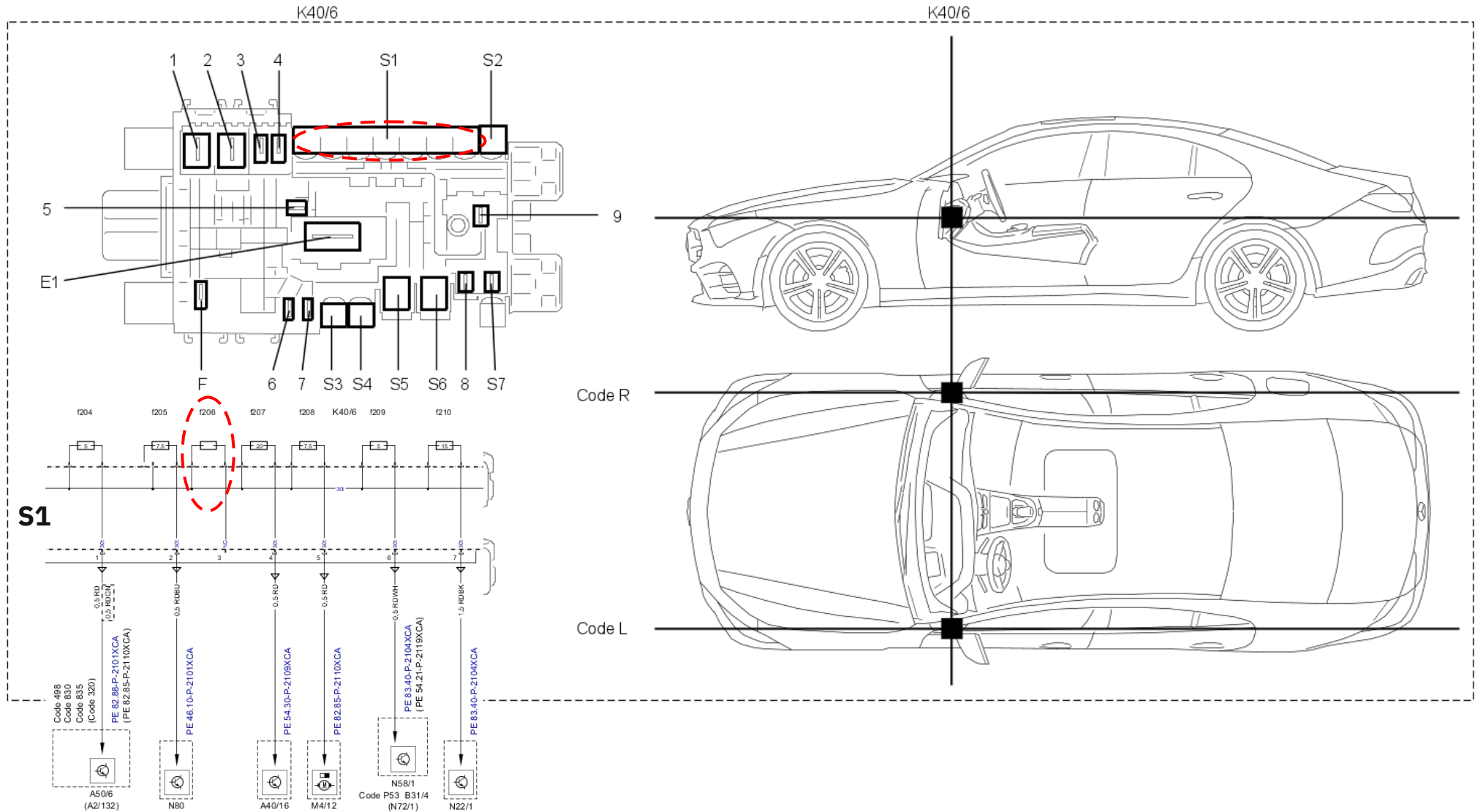
Appendix 37. W257FL X30/27 location



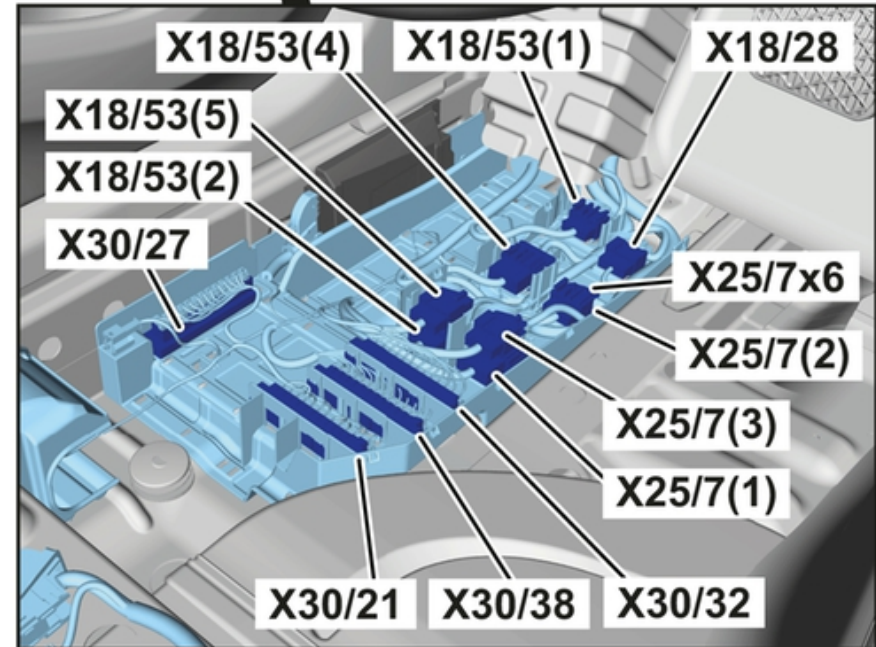
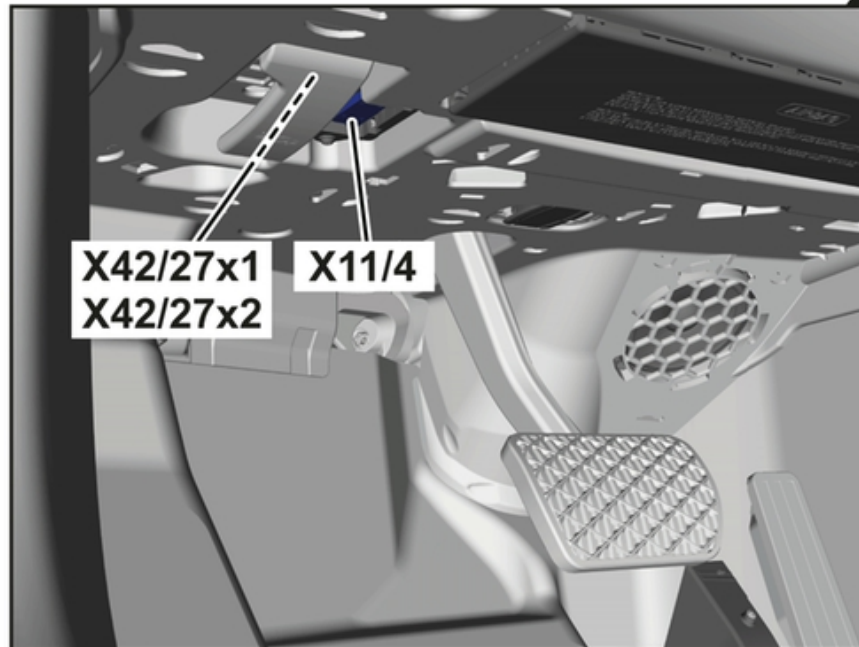
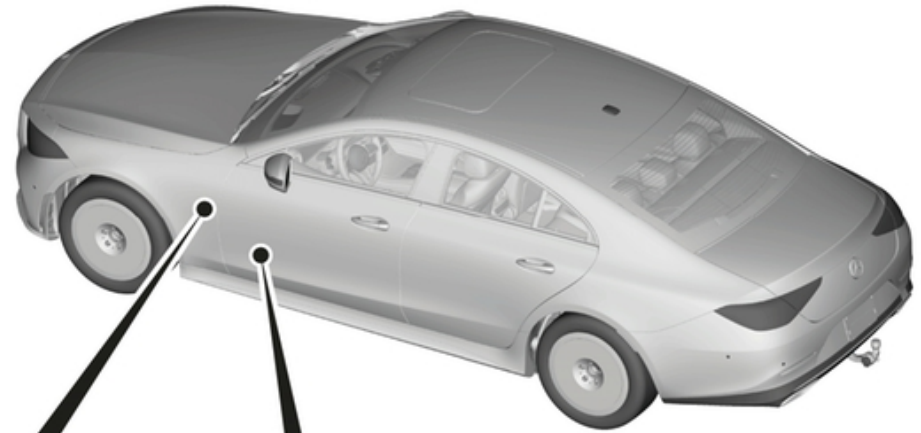
Appendix 38. W257FL ground point W34 location



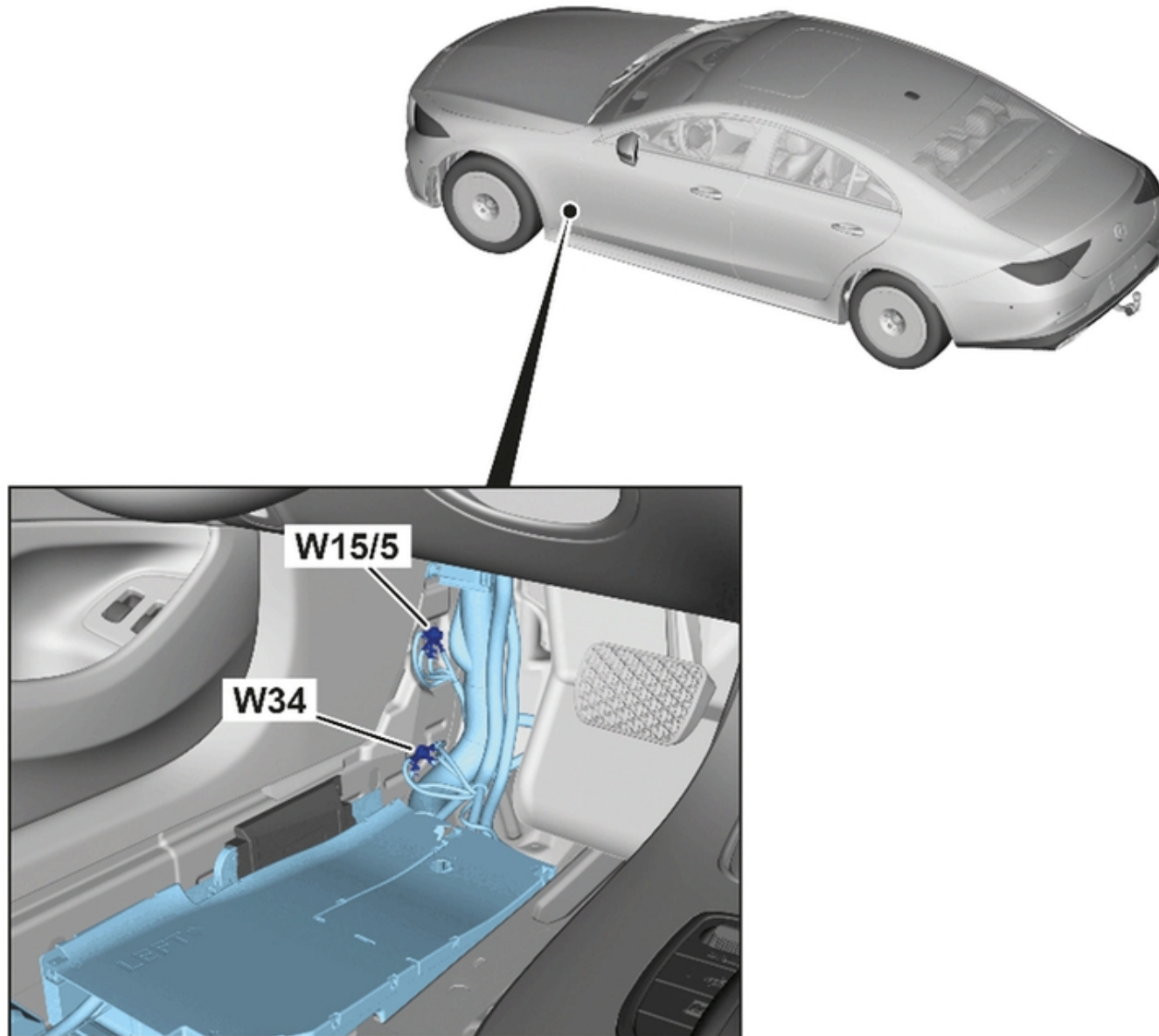
Appendix 39. W257FL K40/6 fuse and relay module location



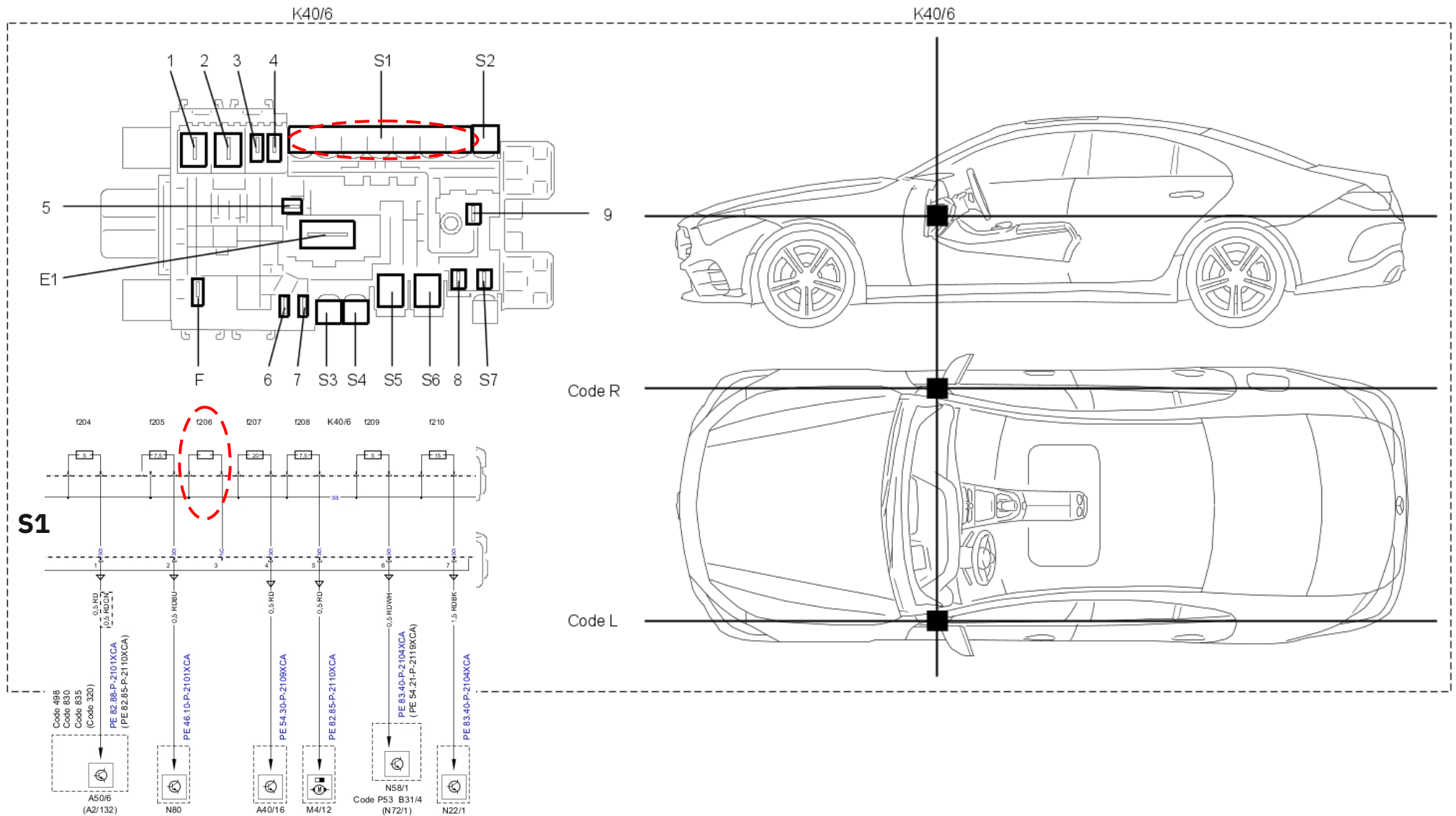
Appendix 40. W290 X30/27 location



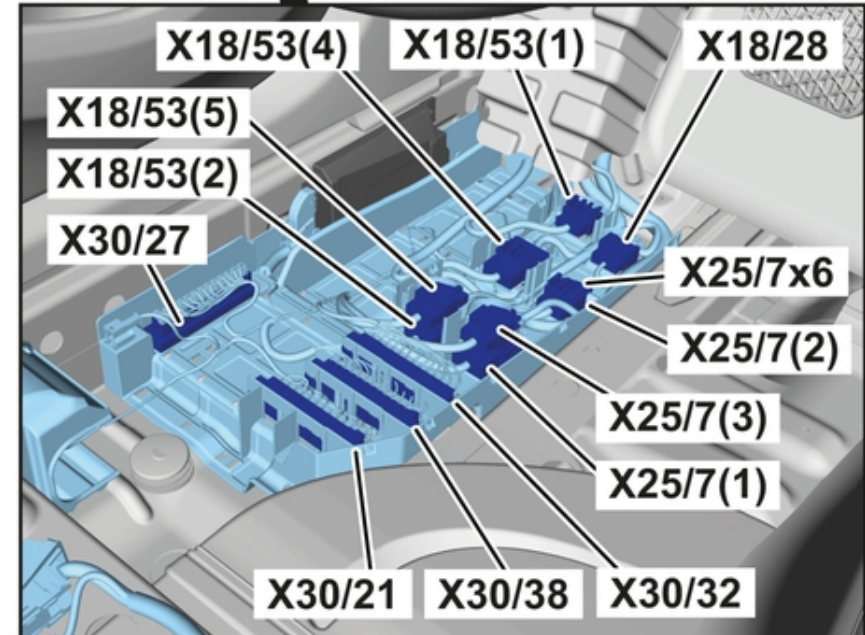
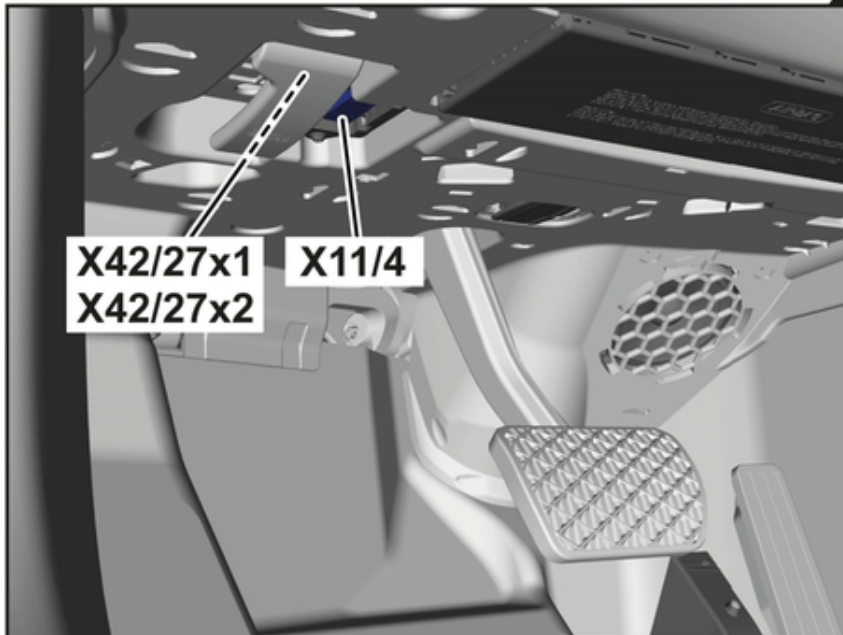
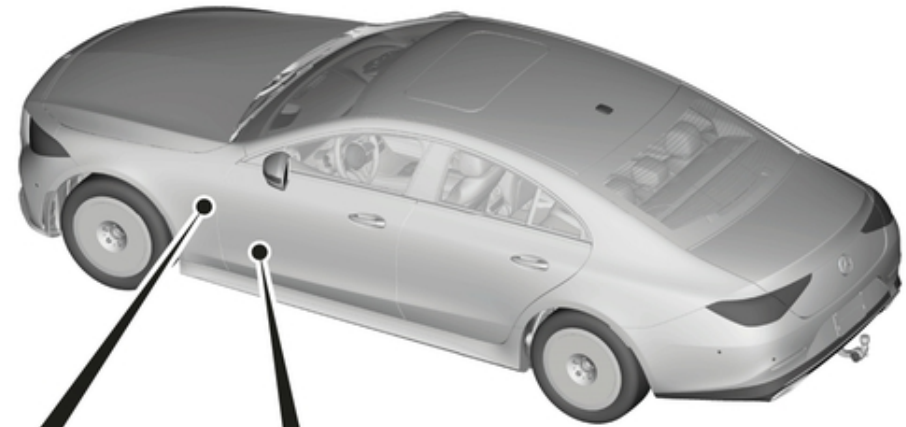
Appendix 41. W290 ground point W34 location



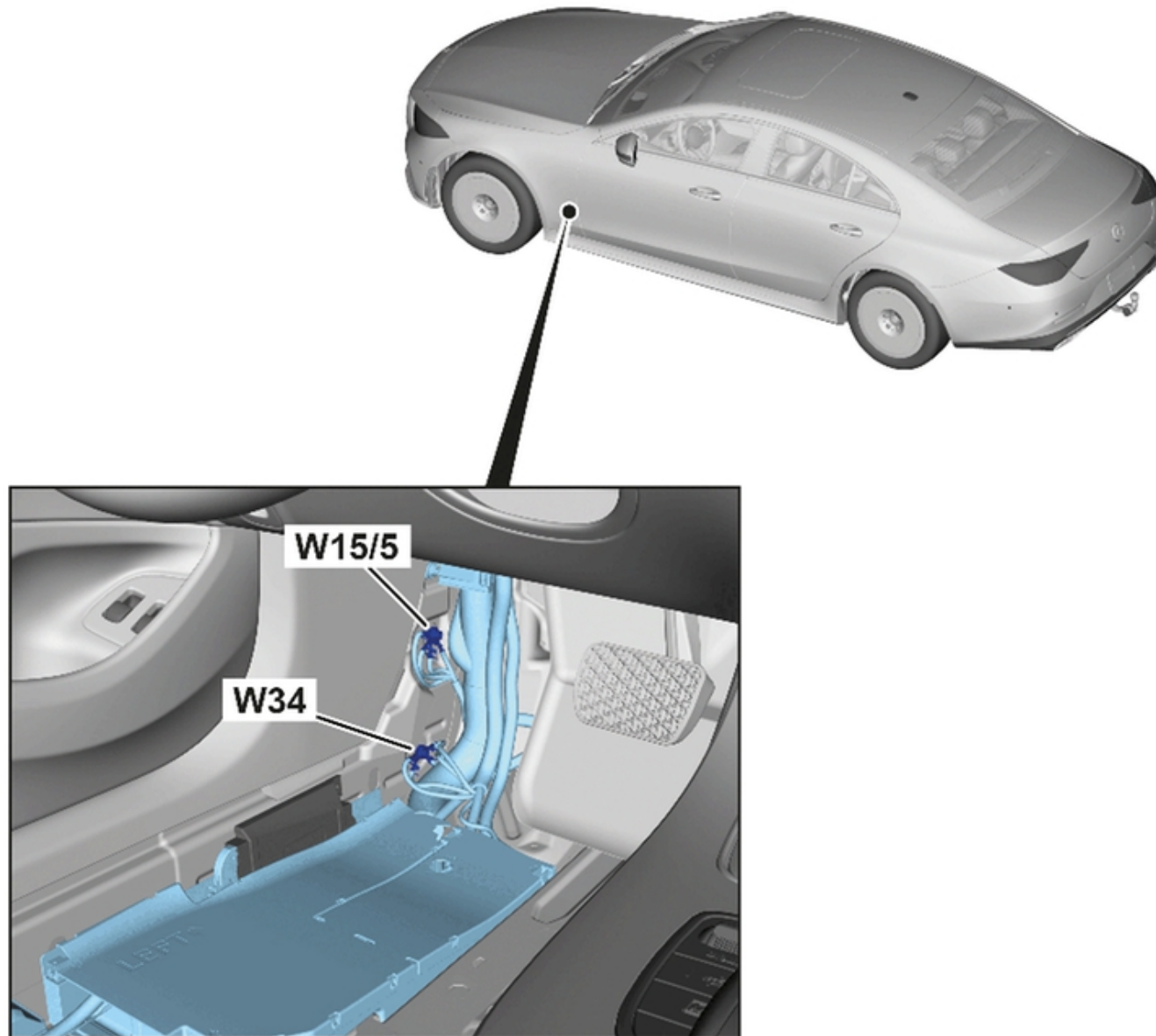
Appendix 42. W290 K40/6 fuse and relay module location



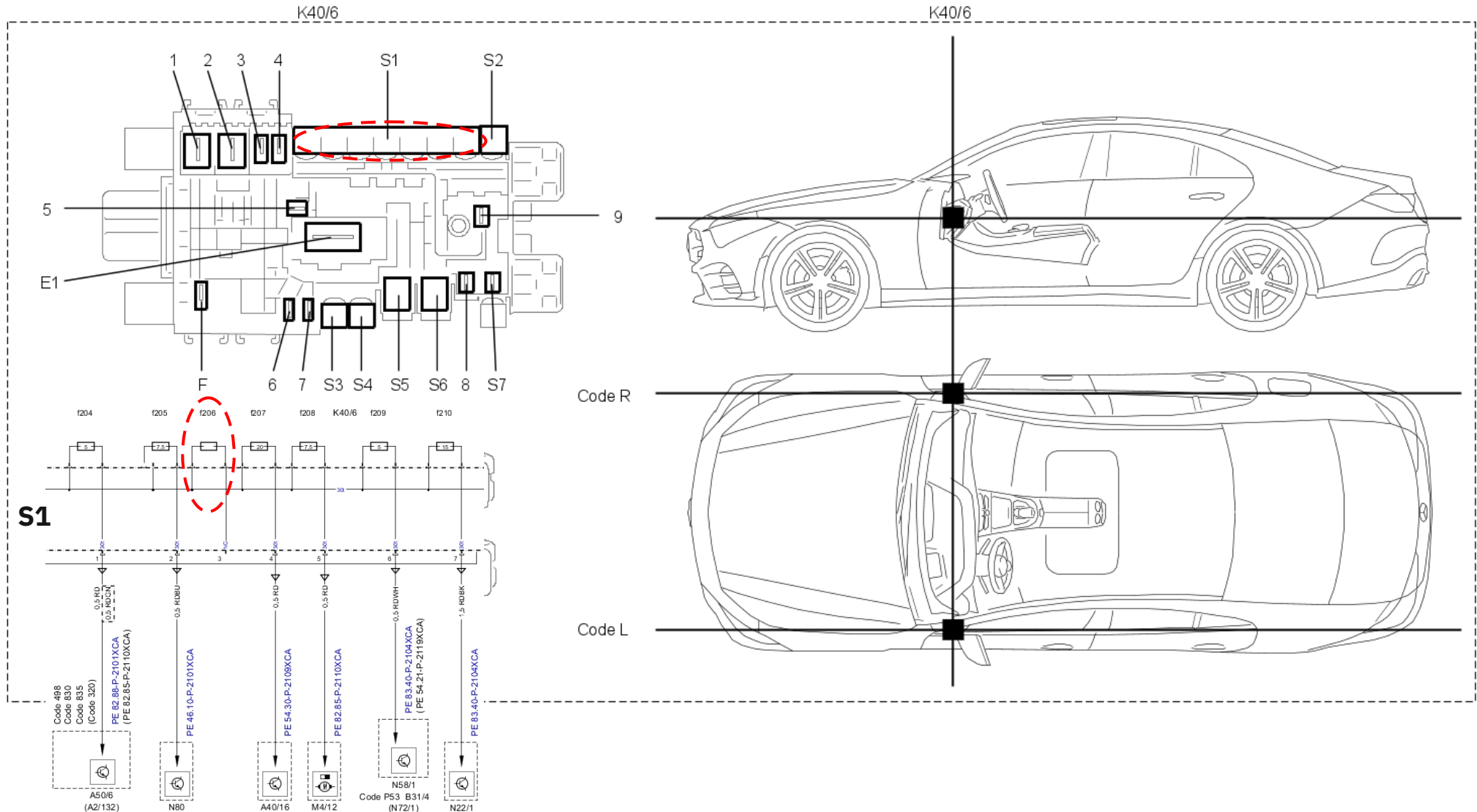
Appendix 43. W290FL X30/27 location



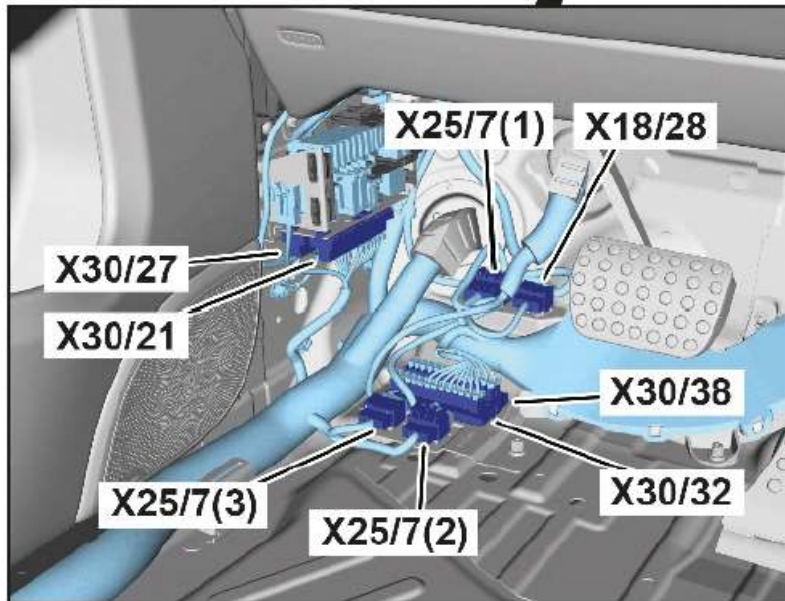
Appendix 44. W290FL ground point W34 location



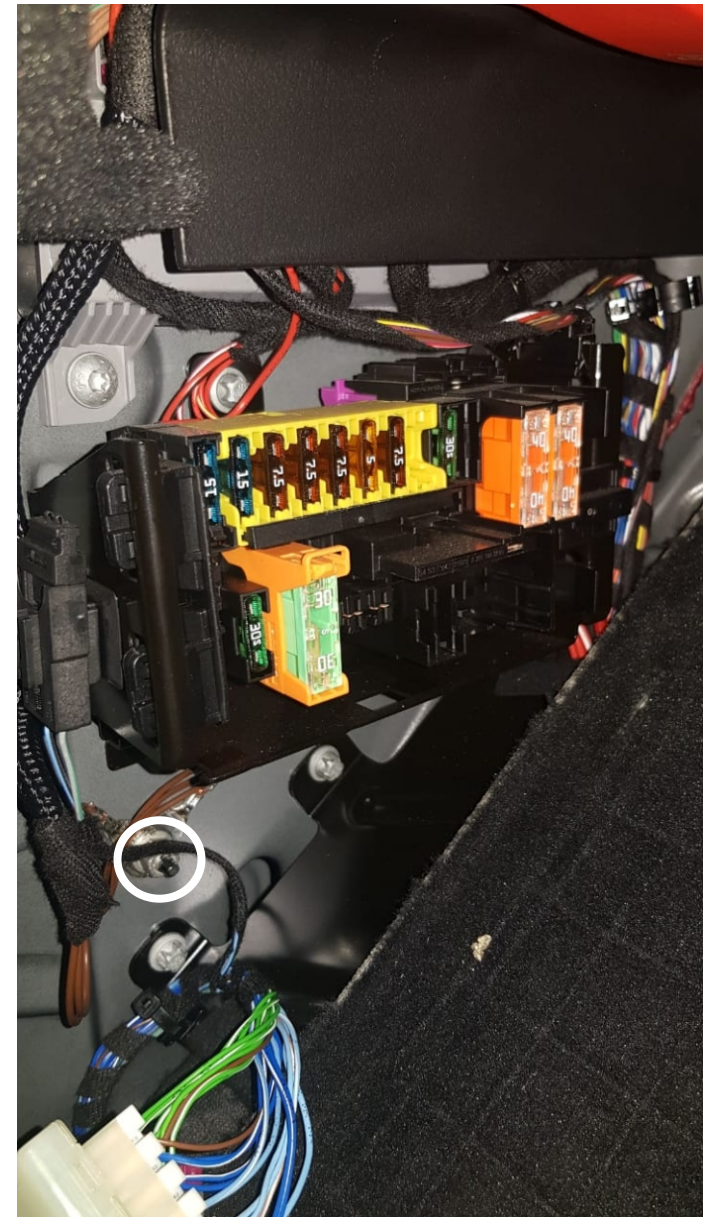
Appendix 45. W290FL K40/6 fuse and relay module location



Appendix 46. W463(2019->>) X30/27 location



Appendix 47. W463(2019->>) ground point location



Appendix 48. W463(2019->>) K40/6 fuse and relay module location

