

Toyota Hilux 8G (Fortuner) – fuse and relay

The 8th generation **Toyota Hilux** was produced in 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022 with the designation AN120 / AN130. During this time, the model has undergone restyling. In this publication, we will show the locations of the electronic control units, describe in detail the purpose of fuses and relays Toyota Hilux 8 with box diagrams and photo examples of their execution. Highlight the cigarette lighter fuse. This information will be useful to owners of **Toyota Fortuner**, since these cars are made on a common basis.



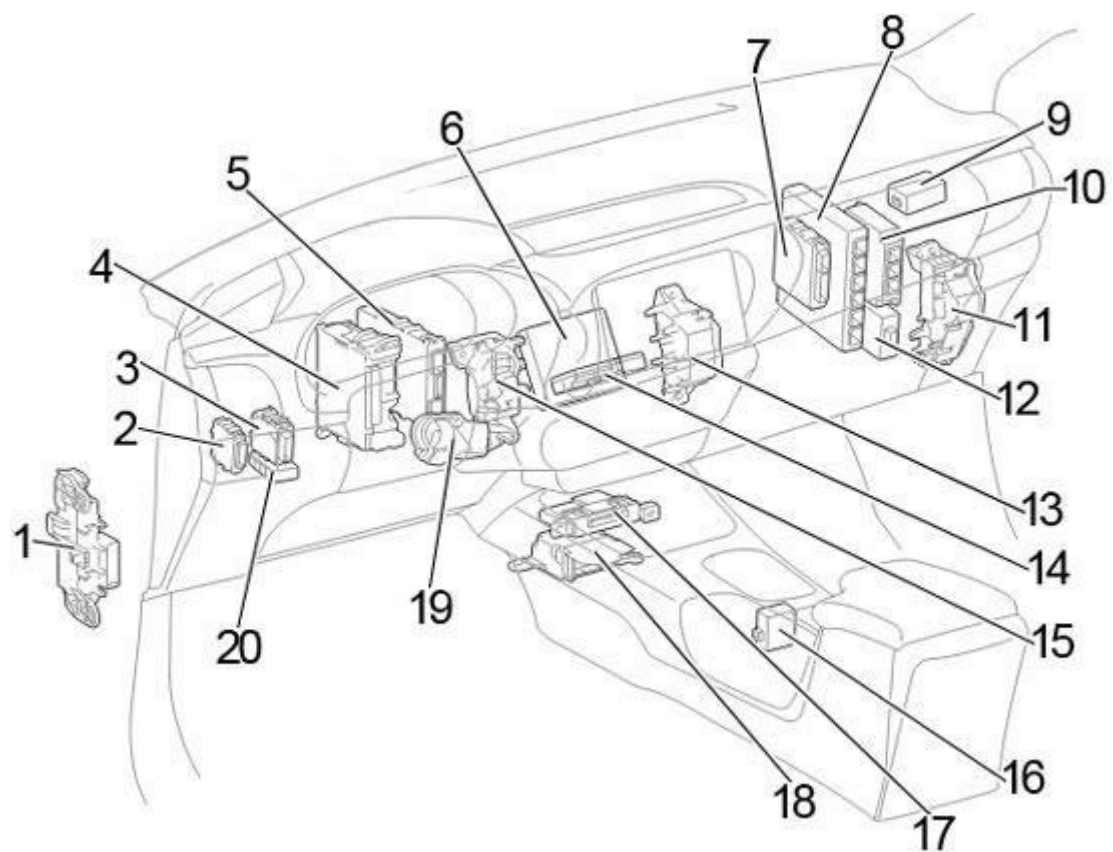
This vehicle has been supplied all over the world, therefore, a different design of the units is possible. Check the purpose of the elements with your diagrams on the box cover.

Passenger compartment

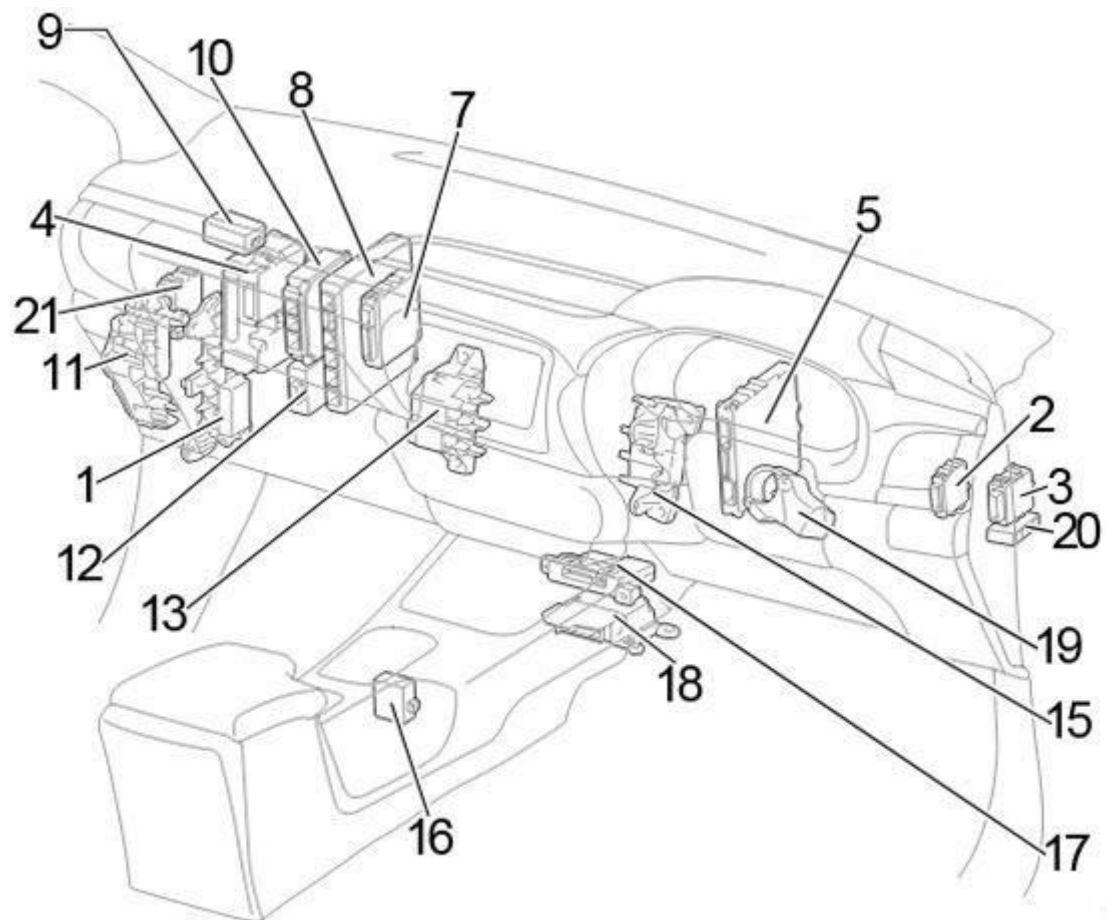
Location

General layout of boxes in the cabin

LHD



RHD



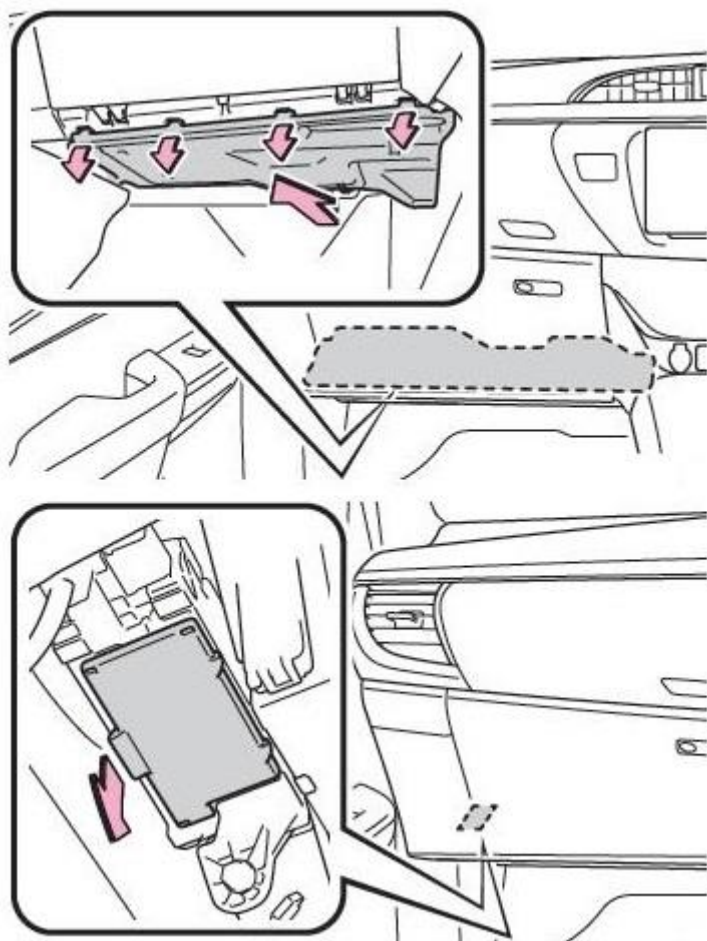
Assignment

1. Relay box No. 1
2. Headlight range control unit
3. Network gateway block
4. Fuse Box / Body ECM
5. Start-stop system control unit
6. LHD: Phone Transceiver
7. Four-wheel drive control unit
8. The engine control unit
9. Intelligent Entry Receiver / Central locking receiver
10. Transmission control unit
11. Relay box No. 2
12. Turbine control unit
13. Relay box No. 3
14. LHD: Navigation control unit
15. Relay box No. 4
16. Selector lever lock control unit
17. Air conditioner amplifier
18. Airbag control unit
19. Steering lock actuator
20. Distribution connector
21. RHD: Double Door Lock Relay

Fuse box

It is located at the bottom of the dashboard on the left side.

RHD



LHD

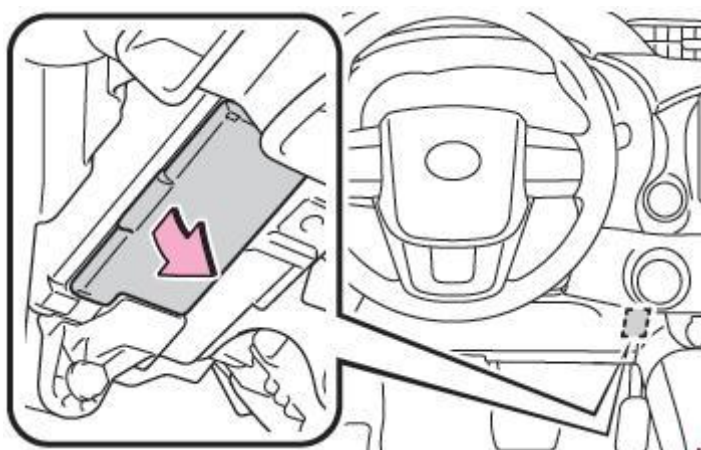
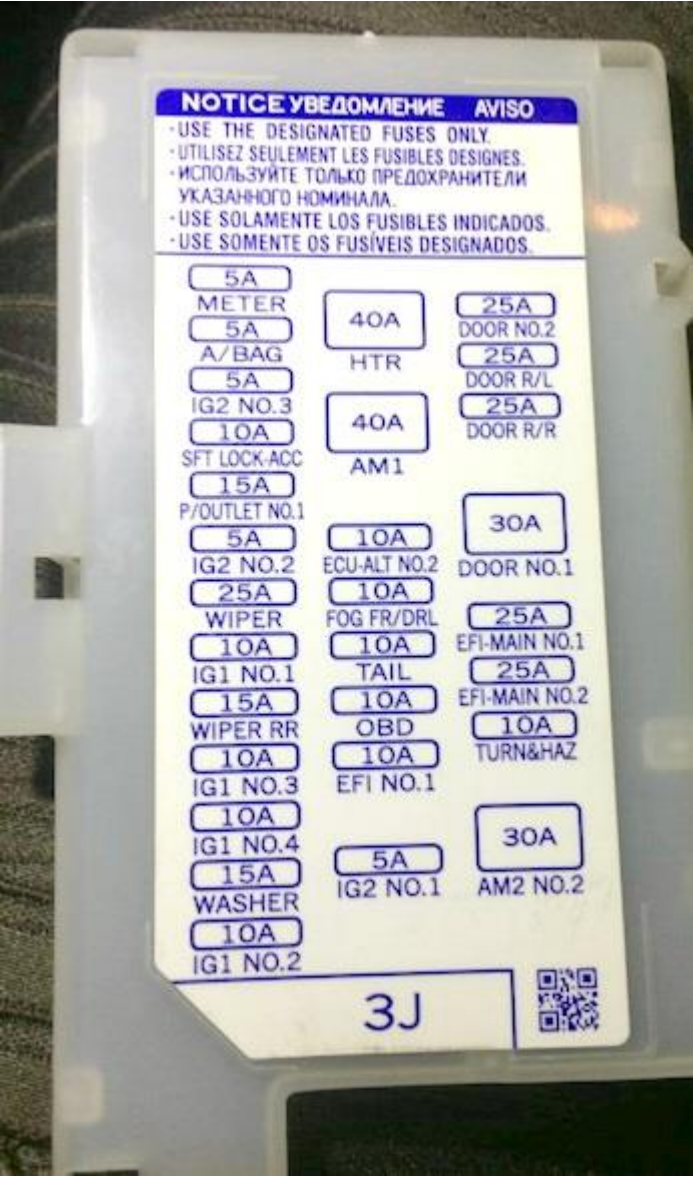


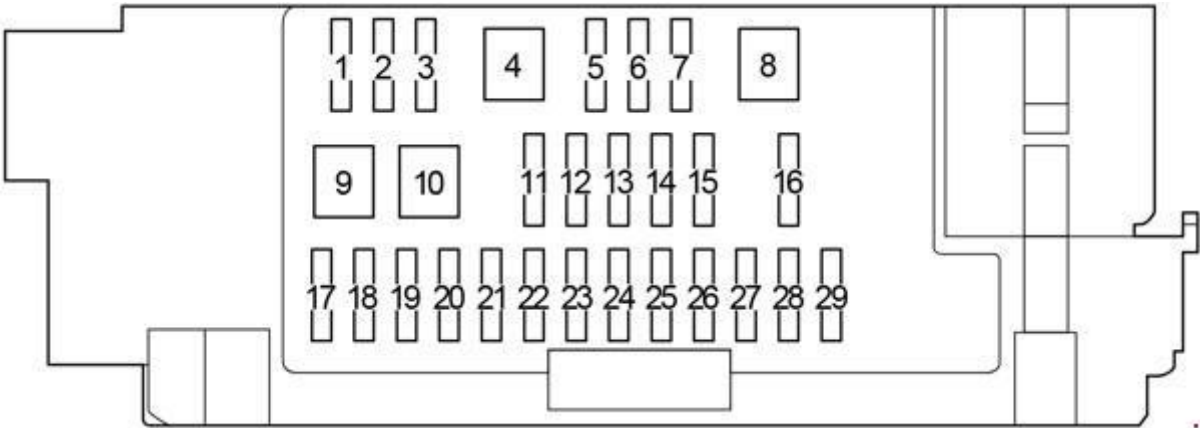
Photo example of execution



Example of a diagram from the box cover



Diagram



Designation

1	25A DOOR NO.2 – Window regulators
2	25A DOOR R / L – Window regulators

3	25A DOOR R / R – Window regulators
4	30A DOOR NO.1 – Window regulators
5	10A ETCS – 1GR-FE, 1KD-FTV, 2KD-FTV, 1TR-FE, 2TR-FE, 5L-E: Multiport fuel injection system / sequential multiport fuel injection system
	25A EFI-MAIN NO.1 – 1GD-FTV, 2GD-FTV: ABS, A / C, Hill Descent Assist, Multiport Fuel Injection System / Sequential Multiport Fuel Injection System, Hill Assist, TRC, VSC
6	25A EFI-MAIN NO.1 – 1GR-FE, 1KD-FTV, 2KD-FTV, 1TR-FE, 2TR-FE, 5L-E: ABS, air conditioning, hill descent assist, multiport fuel injection system / sequential multiport injection system fuel, lift assist, TRC, VSC
	25A EFI-MAIN NO.2 – 1GD-FTV, 2GD-FTV: Multiport fuel injection system / sequential multiport fuel injection system
7	10A TURN & HAZ – Direction indicators (hazard warning lights), instrument cluster, central locking, smart entry and start system, immobilizer, start system, steering lock, anti-theft system, wireless control system
8	30A AM2 NO.2 – Multiport fuel injection system / sequential multiport fuel injection system, intelligent entry and start system, immobilizer, start system, steering lock, wireless control system
9	40A HTR – Air Conditioning, Charging System
10	40A AM1 – Intelligent Entry and Start System, Immobilizer, Start System, Steering Lock, Wireless Control System
11	10A TAIL – 1GR-FE, 1KD-FTV, 2KD-FTV, 1TR-FE, 2TR-FE, 5L-E: Side light, backlight, automatic light control, charging system, smart entry and start system, front fog light, immobilizer , key buzzer, light buzzer, rear fog light, start system, steering lock, wireless control system
	10A ECU-ALT NO.2 – 1GD-FTV, 2GD-FTV: Central locking, windows, anti-theft system
12	10A FOG FR / DRL – Front fog light, headlights, lights, side light
13	10A ECU-ALT NO.2 – 1GR-FE, 1KD-FTV, 2KD-FTV, 1TR-FE, 2TR-FE, 5L-E: central locking, Power windows, anti-theft system
	10A TAIL – 1GD-FTV, 2GD-FTV: Side light, backlight, automatic light control, charging system, smart entry and start system, front fog light, immobilizer, key buzzer, light buzzer, rear fog light, start system, steering lock , wireless control system

14	10A OBD – Diagnostic connector
15	10A EFI NO.1 – ABS, air conditioning, hill descent assist, multiport fuel injection system / sequential multiport fuel injection system, lift assist system, start-stop system, TRC, VSC
16	5A IG2 NO.1 – Multiport fuel injection system / sequential multiport fuel injection system
17	5A METER – Instrument Cluster, 4WD, ABS, Air Conditioning, Audio System, Charging System, Central Locking, Descent Assist System, Multiport Fuel Injection System / Sequential Multiport Fuel Injection System, Intelligent Entry and Start System, Headlights, Headlight Range Control, Headlamp Washers , lift assist system, lighting, immobilizer, interior lighting, key buzzer, lane keeping system, light buzzer, navigation, collision avoidance system, monitor, seat belt indicator, airbags, starting system, steering lock, start-stop system , side light, telematics system, anti-theft system, tire pressure monitoring system, TRC, direction indicators (alarm), VSC, wireless control system
18	5A A / BAG – Airbags
19	5A IG2 NO.3 – Charging system, multiport fuel injection system / sequential multiport fuel injection system, immobilizer, body ECM, telematics system
20	10A SFT LOCK-ACC – Lock the gear selector
21	15A P / OUTLET NO.1 – Socket (cigarette lighter)
22	5A IG2 NO.2 – Intelligent Entry and Start System, Immobilizer, Start System, Steering Lock, Wireless Control System
23	25A WIPER – Wiper
24	10A IG1 NO.1 – Audio system, reversing lamps, charging system, instrument cluster, multiport fuel injection system / sequential multiport fuel injection system, lane keeping system, navigation, monitor
25	–
26	10A IG1 NO.3 – ABS, downhill assist, uphill assist, start-stop system, TRC, VSC
27	10A IG1 NO.4 – Air conditioning, audio system, automatic lighting control, charging system, instrument cluster, central locking, multiport fuel injection system / sequential multiport fuel injection system, intelligent entry and start system, front fog lights, headlights, automatic headlight range control , headlight cleaners, lighting, immobilizer, interior lighting, heated mirrors, electrical control unit

28	15A WASHER – Washer for glass
29	10A IG1 NO.2 – Charging system, Gearbox selector lock

The fuse number 21, 15A, is responsible for the cigarette lighter.

Relay box No. 1

It is located on the left (LHD) pillar under the protective compartment. To access, remove the sill trim. An example is available on the diagram.



Photo for example

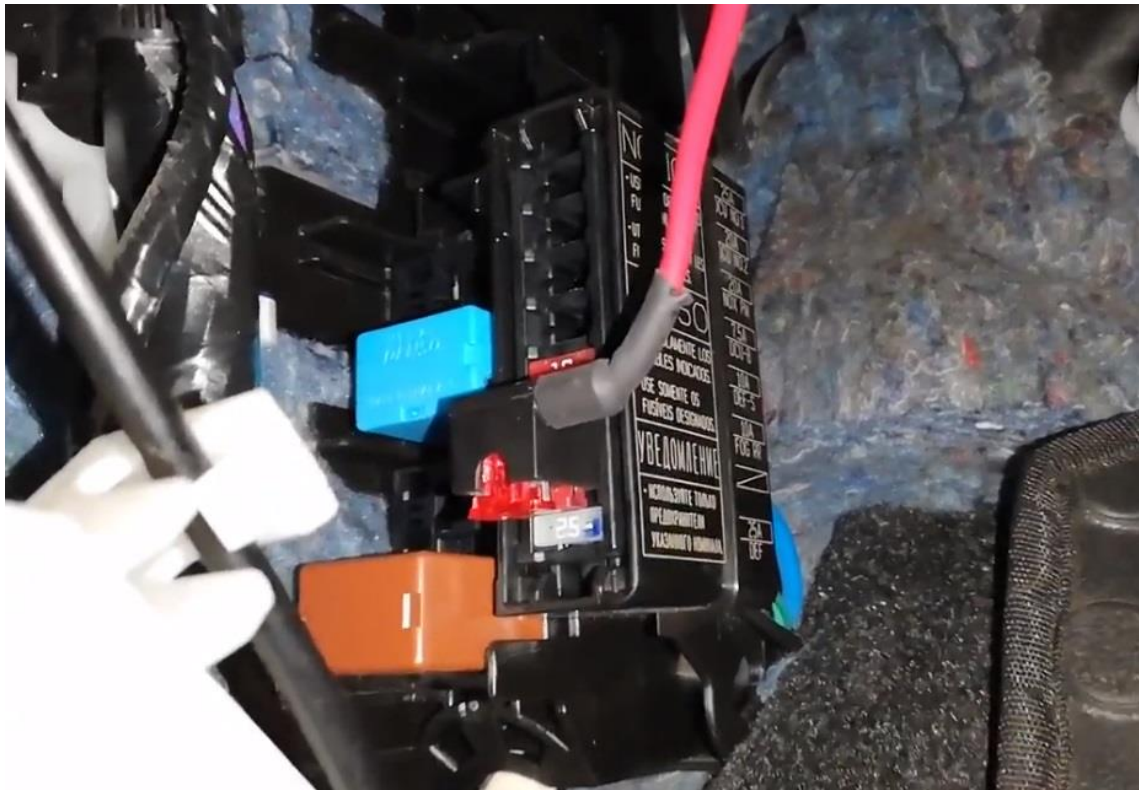
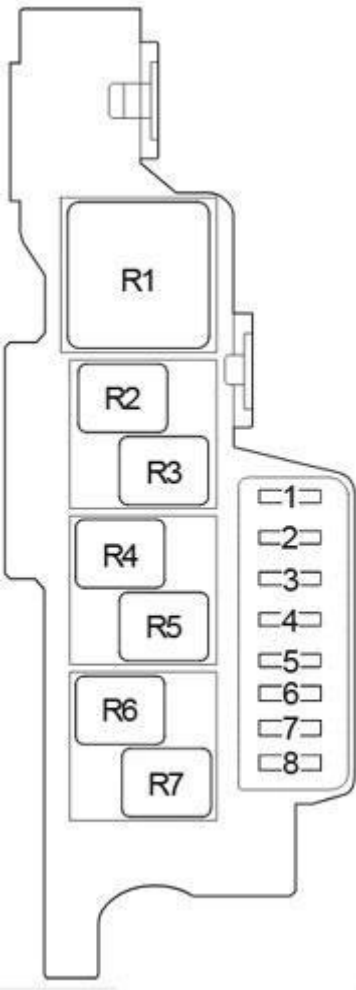


Diagram from the box cover



Relay box 1 diagram



Appointment

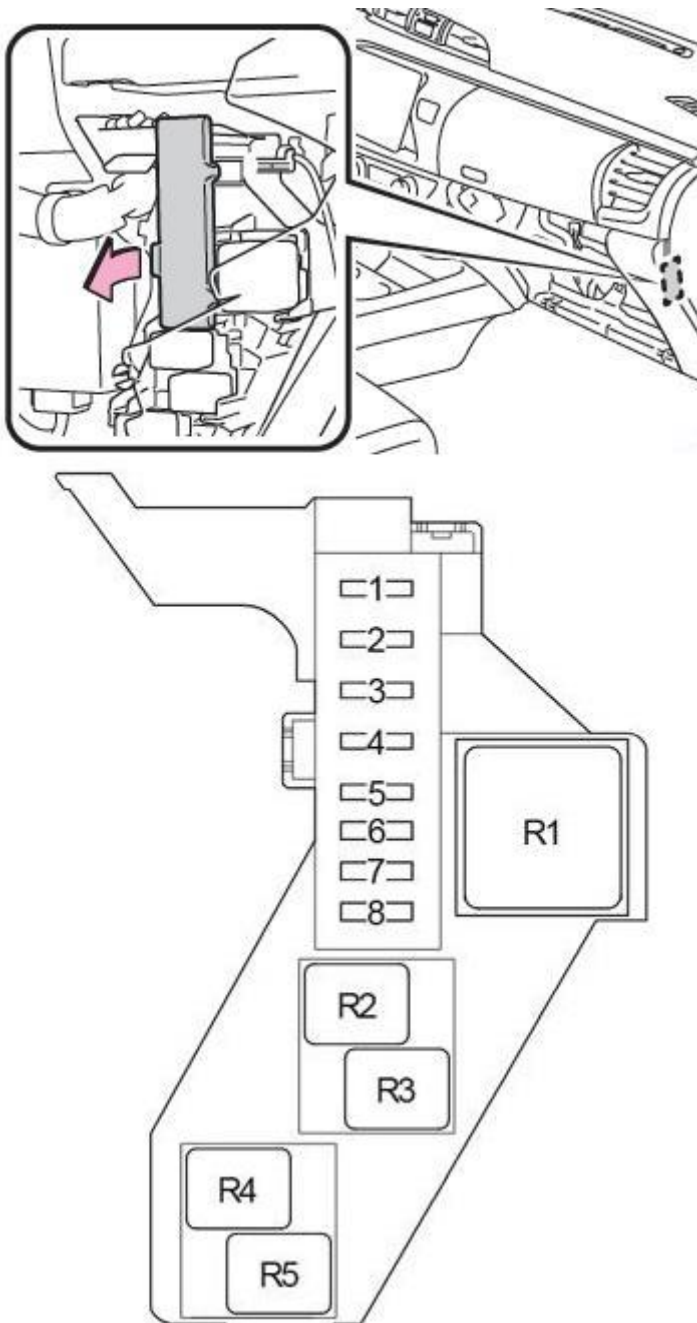
1	25A DCU NO.1 – Transfer pump
2	20A DCU NO.2 – Transfer pump
3	20A NOX PM – Nitrogen oxide sensor
4	7,5A DCU-B – Transfer pump
5	10A DEF-S – Heated mirrors, multiport fuel injection system / sequential multiport fuel injection system
6	10A FOG RR – Rear fog light
7	15A DEICER – Heated brush parking area
8	25A DEF – Heated rear window, heated mirrors, multiport fuel injection system / sequential multiport fuel injection system
Relay	

R1	Transfer pump (DCU-MAIN)
R2	Nitrogen Oxide Sensor (NOX PM)
R3	Heated area for parking brushes (DEICER)
R4	Rear fog light (FOG RR)
R5	–
R6	Inverter (INV)
R7	Heated rear window, heated mirrors (DEF)

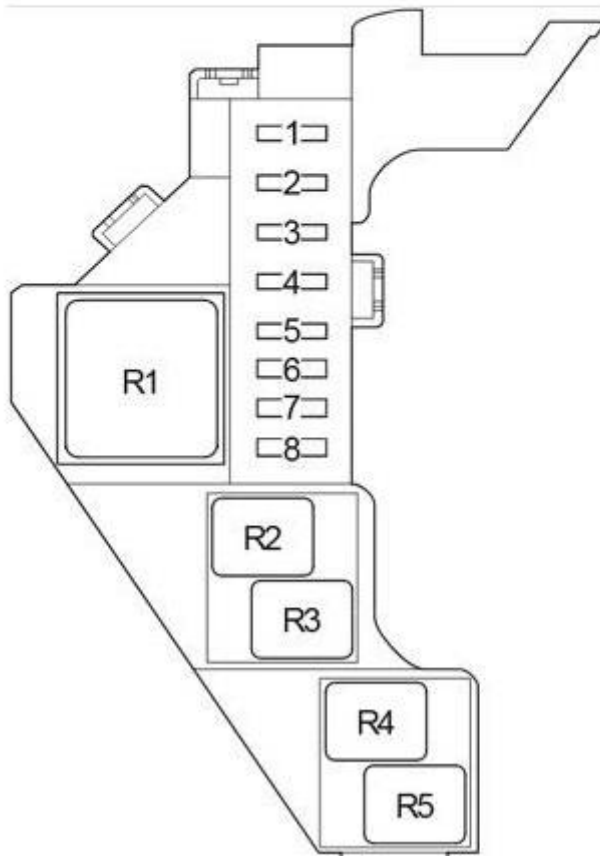
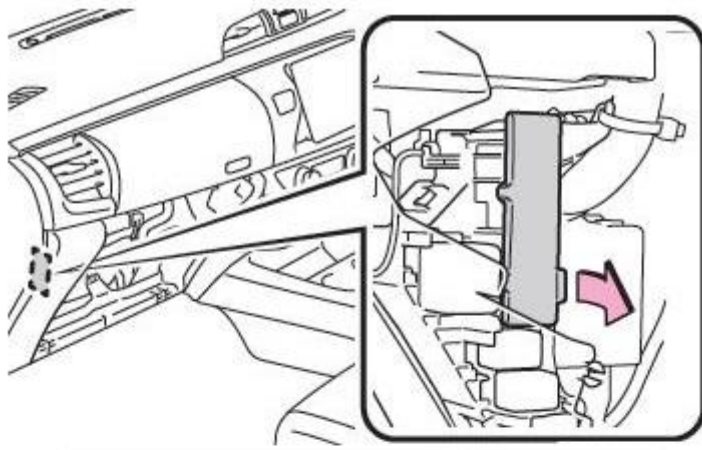
Relay box No. 2

Installed behind the glove compartment, at the end of the dashboard.

LHD



RHD



Example of a diagram from the box cover



Decoding

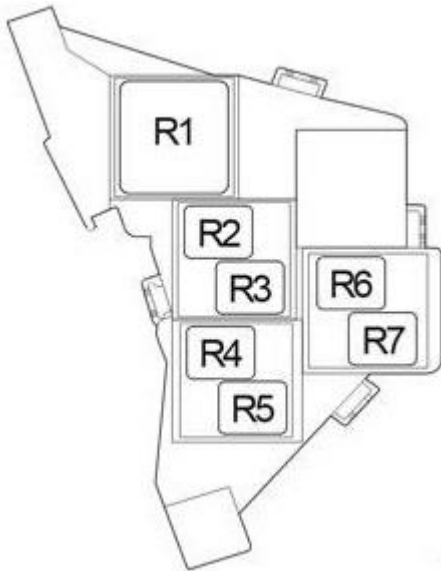
1	5A ACC – 4WD, ABS, air conditioning, audio system, charging system, clock, instrument cluster, central locking, descent assist system, multiport fuel injection system / sequential multiport fuel injection system, intelligent entry and start system, headlights, automatic headlight range control , headlight wipers, lift assist, lights, immobilizer, interior lighting, key buzzer, lane control system, light buzzer, ECU, navigation, anti-collision system, monitor, power mirrors, seat belt indicator, airbags security, starting system, steering lock, start-stop system, side light, telematics system, anti-theft system, tire pressure monitoring system, TRC, direction indicators (alarm), VSC, wireless control system
2	10A A / C – Air Conditioning
3	10A C / OPN NO.2 – Multiport fuel injection system / sequential multiport fuel injection system
4	7,5A STA / WIPER-S – Starting system, multiport fuel injection system / sequential multiport fuel injection system
5	–
6	20A 4WD-IG – All wheel drive
7	15A S / HTR – Before Aug 2017: Heated seats
	15A S / HTR / S / VENT – From Aug 2017: Heated seats
8	10A IG1 NO.5 – Air Conditioning, Lane Keeping Assist, Collision Avoidance System

Relay	
R1	Heater (HTR)
R2	Ignition (IG1 NO.2)
R3	Ignition (IG2)
R4	LHD: Heated steering wheel (STRG HTR)
R5	Air conditioner (A / C COMP)

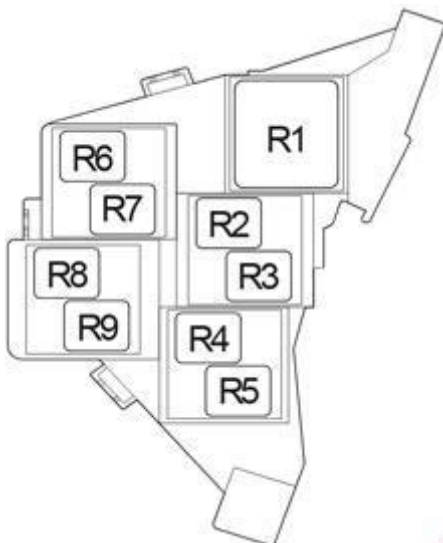
Relay box No. 3

Diagram

LHD



RHD

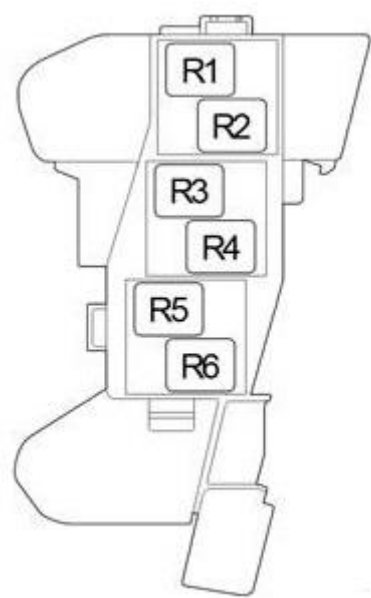


Assignment

R1	Auxiliary heater (PTC HTR NO.1)
R2	Auxiliary heater (PTC HTR NO.3)
R3	Auxiliary heater (PTC HTR NO.2)
R4	Liquid heater (VISCOUS)
R5	–
R6	Central locking (D / L NO.1)
R7	Central locking (D / L NO.2)
R8	RHD: Central locking (D / L NO.2)
R9	RHD: –

Relay box No. 4

Diagram



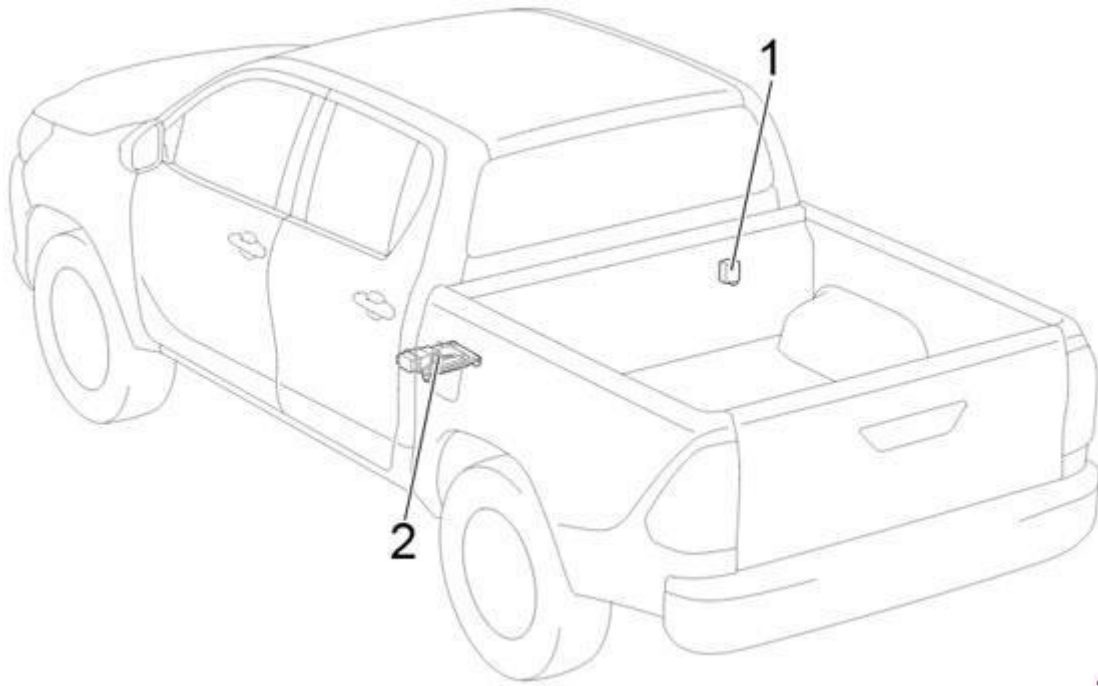
Designation

R1	Daytime running lights (DRL)
R2	Anti-theft system (S-HORN)
R3	Front fog light (FOG FR)
R4	Side light (TAIL)

R5	Interior lighting (DOME CUT)
R6	Ignition (IG1 NO.1)

Additional elements

Diagram



Decoding

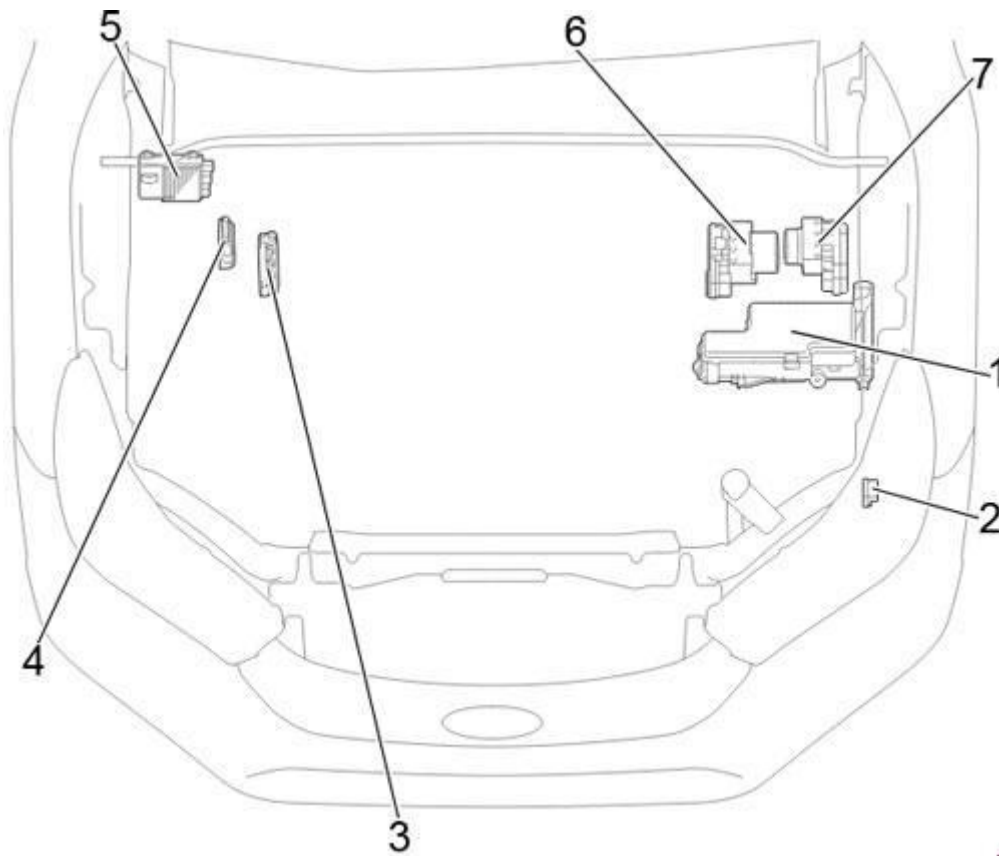
1. The receiver for the tire pressure monitoring system (in models with a single cab, it is located above the rear window)
2. Transfer pump control unit

Engine compartment

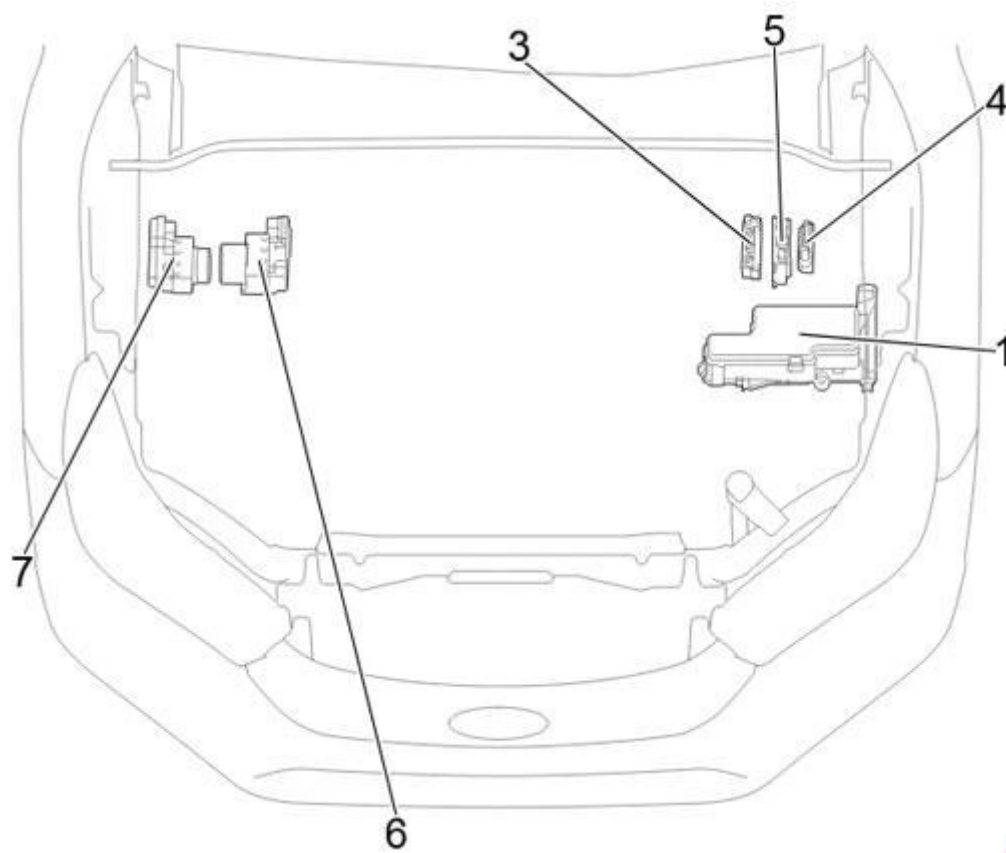
Location

General arrangement of boxes under the hood

LHD



RHD



Appointment

1. Fuse and relay box

2. LHD: Headlight wiper relay
3. Glow plug control unit
4. Air control unit
5. Injector control unit
6. Brake Actuator (VSC)
7. Brake actuator (without VSC)

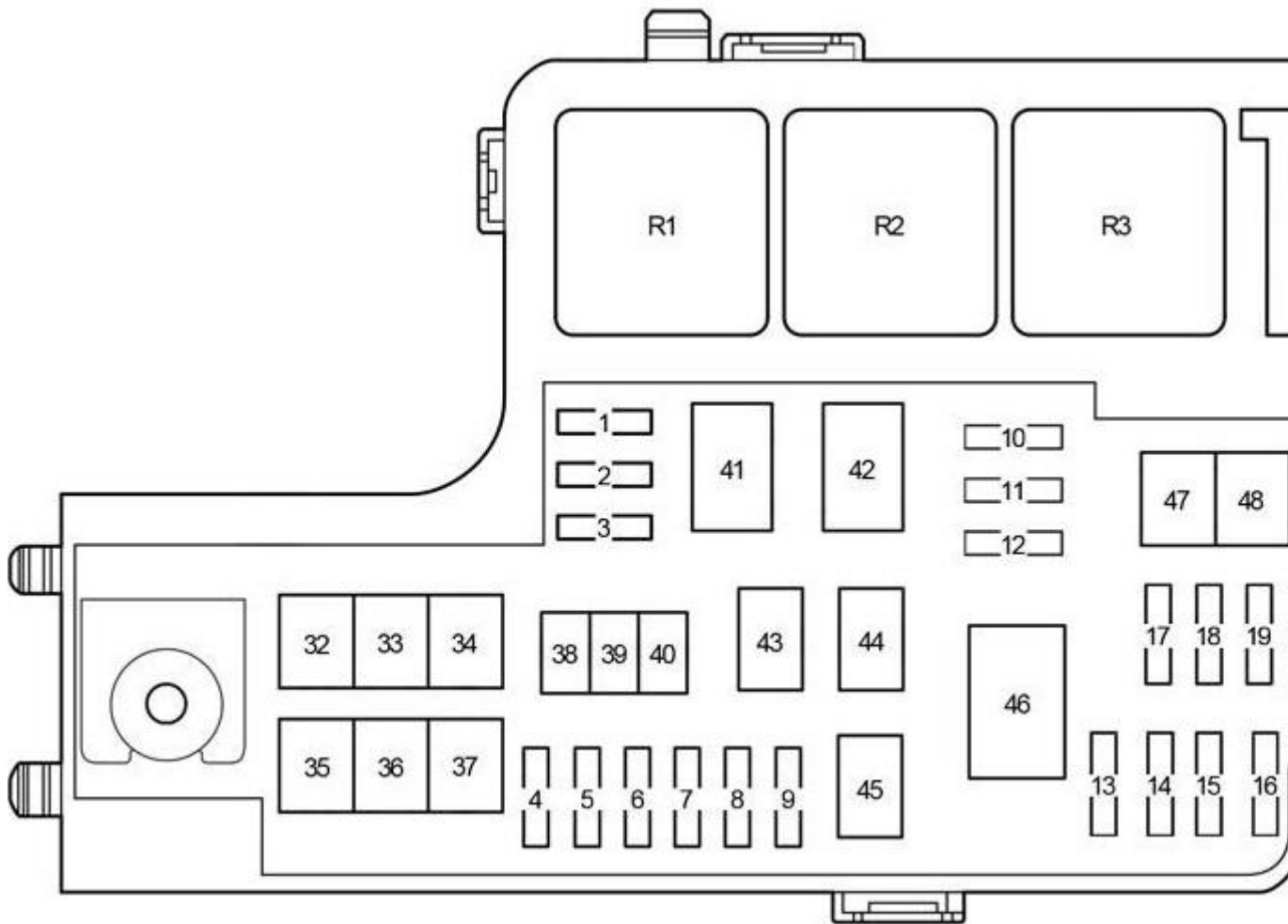
Fuse and relay box

Located on the left side of the engine compartment, next to the battery.

Photo – example



Diagram



Protected components

1	–
2	–
3	–
4	20A INV – Socket (inverter)
5	10A ECU-ALT NO.1 – Double lock
6	–
7	10A STOP – From August 2017: Brake lights, ABS, TRC, VSC, multiport fuel injection system / sequential multiport fuel injection system, charging system, downhill assist system, intelligent entry and start system, uphill assist system, immobilizer, Gear selector lock, starting system, steering lock, wireless control system
8	10A STOP – Before Aug 2017: Stop lamps, ABS, TRC, VSC, multiport fuel injection system / sequential multiport fuel injection system, charging system,

	downhill assist system, intelligent entry and start system, uphill assist system, immobilizer, Gear selector lock, starting system, steering lock, wireless control system
	10A STRG HTR – From Aug 2017: Heated steering wheel
9	10A 4WD-ALT – All wheel drive
10	10A ECU-B NO.1 – 4WD, Multiport Fuel Injection System / Sequential Multiport Fuel Injection System, ABS, Air Conditioning, Audio System, Charging System, Clock, Instrument Cluster, Central Locking, Dual Lock, Descent Assist, Intelligent System entry and start, headlights, headlight range control, headlight cleaners, lift assist, lights, immobilizer, interior lighting, key buzzer, lane keep assist, light buzzer, navigation, collision avoidance system, monitor, seat belt indicator, airbags , starting system, steering lock, start-stop system, side light, telematics system, anti-theft system, tire pressure monitoring system, TRC, direction indicators (alarm), VSC, wireless control system
11	20A RADIO – Audio system, navigation, monitor
12	10A DOME – Immobilizer, smart entry and start system, interior lighting, start system, steering lock, anti-theft system, wireless control system
13	10A H-LP RH-LO – Low beam right
14	10A H-LP LH-LO – Left low beam, headlight range control, headlight washers
15	10A H-LP RH-HI – High beam right
16	10A H-LP LH-HI – High beam left
17	7,5A S-HORN – Anti-theft system
18	7,5A MAYDAY – Telematics system
19	10A HORN – Horn, smart entry and start system, immobilizer, start system, steering lock, anti-theft system, wireless control system
20	7.5A EFI-B – Multiport fuel injection system / sequential multiport fuel injection system
21	7,5A ALT-S / ICS – Charging system
22	7.5A SMART – Intelligent Entry and Start System, Immobilizer, Start System, Steering Lock, Wireless Control System

23	10A ECU-B NO.3 – Air Conditioning, Multiport Fuel Injection System / Sequential Multiport Fuel Injection System, Intelligent Entry and Start System, Immobilizer, Heated Mirrors, Body ECM, Starting System, Steering Lock, Anti-theft System, Wireless Control System
24	1GR-FE, 1TR-FE, 2TR-FE: Air fuel ratio sensor
	20A A / F HTR – 1GD-FTV, 2GD-FTV, 1KD-FTV, 2KD-FTV, 5L-E: Multiport fuel injection system / sequential multiport fuel injection system
25	10A STRG LOCK / AM2 N1 – Multiport fuel injection system / sequential multiport fuel injection system, intelligent entry and start system, immobilizer, start system, steering lock, wireless control system
26	15A INJ – 1GR-FE, 1TR-FE, 2TR-FE: Instrument cluster, multiport fuel injection system / sequential multiport fuel injection system, ignition
	30A ST NO.2 – 2GD-FTV with start-stop system: intelligent entry and start system, immobilizer, start system, steering lock, wireless control system
27	10A ECU-B NO.2 – Intelligent Entry and Start System, Immobilizer, Start System, Steering Lock, Wireless Control System
28	25A ECU-B NO.4 – automatic light control, central locking, intelligent entry and start system, front fog light, headlights, lights, immobilizer, interior lighting, power windows, rear fog light, start system, steering lock, side light, anti-theft system, wireless control system
29	–
30	30A D / C CUT – Fuses: “ECU-B NO.1”, “RADIO”, “DOME”
31	7,5A ODS – Front passenger classification system
32	30A P / SEAT – Before Aug 2017: Power Seats
	30A P / SEAT (D) – From Aug 2017: Power Seats
33	30A PTC HTR NO.2 – Auxiliary heater
34	
35	50A ABS NO.1 – ABS, TRC, VSC, descent assist system, ascent assist system
36	30A ABS NO.2 – ABS, TRC, VSC, descent assist system, ascent assist system

37	30A R / B I / P-ALT – Fuses: “IG1 NO.2” Relay: “4WD-IG”, “S / HTR”, “S / HTR / S / VENT”, “IG1 NO.5”
38	–
39	–
40	50A PTC HTR NO.1 – Auxiliary heater
41	80A GLOW – Glow plugs
42	60A J / B-B – Fuses: “EFI-MAIN NO.1” Relay, “EFI-MAIN
43	30A H-LP CLN – Headlight cleaners
44	30A CDS FAN / PTC HTR NO.3 – Air conditioning, auxiliary heater, cooling fan
45	50A R / B FLOOR-ALT – Fuses: “DEF” Relay, “DEF”, “FOG RR”, “DEICER”, “DEF-S”
46	140A ALT – Fuses: “P / W” Relay, “ACC” Relay, “R / B FLOOR-ALT”, “R / BI / P-ALT”, “4WD-ALT”, “INV”, “ABS NO. 1 “,” ABS NO.2 “,” STOP “,” P / SEAT “,” P / SEAT (D) “,” H-LP CLN “,” STRG HTR “,” ECU-ALT NO.1 “,” PTC HTR NO.1”, “PTC HTR NO.2”, “CDS FAN / PTC HTR NO.3”, “HTR”, “DOOR R / L”, “DOOR NO.1”, “DOOR R / R “,” DOOR NO.2 “,” FOG FR / DRL “,” TAIL “,” OBD “,” ECU-ALT NO.2 “,” AM1 “,” P / OUTLET NO.1 “,” SFT LOCK- ACC “
47	40A BBC NO.3 – Start-stop system
48	
49	40A BBC NO.1 – Start-stop system
50	30A ST NO.1 – 1GR-FE, 1TR-FE, 2TR-FE: smart entry and start system, immobilizer, start system, steering lock, wireless control system
	50A ST NO.1 – 1GD-FTV, 2GD-FTV, 1KD-FTV, 2KD-FTV, 5L-E: smart entry and start system, immobilizer, start system, steering wheel lock, wireless control system
51	–
52	–
53	50A AIR PMP – Secondary air pump

	50A DCU-MAIN – “DCU-MAIN” relay, fuses: “DCU NO.1”, “DCU NO.2”, “DCU-B”, “NOX PM”
54	40A H-LP MAIN – “H-LP” relay, “DIMMER” relay, fuses: “H-LP LH-LO”, “H-LP RH-LO”, “H-LP LH-HI”, “H- LP RH-HI “
Relay	
R1	Dimmer
R2	Headlights (H-LP)
R3	1GD-FTV, 2GD-FTV, 1KD-FTV, 2KD-FTV, 5L-E: Starter (ST NO.1)
R4	1GR-FE, 1TR-FE, 2TR-FE: Starter (ST NO.1)
	2GD-FTV with start-stop system: Starter (ST NO.2)
R5	Brake Light / Cooling Fan (STOP / CDS FAN)
R6	1GR-FE, 1TR-FE, 2TR-FE: Injectors (INJ)
	1GD-FTV, 2GD-FTV, 1KD-FTV, 2KD-FTV, 5L-E: Injectors (EDU)
R7	Sound signal
R8	1GD-FTV, 2GD-FTV, 1KD-FTV, 2KD-FTV, 5L-E: Glow plugs (GLOW)
	1GR-FE, 1TR-FE, 2TR-FE: Fuel pump / Secondary air pump (FUEL PMP / AIR PMP HTR)
R9	1GR-FE, 1TR-FE, 2TR-FE: Air Fuel Ratio Sensor (A / F HTR)

Some models can accommodate an additional fuse box.



Scheme from the cover

