

Toyota Hilux Surf 3G fuse and relay

Toyota Hilux Surf 3 generations were produced in 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002 with the body designation 180/185. During this time, the model was updated 2 times. Also known as **Toyota 4Runner**. In this publication, we will show the location of the electronic control units, a description of the fuses and relays of the Toyota Surf with box diagrams and photo examples of their execution. Highlight the cigarette lighter fuse.



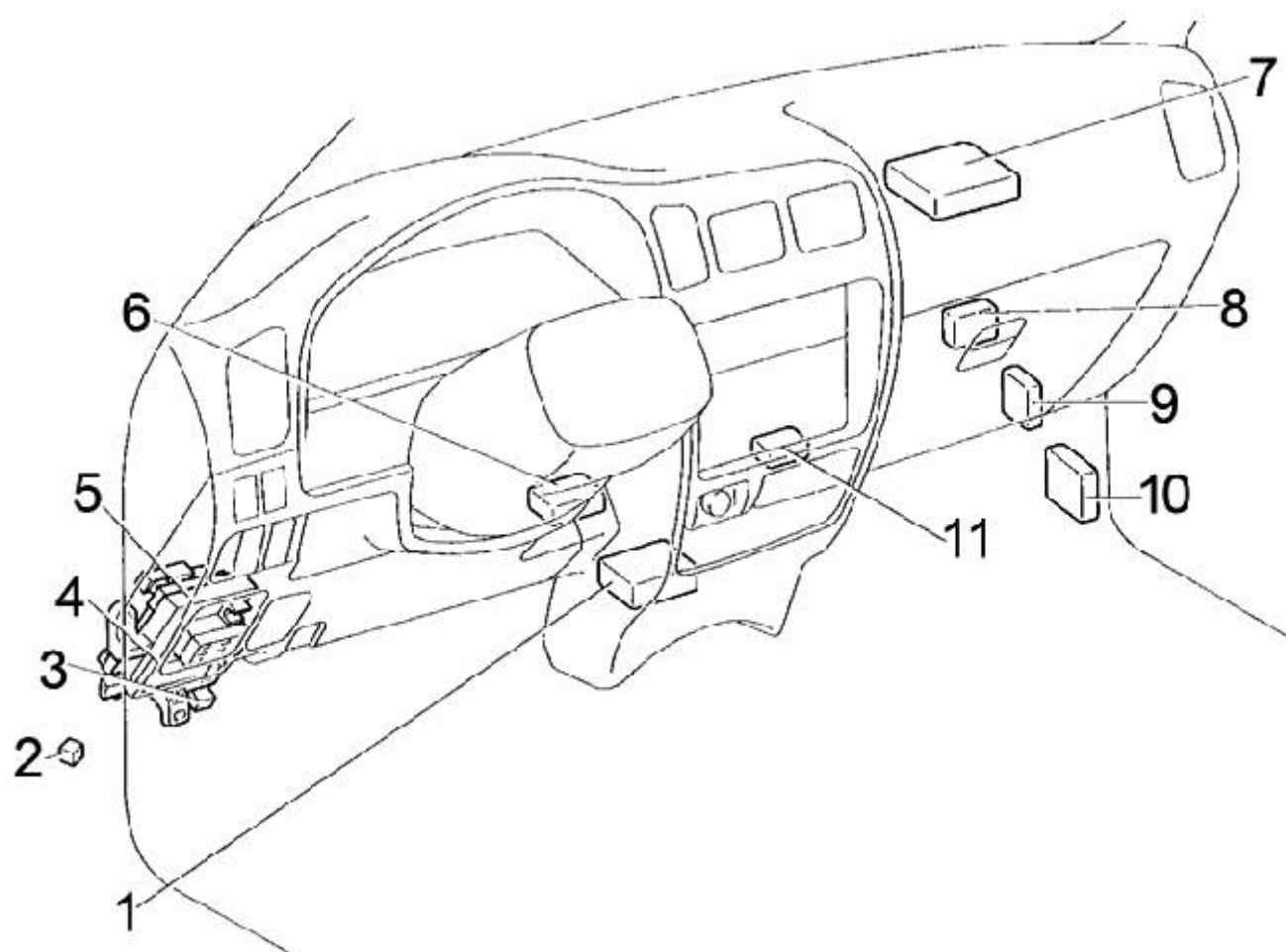
The arrangement of the boxes and the purpose of the elements in them may differ from that shown and depend on the year of manufacture and the level of equipment.

Passenger compartment

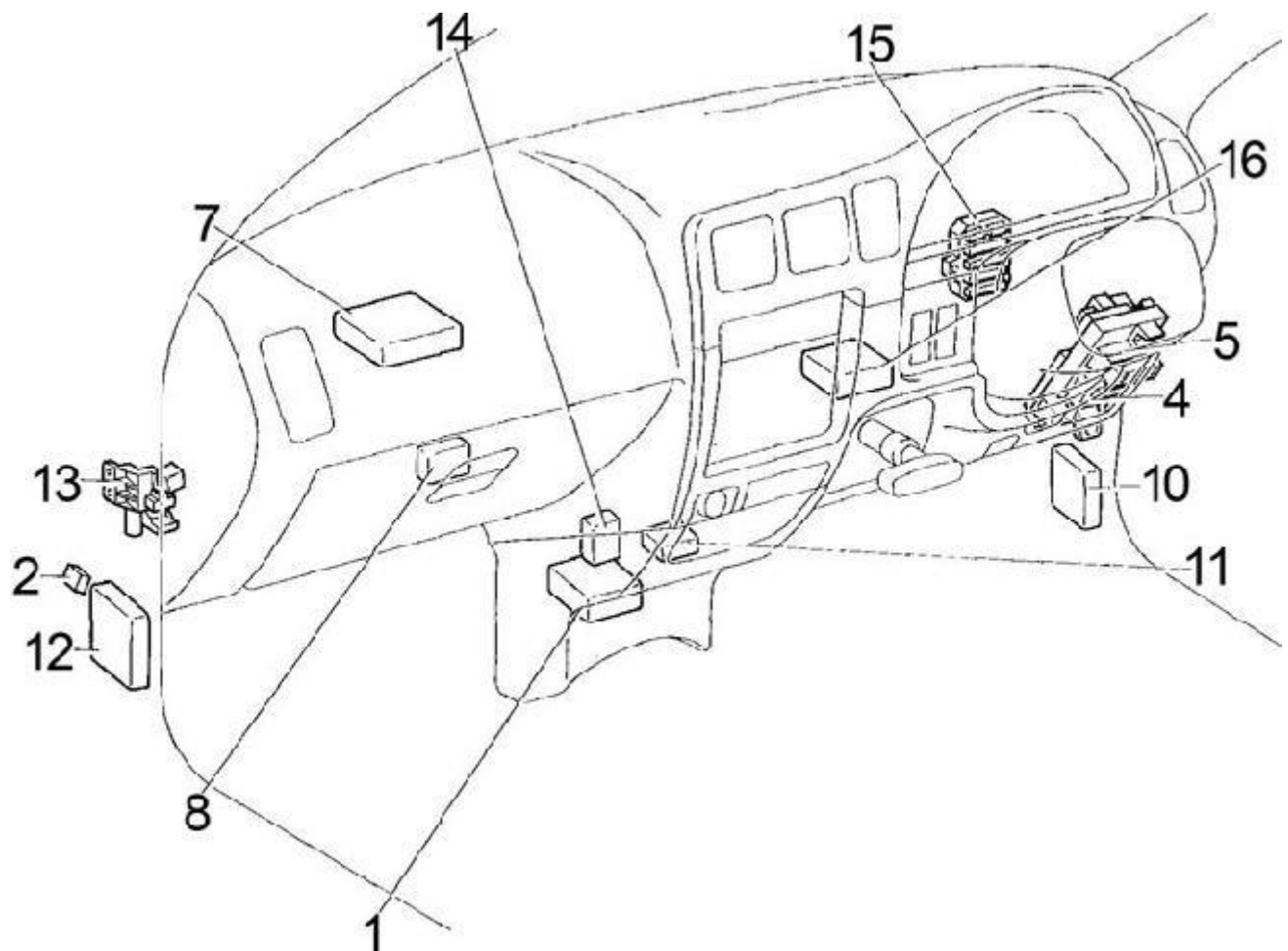
Location

General layout of boxes in the cabin

Left hand drive



Right hand drive



Assignment

1. Airbag control unit
2. All Wheel Drive Relay (ADD)
3. LHD: Fuel pump relay
4. Integrated relay
5. Fuse box
6. LHD: Relay for daytime running lights
7. Emission control unit (3RZ-F, 1RZ)
Pre-heater timer (diesel)
LHD: Engine control unit (2RZ-FE)
RHD: Engine control unit (M / T) (3RZ-FE, 1RZ-E)
RHD: Engine and gearbox control unit (A / T) (3RZ-FE, 1RZ-E)
8. Air conditioner amplifier
9. LHD: Differential lock control unit
10. ABS control unit
11. Deceleration sensor
12. RHD: Four-wheel drive control unit

13. RHD: Relay Box (Fuel Pump Relay (Circuit Opening))
14. RHD: Antenna Relay
15. RHD:
Australia: Distribution block
Except Australia: Distribution connector
16. RHD: Light Relay (Dim-Dip)

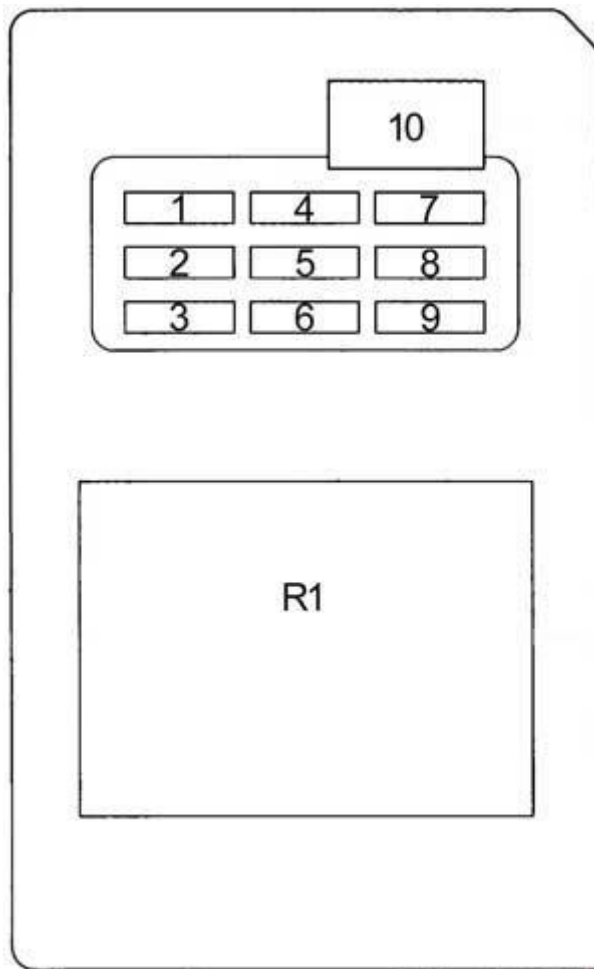
Fuse box

Located at the bottom of the panel behind a protective cover.

Photo example of execution



Diagram



Protected components

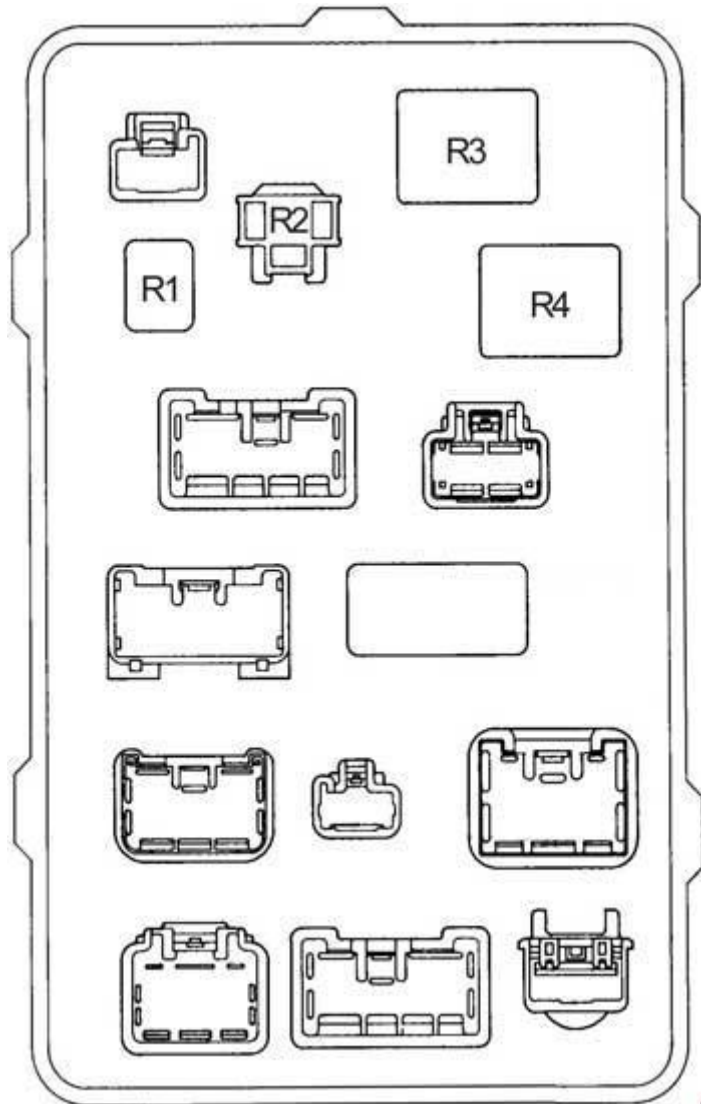
R1 – integrated relay

1	20A SEAT-HTR – Heated seats
2	15A ACC – Cigarette Lighter , Clock, Power Mirrors, Reversing Lights, Gear Selector Lock
3	7.5A ECU-B – Rear Fog Light, Airbag Indicator, Daytime Running Lights, Cruise Control, ABS
4	20A 4WD – Front differential shut-off system, four-wheel drive, rear differential lock
5	10A TURN – Direction indicators, hazard warning lights
6	10A GAUGE – Instrument cluster, reversing lamps, cruise control, aerial, central locking, gearbox control unit, starting system, charging system, heater control unit
7	15A ECU-IG – ABS, transmission selector lock
8	20A WIPER – Wiper and washer

9	10A IGN – Charge Indicator, Airbags, Multiport Fuel Injection System / Sequential Multiport Fuel Injection System
10	30A POWER – Power windows, central locking

The fuse number 2, 15A, is responsible for the cigarette lighter.

Some relays are attached to the back of the unit.



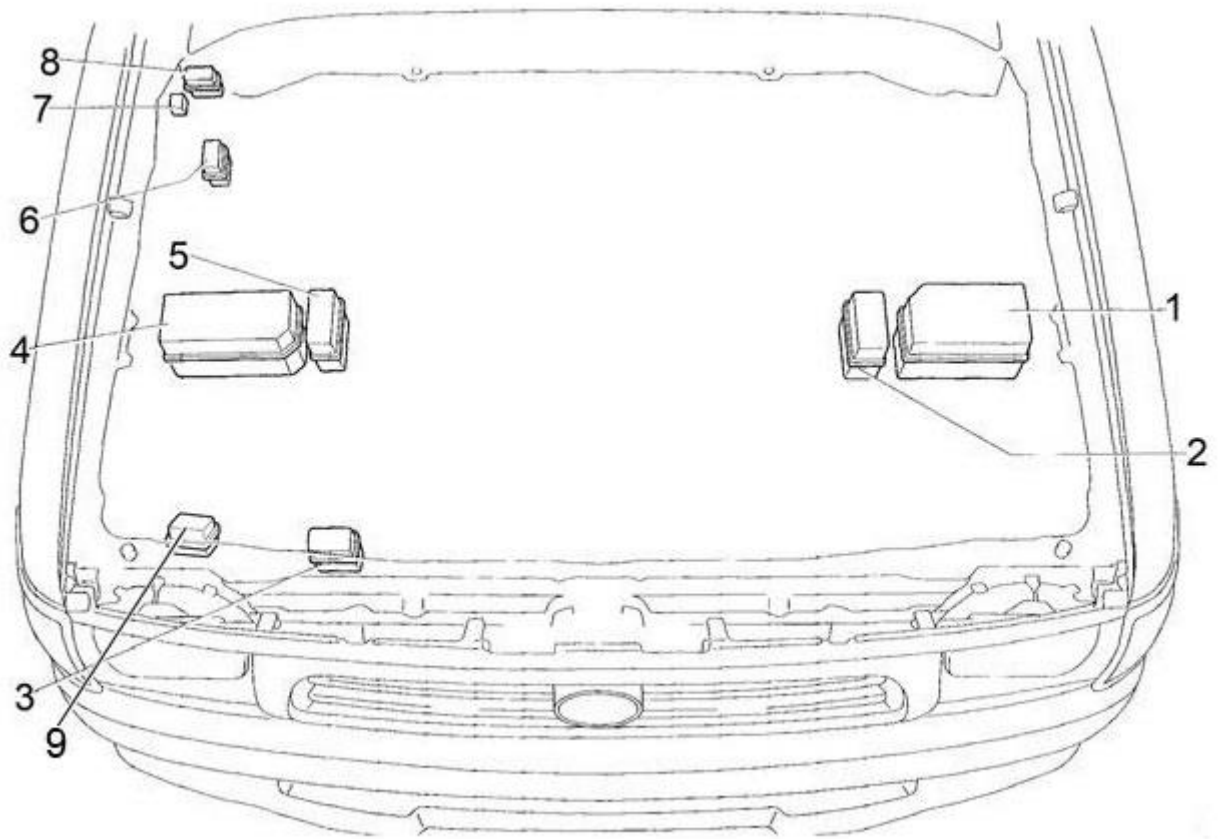
- R1 Horn
- R2 Direction indicators (hazard warning lights)
- R3 Power relay (power windows, central locking)
- R4 Heated rear window

Separately, in the relay box there is a fuel pump relay (petrol), an electromagnetic bypass valve (diesel) (until 08.1998) and a start-inhibit relay (until 08.1998)

Engine compartment

Location

Layout of boxes under the hood



Appointment

1. Fuse and Relay Box (Petrol, LHD Diesel)
2. Relay box No. 1 (LHD Diesel)
3. Relay box No. 2
4. Fuse and Relay Box (RHD Diesel)
5. Relay box # 1 (RHD)
6. Relay box # 3 (LHD)
7. Headlight wiper relay (LHD)
8. Relay box # 3 (RHD)
9. Relay box No. 4 (Israel)

Fuse and relay box

Type 1

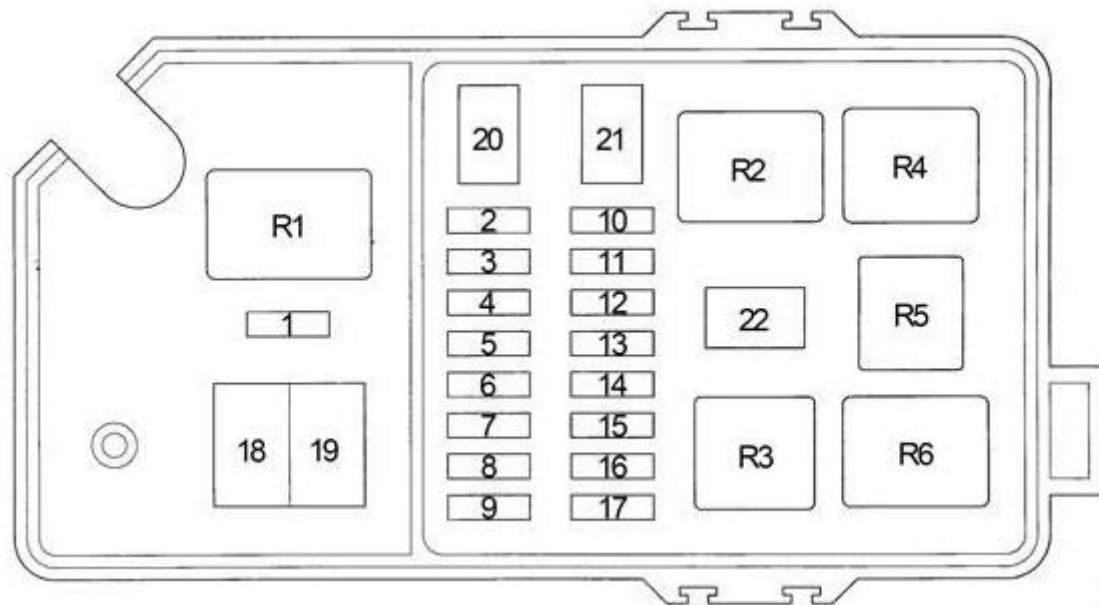
Photo example



Covery



Diagram



Designation

1	–
2	15A DEFOG – Heated rear window
3	10A STOP – Brake light
4	7,5A ALT-S – Charging system
5	–
6	7,5A OBD – Petrol: Diagnostic connector
	20A AM2 – Diesel: Multiport fuel injection system / sequential multiport fuel injection system
7	15A EFI – Multiport fuel injection system / sequential multiport fuel injection system
8	15A HORN – Sound signal, alarm
9	15A DOME – Audio system, antenna, interior lighting, clock, ignition switch lighting, personal lighting, door lighting
	20A AM2 – Multiport fuel injection system / sequential multiport fuel injection system
10	10A TAIL – Side light, license plate light, brake light, air conditioning, audio system, clock, cigarette lighter, instrument panel light

11	–
12	10A A.C – Air conditioner
13	7,5A STA – Multiport fuel injection system / sequential multiport fuel injection system, starting system, instrument cluster
14	10A HEAD (RH) – Right headlight
15	10A HEAD (LH) – Left headlight
16	10A HEAD (LO RH) – Low beam right
17	10A HEAD (LO LH) – Low beam left
18	60A ABS – Petrol: ABS
	80A GLOW, ABS – Diesel: Preheater, ABS
19	80A ALT – 45A, 55A: Fuses: “ABS”, “AM1”, “STA”, “ECU-B”, “POWER”, “RADIO”, “ACC”, “GAUGE”, “TURN”, “ECUI G”, “WIPER”, “4WD”, “HEATER”, “AC”, “TAIL”, “PANEL”, “STOP”, “ALT-S”
	100A ALT – 70A: Fuses: “ABS”, “AM1”, “STA”, “ECU-B”, “POWER”, “RADIO”, “ACC”, “GAUGE”, “TURN”, “ECUI G”, “WIPER”, “4WD”, “HEATER”, “AC”, “TAIL”, “PANEL”, “STOP”, “ALT-S”
20	50A HEATER – Air conditioner
21	40A AM1 – Ignition switch, starting system, headlamp cleaner relay, fuel heating, fuses: “ECU-B”, “GAUGE” “POWER”
22	30A AM2 – Ignition lock
Relay	
R1	Dimmer
R2	Side light (TAIL)
R3	Headlights (HEAD)
R4	Heater
R5	Starter

R6	Engine control unit (EFI)
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Type 2

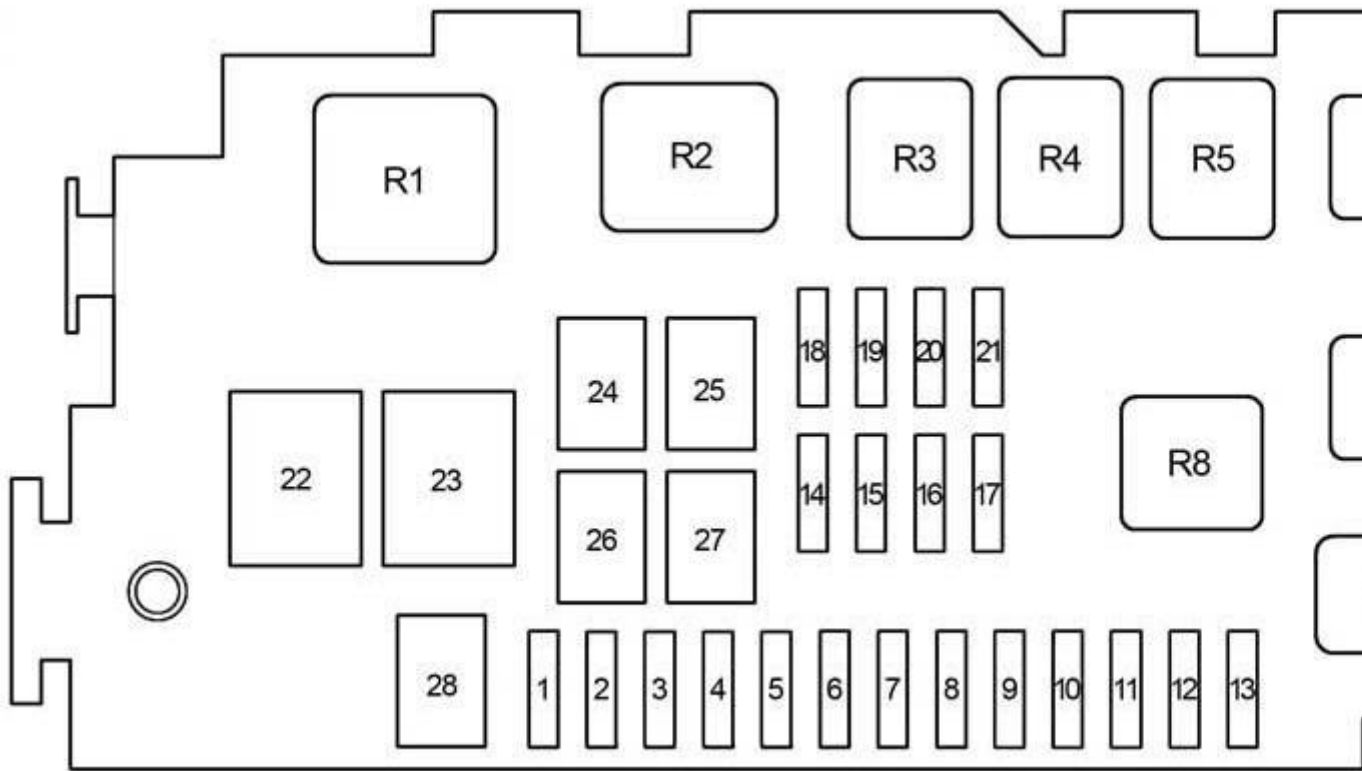
Photo



Covery



Diagram



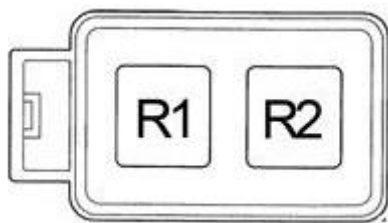
Decoding

1	–
2	10A HEAD (RH) – Right headlight
3	10A HEAD (LH) – Left headlight
4	10A HEAD (RL) – Low beam right
5	10A HEAD (LL) – Low beam left
6	10A TAIL – Side light, license plate light
7	7,5A STA – Multiport fuel injection system / sequential multiport fuel injection system, starting system, instrument cluster
8	10A A / C – Air Conditioning
9	Not used
10	Not used
11	Not used
12	Not used

13	Not used
14	15A HORN – Sound signal
15	15A DOME – Audio system, interior lighting, clock, personal lighting, door lighting, daytime running lights, instrument cluster
16	7,5A OBD – Diagnostic connector
17	15A EFI – 2RZ-FE, 3RZ-FE: Multiport fuel injection system / sequential multiport fuel injection system
	15A ECD – 1KZ-TE, 5L-E: Multiport fuel injection system / sequential multiport fuel injection system
	20A AM2 – Diesel: Ignition switch, multiport fuel injection system / sequential multiport fuel injection system
18	7,5A ALT – S – Charging system
19	15A DEFOG – Heated rear window
20	10A STOP – Brake light
21	Not used
22	60A ABS – Petrol: ABS
	80A GLOW, ABS – Diesel: Preheater, ABS
23	80A ALT – 45A, 55A: Fuses: “ABS”, “AM1”, “STA”, “ECU-B”, “POWER”, “RADIO”, “ACC”, “GAUGE”, “TURN”, “ECUI G”, “WIPER”, “4WD”, “HEATER”, “AC”, “TAIL”, “PANEL”, “STOP”, “ALT-S”
	100A ALT – 70A: Fuses: “ABS”, “AM1”, “STA”, “ECU-B”, “POWER”, “RADIO”, “ACC”, “GAUGE”, “TURN”, “ECUI G”, “WIPER”, “4WD”, “HEATER”, “AC”, “TAIL”, “PANEL”, “STOP”, “ALT-S”
24	50A HEATER – Heater, fuse: “A.C”
25	40A AM1 – Starting system
26	30A CDS FAN – Cooling fan
27	30A AM2 – Ignition, Multiport fuel injection system / sequential multiport fuel injection system

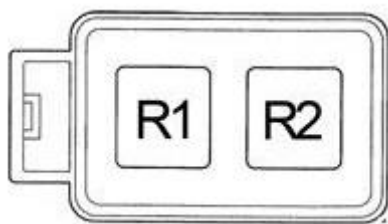
28	—
Relay	
R1	Gasoline: Starter
R2	Heater
R3	Cooling fan (CDS FAN)
R4	Side light (TAIL)
R5	—
R6	—
R7	Engine control unit (EFI)
	Engine control unit (ECD)
R8	Headlights (HEAD)
R9	Dimmer

Relay box No. 1



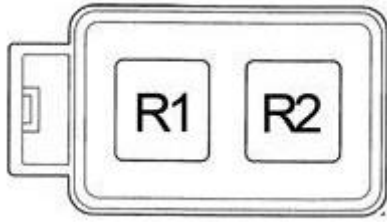
- R1 – Starter (ST)
- R2 – Glow plugs (SUB GLW)

Relay box No. 2



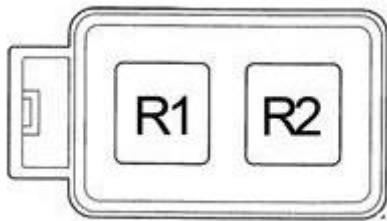
- R1 – Dim-Dip No.3
- R2 – Dim-Dip No.2

Relay box No. 3



- R1 – Cooling fan (CDS FAN)
- R2 – Cooling fan (CDS FAN NO.2)

Relay box No. 4



- R1 – Motor ABS
- R2 – ABS solenoid