

610 Fuses and Relays

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GENERAL

This repair group covers fuse, relay, and control module location information. Electrical equipment and accessories installed varies depending on model and model year. Always confirm that the proper electrical component has been identified by using the electrical wiring diagrams.

CAUTION—

Relay and fuse positions are subject to change and may vary from car to car. If questions arise, an authorized BMW dealer is the best source for the most accurate and up-to-date information. A good way to verify a relay position is to compare the wiring colors at the relay socket to the colors indicated on the wiring diagrams located at the rear of this manual.

FUSES, RELAYS, AND CONTROL MODULES

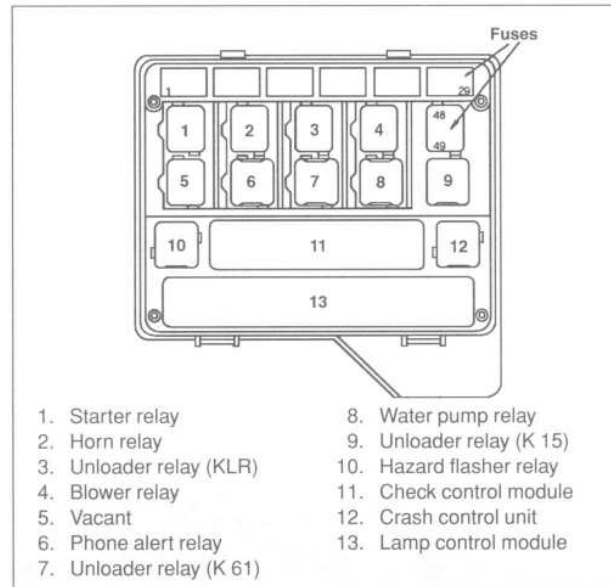
The fuses, relays and control modules are located in four main locations throughout the vehicle; the front power distribution box, the rear power distribution box, the auxiliary relay box, and the Electronics Box.

CAUTION—

Replace fuses with those of the same rating. Installing a fuse with higher rating can lead to circuit failure and may also start a fire.

Front Power Distribution Box

Fig. 1 and Fig. 2 show the front power distribution box, which holds the main fuses, 1 through 29 and various other relays and control modules. This distribution box is mounted in the left-hand rear corner of the engine compartment.



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Fig. 1. 1989-1990 Front power distribution box.

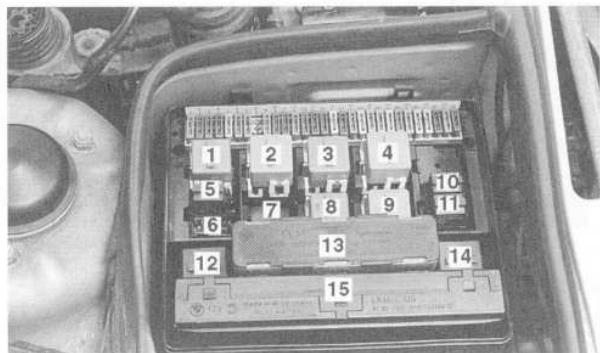
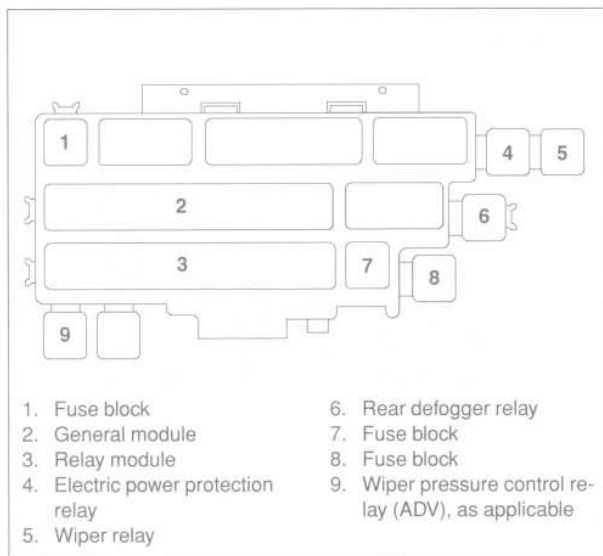


Fig. 2. 1991-1994 Front power distribution box. V8 positions vary. Check sticker on cover for information.

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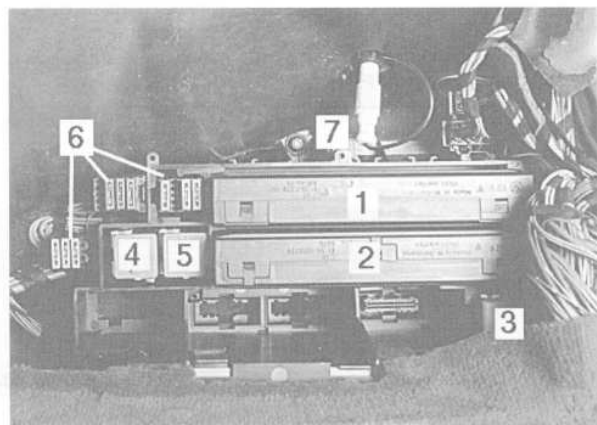
Rear Power Distribution Box

The rear power distribution box is located beneath the rear seat cushion and houses auxiliary fuses, relays, and control modules. See Fig. 3 and Fig. 4. To access the modules in the rear power distribution box, remove the retaining screws from the top cover and unclip the cover.



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Fig. 3. 1989-1990 Rear power distribution box.

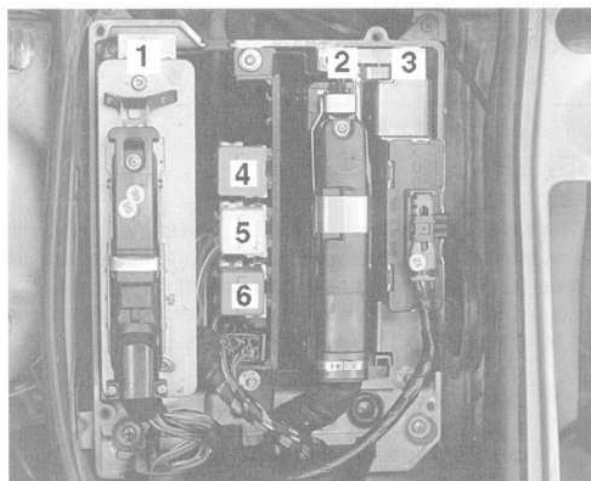


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Fig. 4. 1991-1992 Rear power distribution box.

Electronics Box (E-box)

The electronics box, or E-box is located in the right-hand rear corner of the engine compartment. The cover is held in place with captive screws. The E-box is cooled by an two-speed electric fan. The fan runs on low speed when the engine is running. If the temperature in the box exceeds 44°C (111°F), the fan will run on high speed. See Fig. 5.



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Fig. 5. Electronics box (E-box) in right-rear corner of engine compartment.

CAUTION —

Relay positions are subject to change and may vary from car to car. If questions arise, an authorized BMW dealer is the best source for the most accurate and up-to-date information. A good way to verify a relay position is to compare the wiring colors at the relay socket to the colors indicated on the applicable wiring diagram located at the rear of this manual.

Auxiliary Relay Panel

The auxiliary relay panel is mounted to the front left corner of the engine compartment. It houses various relay, and on later models a limited number of fuses. See Fig. 6 and 7.

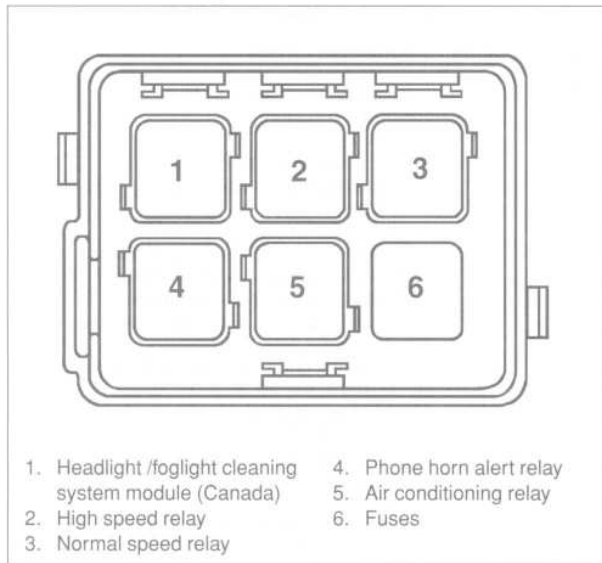


Fig. 6. 1989-90 auxiliary relay panel.

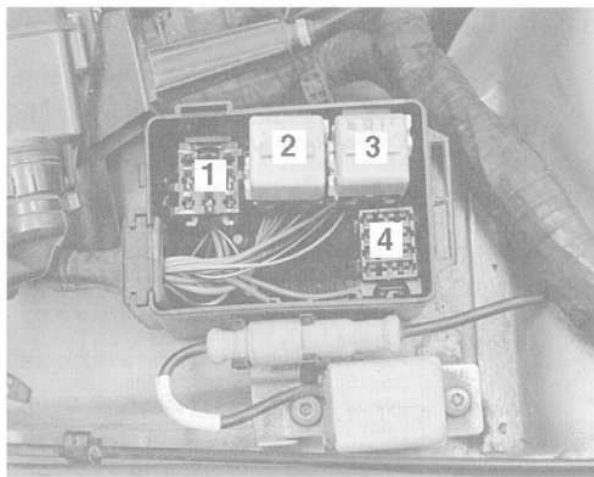


Fig. 7. 1991 auxiliary relay panel.

Fuse Positions

Fuses number 1 through fuse 29 are mounted in the front power distribution box. Additional fuse locations include the rear power distribution box (Fuse #30-37, and #40-47), and the auxiliary relay panel (Fuse # 48, 49 or #55-56).

Table a. Fuse Positions

Fuse	Rating	Protected Circuit
1	15 amp	ABS/Traction system (see also Fuse 17) Instrument cluster check control (see also Fuses 15, 17, 20, 29) Lamp monitor (see also Fuses 2, 3, 4, 5, 7, 10, 11, 13, 14, 15) Brake lights Cruise control (see also Fuse 17) On-board computer (see also Fuses 17,20) Electronic throttle control (EML) (see also Fuses 17, 20) Electronic transmission control (see also Fuse 12, 17)
2	7.5 amp	Fuel injection (M60 engine only) Headlights/Fog lights (see also Fuses 3, 4, 5, 7, 10, 11, 13, 14 15, 24) Lamp monitor (see also fuses 1, 3, 4, 5, 7, 10, 11, 13, 14, 15) Turn signal/hazard lights (see also Fuses 3, 6, 13, 14) Crash control unit (see also Fuses 6, 10, 11)
3	7.5 amp	Headlights/Fog lights (see also Fuses 2, 5, 7, 10, 11, 13, 14, 24) Lamp monitor (see also Fuses 1, 2, 4, 5, 7 10, 11, 13, 14, 15) Turn signal/hazard lights (see also Fuses 2, 6, 13, 14) Headlight washer (Canada) (see also Fuses 4, 5, 17, 22, 24) Central body electronics (ZKE) (see also Fuses 4, 5, 17, 24, 30, 47)
4	7.5 amp	Park/tail/underhood lights (see also Fuses 5, 15, 20) Lamp monitor (see also Fuses 1, 2, 3, 5, 7 10, 11, 13, 14, 15) Power mirrors (see also Fuses 5, 12) Headlight washer (Canada) (see also Fuses 3, 5, 17, 22, 24) Central body electronics (ZKE) (see also Fuses 3, 5, 17, 24, 30, 47)
5	10 amp	Headlights/Fog lights (see also Fuses 2, 3, 7, 10, 11, 13, 14) Headlight washer (Canada) (see also Fuses 3, 4, 17, 22, 24) Park/tail/underhood lights (see also Fuses 4, 15, 20) License/trunk illumination (see also 15, 21) Glove box light/cigar lighter (see also Fuses 18, 21, 26) Interior lighting (see also Fuses 17, 18, 20,21) Lamp monitor (see also Fuses 1, 2, 3, 4, 7 10, 11, 13, 14, 15) Power mirrors (see also Fuses 4, 12) Central body electronics (ZKE) (see also Fuses 3, 5, 17, 24, 30, 47)
6	15 amp	Turn signal/hazard lights (see also Fuses 2, 3, 13, 14) Crash control unit (see also Fuses 2, 10, 11)