

## ELECTRICAL CIRCUIT PROTECTION

Blade type



Normal



Blown

Cartridge type



Normal



Blown

Fusible link



Normal



Blown

1VQA4037

### Fuses

A vehicle's electrical system is protected from electrical overload damage by fuses.

This vehicle has two fuse panels, one located in the driver's side panel bolster, the other in the engine compartment near the battery.

If any of your vehicle's lights, accessories, or controls do not work, check the appropriate circuit fuse. If a fuse has blown, the element inside the fuse will be melted.

If the electrical system does not work, first check the driver's side fuse panel. Always replace a blown fuse with one of the same rating.

If the replacement fuse blows, this indicates an electrical problem. Avoid using the system involved and immediately consult an Authorized Kia Dealer.

*Three kinds of fuses are used: blade type for lower amperage rating and cartridge type, fusible link for higher amperage ratings.*

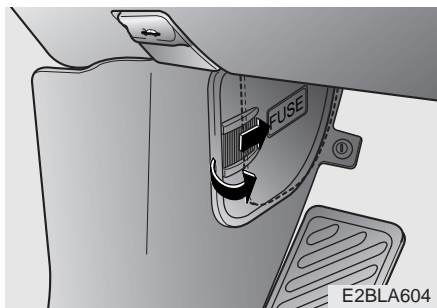
### Fuse replacement

#### ⚠ WARNING - Fuse replacement

- Never replace a fuse with anything but another fuse of the same rating.
- A higher capacity fuse could cause damage and possibly a fire.
- Never install a wire instead of the proper fuse - even as a temporary repair. It may cause extensive wiring damage and possibly a fire.

#### ⚠ CAUTION

*Do not use a screwdriver or any other metal object to remove fuses because it may cause a short circuit and damage the system.*



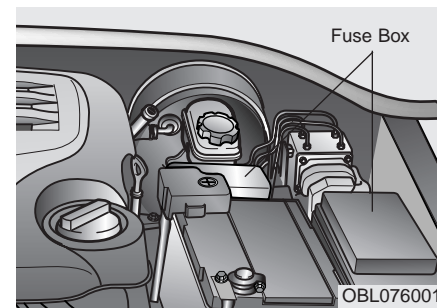
## Driver's side panel

1. Turn the ignition switch and all other switches off.
2. Pull the suspected fuse straight out. Use the removal tool provided on the main fuse box in the engine compartment fuse relay box (if equipped). Refer to the fuse panel chart on the fuse panel cover to identify the likely problem fuse or electrical circuit.
3. Check the removed fuse; replace it if it is blown. The number of fuses vary according to the vehicle model. Check both the passenger and engine compartment fuse box covers.

4. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, consult an authorized Kia dealer.

*If you do not have a spare, use a fuse of the same rating from a circuit you may not need for operating the vehicle, such as the cigar lighter fuse.*

If the headlights or other electrical components do not work and the fuses are OK, check the fuse block in the engine compartment. If a fuse is blown, it must be replaced.

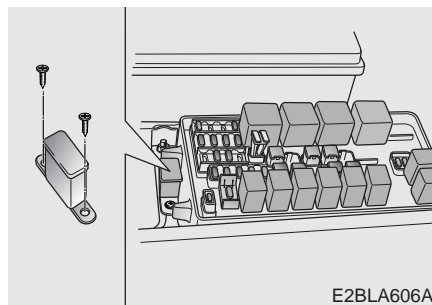


## Engine compartment

1. Turn the ignition switch and all other switches off.
2. Remove the fuse box cover by pressing the tabs on both ends and pulling up.
3. Check the removed fuse; replace it if it is blown. To remove or insert the fuse, use the fuse puller in the main fuse box.
4. Push in a new fuse of the same rating, and make sure it fits tightly in the clips. If it fits loosely, consult an Authorized Kia Dealer.

## ⚡ CAUTION

*After checking the fuse box in the engine compartment, securely install the fuse box cover. If not, electrical failures may occur from water leaking in.*



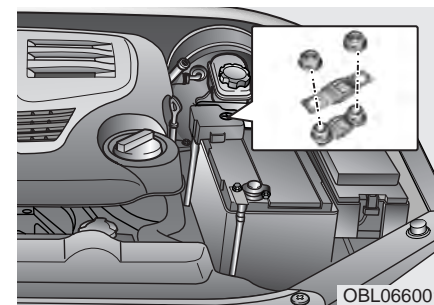
## Main fuse

If the MAIN fuse is blown, it must be removed as follows:

1. Disconnect the negative battery cable.
2. Remove the nuts shown in the picture above.
3. Replace the fuse with a new one of the same rating.
4. Reinstall in the reverse order of removal.

## \* NOTICE

If the MAIN fuse is blown, consult an Authorized Kia Dealer.



If the ALTERNATOR is blown, it must be removed as follows:

1. Disconnect the negative battery cable.
2. Remove the nuts shown in the picture above.
3. Replace the fuse with a new one of the same rating.
4. Reinstall in the reverse order of removal.

## \* NOTICE

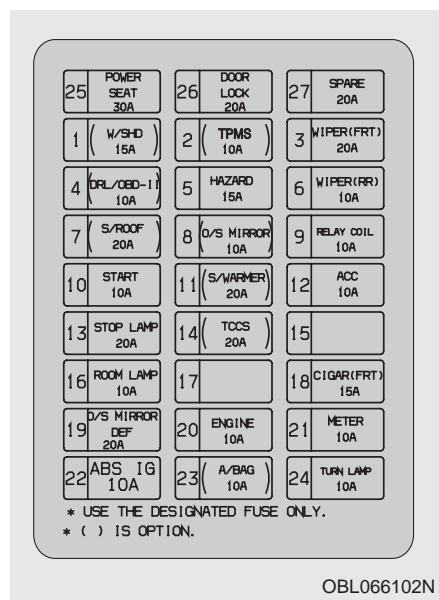
If the ALTERNATOR is blown, consult an Authorized Kia Dealer.

In case of an emergency

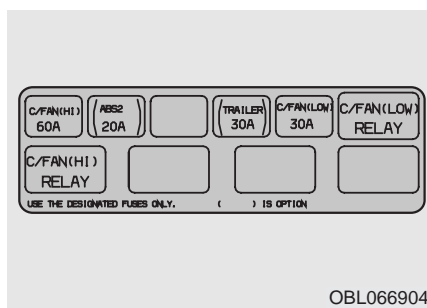
## Fuse/Relay panel description

Inside the fuse/relay box covers, you can find the fuse/relay label describing fuse/relay name and capacity.

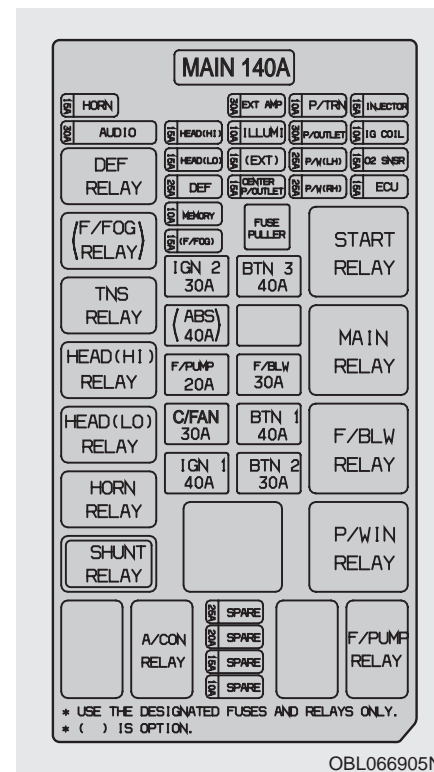
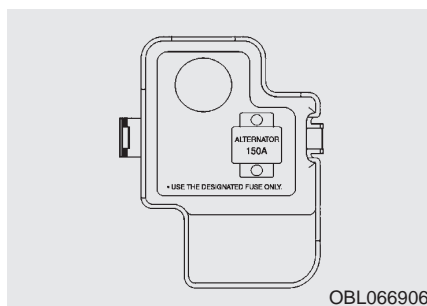
### Driver's side panel



### Engine compartment



### Alternator fuse



## Driver side panel

Description	Fuse rating	Protected component
W/SHD*	15A	Rear window defroster
TPMS*	10A	Tire pressure monitoring system
WIPER(FRT)	20A	Front wiper
DRL/OBD-II*	15A	Daytime running light
HAZARD	15A	Hazard warning light
WIPER(RR)	10A	Rear wiper
S/ROOF*	20A	Sunroof
O/S MIRROR	10A	Outside rearview mirror
RELAY COIL	10A	Ignition coil
START	10A	Start motor
S/WARMER	20A	Seat warmer
ACC	15A	Accessory
STOP LAMP	20A	Stop light
TCCS	20A	TCS, ESC, Immobilizer
ROOM LAMP	10A	Room lamp
CIGAR(FRT)	15A	Cigar lighter
O/S MIRROR DEF	20A	Outside rearview mirror heater
ENGINE	10A	Engine control unit
METER	10A	Multi-meter
ABS IG	10A	ABS
A/BAG	10A	Airbag
TURN LAMP	10A	Turn signal light
POWER SEAT	30A	Power seat
DOOR LOCK	20A	Central door lock
SPARE	20A	Spare fuse

\* : if equipped

In case of an emergency

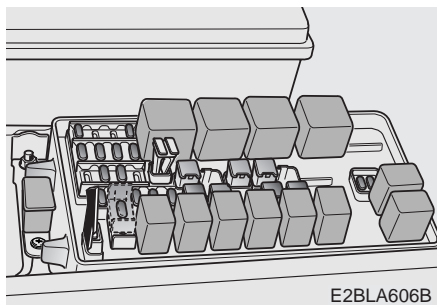


#### Engine compartment

Description	Fuse rating	Protected component
HORN	15A	Horn
AUDIO	30A	Audio
MAIN	140A	Alternator
ALTERNATOR*	150A	Alternator
HEAD (HI)	15A	Headlight (high)
HEAD (LO)	15A	Headlight (low)
DEF	25A	Rear window defroster
MEMORY	10A	Cluster, ETACS, A/C, Clock, Room lamp
F/FOG*	15A	Front fog light
IGN 2	30A	Ignition
ABS*	40A	ABS
F/PUMP*	20A	Fuel pump
C/FAN	30A	Radiator fan
IGN 1	40A	Ignition
EXT AMP	30A	Amplifier
ILLUMI	10A	Instrument panel illumination
EXT*	15A	Taillight, Turn signal light
CENTER P/OUTLET	15A	Power outlet
BTN 3	40A	In panel B+
F/BLW	30A	Blower
BTN 1	40A	In panel B+
BTN 2	30A	In panel B+
P/TRN	10A	Power train control system sensors,TCU

Description	Fuse rating	Protected component
P/OUTLET	30A	Power outlet
P/W LH	25A	Power window (left)
P/W RH	25A	Power window (right)
INJECTOR*	15A	Injector
IG COIL	10A	Ignition coil
O2 SNSR	15A	O2 sensor
ECU*	15A	Engine control unit
SPARE	25A	Spare fuse
SPARE	20A	Spare fuse
SPARE	15A	Spare fuse
SPARE	10A	Spare fuse

\* : if equipped



## Memory fuse

Your vehicle is equipped with a “Memory Fuse” to prevent battery discharge if your vehicle is parked without being operated for prolonged periods. Use the following procedures before parking the vehicle for prolonged period.

1. Turn off the engine.
2. Turn off the headlights and tail lights.
3. Open the main fuse box cover in engine compartment and pull up the “AUDIO 30A”. This will change the memory fuse mode to prevent battery discharge.

## CAUTION

- If the memory fuse is pulled up from the fuse box housing, the key reminder warning chime, door ajar warning chime and light, and clock will not operate. The clock must be reset.
- Even though the memory fuse is pulled up, the battery can still be discharged by operation of the headlights or other electrical devices.