

**LAMP**

**8310-01/8310-10/8310-13/8320-01/8320-12/8320-16/8320-19/  
8610-01/**

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# دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



**LAMP****0000-00****GENERAL****1. SPECIFICATIONS**

Description			EU		General	
			Amount	Specifica tion	Amount	Specifica tion
Exterior lamp	Headlamp	High/Low beam	2	H4(60W/55W)	2	H4(60W/55W)
		Turn signal lamp	2	PY21W	2	PY21W
		Position lamp	2	W5W	2	W5W
	Front fog light		2	H27W	2	H27W
	Day time running light		2	P21W	-	-
	Side repeater			LED		LED
	Rear combination lamp	Stop (tail) lamp	4	P21 (5W)	4	P21 (5W)
		Turn signal lamp	2	PY21W	2	PY21W
		Back-up lamp	2	W16W	2	W16W
	Rear fog light		2	P21W	-	-
	License plate lamp		2	W5W	2	W5W
	High mounted stop lamp	Bulb type	5	W5W	5	W5W
Interior lamp	Center room lamp		1	10W	1	10W
	Glove box lamp		1	5W	1	5W
	Front room lamp		2	10W	2	10W
	Door courtesy lamp		2	5W	2	5W
	Luggage lamp		1	8W	1	8W

**NOTE**

The surface of lamps can get foggy when raining or washing the vehicle. This is normal and is a result of the temperature difference between inner and outer surface of lamp cover. However, if water gets into the lamp, have the system checked at Ssangyong Authorized Service Center.

Modification basis	
Application basis	
Affected VIN	

LAMP

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06-4

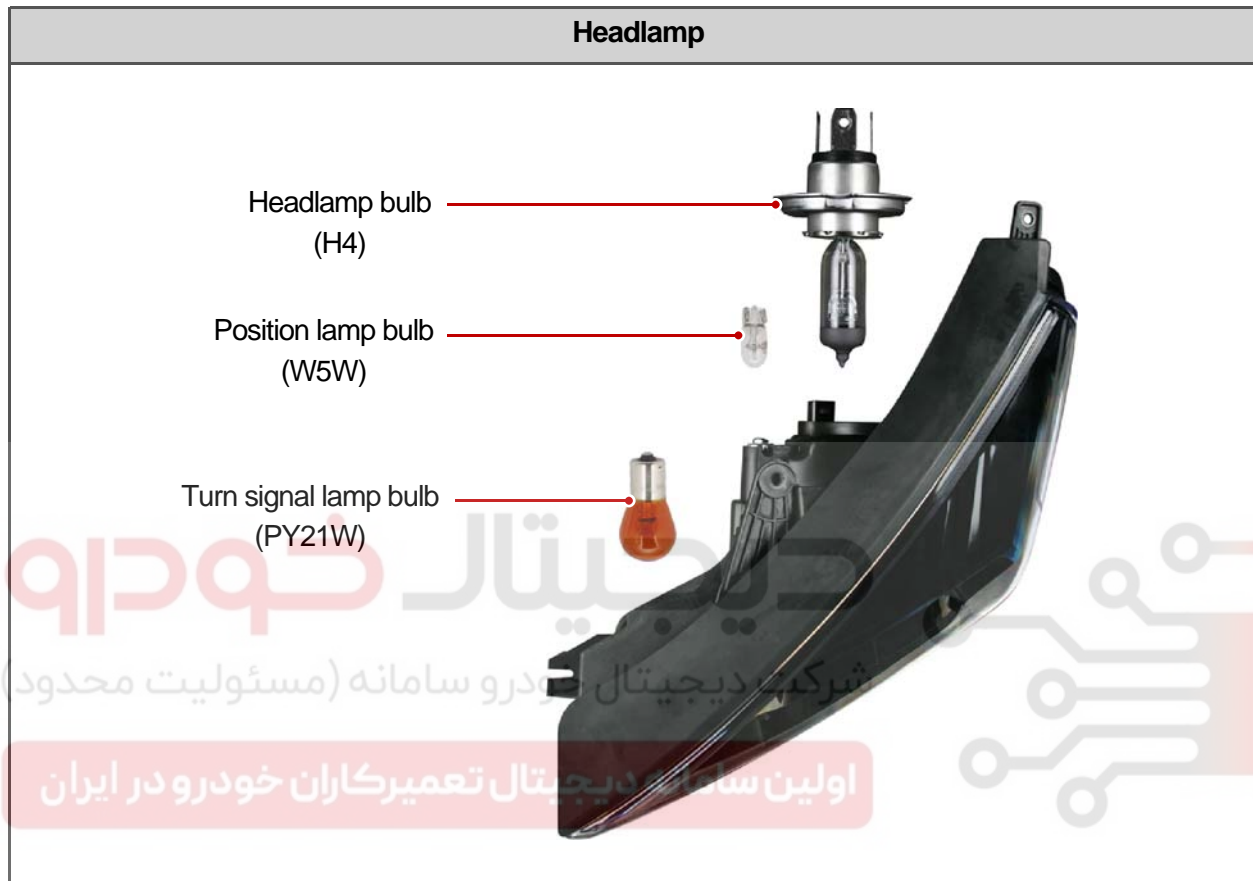
8310-01

## CONFIGURATION AND FUNCTIONS

S.G.N.

### 8310-01 FRONT LAMPS

#### 1) Configuration

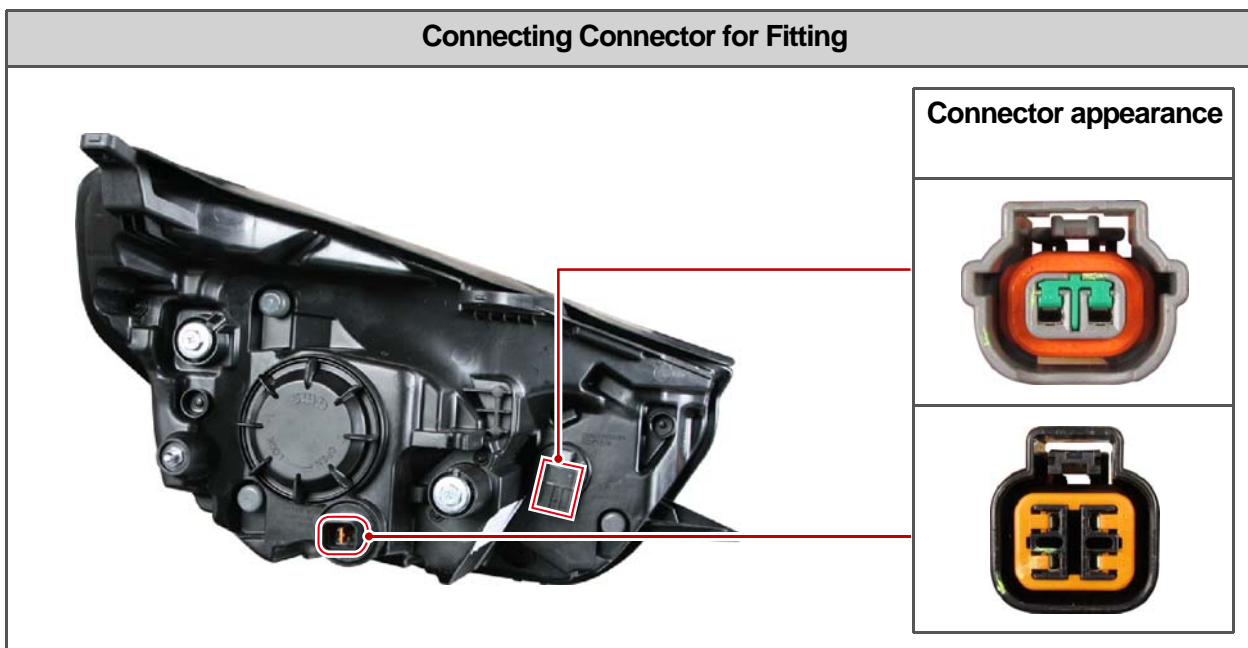


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Modification basis	
Application basis	
Affected VIN	



## Connecting Connector for Fitting



## Fog lamps (one at each side)



## Side repeaters (one at each side)



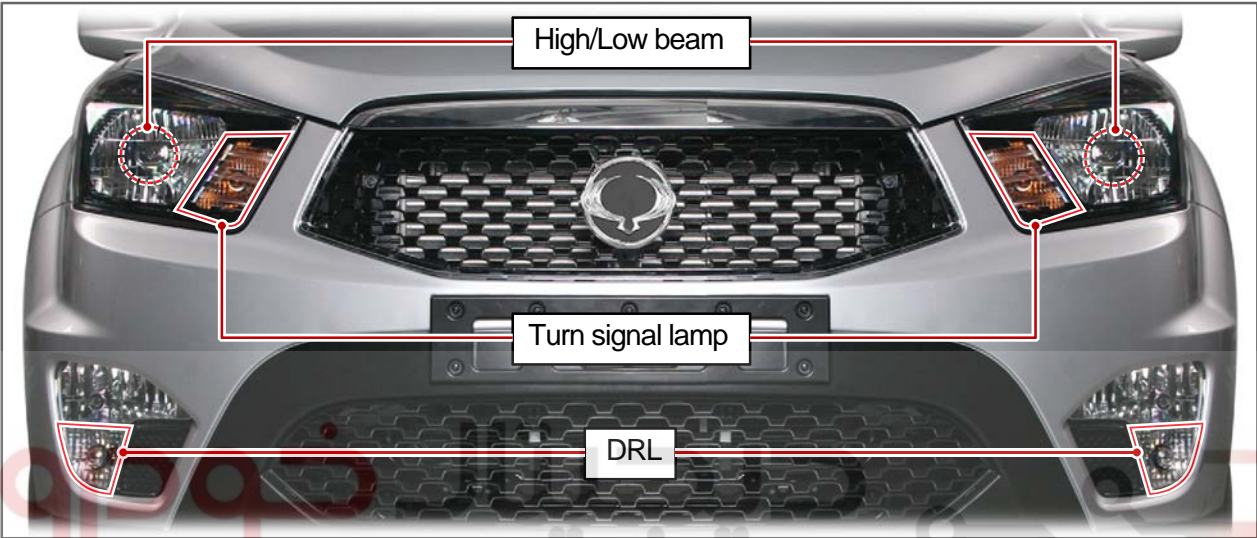
Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

## 2) Operating Process

### (1) Head lamp aiming (Up/Down)

Ordinary operations of head lamp are controlled by the light switch on multifunction switch. The operations by REKES are controlled by STICS.  
STICS controls the head lamp and tail lamp with LIN data from the auto light sensor when the light switch is in “AUTO” position.



### (2) DRL (Day Time Running Light)

The day time running lamp (DRL) comes on when starting the engine without intervention of light switch. It goes out when turning on the headlamp low beam. DRL is optional only for EU market.

**reference** Available only for EU market.

Modification basis	
Application basis	
Affected VIN	

S.G.N.

**8320-01 REAR LAMPS****1) Composition Of Rear Combination Lamp**

**Rear Combination Lamp**



**Stop Lamp/Tail Lamp Bulb**



P21 5W

**Turn Signal Lamp Bulb**



PY 21W

**Backup lamp**



W16W

**License Plate Lamp**



Connector

Bulb

Lamp

**High Mounted Stop Lamp**



Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined



S.G.N.

8610-01

INTERIOR LAMPS

1) Composition of Interior Lamps

Front Room Lamp Assembly



Front room lamp bulb



Front room lamp cover



Sunglasses box

Luggage Room Lamp Assembly



Luggage room lamp cover



Bulb



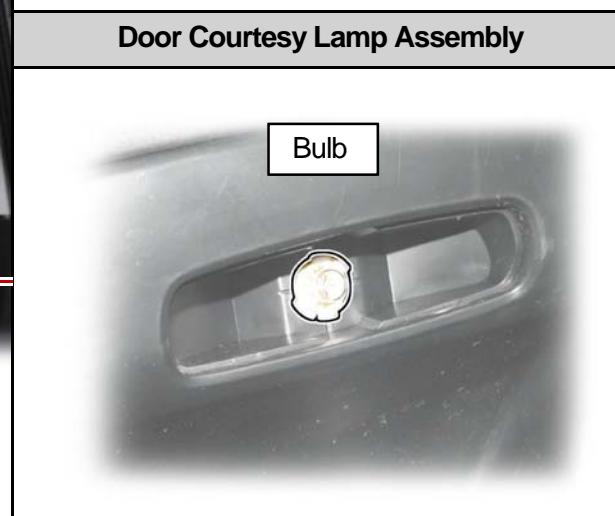
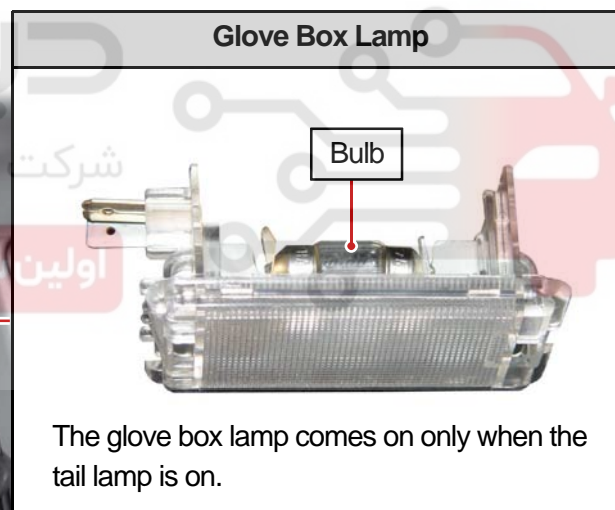
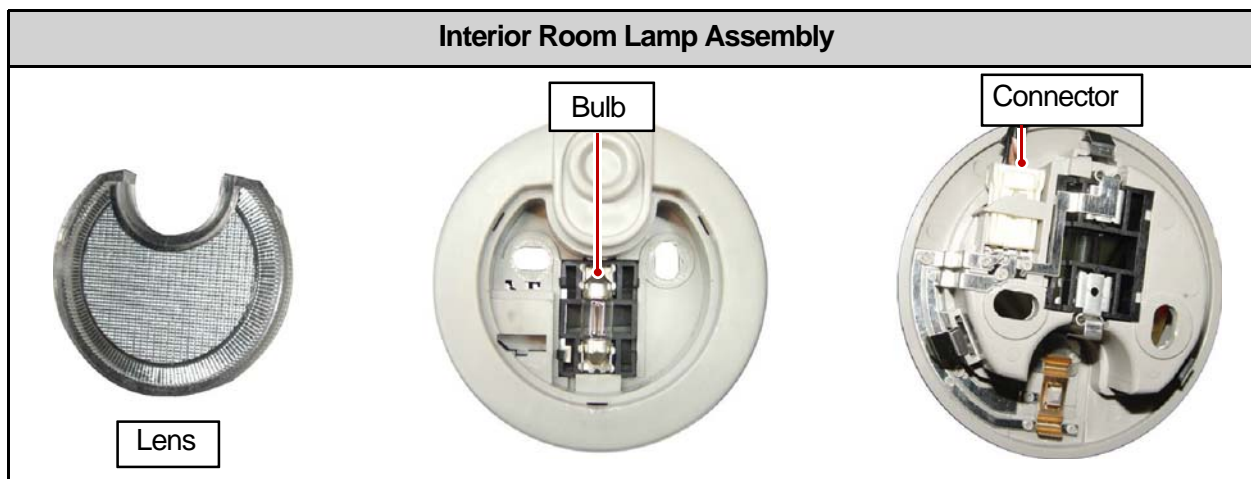
LAMP

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Modification basis	
Application basis	
Affected VIN	

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Modification basis	
Application basis	
Affected VIN	

LAMP  
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06-10

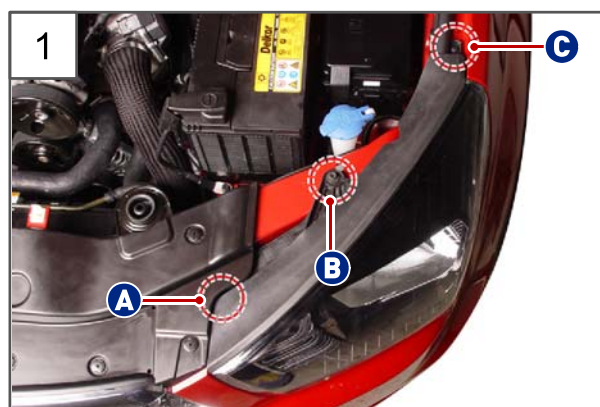
8310-01

## REMOVAL AND INSTALLATION

S.G.N.

## 8310-01 HEADLAMPS

Preceding work - Disconnect the negative battery cable.



1. Unscrew the two upper and side mounting bolts A and B (10 mm) and mounting screw C from the headlamp.

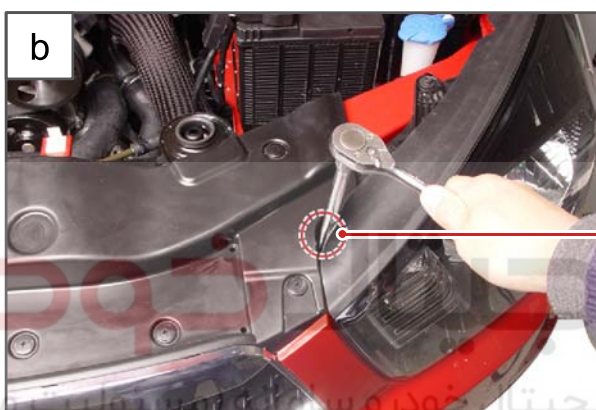
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Modification basis	
Application basis	
Affected VIN	

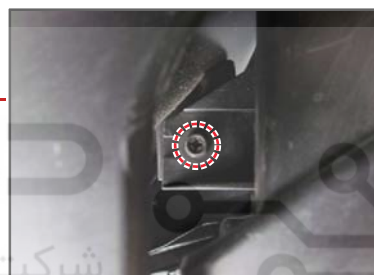




a. Pry off the headlamp rubber strip to remove the one headlamp side mounting bolt A (10 mm).



b. Unscrew the one headlamp side mounting bolt (10 mm).



c. Lift up the fastener (A) using the remover to facilitate removing the headlamp.



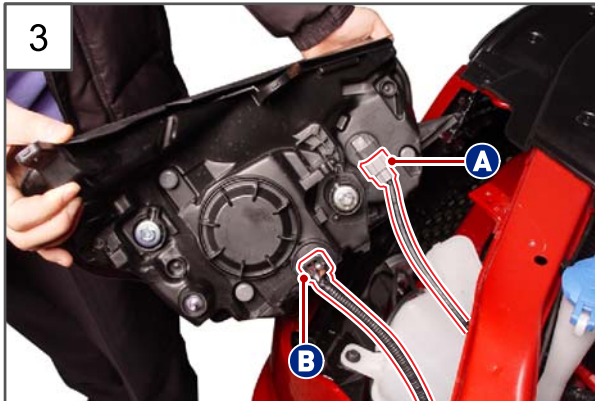
2. Pull the headlamp assembly forwards and disconnect it.

Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

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8310-01



3. Disconnect the headlamp connector A (turn signal lamp) and B (position lamp, high beam/low beam) and remove them.



4. Installation is in the reverse order of removal.



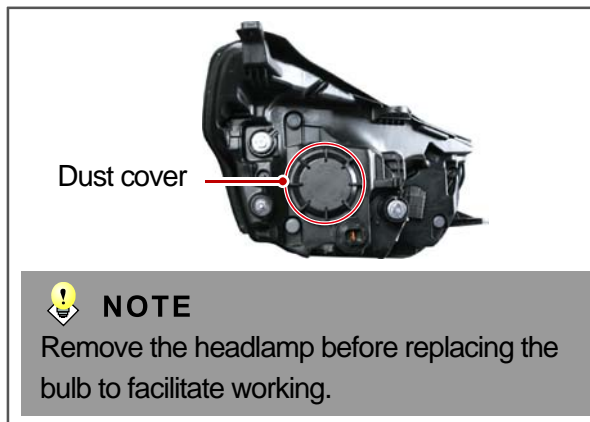
LAMP  
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Modification basis	
Application basis	
Affected VIN	

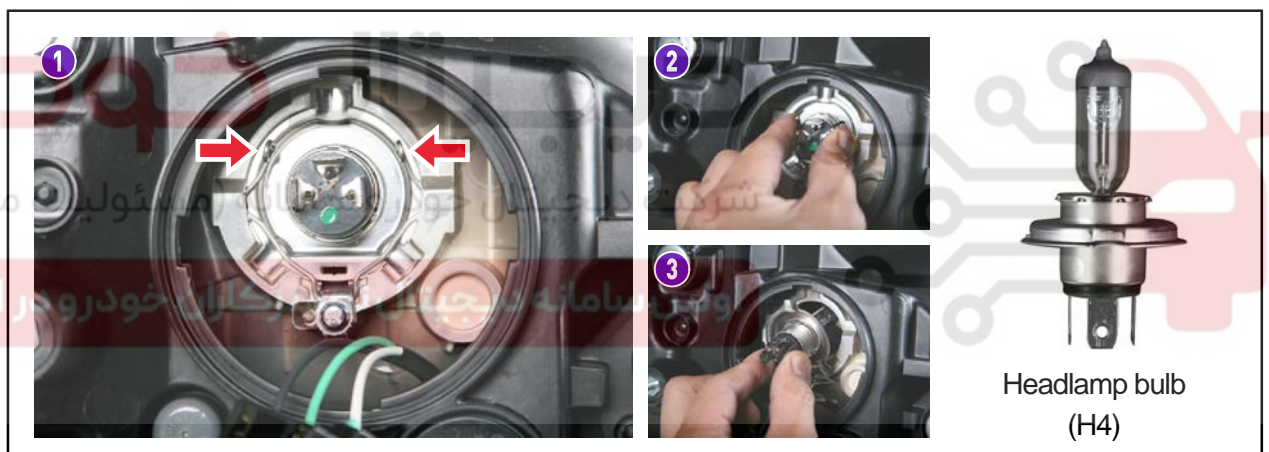


### ► Replacing Bulb in Headlamp Assembly

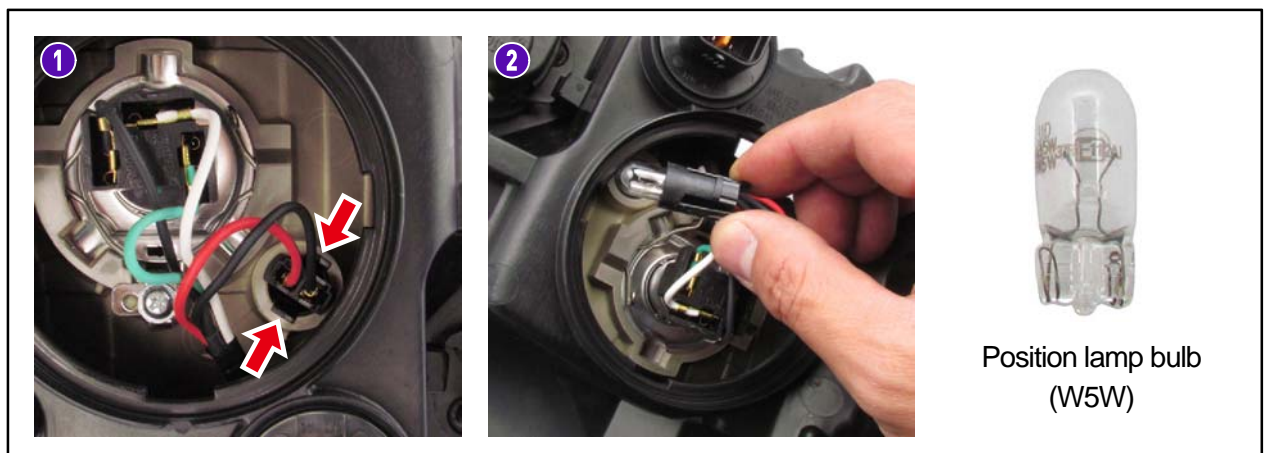
1. After turning the headlamp operation switch OFF, remove the headlamp dust cover with the switch installed, and disconnect the connector from the bulb of the headlamp.



2. Press out the bulb clamp by pressing the right upper part of it and then remove the bulb from the headlamp.



3. Replace the position lamp bulb after pressing out the mounting part of the bulb housing with the dust cover removed.



Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

4. You should remove the headlamp assembly first, before replacing the turn signal lamp bulb.



### ⚠ CAUTION

Be careful because the bulb may be hot and replace it with the new one with same specification.  
Do not touch the bulb lamp part by your hands.  
Make sure that the bulb is firmly held in place during installation.

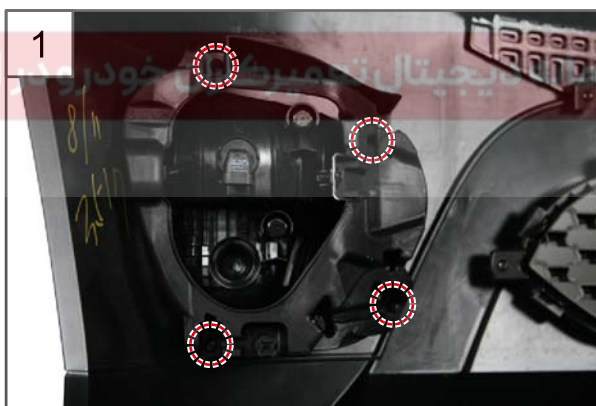
شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران

S.G.N.

**8310-10 FOG LAMP / DRL****Preceding work**

- Disconnect the negative battery cable.
- Remove the front bumper (see chapter "Body").

**1) Fog Lmp Assembly**

1. Unscrew the four fog lamp mounting screws.



2. Remove the fog lamps or DRL.

Modification basis	
Application basis	
Affected VIN	

LAMP  
undefinedELECTRI  
CFUSE  
AND

STICS

IMMOBIL  
ZERCLUSTE  
R

LAMP

SWITCH

WIPER &  
WASHERRAIN  
SENSOR

PAS

AUDIO  
SYSTEM

06-16

8310-10

3



3. Installation is in the reverse order of removal.

# دیجیتال خودرو

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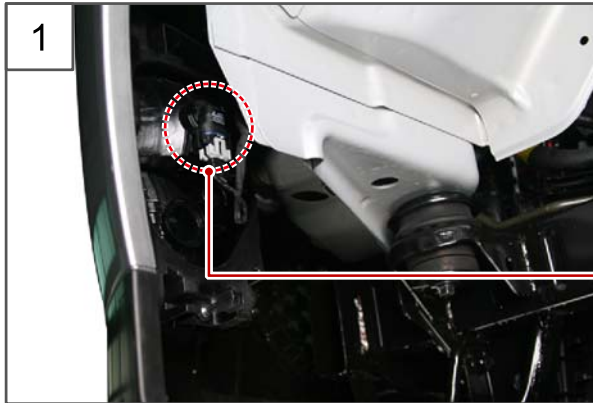
LAMP  
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Modification basis	
Application basis	
Affected VIN	

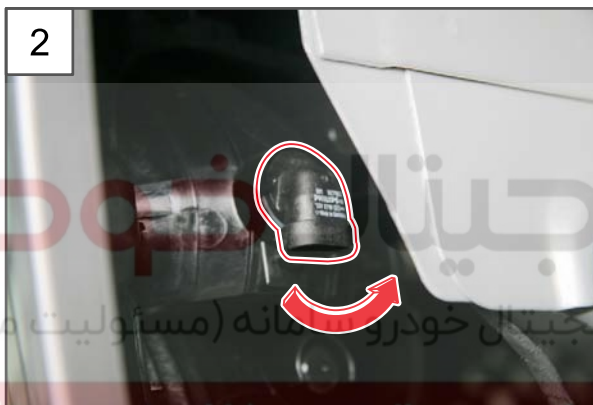
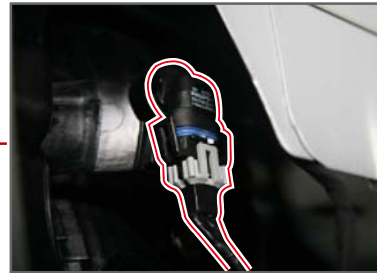


## 2) Replacing of Fog Lamp Bulb

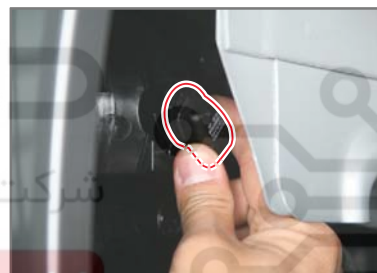
- You can replace the fog lamp bulb with the front wheel house cover removed, without removing the front bumper.



1. Remove the wheel house cover mounting pin in the side to be replaced disconnect the lamp connector.



2. Hold the bulb and turn it anti-clockwise.



3. Remove the bulb.



4. Installation is in the reverse order of removal.

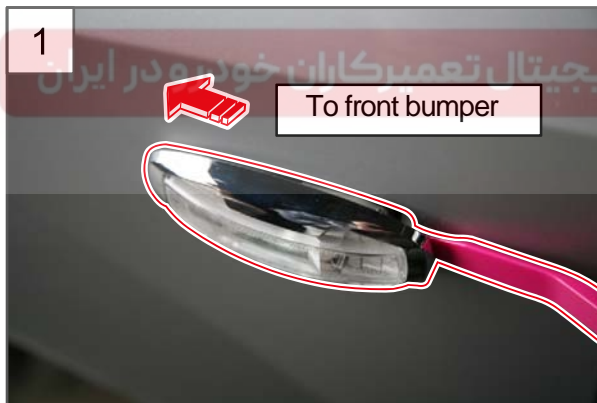
Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

06-18

8310-13

S.G.N.

**8310-13 SIDE REPEATER****Preceding work** - Disconnect the negative battery cable.

1. Insert the remover at the rear bumper side of the mounting clamp to remove the lamp from the vehicle body.

**CAUTION**

Be careful not to damage the body when inserting the remover.



2. Remove the rear bumper side of the mounting clamp first and the front bumper side of the clamp last.

LAMP  
undefined

Modification basis	
Application basis	
Affected VIN	

3



3. Disconnect the connector and remove the lamp.

4



4. Installation is in the reverse order of removal.

دیجیتال خودرو  
شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

06-20

8320-01

S.G.N.

8320-01

## REAR COMBINATION LAMP

## Preceding work

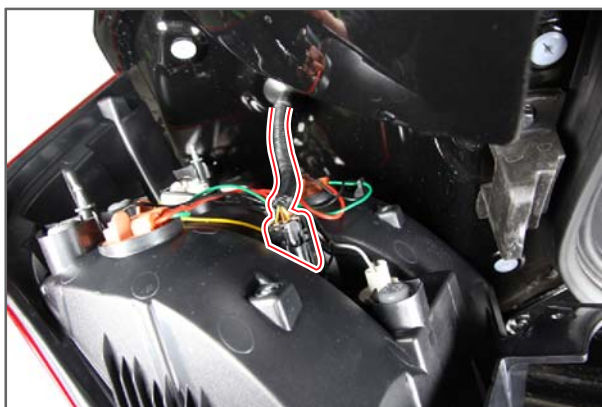
- Turn the lamp switch OFF.
- Disconnect the negative battery cable.

## 1) Rear Combination Lamp Assembly



1. Open the tailgate and unscrew two mounting screws to remove the rear combination lamp assembly.

2. Disconnect the connector and remove the rear combination lamp assembly.



LAMP

undefined


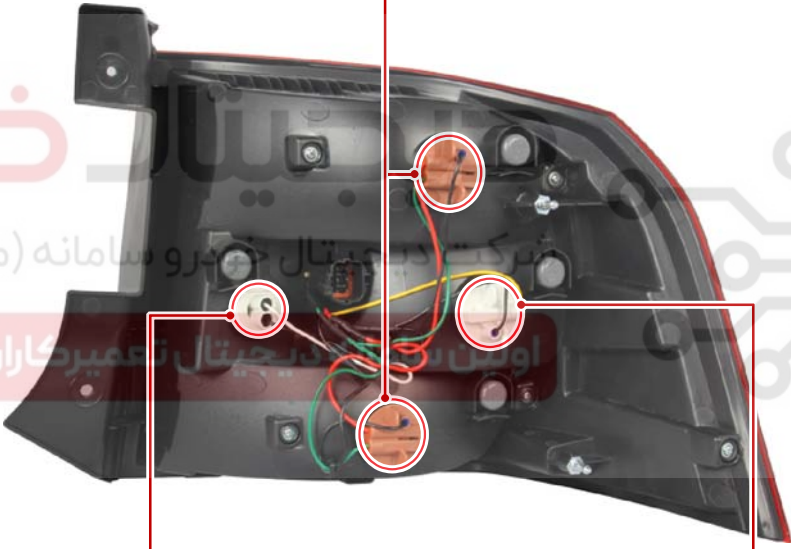
Modification basis	
Application basis	
Affected VIN	



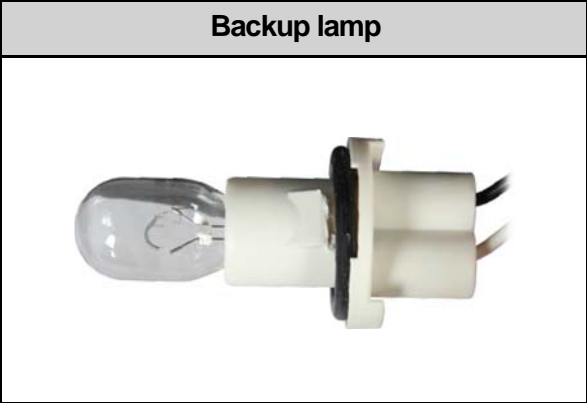
3. Open the bulb holders/connectors by turning them counterclockwise and remove the bulbs.

Rear Combination Lamp

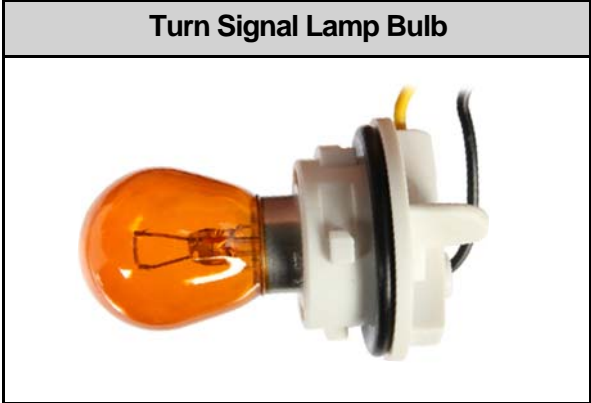
Stop Lamp/Tail Lamp Bulb



Backup lamp



Turn Signal Lamp Bulb



**CAUTION**  
- Use only specified bulb for replacement.

Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

06-22

8320-12

S.G.N.

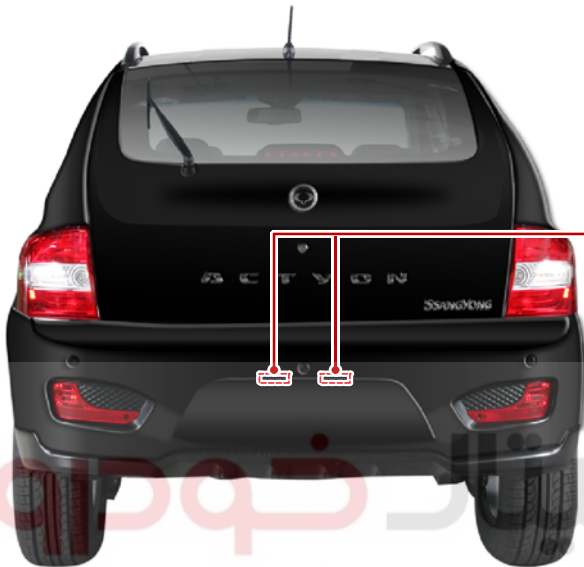
8320-12

## LICENSE PLATE LAMP

- The replacement procedure for the license plate lamp and bulb is the same.

**Preceding work** - Disconnect the negative battery cable.

1. Unscrew two mounting screws from the license plate lamp on the rear bumper and remove the lamp.



2. Remove the bulb from the removed license plate lamp.

**CAUTION**

- Use only specified bulb for replacement.

LAMP  
undefined

Modification basis	
Application basis	
Affected VIN	

S.G.N.

8320-16

## HIGH MOOUNTED STOP LAMP

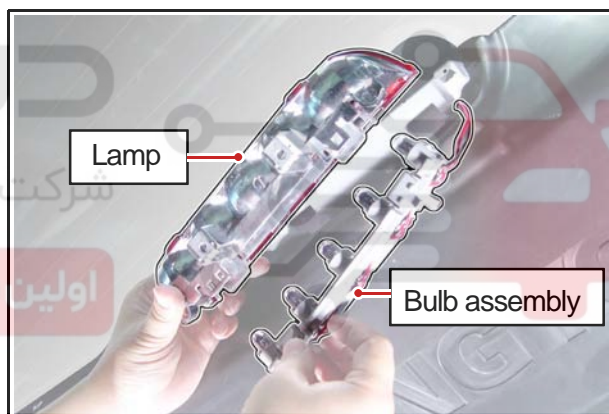
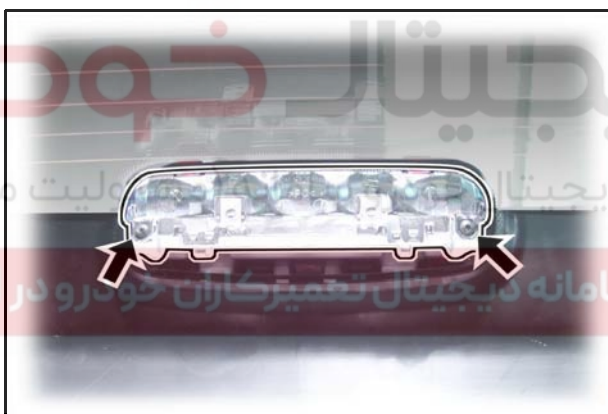
## Preceding work

- Disconnect the negative battery cable.

1. Open the tailgate and remove the cover from the high mounted stop lamp.



2. Remove the bulb assembly.



3. Remove the bulb from the bulb assembly.

Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

06-24

8320-19

S.G.N.

**8320-19 REAR FOG LAMP****Preceding work** - Disconnect the negative battery cable.**CAUTION**

- Use only specified bulb for replacement.



1

1. Unscrew the screw from the rear fog lamp assembly.



2

2. Disconnect the connector and remove the rear fog lamp assembly.

LAMP

undefined

Modification basis	
Application basis	
Affected VIN	





3. Install the rear fog lamp assembly in the reverse order of removal.

## 2) Replacing of Rear Fog Lamp Bulb



1. Unscrew the screw from the rear fog lamp assembly.



2. Pull out the bulb from the rear fog lamp.

Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

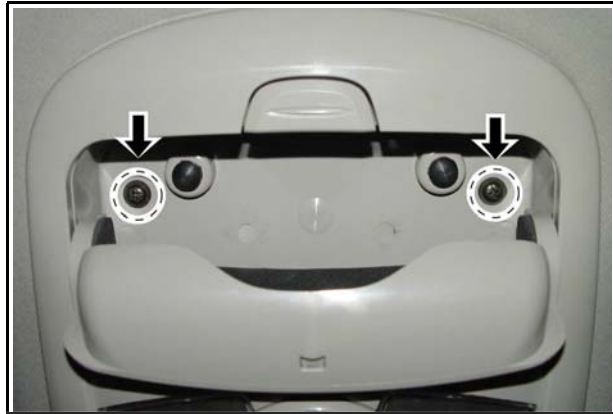
06-26

8610-01

S.G.N.

**8610-01 INTERIOR LAMPS****1) Removal and Installation of Overhead Console Assembly****Preceding work** - Disconnect the negative battery cable.

1. Open the sunglasses box and remove two overhead console assembly mounting screws.



2. Remove the overhead console assembly starting from the front side and disconnect the connector to remove the overhead console assembly.

**Disconnection of connector**LAMP  
undefined

Modification basis	
Application basis	
Affected VIN	

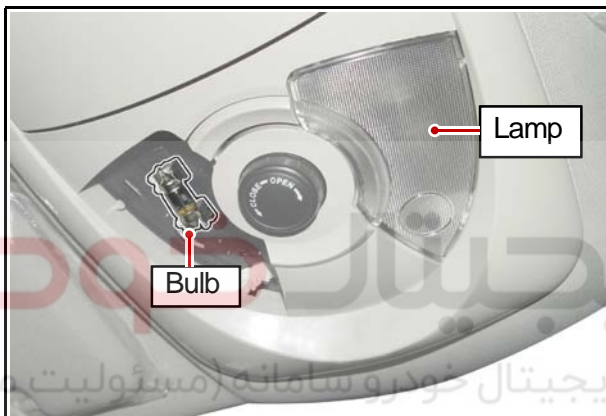
## 2) Overhead Console Room Lamp Bulb Replacement



1. Turn the room lamp switch OFF.
2. Remove the lamp cover by prying it off from the rear side.

### CAUTION

When replacing the bulb, pry off the cover by inserting a screwdriver into the groove not to damage other components.



3. Carefully remove the bulb from the lamp and replace it with new one.

ELECTRI  
CFUSE  
AND

STICS

IMMOBILI  
ZERCLUSTE  
R

LAMP

SWITCH

WIPER &  
WASHERRAIN  
SENSOR

PAS

AUDIO  
SYSTEM

Modification basis	
Application basis	
Affected VIN	

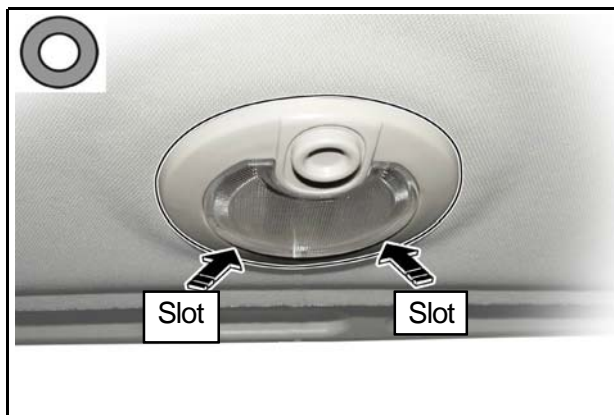
LAMP  
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06-28 8610-01

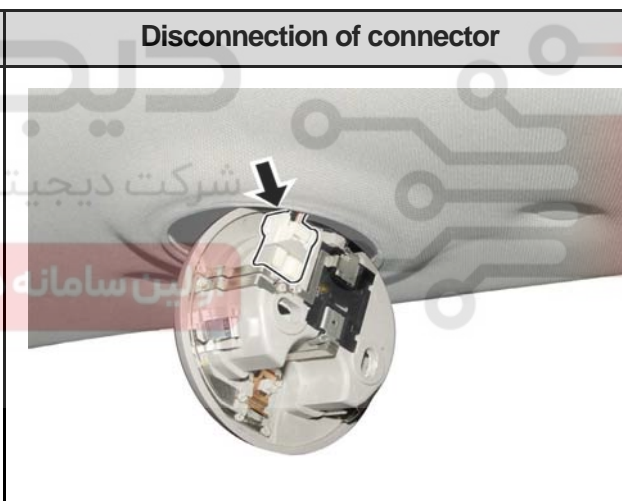
### 3) Removal and Installation of Center Lamp Assembly

**Preceding work** - Disconnect the negative battery cable.

1. Remove the lamp cover.



2. Unscrew the mounting screw on the lamp and remove the lamp assembly. Disconnect the connector to remove the lamp assembly.

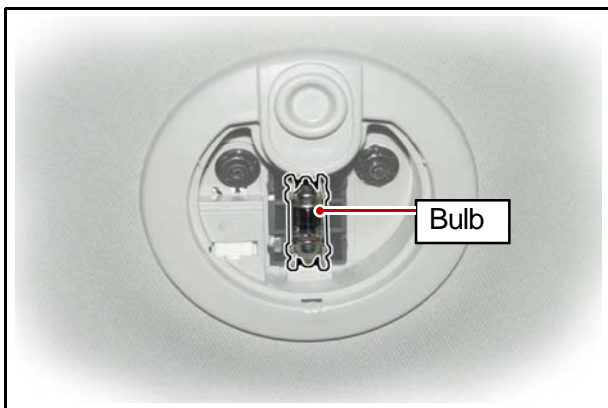


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Modification basis	
Application basis	
Affected VIN	



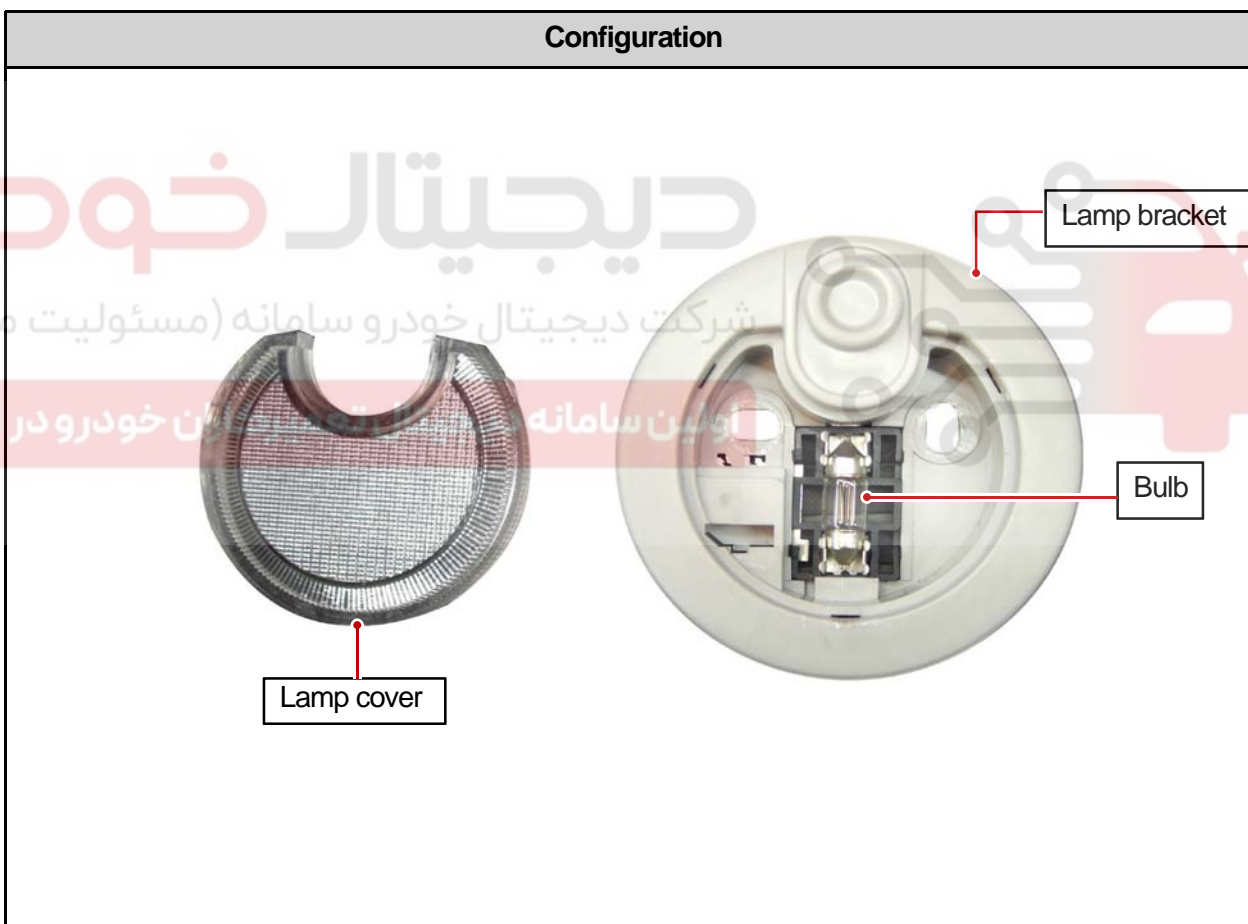
#### 4) Replacement of Bulb



1. Turn the lamp switch OFF.
2. Remove the lamp cover and replace the bulb with new one.

#### **CAUTION**

- Use only specified bulb for replacement.



Modification basis	
Application basis	
Affected VIN	

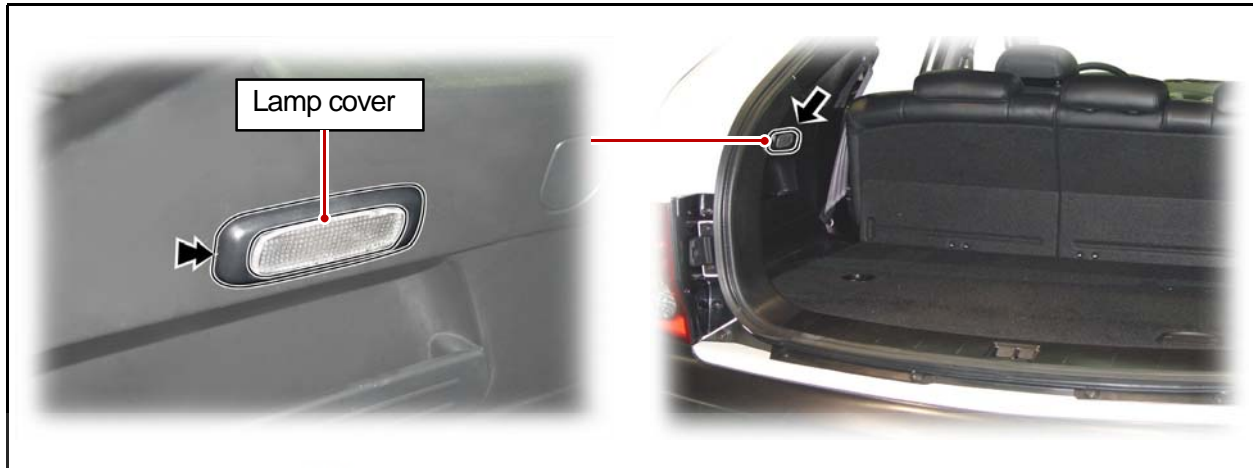
LAMP  
undefined

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## 5) Removal and Installation of Luggage Room Lamp

**Preceding work** - Disconnect the negative battery cable.

1. Open the tailgate and remove the luggage room lamp assembly by prying off the cover using a screwdriver.



2. Disconnect the connector from the removed lamp assembly.

LAMP  
undefined

Modification basis	
Application basis	
Affected VIN	

## 6) Replacement of Bulb



1. Turn the luggage room lamp switch OFF.
2. Replace the bulb with new one.

### CAUTION

- Use only specified bulb for replacement.

### Cautions for Lamp Installation



### CAUTION

- Install the luggage room lamp cover by aligning the arrow positions correctly. If not installed correctly, the lamp may not operate properly.

Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

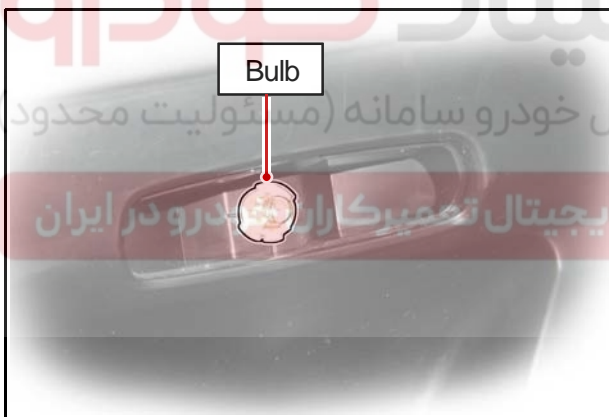
## 7) Door Courtesy Lamp (Bulb) Assembly

1. Remove the door courtesy lamp cover from the door panel.



### ⚠ CAUTION

- Remove the cover using the groove not to damage other components.



2. Remove the bulb from the door courtesy lamp.

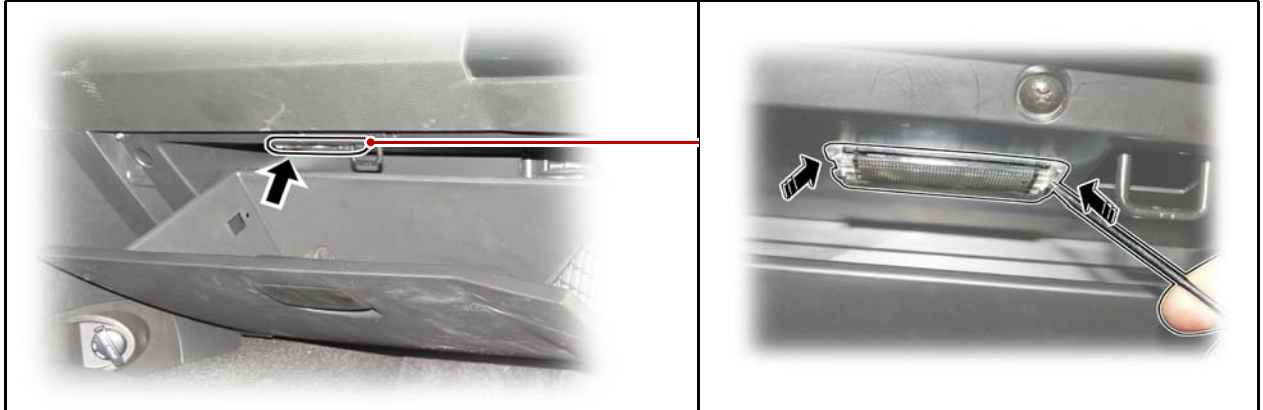
### ⚠ CAUTION

- Use only specified bulb for replacement.
- The bulb should be installed to the groove correctly.  
If there is gap, apply adhesive to the groove.  
If it is installed loosely, it can be off the position and damage the door trim due to the vibration from slamming door or vehicle vibration.

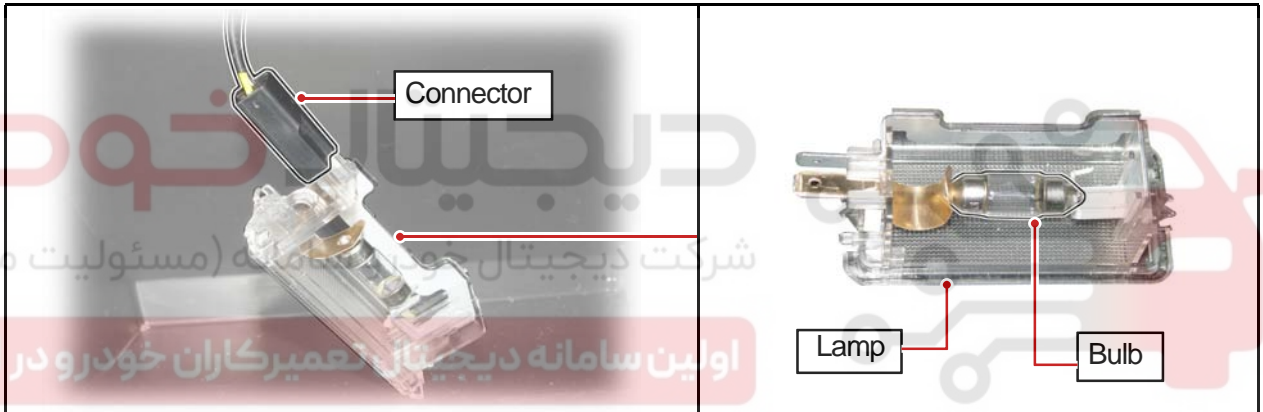
## 8) Glove Box Lamp Assembly

**Preceding work** - Disconnect the negative battery cable.

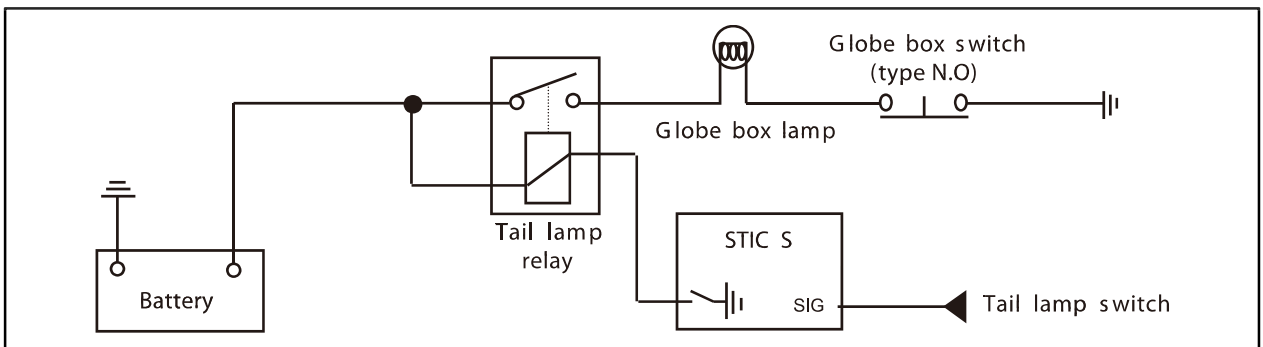
1. Open the glove box and remove the lamp by pushing both sides (arrows).



2. Disconnect the connector and remove the lamp assembly.



### ► Glove Box Lamp Illumination Circuit



### ► Description

1. The tail lamp switch signal is sent to STICS which then outputs the tail lamp relay ground so that the lamp comes on if the glove box is open.
2. The tail lamp comes on as above if the auto light tail lamp signal is sent to STICS while the auto light operates.
3. The tail lamp goes off when opening and closing the driver's door after removing the ignition key even though the operating conditions are met (battery saver function).

Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined



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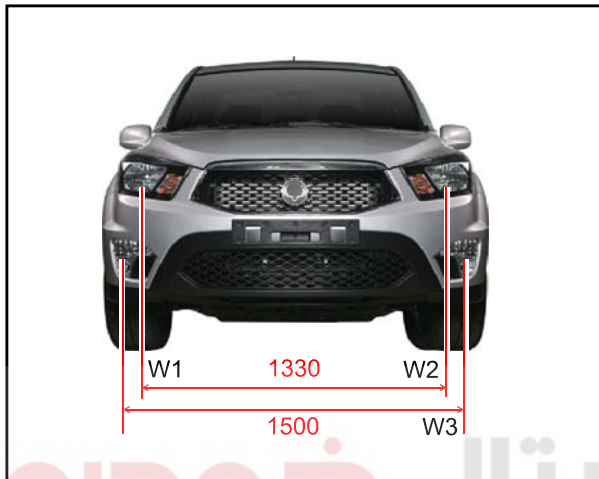
8310-01

## HOW TO ADJUST ANGLE OF HEADLAMP AND FOG LAMP

### 1) Adjusting Headlamp Aiming

#### ► Type of lamp and position

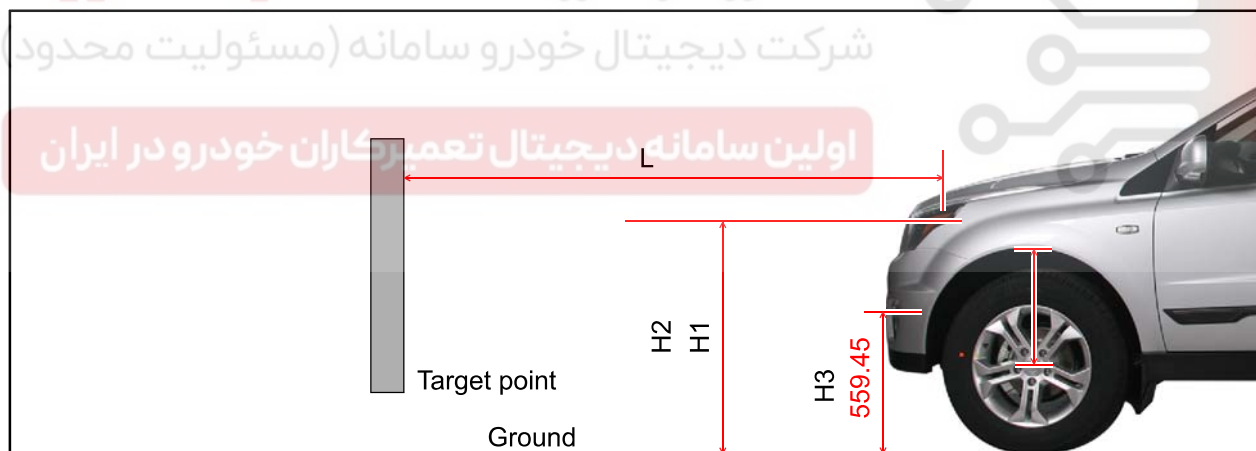
##### ▷ Distance between lamps



W1 Distance between low beams  
W2 Distance between high beams  
W3 Distance between fog lamps

H1 Ground clearance of low beam  
H2 Ground clearance of high beam  
H3 Ground clearance of fog lamp

##### ▷ Distance between lamps



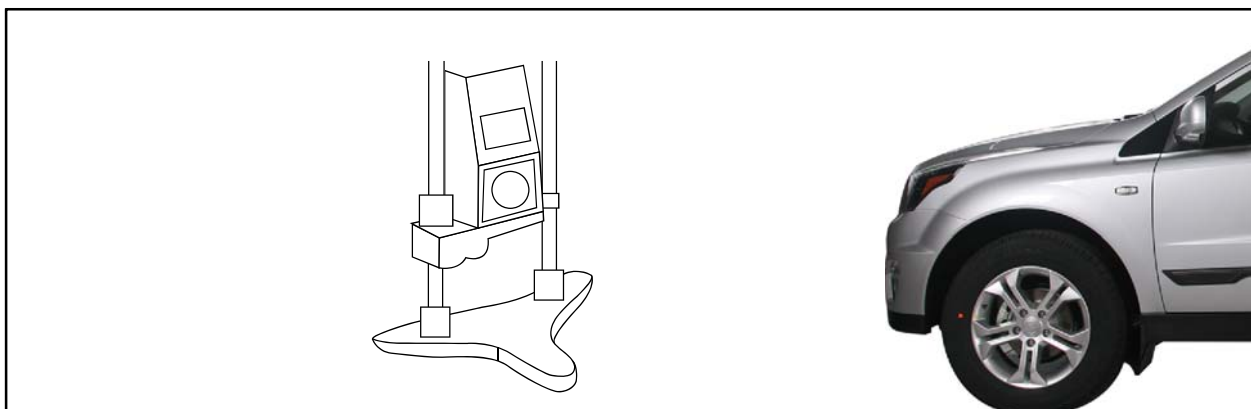
Lamp	Vehicle condition	Distance [mm]						Remark
Low beam	Curb weight	H1	880.12	W1	1380	L	1000	* Same as high beam
	1 person occupied	H1	864.25	W1	1380	L	1000	
High beam	Curb weight	H2	880.12	W2	1380	L	1000	* Same as low beam
	1 person occupied	H2	864.25	W2	1380	L	1000	
Fog lamp	Curb weight	H3	559.45	W3	1500	L	1000	-
	1 person occupied	H3	535.25	W3	1500	L	1000	

LAMP  
undefined

Modification basis	
Application basis	
Affected VIN	

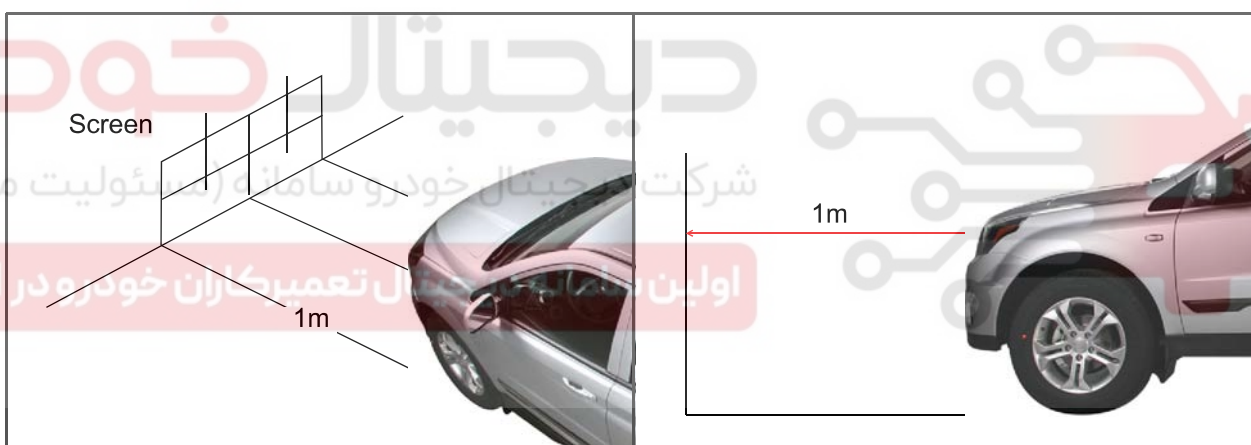
## ► Headlamp alignment

### ▷ Beam setting



- Adjust the headlamp focus by using the up/down/left/right adjusting screws of the high-beam and low-beam lamps with a beam setting device.

### ▷ Screen alignment



- Cautions for using screen
  - Park the vehicle on a level ground.
  - Set the vehicle unloaded only with a driver in it and set tire inflation pressure to the specified value.
  - Make sure that the distance between the headlamp and the screen is 1 m.

Vertical line: passing the center of each headlamp

Horizontal line: passing the center of each headlamp

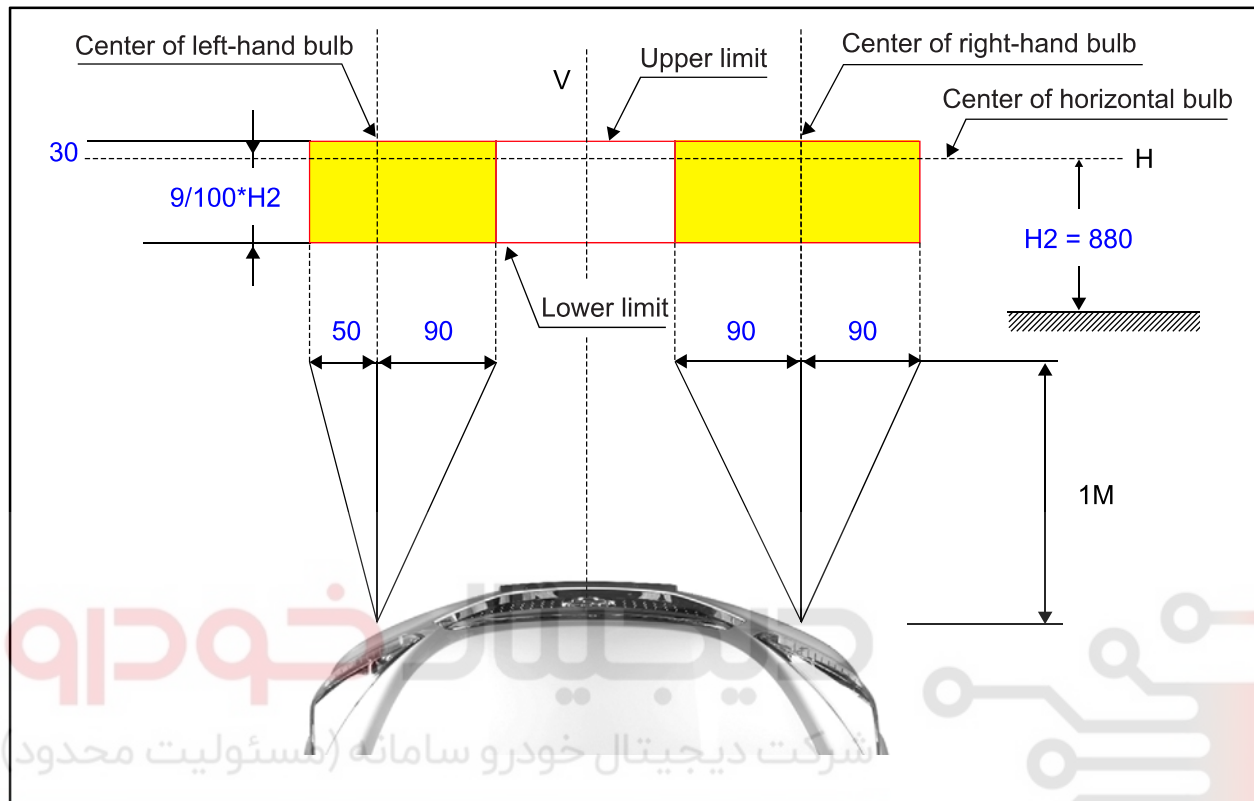
- Adjust the high-beam and low-beam respectively.

Modification basis	
Application basis	
Affected VIN	

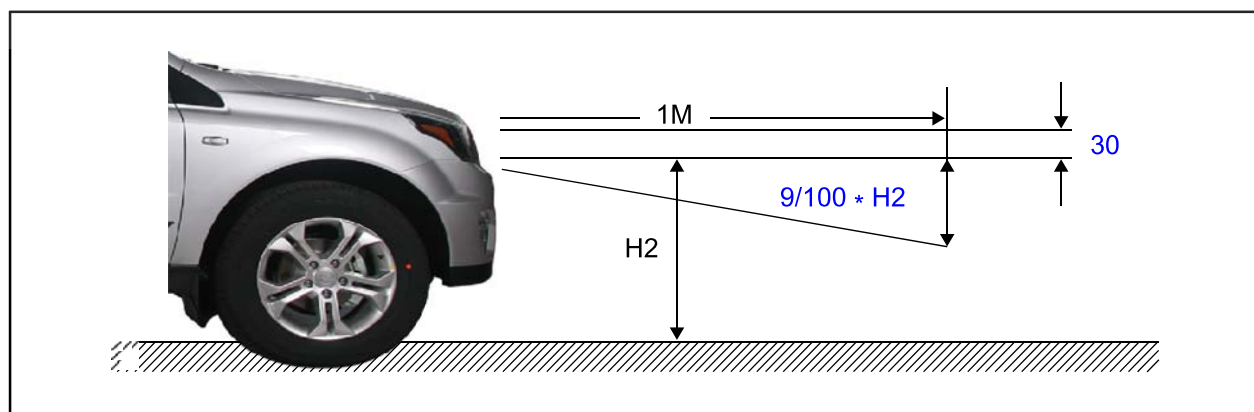
LAMP  
undefined

### ► Adjustment of headlamp high beam aiming

- Turn on the headlamp high beam and adjust the headlamp so that the maximum intensity of the illuminated region is located within the allowable range shown in the figure below.



- Adjust the headlamp based on the position of the lower beam when adjusting using the contour because the high and low beams are a unit.



LAMP  
undefined

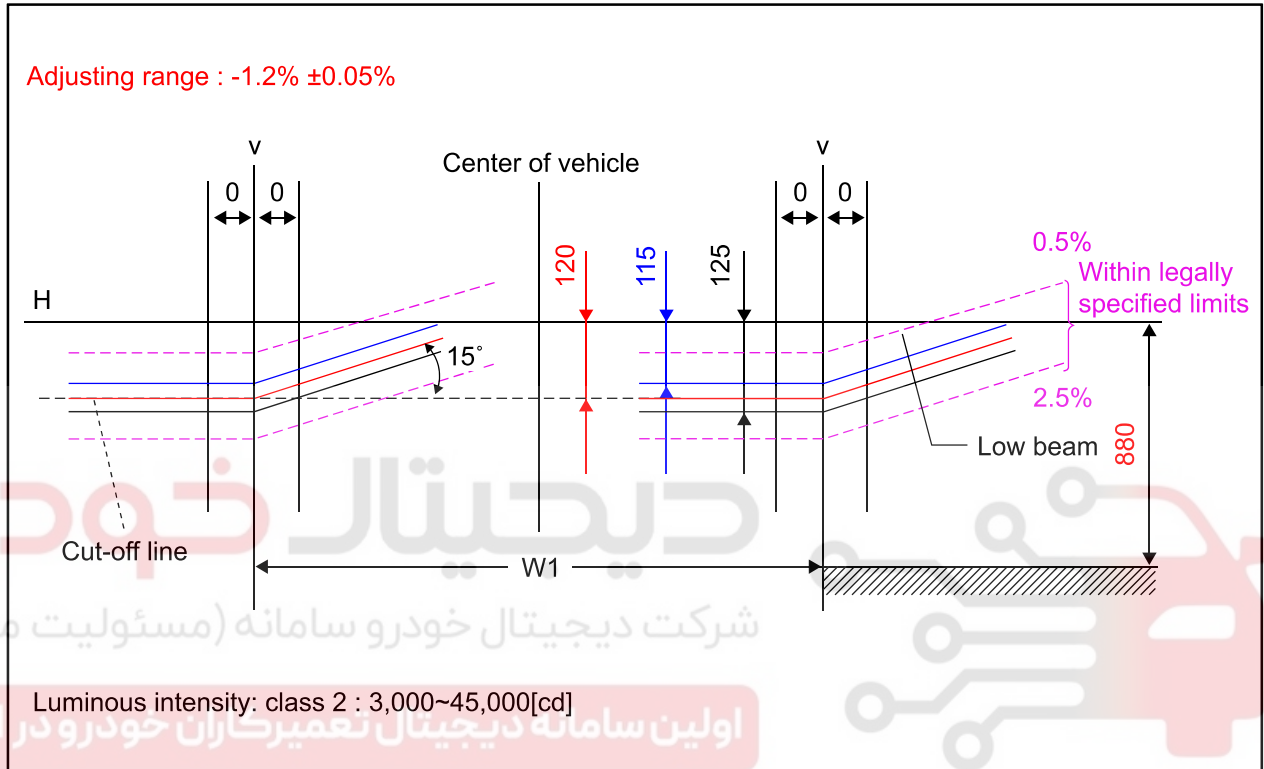
Modification basis	
Application basis	
Affected VIN	



### ► Adjustment of headlamp low beam aiming

- Turn on the headlamp high beam and adjust the headlamp so that the cutoff line is positioned within the allowable range as shown in the figure below.
- Adjust at the zero point when a leveling unit is installed.



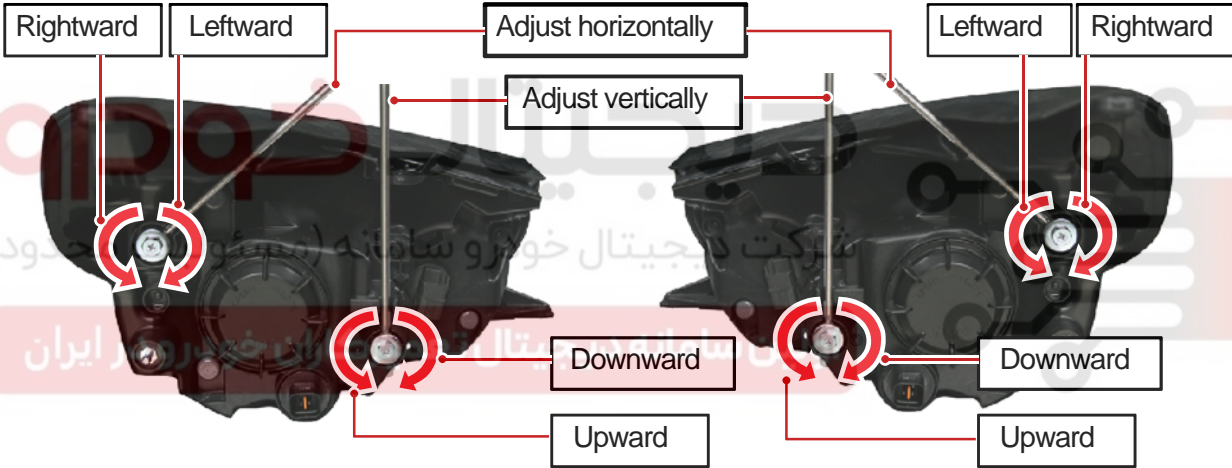


For vehicles with an auto leveling unit such as HID, re-zero the system using a diagnostic equipment before adjusting the headlamp.



Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

► How to adjust headlamp (LH/RH)

LH	RH
Adjust horizontally	
	
	
Adjust vertically	
	

LAMP  
undefined

Modification basis	
Application basis	
Affected VIN	

## 2) Fog Lamp Aiming Adjustment



The front fog lamp is installed on the inside the front bumper and can be adjusted vertically through the knob attached to it.



Modification basis	
Application basis	
Affected VIN	

LAMP  
undefined

## Memo

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران

