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# دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



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## Cigarette lighter

### Operating Principle

#### System overview

The cigarette lighter is installed in the dashboard assembly; if its button is pressed, the cigarette lighter components will be automatically heated and popped up, and then pulled out for use.

#### ❗ Note:

The cigarette lighter temperature is high in the use; must prevent burns.

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## Diagnosis information and procedures

### Diagnosis Instructions

Before the cigarette lighter troubleshooting, must understand and familiarize its working principle, and then perform its diagnosis, so as to determine the correct fault diagnosis procedure in case of fault, and more importantly, to determine whether the situations described by the user are normal.

For any cigarette lighter fault diagnosis, must inspect it firstly, and then guide the maintenance staff to take the next logical steps for fault diagnosis. Comprehend and correctly use the diagnostic flow chart to shorten the diagnosis time and avoid the misjudgement.

### General equipment

Name
Diagnostic equipment of vehicle
Digital multimeter

### Visual Inspection

1. Confirm the problem raised by the customer.
2. Check for evident mechanical and electrical faults.

### Visual inspection table

Mechanical	Electrical
<ul style="list-style-type: none"> <li>• Cigarette lighter</li> <li>• USB socket</li> <li>• Standby power supply</li> </ul>	<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Line</li> <li>• Cigarette lighter</li> <li>• USB socket</li> </ul>

3. Check the system lines easy to see or can be seen.
4. If the observed or raised problem is the evident and the cause has been found, ensure to fix this fault before proceeding with the next step.
5. If no problem is found through the visual check, confirm the fault and refer to the fault symptom list.

Cigarette lighter

**Fault symptoms table**

Symptom	Possible point of failure	Recommended measure
Cigarette lighter inoperative	<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Line</li> <li>• Cigarette lighter</li> </ul>	<b>Refer to: Diagnosis procedure about the cigarette lighter is not operated</b>
The cigarette lighter can not be automatically popped up	<ul style="list-style-type: none"> <li>• Cigarette lighter</li> </ul>	<ul style="list-style-type: none"> <li>• Replace the cigarette lighter</li> </ul>

# دیجیتال خودرو

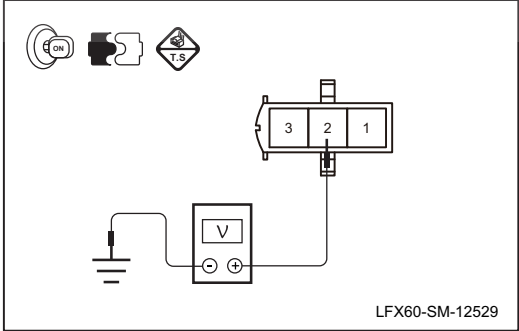
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**Diagnosis procedure about the cigarette lighter is not operated**

Test condition	Details/results/measures
1. General inspection.	
	<p>A. Inspect the cigarette lighter and its wiring harness connector for damage, poor contact, aging, loosening or other signs. Is it OK after checking? →<b>Yes</b> To step 2. →<b>No</b> Repair the fault position.</p>
2. Inspect the cigarette lighter fuse.	
	<p>A. Check the cigarette lighter fuse FS30. <b>Fuse rated capacity: 25A</b> Is it OK after checking? →<b>Yes</b> To step 3. →<b>No</b> Replace the fuse of same model.</p>
3. Inspect the cigarette lighter.	
	<p>A. Replace it with a new cigarette lighter with the same type. Inspect whether it is normal? →<b>No</b> To step 4. →<b>Yes</b> Replace cigarette lighter. <b>Refer to: Replacement of Cigarette Lighter.</b></p>
4. Inspect the cigarette lighter power line.	
 <p>LFX60-SM-12529</p>	<p>A. Operate the start switch to turn the power to OFF state and disconnect the battery negative cable. B. Disconnect the cigarette lighter harness plug I31. C. Connect the negative battery cable and operate the start switch to place the power mode under ON status. D. Inspect the voltage between Terminal 2 of the cigarette lighter wiring harness connector I31 and the reliable grounding point. <b>Standard value: 11 ~ 14 V</b> Is it OK after checking? →<b>Yes</b> To step 5. →<b>No</b> Inspect and repair the cigarette lighter power line open circuit fault; if necessary, replace the wiring harness.</p>

Cigarette lighter



Test condition	Details/results/measures
5. Inspect the cigarette lighter grounding point.	<p>A. Operate the start switch to turn the power to OFF state and disconnect the battery negative cable.</p> <p>B. Disconnect the cigarette lighter harness plug I31.</p> <p>C. Measure the resistance between Terminal 3 of the cigarette lighter wiring harness connector I31 and the reliable grounding point.</p> <p><b>Standard value: Less than 5Ω</b></p> <p>Is the measurement normal?</p> <p>→ <b>Yes</b></p> <p>Confirm the system is normal.</p> <p>→ <b>No</b></p> <p>Inspect and repair the cigarette lighter grounding point open circuit fault; if necessary, replace the wiring harness.</p>

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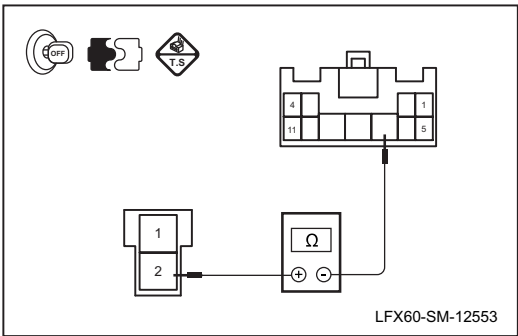
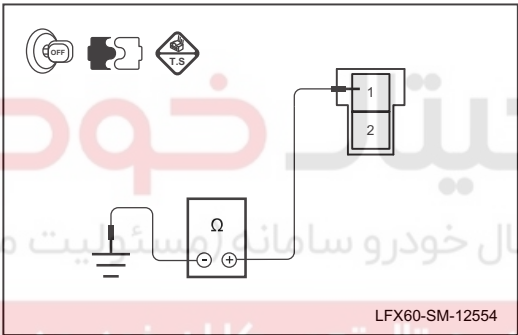
### Diagnosis procedure about that the standby power outlet is not operated

Test condition	Details/results/measures
1. General inspection.	
	<p>A. Inspect the power outlet and its wiring harness connectors for damage, poor contact, aging, loosening or other signs. Is it OK after checking? →<b>Yes</b> To step 2. →<b>No</b> Repair the fault position.</p>
2. Check the fuse.	
	<p>A. Check the fuse FS30. <b>Fuse rated capacity: 25A</b> Is it OK after checking? →<b>Yes</b> To step 3. →<b>No</b> Replace the fuse of same model.</p>
3. Inspect the standby power supply voltage.	
	<p>A. Operate the start switch to turn the power to OFF state and disconnect the battery negative cable. B. Disconnect the standby power supply harness plug I40. C. Connect the negative battery cable and operate the start switch to place the power mode under ON status. D. Measure the voltage between Terminals 1 and 2 of the standby power supply wiring harness connector I40. <b>Standard value: 11 ~ 14 V</b> Is the measurement normal? →<b>Yes</b> System normal. →<b>No</b> To step 4.</p>



Cigarette lighter



Test condition	Details/results/measures
4. Inspect the standby power supply line continuity.	
	<p>A. Operate the start switch to turn the power to OFF state and disconnect the battery negative cable.</p> <p>B. Disconnect the standby power supply wiring harness connector I40 and the dashboard wiring box wiring harness connector I04.</p> <p>C. Measure the resistance between Terminal 2 of the standby power supply wiring harness connector I40 and Terminal 7 of the dashboard wiring box wiring harness connector I04.</p> <p><b>Standard value: Less than 5Ω</b></p> <p>Is the measurement normal?</p> <p>→ <b>Yes</b> To step 5.</p> <p>→ <b>No</b> Inspect and repair the standby power supply line open circuit fault; if necessary, replace the wiring harness.</p>
5. Inspect the standby power grounding point continuity.	
	<p>A. Operate the start switch to turn the power to OFF state and disconnect the battery negative cable.</p> <p>B. Disconnect the standby power supply harness plug I40.</p> <p>C. Measure the resistance between Terminal 1 of the standby power supply wiring harness connector I40 and the reliable grounding point.</p> <p><b>Standard value: Less than 5Ω</b></p> <p>Is the measurement normal?</p> <p>→ <b>Yes</b> Confirm the system is normal.</p> <p>→ <b>No</b> Inspect and repair the standby power supply ground line open circuit fault; if necessary, replace the wiring harness.</p>
6. The system is normal.	



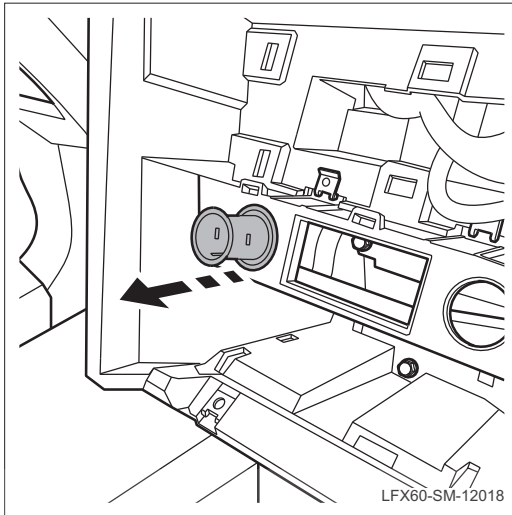
## Removal and installation

### Replacement of cigarette lighter

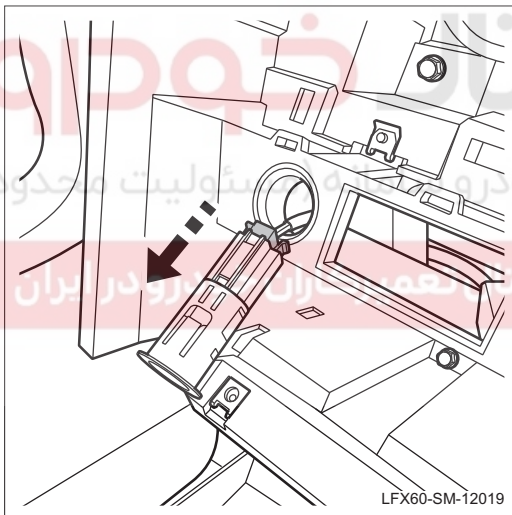
#### Removal

##### 1. Remove the cigarette lighter.

(a). Disconnect the battery negative connector.

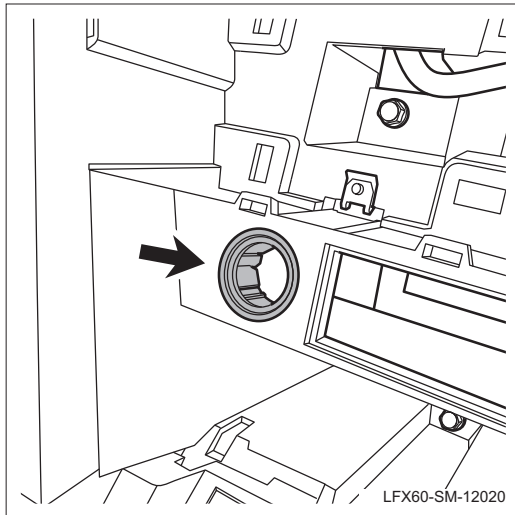


(b). Remove the cigarette lighter holder with an appropriate tool.



(c). Disconnect the cigarette lighter wiring harness connector.

## Cigarette lighter



(d). Remove the cigarette lighter holder.

**Installation****1. Install the cigarette lighter.**

- (a). The installation sequence is the reverse of the disassembly order.
- (b). Connect the battery negative terminal.

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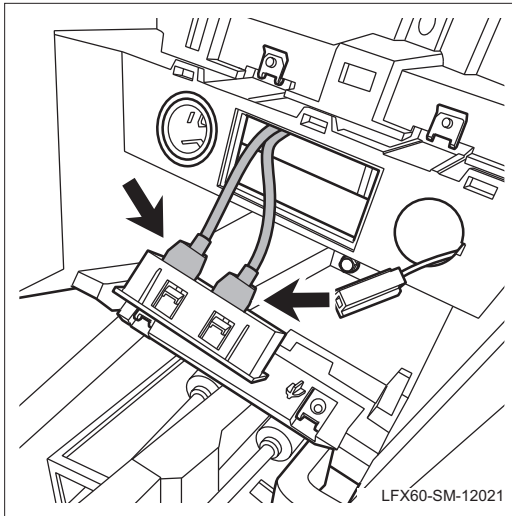




## Replacement of USB Socket

### Removal

#### 1. Remove USB socket.



- (a). Remove USB socket with an appropriate tool.
- (b). Disconnect USB socket wiring harness connector.
- (c). Remove USB socket.

### Installation

#### 1. Install USB socket.

- (a). The installation sequence is the reverse of the disassembly order.

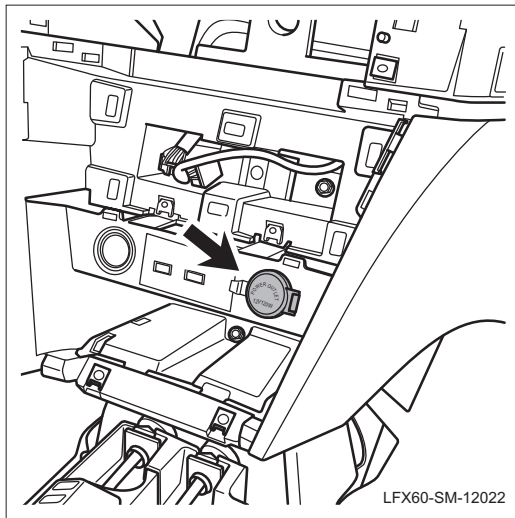
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Cigarette lighter

**Replacement of Standby Power Outlet****Removal****1. Remove the standby power outlet.**

- (a). Remove the standby power outlet with an appropriate tool.
- (b). Disconnect the standby power outlet wiring harness connector.
- (c). Remove the standby power outlet.

**Installation****1. Install the standby power outlet.**

- (a). The installation sequence is the reverse of the disassembly order.

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