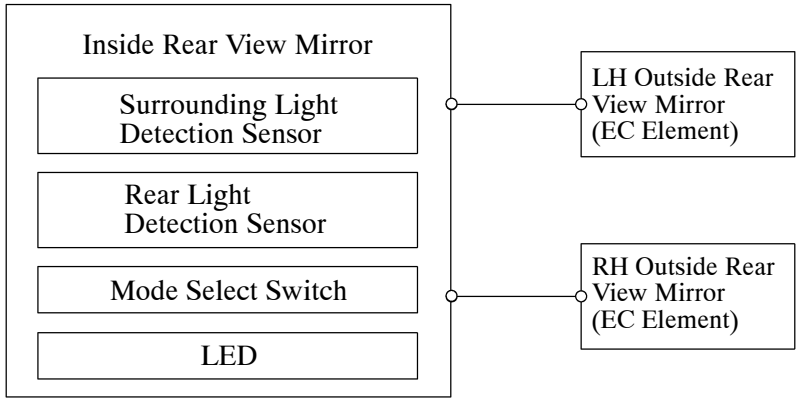
■ AUTOMATIC GLARE-RESISTANT EC MIRROR

1. General

During nighttime driving, if a large difference in intensity exists between the surrounding light and the light entering the inside rear view mirror from the headlights behind, automatic glare-resistant EC (Electrochromic) mirror automatically reduce the reflection rate of the inside rear view mirror and thus dampens the glare on the mirror. The reflection rate of the outside rear view mirrors varies in accordance with the change in the reflection rate of the inside rear view mirror.

- This system uses 2 sensors that are attached the inside rear view mirror to detect the difference between the intensity of light entering the inside rear view mirror from the rear of the vehicle.
- When the ignition switch is turned from OFF to ON, this system always turns on in the AUTO mode.

▶ System Diagram ◀



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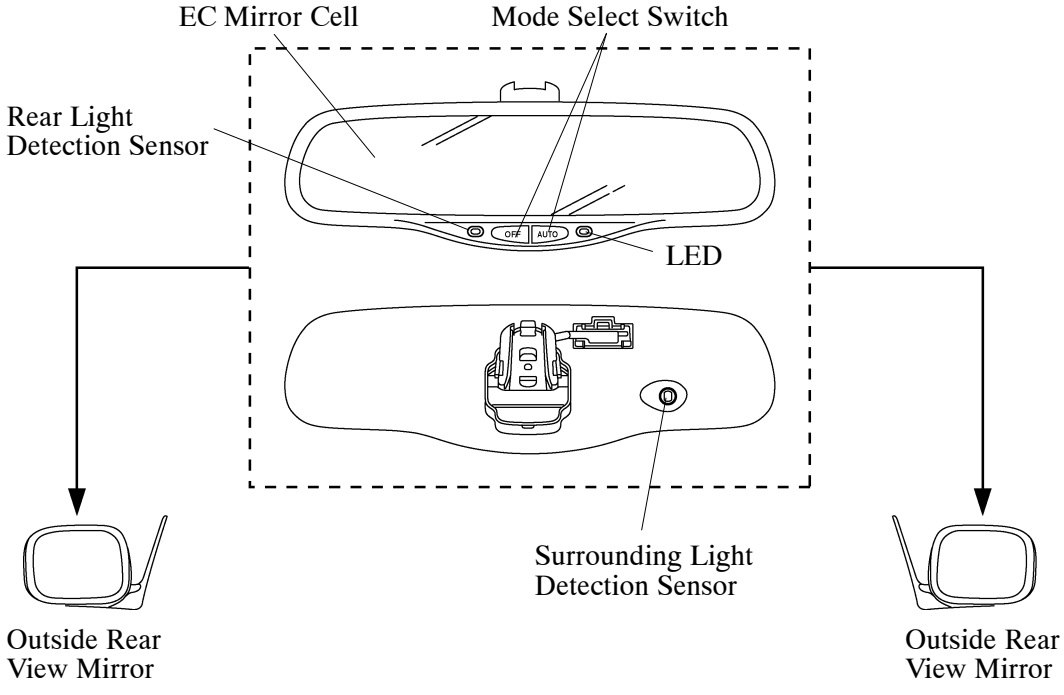

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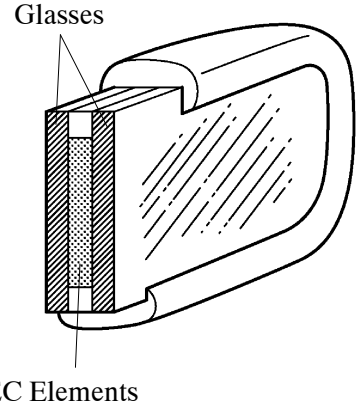
2. Function of Components

General

Component	Function
Surrounding Light Detection Sensor	Detect the intensity of the light surrounding the vehicle.
Rear Light Detection Sensor	Detects the intensity of the light entering the inside rear view mirror from the rear of the vehicle.
LED	Turns on to inform the driver the AUTO mode is operating.
Mode Select Switch (AUTO, OFF)	Selects the inside and outside rear view mirror control to AUTO mode or AUTO OFF mode.
EC Mirror Cell	Varies the refection rate of the mirror through the function of EC element.
CPU	Controls the reflection rate in accordance with the signals from the 2 sensors.

EC Mirror Cell

An EC mirror cell consists of 2 layers of glass, which sandwich the EC (Electrchromic) elements in the middle. The EC elements control coloring and discoloring characteristics through their electro-chemical oxidation reduce reaction. These characteristics are utilized to electronically vary the mirror's reflection rate.



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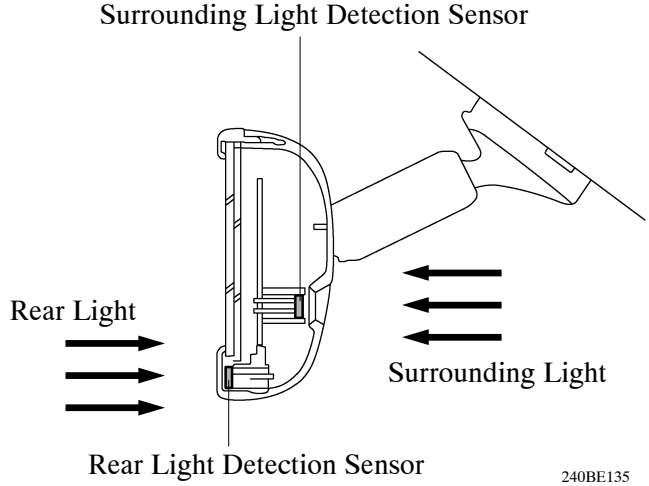
3. Reflection Rate Control

This CPU detects the surrounding light through its surrounding light detection sensor, the rear light through its rear light detection sensor, and determines whether it is day or night through the intensity of the surrounding light. At the same time, the intensity of the glare from the rear determined through the difference in intensity between the surrounding and rear light. In accordance with the intensity of the rear light, the reflection rate varies steplessly.



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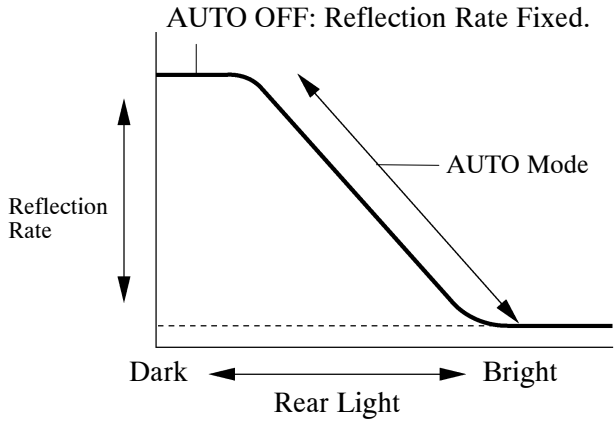

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