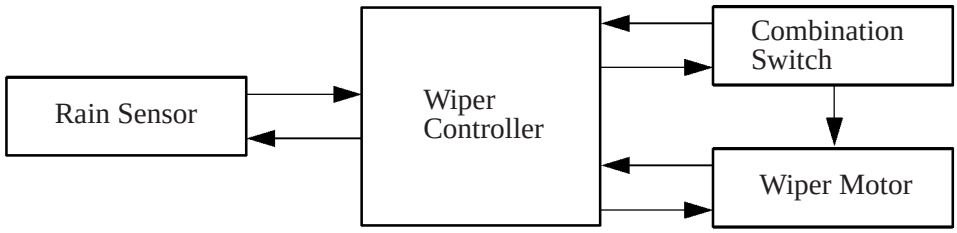
WIPER SYSTEM

■RAINDROP SENSING FUNCTION

1. General

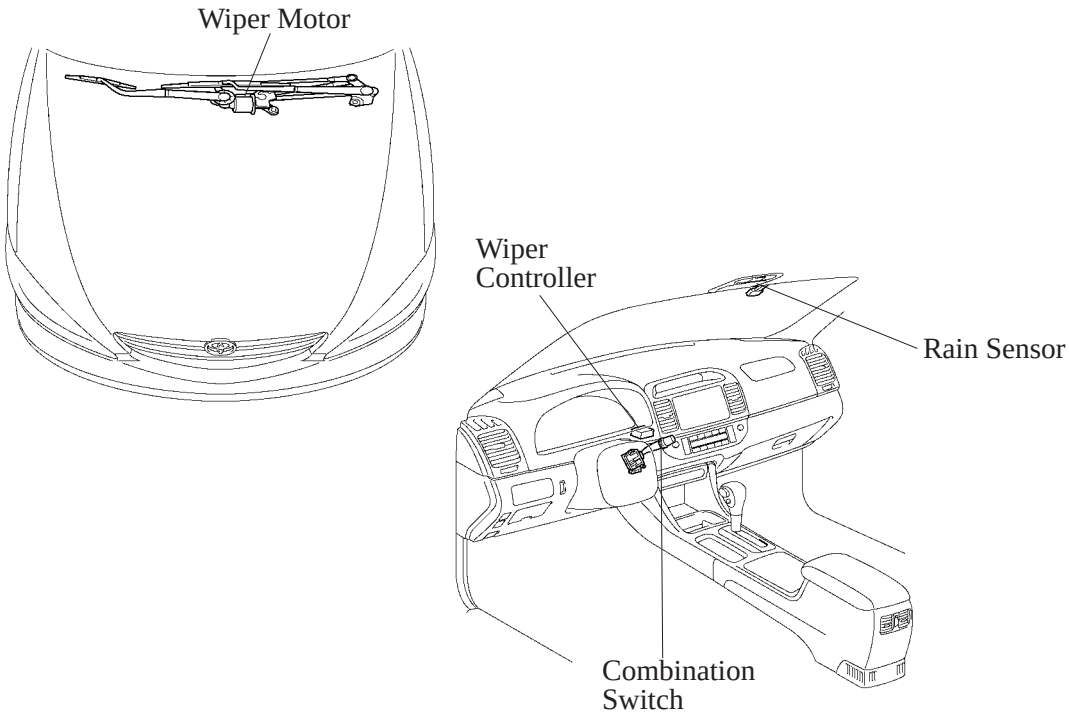
When the wiper switch is in the AUTO position, this function uses a rain sensor that is mounted on the front windshield glass to detect the amount of raindrops, and controls an optimal wiping timing accordingly.

▶ System Diagram ◀



BE03

2. Layout of Main Component



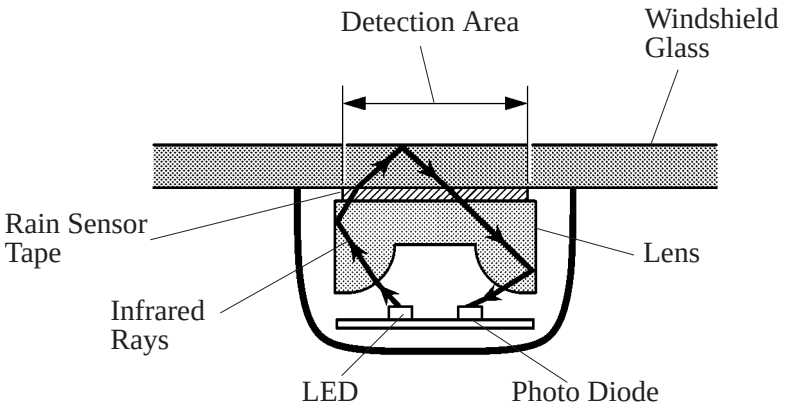
209BE04

LHD Model

3. Construction and Operation

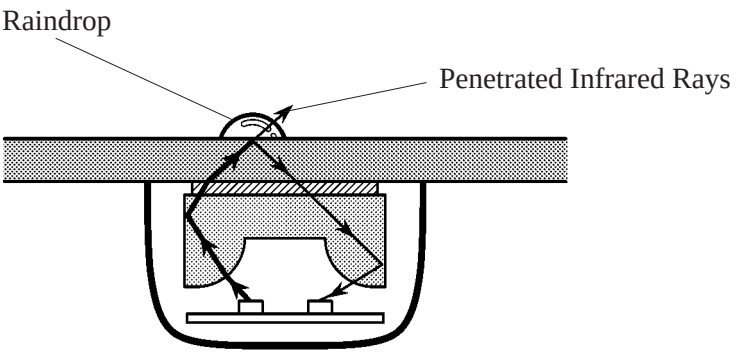
Rain Sensor

The rain sensor consists mainly of an LED (Light Emitting Diode) that emits infrared rays, and a photo diode that receives those rays. The detection method is based on the infrared rays that are reflected by the front windshield glass.
For example, if no raindrops are present in the detection area, the infrared rays emitted by the LED are all reflected from the windshield glass and are received by the photo diode. If raindrops are present in the detection area, a portion of the emitted infrared rays penetrates with the change of index of reflection outward of the windshield glass via the raindrops, thus reducing the amount of infrared rays that are received by the photo diode. The amount of this reduction is then used to detect the amount of raindrops. Thus, this function controls the INT, LO, and HI operations in order to operate the wipers at an optimal wiping timing.



If no raindrops are present

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If raindrops are present

209BE06

Service Tip

If the rain sensor tape has been peeled during a windshield glass replacement, make sure to affix a new rain sensor tape. Failure to do so will lead to a system malfunction.