RAIN SENSING SYSTEM (WITH AUTO LIGHT SENSOR)

1. SYSTEM LAYOUT AND OVERVIEW

The rain sensing wiper unit in this vehicle doesn't control the wiper directly. The rain sensing unit detects the amount of rain drops and sends the operating signal to STICS, and STICS drives the wiper directly.

**Rain Sensor Unit
(Auto Light Sensor Integrated Type)**

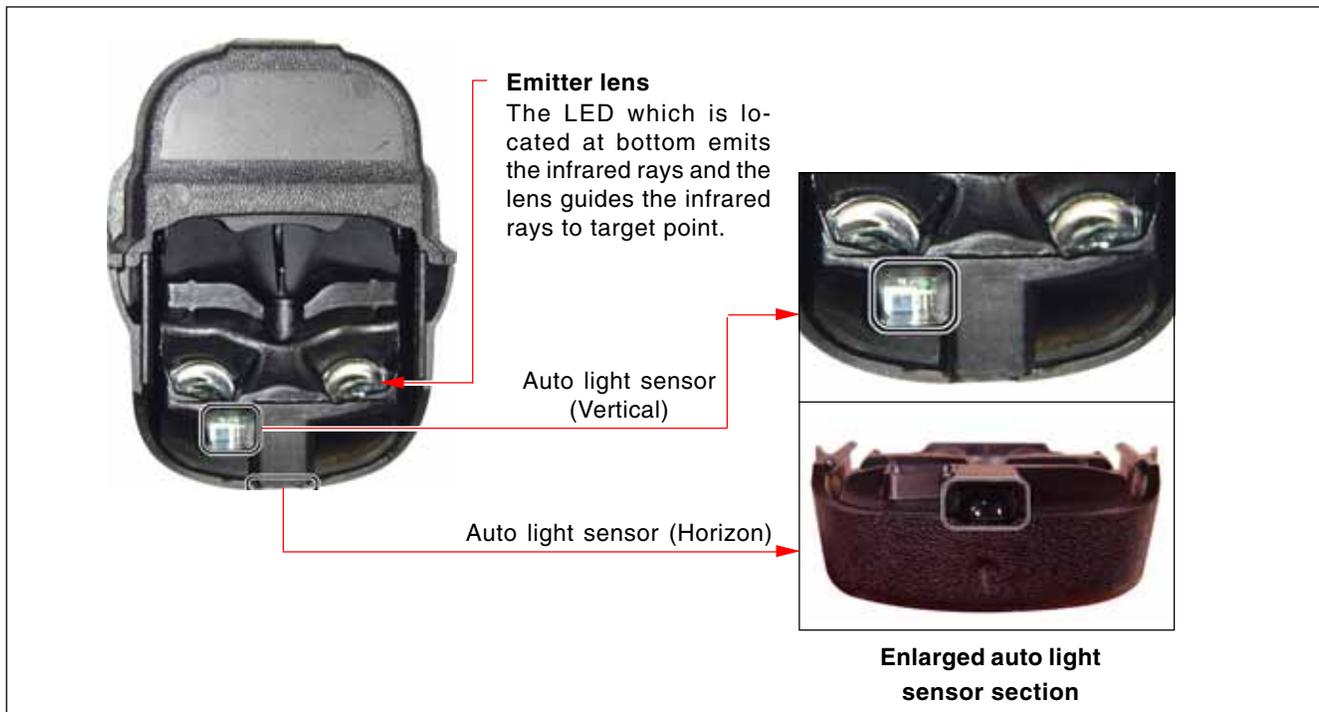**Multifunction Wiper Switch:
AUTO and Sensitivity Control**

A sensor that emits infrared rays through LED and then detects the amount of rain drops by receiving reflected rays against sensing section (rain sensor mounting section on the windshield) with photodiode. The auto light sensor is Integrated into the rain sensor (refer to the below picture).
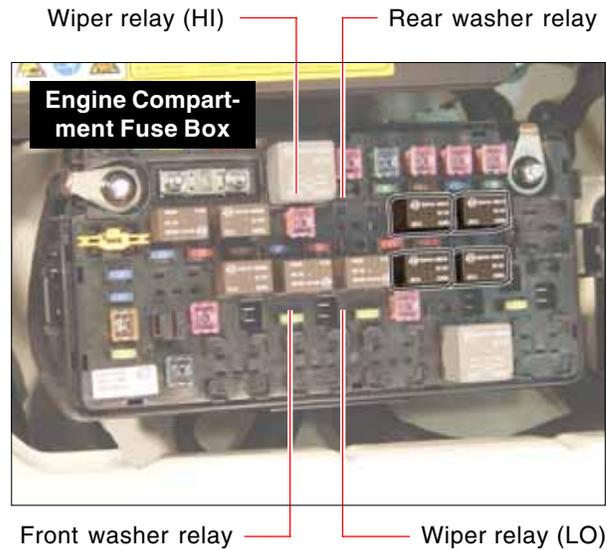
AUTO: Wiper operates automatically by rain sensor

FAST <-------> SLOW: Auto delay/Auto speed control. A position that controls sensitivity against rains on the windshield and transmits wiping demand signal accordingly.

Emitter lens
The LED which is located at bottom emits the infrared rays and the lens guides the infrared rays to target point.

Auto light sensor (Vertical)

Auto light sensor (Horizon)

Enlarged auto light sensor section

RAIN SENSOR UNIT (WITH AUTO RIGHT SENSOR)
ACTYON SM - 2006.03

CHANGED BY	
EFFECTIVE DATE	
AFFECTED VIN	

▶ **STICS**

The rain sensing unit detects the amount of rain drops and sends the operating signal to STICS, and STICS drives the wiper directly. At this moment, STICS determines the wiper operation mode (washer, MIST, AUTO), then sends the information to the rain sensor.

Wiper relay (HI) ────┐   ┌──── Rear washer relay

STICS

**Engine Compart-
ment Fuse Box**

Front washer relay ────┘   └──── Wiper relay (LO)

Auto Light Sensor and Rain Sensor Coupled Control

1. **Rain detected headlamp:** If it rains heavy which requires the intermediate INT speed, the headlamps are turned on automatically.
2. **Night detected wiping:** When the auto light control turns on the headlamps and the rain sensor detects the rain, the wiper sensitivity is automatically increased by one level. (For example, the AUTO wiper switch is at the 3rd level, but the wiper operates at the 4th level.)