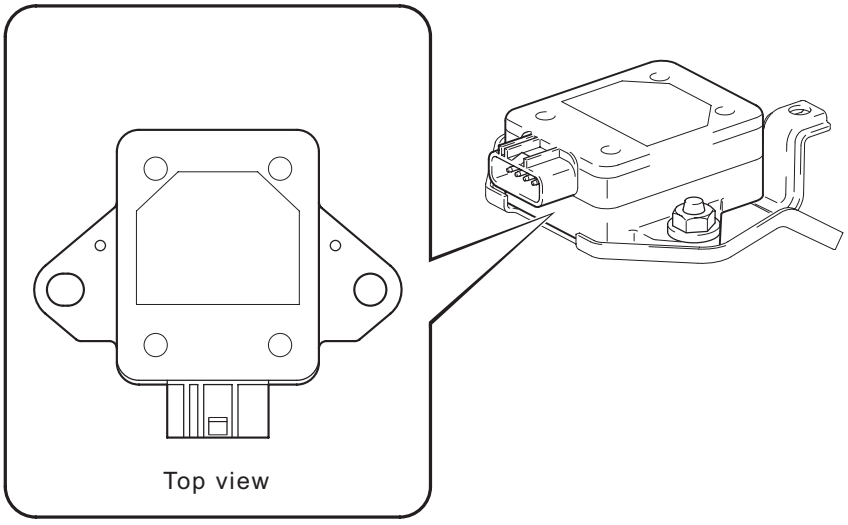
Yaw Rate & Deceleration Sensor

- A semiconductor yaw rate sensor and two acceleration sensors are integrated into a compact unit and installed under the center console. When the vehicle accelerates, the beams in the acceleration sensors flex, and the measurements of their distortion are converted into electrical signals. Each of the two acceleration sensors is positioned 45 degrees to the longitudinal direction of the vehicle. Thus, the combination of the two acceleration sensors can detect the deceleration rate of the vehicle across the entire horizontal plane. Coupled with linear output characteristics, the acceleration sensors enable precise control over a wide variety of surfaces.
- The yaw rate sensor detects the vehicle's rotational angle speed (yaw rate and rotating speed) in the vertical axis direction based on the amount and direction of the flexing of the piezoelectric ceramic. A dedicated IC (integrated circuit) is used for the oscillation of the sensor unit and for signal processing, thus realizing a compact and reliable sensor.



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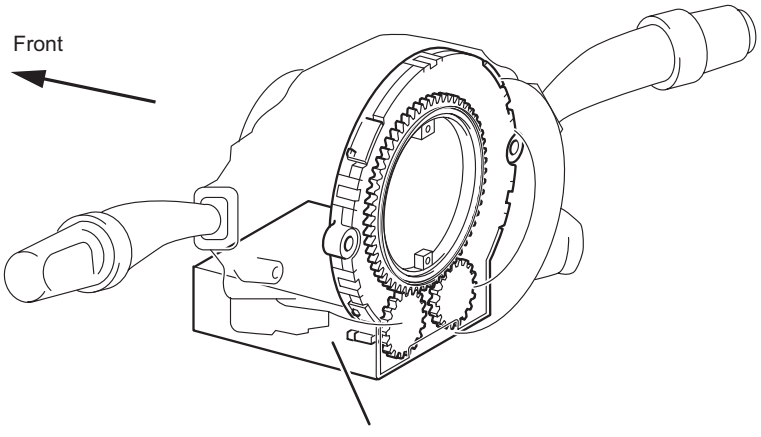
Steering Angle Sensor

- A steering angle sensor is provided in the combination switch area. This sensor detects the amount of steering effort and the direction of steering and inputs them in the skid control ECU.
- The sensor assembly contains two sets of magnetic reluctance elements that detect the rotational movement of a magnet that is built into the detection gear. Thus, the sensor detects the changes that occur in the magnetic reluctance along with the rotational movement of the detection gear, in order to detect the rotational movement of the steering wheel.



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