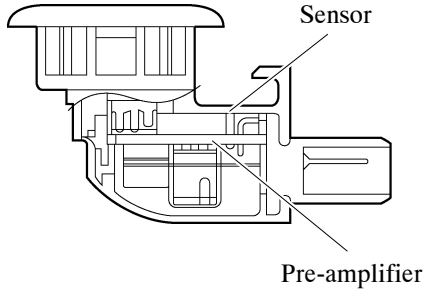
■ FUNCTION

Component	Function
Ultrasonic Sensor	Detects the distance between the vehicle and the obstacle.
Clearance Warning Buzzer	Emits an intermittent sound to inform the driver that the Clearance Warning ECU has detected an obstacle within the prescribed range.
Back Sonar Switch	A switch that turns the power of the TOYOTA parking assist-sensor system on/off.
Clearance Warning ECU	Judges the approximate distance between the vehicle and obstacle based on the signals from the ultrasonic sensors and sends the buzzer signal to the clearance warning buzzer. Additionally ECU has buzzer sound volume adjusting knob.

■ CONSTRUCTION

1. Ultrasonic Sensor (Models for Middle East and General Countries)

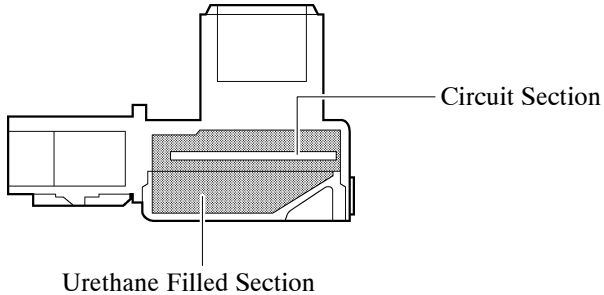
- Each ultrasonic sensor consists of a sensor portion that transmits and receives ultrasonic waves and a pre-amplifier that amplifies them.
- The ultrasonic sensor transmits ultrasonic waves, receives the reflected waves from an obstacle behind the vehicle, and transmits a signal to the clearance warning ECU regarding the distance to the obstacle (approximately 1.5 m or less).



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2. Ultrasonic Sensor (Models for China)

- Each ultrasonic sensor consists of a sensor portion that transmits and receives ultrasonic waves and a circuit section that amplifies them.
- The ultrasonic sensors transmit the calculated distance signals to the clearance sonar ECU.
- The ultrasonic sensor is abnormal such as when an open circuit, a frozen sensor, or a sensor malfunction is detected.



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3. Clearance Warning Buzzer

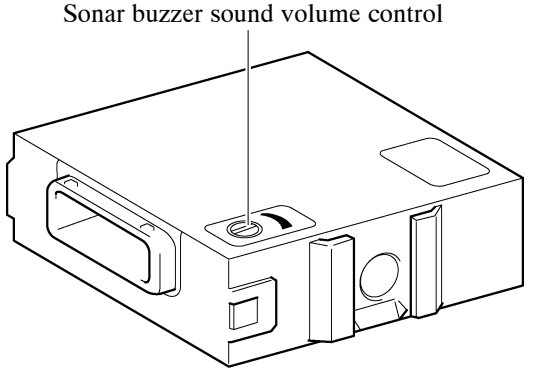
When the ultrasonic sensor transmits ultrasonic waves and receives the reflected waves from an obstacle, the buzzer sounds in stages according to the distance to the obstacle.



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4. Clearance Warning ECU

- The Clearance Warning ECU effects overall control of the system, including the switching of the transmission and reception of the ultrasonic sensor signals, processing the received wave signals, determining the presence of obstacles, actuating the buzzer, and determining the presence of an open circuit in the sensors.
- The sound volume of the clearance warning buzzer can be adjusted at the Clearance Warning ECU.



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