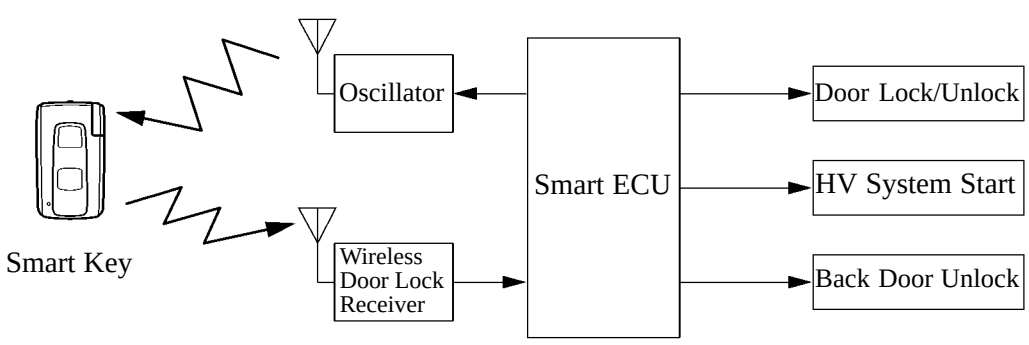
■CONSTRUCTION AND OPERATION

1. Smart Key

- The smart key has a built-in transceiver. Upon receiving a smart key ID code check request signal (approximately 134 kHz) transmitted by the oscillator, this transceiver transmits an ID code signal (approximately 312 MHz) to the wireless door lock receiver. As a result, a wireless ID code check of the smart key in the driver's possession is made possible.
- The smart entry & start system is disabled if it is stopped through the operation of the smart cancel switch, or if the smart key operation battery has been depleted. However, the driver's door can be locked or unlocked by the mechanical key that is built into the smart key, and the system can be started by inserting the smart key in the key slot (and operating the power switch).



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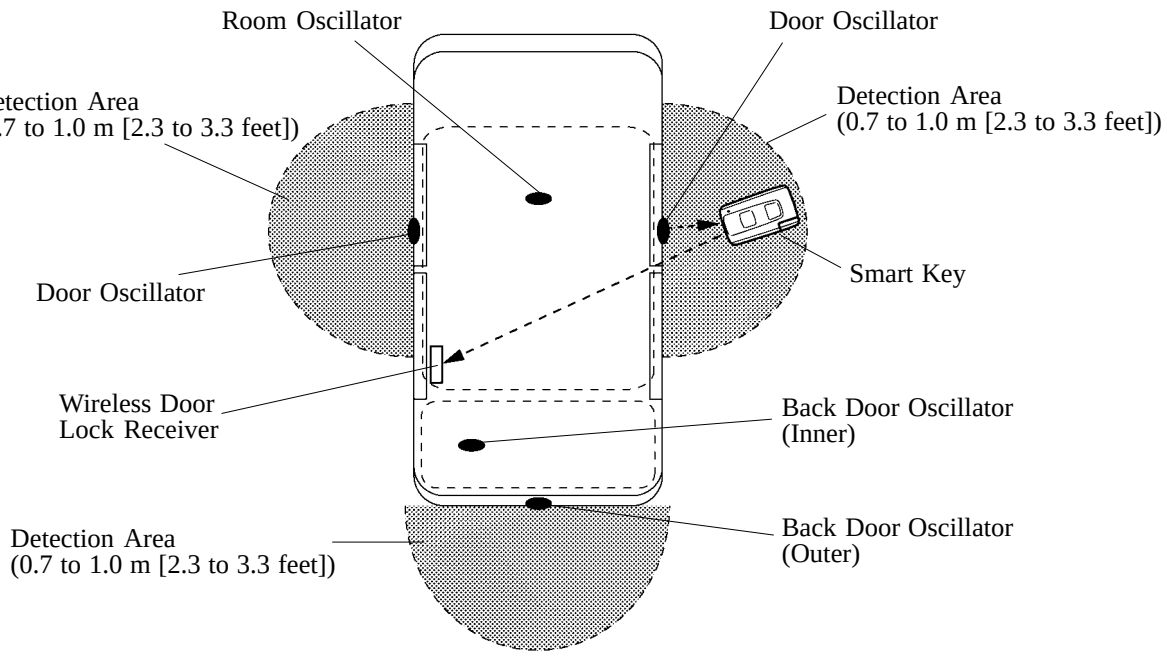
NOTE: Handling Precaution for Smart Key

- The smart key is constantly in the reception mode in order to maintain communication with the vehicle. For this reason, the battery in the smart key will be depleted in 1 to 3 years, regardless of the operating conditions of the smart key.
- The smart key receives radio signals of approximately 134 kHz. Therefore, the presence of an electronic device that emits strong radio signals with the same frequency in the vicinity of the smart key can accelerate the depletion of the battery in the smart key than under normal conditions. Therefore, do not store the smart key in the vicinity of electrical equipment such as a television or personal computer.
- When the doors are locked and the smart key is located within the detection areas of the driver and front passenger door oscillators, the smart key and the vehicle will maintain regular communication. If this situation continues for a prolonged length of time, the battery in the smart key and the auxiliary battery of the vehicle will be depleted. Therefore, do not leave the smart key in the vicinity of the vehicle (within approximately 5 meters [16.4 feet]) when the vehicle is not being operated.

2. Oscillator (Driver/Front Passenger Door, Room, Back Door Inner/Outer)

- With all doors locked, the driver and front passenger door oscillators form a smart key detection area outside of the vehicle by emitting smart key detection signals on a regular basis. Accordingly, the smart ECU will be able to check the ID code of a smart key in the detection areas.
- With all doors locked, if a user presses the back door opener switch, the back door oscillator starts to form a smart key detection area outside of the vehicle by emitting signals. Accordingly, the smart ECU will be able to check the ID code of a smart key in the detection area.
- With all doors closed, if a user presses the lock switch on the outside door handle, the smart ECU will cause all the oscillators to emit signals in order to form smart key detection areas outside of the vehicle. Accordingly, the smart ECU determines that the smart key has been taken out of the vehicle.
- If a user operates the power switch while the smart key is in the user's possession, the smart ECU outputs a request signal to cause the room oscillator to emit signals in order to form a smart key detection area in the vehicle interior. Accordingly, the smart ECU will be able to check the ID code of the smart key, even if the smart key is not inserted in the key slot.

▶ Detection Area ◀



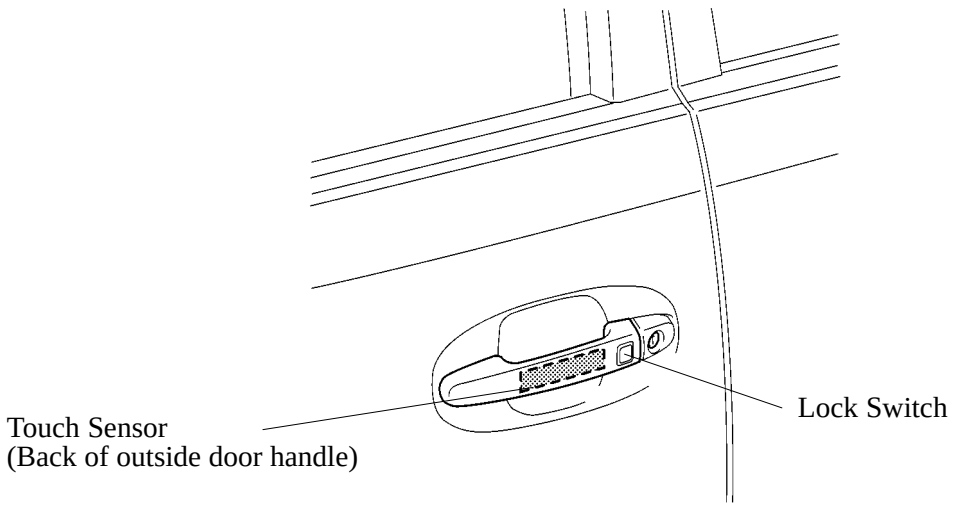
NOTE: Handling Precaution for Oscillators

- With all doors locked, the driver and front passenger door oscillators emit smart key detection signals on a regular basis in order to check the ID code of the smart key. For this reason, the auxiliary battery of the vehicle will become depleted if the vehicle is not operated for a prolonged length of time. Therefore, operate the smart cancel switch to disable the smart entry & start system if the vehicle will not be operated for a prolonged length of time.
- When the doors are locked and the smart key is located within the detection areas of the driver and front passenger door oscillators, the smart key and the vehicle will maintain regular communication. If this situation continues for a prolonged length of time, the battery in the smart key and the auxiliary battery of the vehicle will become depleted. Therefore, do not leave the smart key in the vicinity of the vehicle (within approximately 5 meters [16.4 feet]) when the vehicle is not being operated.

3. Door Outside Handle (Driver and Front Passenger)

- The outside door handle consists of a touch sensor, antenna, and lock switch.
- The driver's outside door handle contains a key cylinder. Thus, when the smart entry & start system is inactive, the user can lock and unlock the driver's door through the use of a mechanical key.
- The touch sensors are integrated with the antennas for the door oscillators. They are connected to the respective oscillators. If the user touches the touch sensor portion of the outside door handle, the smart ECU unlocks the door via the body ECU, provided that the smart ECU has checkd the ID code of the smart key.
- When the driver or the passenger touches the outside door handle, the electrostatic capacity* of the touch sensor, which is built into the handle, changes. The oscillator, which is connected to the touch sensor, converts the changes in the electrostatic capacity into voltage and outputs it to the smart ECU.

Electrostatic Capacity*: The capacity of an object to store an electric charge. The unit used to represent this capacity is F (Farad).



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