

The rear parking aid system sounds a warning tone through the rear audio speakers to alert the driver of objects near the rear bumper when the transmission is in reverse. The rear parking aid system assists the driver in detecting certain objects when the vehicle is stationary or moving slowly in reverse. The rear parking aid system may not detect moving objects.

The parking aid system is disabled if a fault is detected in a parking aid sensor, the communications network or the PAM. This is indicated by a parking aid disabled warning message in the IPC message center.

The parking aid system is enabled and disabled through the message center, located in the IPC. Disabling the parking aid system lasts one key cycle.

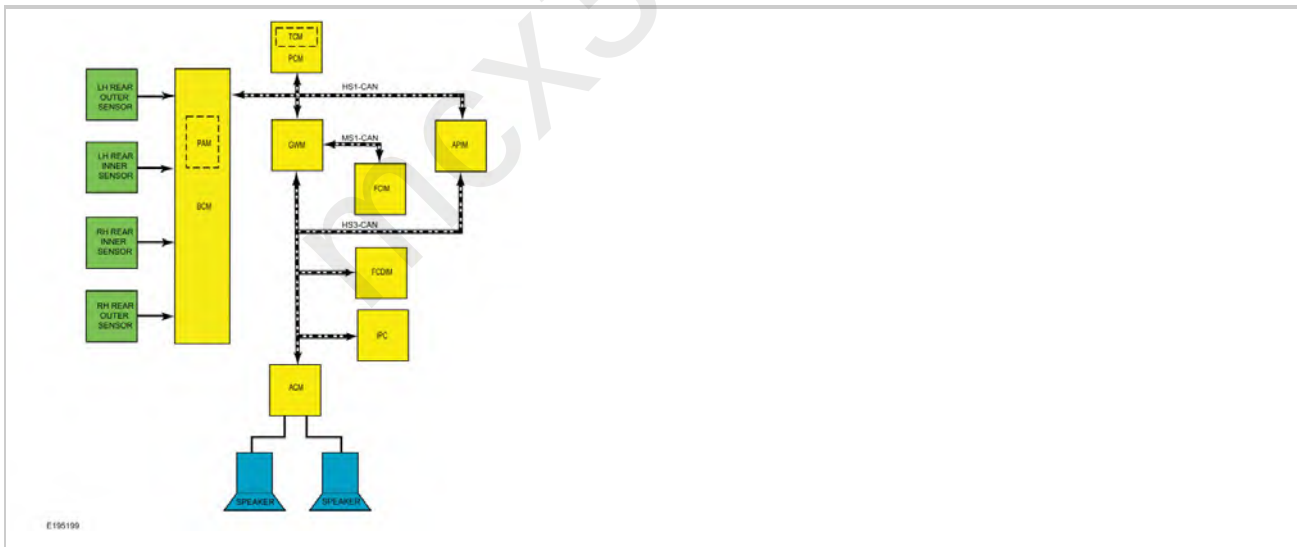
If a MyKey® restricted key is in use, the parking aid menu is not available in the message center and cannot be deactivated.

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## System Operation

**DESCRIPTION AND OPERATION > PARKING AID - SYSTEM OPERATION AND COMPONENT DESCRIPTION > PARKING AID - AUDIBLE**

## System Diagram



## Network Message Chart

## PAM Network Input Messages

| Broadcast Message        | Originating Module | Message Purpose                                             |
|--------------------------|--------------------|-------------------------------------------------------------|
| Parking Aid Mode Request | PAM                | Used to generate a fault message in the IPC message center. |

|                                    |                       |                                                                                                    |
|------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------|
| Parking Aid System Fault           | APIM                  | Used to communicate parking aid mode requests.                                                     |
| Center Stack Display Configuration | FCDIM                 | Used to communicate center stack display configuration with the visual parking aid system.         |
| Ignition key type                  | BCM                   | Used to disable the parking aid menus if a MyKey ® is in use.                                      |
| Outside air temperature            | FCIM                  | Used to temperature compensate the parking aid sensor signal using HVAC Ambient Temperature input. |
| Power mode                         | BCM                   | Used to communicate the ignition switch state.                                                     |
| Parking aid enable status          | IPC                   | Used to enable or disable the parking aid system.                                                  |
| Gear lever position                | TCM (part of the PCM) | Used to enable the parking aid only when the gear lever is in reverse gear position.               |
| Vehicle speed                      | PCM                   | Used to disable the parking aid if the vehicle speed exceeds the preset threshold.                 |
| Wheel counts                       | ABS module            | Used to detect whether the vehicle is moving or in standstill.                                     |
| Trailer connected status           | TRM                   | Used to disable the rear parking aid when a trailer is electrically to the vehicle.                |

### IPC Network Input Messages

| Broadcast Message        | Originating Module | Message Purpose                                                              |
|--------------------------|--------------------|------------------------------------------------------------------------------|
| Parking aid tone request | PAM                | Used to command parking aid warning tones through the audio system speakers. |
| Fault Status             | PAM                | Used to generate a fault message in the IPC.                                 |
| Sector Zone Status       | PAM                | Used to command which sensors are displayed on the visual display.           |

### Parking Aid System Operation

The rear parking aid system is activated by the PAM when the transmission is shifted into reverse. The PAM calculates the distance to an object within a 170 degree semicircular area (azimuth) around the rear of the vehicle. The parking aid system calculates the distance to an object around the rear of the vehicle using 4 ultrasonic sensors.