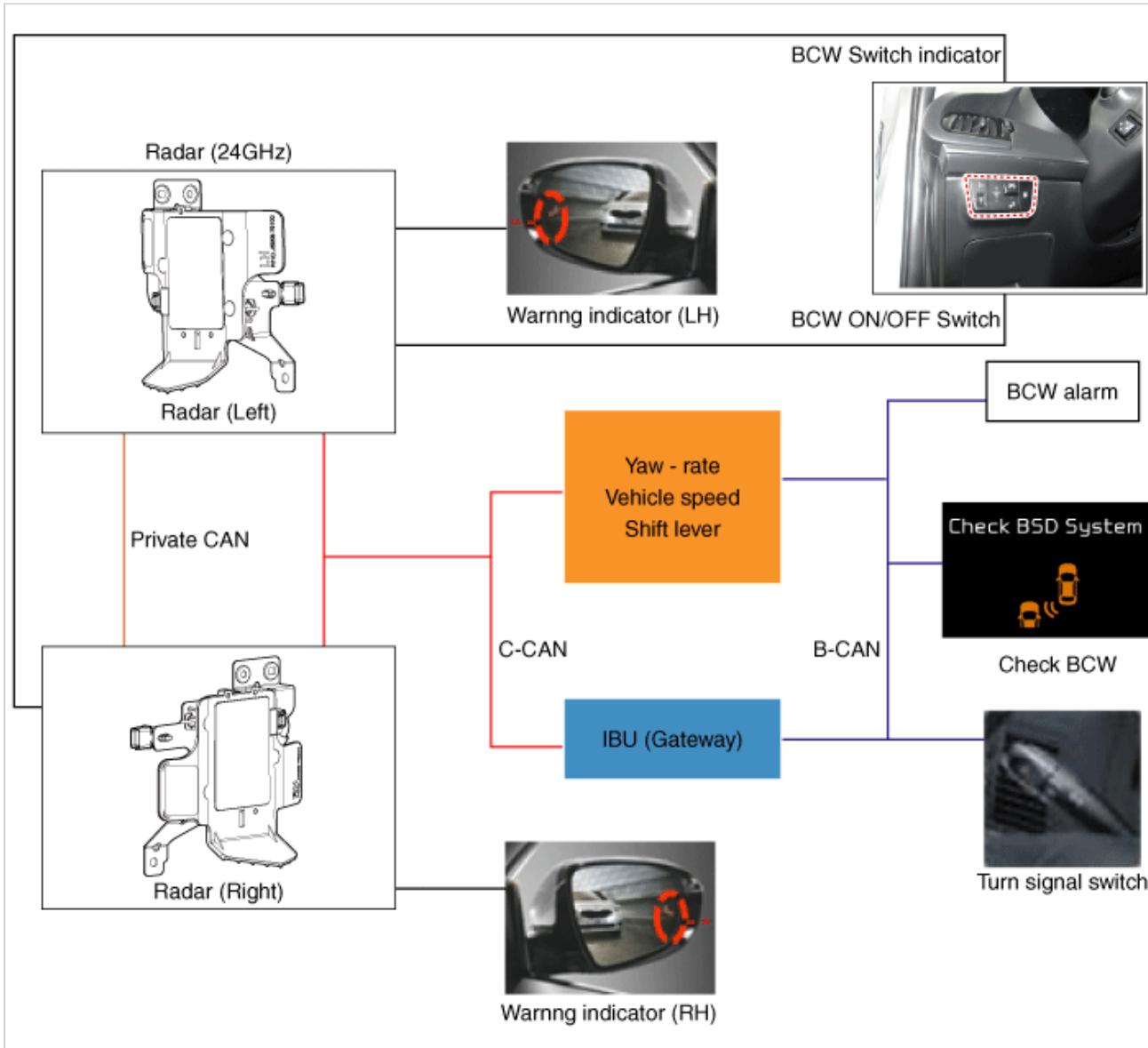




Description

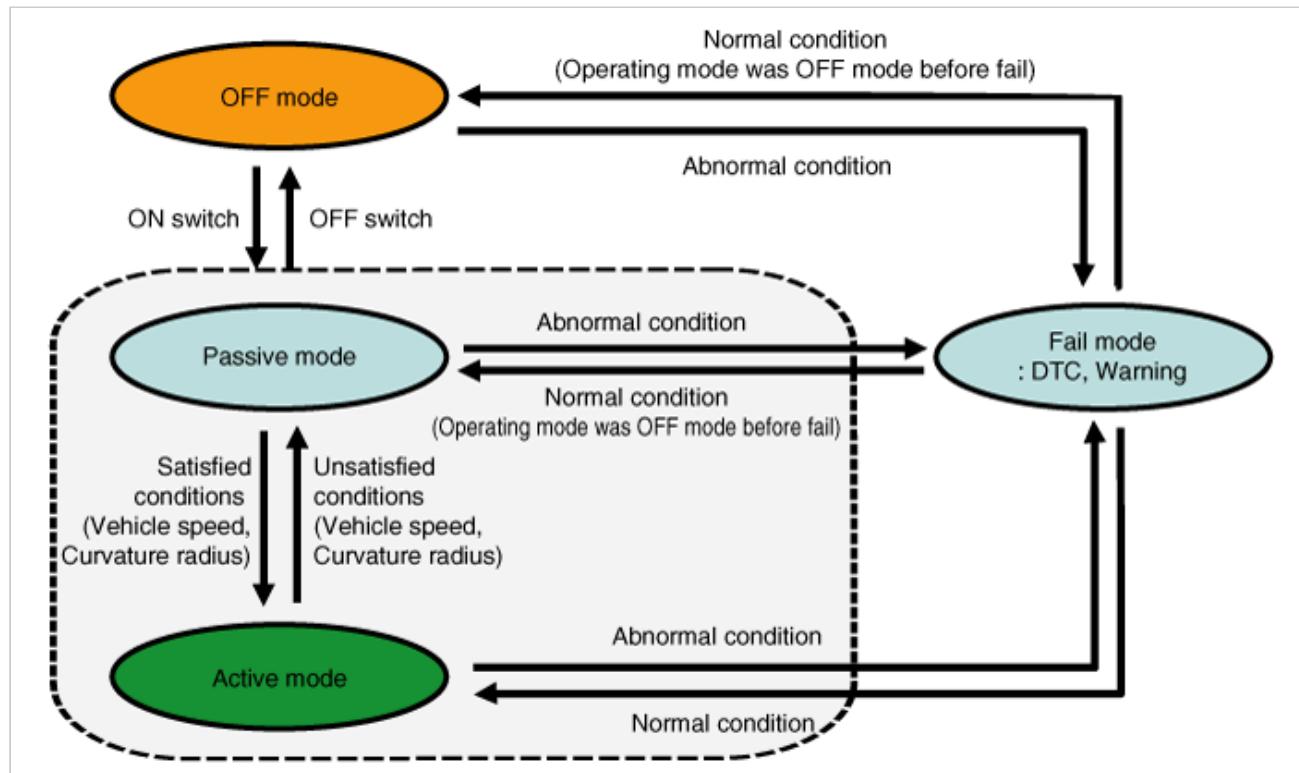


BCW is a system that uses two magnetic wave radar sensors attached on the rear panel to measure the distance from the vehicle in the back and senses and sets off (visual and auditory) alarms for any vehicle coming into the blind spot.

- Blind-Spot Collision Warning (BCW) System : Detects other vehicles in the rear blind spot area and warns the driver by indicating on outside rearview mirror.
- Lane Change Assist (LCA) System : Detects high speed vehicles approaching from rear lateral directions and warns the driver.
- Rear Cross-Traffic Collision Warning (RCCW) System : Sets off warning for vehicles approaching from rear lateral direction when reversing.

Blind-Spot Collision Warning (BCW)	Lane Change Assist (LCA)	Rear Cross-Traffic Collision Warning (RCCW)

System Operating Mode

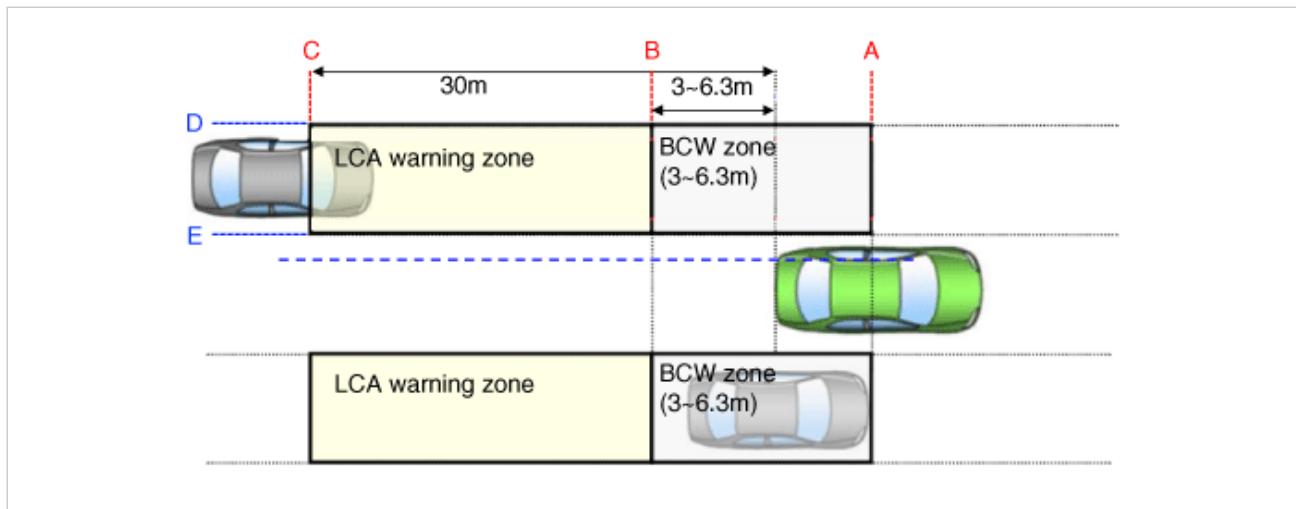


1. When starting the engine with the switch off, OFF mode is on.
2. When pressing ON switch in OFF mode, Passive mode is on.
3. If starting the engine with the switch ON, Passive mode is on.
 - ※ During IGN ON, the switch is in the initial state: The last position is kept.
 - If IGN OFF → ON with the switch ON, the switch is ON.
 - If IGN OFF → ON with the switch OFF, the switch is OFF.
4. If you start the engine with BCW switch ON, or if you turn on BCW with BCW switch OFF, the warning lamp of the door mirror flickers for 2 to 3 seconds.

This is to inform the driver that the BCW system is ready. (provided that if the system is in Fail mode, there is no flickering.)
5. If the activation conditions (speed and curvature radius) are met while driving, Active mode is on (warning issued).
6. If the activation conditions (speed and curvature radius) are not met while driving, Passive mode is on (warning removed).
7. If BCW & LCA operation fails in any mode, Fail mode is on.
8. If BCW & LCA operation operates normally in Fail mode, System Operating mode changes as belows
 - If Operating mode was OFF mode before fail : goes to Off mode
 - If Operating mode was ON mode before fail : goes to On mode
9. If pressing OFF switch while BCW & LCA function is operating (Active/Passive), OFF mode is on.

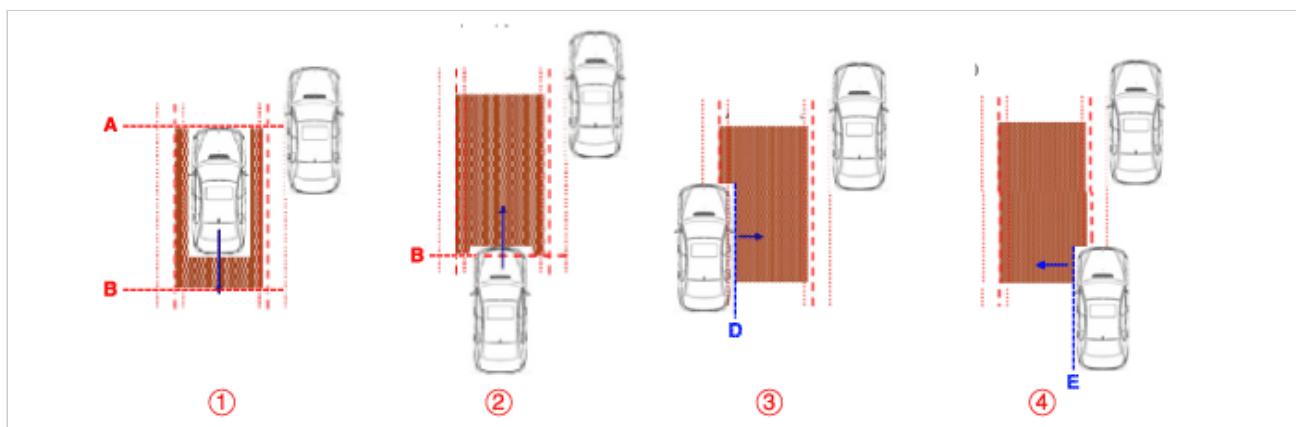
Warning Condition

1. Warning zone



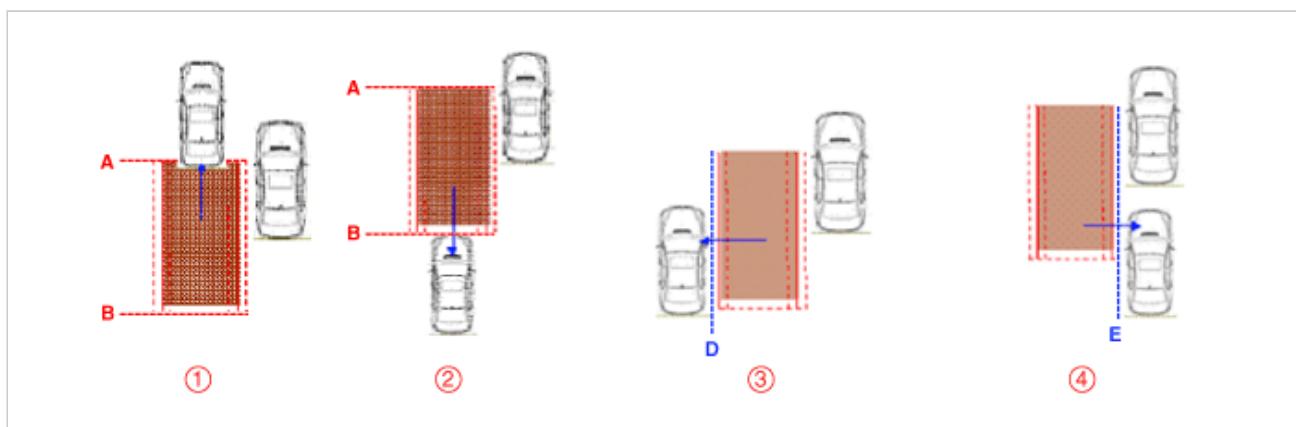
2. Conditions for BCW warning ON

- ① The entire body of the target vehicle is located behind the line A.
- ② Any part of the target vehicle passes the line B.
- ③ Any part of the target vehicle passes the line D and Hysteresis In.
- ④ The entire part of the target vehicle passes the line E and Hysteresis In.



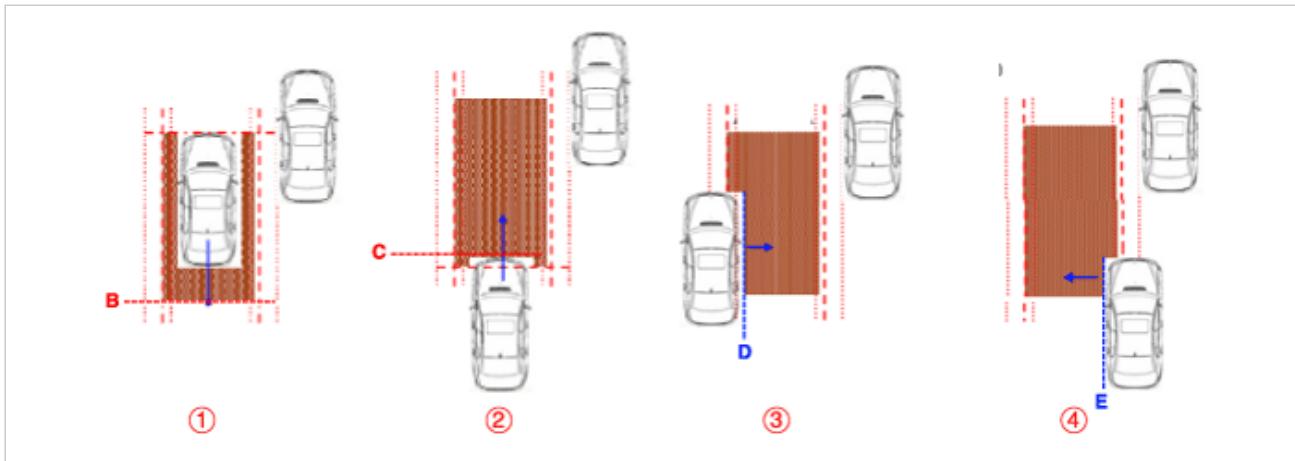
3. Conditions for BCW warning OFF

- ① The entire body of the target vehicle moves before the line A.
- ② The entire body of the target vehicle moves behind the line B.
- ③ The entire body of the target vehicle passes the line D and Hysteresis Out.
- ④ The entire part of the target vehicle passes the line E and Hysteresis Out.



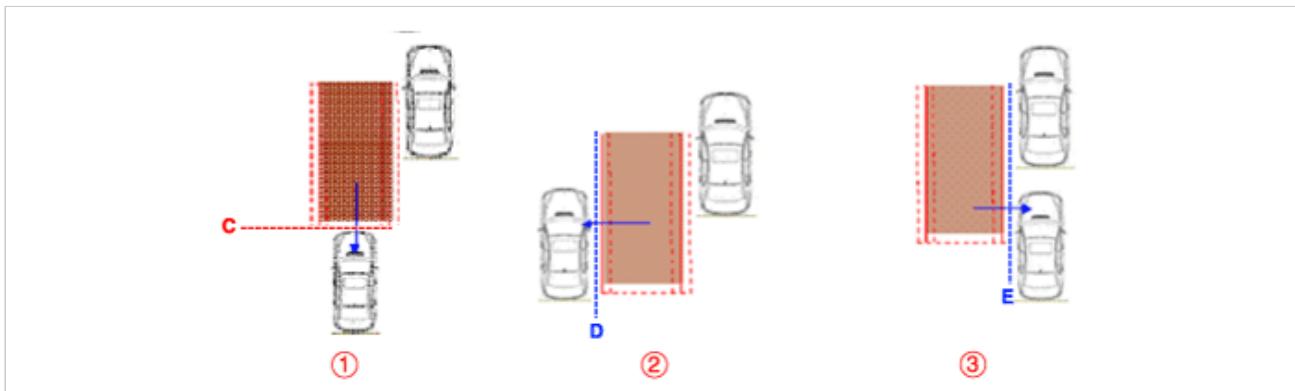
4. Conditions for LCA warning ON

- ① The entire body of the target vehicle is located behind the line B.
- ② Any part of the target vehicle passes the line C.
- ③ Any part of the target vehicle passes the line D and Hysteresis In.
- ④ The entire part of the target vehicle passes the line E and Hysteresis In.
- ⑤ In the all above conditions, TTC (Time to Collision) is less than 3 seconds.



5. Conditions for LCA warning OFF

- ① The entire body of the target vehicle passes the line C.
- ② The entire body of the target vehicle passes the line D and Hysteresis Out.
- ③ The entire body of the target vehicle passes the line E and Hysteresis Out.
- ④ TTC (Time to Collision) is more than 3 seconds.



6. Sensor activation conditions

- ① BCW & LCA switch (indicated by the switch LED) is on.
- ② Vehicle Speed : 30 km/h or faster
- ③ Curvature radius : 125 m or more
- ④ Relative car speed : -10 to 255 km/h
(Negative value refers to overtaking the vehicle ahead.)

7. Sensor deactivation conditions

- ① BCW & LCA switch (indicated by the switch LED) is off.
- ② Vehicle Speed : 27 km/h or slower
- ③ Curvature radius : Less than 125 m
- ④ Relative car speed : All except -10 to 255 km/h
(Negative value refers to overtaking the vehicle ahead.)

8. System control prohibition

- ① The radar is covered by debris : System conditions - Blockage message is outputted

Information

Contamination of sensors on rear bumper by snow, mud or stickers may result in degradation in sensor detection performance.

- ② The radar installation is distorted due to external impact: Send the error code
- ③ BCW & LCA system fails : Send the error code

CAUTION

- If the surrounding area of rear bumper is contaminated by foreign materials that may interfere radar, error message can be set off although BCW system is normal.

9. Rear Cross-Traffic Collision Warning (RCCW) System

Item	Specification	Remarks
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Vehicle speed	0 to -10 km/h	R" position
Relative speed	4 - 60 km/h	+ : closing
Operating range	0.5 - 20 m	Vehicle : 20 m Bike : 15 m

① This function helps the driver to detect an approaching vehicle from the rear and side that cannot be visually identified when the driver reverses to pull the vehicle out from a parking spot.

② A warning is generated for the target vehicle if it is within 2 seconds based on TTC (Time to Collision). Pedestrians are not considered as approaching targets when warning the driver. (Warning may not be generated.)

Information

Time to Collision (TTC) : If the predicted time to collision calculated by taking into consideration the relative distance and relative speed to the target vehicle is within 2 - 3.5 seconds, the warning alarm will be set off. (It changes depending on the relative speed of the approaching vehicle.)

③ Warning zone

