

## ■ DIAGNOSIS

### 1. General

The diagnosis circuit of the pre-crash safety system is integrated in the seat belt control ECU. This ECU detects malfunctions that may occur in the system in accordance with the signals provided by ECUs and sensors. The diagnosis functions consists of an initial check, monitor, and DTC (Diagnostic Trouble Code) output functions.

### 2. Initial Check

The seat belt control ECU performs an initial check on the system for approximately three seconds after the engine switch is turned on (IG).

### 3. Monitor Function

After completing the initial check, the pre-crash safety system begins checking for a pre-crash event. During this time, the seat belt control ECU periodically monitors the system for malfunctions.

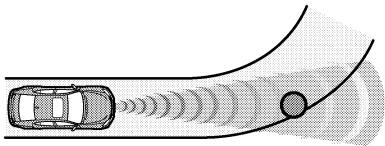
### 4. DTC Output

- If the seat belt control ECU detects a malfunction in the pre-crash safety system, it stores 5-digit DTCs in memory.
- The 5-digit DTCs can be read by connecting an intelligent tester to the DLC3.

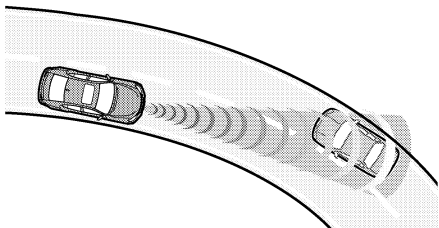
5. Precautions for Pre-crash Safety System Operation

- When the millimeter wave radar sensor detects an object in front of the vehicle under the conditions described below, the distance control ECU assembly may determine that a collision is unavoidable, and operate the pre-crash safety system. This does not indicate a malfunction.

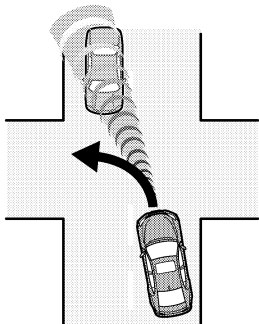
Object on road surface at corner entrance  
(Guard Rail, Street Light, Sign, Signboard)



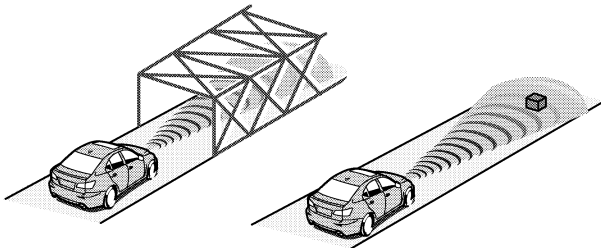
Opposing traffic vehicle during cornering



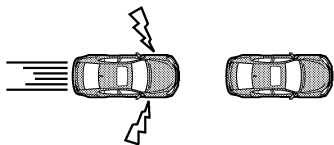
Opposing traffic at an intersection



Narrow Iron Bridge



Metal object, steel plate, or bump on road surface



Rapid approach to the preceding vehicle

- The millimeter wave radar sensor might not be able to detect the following objects as collision objects:

|                                                    |                                                                 |
|----------------------------------------------------|-----------------------------------------------------------------|
| Objects that cannot be detected                    | Plastic items (Safety Cones, etc.), etc.                        |
| Objects that cannot be detected in a stable manner | People, Bicycles, Motorcycles, Trees, Animals, Snow Fence, etc. |