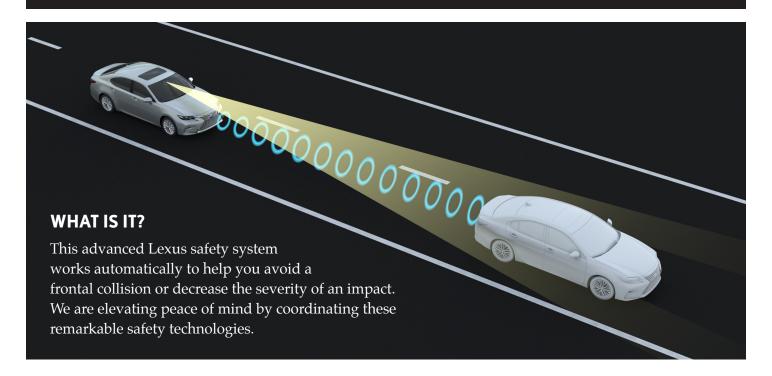
# PRE-COLLISION SYSTEM (PCS) WITH PEDESTRIAN DETECTION

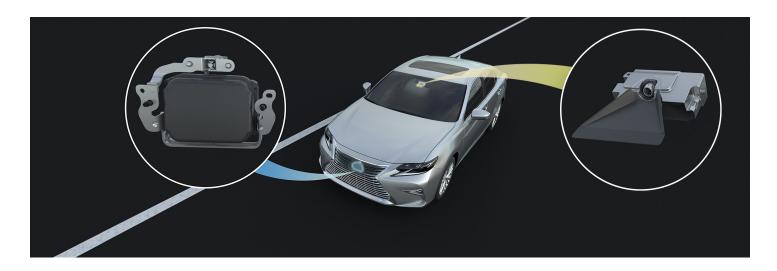


### WHAT DOES IT DO?

This system uses millimeter-wave radar and a monocular camera designed to detect vehicles and pedestrians. To help prevent or mitigate collisions, the system first activates an audible and visual alert in addition to Brake Assist if the brakes are applied. If the driver does not brake in time this is followed by automated braking.

### **HOW DOES IT WORK?**

Pre-Collision System utilizes an advanced array of technologies including a monocular camera mounted above the rear view mirror and a millimeter-wave radar sensor mounted in the grille of the vehicle.



## PRE-COLLISION SYSTEM (PCS) WITH PEDESTRIAN DETECTION

#### **MONOCULAR CAMERA**

Scanning what lies ahead of the vehicle, this camera enables the detection of vehicles and pedestrians under certain conditions, to provide information to the Engine Control Unit (ECU).

### **MILLIMETER-WAVE RADAR**

This sensor is able to scan the roadway far ahead, through some inclement weather conditions, and beyond the light cast by headlamps.

Taking the information from the camera and radar units and channeling them through the ECU, the system makes calculations that assess hazards ahead. If the driver is not responding to a recognized danger ahead, the system will first create an alert. If the appropriate response is not detected, then the brake system is readied by amplifying the driver's braking input. If there is still no driver response, the system will apply the brake automatically to help prevent or mitigate a collision.

When the pre-collision system is enabled, and the system determines that the possibility of a frontal collision with a vehicle or pedestrian is high, the three modes of PCS operate within the following speeds:

- Pre-collision warning When vehicle speed is approximately 7 mph or more and, for detecting a pedestrian, when vehicle speed is between approximately 7 mph and 50 mph.
- Pre-collision brake assist When vehicle speed is approximately 19 mph or more and, for detecting a pedestrian, when vehicle speed is between approximately 19 mph and 50 mph.
- Pre-collision braking When vehicle speed is approximately 7 mph or more and, for detecting a pedestrian, when vehicle speed is between approximately 7 mph and 50 mph.

### **HOW IS IT CONTROLLED?**

- Enable PCS becomes automatically enabled with every ignition cycle.
- Disable The system can be disabled/enabled through the multi-information display.
- Adjustments There are three selectable ranges of pre-collision warning timing offered through the multi-information display: far, middle (default) and near.