



EyeSight[®] and Driver Assist Technology

Quick Reference Guide
2017



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EyeSight

EyeSight is a driving support system that uses a range of functions to assist the driver in making decisions in order to provide for more safe and comfortable driving and to reduce driver fatigue. It is designed to help assist drivers, not replace them.

EyeSight Functions

Pre-Collision Braking System

This function can recognize an impending collision with a vehicle or obstacle in front of the EyeSight vehicle, alert the driver and even automatically apply the brakes to help avoid a collision or minimize the impact when a collision is inevitable.

Pre-Collision Brake Assist

If EyeSight recognizes an impending collision with a vehicle or obstacle in front of the EyeSight vehicle, and the driver is applying the brakes but not with enough brake pedal force, Pre-Collision Brake Assist automatically applies up to full braking pressure in order to try to shorten braking distance.

Pre-Collision Throttle Management

This function is designed to help prevent drivers from unintentionally accelerating into a stopped vehicle or other obstacle in front of them. It simultaneously warns the driver and reduces engine power until the driver applies the brakes to help avoid an impact.

Pre-Collision Throttle Management is helpful when:

- The driver inadvertently selects Drive instead of Reverse and starts to accelerate toward a parked car, wall or parking structure.
- Starting to merge onto another road when the vehicle ahead accelerates, but suddenly stops.

Lane Departure Warning and Lane Sway Warning

Lane Departure Warning alerts drivers when they unintentionally move out of their travel lane. It takes no corrective vehicle action other than issuing visual and audible warnings.

Lane Sway Warning acts in a similar way, detecting unusual back and forth vehicle movement within the driver's lane of travel that is usually indicative of a drowsy driver.

Lane Keep Assist (if equipped)

If the vehicle is about to deviate from a driving lane and starts crossing the road lines, steering assistance control is triggered in the opposite direction, helping to avoid lane deviation. A departure warning sound and display in the instrument cluster occur to alert the driver.

Adaptive Cruise Control and Lead Vehicle Start Alert

This function combines the benefits of Cruise Control with active monitoring of the road ahead by EyeSight. It issues warnings and activates automatic braking when needed. Adaptive Cruise Control can regulate vehicle speed in order to keep a safe following distance from the vehicle ahead. It does not replace Conventional Cruise Control, which can still be used when desired. Lead Vehicle Start Alert notifies the driver when the vehicle in front has started moving but the EyeSight driver's vehicle has not.

EyeSight Operation

EyeSight uses stereo cameras to process 3-D images and identify objects such as the vehicle in front, obstacles, traffic lanes and other items. Under the right circumstances, EyeSight will apply the brakes or decrease the throttle to help reduce the severity of a collision, or help avoid a collision.



Stereo camera

Stereo camera

Steering Wheel Controls



INFO/SET switch

Use the arrows above and below to set or view information on various functions in the multi-information display.

Adaptive Cruise Control switch

Press to turn Adaptive Cruise Control on or off.

RES/+ switch

Press to resume set speed or to increase set speed while in either Adaptive or Conventional Cruise Control.

SET/- switch

Press to set the current speed or to reduce set speed while in either Adaptive or Conventional Cruise Control.

Lane Keep Assist switch (if equipped)

Press to activate or deactivate Lane Keep Assist.

Following Distance Setting switch

- Press to change the following distance setting while using Adaptive Cruise Control.
- Press and hold to turn off Adaptive Cruise Control and to switch to Conventional Cruise Control.

Lane Departure Warning and Pre-Collision Braking System OFF Switches



The location of the switches is based on your vehicle model. They are either in the overhead console or in the lower left instrument panel.

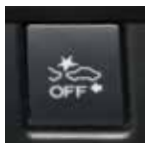
Lane Departure Warning OFF switch



Press and hold this switch to turn off the Lane Departure Warning and the Lane Sway Warning functions.

Press and hold the button again to turn the functions back on.

Pre-Collision Braking System OFF switch



Press and hold this switch to turn off the Pre-Collision Braking System and Pre-Collision Throttle Management.

Press and hold the button again to turn the systems back on.

When these functions are off, the indicator light on the instrument panel illuminates (see right).



Lane Departure Warning OFF light

Pre-Collision Braking System OFF light

EyeSight Limitations*

- The EyeSight system needs time to recognize an object or potential obstacle. When the vehicle speed differential with an obstacle in front is greater than approximately 20 mph, it may not be possible to avoid a collision.
- Sun glare, inclement weather such as heavy rain, snow or fog, or a dirty windshield will hinder EyeSight operation. A cracked windshield, oil film on the glass or reflections may impede EyeSight performance. In these conditions, EyeSight may not operate properly or EyeSight may temporarily stop operating.
- EyeSight may not recognize low-contrast objects, those with regularly spaced patterns, no pattern, horizontal lines, backlit objects, very small objects (less than 3 feet tall) or non-standard shaped vehicles, such as cement mixers or car-carrier trucks.
- Non-approved aftermarket vehicle accessories, such as hood protectors, and water-repellent glass coatings should not be used with EyeSight-equipped vehicles. EyeSight may not operate properly or EyeSight may temporarily stop operating.

**Please refer to the disclaimer information on the back cover.*

Stereo Cameras Precautions

The stereo camera lenses are precision components. When the system detects that the stereo camera lenses are dirty, no EyeSight functions will be activated.

Always observe the following precautions:

- Do not touch or try to clean the EyeSight camera lenses inside the vehicle. Extra precaution should be used when cleaning the inside of the windshield. Over-spray from cleaners may impair or even damage the cameras' lenses.
- Do not attempt to remove or disassemble the stereo cameras.
- Do not attempt to change the position where the stereo cameras are installed or modify any of the surrounding structures.
- Do not install any interior rearview mirror (such as a wide-type mirror) other than a genuine SUBARU rearview mirror. Also, adjust the rearview mirror so it does not obstruct the stereo cameras. Failure to do so may affect the stereo cameras' field of vision and could prevent the EyeSight system from functioning properly.

For more detailed information, please consult your EyeSight Owner's Manual.

Windshield Glass and Dashboard

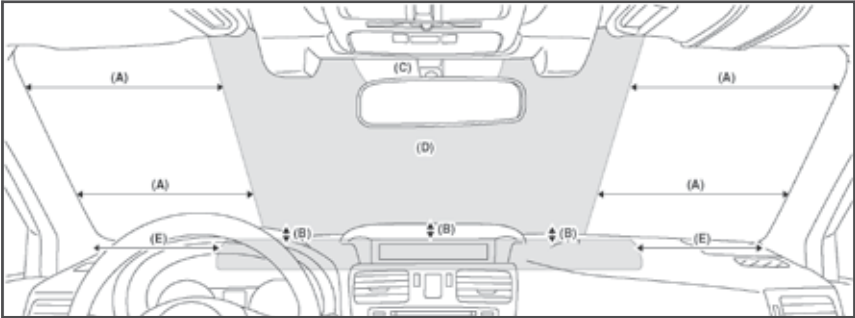
There must be no oil film, dirt, scratch or fogging that obstructs the forward visibility of the stereo camera.

Do not stick or attach aftermarket parts on the prohibited areas shown in gray on the windshield and top of the dashboard.

Even outside the prohibited area, if the abnormal operation occurs due to the reflection of the light or the reflection on the glass, change the adhering position or installation position.

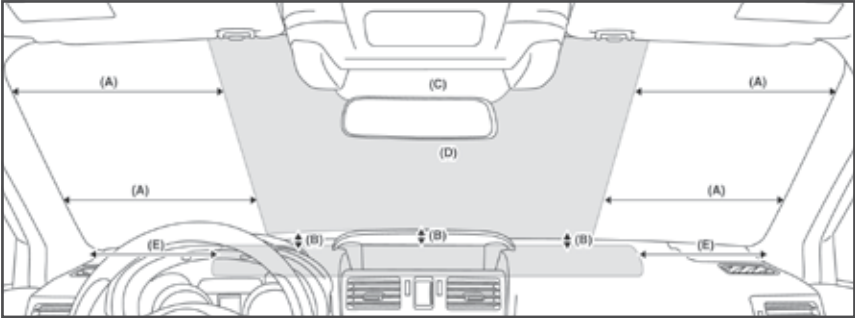
- Application of stickers or antennas, installation of wide-type mirror
 - This will affect the visibility of the stereo camera, causing the function not to operate correctly.
- Placement of navigation unit, ETC or other things on the dashboard
 - These things may be reflected on the windshield glass, affecting the recognition of the stereo camera, thus causing the function not to operate correctly.

FRONT VIEW (Forester)



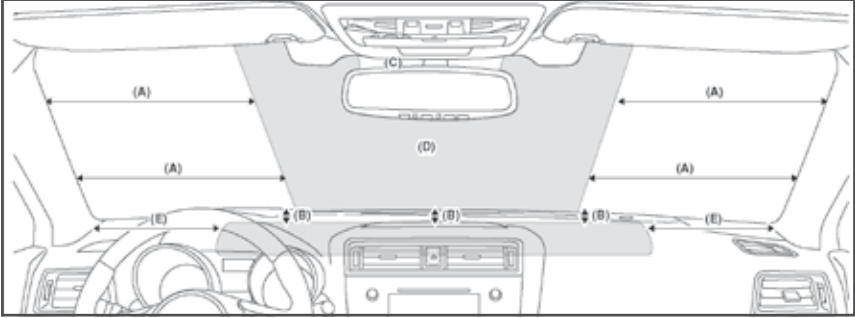
- (A) 350 mm (13.8 in) (C) Ceramic area (E) 120 mm (4.7 in)
(B) 120 mm (4.7 in) (D) Prohibited area (in gray)

FRONT VIEW (Crosstrek, Impreza, WRX)



- (A) 300 mm (11.8 in) (C) Ceramic area (E) 200 mm (7.9 in)
(B) 120 mm (4.7 in) (D) Prohibited area (in gray)

FRONT VIEW (Legacy, Outback)



- (A) 360 mm (14 in) (C) Ceramic area (E) 230 mm (9 in)
(B) 70 mm (2.7 in) (D) Prohibited area (in gray)

Other Driver Assist Technologies

Rear Cross Traffic Alert (RCTA)

Rear Cross Traffic Alert (RCTA) notifies the driver of a collision danger if a vehicle is detected approaching from either direction, perpendicular to the reversing vehicle. The system uses radar detection sensors located in the left rear and right rear of the vehicle. The system uses an audible and visual warning to alert the driver.

Lane Change Assist (LCA)

Lane Change Assist (LCA) notifies the driver of an approaching vehicle in an adjacent lane or lanes. The system uses radar detection sensors located in the left rear and right rear of the vehicle. The sensors illuminate a vehicle icon in the exterior mirror on the side in which the oncoming vehicle is detected. When the driver uses the turn signal indicator to switch lanes, and a vehicle is in their path, the radar detection sensor flashes the vehicle icon only in the exterior mirror on the side the oncoming vehicle is detected.

Blind Spot Detection (BSD)

Blind Spot Detection (BSD) assists the driver by detecting vehicles located on either side of the vehicle that are hidden to the driver's view in the exterior mirror. The system uses radar detection sensors located in the left rear and right rear of the vehicle. The sensors illuminate a vehicle icon only in the exterior mirror on the side the oncoming vehicle is detected. When the driver uses the turn signal indicator to switch lanes, and a vehicle is in their path, the radar detection sensor flashes the vehicle icon only in the exterior mirror on the side the oncoming vehicle is detected.

Reverse Automatic Braking (RAB) System

(if equipped)

The Reverse Automatic Braking (RAB) system is designed to assist the driver by detecting objects, to help avoid a possible collision, when the vehicle is moving in a low speed reverse direction. The system will provide automatic vehicle braking, if a obstacle is detected within its range.

This system is not a substitute for safe and attentive driving. System effectiveness depends on many factors, such as vehicle maintenance, weather, and road conditions. Always exercise caution and use vehicle mirrors and the Rear-Vision Camera when backing up. See the Owner's Manual for complete details on system operation and limitations.

High Beam Assist (HBA)

(if equipped)

High Beam Assist automatically switches the headlights between the high and low beams when the headlight switch is in the high beam position. The system works in conjunction with the EyeSight system. The EyeSight system detects a vehicle ahead, or oncoming vehicles, and switches the headlights automatically from high beam to low beam.

Steering Responsive Headlights (SRH)

(if equipped)

The Steering Responsive Headlights (SRH) system aims the headlight beams in the direction of the vehicle travel on curved roads to help improve visibility at night.

Steering Responsive Foglights (SRF)

(if equipped)

When the vehicle's headlights are turned on, or the headlights are in the automatic mode in the low beam position, fog lights off, the Steering Responsive Fog Lights (SRF) system is active. The system monitors vehicle speed and steering angle and activates the left or right fog light independently, respective to corning left or right. This helps provide increased visibility in the direction of the turn. The system functions independently from the turn signals and will not function if the turn signals are used.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

EyeSight® is a driver assist system that may not operate optimally under all driving conditions. The driver is always responsible for safe and attentive driving. System effectiveness depends on many factors such as vehicle maintenance, tire condition, and weather and road conditions. See the Owner's Manual for complete details on system operation and limitations.

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