Major Upgrade of Subaru EyeSight Adds New "Touring Assist" Function in Japan
- Advanced safety technology reduces driver burden at all vehicle speeds, including traffic jams -

- New Touring Assist function greatly reduces driver burden by supporting safe driving through automated control of acceleration, braking, and steering at all vehicle speeds, including expressway traffic jams.[*1]
- Subaru's original stereo camera technology offers consistent driver assistance in a wide range of real-world settings.
- Touring Assist will be fitted as standard equipment on new Levorg and WRX S4 models to be released in Japan this summer.
- New Levorg and WRX S4 models will also be equipped with Reverse Automatic Braking and offer an optional EyeSight Safety Plus package to further enhance Subaru's original preventive safety features built around EyeSight technology.

Tokyo, June 19, 2017 – Subaru Corporation today announced a major upgrade of its EyeSight driver assist system. A new Touring Assist function will greatly reduce driver burden through automated control of acceleration, braking, and steering at all vehicle speeds, including expressway traffic jams.[*1] The upgraded EyeSight system will be fitted as standard equipment on new Levorg and WRX S4 models to be released in Japan this summer.

First introduced in 2008,[*2] EyeSight is an original Subaru system that supports safe driving by using stereo cameras to monitor the road ahead and apply sophisticated control when necessary. The stereo cameras enable the system to constantly scan the area in front of the vehicle and judge distance similarly to human eyes. Advanced recognition capabilities enable EyeSight to distinguish vehicles, pedestrians, and lane markings, monitor wide viewing angles, visually confirm distances, and recognize brake lights through color imaging. Based on driving conditions and information obtained by its "eyes," the software constituting the system's "brain" judges the necessary degree of control and can act as "hands and feet" to apply appropriate vehicle control in accordance with circumstances. The potential of the stereo cameras is further enhanced by a range of sensors, achieving even higher levels of driver assistance in various settings.

In previous versions of EyeSight, Lane Tracing Control only operated at speeds of 60 km/h or more, but the new Touring Assist function extends operation to any speed range. It also adds automated steering that follows the preceding vehicle in the same lane , teamed with Adaptive Cruise Control to assist drivers with automated control of acceleration, braking, and steering on expressways.[*1] Subaru's original stereo camera technology simultaneously uses information on lane markings and preceding vehicles to offer consistent operation in a wide range of real-world settings, greatly reducing driver burden.

The new Levorg and WRX S4 will be Subaru's first Japan-spec models to be equipped with Reverse Automatic Braking. As a factory option , purchasers can also select the EyeSight Safety Plus package, which extends the scope of driver awareness to further refine all-around safety for greater peace of mind.

Video footage showing the upgraded EyeSight system in action has today been posted on the official Subaru website:
https://www.subaru.jp/eyesight_ta/

*1. Touring Assist is for use on expressways and other vehicle-only roads. Not to be used on regular roads.
*2. Fitted on the Legacy B4, Legacy Touring Wagon, and Legacy Outback (Introduced on May 8, 2008 in Japan).

Key EyeSight Functions[*3]

- **Pre-collision Braking Control**

Alerts the driver if the system discerns any collision risk. If the driver takes no avoidance control, the system applies brakes to automatically slow or stop the vehicle. Averts collision or reduces damage when speed differential with preceding vehicle is around 50 km/h or less.[*4]

- **Adaptive Cruise Control**

Follows preceding vehicle at a set distance in any speed range up to 120 km/h on expressways and other vehicle-only roads. From high-speed cruising to stop-and-go traffic jams, the system reduces irksome acceleration and braking for safe, comfortable driving over long distances.

- **Reverse Automatic Braking <new for Subaru's Japan-spec models>**

When driving in reverse, sonar sensors on the rear of the vehicle detect obstacles. Escalating audible and visible alerts are activated if there is any possibility of collision. If the driver fails to respond, brakes are applied automatically to avert collision or reduce damage.

- **Pre-collision Throttle Management**

Controls sudden vehicle take-off from parking spaces due to driver error in gear or pedal selection. Works in forward and reverse gears.

- **Alerts**

The system alerts the driver with audible and visible warnings if it detects vehicle weaving (when driving at speeds of around 60 km/h or more) or lane departure (at around 40 km/h or more). A voice prompts and visual display alerts the driver if the car remains stationary when the vehicle in front has moved off.

- **Lane Departure Prevention Assist**

Stereo cameras recognize road markings on both sides of the lane the vehicle is in. When driving on expressways at around 60 km/h or more, steering assistance is activated if the vehicle appears likely to move outside its lane, controlling lane departure to support safe driving.

- **Touring Assist <new Subaru function> (available in Japan only)**

Combines Adaptive Cruise Control with Lane Tracing Control for automated control of acceleration, braking, and steering at speeds up to around 120 km/h.[*5] Subaru's original stereo camera technology simultaneously uses information on lane markings and preceding vehicles to offer consistent operation in a wide range of real-world settings. New capability to operate at very low as well as high speeds greatly reduces driver burden.

Touring Assist Operation

0km/h		約120km/h
渋滞時	混雑時	高速巡航時
車間距離が狭い渋滞時など、区画線が見えない状況でも、先行車を認識して操舵を支援します。	区画線が見えにくい混雑時や、カーブなどでも、区画線と先行車の情報を組み合わせて安定した制御を行います。	先行車がいない場合でも、区画線を認識することで車線内中央付近を維持します。

Traffic jams
Recognizes preceding vehicle and assists steering even in traffic jams where short distances between vehicles obscure lane markings.

Congested roads
Combines information on lane markings and preceding vehicles to achieve consistent control even on curves and in congested traffic where visibility of lane markings is impeded.

High-speed cruising
Keeps car in center of lane by recognizing lane markings even if there is no vehicle in front.

*3. Included on the new Levorg and WRX S4 models.
*4. Due to system limitations, EyeSight is not able to avoid collisions when the speed differential with the preceding vehicle exceeds approximately 50 km/h (or 35 km/h in the case of pedestrians). Even when the speed differential does not exceed around 50 km/h (35 km/h in the case of pedestrians), in some circumstances the system may be unable to avoid a collision, or pre-collision braking may not activate.
*5. Touring Assist is for use on expressways and other vehicle-only roads. Not to be used on regular roads.

EyeSight Safety Plus Functions[*6]

- **Driver Assist**
  - **Subaru Rear Vehicle Detection**
    Sensors at the rear of the car detect vehicles approaching from behind. If the system discerns collision risk, it alerts the driver by sounding a warning and illuminating an LED indicator on the surface of the door mirror.

  - **High Beam Assist**
    A monocular camera inside the front windshield detects light in front of the vehicle and automatically switches between high and low beam to ensure clear, safe night vision.

- **Vision Enhancement**
  - **Smart Rear View Mirror**[*7] **<new Subaru feature> (available in Japan only)**
    Rear view mirror displays images from a camera inside the rear tailgate windshield. Assists with safe rear vision even when visibility is obscured by passengers, baggage, poor light, or bad weather.

  - **Front- and Side-View Monitors**
    Images from cameras on the front grille and the passenger-side door mirror appear on the multifunction display to reduce blind spots and support safe driving.

*6. Factory option available on new Levorg and WRX S4 models.
*7. Fitted on the new Levorg.

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