■ REAR COMBINATION LIGHT

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Purpose

• The rear combination lights are used to signal the following conditions to vehicles/people at the rear.

  — Rear turn lights: Signals a left or right turn of the vehicle.

  — Brake lights: Signals a vehicle deceleration or stop.

  — Taillights: Signals the presence of the vehicle to vehicles/people at the rear during nighttime.

Function

• The related light turns on or flashes according to the operation of each switch.

Operation switch	Related light	Operation condition
Turn switch	Rear turn light	Flashes
Hazard warning switch		
Brake switch	Brake light	Turns on
Light switch (TNS (parking lights))	Taillight	Turns on

Structure/Construction

• The rear combination light is integrated with the following parts.

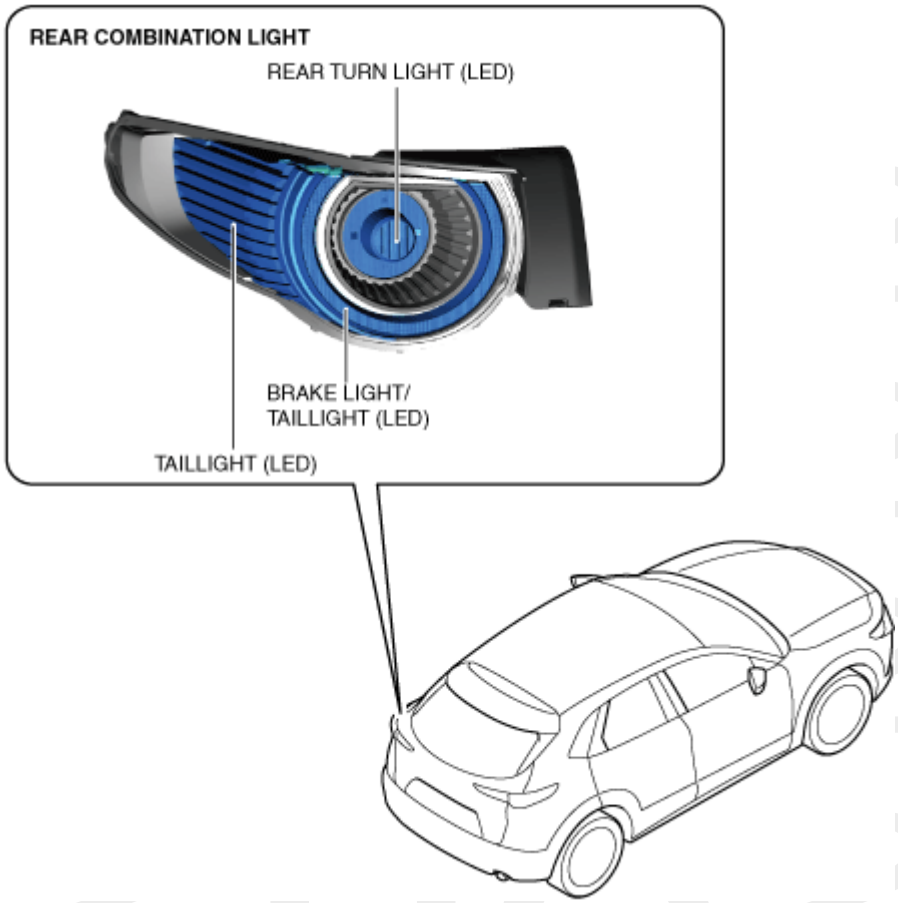
  — Rear turn light (LED)

  — Brake light/taillight (LED)

  — Taillight (LED)

  Note

  • Fogging or condensation on the inside of the rear combination lights may occur, however, it is a natural phenomenon occurring as a result of a temperature difference between the interior and exterior of the combination lights and has no effect on the light performance. Fogging or condensation will dissipate when the temperature inside the rear combination lights rises after the rear turn lights are illuminated and a period of time has elapsed.



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Operation

Rear turn light

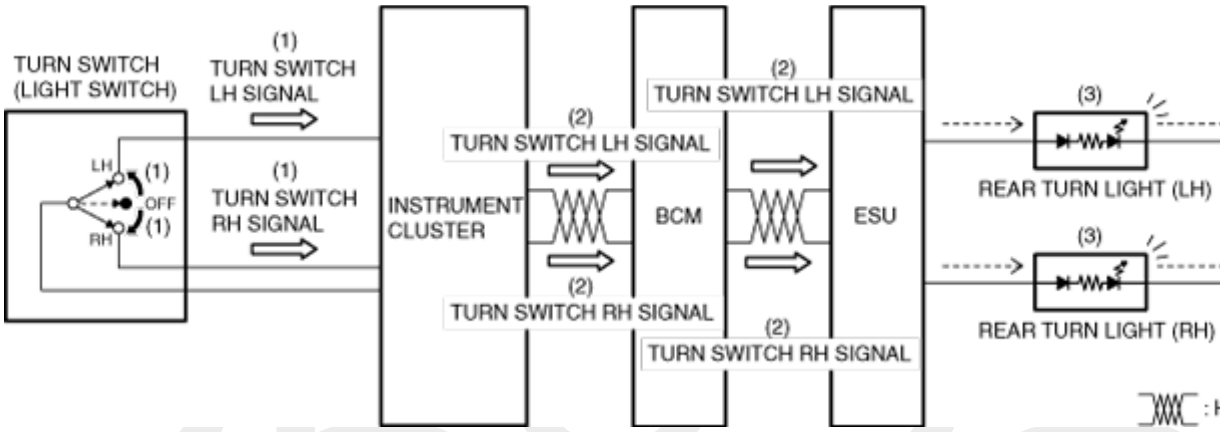
Turn light system

1. When the turn switch is in the LH or RH position, the instrument cluster detects (1) a turn switch LH signal or turn switch RH signal.

2. The instrument cluster sends (2) the turn switch LH signal or turn switch RH signal to the body control module (BCM) via CAN communication.

3. When the body control module (BCM) receives the turn switch LH signal or turn switch RH signal with the ignition switched ON (engine off or on), it sends (3) a turn switch LH flash request signal or turn switch RH flash request signal to the electrical supply unit (ESU) via CAN communication.

4. When the electrical supply unit (ESU) receives a rear turn light (LH) flash request signal or rear turn light (RH) flash request signal, it flashes (4) the rear turn light (LH) or rear turn light (RH).



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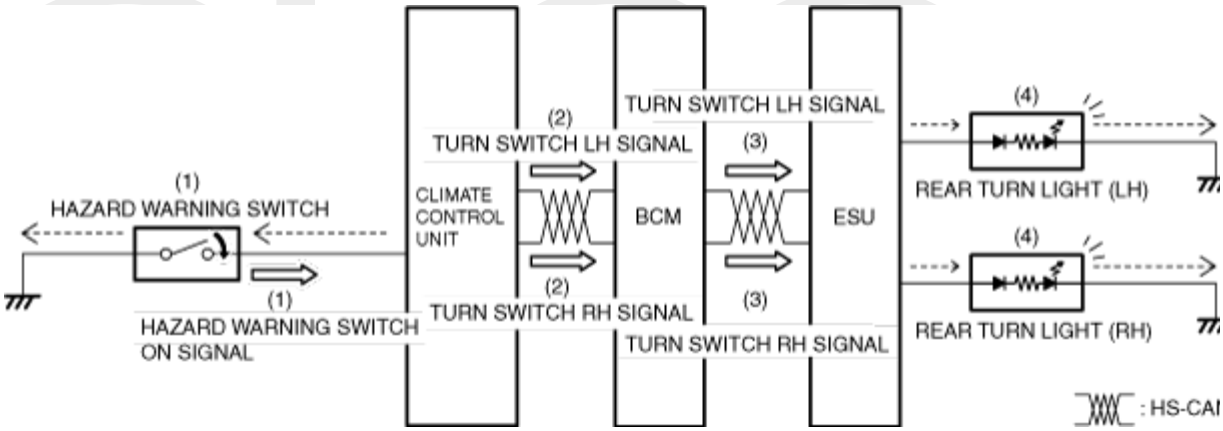
Hazard warning system

1. When the hazard warning switch turns on, the instrument cluster detects (1) a hazard warning switch on signal.

2. The instrument cluster sends (2) the hazard warning switch on signal to the body control module (BCM) via CAN communication as a turn switch LH signal and turn switch RH signal.

3. When the body control module (BCM) receives the turn switch LH signal and turn switch RH signal, it sends (3) a rear turn light (LH) flash request signal and rear turn light (RH) flash request signal to the electrical supply unit (ESU) via CAN communication.

4. When the electrical supply unit (ESU) receives the rear turn light (LH) flash request signal and rear turn light (RH) flash request signal, it flashes (4) the rear turn light (LH) or rear turn light (RH).



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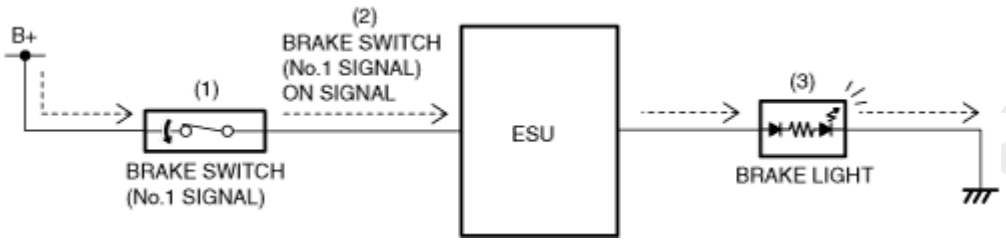
Brake light

Operation due to brake pedal operation

1. When the brake pedal is depressed, the brake switch (No.1 signal) turns on (1).

2. When the brake switch (No.1 signal) turns on, the electrical supply unit (ESU) detects (2) a brake switch (No.1 signal) on signal.

3. When the electrical supply unit (ESU) detects the brake switch (No.1 signal) on signal, it turns the brake lights on (3).



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Operation due to operation request signal from BCM

1. When the operation conditions are met, the body control module (BCM) turns on (1) the transistor inside the body control module (BCM).

Note

• For the operation conditions, refer to the followings:

— Smart brake support (SBS) (SeeSMART BRAKE SUPPORT (SBS).)

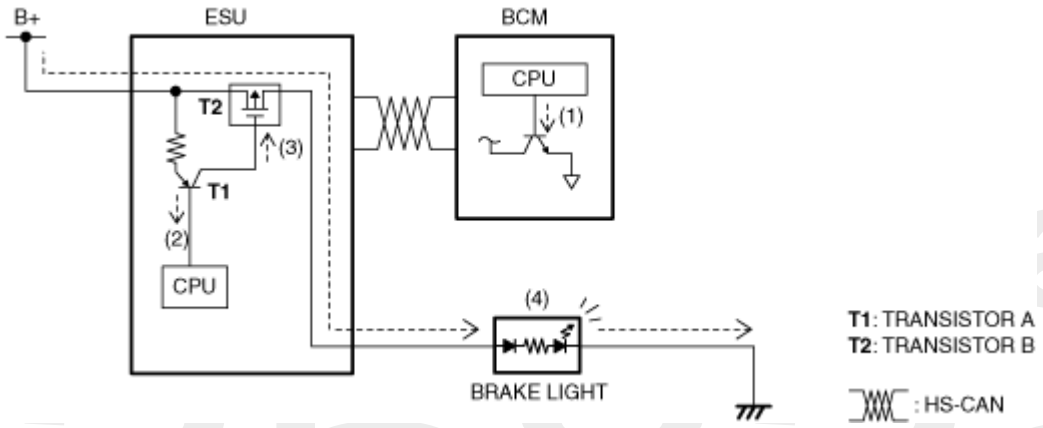
— Smart brake support [Rear] (SBS-R) (SeeSMART BRAKE SUPPORT [REAR] (SBS-R).)

— Smart brake support [Rear Crossing] (SBS-RC) (SeeSMART BRAKE SUPPORT [REAR CROSSING] (SBS-RC).)

2. When the transistor inside the body control module (BCM) turns on, the electrical supply unit (ESU) turns on (2) transistor A inside the electrical supply unit (ESU).

3. When transistor A turns on, the electrical supply unit (ESU) turns transistor B on (3).

4. When transistor B inside the electrical supply unit (ESU) turns on, the brake lights turn on (4).



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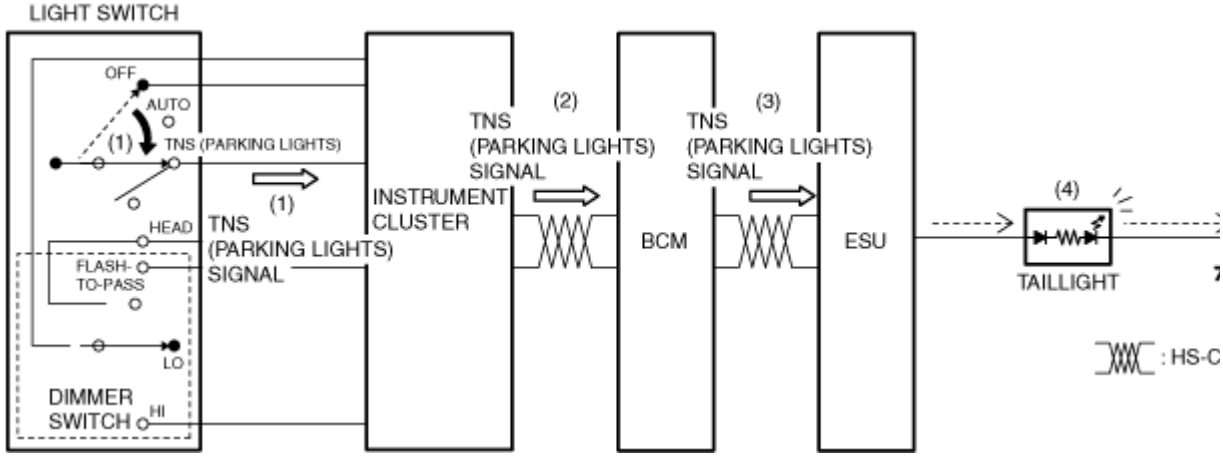
Taillight

1. When the light switch is in the TNS or HEAD position, the instrument cluster detects (1) a TNS signal.

2. The instrument cluster sends (2) the TNS signal to the body control module (BCM) via CAN communication.

3. When the BCM receives the TNS signal, the BCM sends (3) the TNS signal to the electrical supply unit (ESU) via CAN communication.

4. When the electrical supply unit (ESU) receives the TNS request signal, it turns the taillights on (4).



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