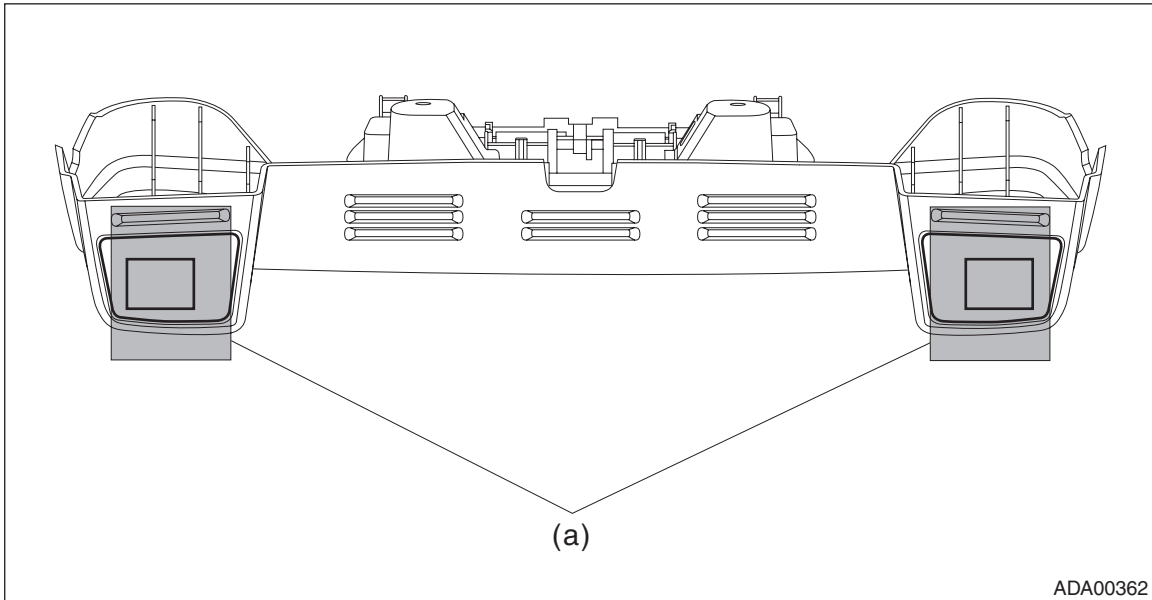


5. Stereo Camera

A: REMOVAL

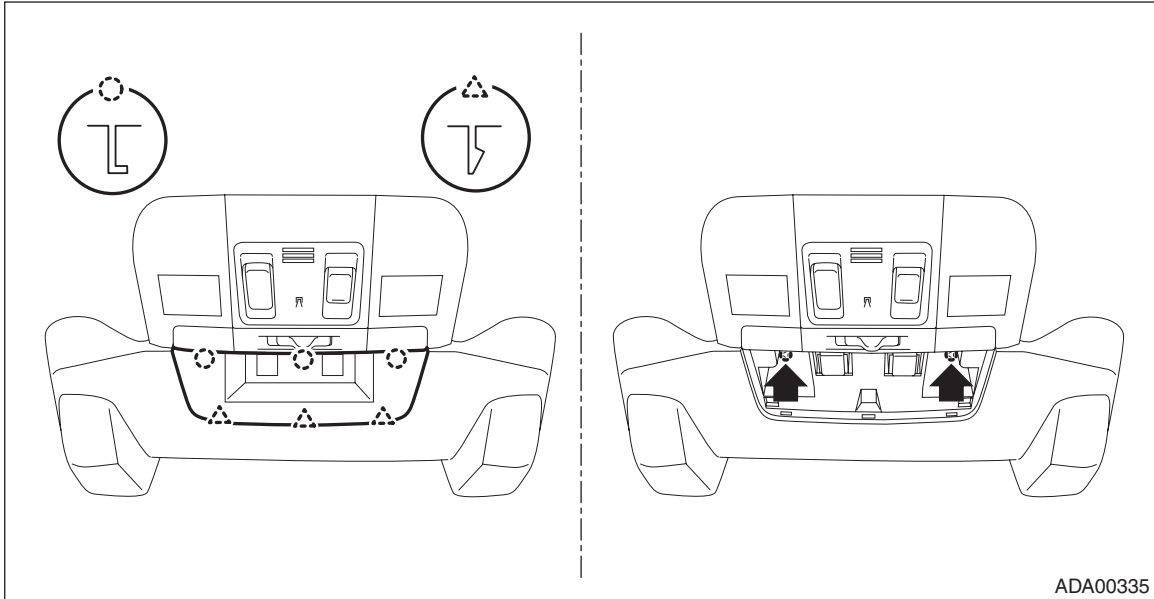
CAUTION:

- When the stereo camera or windshield glass has been replaced, removed or installed, always perform the adjustment and inspection of the camera. (When the stereo camera has been replaced with a new part, the camera remains in a failed state until adjustment and inspection are performed.)
 - Since the stereo camera is a precision equipment, install the protective cover before handling it. (New stereo camera is equipped with a protective cover as a service part.)
 - During removal, do not hold at the left and right cameras.
 - Do not apply any impact to the stereo camera. (Even the slightest shock will deviate the optical axis of the camera, resulting in the loss of normal operation of the camera.)
 - Do not disassemble the stereo camera.
 - Attach the protective cover to the replacement part, put it into the box in the same way as the other parts and return it.
 - Do not touch the lens on the stereo camera.
 - When removing the stereo camera cover assembly, attach protective tape with a weak adhesive force such as masking tape to avoid interference with the camera lens before performing operation.
- 1) Disconnect the ground cable from battery.
 - 2) Attach the protective tape (a) to the stereo camera cover assembly.



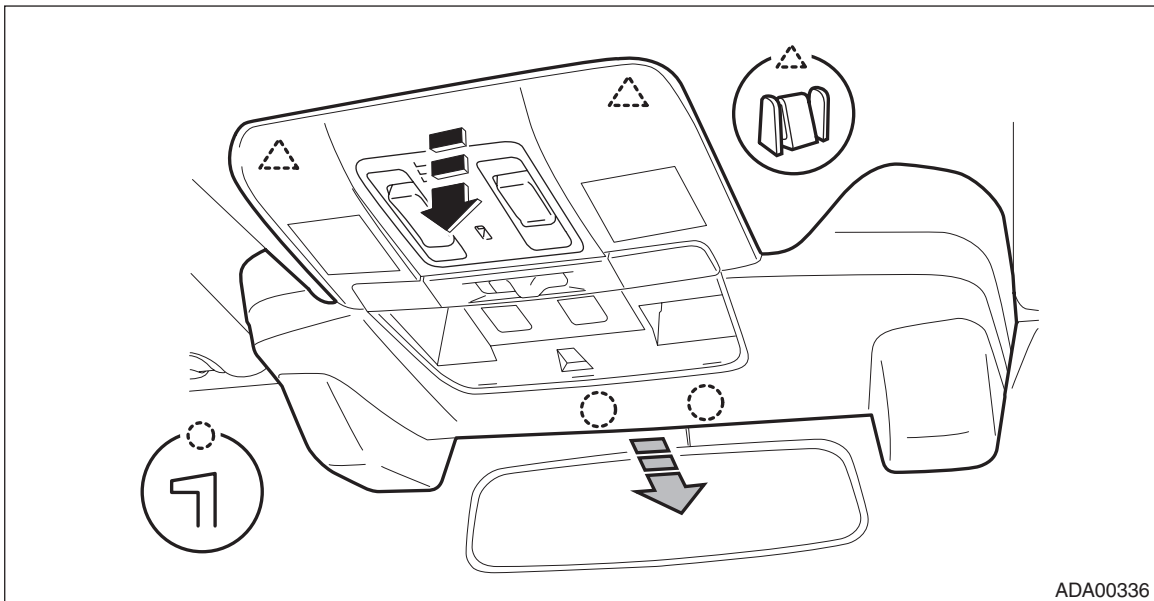
3) Remove the stereo camera cover.

- (1) Release the claws and then remove the cap.
- (2) Remove the mounting bolt of stereo camera cover.



(3) Pull down the stereo camera cover, and then release the claws.

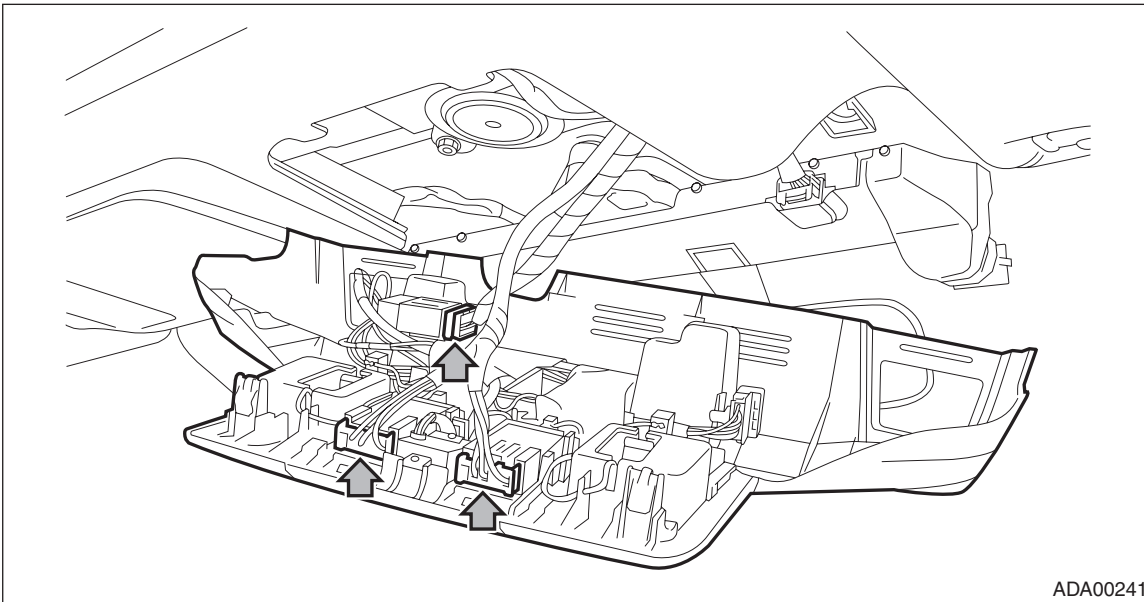
- (4) Slide the stereo camera cover toward the windshield glass, and detach the cover hooks.



Stereo Camera

EyeSight

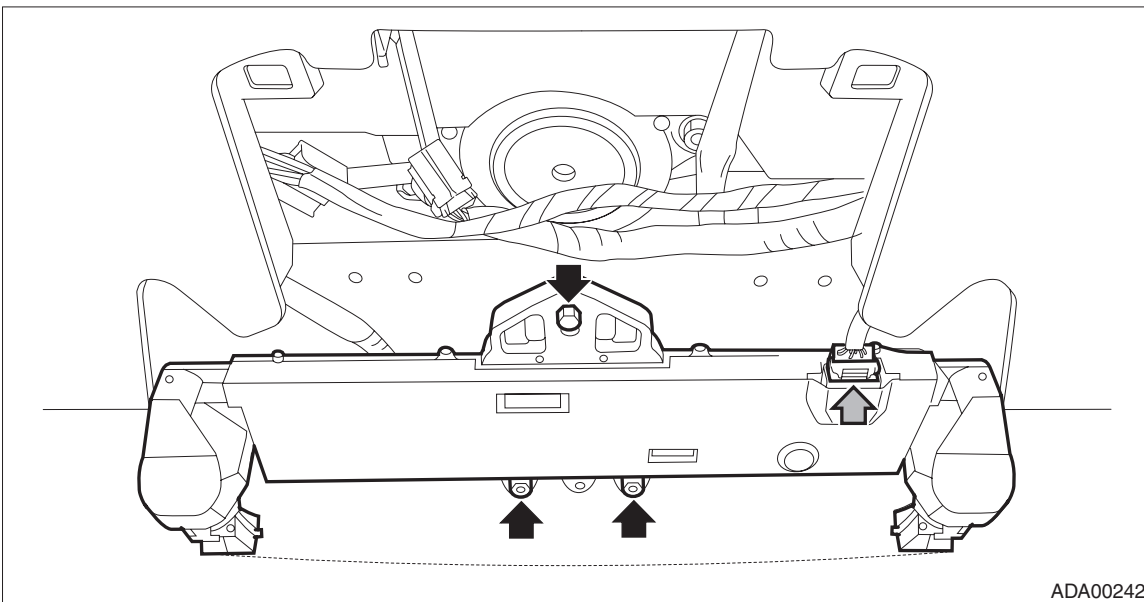
- (5) Disconnect the connectors, and remove the stereo camera cover assembly.



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- 4) Remove the stereo camera.

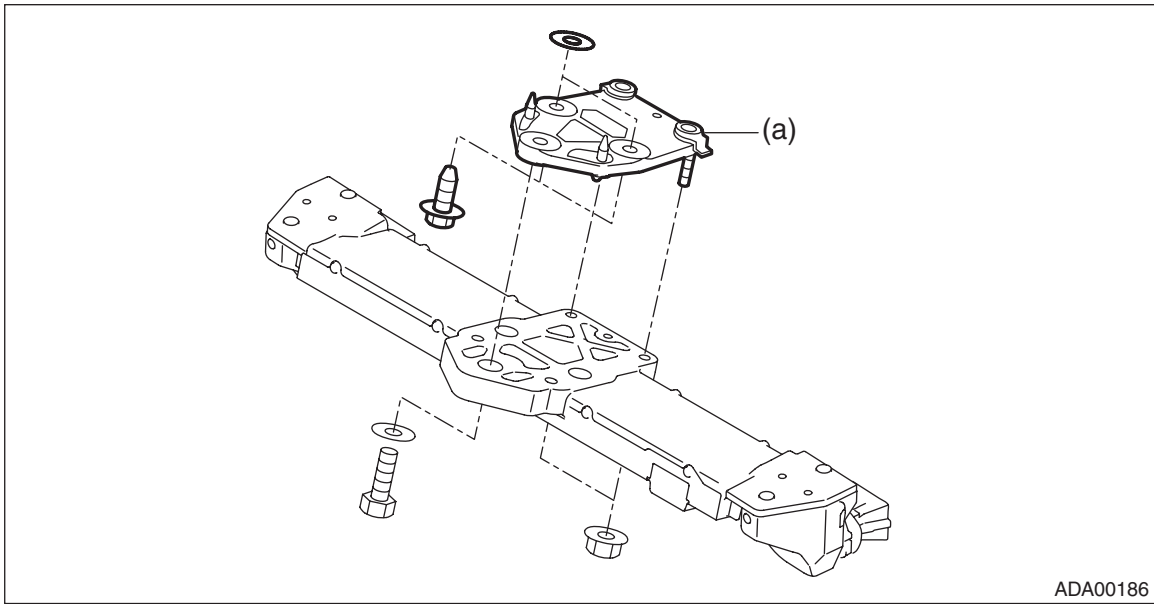
- (1) Disconnect the stereo camera connector.
(2) Remove the bolts and nuts and remove the stereo camera.



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NOTE:

Remove the camera spacer (a) as required.



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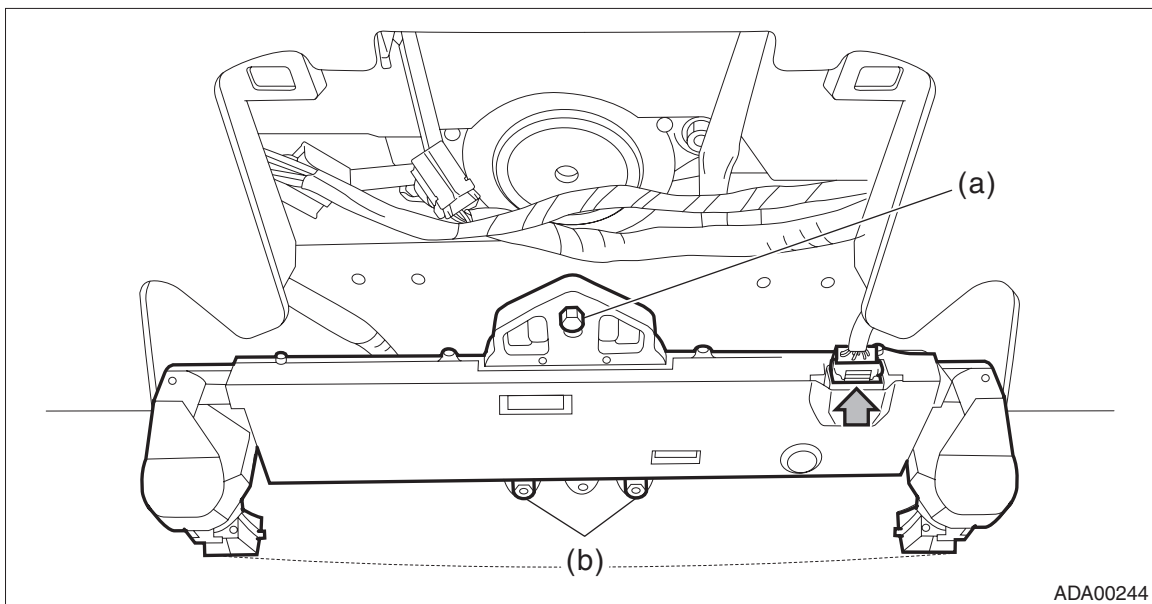
B: INSTALLATION

CAUTION:

- Do not remove the protective cover until just before installing the stereo camera cover assembly. Using the bolt and nut, install the stereo camera with the protective cover attached, connect the connectors, and then remove the protective cover.
 - Do not apply any impact to the stereo camera. (Even the slightest shock will deviate the optical axis of the camera, resulting in the loss of normal operation of the camera.)
 - During installation, do not hold at the left and right cameras.
 - Do not change the installation position of the stereo camera or do not modify the surrounding structure.
 - Remove the protective cover, install the stereo camera cover assembly, and then perform adjustment and inspection of the stereo camera.
 - Do not touch the lens on the stereo camera.
 - When installing the stereo camera cover assembly, attach protective tape with a weak adhesive force such as masking tape to avoid interference with the camera lens before performing operation.
 - When installing the stereo camera cover assembly, take care so that the harness does not interfere with the stereo camera.
 - Do not allow the stereo camera cover assembly to come in contact with the stereo camera. Install the stereo camera cover assembly precisely so that it will not block the visibility of the camera.
 - Because the stereo camera is incompatible, be sure to check the part number before installation.
- Install each part in the reverse order of removal.

NOTE:

When installing the stereo camera to the vehicle, install the bolt (a) first, and then the nut (b).



Tightening torque:

Camera spacer: 5.5 ± 1.0 N·m (0.56 ± 0.10 kgf-m, 4.1 ± 0.7 ft-lb)

Stereo camera: 5.5 ± 1.0 N·m (0.56 ± 0.10 kgf-m, 4.1 ± 0.7 ft-lb)

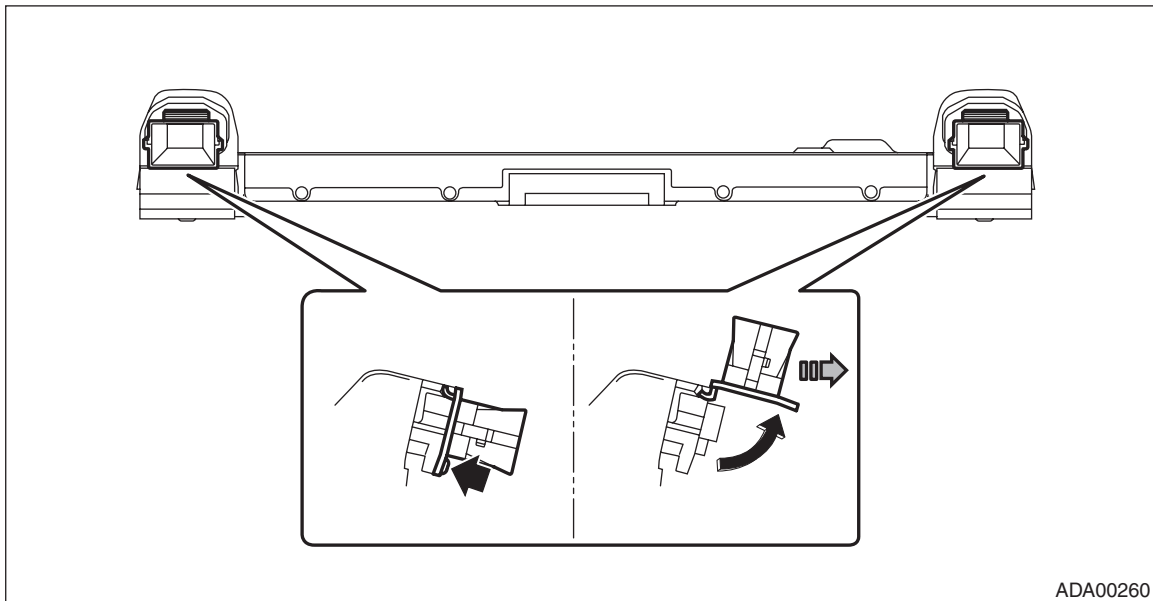
Stereo camera cover: 5.5 ± 1.0 N·m (0.56 ± 0.10 kgf-m, 4.1 ± 0.7 ft-lb)

C: REPLACEMENT

1. REPLACEMENT OF LENS HOOD

CAUTION:

- Perform the operation in the room where there are less dust.
 - During replacement, do not hold at the left and right cameras.
 - During replacement, do not touch the terminals and circuit board.
 - Do not apply any impact to the stereo camera. (Even the slightest shock will deviate the optical axis of the camera, resulting in the loss of normal operation of the camera.)
 - Do not touch the lens portion of the stereo camera or do not allow the tools to come in contact with the stereo camera.
 - Do not clean the lens portion of the stereo camera.
 - Replace the left and right lens hoods as a pair because the optical characteristics for both lens hoods must match.
 - Wear clean nylon and vinyl glove. Do not wear cotton work glove to prevent dust or fiber from adhering to the lens hood.
 - Before starting operation, discharge static electricity carried on body or clothes.
 - Do not touch the lens surface of the stereo camera and lens hood. If touched, replace the stereo camera and lens hood.
 - After replacing the lens hood, perform adjustment and inspection of the stereo camera.
- 1) Remove the stereo camera. <Ref. to ES-8, REMOVAL, Stereo Camera.>
 - 2) Remove the lens hood.
 - (1) Remove the screws.
 - (2) Rotate the lens hood by 90 degrees and pull it out.



3) Install lens hood in the reverse order of removal.

CAUTION:

Do not apply excessive force to the lens hood. The lens filter inside the hood may be tensioned, causing the lens filter to be broken.

NOTE:

If the fingerprint adhesion or damage to the lens filter occurs, the following failures may arise.

- The vehicle may not be able to detect the preceding vehicle or obstacle due to the effects of the headlight of the oncoming vehicle.
- The vehicle may not be able to detect the preceding vehicle or obstacle due to the effects of the brake light operation of the preceding vehicle.
- All the functions of the EyeSight may be suspended by the self-diagnosis function equipped with the camera.
- When the lens filter is broken, the vehicle may not be able to detect the preceding vehicle or obstacle all day and all night.

D: ADJUSTMENT

For adjustment and inspection of the stereo camera, refer to “Camera Adjustment and Inspection” of “EyeSight (DIAGNOSTICS)” section. <Ref. to ES(diag)-44, Camera Adjustment, Inspection.>