

FOREWORD

This manual has been prepared to provide information for the construction, operation and other technical details of SUBARU vehicles.

Read this manual thoroughly and make the most of it to give better service to your customers and improve your knowledge of vehicle maintenance.

For information on sections that remain unchanged, refer to the WRX STI 15MY to 19MY new car information.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

GENERAL DESCRIPTION

ENGINE

TRANSMISSION

CHASSIS

BODY

Introduction

1. ENGINE OIL

When replacing or refilling the engine oil for this model, read the following precautions carefully before proceeding.

Recommended engine oil:

MOTUL 300V Power 5W-40 (100% synthetic)

MOTUL 300V Power 5W-40 (100% synthetic) oil is filled when the car is shipped from the factory. The S209 engine was developed using this oil. STI strongly recommends using only the MOTUL 300V Power 5W-40 (100% synthetic) oil.

If the recommended engine oil is not available at your place, it is possible to use other 5W-40 oils (100% synthetic), but the performance may be somewhat reduced.

2. RECOMMENDATIONS FOR HIGH PERFORMANCE DRIVING

WARNING:

High performance driving is inherently dangerous. It should only be performed by a driver with sufficient skills and experience in a supervised and closed course. Never perform high performance driving on public roads. When driving on public roads, be sure to follow the speed limit signs and other traffic rules. Failure to follow these warnings and the procedures below may result in serious personal injury or death.

CAUTION:

High performance driving is highly likely to damage the car and its components. It should only be performed by a driver who has sufficient skills and experience, on a car which has been additionally maintained and prepared for sports driving. Failure to follow these steps can result in serious damage to the car. Also, the vehicle warranty does not cover damage from high performance driving.

The following precautions apply to high performance driving.

However, the precautions listed below are minimum requirements and may require additional measures to ensure safety while driving. It is the owner's responsibility to keep the car in optimum condition and to be aware of the dangers of high performance driving.

Before driving

- (1) Check brake pads and replace any of them if the remaining amount of the friction material is 0.24 in (6 mm) or less.
- (2) Check the brake parts before starting a session of high performance driving. If desired to change the brake fluid to a high performance product, an ethylene glycol base product same as the standard fluid shall be used. Do not use silicone fluid. When using high performance fluid, take in consideration of the load caused by high temperatures. Conduct inspection and maintenance of brake peripheral parts including brake hoses frequently. After high performance driving, return the fluid to the standard DOT3 or DOT4 fluid.
- (3) When the brake pads have been replaced with new ones, follow a break-in procedure to bed the pads before high performance driving so that you can obtain the required braking power quickly and repeatedly at high speeds. Refer to the following for the break-in procedure.
 - Drive the car approximately 50 miles (80 km) while avoiding excessive acceleration and hard braking. After that, gradually increase the vehicle speed. While applying the brakes stronger and checking the effect, drive about another 50 miles (80 km) to break-in the brakes.

Introduction

- (4) It is recommended to adjust the oil level in the power steering pump to the “HOT MIN” mark in consideration of volume expansion of the oil due to temperature rise.
- (5) If you want to promote engine cooling when the ambient temperature is high, you can remove the undercover to improve the engine cooling efficiency.
- (6) The cooling vents/ducts, intercoolers and radiators must be checked if they are not clogged.
- (7) When the car is parked under the sun, the temperature of the water in the intercooler water spray tank will be very high. Filling the intercooler water spray tank with cold water before using the intercooler water spray helps to improve the intercooler performance.
- (8) All unprotected loads, including floor mats, must be removed from the interior of the vehicle.
- (9) The center cap must be removed from the alloy wheels to prevent heat discoloration and deformation.
- (10) The battery must be checked that it is firmly fixed before driving.
- (11) Tires must be checked if they are not damaged and the grooves are deep enough.
- (12) Before high performance driving, the tire pressures must be checked if they are at an appropriate value to allow the tire temperature to rise.

While driving

- (1) During high performance driving, the tire temperature rises and the tire pressure increases. When driving, frequently check the tire pressures and adjust as necessary.
- (2) Before driving at high speed, the car should be driven properly to check the condition of it.
- (3) High performance driving can lead to over-use of the brakes. In such a case, the driver should immediately lower the speed and take a sufficient distance from the vehicle ahead, and let the brakes cool down.
- (4) The car should not be stopped or parked immediately after high performance driving. The car should be driven for a cool-down. The hood must be opened when the car is stopped.

After driving

- (1) After high performance driving, the condition of the vehicle must be checked for such as wheel nut tightening torque, tire wear, brake wear, tire air pressure, and fluid level to ensure safety. It is also recommended to carry out an inspection before high performance driving.
- (2) If the undercover, floor mats and other parts have been removed before high performance driving, they must be reinstalled.
- (3) Cracks may occur in the disc rotors by hard braking during high performance driving. If this happens, depending on the condition, it may be necessary to replace disc rotors or brake pads.

1.GENERAL DESCRIPTION

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General Description

1-1 General Description

A: VEHICLE TYPE COMPOSITION LIST TABLE

Body classification	Type	Destination	Destination code	Engine	Driving type	Grade	Transmission
Sedan	VA	U.S.	U4	2.5L high power turbo	AWD	S209	6MT

B: DESCRIPTION OF TYPE CLASSIFICATION SYMBOL

1. V.I.N.

]JF1VA2Z6#K9#####[

Square brackets ([]) at the beginning and end are stop marks.

#: Varies according to vehicle model.

Digit	Meaning	Details
1 to 3	Body parts manufacturer	JF1: Passenger car manufactured by SUBARU CORPORATION
4	Vehicle type	V: WRX
5	Body classification	A: Sedan
6	Total displacement classification	2: 2.5L AWD high power turbo
7	Grade	Z: S209
8	Restraints	6: Manual belt + dual airbags + side airbags in backrests + curtain airbags in roof + driver knee airbag
9	Check digit	X or 0 to 9
10	Model year	K: 2019MY
11	Transmission type	9: Full-time AWD 6-speed MT
12 to 17	Serial number	800001 to 999999

2. VEHICLE TYPE CLASSIFICATION

VAFEYWH

#: Varies according to vehicle model.

Digit	Meaning	Details
1	Series	V: WRX
2	Body type	A: Sedan
3	Total engine displacement/ Drive system	F: 2.5L AWD high power turbo
4	Model year	E: 2019MY
5	Destination	Y: North America
6	Grade	W: S209
7	Fuel supply system/ Transmission	H: MPI high power turbo 6-speed MT AWD

General Description

3. ENGINE

EJ257XG###

Digit	Meaning	Details
1 and 2	Engine model symbol	EJ: 4 cylinder
3 and 4	Total displacement	25: 2.5L
5	Fuel supply system	7: MPI high power turbo
6	Exhaust regulations	X: North America
7	Mounted transmission	G: 6MT
8 to 10	Detailed specifications	Used for ordering parts. For details, refer to the parts catalog.

4. TRANSMISSION (MT)

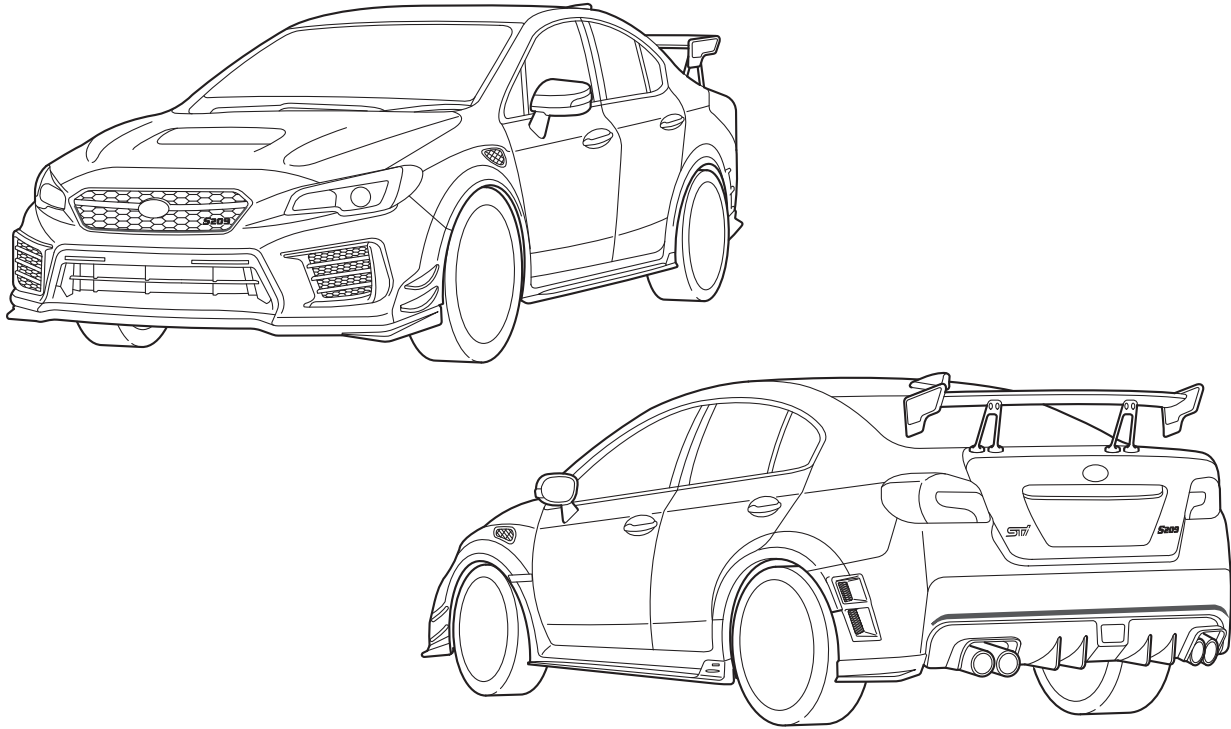
TY856UW###

Digit	Meaning	Details
1	Transmission symbol	T: Transmission
2	Basic transmission system	Y: Full-time AWD MT center differential
3 and 4	Distance between the gear centers	85: 3.35 in (85 mm) between main shaft and drive pinion
5	Classification	6: 6MT
6	Transmission specifications	U: Full-time AWD single range 6-speed MT with driver-controlled center differential
7	Mounted engine	W: 2.5L high power turbo
8 to 10	Detailed specifications	Used for ordering parts. For details, refer to the parts catalog.

5. REAR DIFFERENTIAL

Identification	Reduction gear ratio	LSD
H5	3.545	Torsen

1-2 Vehicle Appearance and Dimensions



BS-14009

Overall length		in (mm)	181.9 (4,620)
Overall width		in (mm)	72.4 (1,840)
Total height		in (mm)	58.1 (1,475)
Interior	Length	in (mm)	78.9 (2,005)
	Width	in (mm)	58.7 (1,490)
	Height	in (mm)	47.4 (1,205)
Wheelbase		in (mm)	104.3 (2,650)
Tread	Front	in (mm)	60.8 (1,545)
	Rear	in (mm)	61.2 (1,555)
Minimum road clearance		in (mm)	4.9 (125)

1-3 Major Changes

1. ENGINE

- Increased engine power
- S209 ornament with serial number
- New emission label
- New ECU
- High flow fuel pump and injectors
- Modified air intake system components
- Intercooler water spray
- Large diameter turbocharger
- Sodium-filled exhaust valves
- Exhaust valve springs with stronger rate
- Pistons with a smaller weight tolerance are used
- 5W-40 engine oil
- Oil viscosity specified on oil filler cap
- Exclusive mufflers with lowered back pressure

2. TRANSMISSION

- Short stroke type gear shift lever
- High output type clutch cover and clutch disc

3. CHASSIS

- STI-tuned Bilstein front strut assemblies
- Slit-less bushings on front stabilizer
- Front arm rear plates of increased thickness
- Flexible front strut tower bar
- Flexible front draw stiffeners
- Support front kit
- STI-tuned Bilstein rear strut assemblies
- Rear stabilizer with an increased diameter
- Exclusive rear sub frame support
- Lower stoppers
- Pillow ball bushings on the inside of lateral links
- Flexible rear draw stiffener
- STI-designed size high-performance tires
- STI-designed aluminum wheels
- Flat tire repair kit in place of the temporary tire
- Stiffeners of increased thickness on the steering box
- STI-tuned rack stroke
- Exclusive VDC control unit
- Silver-painted brake calipers
- High performance brake pads

4. BODY

- Performance shroud
- Exclusive exterior
 - Cherry red stripes (front grille)
 - S209 ornament (front grille)
 - Front bumper side bezels
 - Front under spoiler
 - Front bumper extensions
 - Front fender air outlets
 - Exclusive front fenders
 - Moldings with S209 logo (front fenders)
 - Exclusive front mudguards
 - Crystal black silica color outer mirrors caps
 - Side under spoilers
 - Rear door garnishes
 - Rear quarter garnishes
 - Rear bumper extensions
 - Exclusive rear mudguards
 - Air outlet ducts (rear bumper)
 - Cherry red stripes (rear bumper)
 - Rear side under spoilers
 - Crystal black silica color roof antenna assembly
 - Dry carbon roof
 - Eliminated roof carrier mounting mechanism and roof molding
 - Dry carbon-fiber large-sized rear spoiler with S209 logo
 - Exclusive ornament on trunk lid
 - Exclusive torsion bars on trunk lid
- Exclusive interior
 - Read ornaments (instrument panel)
 - Silver stitching in upper part of panel
 - STI logo on horn pad
 - Casting-like black painted steering wheel center bezel
 - Ultrasuede®-wrapped steering wheel
 - Red push-type starter switch
 - Black base color of shift pattern plate on gear shift knob
 - Silver stitching in shift lever boot
 - Silver stitching in front side cover and arm rest parts of center console
 - Exclusive serial number plate
 - Cup holders in rear seats side of console box
 - Silver stitching in inner cover and arm rest parts of door trims
 - Felt material used for door trim pockets
 - Side sill plates with S209 logo
 - Welcome screen of multi-function display (MFD) featuring STI logo
 - RECARO front seats of new color design
 - Rear seats of new color design
 - Rear seats without armrests

2.ENGINE

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General Description of Engine

2-1 General Description of Engine

A: GENERAL DESCRIPTION

The engine boasts an overwhelming power performance by the output of the S series strongest 341 HP (254 kW). Not only the absolute acceleration performance, but also the quality feeling has been brushed up to accomplish an ideal power unit.

An intercooler water spray system has been introduced to enhance the cooling performance of the intercooler.

1. SPECIFICATIONS

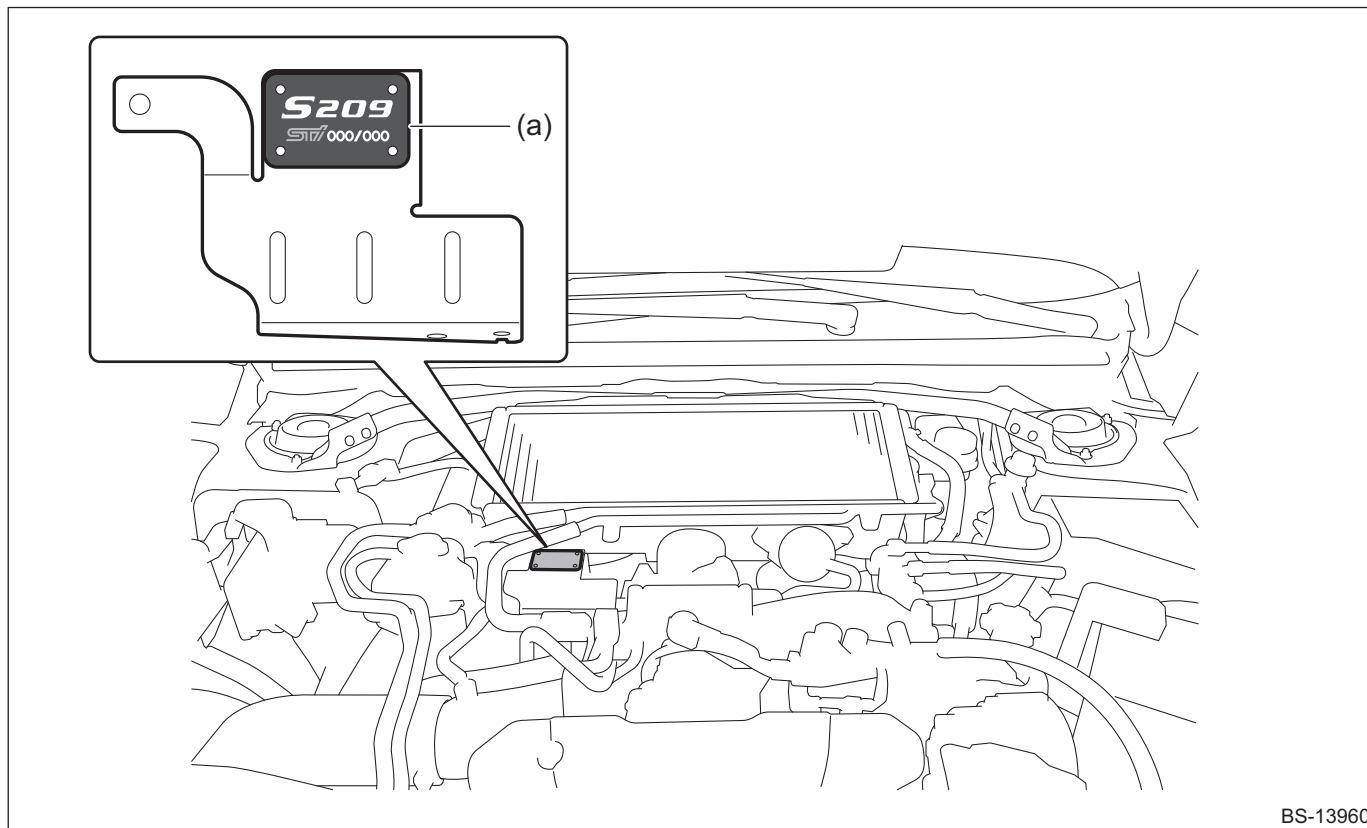
Engine segment	2.5L DOHC high power turbo
Engine model	EJ25
Engine type	Horizontally opposed, water-cooled four-cylinder four-stroke gasoline engine
Valve arrangement	DOHC
Fuel injection system	Port injection
Bore × stroke	3.92 × 3.11 in (99.5 × 79.0 mm)
Total displacement	2,457 cm ³
Compression ratio	8.2
Firing order	1 - 3 - 2 - 4
Idle speed during parking or in the neutral position	700 ± 100 r/min
Maximum output*	341 HP (254 kW) / 6,400 r/min
Maximum torque*	330 ft-lb (447 N•m, 45.6 kgf-m) / 3,600 r/min

*: Transient vehicle testing

General Description of Engine

2. ORNAMENT (IN THE ENGINE COMPARTMENT)

An S209 ornament bearing the car's serial number is installed in the engine compartment.

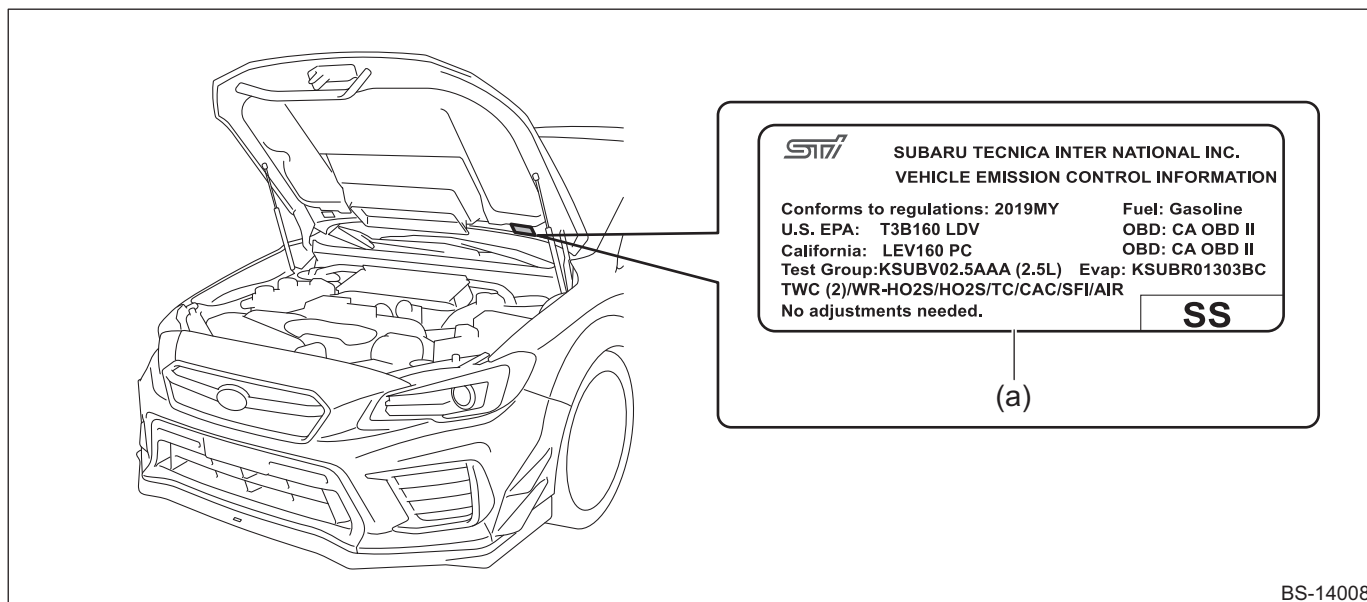


BS-13960

(a) S209 ornament with serial number

3. EMISSION LABEL

A new emission label is provided for the upgraded engine.



BS-14008

(a) New emission label

*: The label description in the drawing is an example. It may differ from the actual description.

2-2 Fuel Injection

A: GENERAL DESCRIPTION

- The ECU has been changed.
- High flow fuel injectors have been introduced.
- A high flow fuel pump has been introduced.

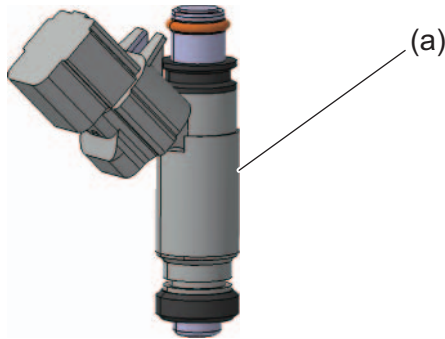
B: DETAILS

1. ECU

To match the higher engine output, a specially programmed ECU has been introduced.

2. FUEL INJECTOR

To match the higher engine output, high flow fuel injectors have been introduced. To differentiate from the standard type, the body color has been changed from blue to gray.



BS-13963

(a) Fuel injector (gray)

3. FUEL PUMP

To match the higher engine output, a high flow fuel pump has been introduced.

2-3 Intake

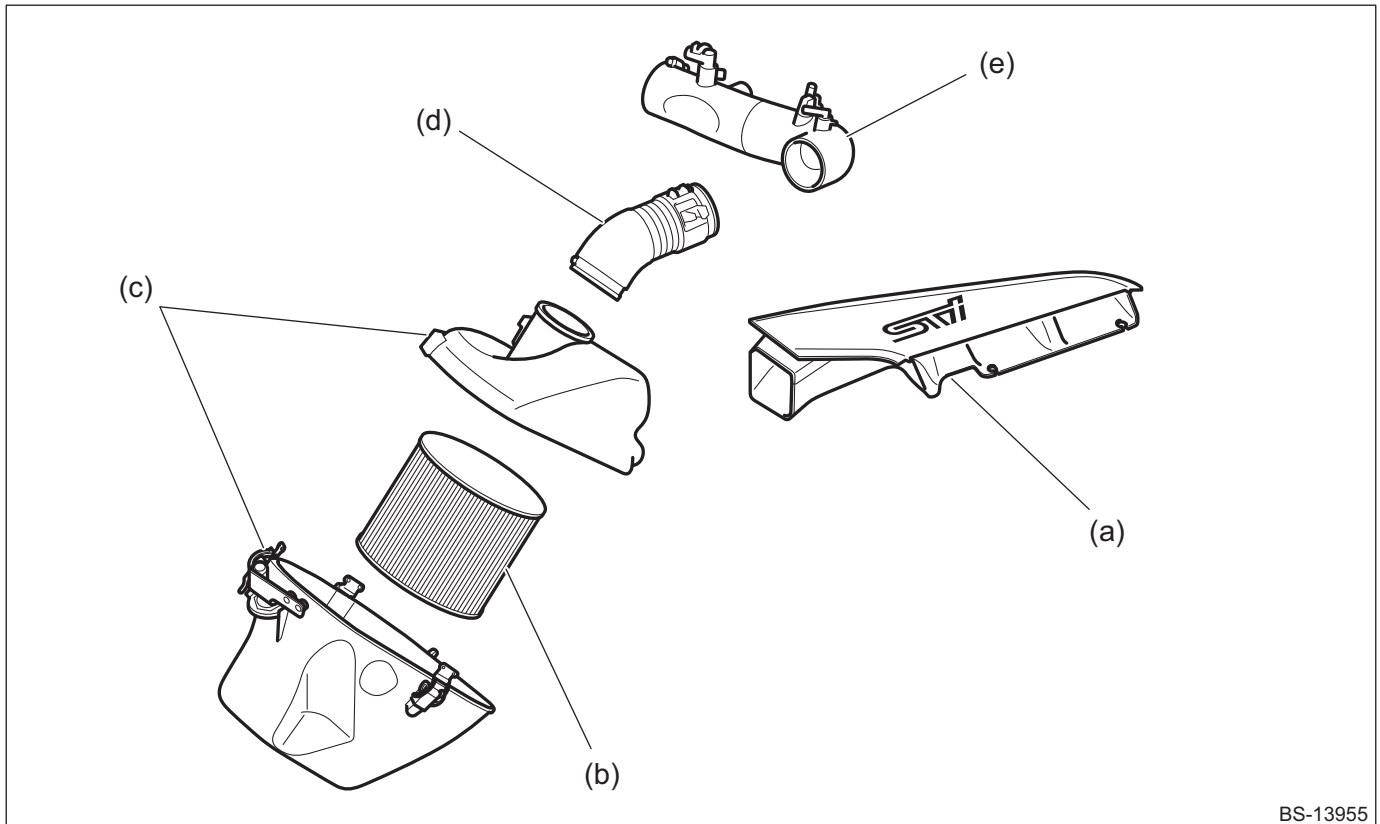
A: GENERAL DESCRIPTION

- Air intake system components are changed.
- An intercooler water spray system is introduced.
- A larger turbocharger is introduced.

B: DETAILS

1. AIR CLEANER / INTAKE DUCT

- An exclusive intake duct has been introduced to enhance the intake performance to the turbocharger.
- To match the higher engine output, a low pressure loss type air cleaner element is used. Due to the change in the shape of the element, the shape of the air cleaner case is also changed.
- A straight type air intake boot is used to reduce the loss of intake pressure.
- A straight type reinforced silicone rubber air intake duct is used to reduce the loss of intake pressure.

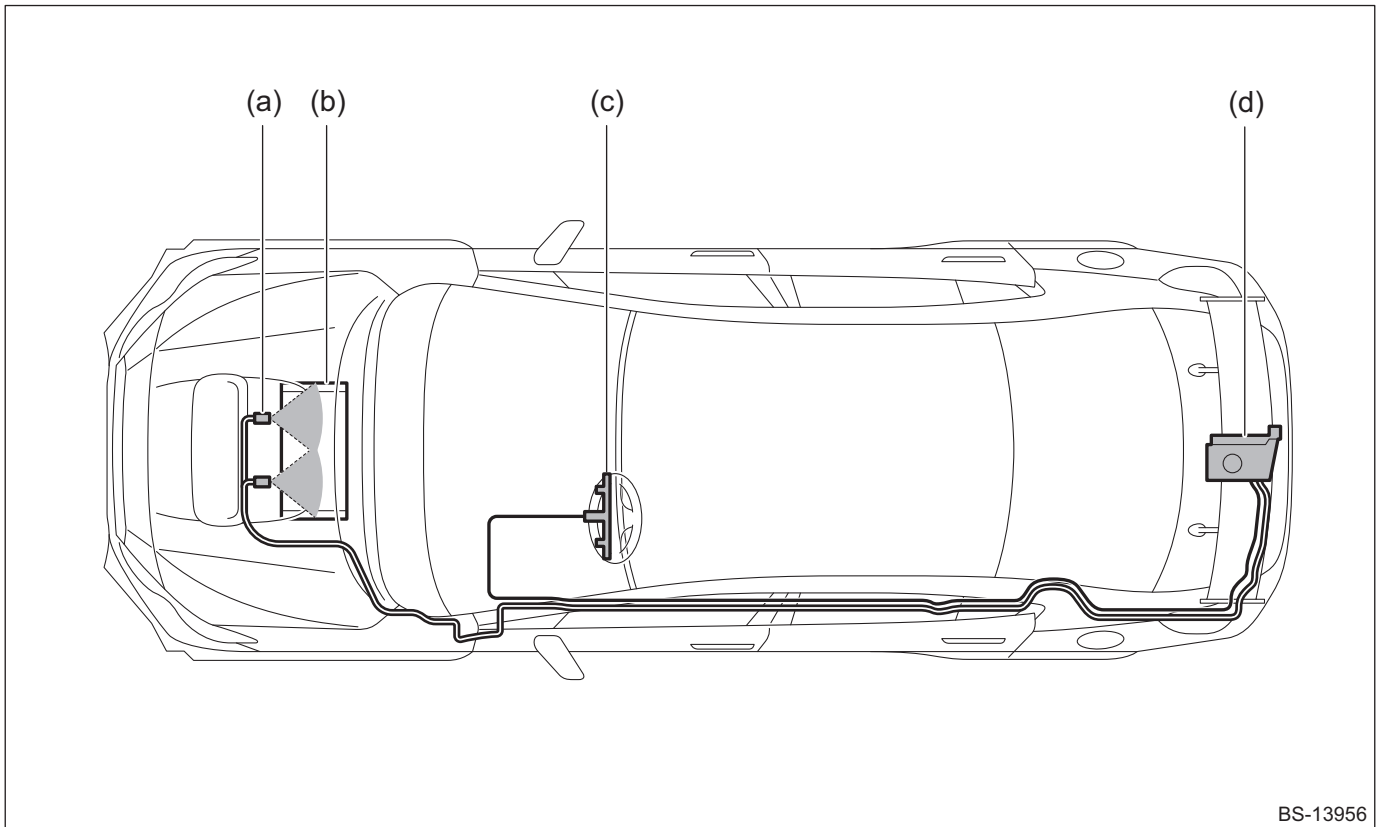


BS-13955

- | | |
|-------------------------|----------------------------------------------------------|
| (a) Intake duct | (d) Air intake boot |
| (b) Air cleaner element | (e) Air intake duct (made of reinforced silicone rubber) |
| (c) Air cleaner case | |

2. INTERCOOLER WATER SPRAY SYSTEM

An intercooler water system is introduced to spray water directly to the top of the intercooler. The intercooler is cooled by the latent heat of vaporization. The system ensures effective cooling even under sever conditions, and contributes to stable acceleration performance.

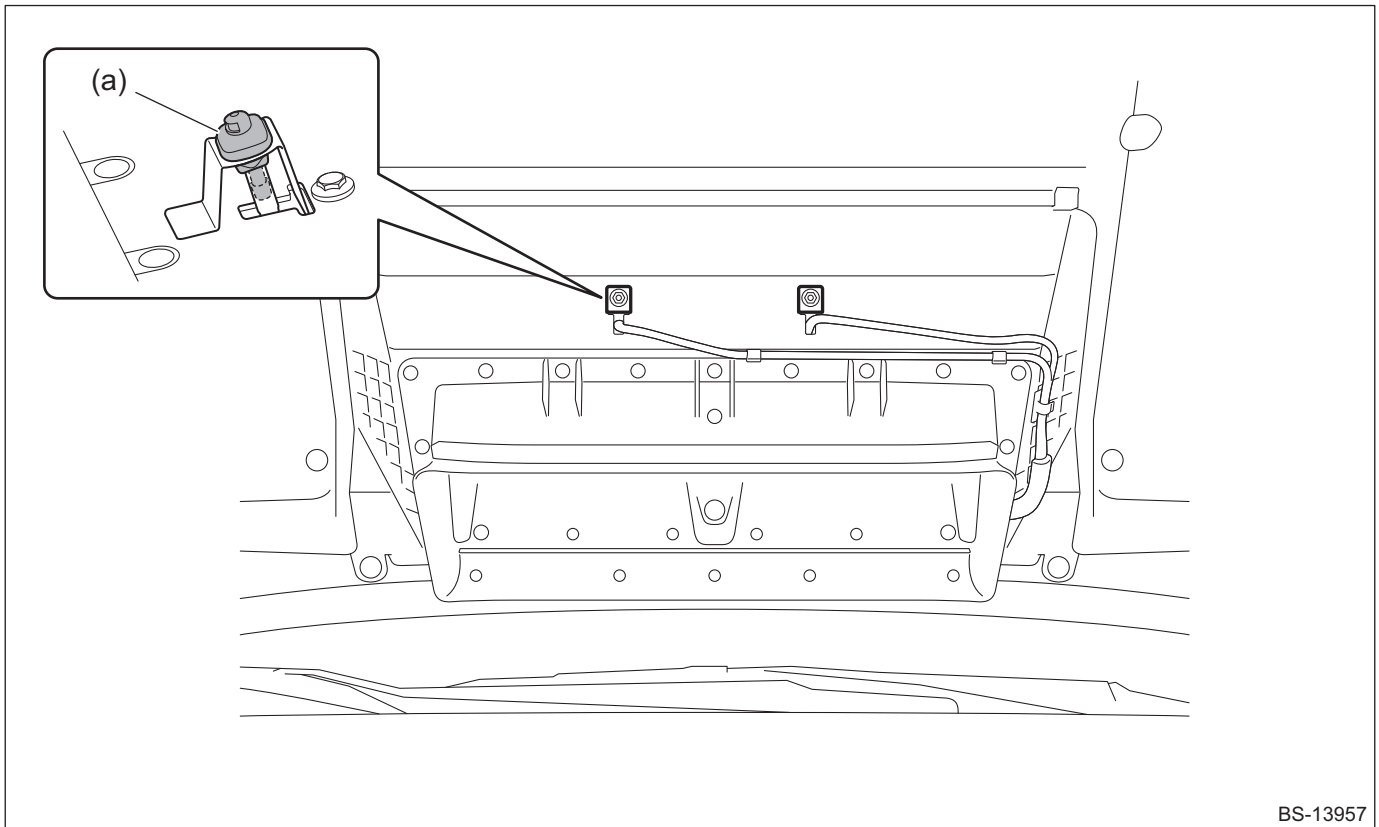


- (a) Injection nozzle
- (b) Intercooler

- (c) Paddle switch
- (d) Reservoir tank

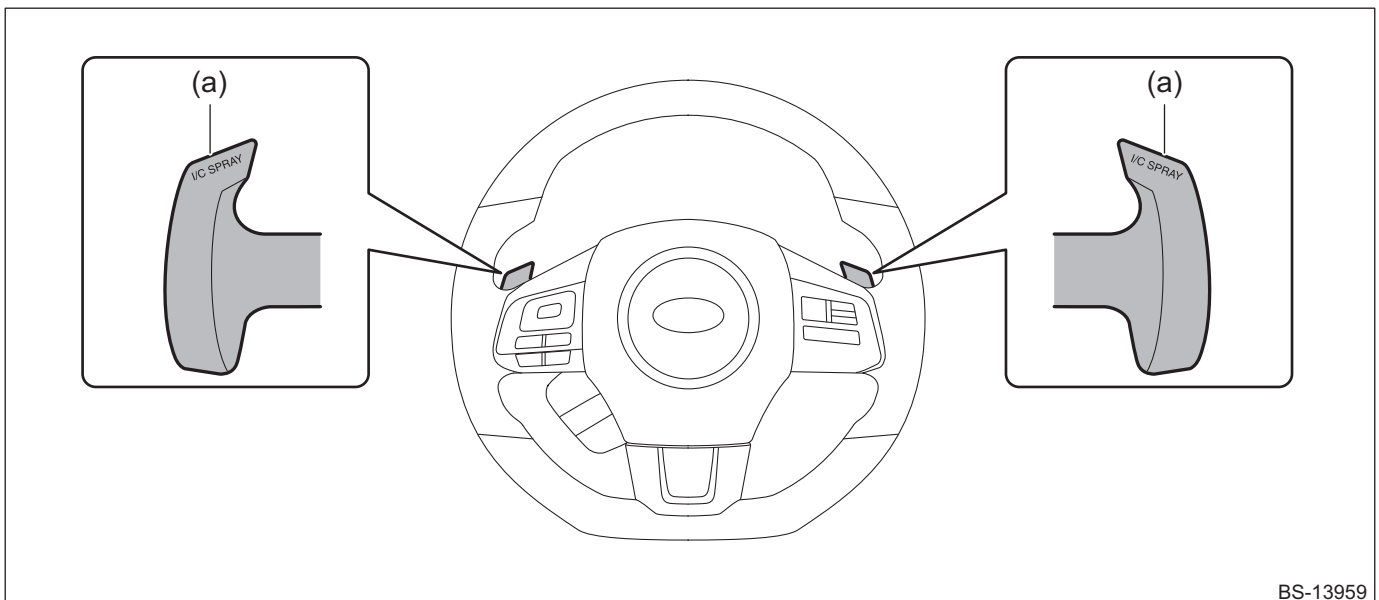
Intake

The injection nozzles of the intercooler water spray system are installed to the inside of the inner front hood duct, and inject water directly to the intercooler to cool it.



(a) Injection nozzle

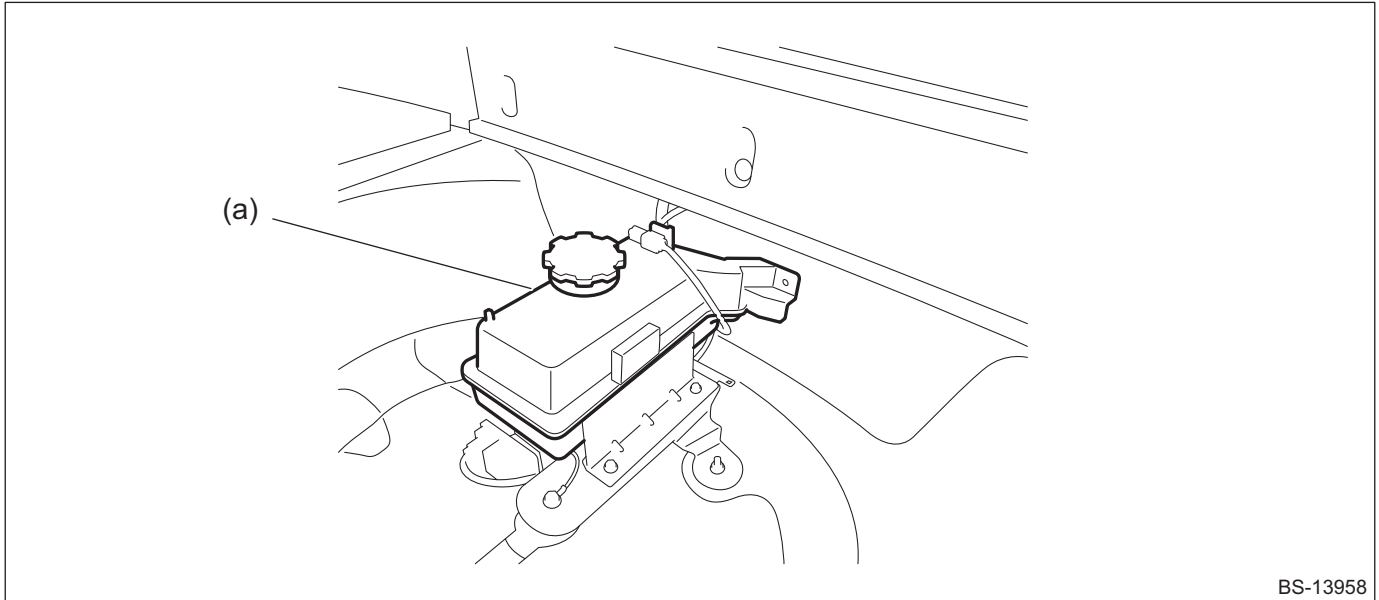
For ease of use in sports driving, a paddle switch is provided to operate the intercooler water spray system any time while holding the steering wheel. Water is sprayed for about 2 seconds with one paddle switch operation.



(a) Paddle switch

Intake

The reservoir tank for the intercooler water spray system is installed in the spare tire storage space in the trunk. When a signal is sent from the paddle switch, a motor activates to send water from the reservoir tank to the injection nozzles.

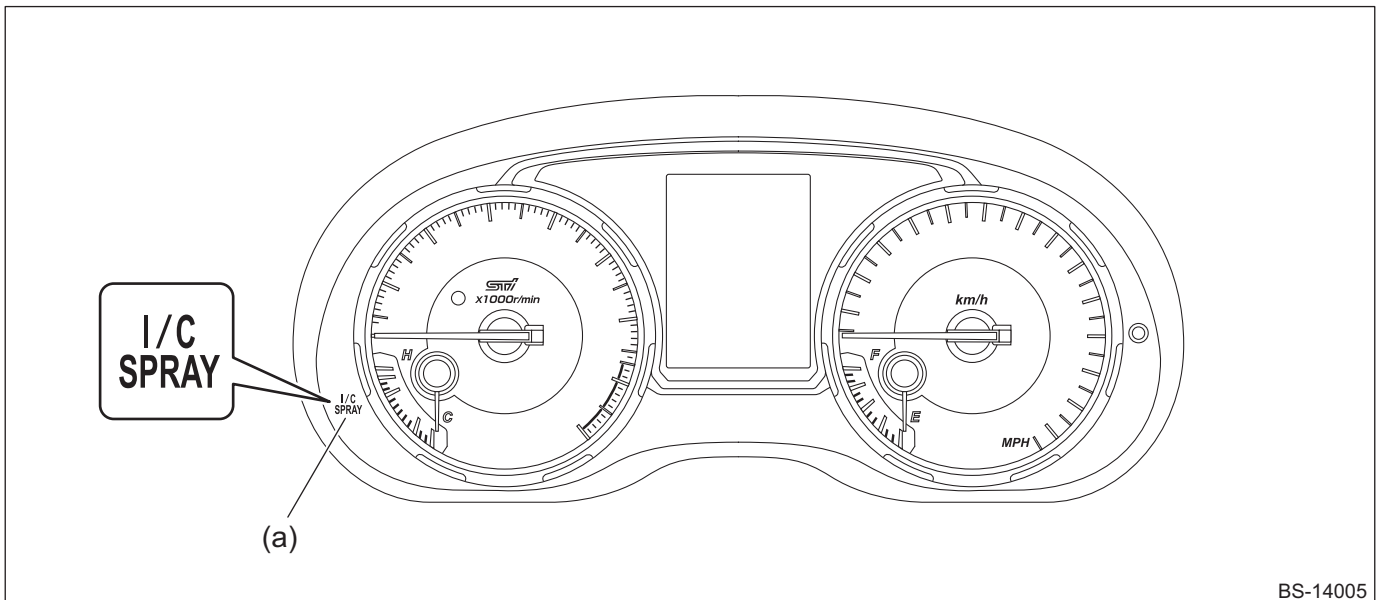


BS-13958

(a) Reservoir tank

With the addition of the intercooler water spray system, a remaining warning light has been added to the combination meter. When the water level in the reservoir tank becomes low, the warning light will light up to prompt the user to add water*.

*: Up to 3.6 US qt (3.4 L, 0.7 Imp qt) of water can be refilled from the time the warning light lights up.

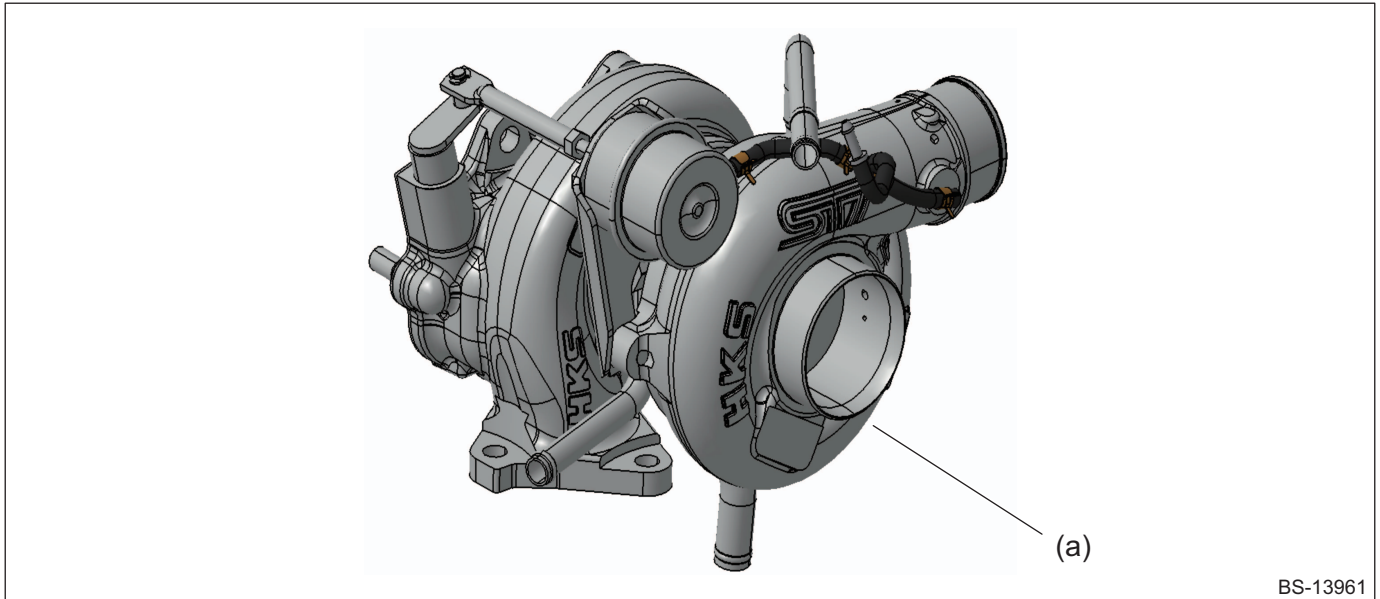


BS-14005

(a) Intercooler water spray system remaining warning light

3. TURBOCHARGER

To match the higher engine output, a large STI single turbocharger is used. The turbocharger is specially tuned to enable sports driving, and the enlarged compressor and turbine contribute to increased torque and output.



(a) STI turbocharger

2-4 Mechanical System

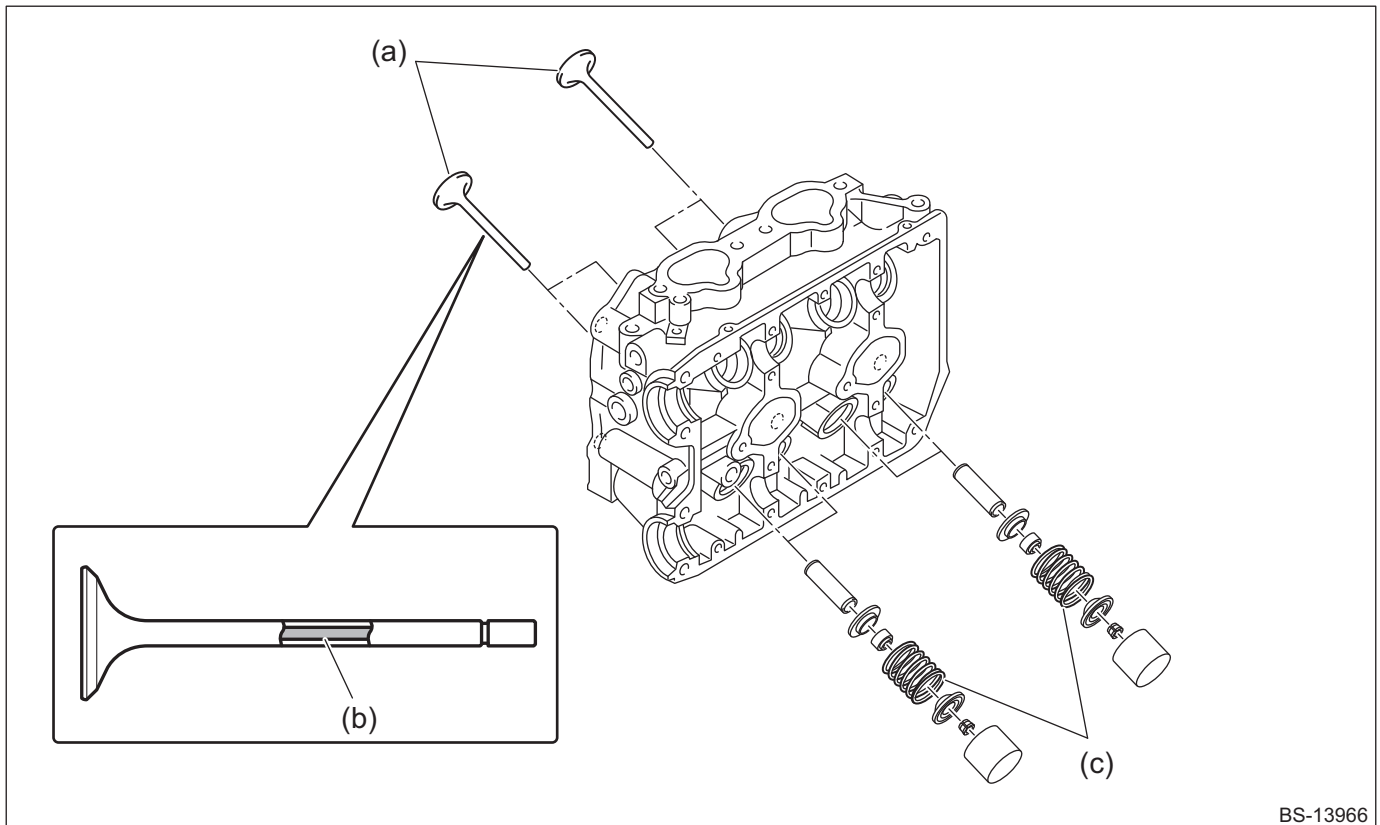
A: GENERAL DESCRIPTION

- Sodium-filled exhaust valves are used.
- Exhaust valve springs with a stronger rate are used.
- Pistons with a smaller weight tolerance are used.

B: DETAILS

1. EXHAUST VALVES / EXHAUST VALVE SPRINGS

- To match the higher engine output, sodium-filled exhaust valves are used. These enhance the cooling effect and reduce knocking.
- To match the higher engine output, exhaust valve springs with a stronger rate are used.



BS-13966

- (a) Exhaust valves
(b) Sodium filled

- (c) Exhaust valve springs

2. PISTONS

Pistons with a weight tolerance smaller by 50% than mass production pistons are used.

2-5 Lubrication

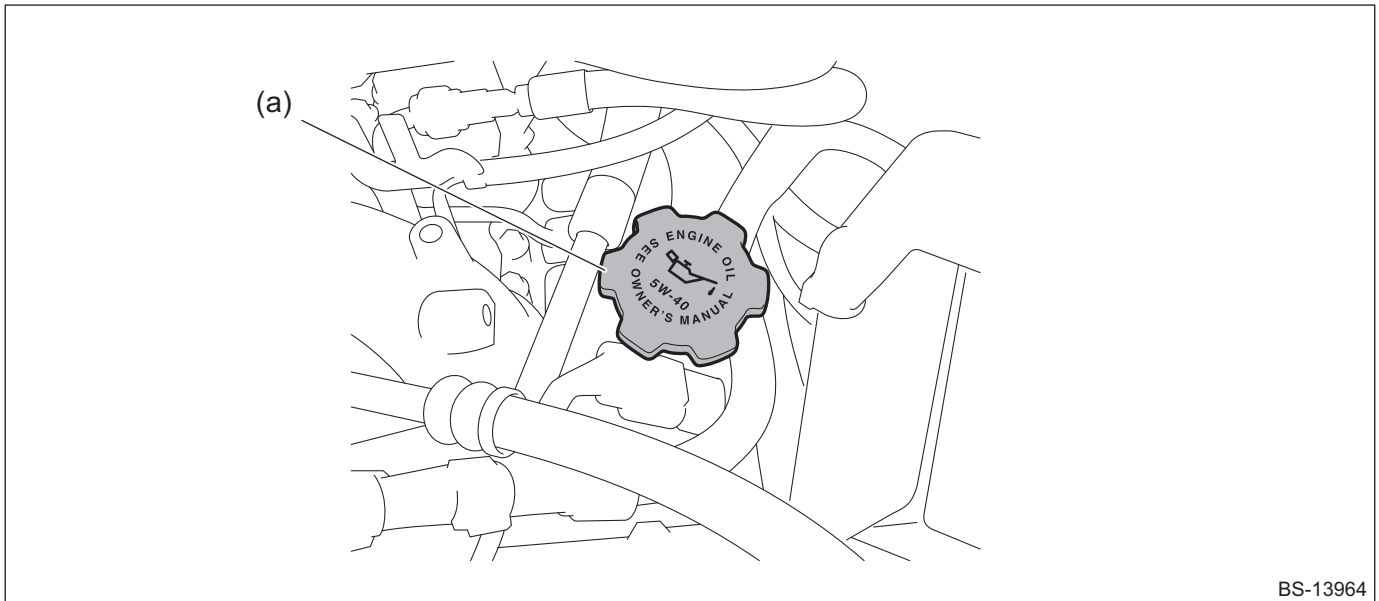
A: GENERAL DESCRIPTION

- 5W-40 engine oil is used.
- The specified oil viscosity is indicated on the oil filler cap.

B: DETAILS

1. ENGINE OIL

- To match the higher engine output, MOTUL 5W-40 engine oil is used.
- The specified oil viscosity is indicated on the oil filler cap to prevent the user from filling oil of an inappropriate viscosity. By indicating directly on the cap instead of attaching a label, the viscosity information is prevented from being lost.



BS-13964

(a) Oil filler cap

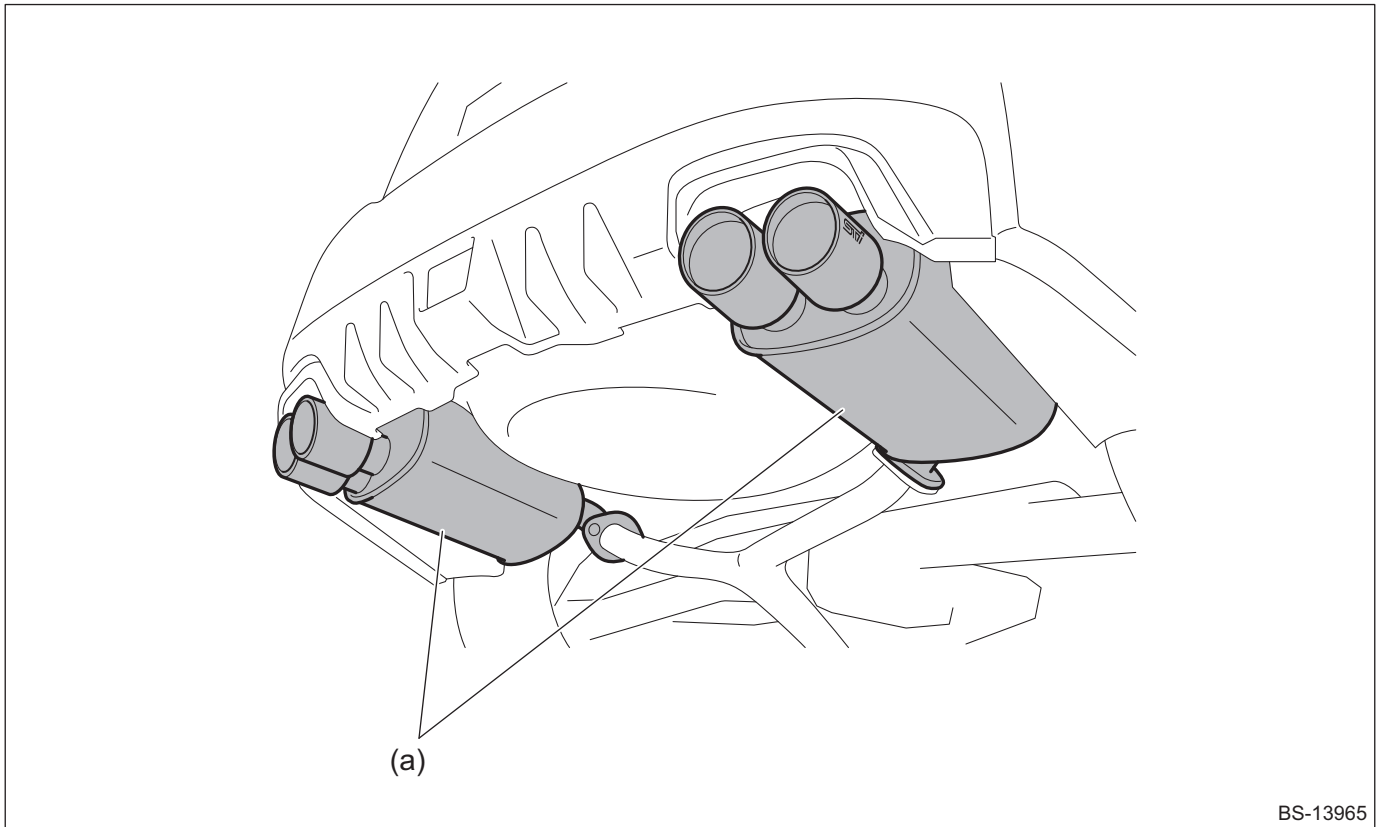
2-6 Exhaust

A: GENERAL DESCRIPTION

Exclusive mufflers with lowered back pressure are installed.

B: DETAILS

By reducing the resistance to the gas flow in the exhaust system, the engine output has been enhanced, and the driver can enjoy exhilarating acceleration accompanied by a relaxed exhaust note with less booming noise. The large diameter tail pipes enhance the sporty and high-quality impression of the car.



(a) Mufflers

3. TRANSMISSION

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3-1 Control System

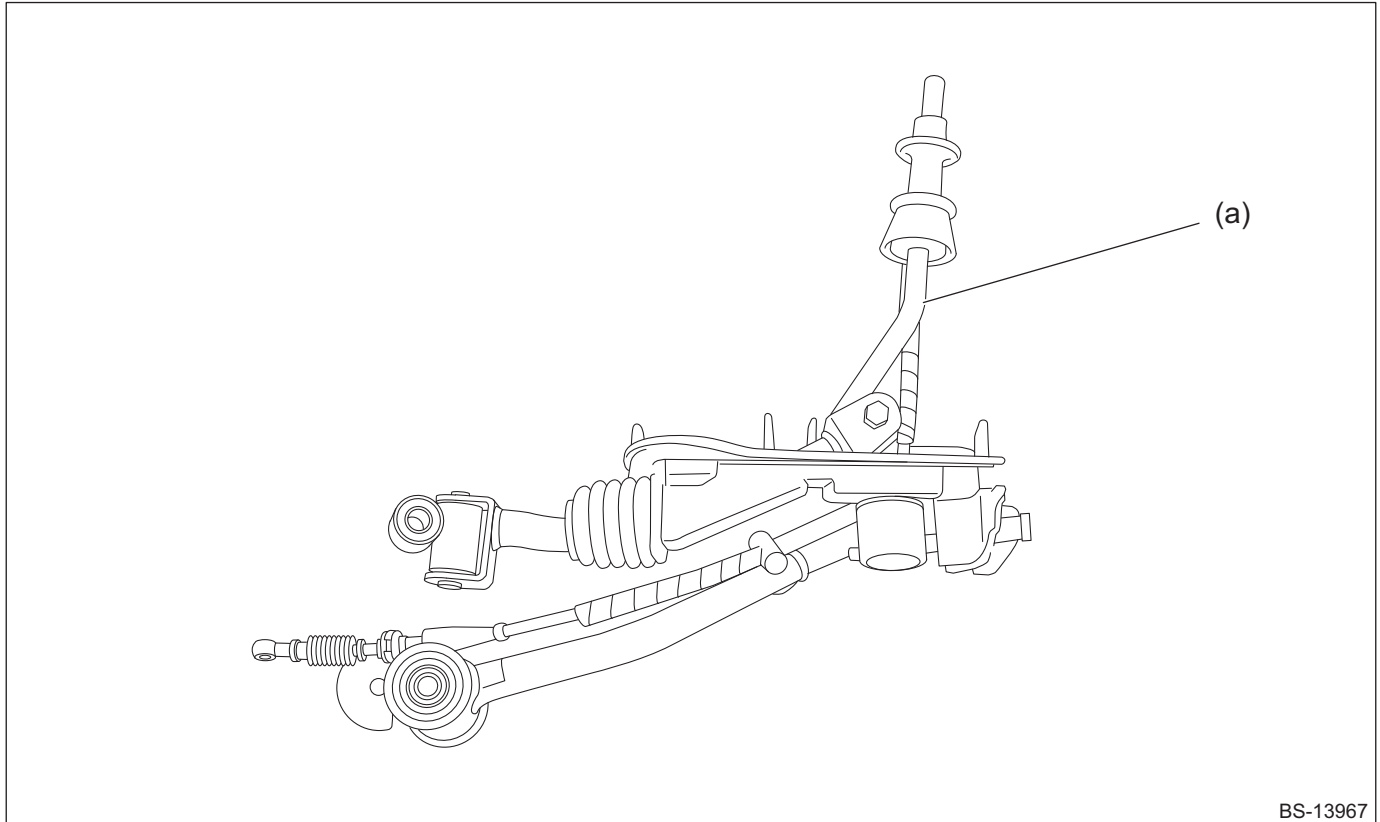
A: GENERAL DESCRIPTION

A short stroke type gear shift lever has been introduced.

B: DETAILS

1. 6-SPEED MT GEAR SHIFT LEVER

A short stroke type gear shift lever assembly has been introduced. By changing the lever ratio and the joint part, the strokes have been shortened in both front and rear directions to achieve a quick, accurate and smooth shifting action.



BS-13967

(a) Gear shift lever assembly (short stroke)

3-2 Clutch System

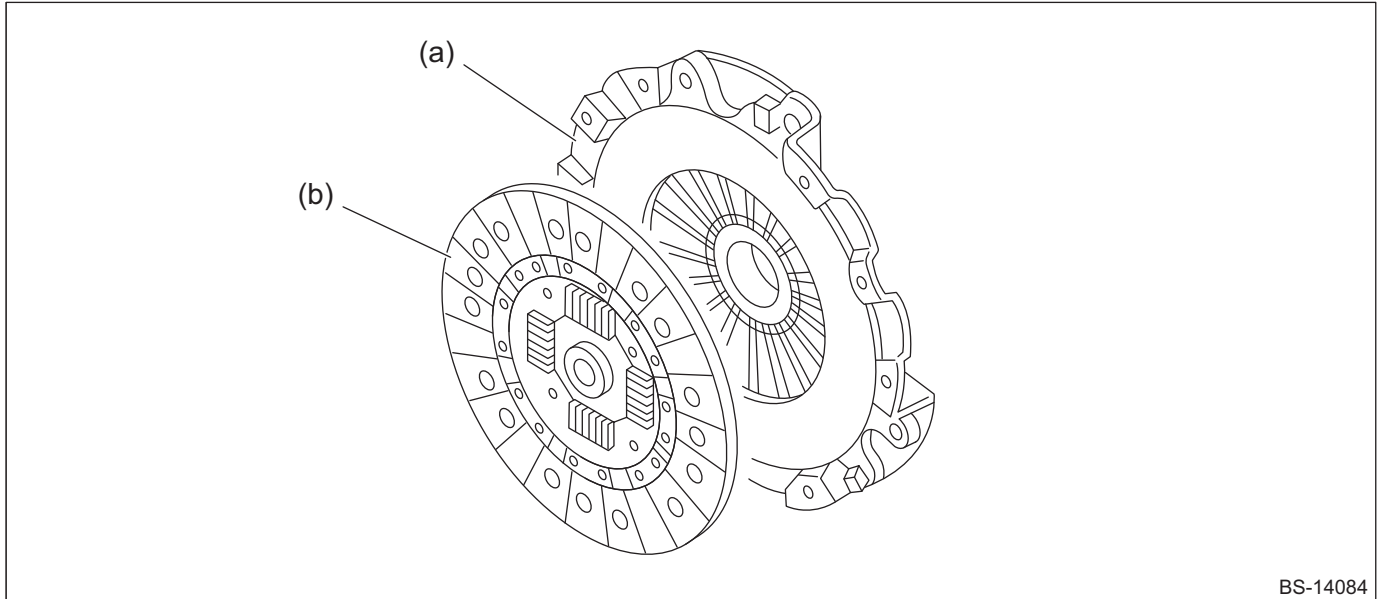
A: GENERAL DESCRIPTION

High output type clutch cover and clutch disc are introduced.

B: DETAILS

1. CLUTCH COVER

To match the higher engine output, high output type clutch cover and clutch disc have been introduced.



BS-14084

(a) Clutch cover

(b) Clutch disc

Clutch System

4.CHASSIS

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4-1 Front Suspension

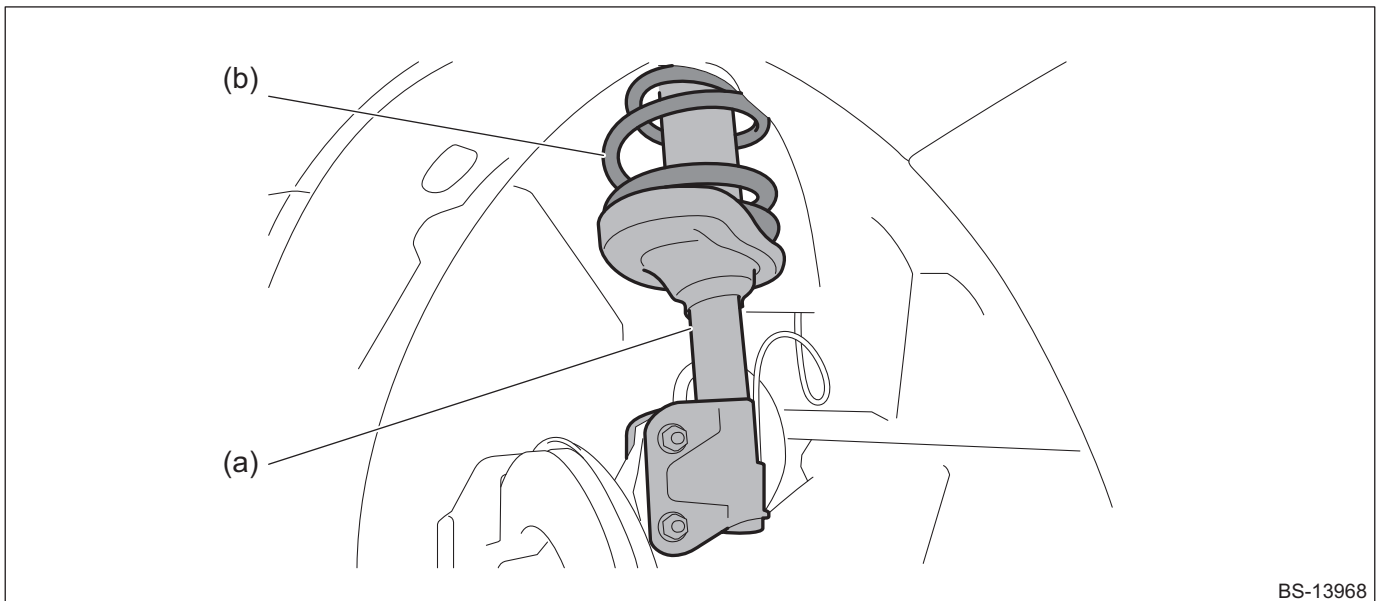
A: GENERAL DESCRIPTION

- STI-tuned Bilstein front strut assemblies have been introduced.
- Slitless bushings are used on the front stabilizer.
- Front arm rear plates with an increased thickness are used.
- A flexible front strut tower bar is installed.
- Flexible front draw stiffeners are installed.
- A support front kit is installed.

B: DETAILS

1. FRONT STRUT ASSEMBLY

- STI-tuned Bilstein dampers are used for the front strut assemblies to enhance the roadholding and steering stability.
- STI-tuned 0.4 in (10 mm) low down coil springs are used on the front strut assemblies. As a proof of STI-tuned parts, the assemblies are painted in cherry red.



BS-13968

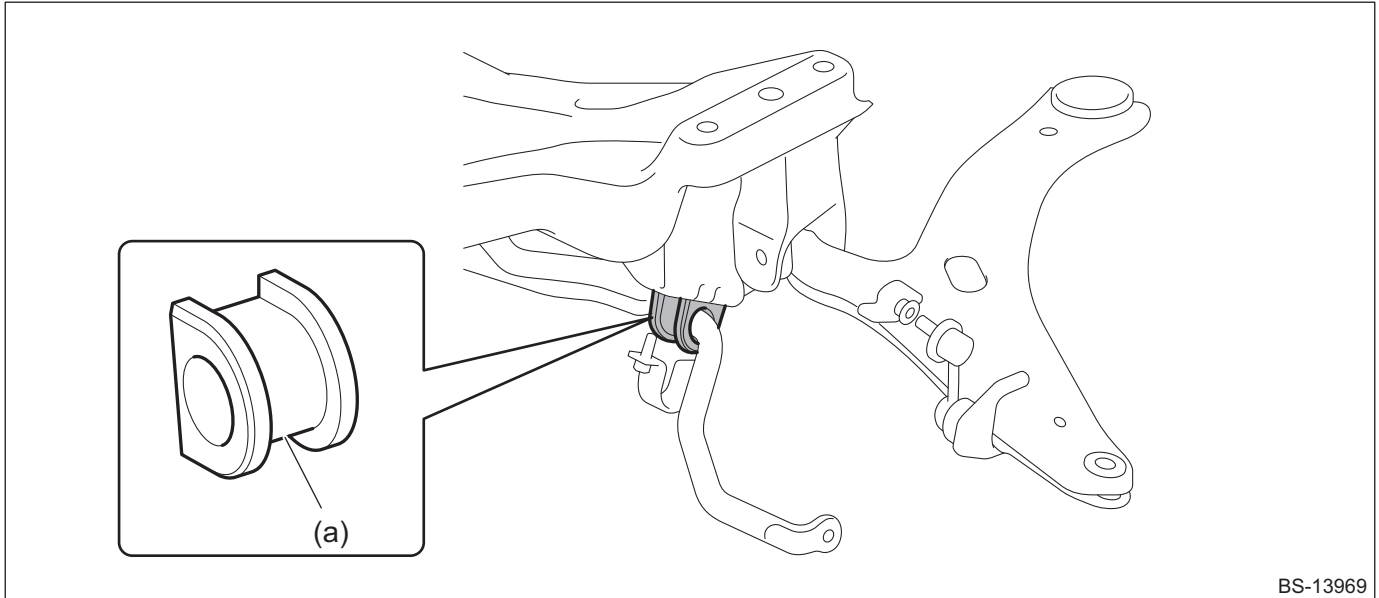
(a) Front strut assembly

(b) Front coil spring (cherry red)

Front Suspension

2. FRONT STABILIZER

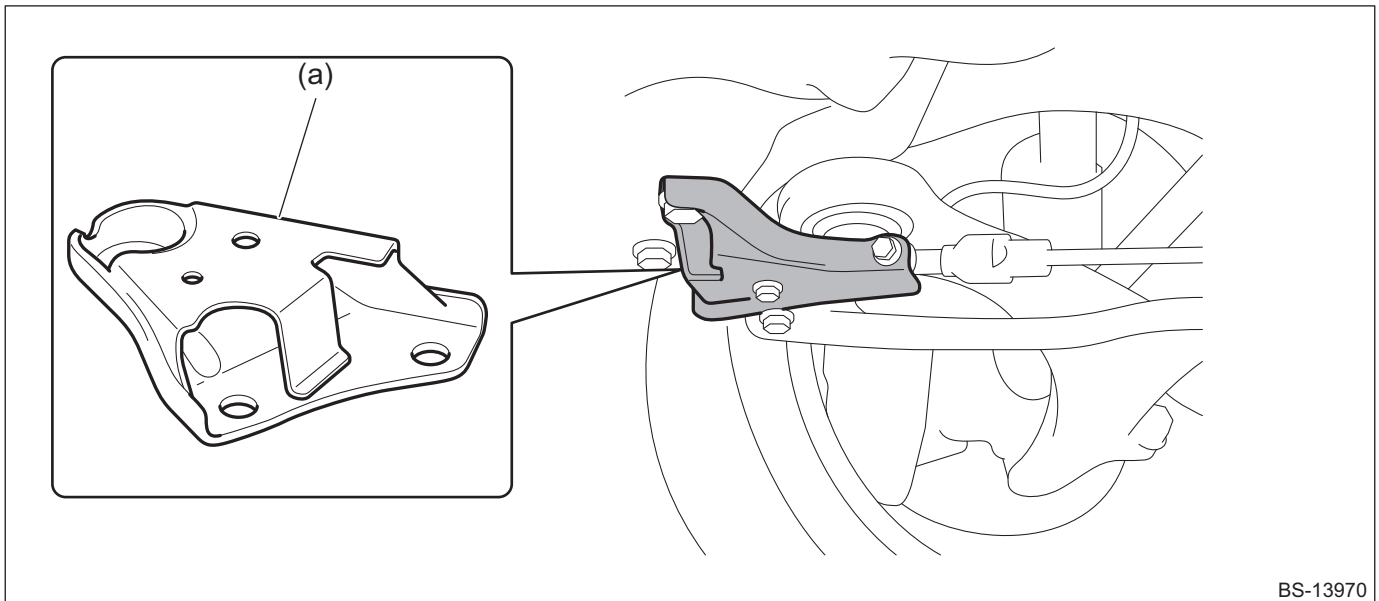
Slitless bushings are used at the mounting parts on the front stabilizer to improve the effect of the stabilizer.



(a) Stabilizer bushing

3. FRONT ARM REAR PLATE

Front arm rear plates with an increased thickness are used to improve the rigidity of the mounting parts.

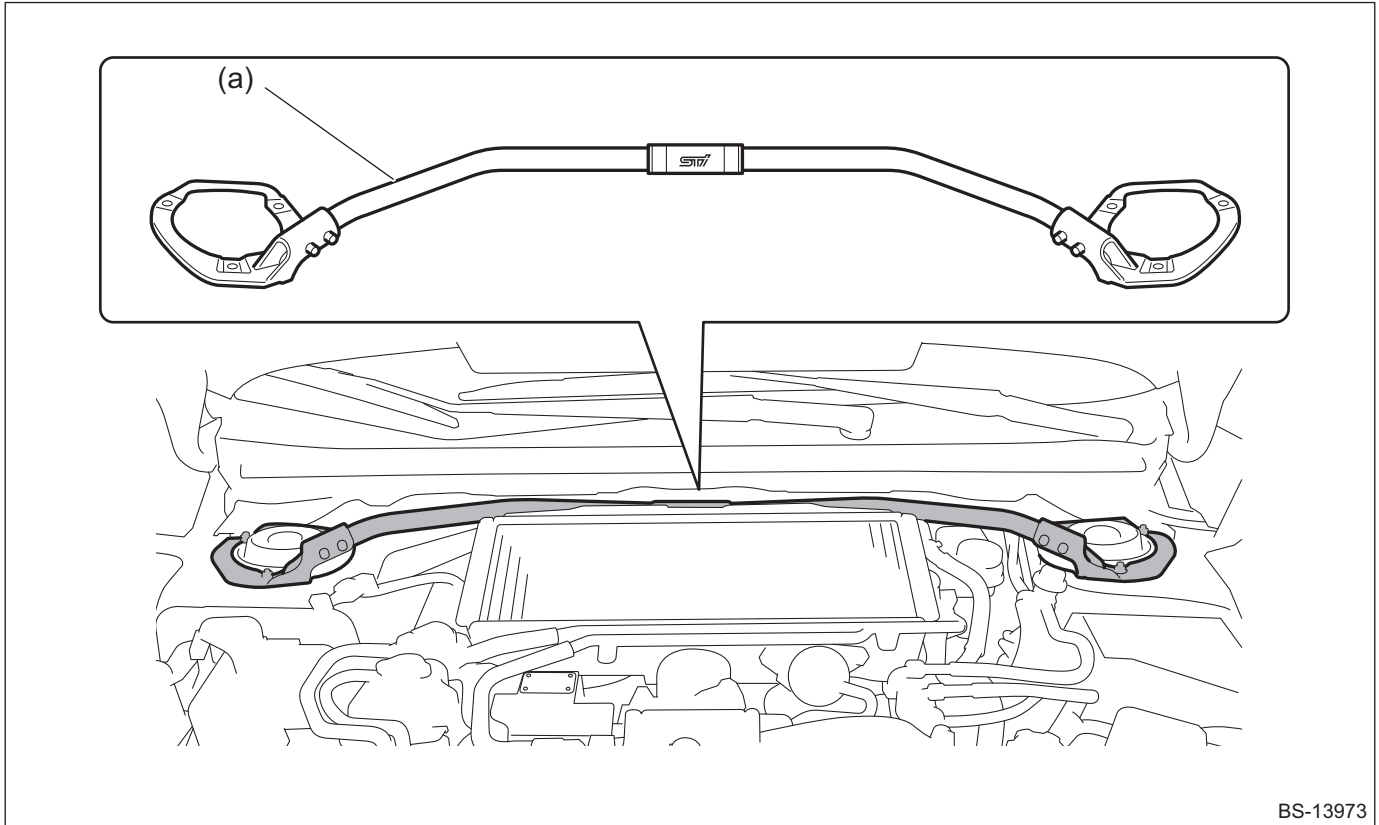


(a) Front arm rear plate

Front Suspension

4. FLEXIBLE FRONT STRUT TOWER BAR

A flexible front strut tower bar which consists of aluminum bar sections and pillow ball joints is installed. The flexibility enables to effectively use the deflection of the body to appropriately control the external pressure applied by road surface gaps, etc. This contributes to enhance the roadholding during cornering, and the handling performance in the range from the early stage of steering (regular use area) to the upper limits, while not impairing the riding comfort.



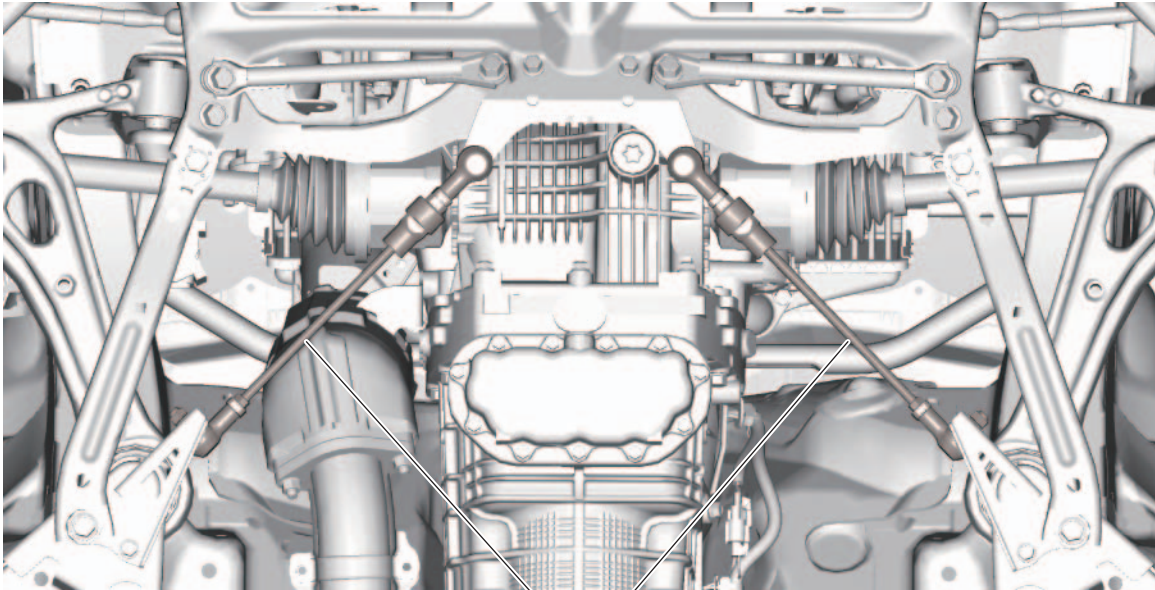
BS-13973

(a) Flexible front strut tower bar

Front Suspension

5. FLEXIBLE FRONT DRAW STIFFENERS

Flexible front draw stiffeners are installed between the vehicle body and the front crossmember. By transmitting the cornering force to the vehicle body during a turn without delay, the steering response and stability have been improved.



(a)

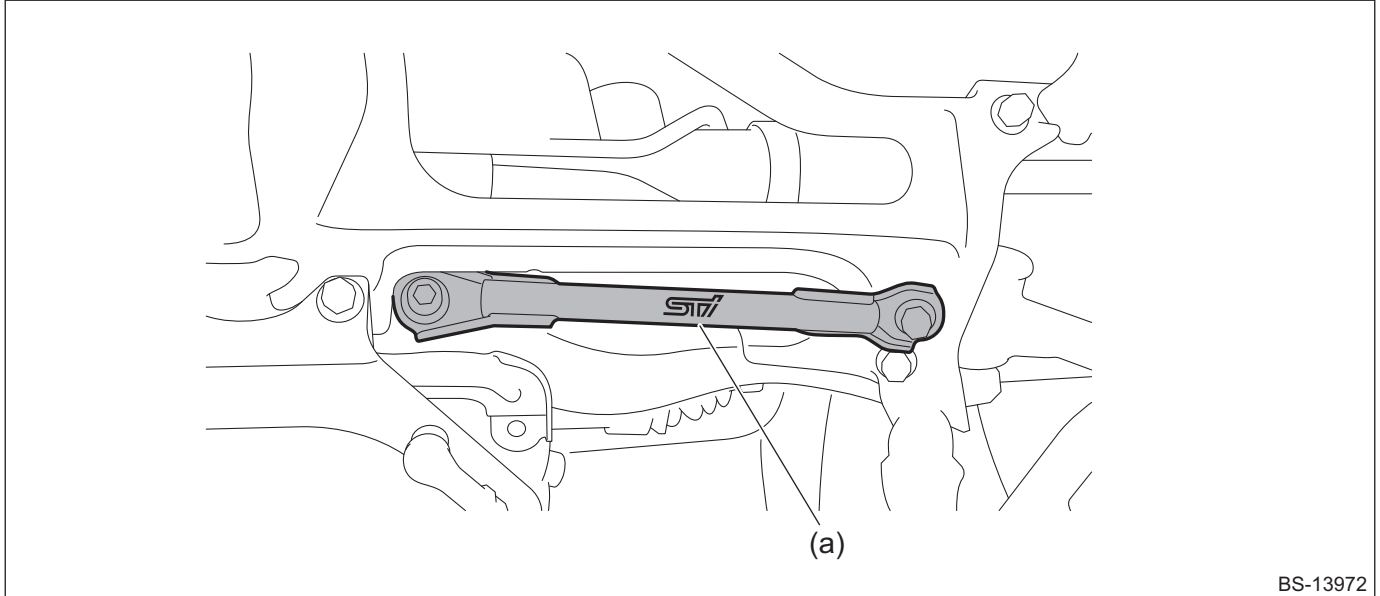
BS-13971

(a) Flexible front draw stiffeners

Front Suspension

6. SUPPORT FRONT KIT

A support front kit is installed to the front of the front crossmember to increase the rigidity.



(a) Support front kit

4-2 Rear Suspension

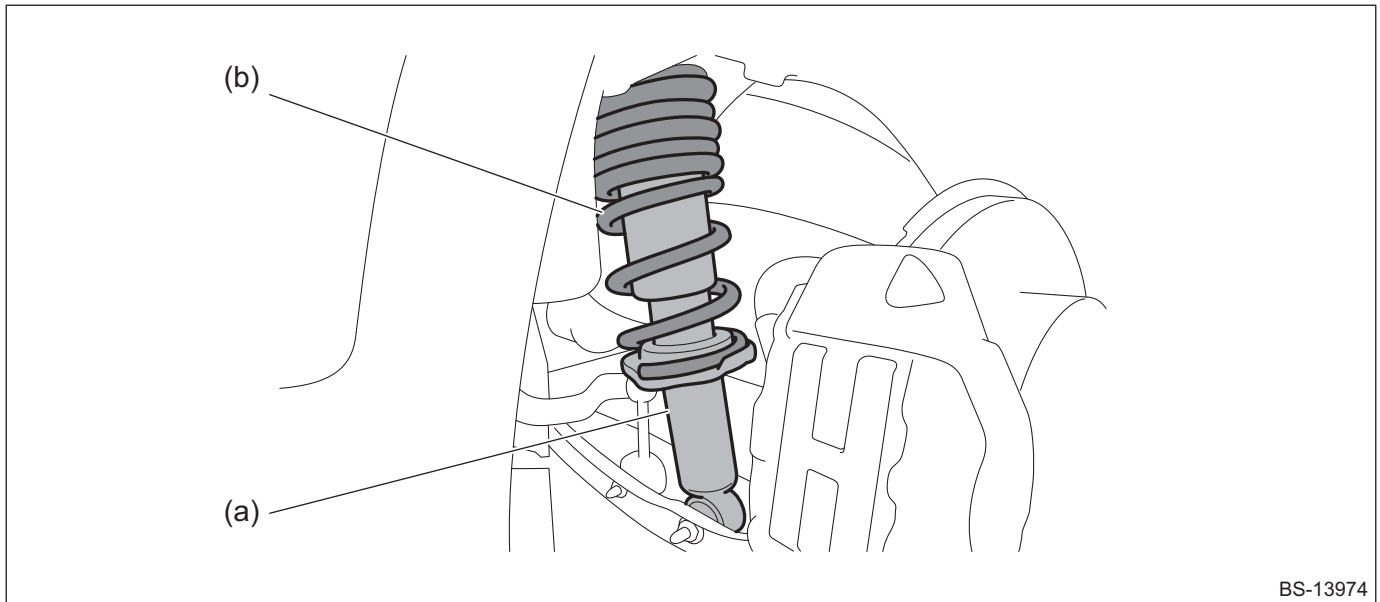
A: GENERAL DESCRIPTION

- STI-tuned Bilstein rear shock absorber assemblies are installed.
- A rear stabilizer with an increased diameter is installed.
- An exclusive rear sub frame support is installed.
- Lower stoppers are used.
- Pillow ball bushings are used for the rubber bushings on the inside of the lateral links.
- A flexible rear draw stiffener is installed.

B: DETAILS

1. REAR SHOCK ABSORBER ASSEMBLY

- STI-tuned Bilstein rear shock absorber assemblies are used to enhance the roadholding of the high performance tires and the steering stability.
- STI-tuned 0.4 in (10 mm) low down coil springs are used on the rear shock absorber assemblies. As a proof of STI-tuned parts, the assemblies are painted in cherry red.



BS-13974

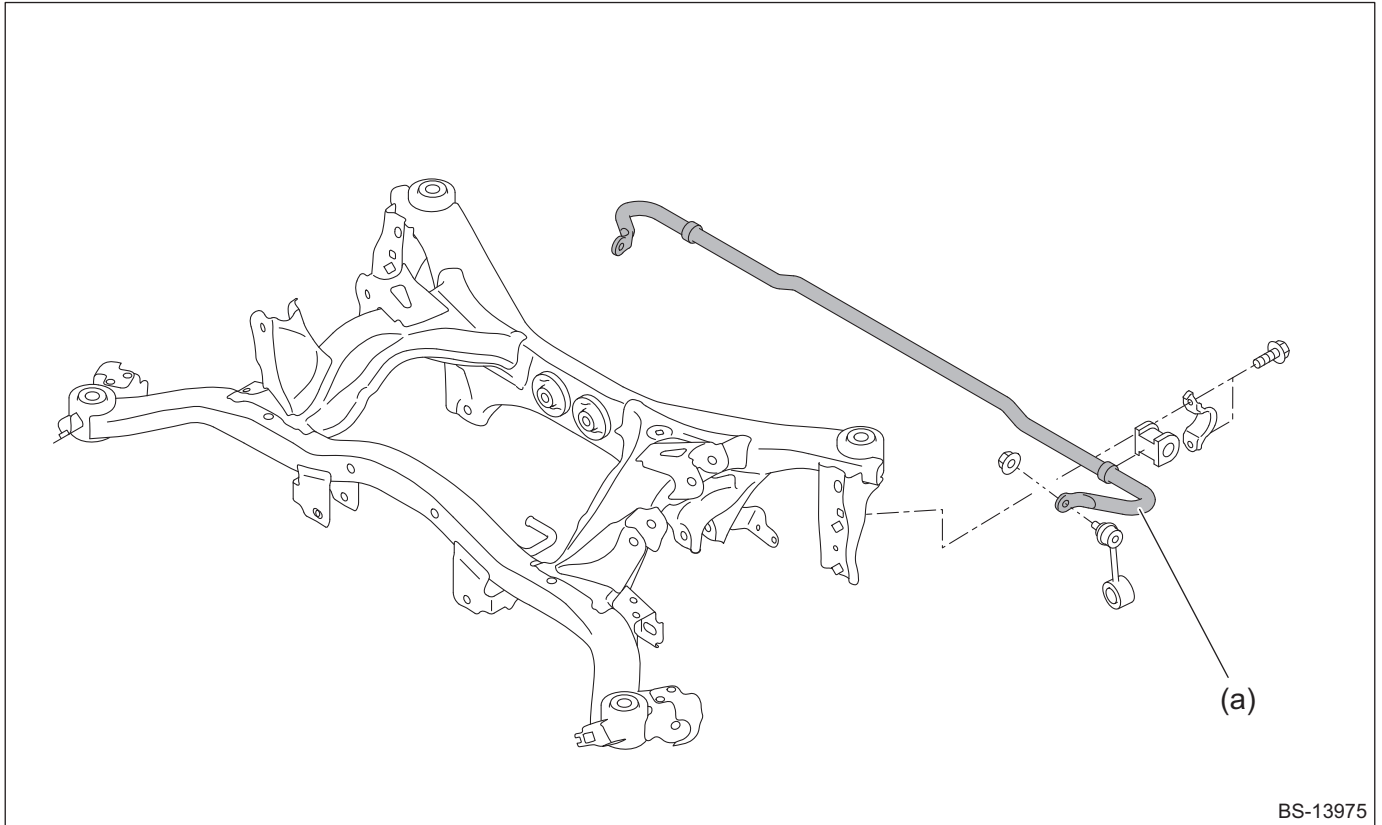
(a) Rear shock absorber assembly

(b) Rear coil spring (cherry red)

Rear Suspension

2. REAR STABILIZER

A rear stabilizer with its diameter increased from $\phi 19$ to $\phi 20$ is installed to enhance the steering stability.



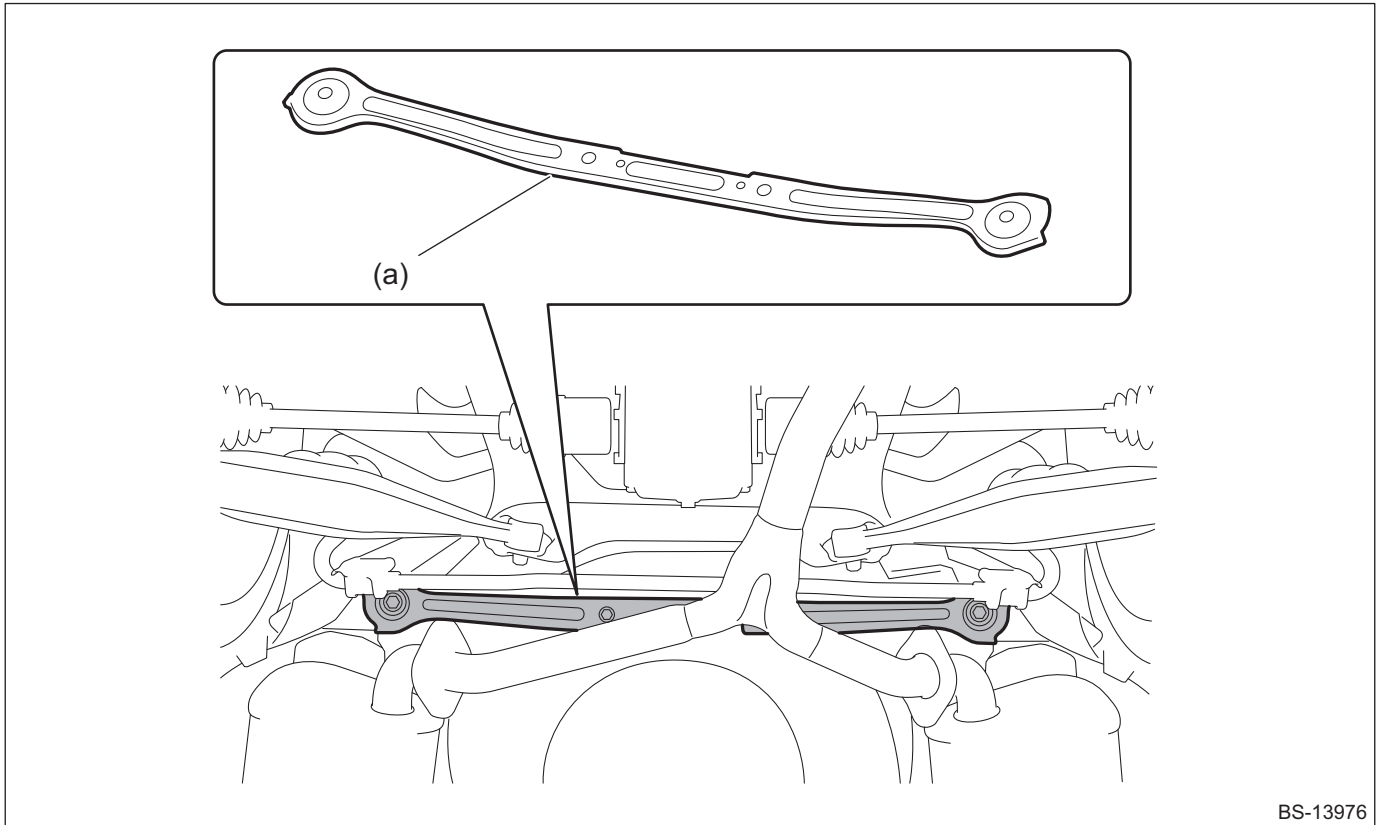
BS-13975

(a) Rear stabilizer

Rear Suspension

3. REAR SUB FRAME SUPPORT

A flexible rear sub frame support is installed to the mounting part on the rear side of the rear sub frame. The rigidity of the rear suspensions are optimized for the high performance tires to improve the steering followability and four-wheel contact with the ground.



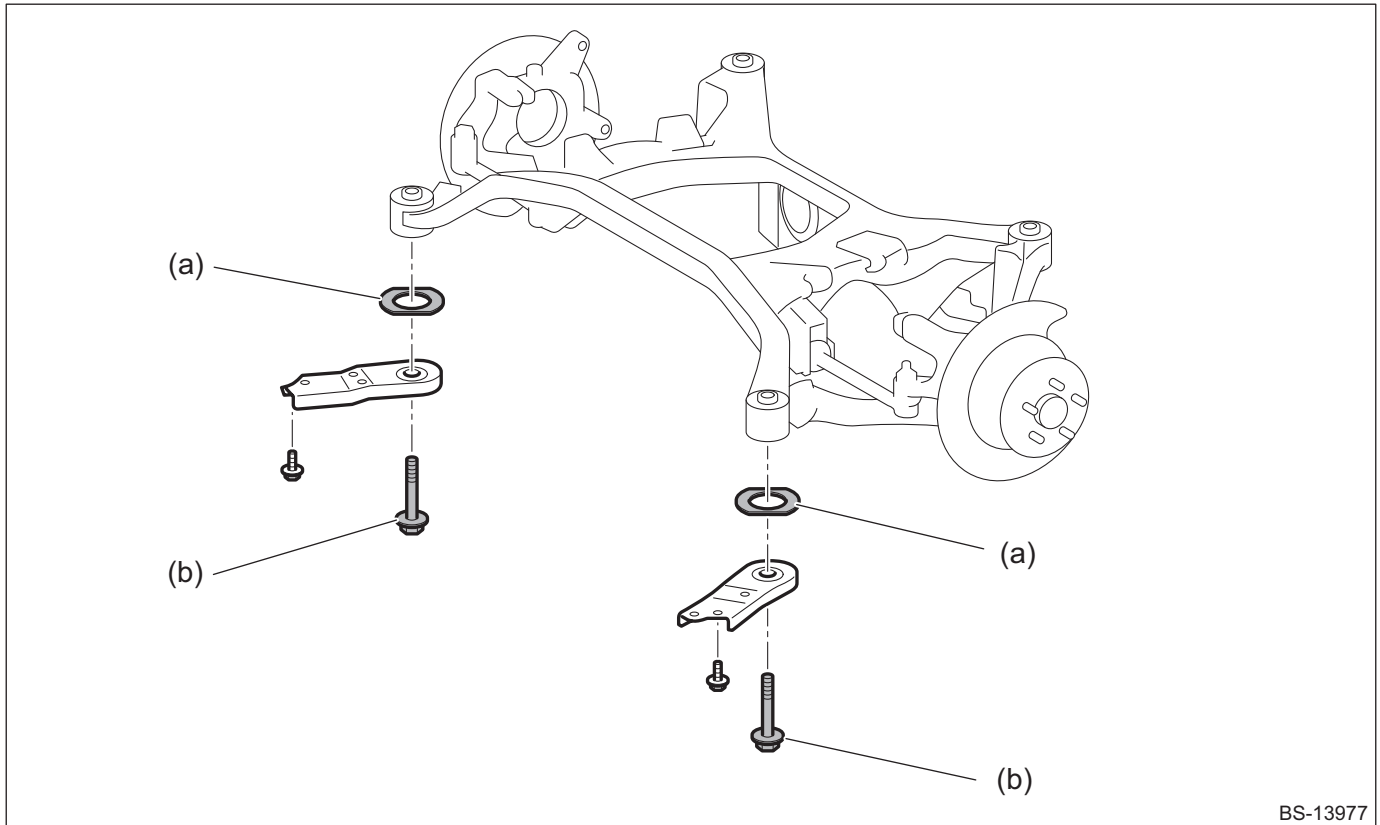
BS-13976

(a) Rear sub frame support

Rear Suspension

4. REAR SUB FRAME

- Lower stoppers are installed to the front mounting parts of the rear sub frame.
- Special mounting bolts are used to increase the rigidity of the mounting parts.



BS-13977

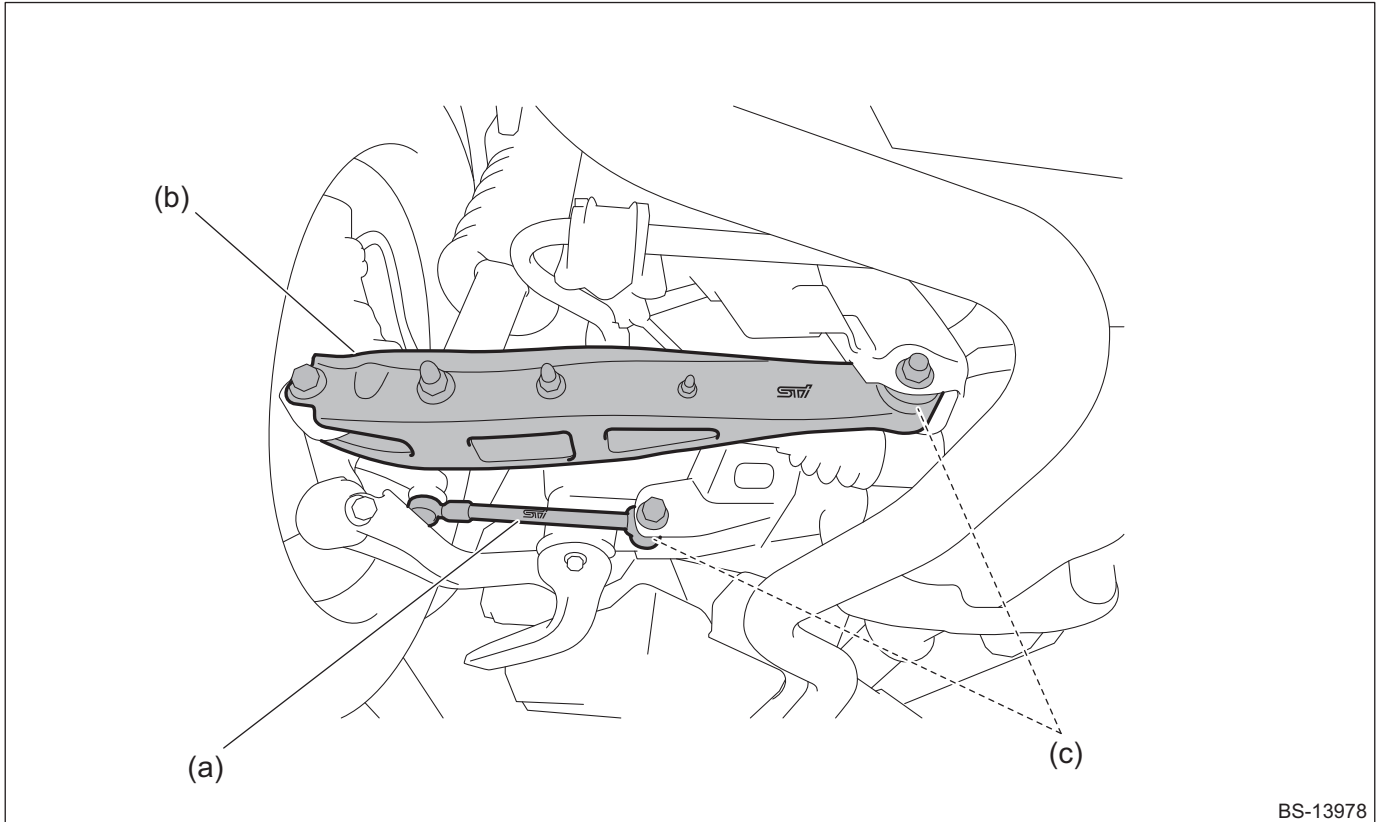
(a) Lower stoppers

(b) Mounting bolts

Rear Suspension

5. FRONT/REAR LATERAL LINK

Pillow ball bushings are used for the rubber bushings on the front lateral link and the inside of the rear lateral link to achieve linear suspension characteristics.



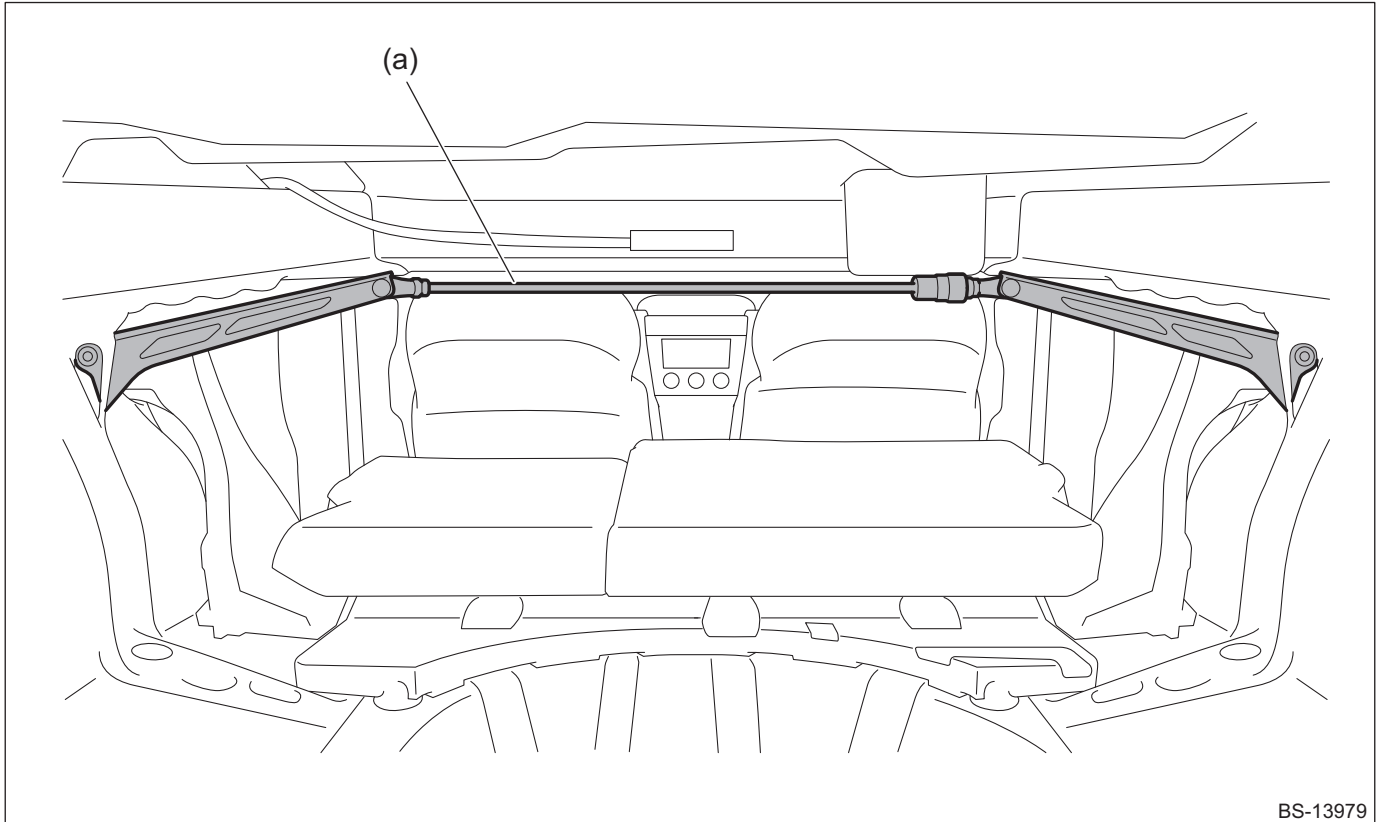
- (a) Front lateral link
- (b) Rear lateral link

- (c) Pillow ball bushings

Rear Suspension

6. FLEXIBLE REAR DRAW STIFFENER

A flexible rear draw stiffener is installed to the rear of the vehicle body. By transmitting the cornering force to the vehicle body during a turn without delay, the steering followability and stability have been improved.



(a) Flexible rear draw stiffener

4-3 Wheel & Tire System

A: GENERAL DESCRIPTION

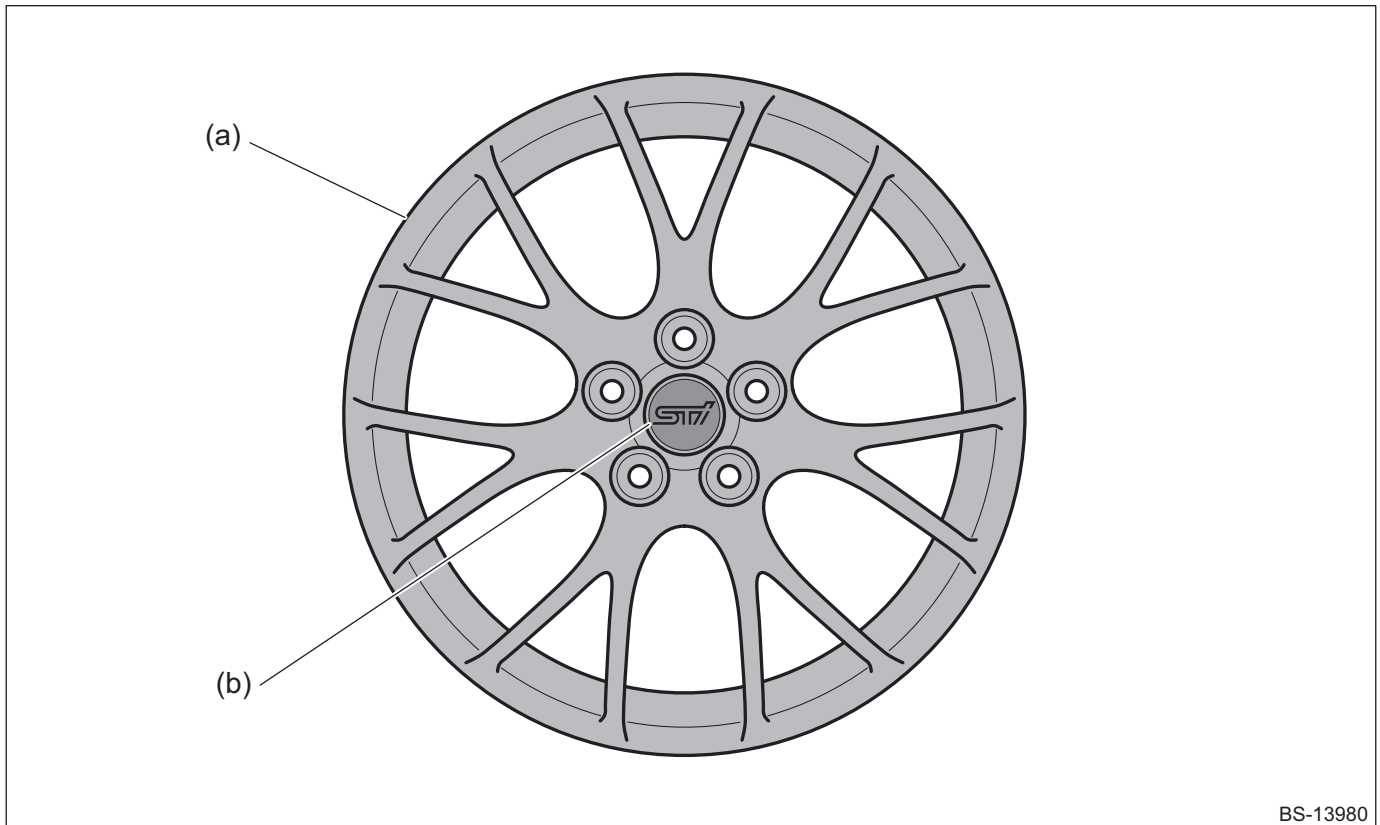
- STI-designed size high-performance tires are installed.
- STI-designed aluminum wheels are installed.
- A flat tire repair kit is provided in place of the temporary tire.

B: DETAILS

1. WHEEL & TIRE

- 265/35R19 high performance tires (Dunlop SP SPORT MAXX GT600A) are installed for high motion performance and steering stability.
- BBS forged 19-inch aluminum wheels are used for reducing weight.
- Two wheel colors are available. Matt gray wheels for WR Blue Pearl bodies, or matt gold wheels for Crystal White Pearl bodies.
- Wheel center caps bear the STI logo.

Tire size	Tire brand	Wheel size	Inset in (mm)	P.C.D. in (mm)	Tire pressure psi (kPa, kgf/cm ²)	
					Front wheels	Rear wheels
265/35R19 94Y	Dunlop SP SPORT MAXX GT600A	19 × 9J	1.89 (48)	4.5 (114.3)	33 (230, 2.3)	32 (220, 2.2)



BS-13980

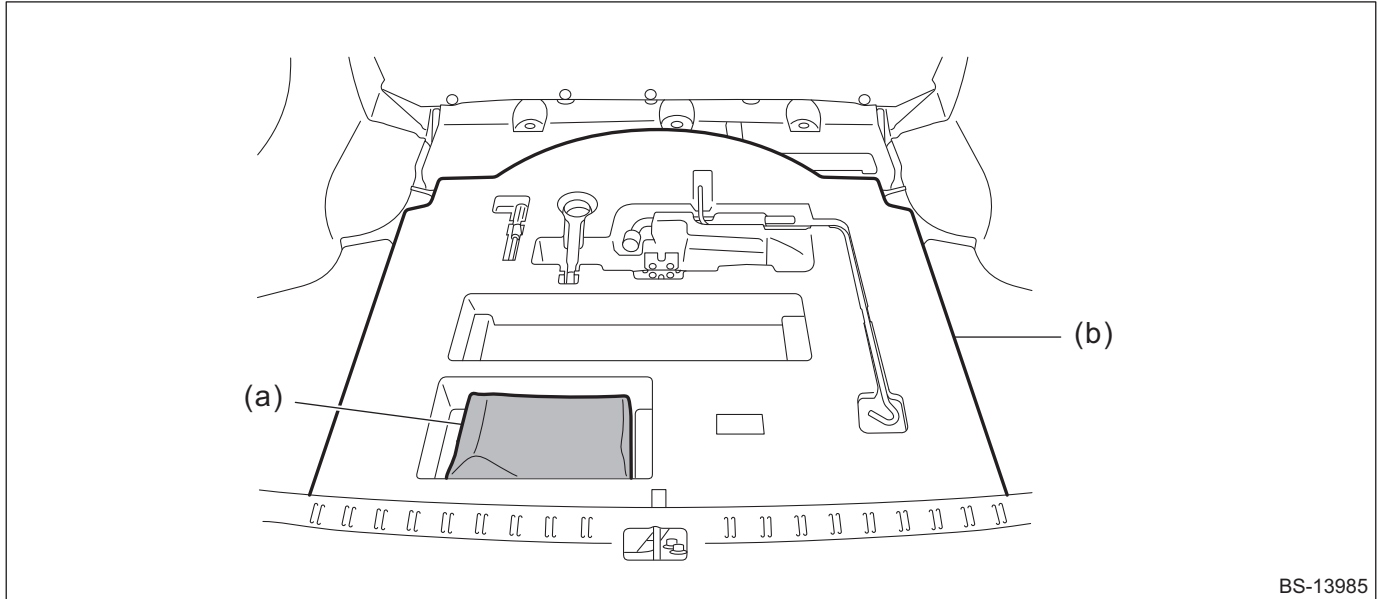
(a) BBS forged 19-inch aluminum wheels

(b) Wheel center cap (with STI logo)

Wheel & Tire System

2. FLAT TIRE REPAIR KIT

- To reduce the weight of the vehicle, the temporary tire is removed and a flat tire repair kit is provided instead.
- In relation with the introduction of the intercooler water spray system, the shape of the multi-box in the trunk room has been changed.



BS-13985

(a) Flat tire repair kit

(b) Multi-box

4-4 Power Assist System (Power Steering)

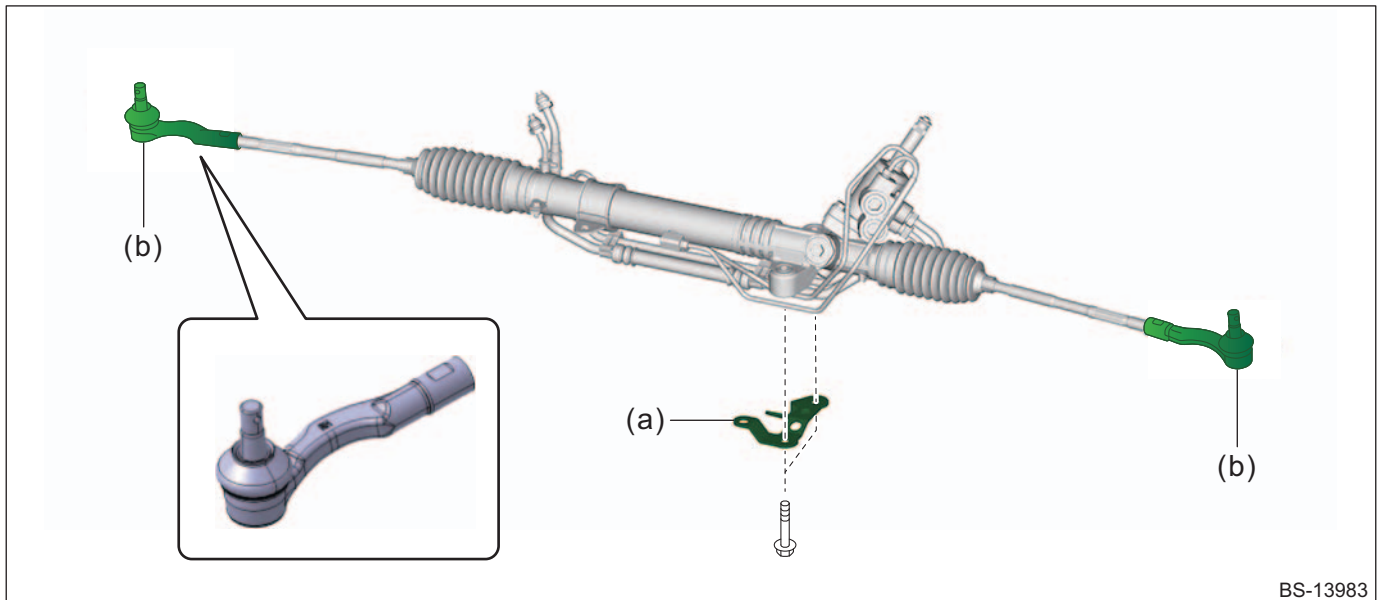
A: GENERAL DESCRIPTION

- The thickness of the stiffener on the steering gear box has been increased.
- The rack stroke is specially tuned.

B: DETAILS

1. POWER STEERING GEAR BOX

- The thickness of the stiffener on the steering gear box has been increased to improve the steering response.
- The rack stroke is specially tuned for 265/35R19 tires.



(a) Stiffener

(b) Tie rod ends

4-5 Vehicle Dynamics Control (VDC)

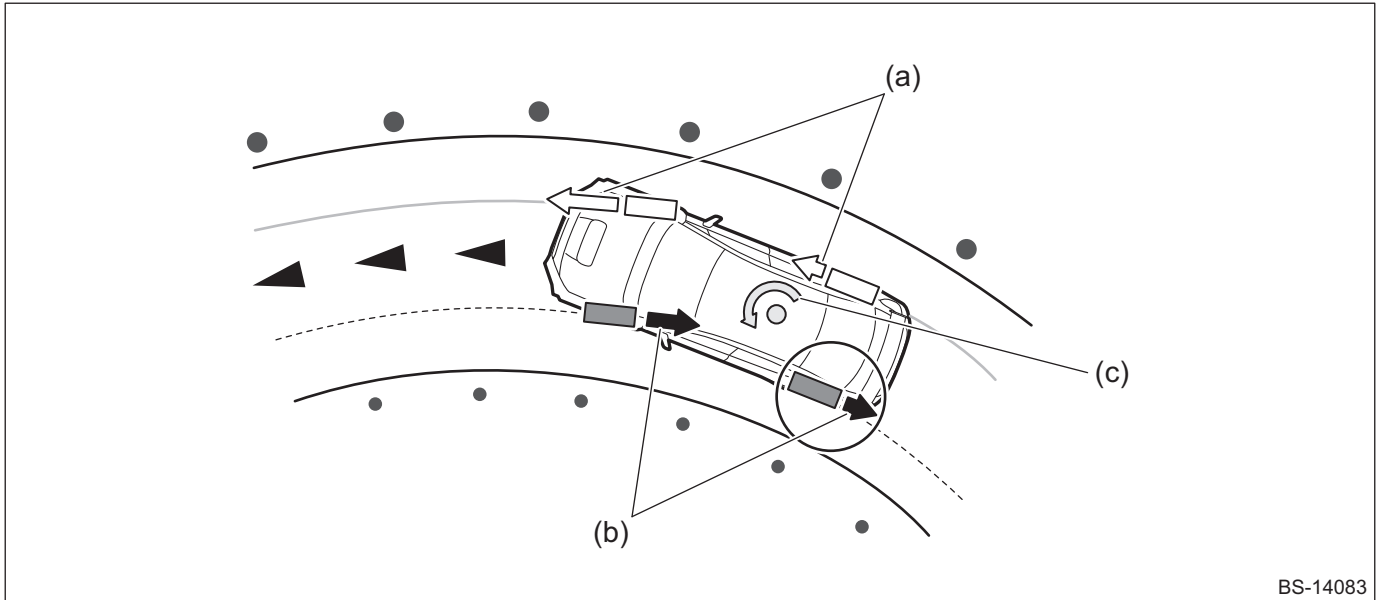
A: GENERAL DESCRIPTION

An exclusive VDC control unit is installed.

B: DETAILS

1. VDC CONTROL UNIT

A multi-mode VDC (Vehicle Dynamics Control) has been introduced to improve the controllability. Regarding the active torque vectoring in traction mode, a special setting (front and rear two-wheel control) is made to apply the brake of the front inner wheel during cornering, to further improve the turning performance.



- (a) Driving force
- (b) Braking force

- (c) Yaw moment

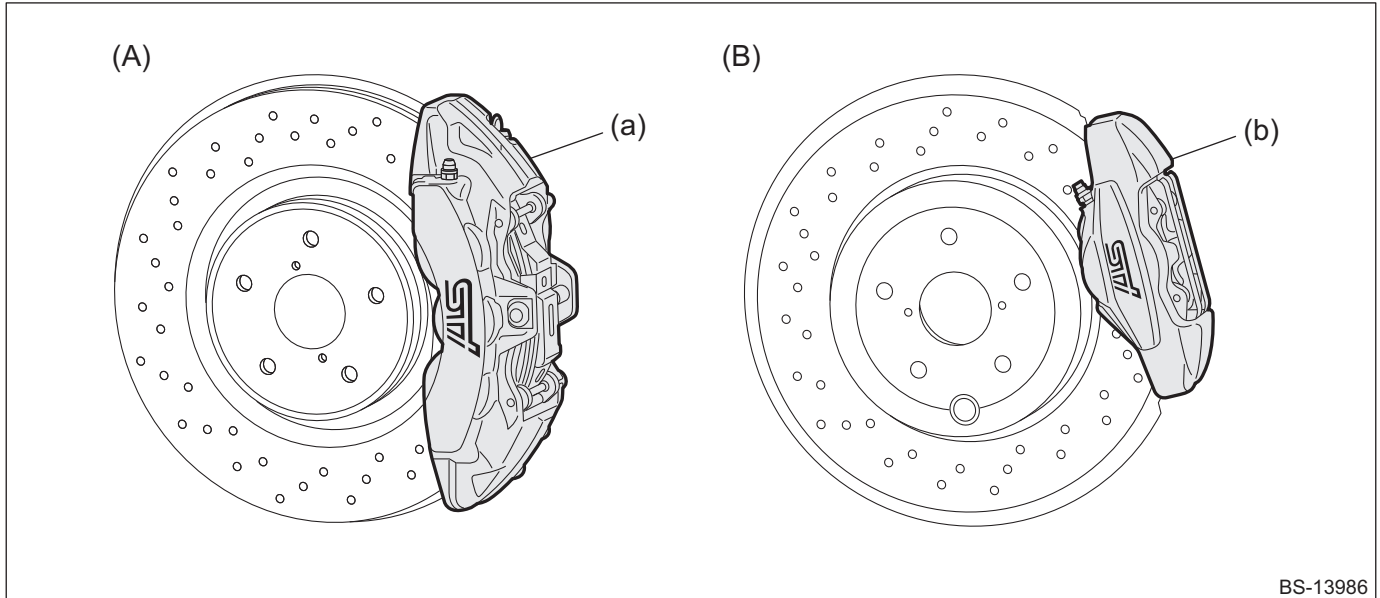
4-6 Brake

A: GENERAL DESCRIPTION

- Silver-painted brake calipers are installed.
- High performance brake pads are used.

B: DETAILS

- To strongly emphasize the presence of the Brembo brake calipers, the calipers are painted in silver.
- High-performance brake pads are used for the front and rear brakes to improve the braking performance under various driving conditions from urban areas to winding roads.



(A) Front brake

(B) Rear brake

(a) Brembo monoblock opposing 6 POT brake caliper (silver)

(b) Brembo monoblock opposing 2 POT brake caliper (silver)

Brake

5.BODY

	Page
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B DETAILS.....	2
5-2 Exterior.....	3
A GENERAL DESCRIPTION	3
B DETAILS.....	4
5-3 Interior.....	13
A GENERAL DESCRIPTION	13
B DETAILS.....	13

5-1 Body Structure

A: GENERAL DESCRIPTION

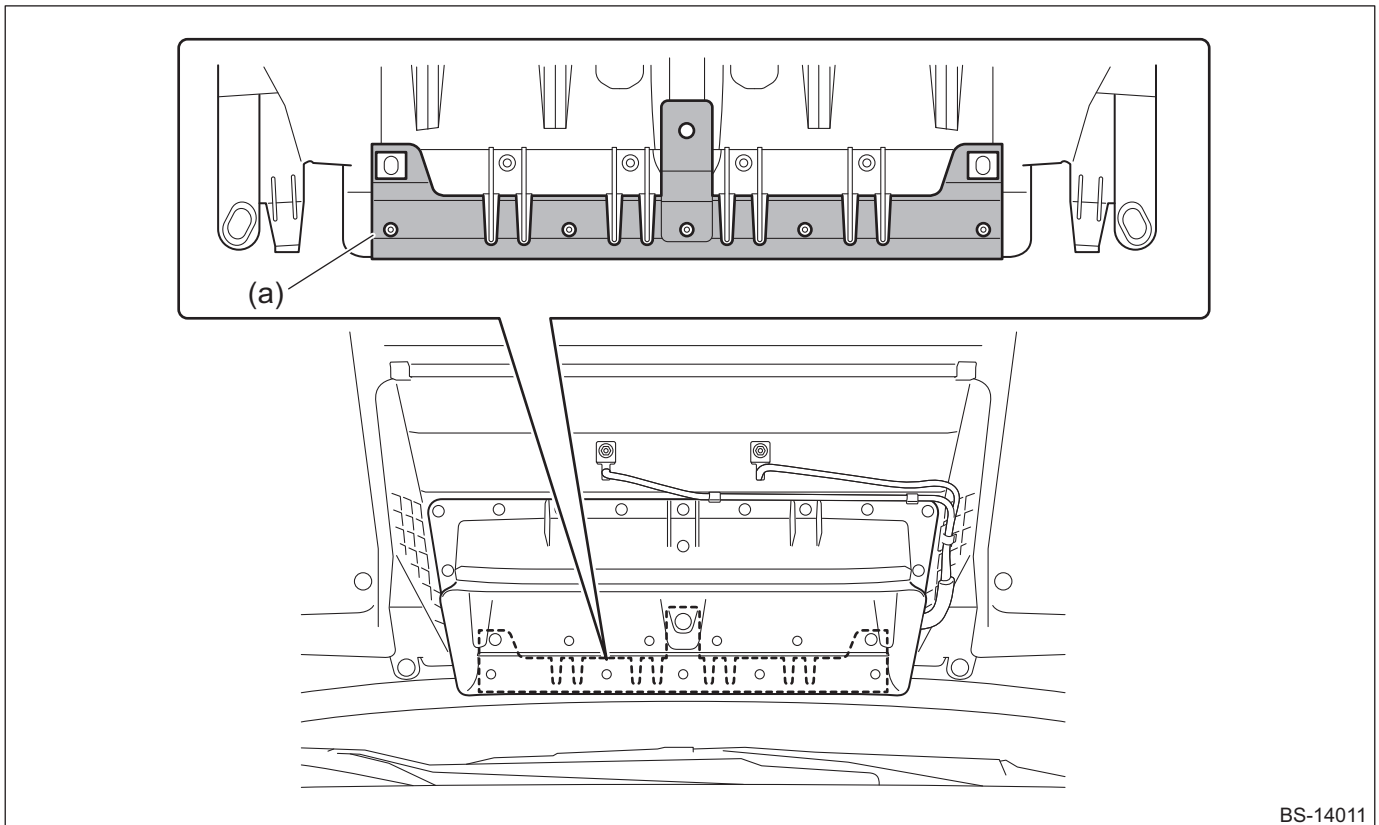
A performance shroud is installed.

B: DETAILS

1. FRONT HOOD

1. 1 Performance shroud

The rigidity of the shroud that guides the air taken from the duct on the front hood to the core surface of the intercooler has been enhanced. Even when a large amount of air flows in at high speeds, the shroud is not deformed and air is prevented from leaking out. The core surface is positively exposed to air to maximize the cooling efficiency of the intercooler.



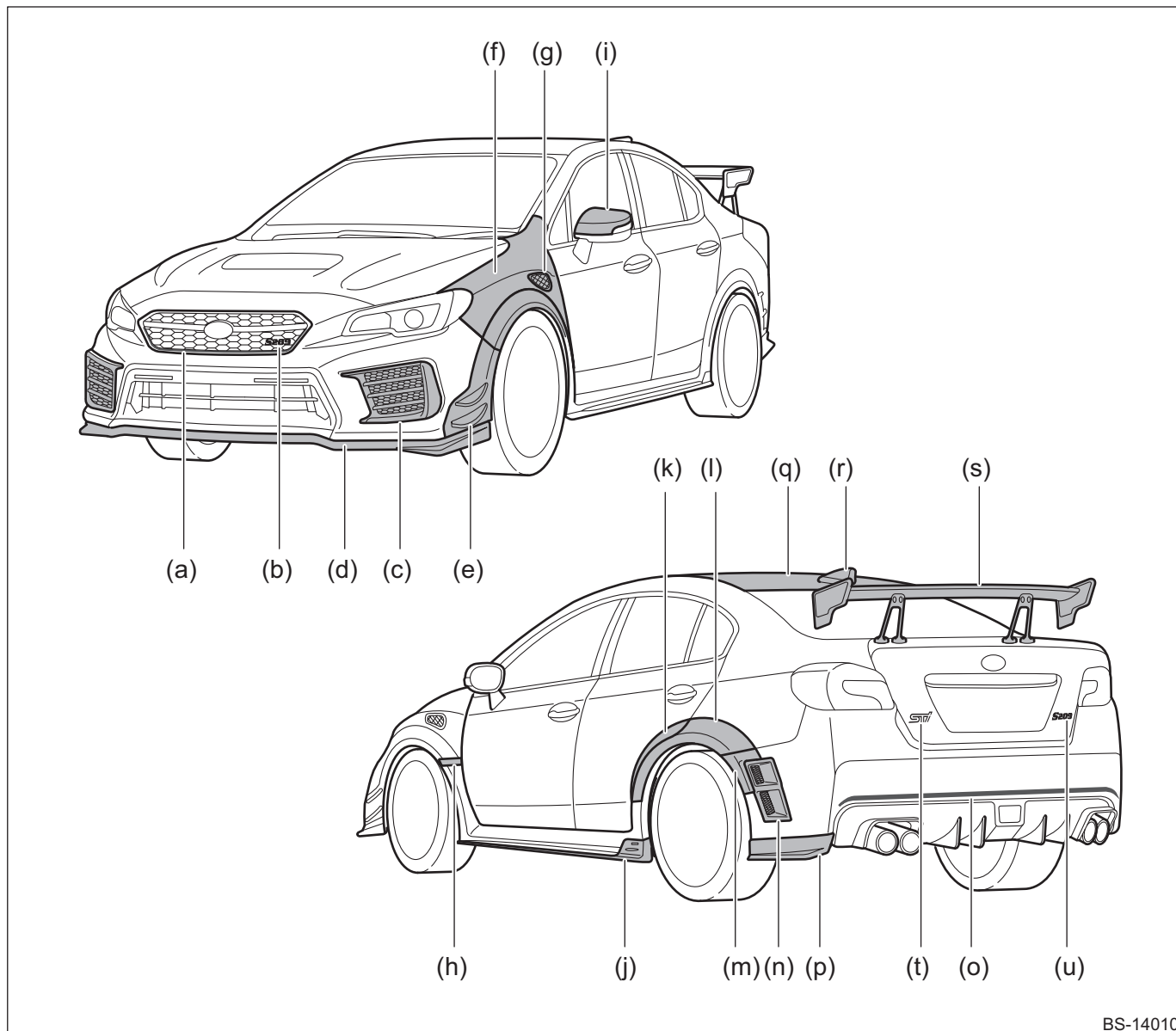
BS-14011

(a) Performance shroud

5-2 Exterior

A: GENERAL DESCRIPTION

Along with the introduction of high performance wide tires, the body has been made wide and the aerodynamic characteristics have been formed into a simple and sophisticated exclusive exterior.



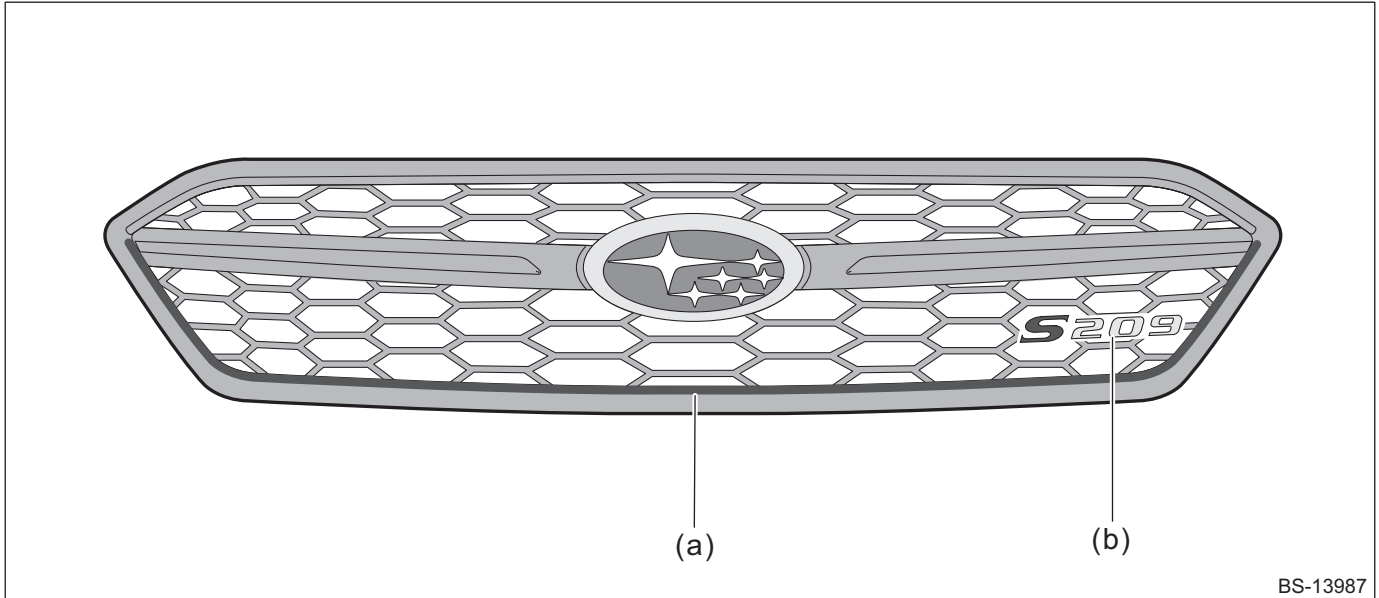
BS-14010

- | | |
|------------------------------------------------------|--------------------------------------------------|
| (a) Stripe (cherry-red) | (k) Rear door garnish |
| (b) S209 ornament (chrome plated) | (l) Rear quarter garnish |
| (c) Front bumper side bezel | (m) Rear bumper extension |
| (d) Front under spoiler | (n) Air outlet duct |
| (e) Front bumper extension | (o) Stripe (cherry-red) |
| (f) Front fender | (p) Rear side under spoiler |
| (g) Front fender air outlet | (q) Dry carbon roof (Crystal Black Silica) |
| (h) Molding with S209 logo | (r) Roof antenna assembly (Crystal Black Silica) |
| (i) Outer mirror cover cap
(Crystal Black Silica) | (s) Large-sized rear spoiler with S209 logo |
| (j) Side under spoiler | (t) STI ornament |
| | (u) S209 ornament |

B: DETAILS

1. FRONT GRILLE

- A cherry-red stripes has been added.
- A chrome plated S209 ornament has been added.



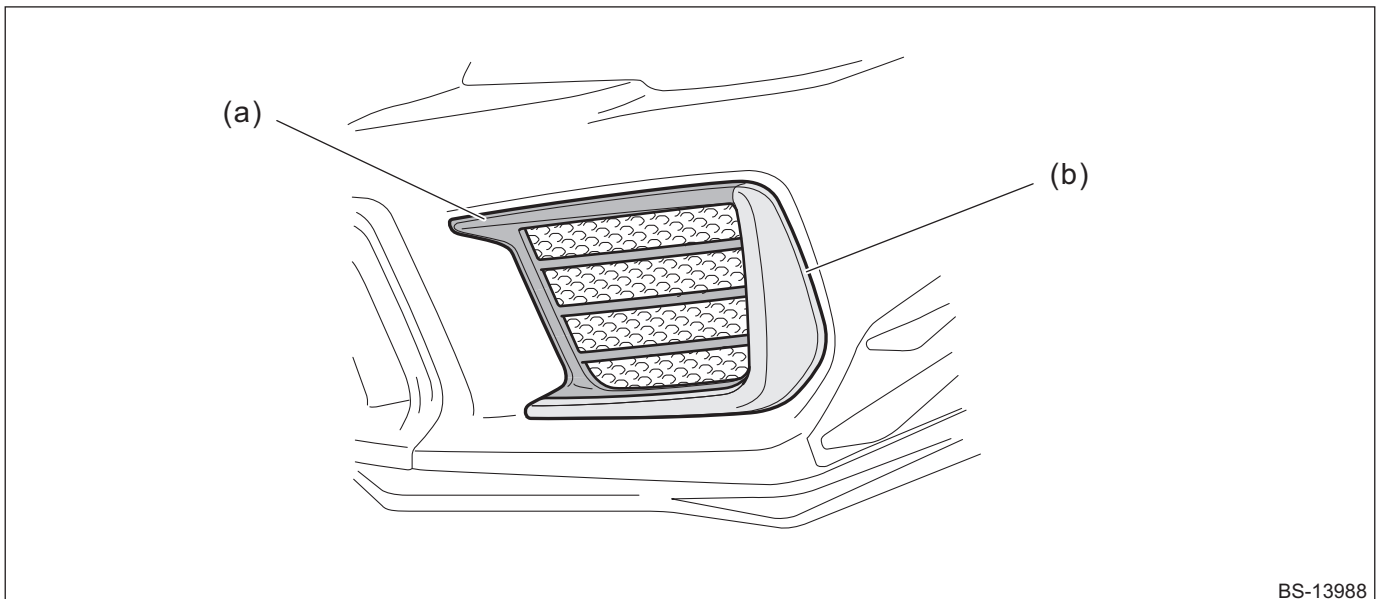
BS-13987

(a) Stripe (cherry-red)

(b) S209 ornament (chrome plated)

2. FRONT BUMPER SIDE BEZEL

A front bumper side bezel, which consists of a windscreen duct, wire mesh, and a chrome molding, has been introduced to enhance the sporty and high-quality impression.



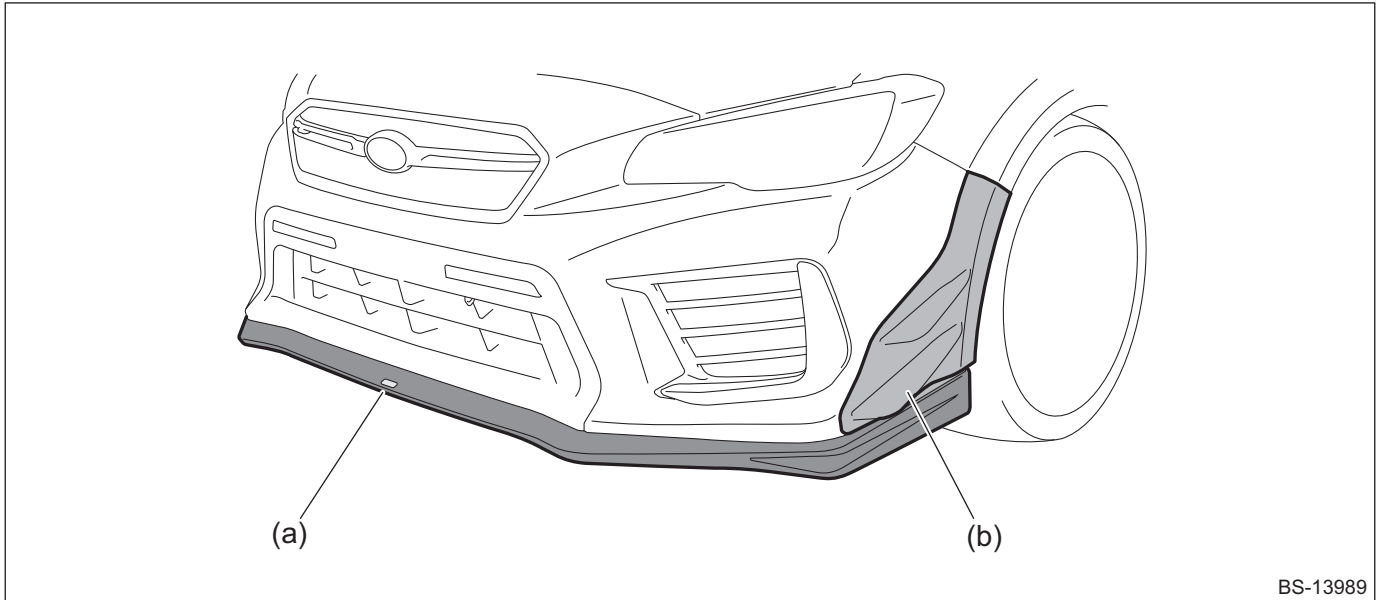
BS-13988

(a) Front bumper side bezel

(b) Chrome molding

3. FRONT BUMPER

- A front under spoiler is been installed. The spoiler adjusts the flow of air received at the front when driving at high speeds, and improves the roadholding of the front tires by suppressing the lift.
- Bumper side canards are added to both sides of the front bumper. While adjusting the flow of air received at the front when traveling, the canards rectify the air turbulence generated by the rotation of the front wheels, and improve the roadholding of the front tires by suppressing the lift, thus improving the driving stability.



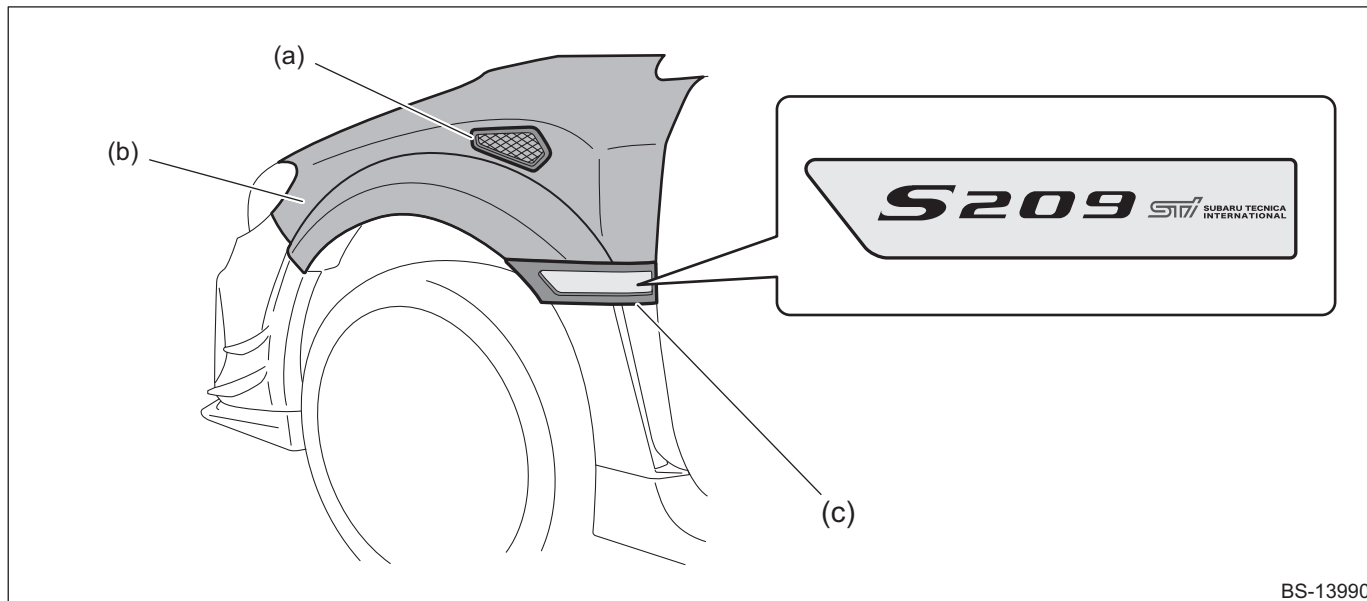
BS-13989

(a) Front under spoiler

(b) Front bumper extension

4. FRONT FENDER

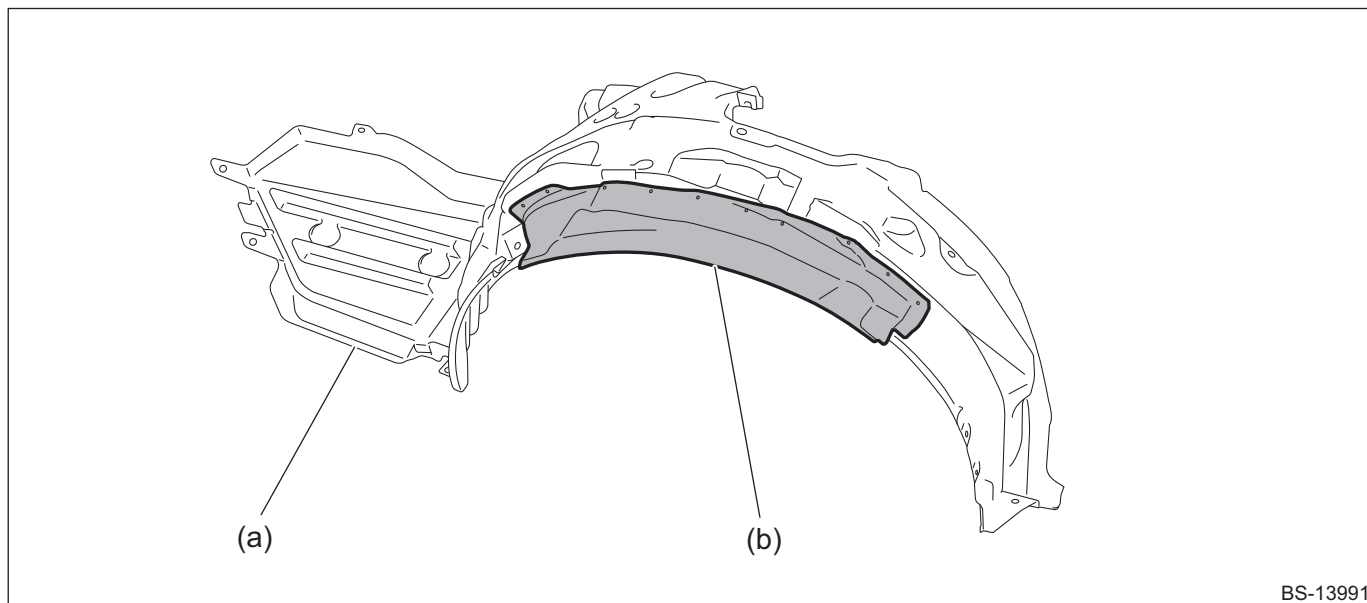
- Front fender air outlets are added. By efficiently discharging the heat in the engine compartment, they contribute to stable engine performance.
- Exclusive front fenders are designed to accommodate the change in the tire size.
- Moldings with S209 logo are installed to the front fenders.



- (a) Front fender air outlet
(b) Front fender

- (c) Molding with S209 logo

In order to accommodate the wide front fenders, exclusive front mudguards with an extension are installed.

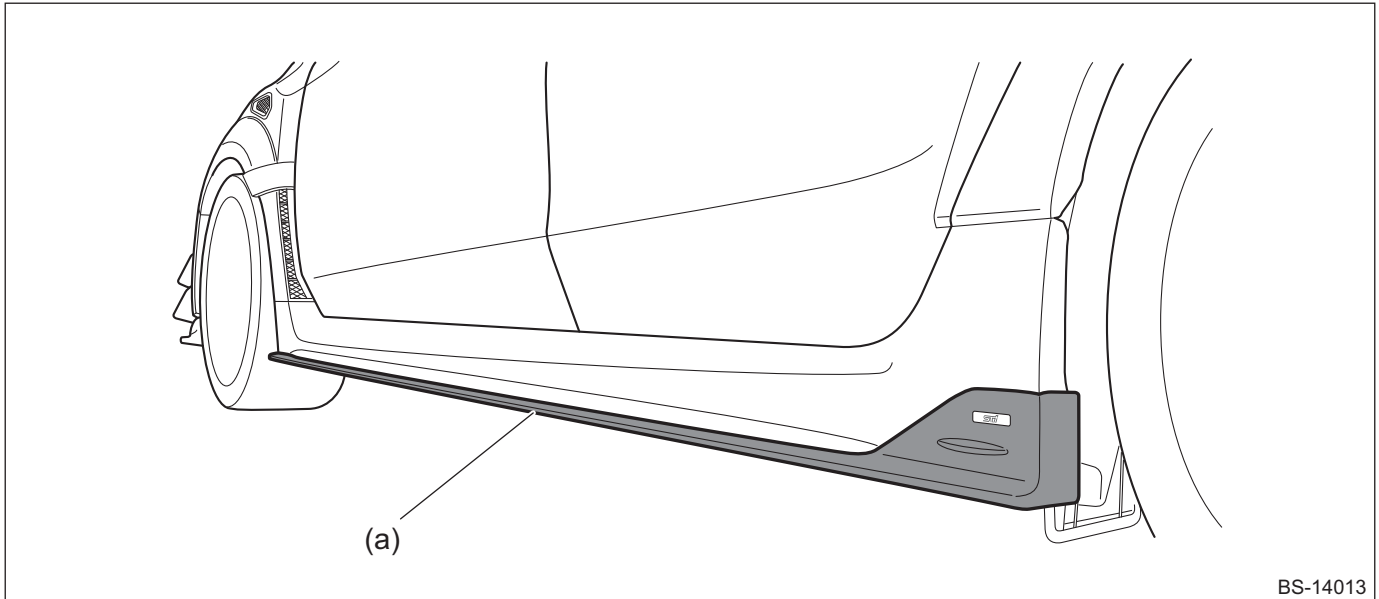


- (a) Front mudguard

- (b) Extension

5. SIDE SPOILER

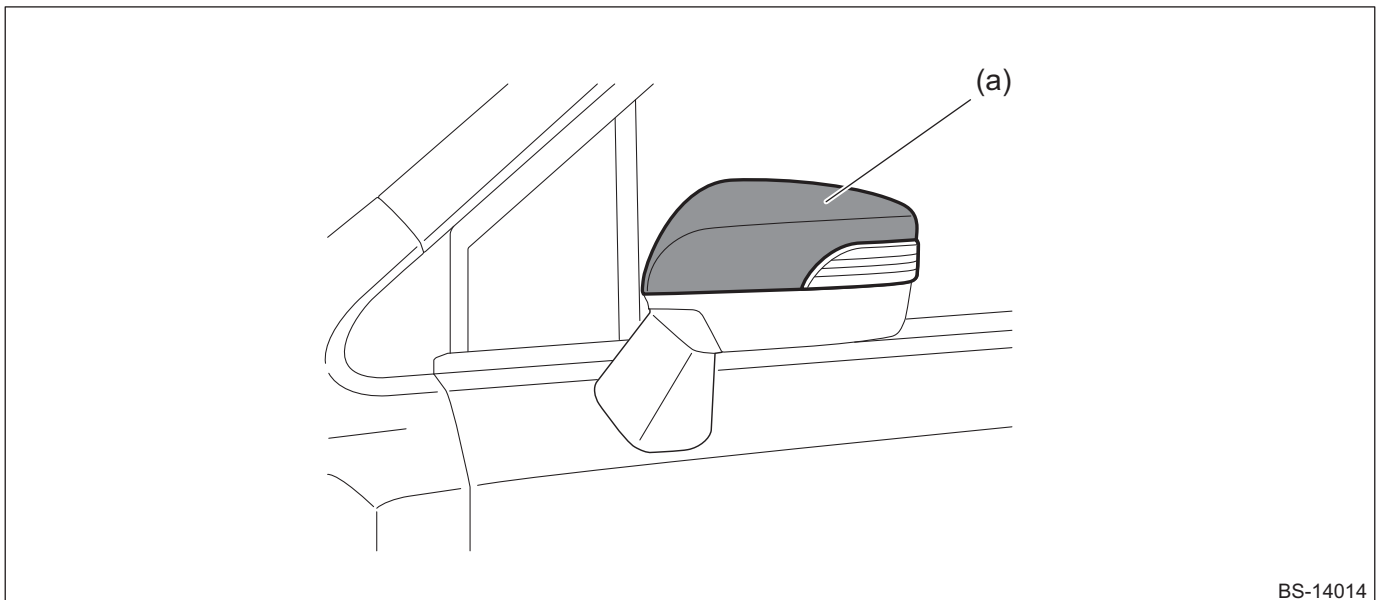
Side under spoilers are installed. They rectify the air flowing from the front to the body sides to improve the driving stability.



(a) Side under spoiler

6. OUTER MIRROR ASSEMBLY

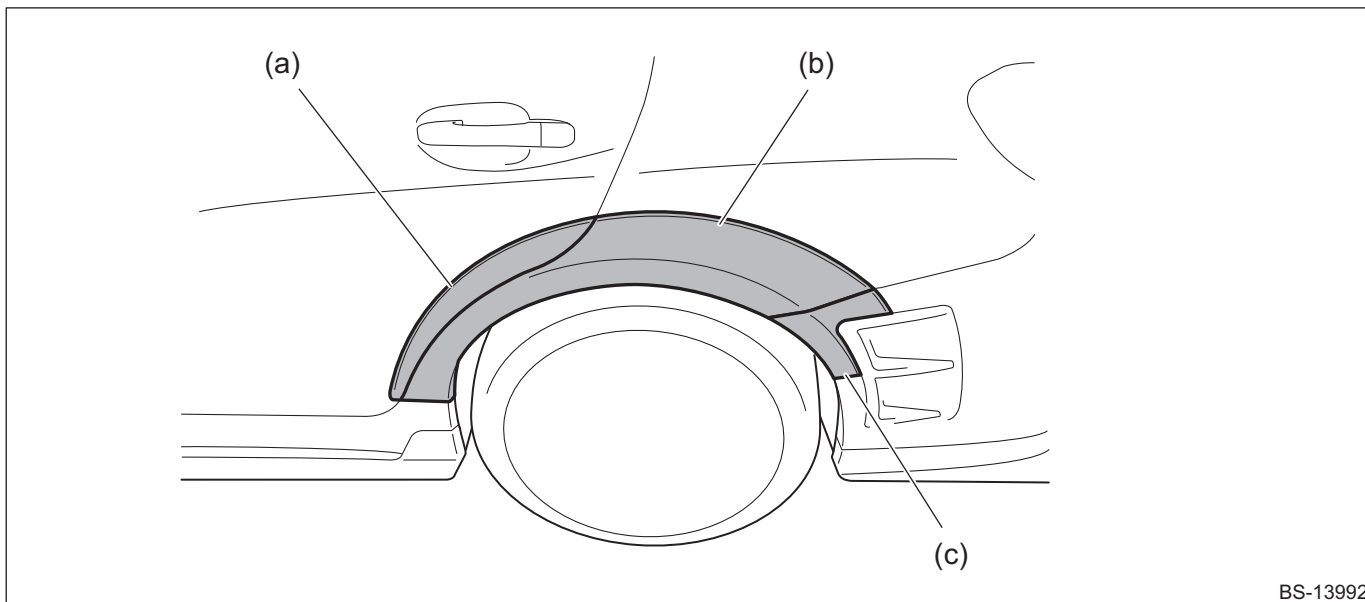
The outer mirrors are coated in Crystal Black Silica color to represent a better conformity with the entire interior.



(a) Outer mirror cover cap
(Crystal Black Silica)

7. REAR FENDER

- A rear door garnish is added to the rear door fenders.
- A rear quarter garnish is added to the rear fender sections.
- A rear bumper extension is added to the rear bumper fender sections.

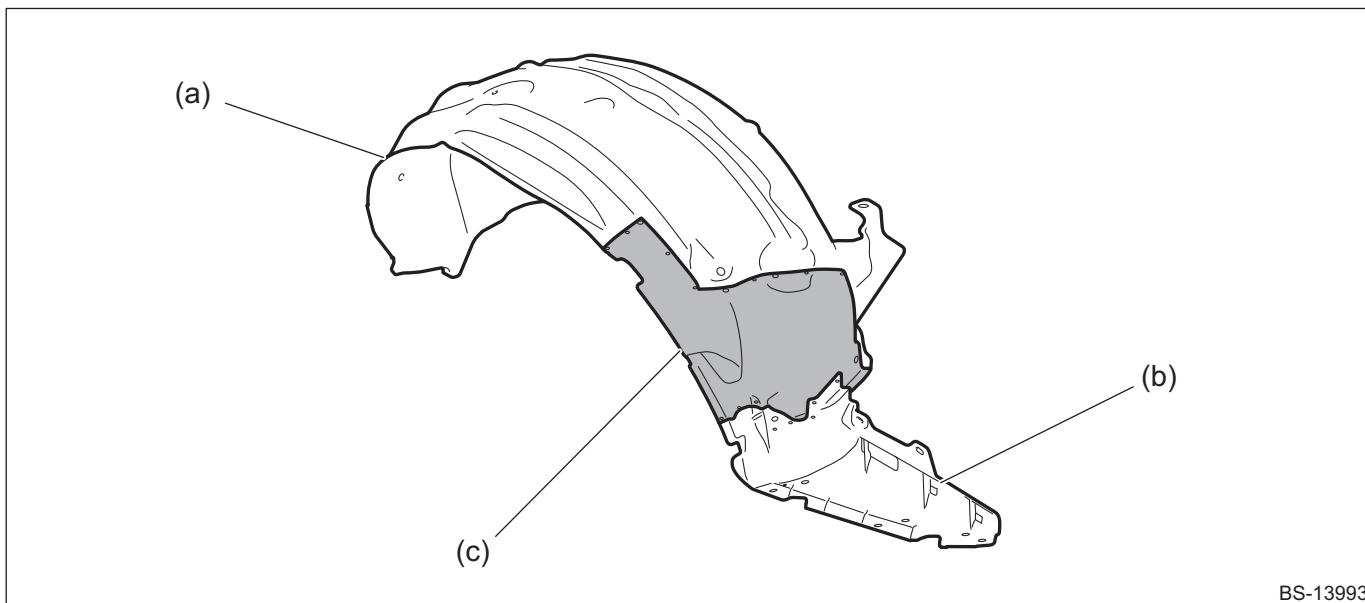


BS-13992

- (a) Rear door garnish
(b) Rear quarter garnish

- (c) Rear bumper extension

In order to accommodate the wide rear fenders, the rear mudguards and rear bumper side covers were modified to add a reinforcement part between them and form exclusive rear mudguards.



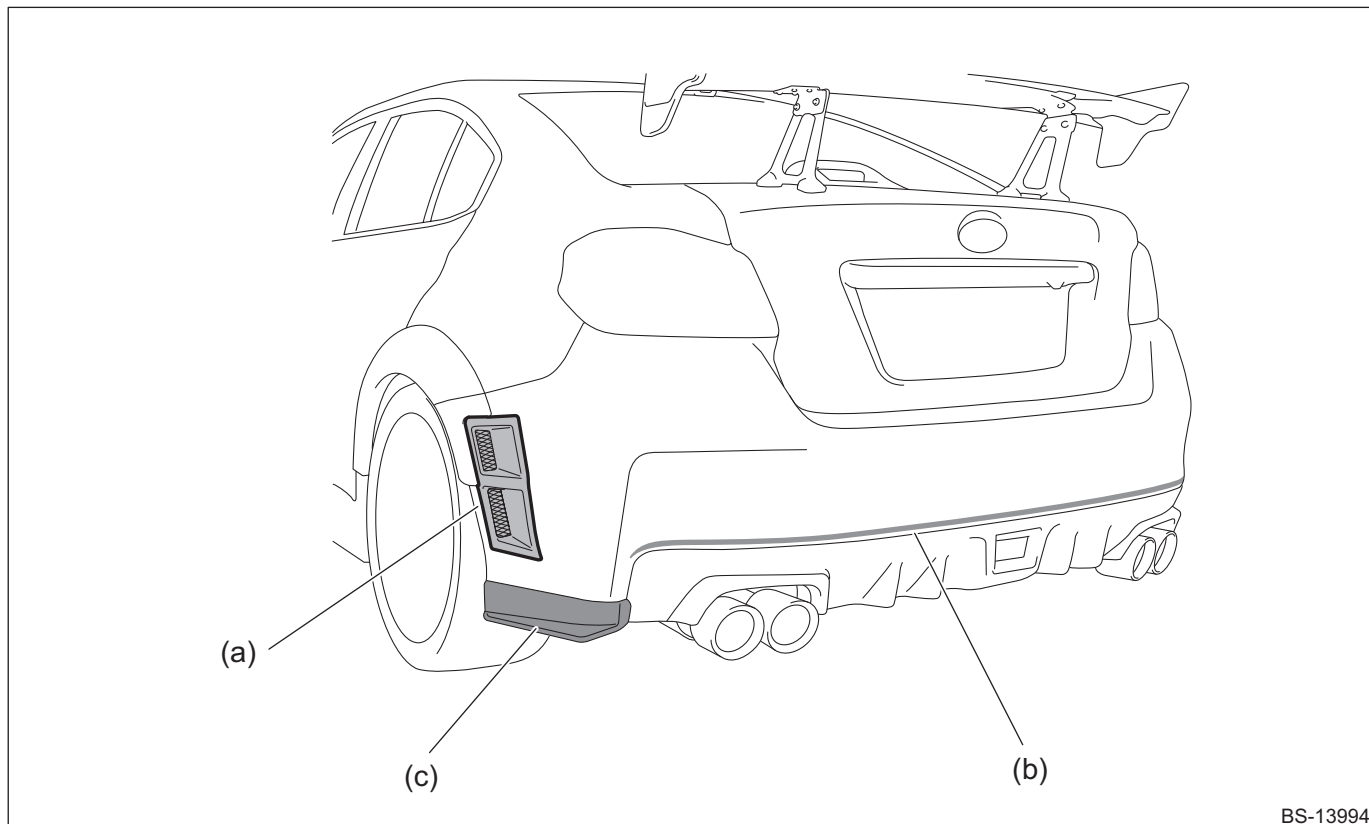
BS-13993

- (a) Rear mudguard
(b) Rear bumper side cover

- (c) Reinforcement part

8. REAR BUMPER

- Air outlet ducts are added to both sides of the rear bumper.
- A cherry-red stripe is added to the rear bumper.
- Rear side under spoilers are installed. They rectify the air flowing from the front to the body sides to improve the driving stability.



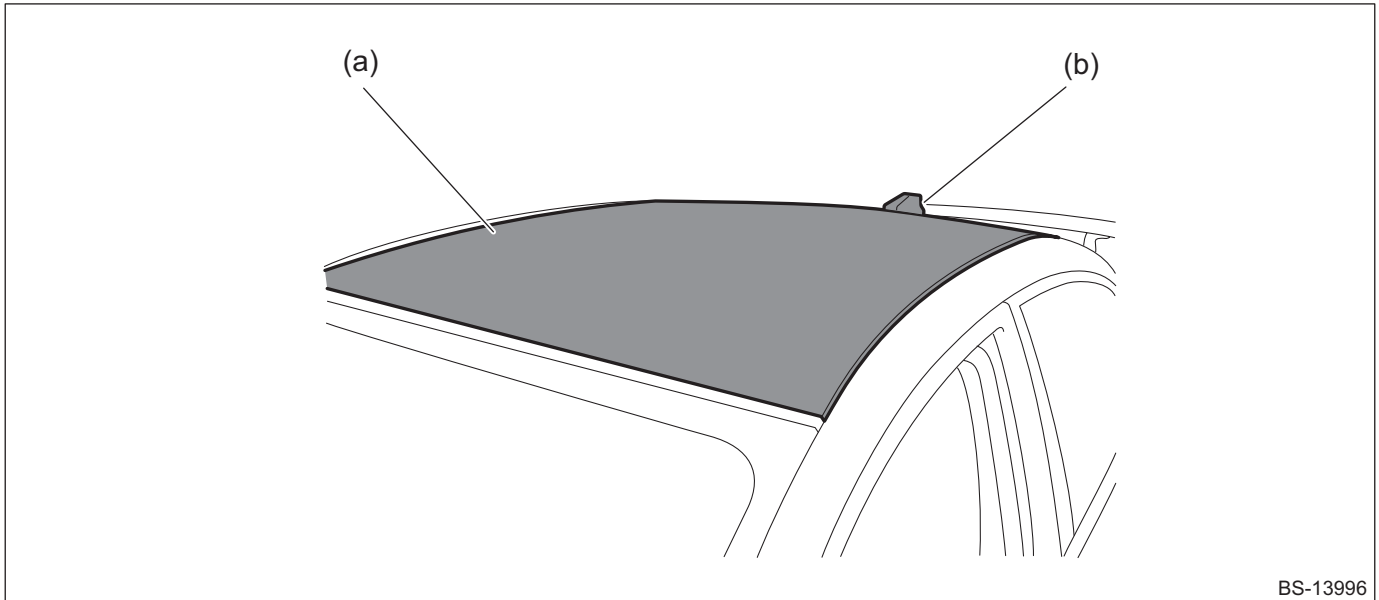
BS-13994

- (a) Air outlet duct
(b) Stripe (cherry-red)

- (c) Rear side under spoiler

9. ROOF ANTENNA ASSEMBLY

- A dry carbon roof is installed to increase the strength and reduce the weight. Reducing the weight of the roof which is at the highest position of the vehicle contributes to lower the center of gravity and reduce the roll inertia moment.
- The roof antenna assembly is painted in Crystal Black Silica color. The roof is clear coated so that the carbon texture can be seen through. The entire roof is unified in black to produce a sporty feeling.
- The roof carrier mounting mechanism and roof molding were eliminated to change the roof panel structure, reduce the vehicle weight, and improve the appearance.

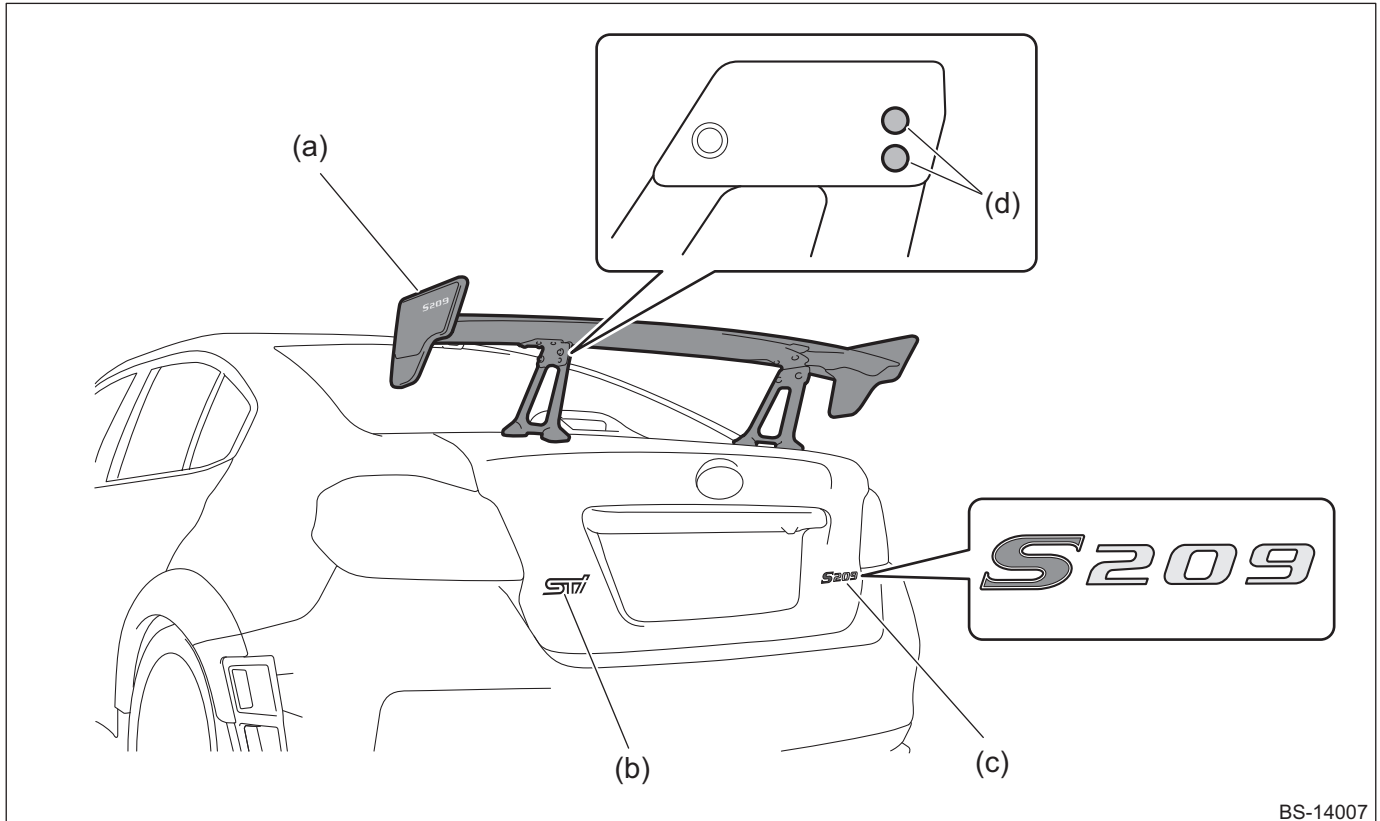


(a) Dry carbon roof (Crystal Black Silica)

(b) Roof antenna assembly (Crystal Black Silica)

10. TRUNK LID / REAR SPOILER

- A dry carbon-fiber large-sized rear spoiler (with S209 logo) is installed. It is extremely lightweight and the increase in vehicle weight is minimized. It generates a balanced downforce and enhances the traction performance. Two spoiler angles can be selected by changing the rear mounting holes.
- The exclusive trunk lid is provided with mounting holes to install the large-sized rear spoiler.
- A cheery-red STI ornament is installed on the trunk lid.
- An S209 ornament is installed on the trunk lid.



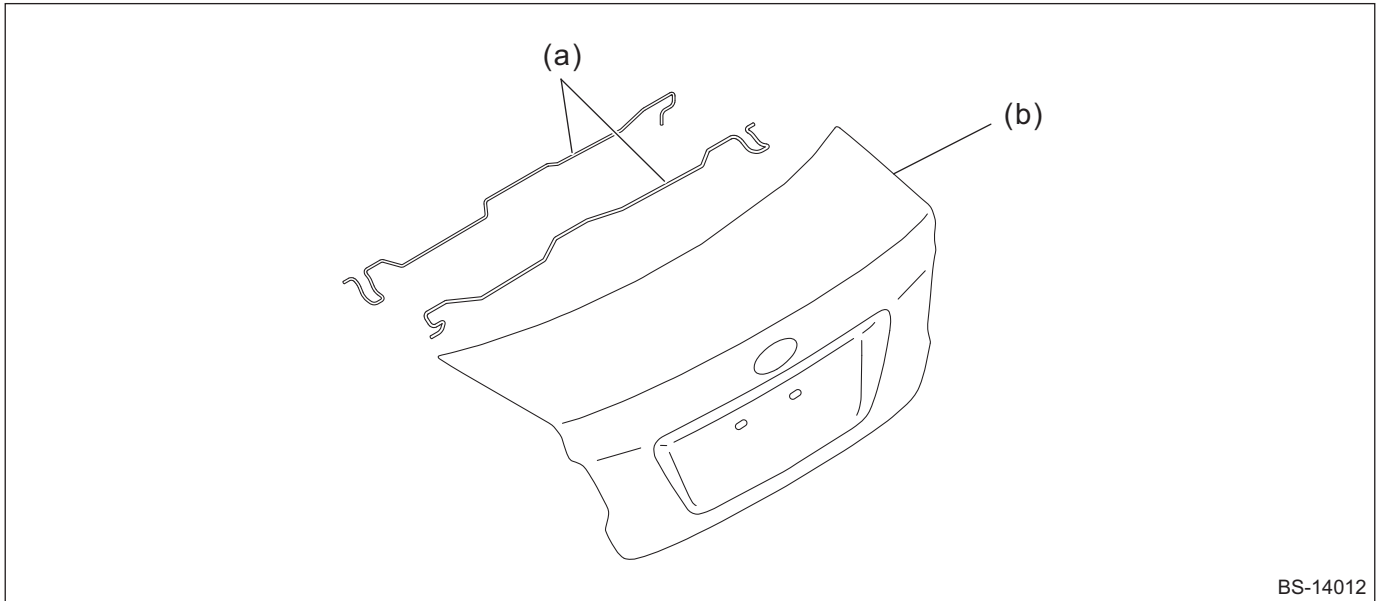
BS-14007

- (a) Large-sized rear spoiler with S209 logo
(b) STI ornament (cherry-red)

- (c) S209 ornament
(d) Mounting holes for different angles

Exterior

In association with the introduction of the large-sized rear spoiler, exclusive torsion bars are added to the trunk lid.



BS-14012

(a) Torsion bars

(b) Trunk lid

5-3 Interior

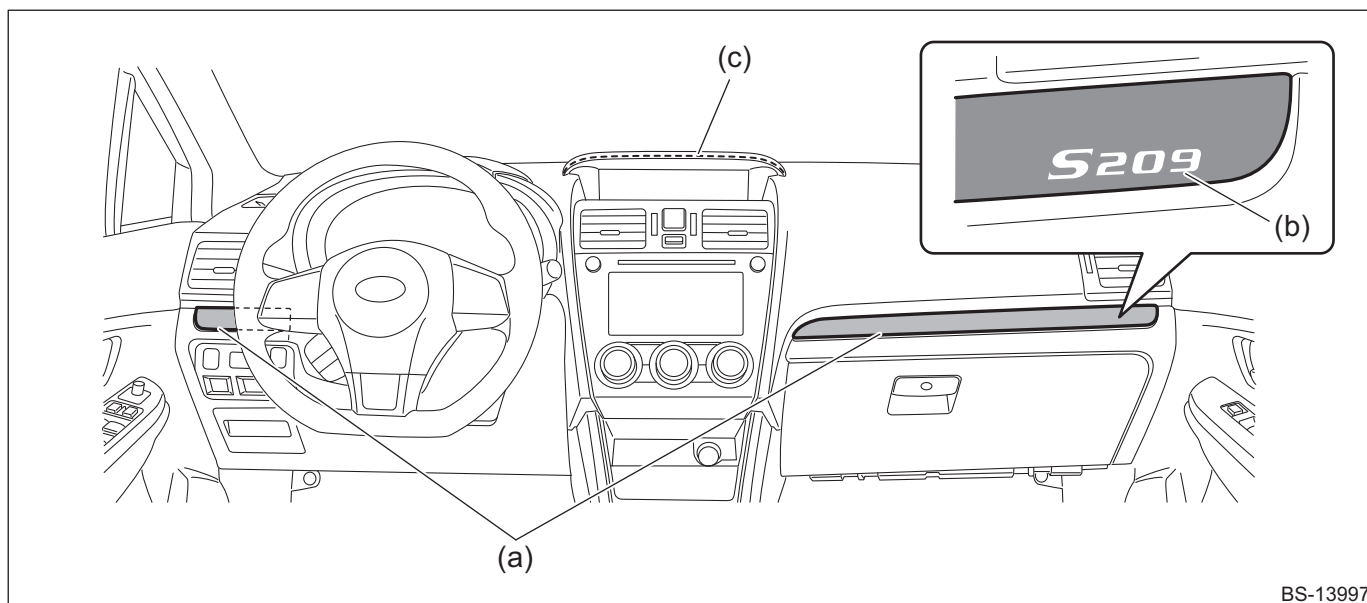
A: GENERAL DESCRIPTION

An original interior has been designed as an ideal space for manipulating a sports car. The excellent functionality inherited in STI complete cars is expressed with high quality.

B: DETAILS

1. INSTRUMENT PANEL

- Red ornaments are installed on the instrument panel, and a S209 logo appears on the passenger's seat side.
- Silver stitching is made on the upper panel display to produce a sense of unity of the whole interior.



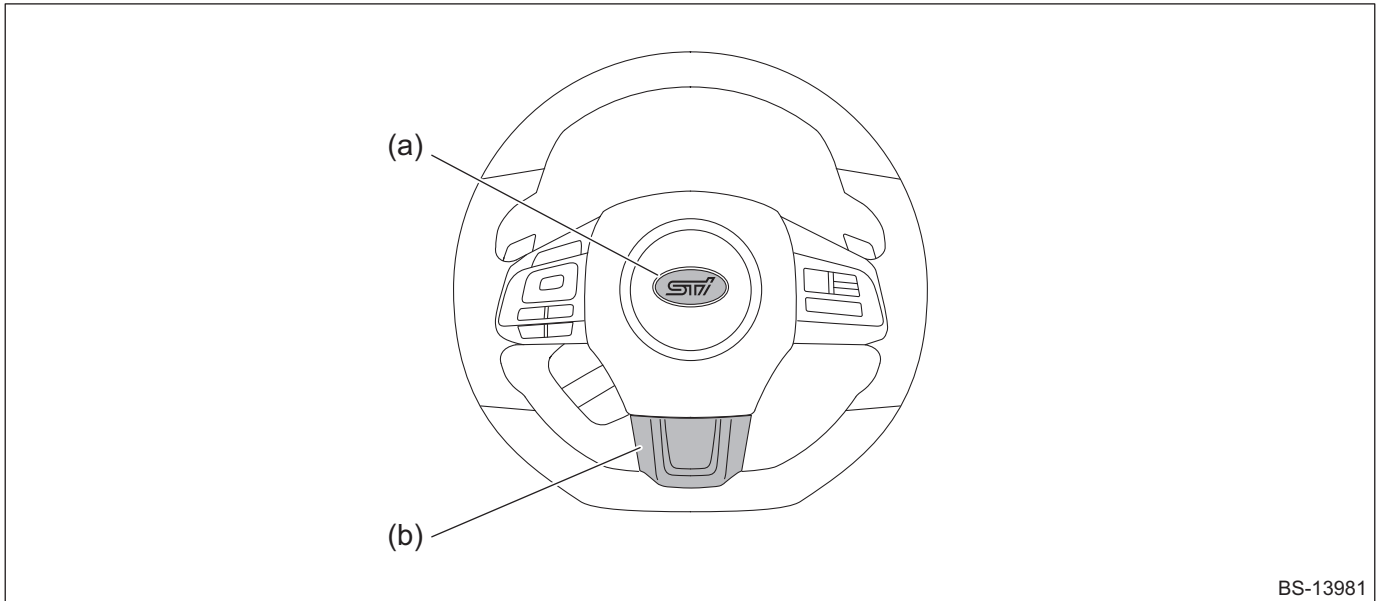
BS-13997

- (a) Ornaments (red)
(b) S209 logo

- (c) Silver stitching

2. STEERING WHEEL

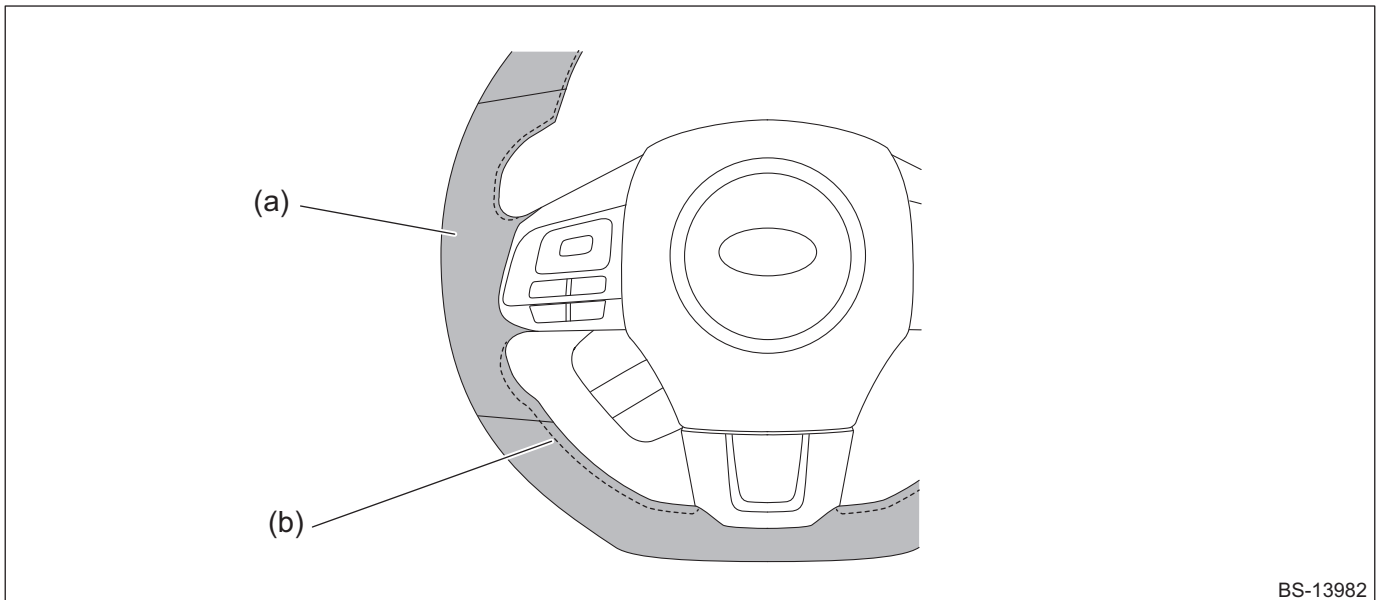
- The design of the badge on the horn pad has been changed to the STI logo.
- The steering wheel center bezel is painted in casting-like black.



(a) Badge (STI logo)

(b) Center bezel (casting like black)

- The steering wheel is wrapped with Ultrasuede® which has high grip. Silver stitching is made to produce a sense of unity of the whole interior.

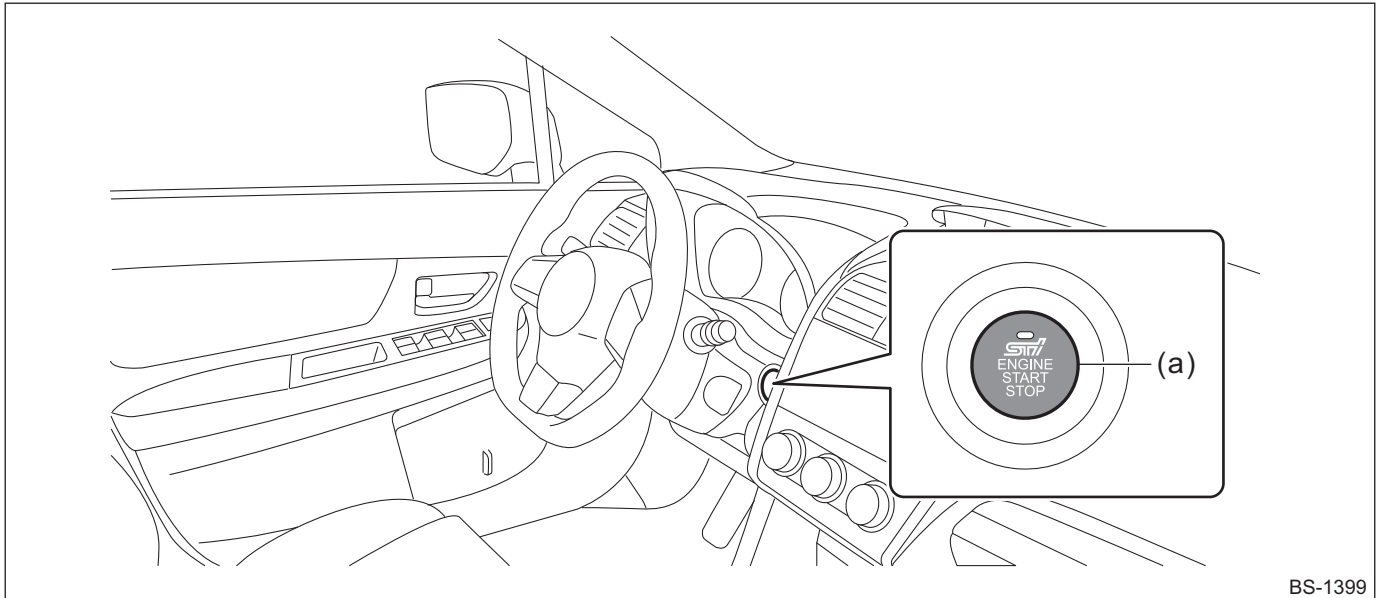


(a) Steering wheel skin (Ultrasuede®)

(b) Silver stitching

3. PUSH-TYPE STARTER SWITCH

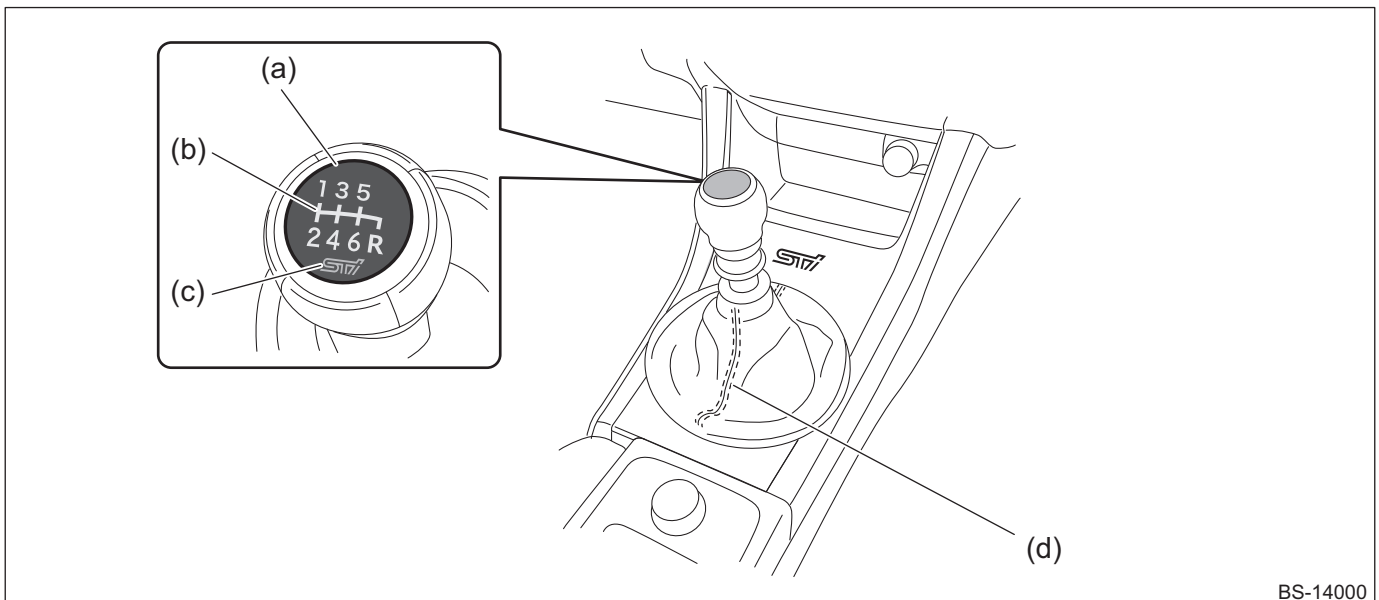
A red push-type starter switch with STI logo is used.



(a) Push-type starter switch (red)

4. GEAR SHIFT LEVER

- The base part of the shift pattern plate on the gear shift knob is black and a cherry-red STI logo is added.
- Silver stitching is made on the gear shift lever boot to produce a sense of unity of the whole interior.



(a) Base (black)

(b) Shift pattern indication (silver)

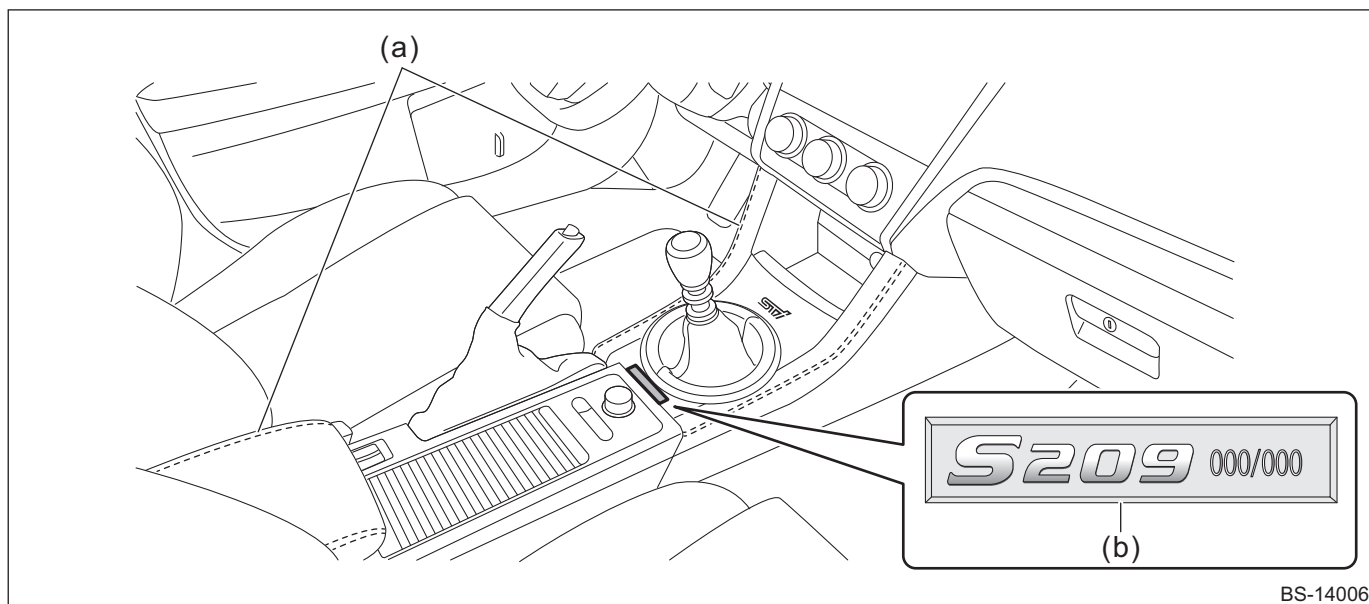
(c) STI logo (cherry-red)

(d) Silver stitching

Interior

5. CENTER CONSOLE

- Silver stitching is made on the front side cover and arm rest parts of the center console to produce a sense of unity of the whole interior.
- An exclusive serial number plate is added to the rear of the gear shift lever cover.

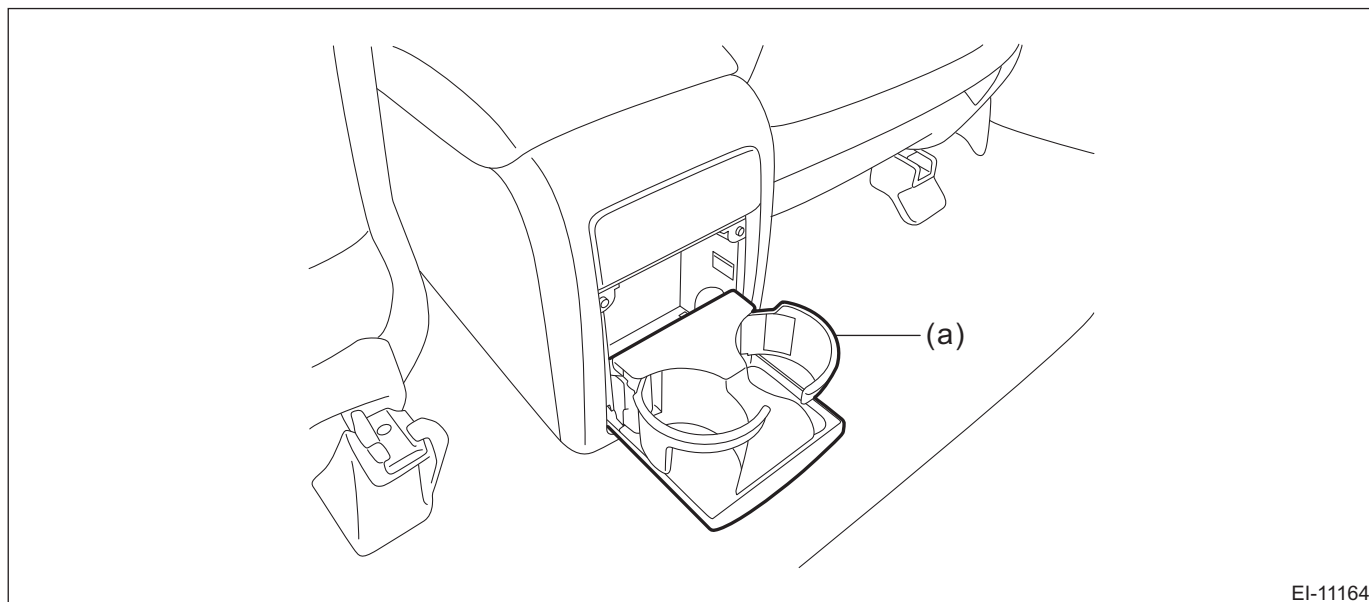


(a) Silver stitching

(b) Exclusive serial number plate

6. CONSOLE BOX

Cup holders are added to the rear seats side of the console box for the convenience of the rear passengers.

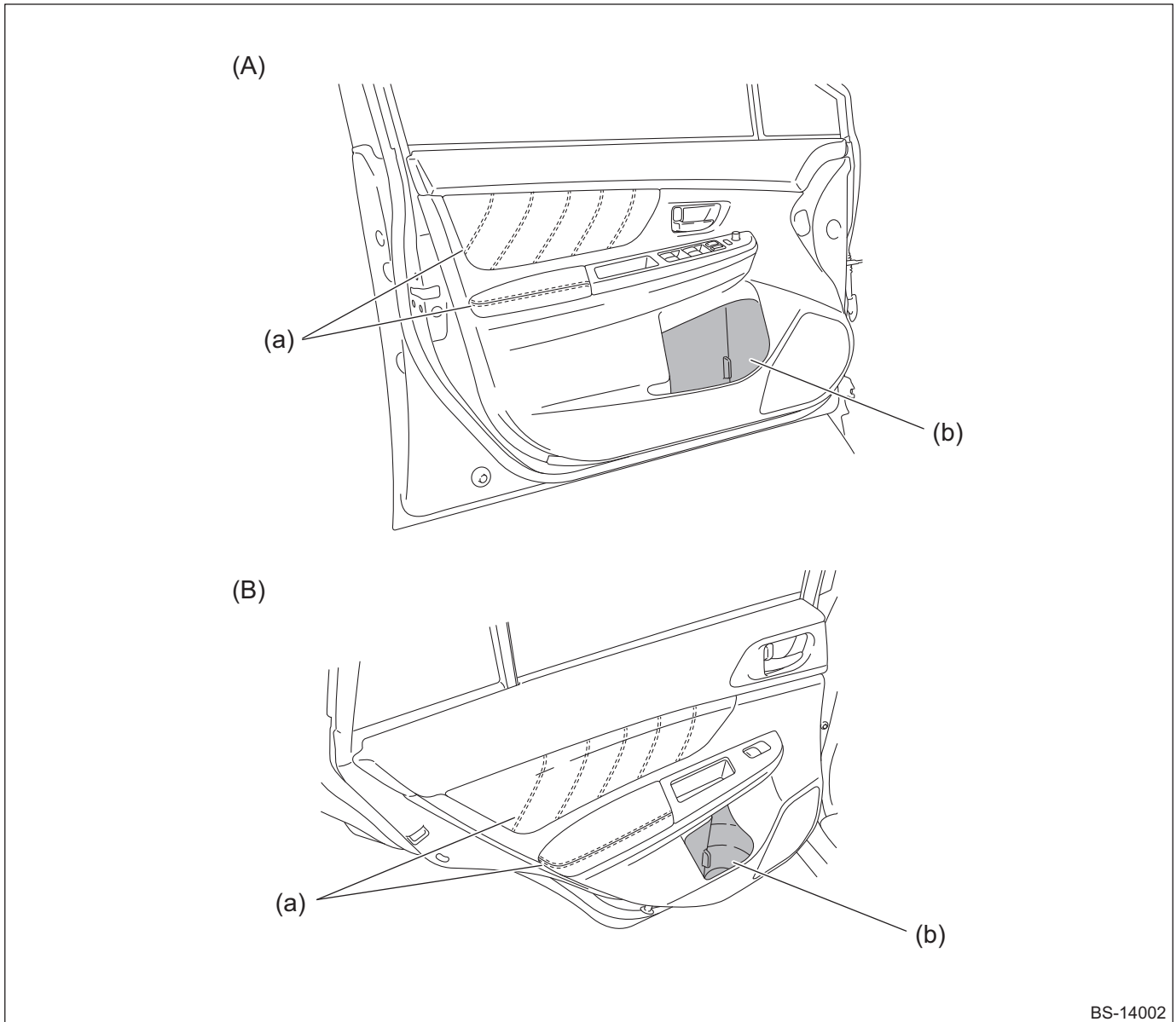


(a) Cup holders

Interior

7. DOOR TRIM

- Silver stitching is made on the inner cover and arm rest parts of the door trims to produce a sense of unity of the whole interior.
- Felt material is used in door trim pockets to improve the texture.



BS-14002

(A) Front door

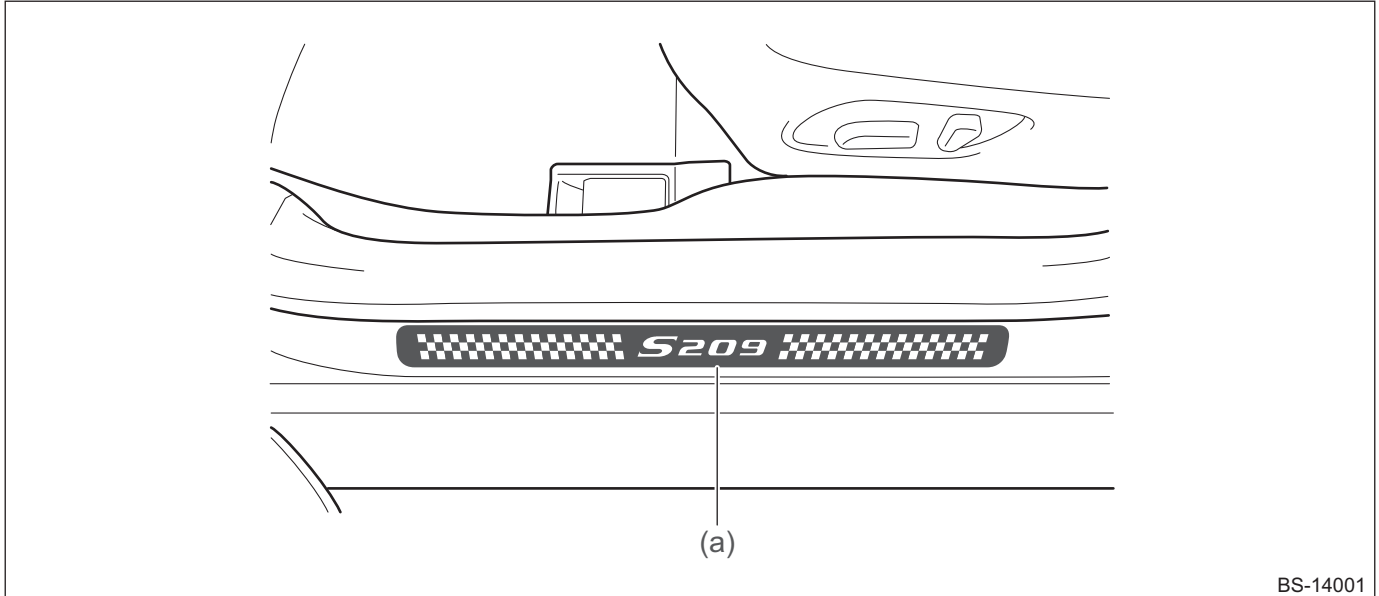
(B) Rear door

(a) Silver stitching

(b) Felt material

8. SIDE SILL PLATE

Side sill plates with S209 logo are added to the side sills under the front and rear doors.



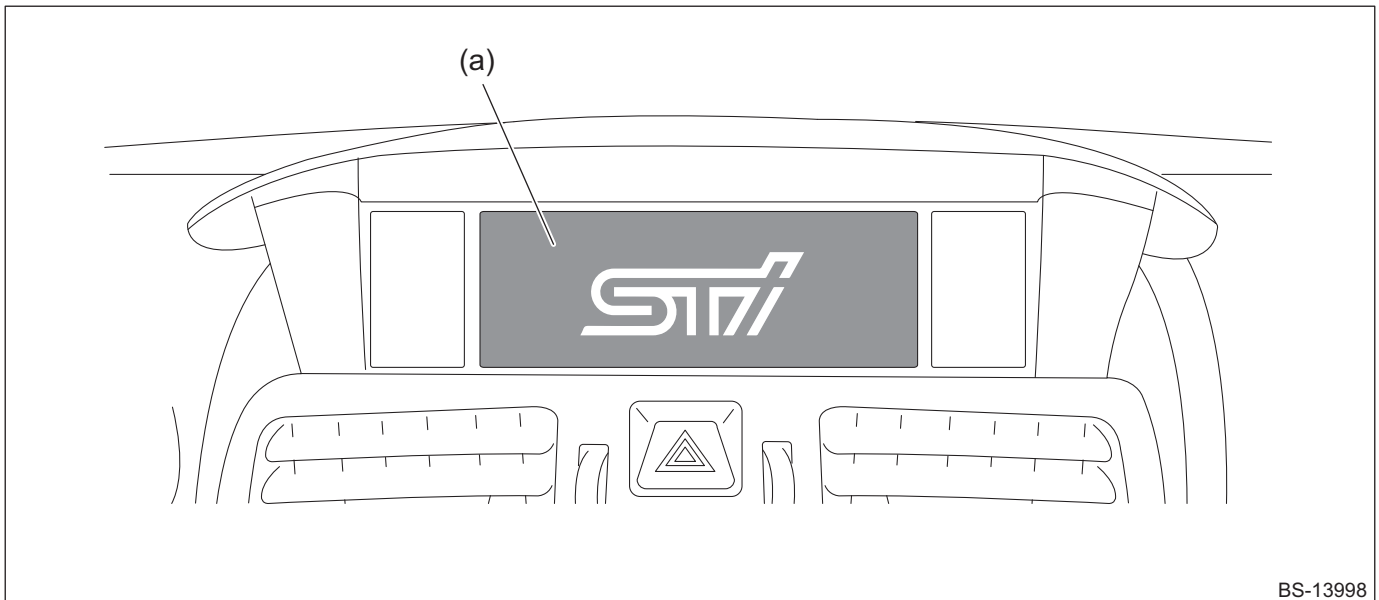
BS-14001

(a) Side sill plate (with S209 logo)

*: The drawing shows the front side.

9. MULTI-FUNCTION DISPLAY (MFD)

The STI logo appears in the welcome screen of the multi-function display (MFD) to produce an uplifting feeling.



BS-13998

(a) Welcome screen

Interior

10.FRONT SEAT (RECARO)

- The color design is based on a combination of black and silver. Silver stitching is made on silver leather parts and black stitching is made on black leather parts to produce a sense of unity of the whole interior.
- A stamped S209 logo is placed on the headrest, and an embroidered STI logo (red) is placed on the backrest to produce additional quality.



BS-14003

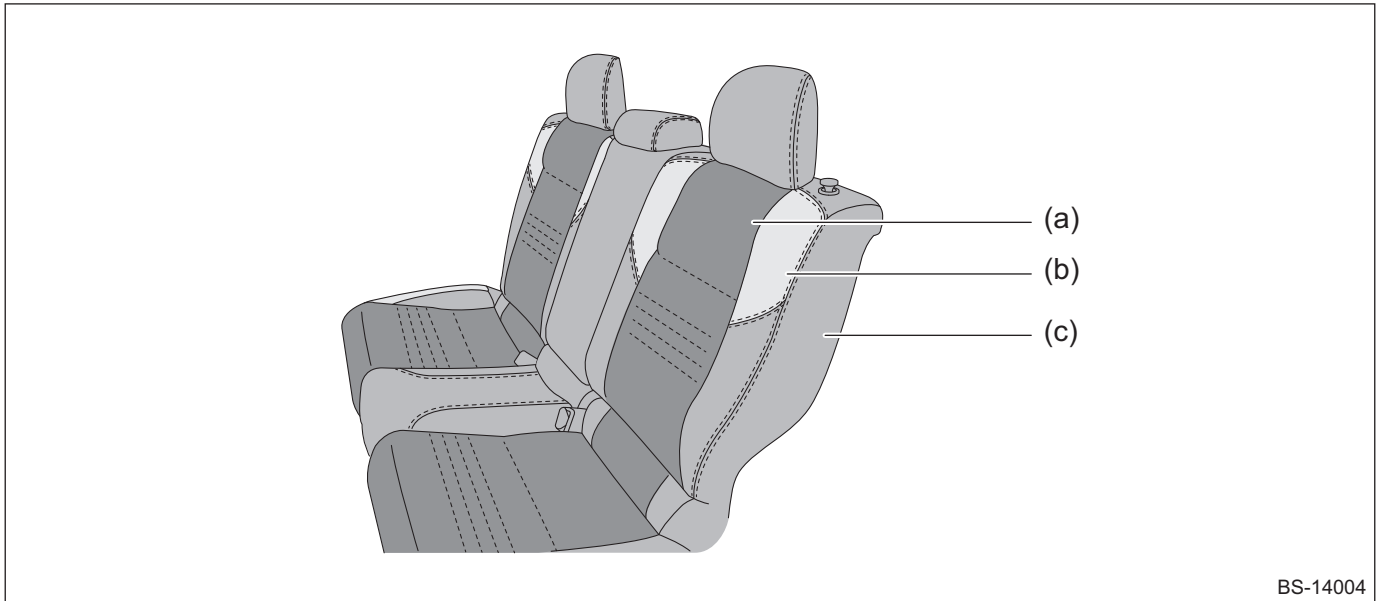
- (a) Piping (black)
- (b) Ultrasuede® (black)
- (c) Silver leather

- (d) Black leather
- (e) S209 logo (stamped)
- (f) STI logo embroidery (red)

Interior

11.REAR SEAT

- Same as the front seats, the color design of the rear seats are also based on the combination of black and silver. Silver stitching is made on some places to produce a sense of unity of the whole interior.
- To reduce the vehicle weight, rear seats without armrests are installed.



- (a) Ultrasuede® (black)
(b) Silver leather

- (c) Black leather