

GROUP 36

PARKING BRAKES

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GENERAL INFORMATION

M1361000100399

<L.H. drive vehicles>

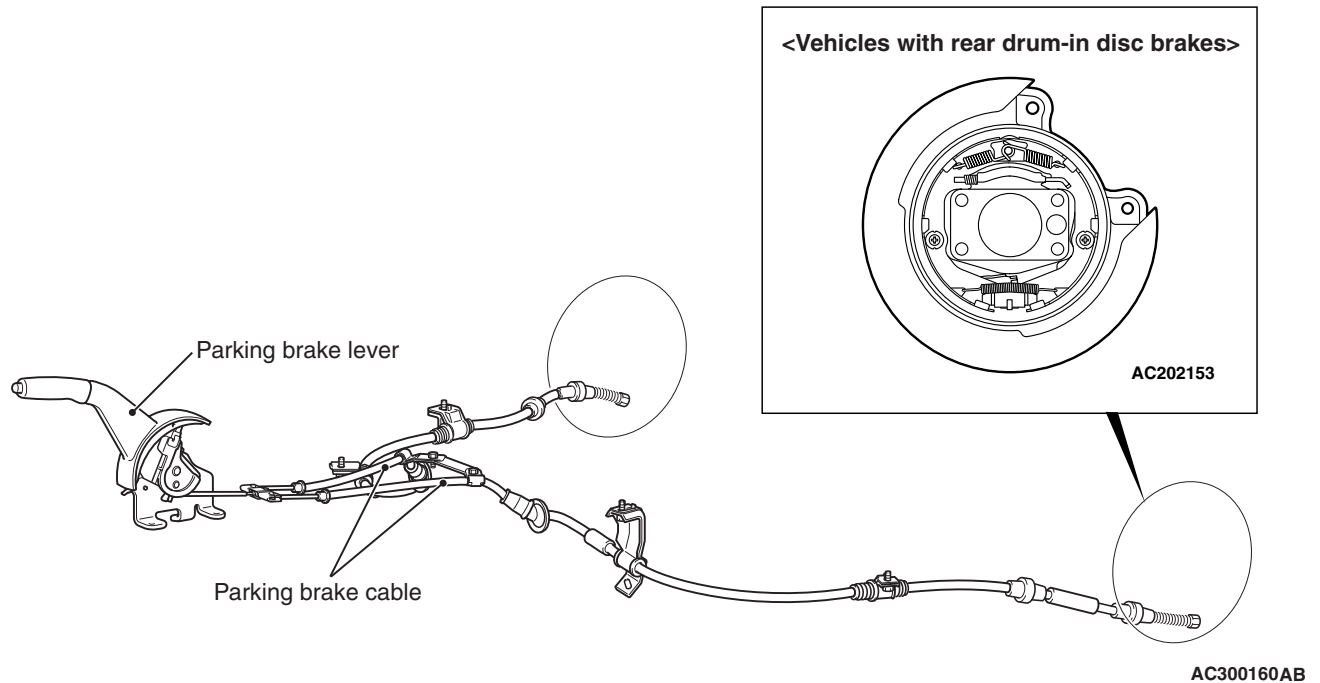
- The parking brake is of a mechanical rear-wheel acting type, and its operation utilises a parking brake lever.

<R.H. drive vehicles>

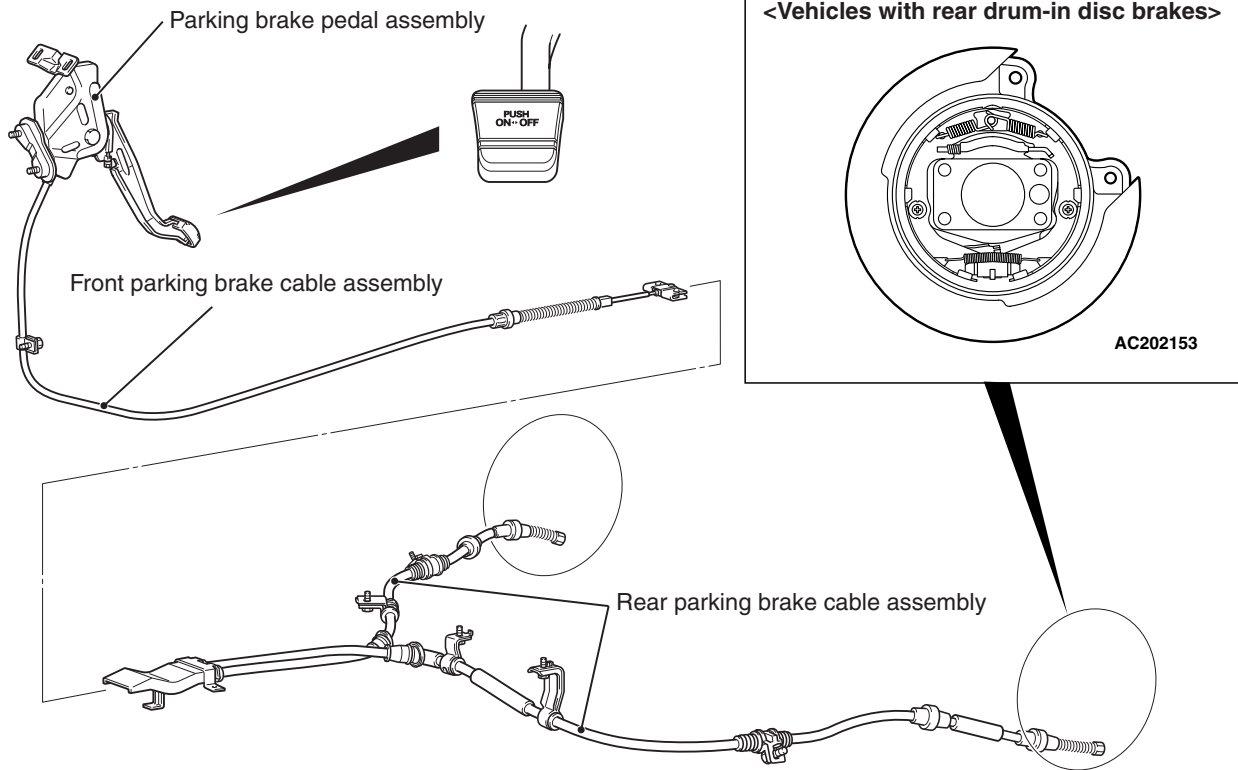
- The parking brake is of a mechanical rear-wheel acting type. The foot pedal is used to lock and release the parking brake for easier operation. The pedal surface is labeled with "PUSH", "ON", and "OFF," and users can easily understand the pedal release mechanism.

CONSTRUCTION DIAGRAM

<L.H. drive vehicles>



<R.H. drive vehicles>



SPECIFICATIONS

SERVICE SPECIFICATIONS

M1361000300478

Item	Standard value	Limit
Parking brake lever stroke <L.H. drive vehicles>	4 – 5 notches	–
Parking brake pedal stroke <R.H. drive vehicles>	1 – 2 notches	–
Rear brake lining thickness mm <Vehicles with rear drum-in disc brakes>	2.8	1.0
Rear drum inside diameter mm <Vehicles with rear drum-in disc brakes>	168.0	169.0

ON-VEHICLE SERVICE

PARKING BRAKE LEVER STROKE
CHECK AND ADJUSTMENT <L.H. drive
vehicles>

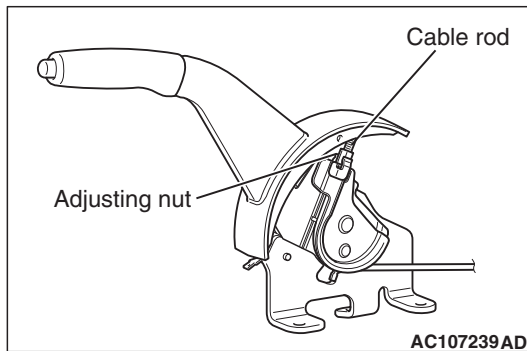
M1361000900425

<Vehicles with rear drum brakes>

1. Pull the parking brake lever with a force of approximately 200 N and count the number of notches.

Standard value: 4 – 5 notches

2. If the parking brake lever stroke is not the standard value, adjust as described below.
 - (1) Remove the floor console assembly (Refer to GROUP 52A, Floor Console Assembly P.52A-15).



- (2) Loosen the adjusting nut to move it to the cable rod end so that the cable will be free.
- (3) Depress the brake pedal repeatedly until the brake pedal has no change in its stroke.

NOTE: Depressing the brake pedal repeatedly adjusts shoe clearance correctly.

⚠ CAUTION

If the parking brake lever stroke is below the standard value and the braking is too firm, the rear brakes may drag.

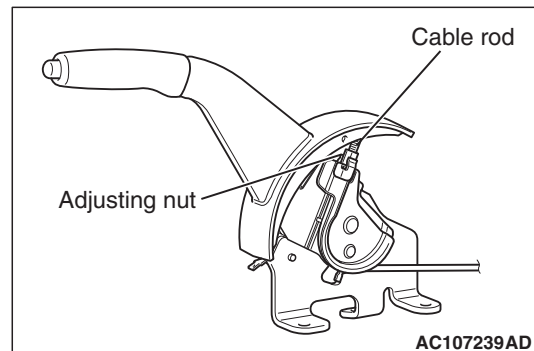
- (4) Turn the adjusting nut to adjust the parking brake lever stroke to the standard value. After adjusting, check that there is no space between the adjusting nut and the parking brake lever. Check that the adjusting nut is secured with the nut holder.
- (5) After adjusting the parking brake lever stroke, jack up the rear end of the vehicle, and then release the parking brake and turn the rear wheels to check that the rear brakes are not dragging.

<Vehicles with rear drum-in disc brakes>

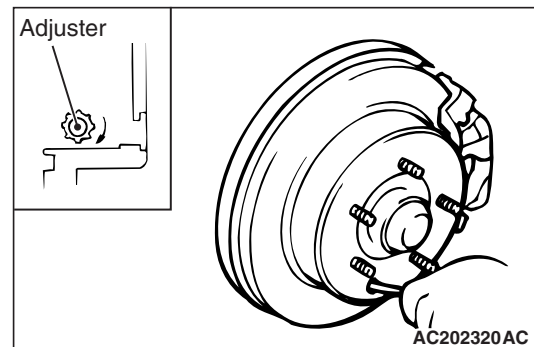
1. Pull the parking brake lever with a force of approximately 200 N and count the number of notches.

Standard value: 4 – 5 notches

2. If the parking brake lever stroke is not the standard value, adjust as described below.
 - (1) Remove the floor console assembly (Refer to GROUP 52A, Floor Console Assembly P.52A-15).



- (2) Loosen the adjusting nut to move it to the cable rod end so that the cable will be free.



- (3) Remove the rear brake adjusting hole plug. Then insert a flat-tipped screwdriver to turn the adjuster to the arrow direction (to expand the shoe) until the parking brake shoe makes contact and the disc can no longer be turned. Back off the adjuster to the opposite direction by five notches.

⚠ CAUTION

If the parking brake lever stroke is below the standard value and the braking is too firm, the rear brakes may drag.

- (4) Adjust the parking brake lever stroke to the standard value by turning the adjusting nut. After the adjustment, ensure that there is no free play between the adjusting nut and the parking brake lever.

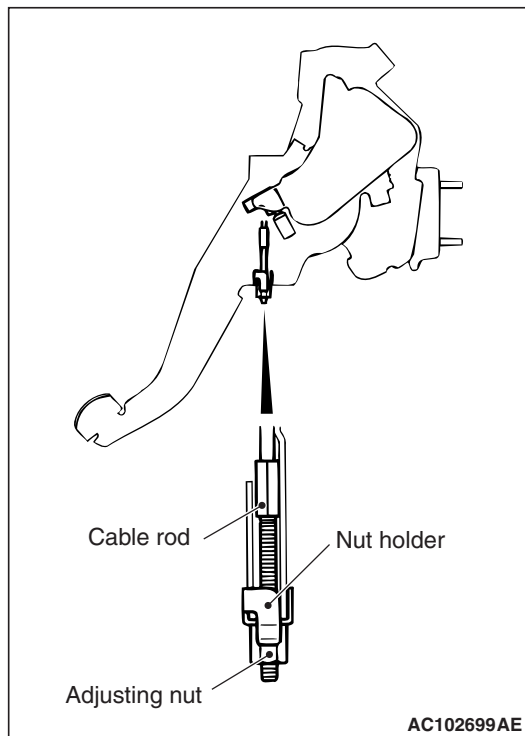
- (5) After the parking brake lever stroke is adjusted, raise the rear of the vehicle. Release the parking brake, turn the rear wheels to confirm that the rear brakes are not dragging.

PARKING BRAKE PEDAL STROKE CHECK AND ADJUSTMENT <R.H. drive vehicles>

M1361001000113

<Vehicles with rear drum brakes>

1. Depress the parking brake pedal by approximately 200 N.
Standard value: 1 – 2 notches
2. If the parking brake pedal stroke is not within the standard value, adjust as described below.



- (1) Loosen the adjusting nut to the end of the cable rod in order to allow slack in the cables.
- (2) Depress the brake pedal repeatedly until the brake pedal has no change in its stroke.

NOTE: *Depressing the brake pedal repeatedly adjusts shoe clearance correctly.*

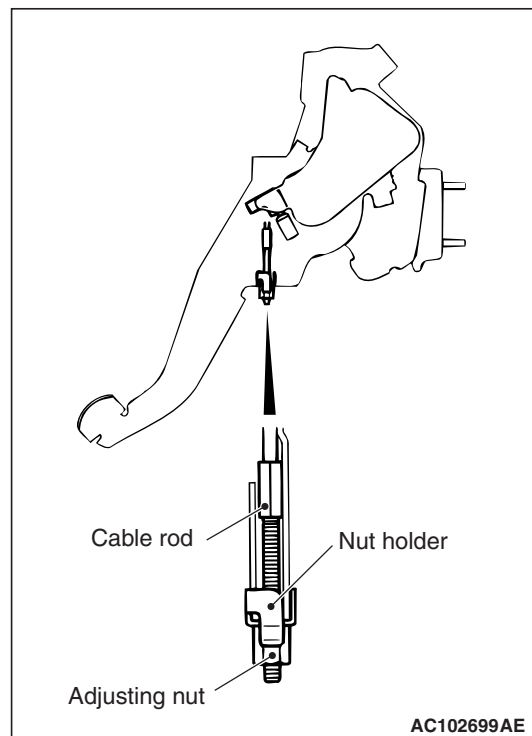
⚠ CAUTION

If the parking brake lever stroke is below the standard value and the braking is too firm, the rear brakes may drag.

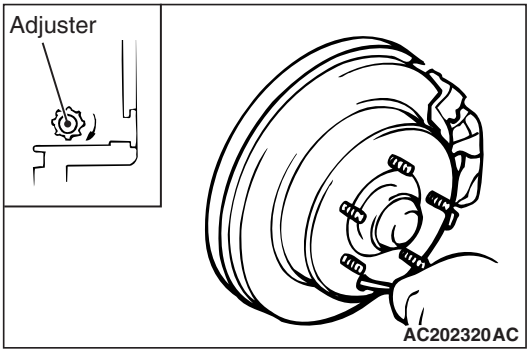
- (3) Adjust the parking brake pedal stroke to the standard value by turning the adjusting nut. After the adjustment, ensure that there is no free play between the adjusting nut and the parking brake pedal. In addition, check that the adjusting nut is secured by the nut holder.
- (4) After the parking brake pedal stroke is adjusted, raise the rear of the vehicle. Release the parking brake, turn the rear wheels to confirm that the rear brakes are not dragging.

<Vehicles with rear drum-in disc brakes>

1. Depress the parking brake pedal by approximately 200 N.
Standard value: 1 – 2 notches
2. If the parking brake pedal stroke is not within the standard value, adjust as described below.



- (1) Loosen the adjusting nut to the end of the cable rod in order to allow slack in the cables.



- (2) Remove the rear brake adjusting hole plug. Then insert a flat-tipped screwdriver to turn the adjuster to the arrow direction (to expand the shoe) until the parking brake shoe makes contact and the disc can no longer be turned. Back off the adjuster to the opposite direction by five notches.

CAUTION

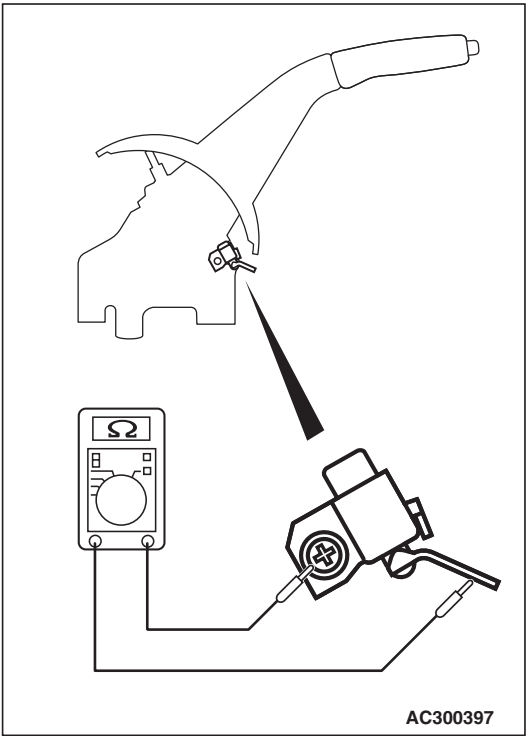
If the parking brake lever stroke is below the standard value and the braking is too firm, the rear brakes may drag.

- (3) Adjust the parking brake pedal stroke to the standard value by turning the adjusting nut. After the adjustment, ensure that there is no free play between the adjusting nut and the parking brake pedal. In addition, check that the adjusting nut is secured by the nut holder.
- (4) After the parking brake pedal stroke is adjusted, raise the rear of the vehicle. Release the parking brake, turn the rear wheels to confirm that the rear brakes are not dragging.

PARKING BRAKE SWITCH CHECK

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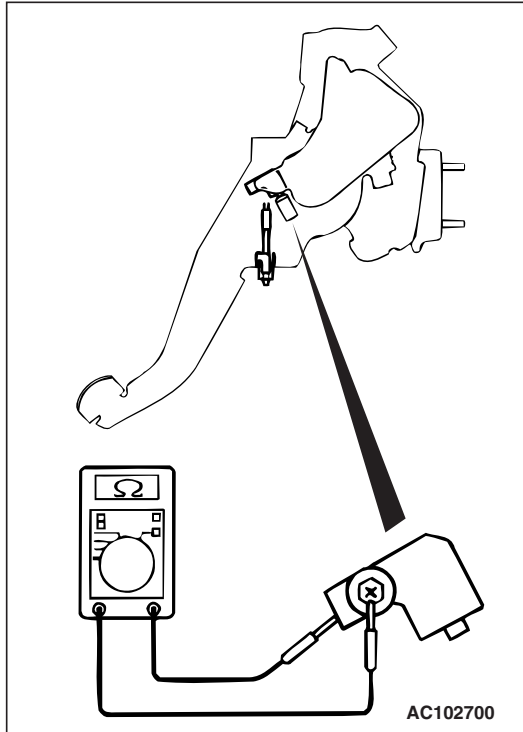
<L.H. drive vehicles>



1. Remove the floor console assembly. (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).
2. Check for continuity between the parking brake switch terminal and the switch mounting bolt.

When parking brake lever is pulled	Less than 2 ohms
When parking brake lever is released	Open circuit

<R.H. drive vehicles>



Check for continuity between the parking brake switch terminal and the switch mounting bolt.

When parking brake pedal is depressed	Less than 2 ohms
When parking brake pedal is released	Open circuit

LINING RUNNING-IN <Vehicles with rear drum-in disc brakes>

M1361001100314

CAUTION

Carry out running-in in a place with good visibility, and pay careful attention to safety.

Carry out running-in by the following procedure when replacing the parking brake linings or the rear brake disc rotors, or when brake performance is insufficient.

<L.H. drive vehicles>

1. Adjust the parking brake lever stroke to the specified value.

Specified value (Operation force: Approx. 200 N): 4 – 5 notches

2. Hook a spring balance onto the centre of the parking brake lever grip and pull it with a force of 100 – 150 N in a direction perpendicular to the handle.
3. Drive the vehicle at a constant speed of 35 – 50 km/h for 100 metres.
4. Release the parking brake and let the brakes cool for 5 – 10 minutes.
5. Repeat the procedure in steps 2 to 4 four or five times.

<R.H. drive vehicles>

1. Adjust the parking brake pedal stroke to the standard value.

Specified value (Operation force: Approx. 200 N): 1 – 2 notches

2. Depress the parking brake pedal by 100 to 150 N (equivalent to approximately one notch).
3. Drive the vehicle at a constant speed of 35 – 50 km/h for 100 metres.
4. Release the parking brake and let the brakes cool for 5 – 10 minutes.
5. Repeat the procedure in steps 2 to 4 four or five times.

PARKING BRAKE LEVER <L.H. drive vehicles>

REMOVAL AND INSTALLATION

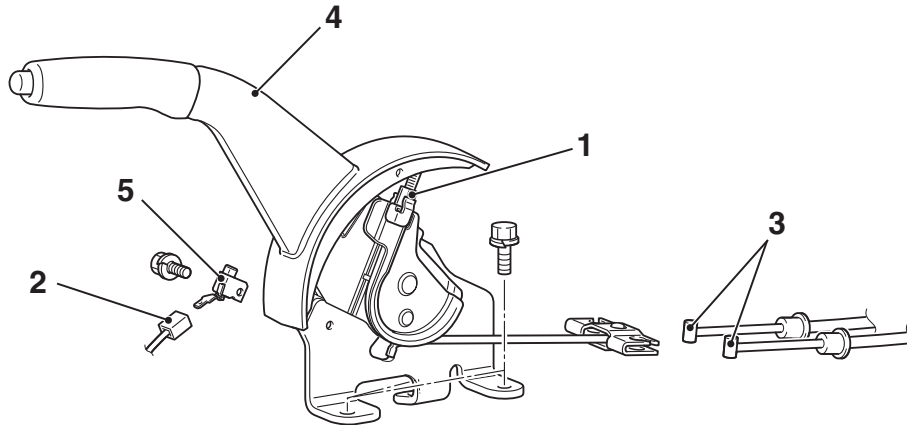
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Pre-removal Operation

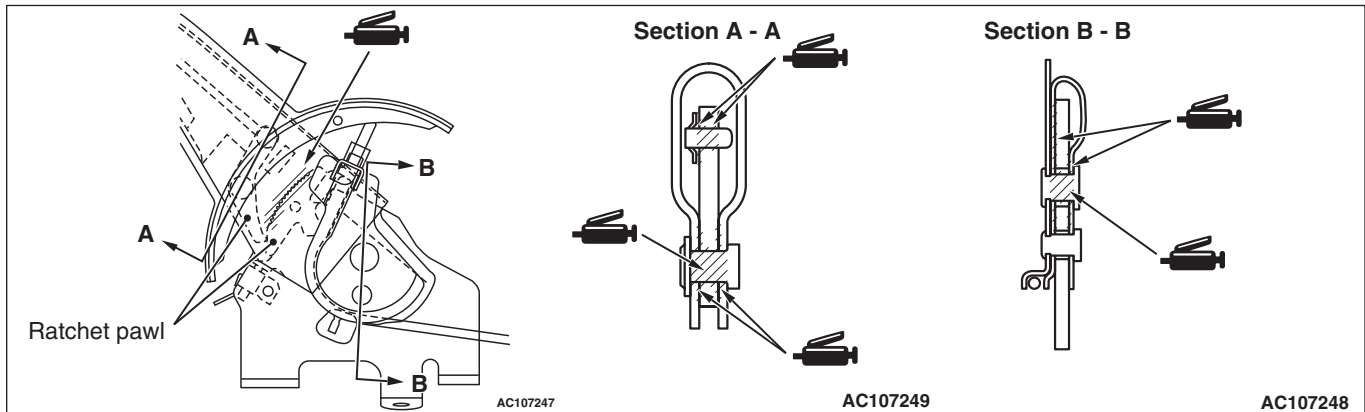
Rear Floor Console Assembly Removal (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).

Post-installation Operation

- Parking Brake Lever Stroke Adjustment (Refer to [P.36-4](#)).
- Rear Floor Console Assembly Installation (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).



AC107292
AC107457AC

**Removal steps**

1. Adjusting nut
2. Parking brake switch connector
3. Parking brake cable connection
4. Parking brake lever assembly
5. Parking brake switch

PARKING BRAKE PEDAL <R.H. drive vehicles>

REMOVAL AND INSTALLATION

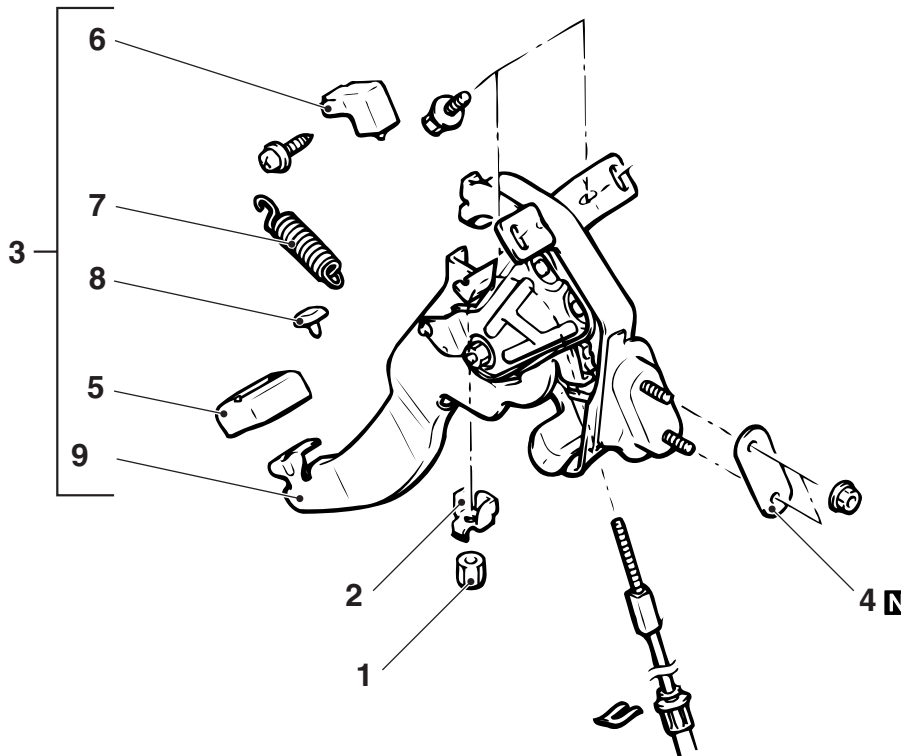
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Pre-removal Operation

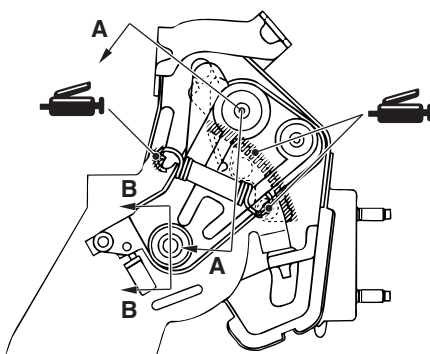
- Console side cover <driver's side> removal (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-9](#)).
- Foot duct <driver's side> removal (Refer to GROUP 55A, Heater unit, Heater Core, Heater Blower Assembly and Evaporator Unit [P.55A-34](#)).

Post-installation Operation

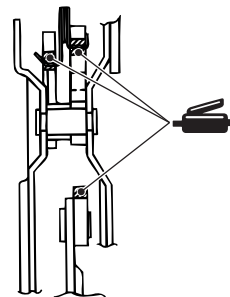
- Foot duct <driver's side> installation (Refer to GROUP 55A, Heater unit, Heater Core, Heater Blower Assembly and Evaporator Unit [P.55A-34](#)).
- Console side cover <driver's side> installation (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-9](#)).
- Parking Brake Pedal Stroke Adjustment (Refer to [P.36-5](#)).



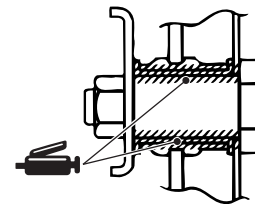
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Section A - A



Section B - B



Removal steps

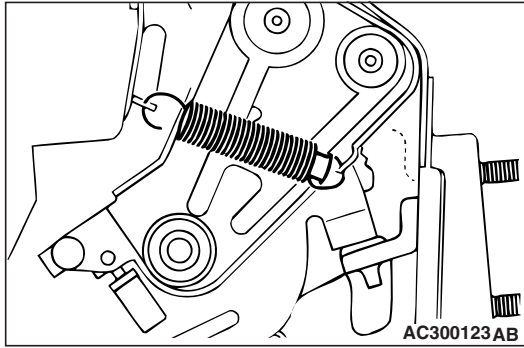
1. Adjusting nut
2. Nut holder
3. Parking brake pedal assembly
4. Sealer
5. Pedal pad

Removal steps (Continued)

- >>A<<
6. Parking brake switch
 7. Tension spring
 8. Stopper
 9. Parking brake pedal assembly

INSTALLATION SERVICE POINT

>>A<< TENSION SPRING INSTALLATION



Apply grease to the mating surface of the tension spring and pedal, and then install the spring as shown.

PARKING BRAKE CABLE

REMOVAL AND INSTALLATION <L.H. drive vehicles>

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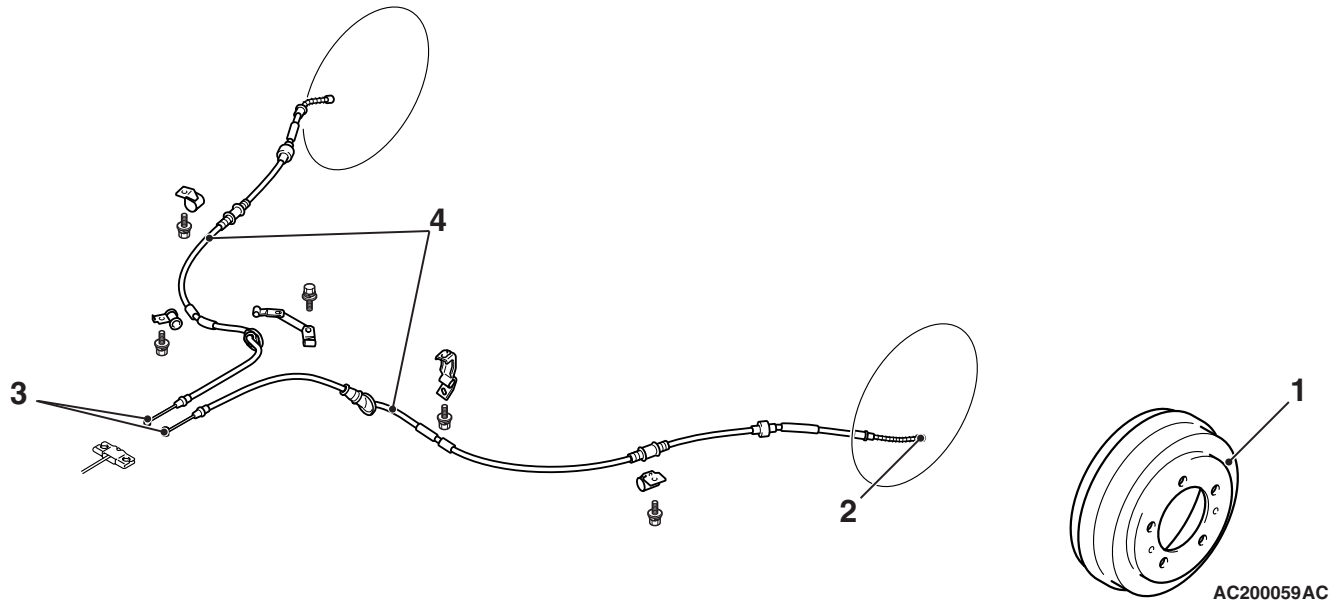
<Vehicles with rear drum brakes>

Pre-removal Operation

- Rear Floor Console Assembly Removal (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).

Post-installation Operation

- Parking Brake Lever Stroke adjustment (Refer to [P.36-4](#)).
- Rear Floor Console Assembly Installation (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).



Removal steps

- Loosen the adjusting nuts.
1. Brake drum

<<A>>

Removal steps (Continued)

2. Parking brake cable connection
3. Parking brake cable connection
4. Parking brake cable

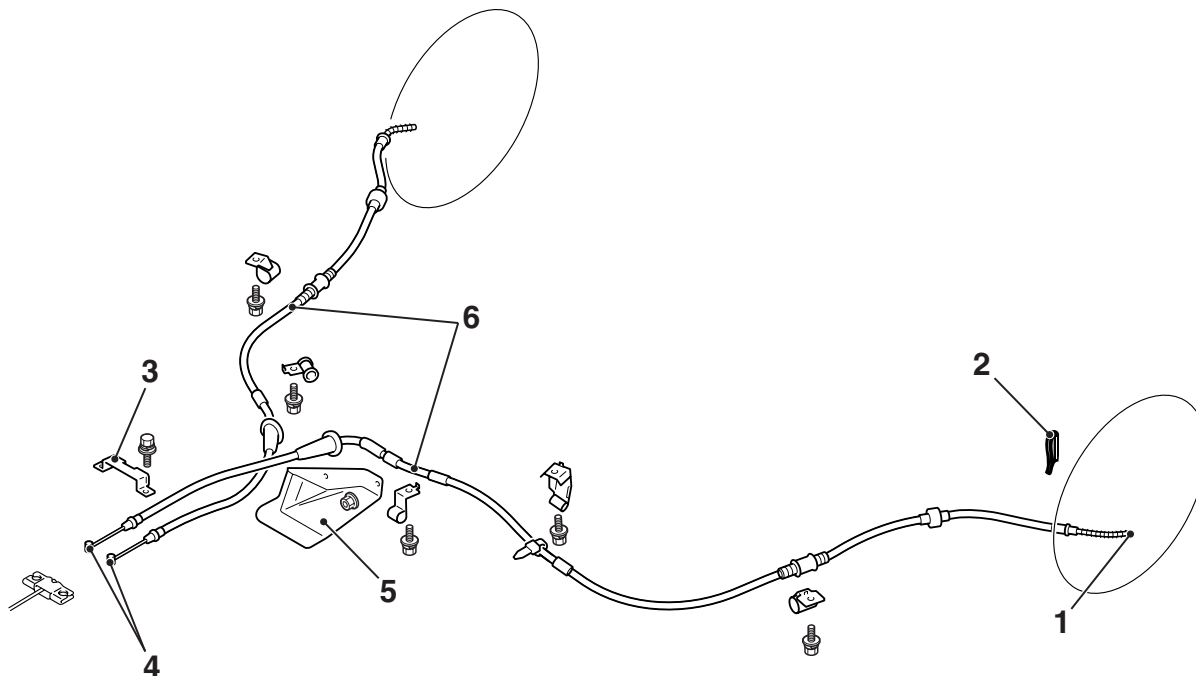
<Vehicles with rear drum-in disc brakes>

Pre-removal Operation

- Rear Floor Console Assembly Removal (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).

Post-installation Operation

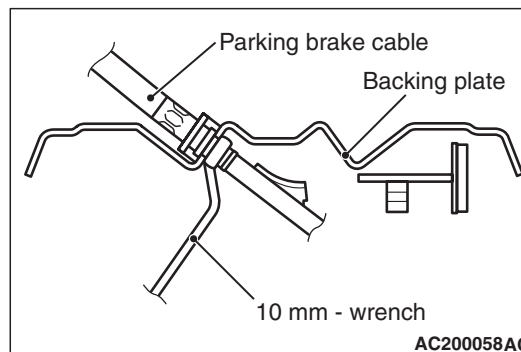
- Parking Brake Lever Stroke adjustment (Refer to [P.36-4](#)).
- Rear Floor Console Assembly Installation (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).



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Removal steps

- Shoe and lining assembly (Refer to [P.36-17](#)).
 - Loosen the adjusting nuts.
 - Turn up the driver's side carpet.
1. Parking brake cable connection
 2. Clip
 3. Protector B
 4. Parking brake cable connection
 5. Protector C
 6. Rear parking brake cable assembly

REMOVAL SERVICE POINT**<<A>> PARKING BRAKE CABLE CONNECTION REMOVAL <Vehicles with rear drum brakes>**

Withdraw the parking brake cable from the backing plate.

NOTE: Insert a 10 mm-wrench into the parking brake cable to facilitate the cable withdrawal.

REMOVAL AND INSTALLATION <R.H. drive vehicles>

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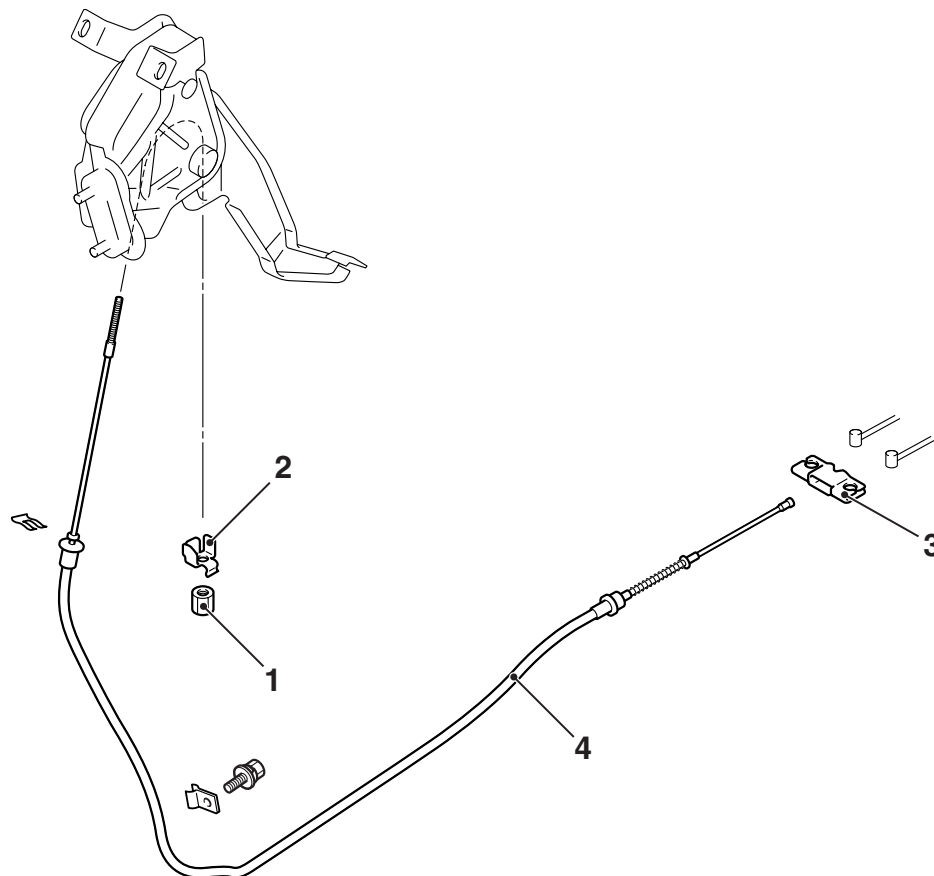
<Front>

Pre-removal Operation

- Front scuff plate, rear scuff plate, cowl side trim, lower center pillar trim removal (Refer to GROUP 52A, Trims [P.52A-19](#)).
- Front seat assembly removal <driver's side> (Refer to GROUP 52A, Front Seat Assembly [P.52A-29](#)).
- Rear seat cushion removal (Refer to GROUP 52A, Rear Seat Assembly [P.52A-36](#)).
- Seat belt lower anchor bolt removal (Refer to GROUP 52A, Front Seat Belt [P.52A-42](#)).
- Floor Console Assembly Removal (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).
- Center console panel and center console removal (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-9](#)).
- Foot duct <driver's side> removal (Refer to GROUP 55A, Heater Unit, Heater Core, Blower Assembly and Evaporator Unit [P.55A-34](#)).
- Accelerator pedal stopper removal (Refer to GROUP 17, Accelerator Cable and Pedal [P.17-8](#)).

Post-installation Operation

- Accelerator pedal stopper installation (Refer to GROUP 17, Accelerator Cable and Pedal [P.17-8](#)).
- Foot duct <driver's side> installation (Refer to GROUP 55A, Heater Unit, Heater Core, Blower Assembly and Evaporator Unit [P.55A-34](#)).
- Center console panel and center console installation (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-9](#)).
- Floor Console Assembly Installation (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).
- Seat belt lower anchor bolt removal (Refer to GROUP 52A, Front Seat Belt [P.52A-42](#)).
- Rear seat cushion removal (Refer to GROUP 52A, Rear Seat Assembly [P.52A-36](#)).
- Front seat assembly removal <driver's side> (Refer to GROUP 52A, Front Seat Assembly [P.52A-29](#)).
- Front scuff plate, rear scuff plate, cowl side trim, lower center pillar trim removal (Refer to GROUP 52A, Trims [P.52A-19](#)).
- Parking Brake pedal Stroke adjustment (Refer to [P.36-5](#)).



AC102716AD

Removal steps

- Turn up the driver's side carpet.
- 1. Adjusting nut

Removal steps (Continued)

- 2. Nut holder
- 3. Equalizer
- 4. Front parking brake cable assembly

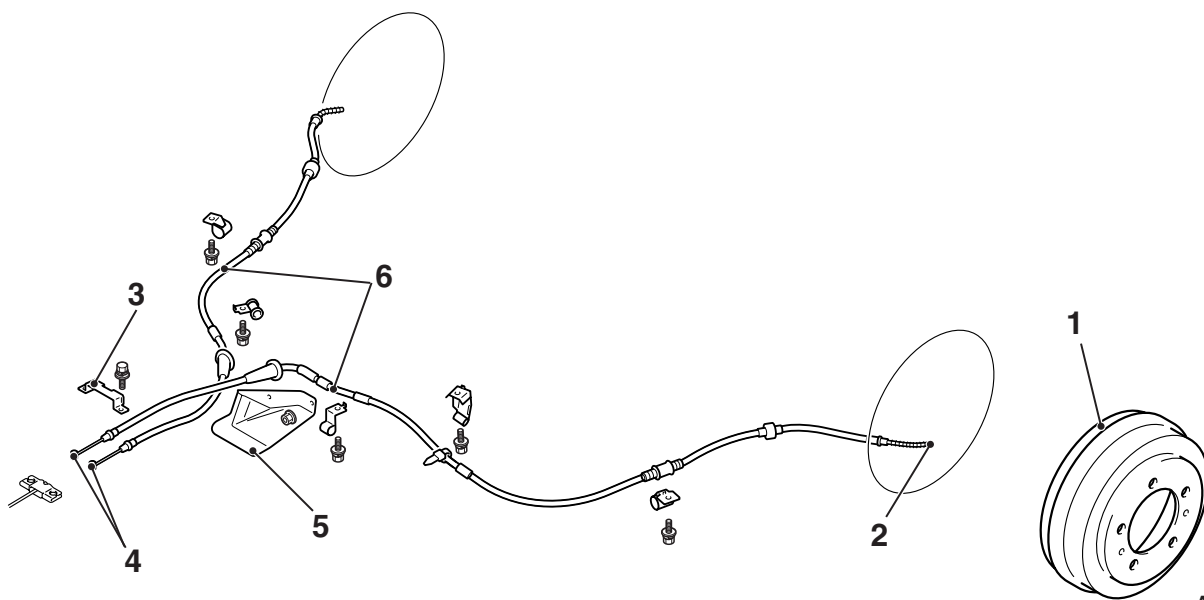
<Rear (vehicles with rear drum brakes)>

Pre-removal Operation

- Front scuff plate, rear scuff plate, cowl side trim, lower center pillar trim removal (Refer to GROUP 52A, Trims [P.52A-19](#)).
- Front seat assembly removal <driver's side> (Refer to GROUP 52A, Front Seat Assembly [P.52A-29](#)).
- Rear seat cushion removal (Refer to GROUP 52A, Rear Seat Assembly [P.52A-36](#)).
- Seat belt lower anchor bolt removal (Refer to GROUP 52A, Front Seat Belt [P.52A-42](#)).
- Floor Console Assembly Removal (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).
- Center console panel and center console removal (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-9](#)).

Post-installation Operation

- Center console panel and center console installation (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-9](#)).
- Floor Console Assembly Installation (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).
- Seat belt lower anchor bolt removal (Refer to GROUP 52A, Front Seat Belt [P.52A-42](#)).
- Rear seat cushion removal (Refer to GROUP 52A, Rear Seat Assembly [P.52A-36](#)).
- Front seat assembly removal <driver's side> (Refer to GROUP 52A, Front Seat Assembly [P.52A-29](#)).
- Front scuff plate, rear scuff plate, cowl side trim, lower center pillar trim removal (Refer to GROUP 52A, Trims [P.52A-19](#)).
- Parking Brake pedal Stroke adjustment (Refer to [P.36-5](#)).



AC300240 AB

Removal steps

- Loosen the adjusting nuts.
 - Turn up the driver's side carpet.
1. Brake drum
 2. Parking brake cable connection

Removal steps (Continued)

3. Protector B
4. Parking brake cable connection
5. Protector C
6. Rear parking brake cable assembly

<<A>>

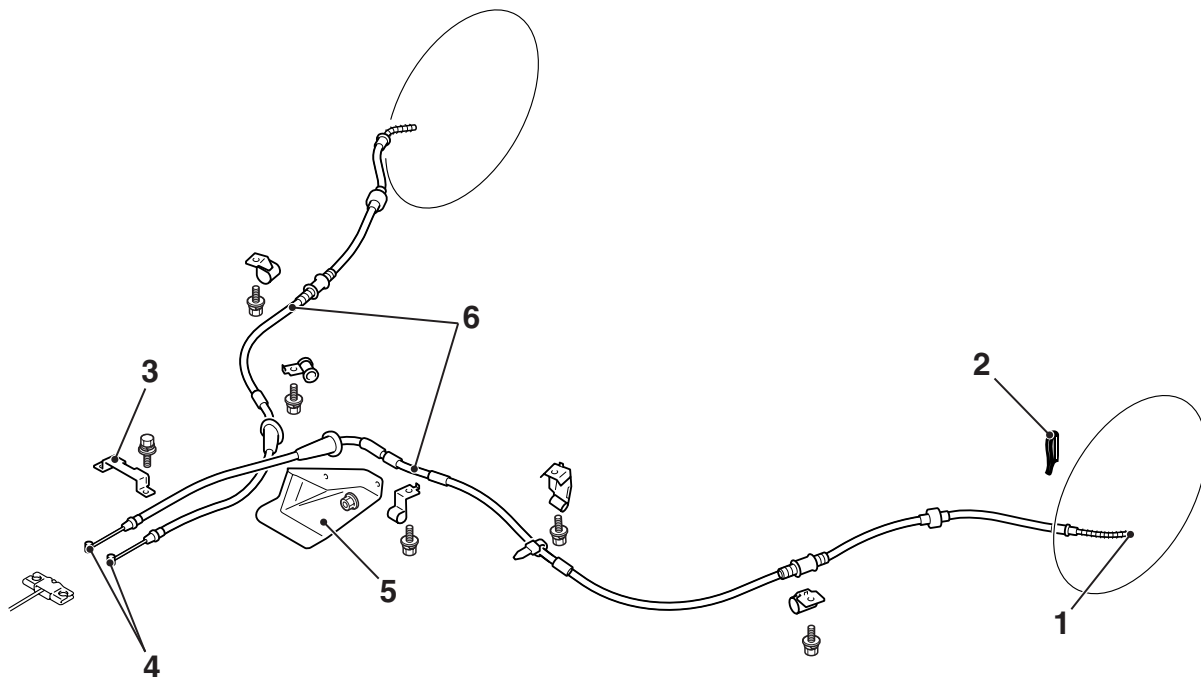
<Rear (vehicles with rear drum-in disc brakes)>

Pre-removal Operation

- Front scuff plate, rear scuff plate, cowl side trim, lower center pillar trim removal (Refer to GROUP 52A, Trims [P.52A-19](#)).
- Front seat assembly removal <driver's side> (Refer to GROUP 52A, Front Seat Assembly [P.52A-29](#)).
- Rear seat cushion removal (Refer to GROUP 52A, Rear Seat Assembly [P.52A-36](#)).
- Seat belt lower anchor bolt removal (Refer to GROUP 52A, Front Seat Belt [P.52A-42](#)).
- Floor Console Assembly Removal (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).
- Center console panel and center console removal (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-9](#)).

Post-installation Operation

- Center console panel and center console installation (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-9](#)).
- Floor Console Assembly Installation (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)).
- Seat belt lower anchor bolt removal (Refer to GROUP 52A, Front Seat Belt [P.52A-42](#)).
- Rear seat cushion removal (Refer to GROUP 52A, Rear Seat Assembly [P.52A-36](#)).
- Front seat assembly removal <driver's side> (Refer to GROUP 52A, Front Seat Assembly [P.52A-29](#)).
- Front scuff plate, rear scuff plate, cowl side trim, lower center pillar trim removal (Refer to GROUP 52A, Trims [P.52A-19](#)).
- Parking Brake pedal Stroke adjustment (Refer to [P.36-5](#)).



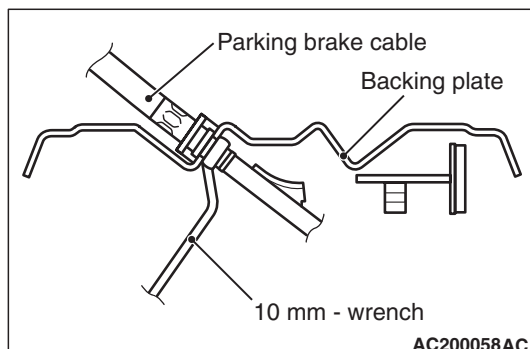
AC202586AD

Removal steps

- Shoe and lining assembly (Refer to [P.36-17](#)).
 - Loosen the adjusting nuts.
 - Turn up the driver's side carpet.
1. Parking brake cable connection

Removal steps (Continued)

2. Clip
3. Protector B
4. Parking brake cable connection
5. Protector C
6. Rear parking brake cable assembly

REMOVAL SERVICE POINT**<<A>> PARKING BRAKE CABLE CONNECTION REMOVAL <Vehicles with rear drum brakes>**

Withdraw the parking brake cable from the backing plate.

NOTE: . Insert a 10 mm-wrench into the parking brake cable to facilitate the cable withdrawal.

PARKING BRAKE LINING AND DRUM

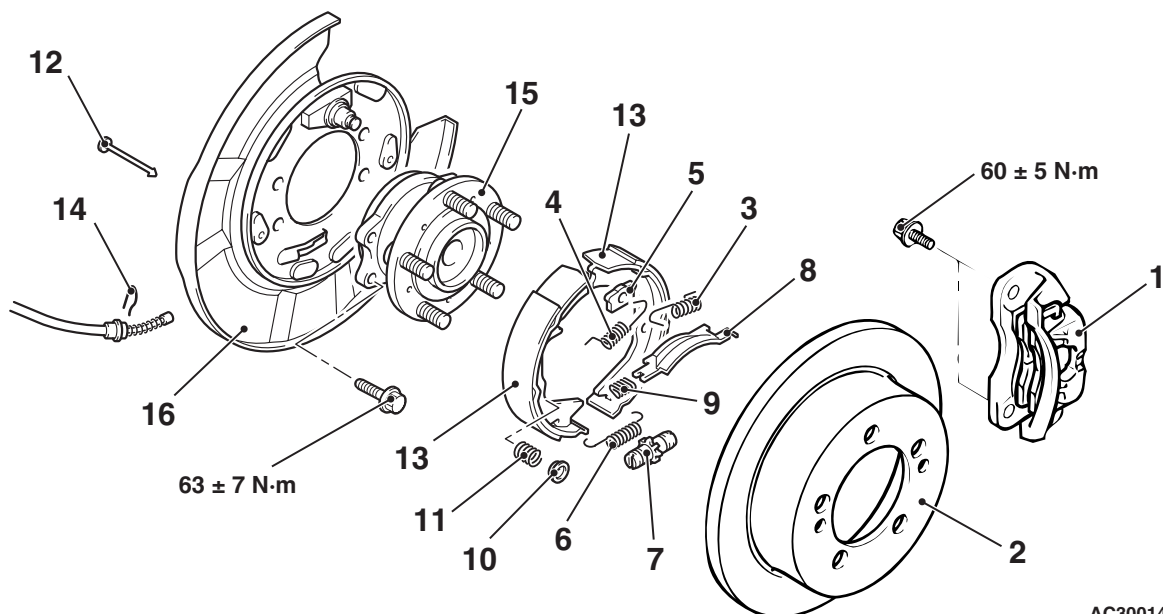
<Vehicles with rear drum-in disc brakes>

REMOVAL AND INSTALLATION

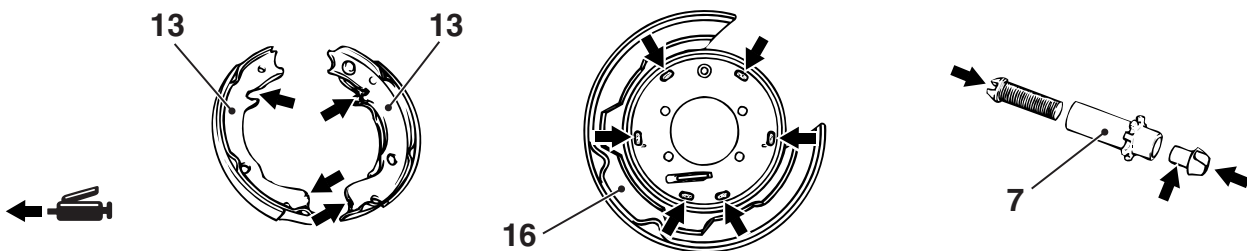
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Post-installation Operation

- Parking Brake Lever Stroke Check and Adjustment (Refer to [P.36-4](#)). <L.H. drive vehicles>
- Parking Brake Pedal Stroke Check and Adjustment (Refer to [P.36-5](#)). <R.H. drive vehicles>
- Lining Running-in (Refer to [P.36-7](#)).
- Floor Console Installation (Refer to GROUP 52A, Floor Console Assembly [P.52A-15](#)). <L.H. drive vehicles>



AC300145AB



Brake grease: Multipurpose grease

- | | | |
|---|--|--|
| <p><<A>></p> <p>>>B<<</p> <p>>>B<<</p> <p>>>A<<</p> | <p>Removal steps</p> <ol style="list-style-type: none"> 1. Rear brake caliper assembly 2. Rear brake disc 3. Shoe-to-anchor spring 4. Shoe-to-anchor spring 5. Shoe guide plate 6. Adjusting wheel spring 7. Adjuster assembly 8. Strut 9. Shoe-to-shoe spring | <p>Removal steps (Continued)</p> <ol style="list-style-type: none"> 10. Shoe hold-down cup 11. Shoe hold-down spring 12. Shoe hold-down pin 13. Shoe and lining assembly 14. Clip 15. Rear hub assembly (Refer to GROUP 27B, Rear Hub Assembly P.27B-9). 16. Backing plate |
|---|--|--|

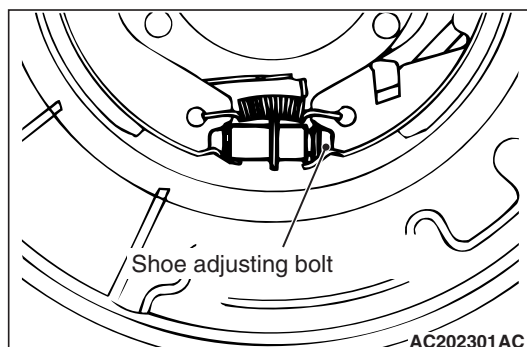
REMOVAL SERVICE POINT

<<A>> REAR BRAKE CALIPER ASSEMBLY REMOVAL

Remove the rear brake caliper assembly and support it with wire or something similar.

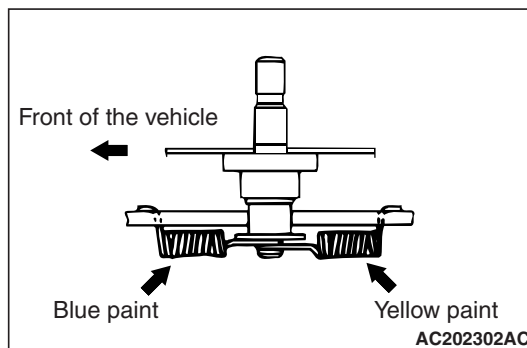
INSTALLATION SERVICE POINTS

>>A<< ADJUSTER ASSEMBLY INSTALLATION



Install the adjuster so that the shoe adjusting bolt for the left hand wheel is attached towards the rear of the vehicle, and the shoe adjusting bolt for the right hand wheel is towards the front of the vehicle.

>>B<< SHOE-TO-ANCHOR SPRING INSTALLATION



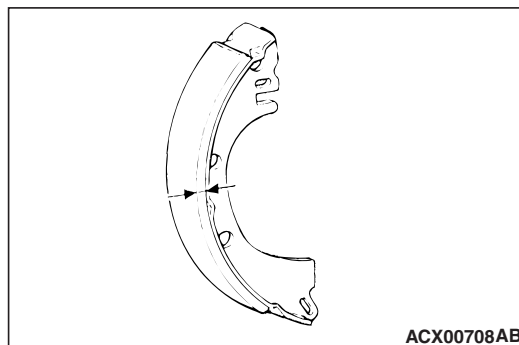
The shoe-to-anchor springs are not interchangeable as their constants are different. The one with blue paint mark should be install at the front of the vehicle, and the other with yellow paint at the rear of the vehicle, respectively.

NOTE: The illustration shows the left rear wheel. The right rear wheel is symmetrical to that.

INSPECTION

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PARKING BRAKE LINING AND BRAKE DRUM CHECK

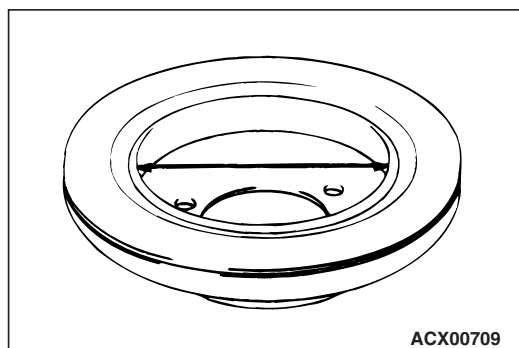


1. Measure the thickness of the brake lining at several places.

Standard value: 2.8 mm

Minimum Limit: 1.0 mm

2. If the thickness of the brake lining is below the limit, replace the shoe and lining assemblies on both sides of the vehicle. Never replace only one side.



3. Measure the inside diameter of the brake disc in two places or more.

Standard value: 168.0 mm

Limit: 169.0 mm

4. If the inside diameter exceeds the limit, or if it is excessively worn on one side, replace the brake disc.