GROUP 35A

BASIC BRAKE SYSTEM

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GENERAL INFORMATION

M2350000100309

The brake system has been designed to give greater reliability and durability and to provide excellent braking performance.

FEATURES

IMPROVED BRAKING PERFORMANCE

1. A 8+9 inch tandem brake booster has been adopted to provide sufficient braking force in sudden braking operation.
2. 16-inch 2-piston front ventilated disc brakes have been adopted to provide stable braking force, improved braking feel, and fade-resistant characteristics.
3. 14-inch solid disc brakes have been adopted to provide stable braking force and fade-resistant characteristics.

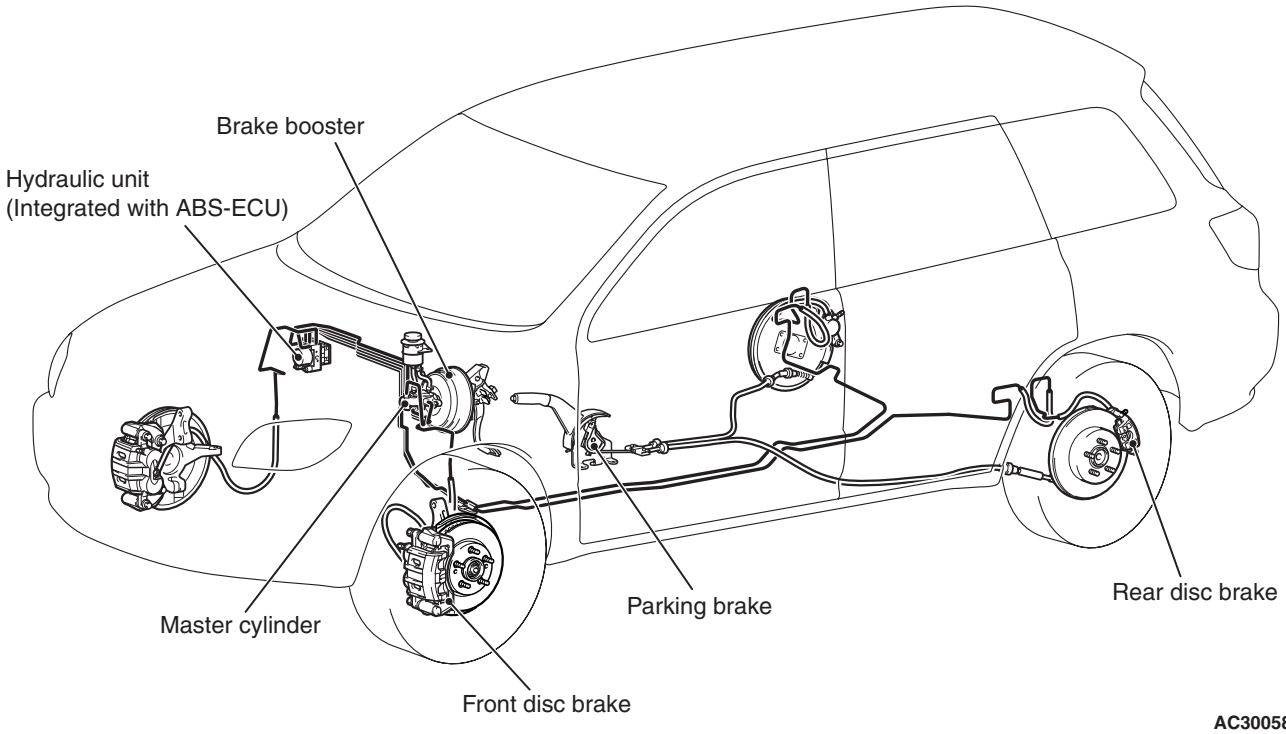
IMPROVED STABILITY

1. A 4-wheel anti-skid braking system (4ABS) has been adopted to prevent slipping caused by the vehicle wheels locking up, in order to maintain an appropriate braking distance, and also to maintain a stable vehicle posture and steering performance.
2. An electronic brake-force distribution (EBD) which makes it possible to maintain the maximum amount of braking force even when the vehicle's load is varied.
3. Front- and rear-wheel X-type brake line layout has been adopted.
4. Ventilated discs have been adopted for front brakes in order to improve anti-fading performance.
5. A brake pedal retraction suppression structure that restrains the retraction of the brake pedal and reduces the shock to the feet of the driver in the event of a frontal collision has been adopted.

IMPROVED SERVICEABILITY

1. A diagnosis function has been adopted for the ABS system in order to make inspection easier.
2. For the front and rear disc brakes, an outer disc separated hub and rotor has been adopted to make removal and installation easier.
3. The master cylinder reservoir tank cap has been coloured white to make identification easier.
4. The ABS-ECU and hydraulic unit have been integrated to make them more compact and lighter.

CONSTRUCTION DIAGRAM



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SPECIFICATIONS

Item		Specification
Master cylinder	Type	Tandem type
	I.D. mm	25.4
Brake booster	Type	Vacuum type, tandem
	Effective dia. of power cylinder mm	205 + 230
	Boosting ratio	7.5
Rear wheel hydraulic control method		Electronic brake-force distribution (EBD)
Front brakes	Type	Floating caliper, 2 piston, ventilated disc
	Disc effective dia. × thickness mm	246 × 24
	Wheel cylinder I.D. mm	42.9
	Pad thickness mm	10.0
	Clearance adjustment	Automatic
Rear disc brakes	Type	Floating caliper, 1 piston, solid disc
	Disc effective dia. × thickness mm	226 × 10
	Wheel cylinder I.D. mm	38.1
	Pad thickness mm	10.0
	Clearance adjustment	Automatic
Brake fluid		DOT3 or DOT4

BRAKE PEDAL

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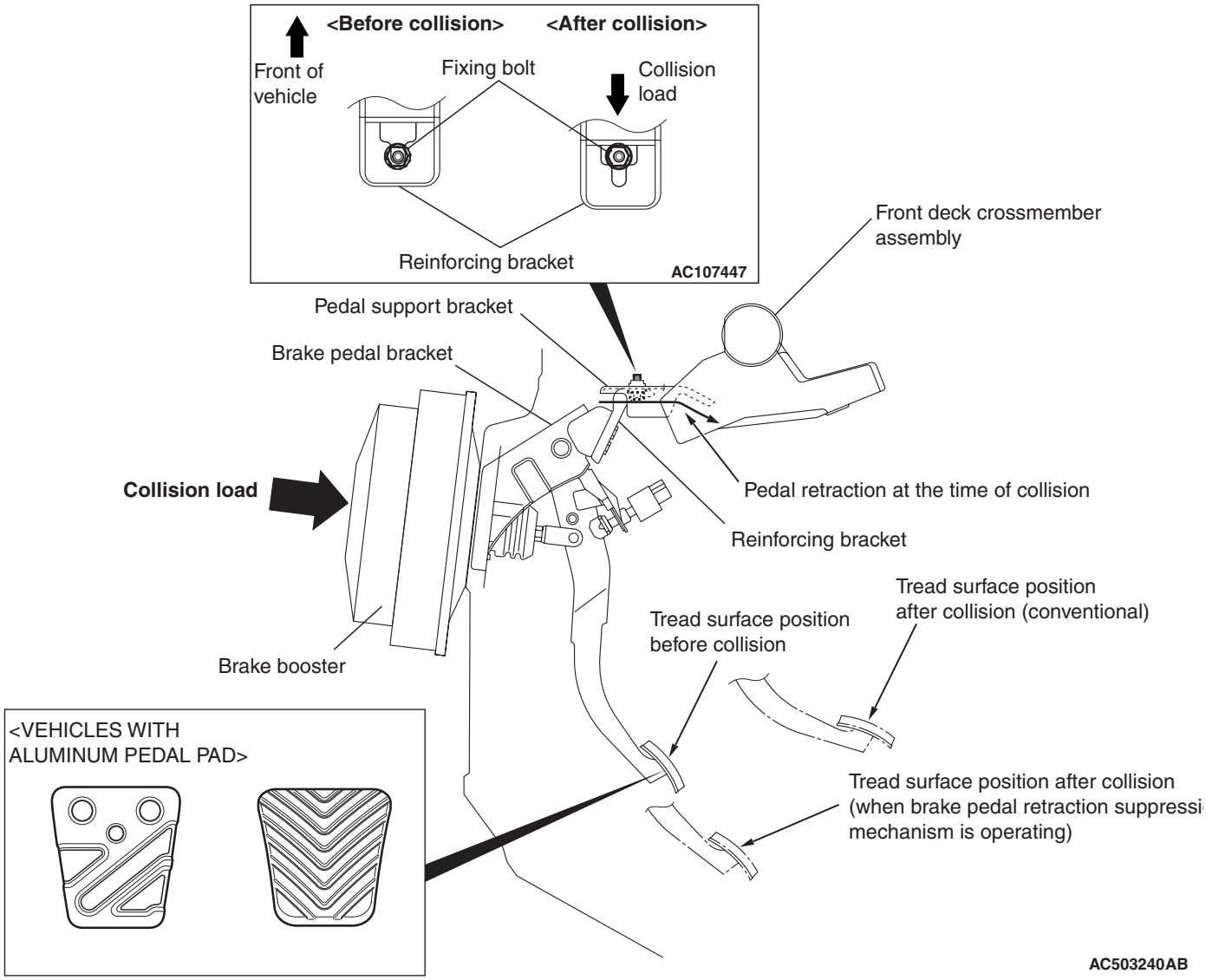

A brake pedal retraction suppression mechanism that minimizes the retraction of the brake pedal in the event of a frontal collision has been adopted to reduce the shock to the feet of the driver.

If the brake booster section is pushed in by retraction of the engine, etc. in the event of a collision, the fixing bolt on the support bracket is separated from the reinforcing bracket. The brake pedal bracket hits the support bracket and does not move backwards, and the tread surface of the brake pedal does not move backwards or upwards.

MASTER CYLINDER

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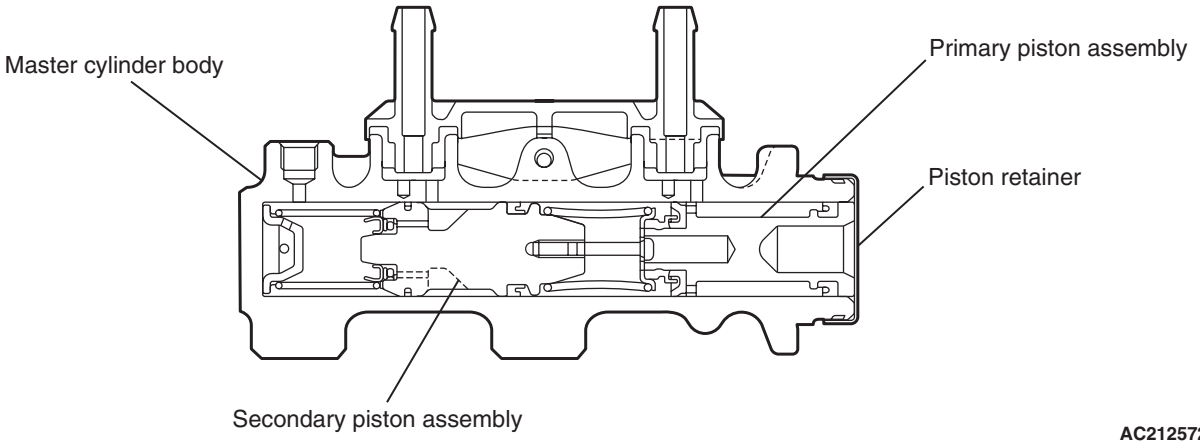

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The master cylinder is a tandem-type, with a structure that emphasizes safety.

BRAKE BOOSTER

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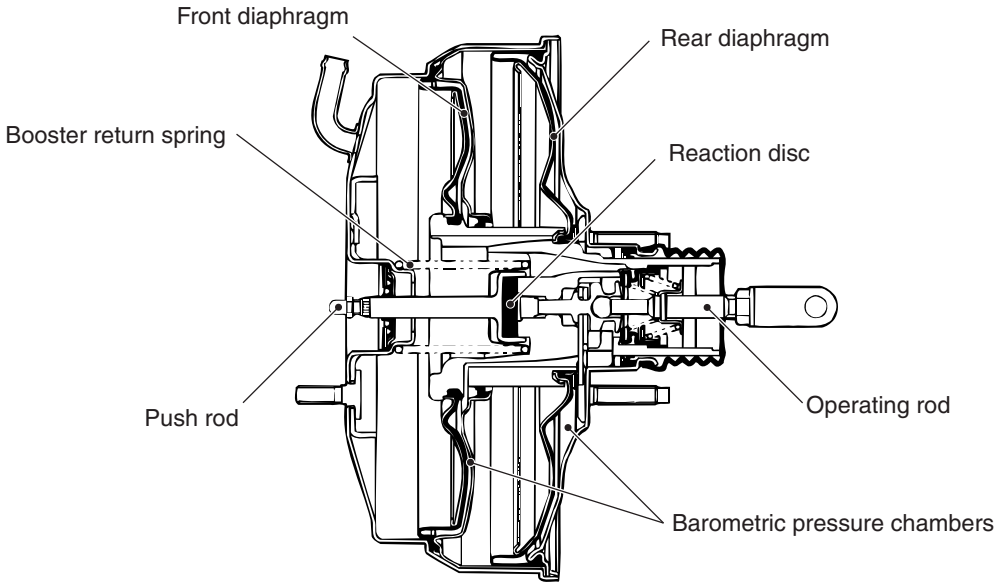

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To improve the braking performance an 8 + 9-inch tandem-type brake booster is used on all models. The tandem type brake booster uses two diaphragms to double the power effect resulting from the pressure difference between atmospheric pressure and vacuum. It ensures an increased brake boosting power without increasing the outside diameter.

FRONT BRAKE

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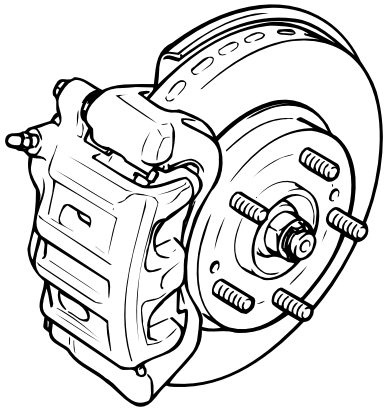

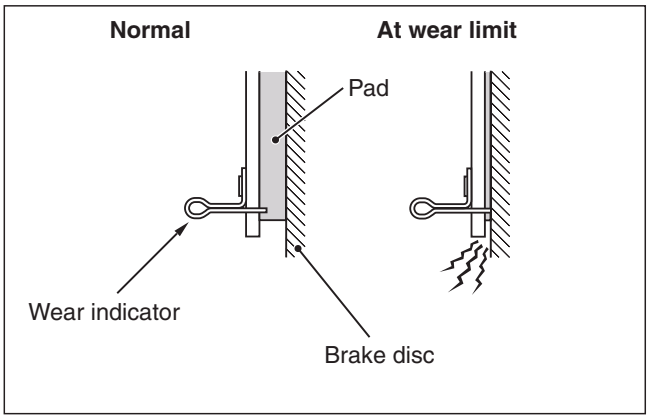

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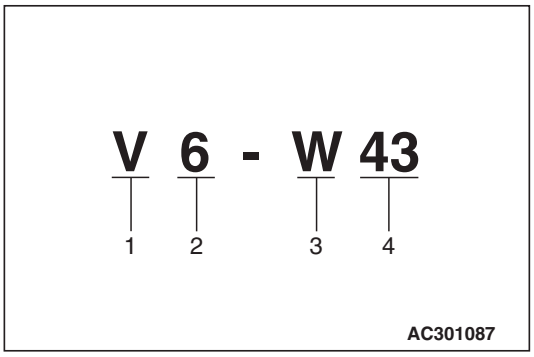
Brakes with the following specifications have been adopted for the front brakes.

- V6-W43 2-piston ventilate discs
- An outer disc method in which the wheels and discs are tightened together has been adopted to improve the ease of brake disc removal and installation.
- The brake pads are equipped with mechanical-type audible wear indicators to notify the driver when the usage limit (2 mm) has been reached.

DISC BRAKE NOMENCLATURE



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No.	Item	Content
1	Brake disc type	S: Solid V: Ventilated
2	Brake size (Minimum applicable disc wheel)	4: 14-inch 6: 16-inch
3	No. of pistons	S: 1 piston (floating type) W: 2 piston (floating type)
4	Piston size (rounded to nearest integer)	38: ϕ 38.1 mm 43: ϕ 42.9 mm

REAR BRAKE

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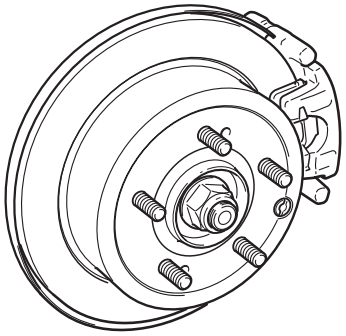

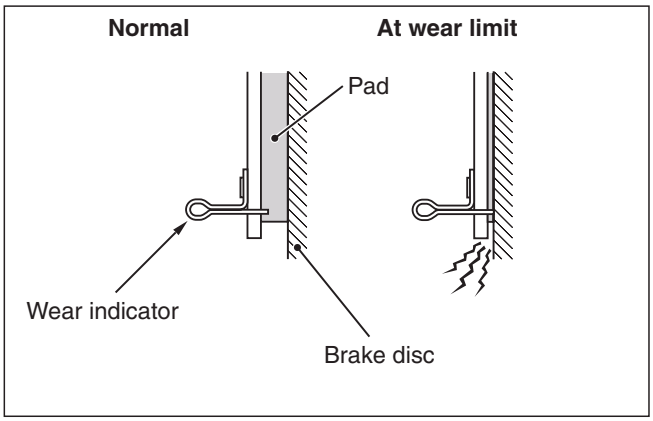

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Brakes with the following specifications have been adopted for the rear brakes.

- S4-S38 1-piston solid discs*
- An outer disc method in which the wheels and discs are tightened together has been adopted to improve the ease of brake disc removal and installation.
- The brake pads are equipped with mechanical-type audible wear indicators to notify the driver when the usage limit (2 mm) has been reached.

*NOTE: *For the brake disc name, refer to FRONT BRAKE P.35A-6.*

NOTES