

WIPER AND WASHER SYSTEMS



| | Page |
|---------------------------------|------|
| 1. Front Wiper and Washer | 2 |
| 2. Rear Wiper and Washer | 6 |

FRONT WIPER AND WASHER

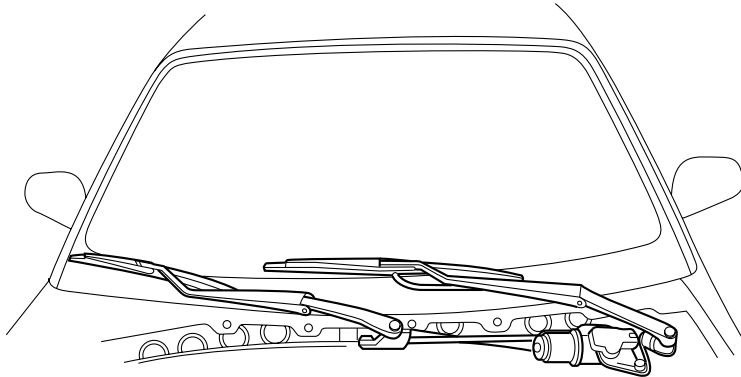
WIPER AND WASHER SYSTEMS

1. Front Wiper and Washer

A: GENERAL

1. FRONT WIPER

- 1) The front wiper is of a tandem type featuring wide wiping area. The blade is installed to the arm by means of U-hook joint to improve serviceability.
- 2) The front wiper operates in the HI and LOW speed modes and the INTERMITTENT mode. The operation modes can be selected by turning the wiper switch incorporated in the combination switch.
- 3) In the INTERMITTENT mode, the intermittent unit installed behind the combination switch controls the front wiper operation interval.
- 4) The front wiper system uses a modular construction in which the wiper motor forms an integral part of the linkage. The motor is installed on the body through rubber mounting.



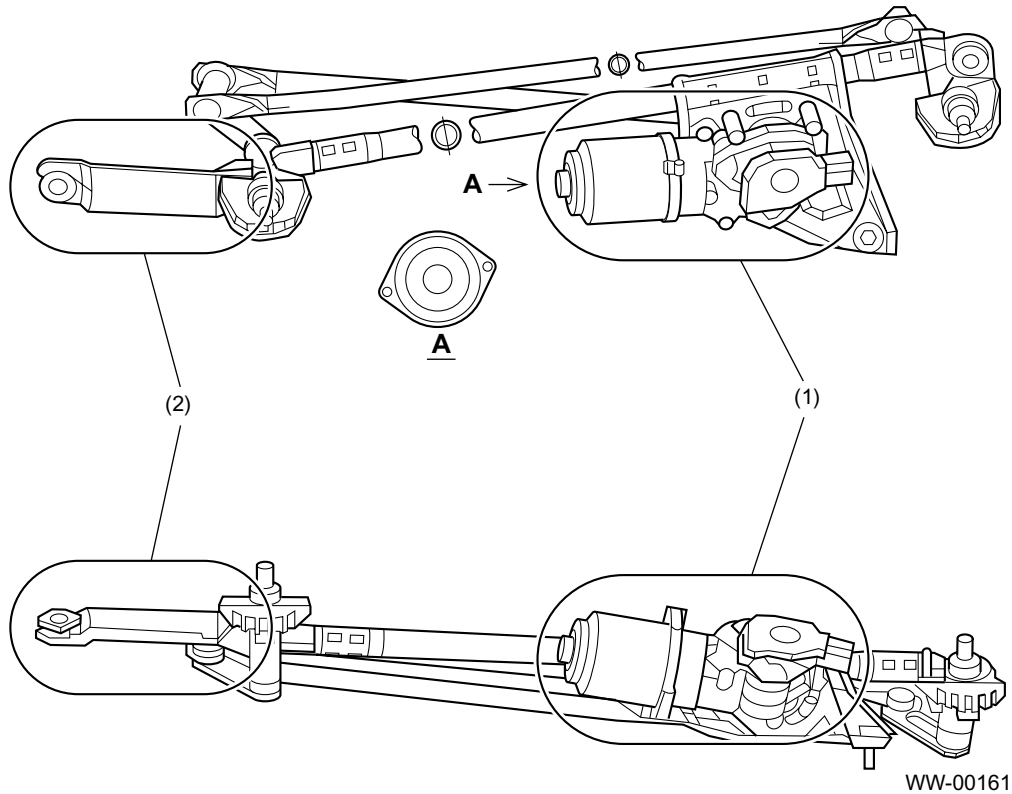
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- 5) The size of the motor is minimized by changing the stator shape, coil windings and the magnet.

FRONT WIPER AND WASHER

WIPER AND WASHER SYSTEMS

6) If a force exceeding a certain level is applied due to a front collision etc., the bracket breaks to absorb the impact.



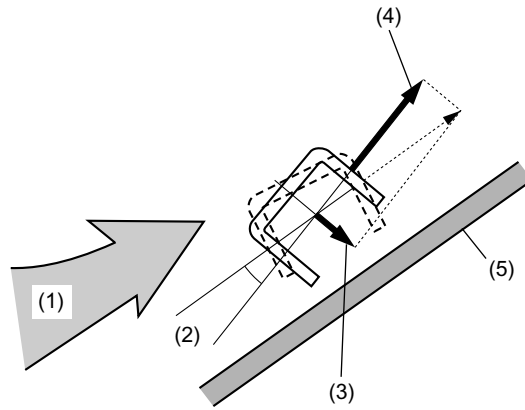
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- (1) Motor
- (2) Bracket

FRONT WIPER AND WASHER

WIPER AND WASHER SYSTEMS

7) The driver's side wiper arm is angled in relation to the windshield to disperse the force applied to the wiper arm by the airflow. A part of the dispersed force acts to press the wiper blade against the windshield helping to prevent the wiper blade being lifted up.



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- | | |
|---|---------------------|
| (1) Air flow | (4) Dispersed force |
| (2) Angle of twist | (5) Windshield |
| (3) Dispersed force (pressure against windshield) | |

FRONT WIPER AND WASHER

WIPER AND WASHER SYSTEMS

2. FRONT WASHER SYSTEM

- 1) The front washer system consists of a washer tank, motor and pump unit, and two nozzles.
- 2) The washer tank is installed behind the front bumper side, under the left headlight.
- 3) The motor and pump unit is installed at the bottom of the washer tank.
- 4) The washer nozzles are installed on the hood. Each nozzle has a spray hole.
- 5) Each washer nozzle has a check valve at a location approximately 100 mm (3.9 in) from the nozzle.

3. SPECIFICATIONS

| | | | | |
|-------------|---|-------------------------------|----------|---|
| Washer tank | Capacity | 3.0 2 (3.2 US qt, 2.6 Imp qt) | | |
| Wiper motor | Rated voltage | 12 V | | |
| | No-load current | 4 A or less | | |
| | Speed [2.0 N·m (20 kg-cm, 17 in-lb)] | HIGH | 66±6 rpm | |
| | | LOW | 43±5 rpm | |
| | Motor characteristics during binding | HIGH | Torque | 29.4 N·m (300 kg-cm, 2.2 ft-lb) or more |
| | | | Current | 36.0 A or less |
| | | LOW | Torque | 34.3 N·m (350 kg-cm, 2.5 ft-lb) |
| | | | Current | 31.5 A or less |
| Wiper blade | Length | Driver's side | | 550 mm (21.65 in) |
| | | Passenger's side | | 425 mm (19.69 in) |

REAR WIPER AND WASHER

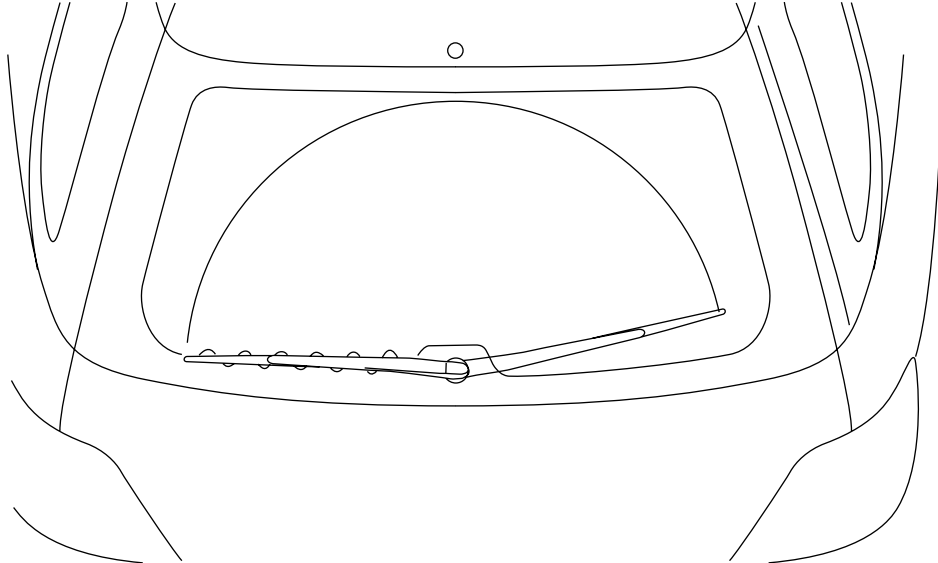
WIPER AND WASHER SYSTEMS

2. Rear Wiper and Washer

A: GENERAL

1. REAR WIPER

- 1) The rear wiper operates intermittently at a 10-second interval.
- 2) The rear wiper operates over a 168-degree angle.



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2. REAR WASHER SYSTEM

- 1) The washer tank is shared with the front washer system.
- 2) The motor and pump unit for the rear washer is installed at the bottom of the washer tank, together with the front washer's unit.
- 3) The washer nozzle is installed on the upper portion of rear gate panel. The nozzle has a spray hole.
- 4) A check valve is installed to the hose joint at the rear floor rear edge.

3. SPECIFICATIONS

| | | |
|-------------|---|-------------------|
| Wiper motor | Rated voltage | 12 V |
| | No-load current | 2 A or less |
| | Speed [at 0.5 N·m (5 kg·cm, 4.3 in·lb)] | 25 rpm or more |
| | Locked rotor current | 13 A or less |
| Wiper blade | Length | 350 mm (13.78 in) |