
GROUP 51

EXTERIOR

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GENERAL INFORMATION

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Both high driving performance and great utilities are achieved to establish the "On-road SUV style" that provides the all round cruising performance.

- Harmonizing the tough functionality as an SUV with sporty driving performance exceeding an SUV
- Front face design creates sharp shape that is robust and handsome

FEATURES

BETTER APPEARANCE

1. Newly designed front three-diamond mark
2. Front bumper extension appealing the robust front mask
3. Overfender shape to keep the off-road image
4. Side air dam
5. Liftgate spoiler (with the integral high mounted stop light)
6. Plastic arm for the rear wiper

BETTER AERODYNAMIC CHARACTERISTICS

7. Overfender shape to improve the aerodynamic performance
8. Side air dam
9. Liftgate spoiler
10. Low air resistance large size door mirrors

IMPROVEMENT OF COOLING EFFICIENCY

11. Air guide duct to cool the radiator has been installed behind the front bumper.

BETTER USER-FRIENDLINESS

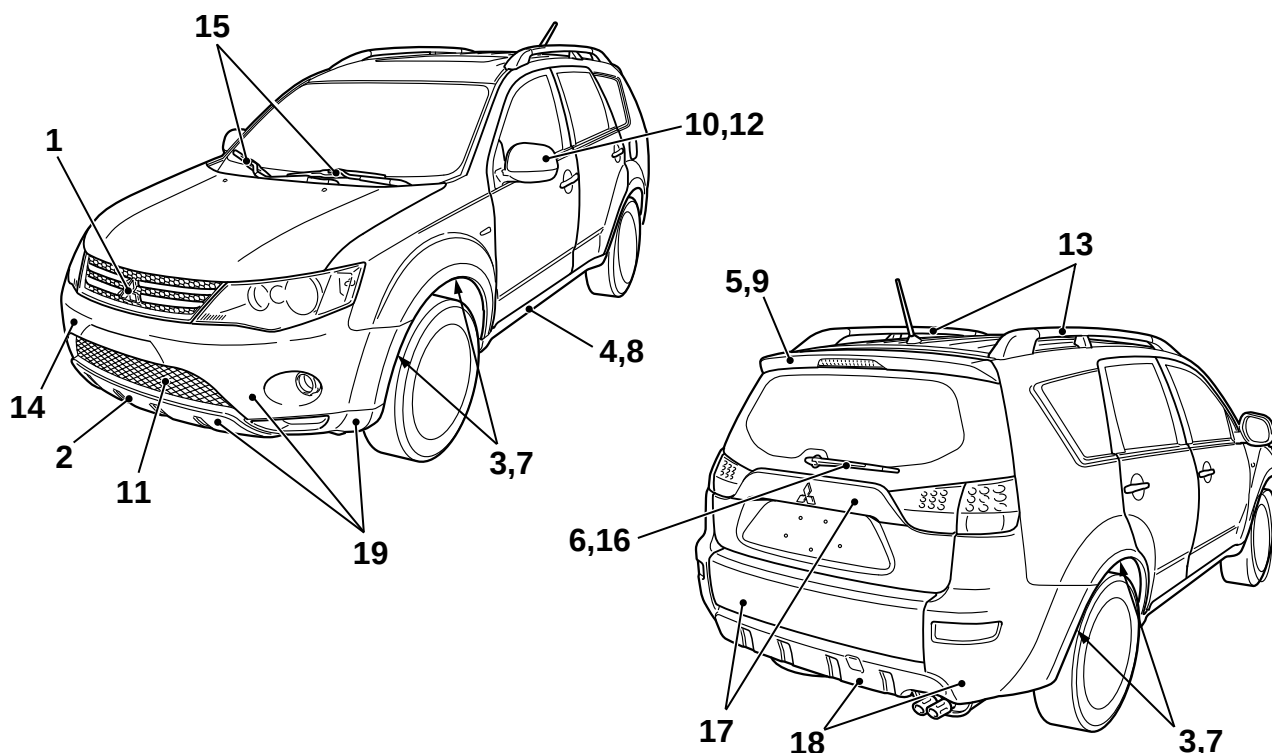
12. Heated door mirrors
13. Roof rails

BETTER PRODUCT PACKAGE

14. Pad (front bumper core) has been installed in the front bumper to reduce the severity of an injury in an accident with pedestrians.
15. Vehicle speed-dependent intermittent windshield wiper system
16. Rear intermittent wiper with an initial continuous operation and reverse gear-linked operation functions
17. Liftgate garnishes
18. Divided structure for partial replacement for the front/rear bumper damage

SUPPORT RECYCLING OF RESOURCES

Aggressively uses PP (polypropylene) materials that are easy to recycle and easy to stamp material symbols on the plastic (resin) parts.

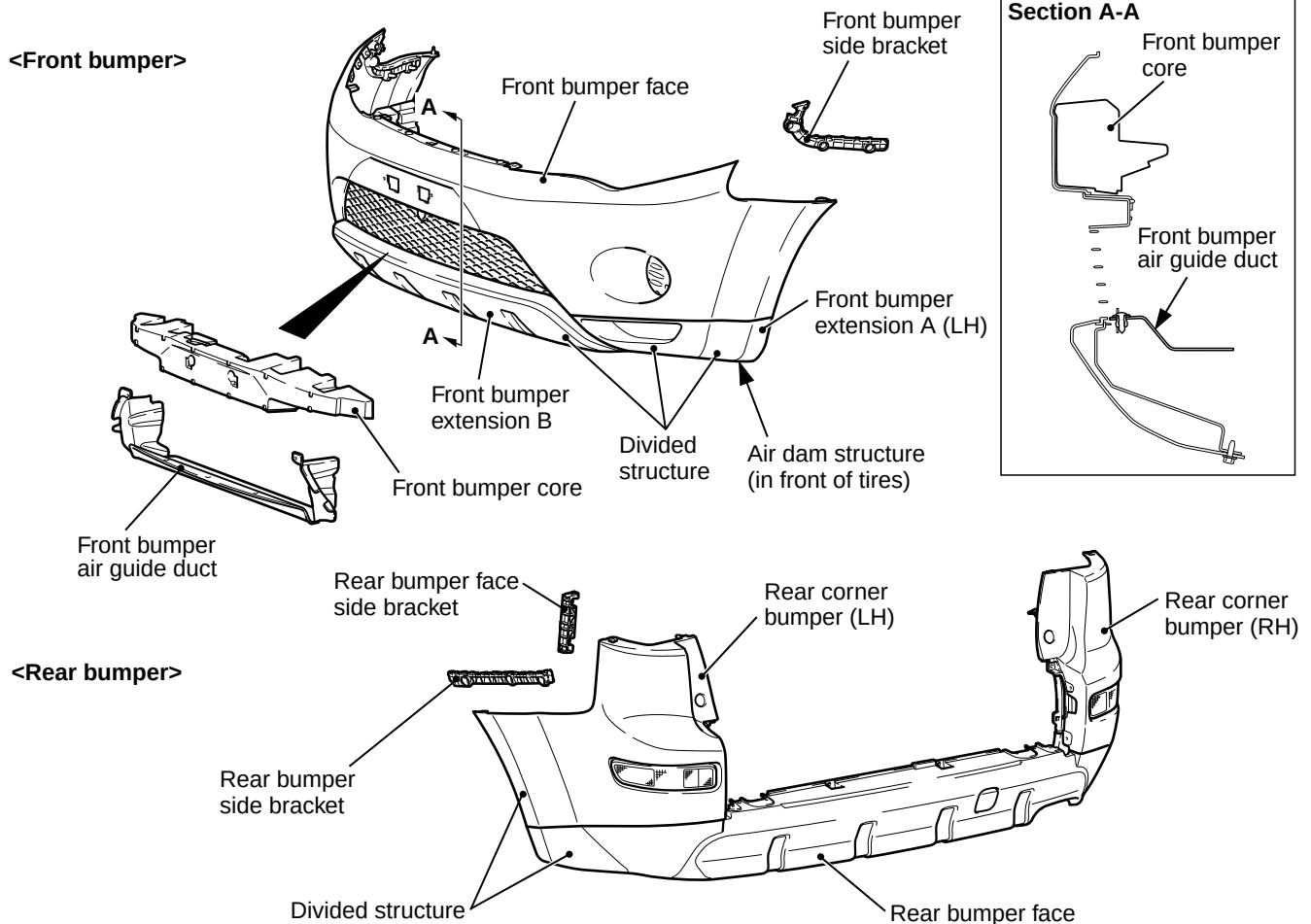


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BUMPER

M25100000020USA0000010000

CONSTRUCTION DIAGRAM



ZC5018310000

FRONT BUMPER

- Divided structure has been adopted for the front bumper to improve the partial replacement, cost reduction in damaged parts replacement, and the recycle efficiency in scrapping.
- Resin front bumper side bracket has been adopted to improve the alignment with the body.
- Air dam structure in front of tires with the overhung front bumper at the right and left corners suppress the airflow against the tires and smoothen the airflow along the bumper sides.

- Pad (front bumper core) has been installed in the upper part of the bumper to reduce the severity of an injury in an accident with pedestrians.
- Air guide duct has been installed behind the front bumper to improve the radiator cooling efficiency.

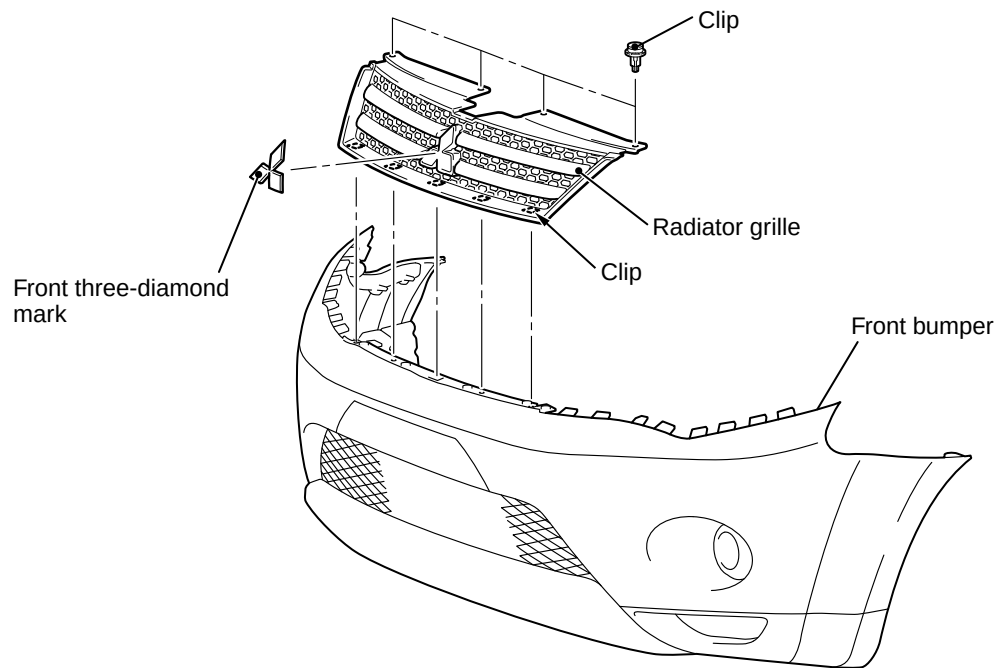
REAR BUMPER

- Divided structure has been adopted for the rear bumper to improve the partial replacement, the cost reduction in damaged parts replacement, and the recycle efficiency in scrapping.
- Resin rear bumper side bracket and resin rear bumper face side bracket have been adopted to improve the alignment with the body.

RADIATOR GRILLE

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CONSTRUCTION DIAGRAM



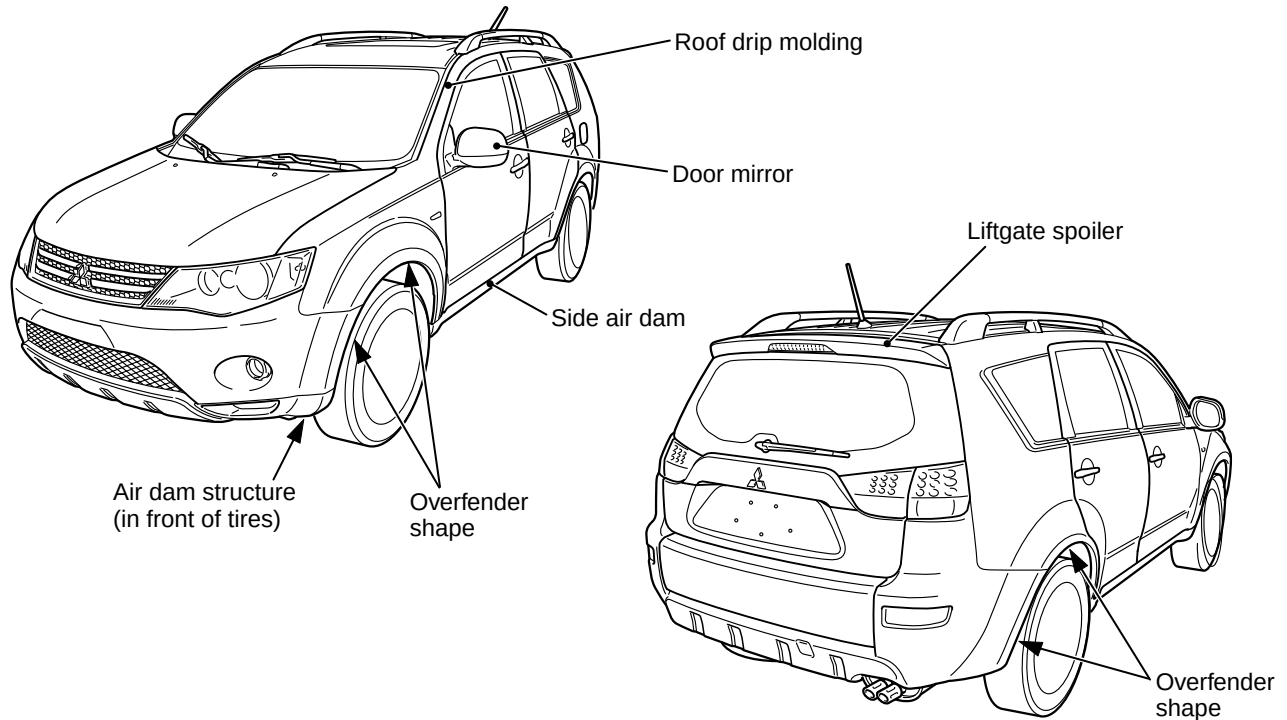
ZC5018510000

- The structure that allows the radiator grille to be removed and installed only by clips at the top and bottom has been adopted.
- The newly designed front three-diamond mark is protruded from the installation surface of the radiator grille to improve the brand appeal.

AERO PARTS

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CONSTRUCTION DIAGRAM



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Aerodynamic performance has been improved by the optimized shape of the following parts.

- Air dam structure in front of tires (Refer to P.51-3.)
 - Overfender shape
- Overfender shape from the front bumper to the fender and from the quarter panel to the rear

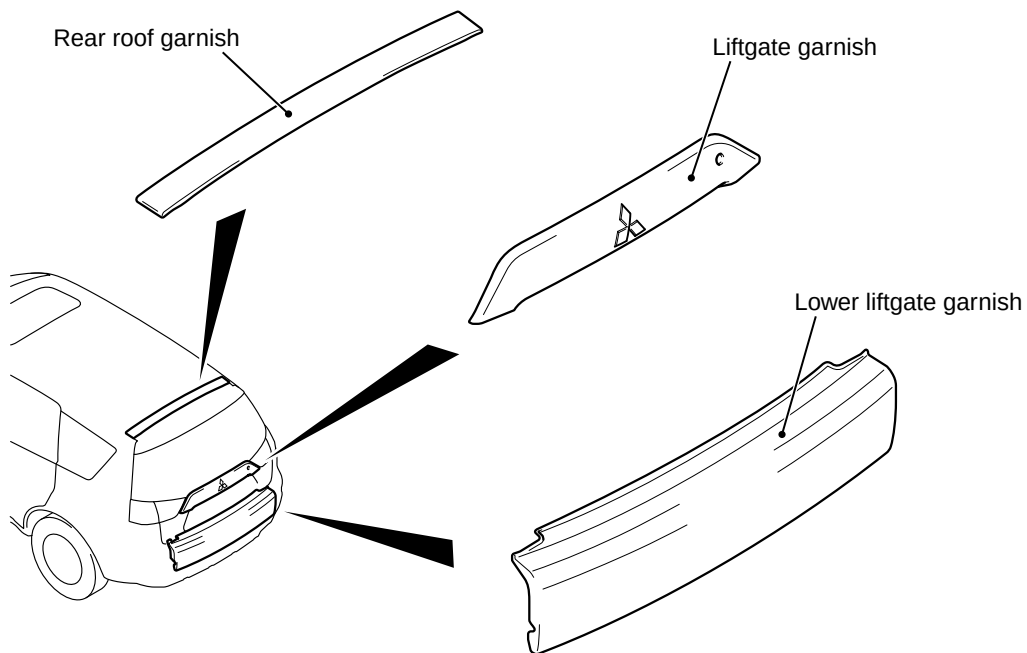
bumper keeps the off-road vehicle image as an SUV, at the same time the optimized shape of the related parts improves aerodynamic performance.

- Door mirror
- Roof drip molding
- Side air dam
- Liftgate spoiler (with built-in high-mount stop light)

GARNISHES

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CONSTRUCTION DIAGRAM



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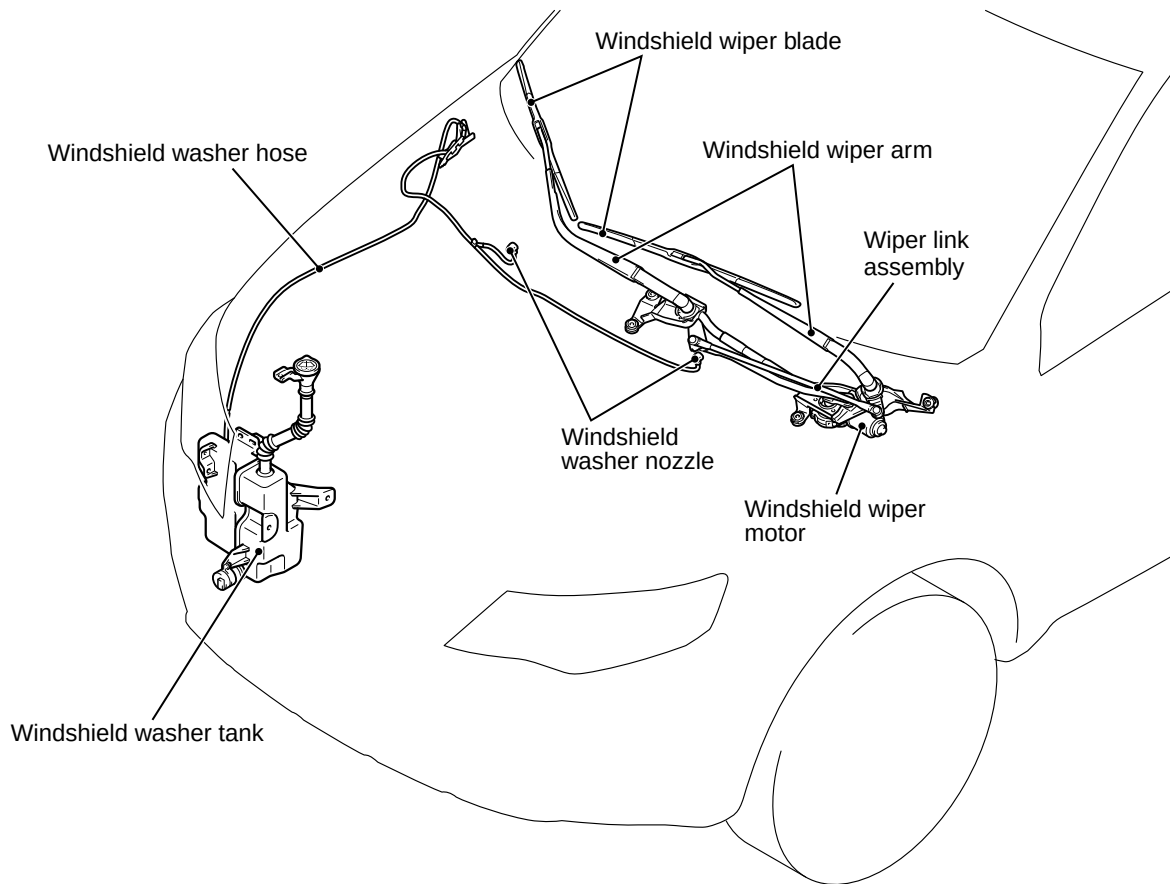
The following garnishes have been installed on the body to improve the appearance and marketability.

- Rear roof garnish
- Liftgate garnish
- Lower liftgate garnish

WINDSHIELD WIPER AND WASHER

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CONSTRUCTION DIAGRAM



ZC5018650000

- 2-speed (low/high speed) windshield wiper
- The intermittent wiper features a vehicle speed-dependent variable intermittent time system*.
- Wiper motor torque has been increased to improve kinetic performance of the wiper in the snowfall. Wiper blade pressure has been increased to improve the wiping performance while driving at high speed.
- The mist wiper is turned ON by operating the mist switch in the opposite direction of the wiper switch for easy operation. The mist wiper is equipped with the function that quickly wipes raindrops away at high speed when the mist switch is ON, and when the mist switch is OFF, at low speed until the stop position is reached. When the mist switch is briefly turned ON, the wiper operates once at low speed.

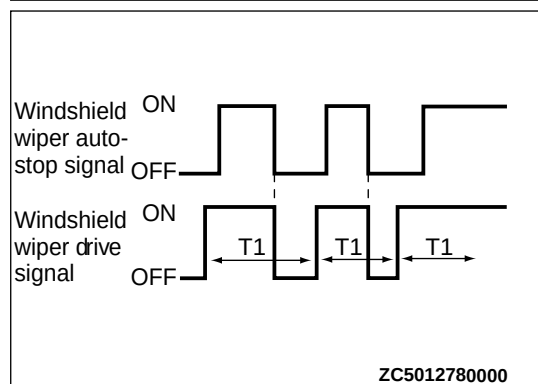
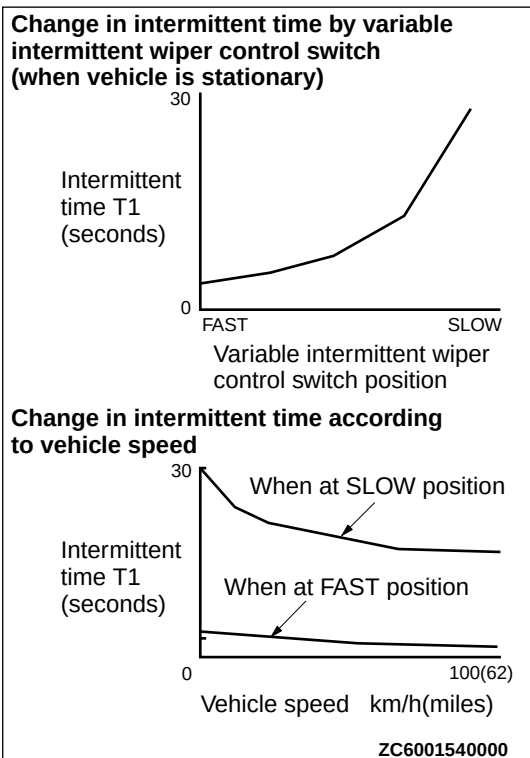
- The windshield washer is a 2-nozzle and 4-jet type.
- Washer nozzle with the integral check valve has been adopted to prevent the washer fluid from running down, and to improve the response to switch operation.
- The washer motor for both front windshield and rear windshield has been installed to reduce the weight.
- Washer-linked wiper function* has been adopted. The washer fluid can be injected without operating the wiper. When the ignition switch is turned ON while the washer switch is ON, the washer motor operates but the wiper does not.

NOTE: *: Using the configuration function, the vehicle speed-dependent variable intermittent time system and the washer-linked wiper function can be adjusted. (Refer to P. 51-13.)

DESCRIPTION OF CONSTRUCTION AND OPERATION

Intermittent control (Vehicle speed-dependent variable

type) Factory default setting: ON

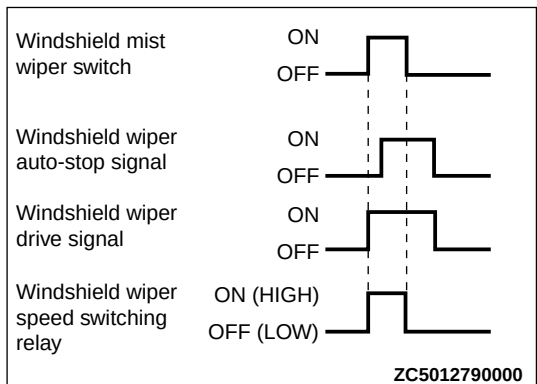


1. ETACS calculates the windshield intermittent wiper interval T1 from the position of the windshield intermittent wiper switch on the column switch and the vehicle speed signal (sent from the TCM to ETACS via CAN communication).

NOTE: Using the configuration function, the vehicle speed-dependent intermittent function can be invalidated. (Refer to P. 51-13.)

2. When ETACS receives the ON signal of the windshield intermittent wiper switch, it turns the windshield wiper drive signal ON. When the wiper reaches the stop position, the windshield wiper auto-stop signal turns OFF, and the windshield wiper drive signal turns OFF.

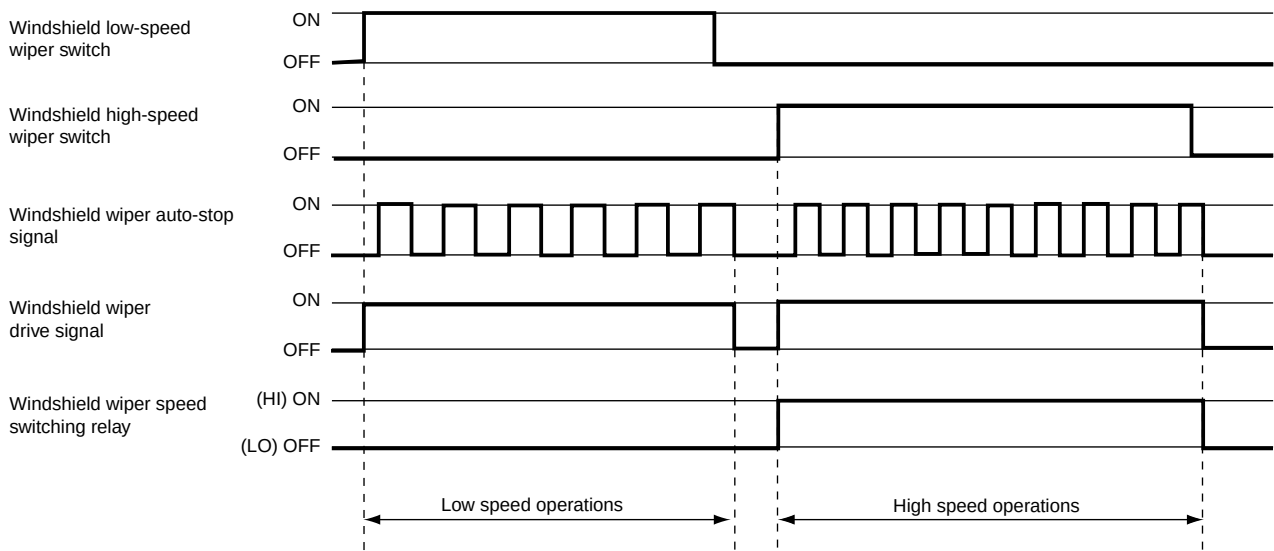
When the intermittent time T1 calculated by step 1 has elapsed after the windshield wiper drive signal ON, the windshield wiper drive signal turns ON again, and the above-mentioned operation is repeated.



Mist wiper control

When the windshield wiper mist switch on the column switch is turned ON while the ignition switch is in ACC or ON position, the column switch turns the windshield wiper drive signal ON. At the same time, the wiper speed switching relay turns ON (HI). When the windshield mist wiper switch is ON, the windshield wiper operates at high speed.

Low speed wiper and high speed wiper control

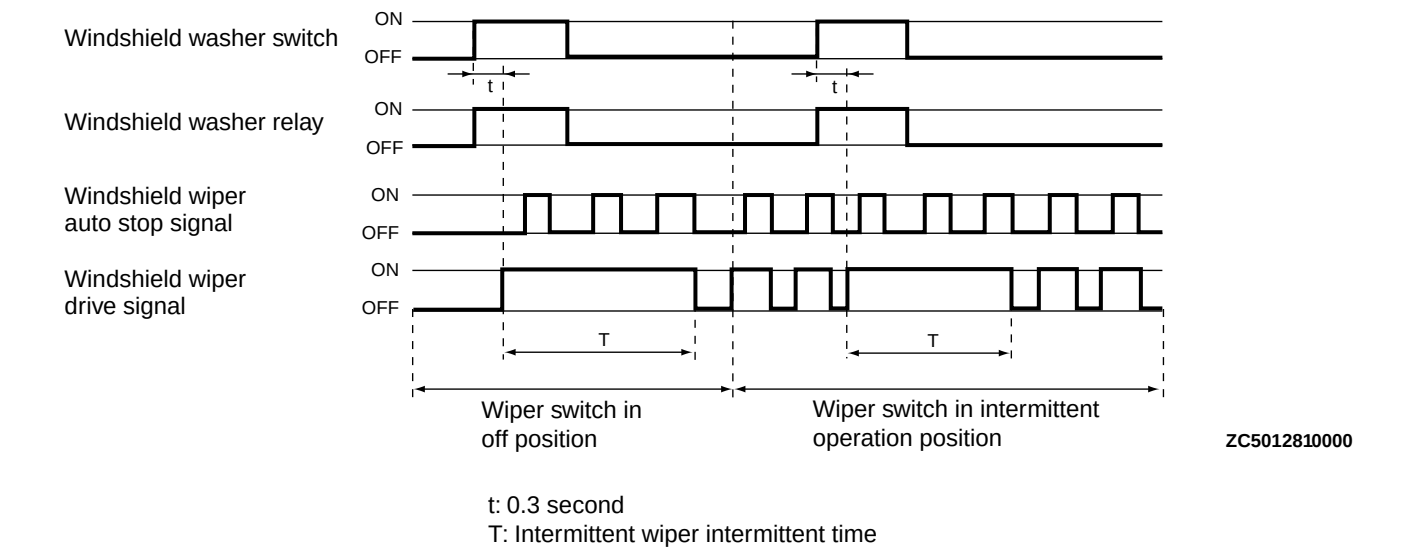


ZC5012800000

When the windshield low speed wiper switch on the column switch is turned ON while the ignition switch is in ACC or ON position, the column switch turns the windshield wiper drive signal ON. Also, the wiper

speed switching relay turns OFF (LO), and the windshield wiper operates at low speed. When the windshield high speed wiper switch is turned ON, the windshield wiper drive signal turns ON. Also, the wiper speed switching relay turns ON (HI), and the windshield wiper operates at high speed.

Windshield wiper linked with washer function Initial condition: with function, with windshield washer check valve



Wiper switch	OFF position			Intermittent operation position				Low-speed or high-speed operation position
Washer switch ON time(t)	0.3 second or less	0.3 to 0.5 second	0.5 second or more	0.2 second or less	0.2 to 0.4 second	0.4 to 0.6 second	0.6 second or more	-
T	0 second	2 seconds	3 seconds	0 second	1 second	2 seconds	3 seconds	3 seconds

When the windshield washer switch on the column switch is turned ON while the ignition switch is in ACC or ON position, ETACS turns the windshield washer relay ON.

When the windshield washer switch is kept ON for 0.3 seconds or longer, the windshield wiper drive signal (the wiper drive signal output time varies depending on the conditions. For details, see the table.) is turned ON, and the windshield wiper operates at high speed. The windshield wiper is turned OFF with 3 seconds delay after the windshield washer switch is turned OFF.

Even when the windshield washer switch is turned ON while the windshield wiper is operating intermittently,

the intermittent action starts again after the linked operation is finished.

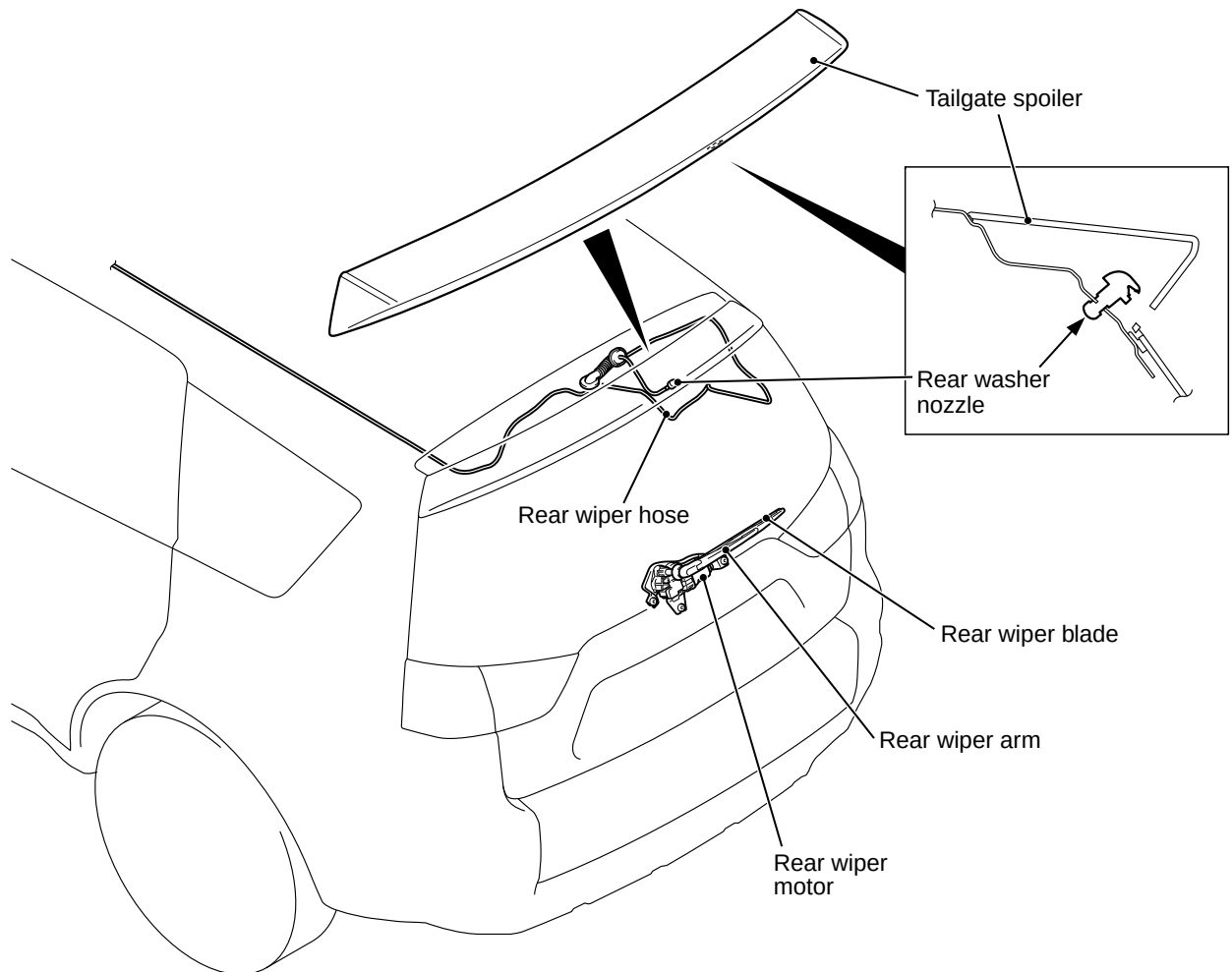
If the ignition switch is turned to ACC position while the windshield washer switch is ON, the windshield washer relay turns ON, but the windshield wiper does not perform the linked operation. When the windshield washer switch is turned OFF and then ON, the windshield wiper starts the linked operation.

- NOTE:**
- Using the configuration function, the washer linked windshield wiper function can be turned off. (Refer to P.51-13.)
 - Using the configuration function, when the washer linked windshield wiper function is turned off, only the washer operates. It is useful to melt down ice on a frozen windshield.

REAR WIPER AND WASHER

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CONSTRUCTION DIAGRAM



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- Resin wiper arm has been adopted to achieve weight reduction and integration of the arm and blade.
- Fixed interval type intermittent wiper* provides a clear rear view in rainy weather.
- The washer tank is shared with the windshield washer.
- The initial continuous operation function has been adopted. In this function, the rear wiper performs continuous low-speed operation for 2 to 3 cycles to sweep the raindrops away from the rear windshield after the rear wiper switch is turned on, and then proceeds with intermittent operation.
- Reverse gear-linked rear wiper function has been adopted. In this function, the rear wiper performs

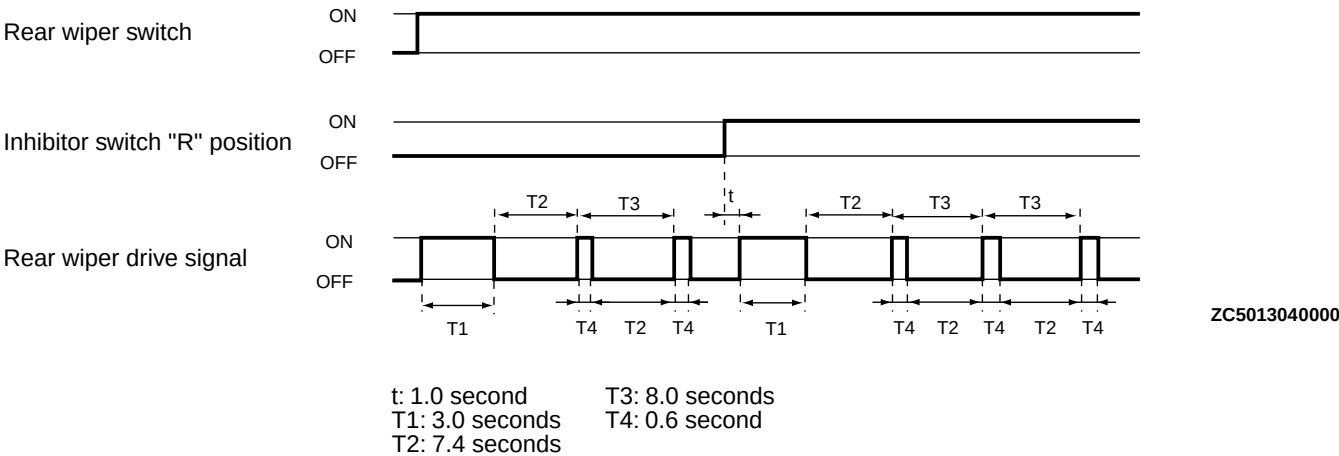
continuous low-speed operation for 2 to 3 cycles approximately 1 second after the selector lever is shifted to "R" position while the rear wiper switch is in the intermittent position, and then proceeds with intermittent operation.

- Washer-linked wiper function* has been adopted. Washer fluid can be optionally injected without operating the wiper. When the ignition switch is turned ON while the washer switch is ON, the washer motor operates but the wiper does not.

NOTE: *: Using the configuration function, the fixed interval type intermittent wiper and the washer-linked wiper function can be adjusted. (Refer to P. 51-13.)

DESCRIPTION OF CONSTRUCTION AND OPERATION

Rear wiper control [Initial condition: 8 seconds (without successive operations)]

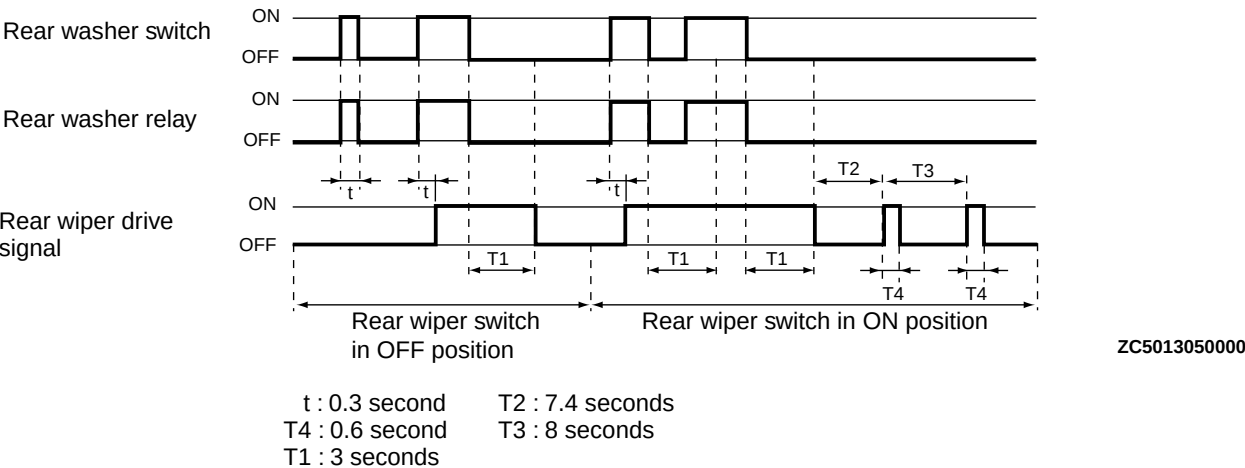


1. When the rear wiper switch on the column switch is turned ON while the ignition switch is in ACC or ON position, ETACS turns the rear wiper drive signal ON for 3 seconds (for approximately 2 cycles) and operates the intermittent action in 8 second intervals. When the selector lever is moved to R (reverse) position during the rear wiper operation, the transmission range switch R (reverse) turns ON, and one second after that, ETACS turns the rear

- wiper drive signal ON for 3 seconds (for approximately 2 cycles), and operates the intermittent action in 8 second intervals again.
2. By the special operation of the rear wiper switch on the column switch (2 consecutive operations), the rear wiper can operate continuously regardless of the set intermittent time.

NOTE: Using the configuration function, the rear wiper intermittent time can be adjusted. (Refer to P. 51-13.)

Rear wiper linked with washer function Initial condition: with function



When the rear washer switch on the column switch is turned ON while the ignition switch is in ACC or ON position, ETACS turns the rear washer relay ON.

The rear washer relay turns ON after the rear washer switch has been ON for 0.3 second, then turns the rear wiper drive signal ON to operate the rear wiper simultaneously. When the rear washer switch is turned OFF, after 3 seconds the rear wiper is turned OFF.

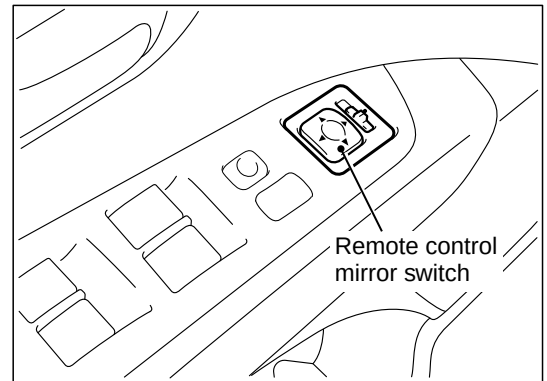
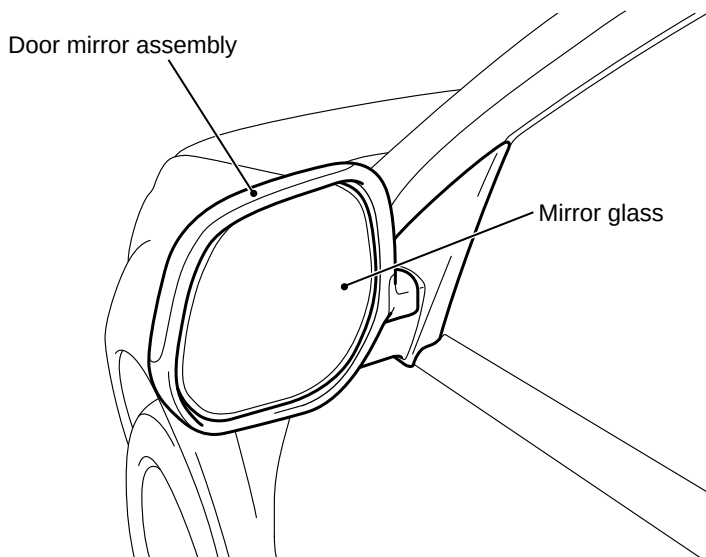
If the rear washer switch is turned ON during the rear wiper operation, 7.4 seconds after turning OFF the rear wiper drive signal turns OFF, the intermittent action is resumed in 8 second intervals.

NOTE: Using the configuration function, the washer linked rear wiper function can be turned off. (Refer to P.51-13.)

OUTSIDE MIRROR

M25100000081USA0000010000

CONSTRUCTION DIAGRAM



ZC6002290001

Door mirrors have the following features:

- Remote controlled door mirrors have been adopted.
- Door mirrors with heater element have been adopted.
- Large size mirror glass has been adopted for easy confirmation of safety around the vehicle.

- Low air resistance door mirror shape has been introduced.
- Flag type which secures sufficient distance between the door mirror and delta pillar has been adopted to reduce the blind spot area of the forward view.

CONFIGURATION FUNCTION

M25100000092USA0000010000

Using the M.U.T.-III scan tool, the following functions can be programmed. The programmed information is

kept in memory even when the battery is disconnected.

EXTERIOR
CONFIGURATION FUNCTION

Adjustment item (scan tool MB991958 display)	Adjustment item	Adjusting contents (scan tool MB991958 display)	Adjusting contents
Front wiper operation	Adjustment of the intermittent windshield wiper operation	Normal INT	Intermittent wiper interval is fixed to 4 seconds.
		Variable INT	Intermittent wiper interval is calculated only by the wiper volume control.
		Vehicle speed dependent	Intermittent wiper interval is calculated according to the intermittent wiper volume control and vehicle speed (default).
Front wiper washer	Disabling or enabling washer-linked wiper function	Washer only	Without function
		Washer-linked wiper	With function (default)
Rear wiper intermittent duration	Adjustment of rear wiper interval	0 seconds	No wiper interval
		4 seconds	4 seconds
		8 seconds	8 seconds (default)
		16 seconds	16 seconds
Rear wiper low speed mode	Disabling or enabling rear wiper continuous operation	Disabled	Without function (default)
		Enabled	With function