## **GROUP 51**

# **EXTERIOR**

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### **GENERAL INFORAMATION**

M2510000101799

Taking over previous model heritages;

- Advanced, aggressive styling with sophisticated surfacing
- Highly competitive body size in the current sporty sedan market
- Impressive front face as the next generation vehicle of Mitsubishi identity
- High-positioned beltline creates a speedy atmosphere
- Solid and rigid construction with simple and clean surface

#### **FEATURES**

#### **BETTER APPEARANCE**

- 1. Radiator grille integrated front bumper
- 2. Side air dams <GTS: Standard, ES: Optional>
- 3. Rear spoiler <GTS: Standard, ES: Optional>

## BETTER AERODYNAMIC CHARACTERISTICS

4. Aerodynamic front bumper

- 5. Air dam skirt panels <GTS: Standard, ES: Optional>
- 6. Engine room under cover with bulges at left and right (Refer to P.51-3)
- 7. Side air dams <GTS: Standard, ES: Optional>
- 8. Rear spoiler <GTS: Standard, ES: Optional>
- 9. Aerodynamic rear bumper

#### **BETTER USER-FRIENDLINESS**

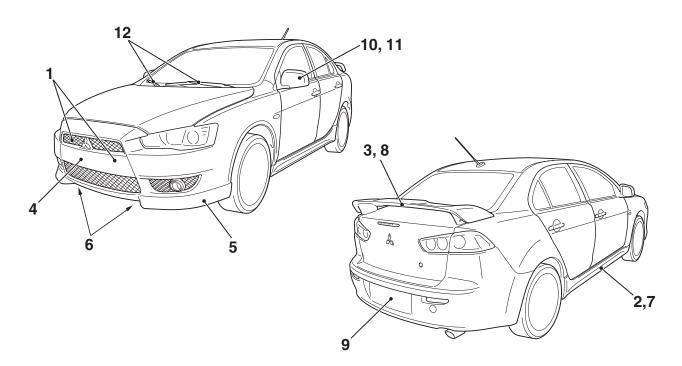
- 10. Electric remote-controlled door mirrors
- 11. Heated door mirrors < Vehicles for Canada>

#### BETTER PRODUCT PACKAGE

12. Vehicle speed sensitive intermittent time variable windshield wiper

#### SUPPORT RECYCLING OF RESOURCES

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

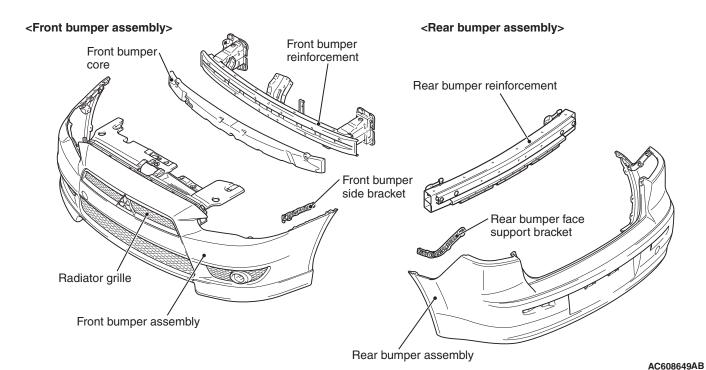


AC607908AC

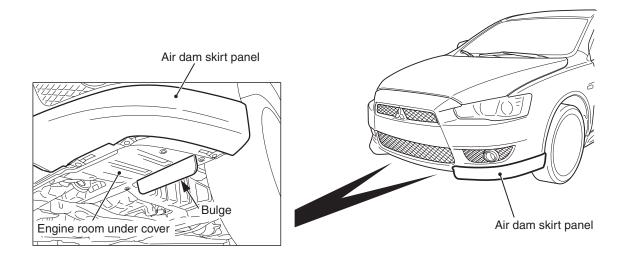
### **BUMPER AND RADIATOR GRILLE**

#### **CONSTRUCTION DIAGRAM**

M2510001300113



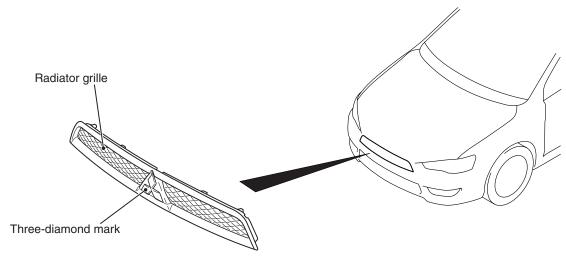
- The front bumper has an opening at the center lower to guide air to the condenser and radiator.
- The front and rear bumpers incorporate highly rigid bumper reinforcements and bumper core (front bumper) for excellent energy-absorption to reduce chassis deformation upon impact.
- With the bumper reinforcements and bumper core (front bumper) remaining on the body, the front/rear bumper can be removed as a unit.
- Resin-made front bumper side brackets and rear bumper face support brackets have been adopted to improve the alignment with the body.
- The rear bumper which is detachable from the body has been abolished to improve maintainability and convertibility.



AC608737AB

 Air dam skirt panels and overhung front bumper corners at the right and left located in front of tires have been adopted to suppress the airflow against the tires and smoothen the airflow along the bumper sides.

 End of the engine room under cover at the right and left is bulged to the bottom for covering front area of tires so that it works as the front air dam.
 With this, the wind blown in airflow coming to under the bumper to induce negative pressure underneath the body, increasing the down force to the front tires.



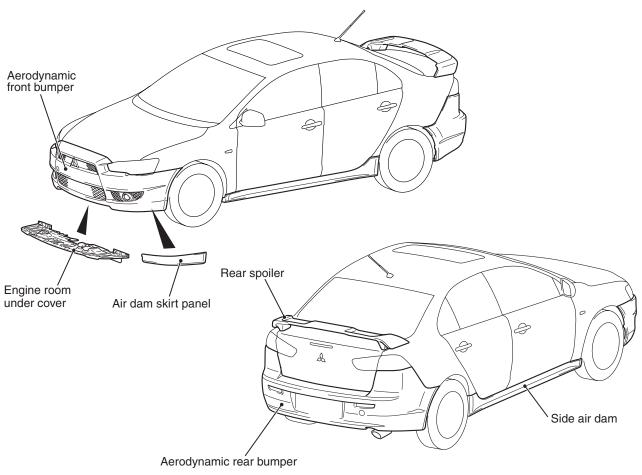
AC608754AB

- Radiator grille is integrated with the front bumper.
- Mesh type radiator grille gives a sleek front mask and sporty image.
- The three-diamond mark is protruded from the installation surface of the radiator grille to improve the brand appeal.

### **AERO PARTS**

M2510003000679

#### **CONSTRUCTION DIAGRAM**



AC608757AB

The following aero parts provide better aerodynamic performance and an appealing look.

- Body and under floor:
   The body shape has been optimized to improve aerodynamic characteristic, and the under covers have been adopted to achieve the rectification effect, smoothing the under floor airflow. With this modification, the air resistance has been reduced to improve fuel economy and driving stability
- Aerodynamic front bumper: Refer to BUMPER AND RADIATOR GRILLE P.51-3.
- Engine room under cover front: Refer to BUMPER AND RADIATOR GRILLE P.51-3.

while driving at high speed.

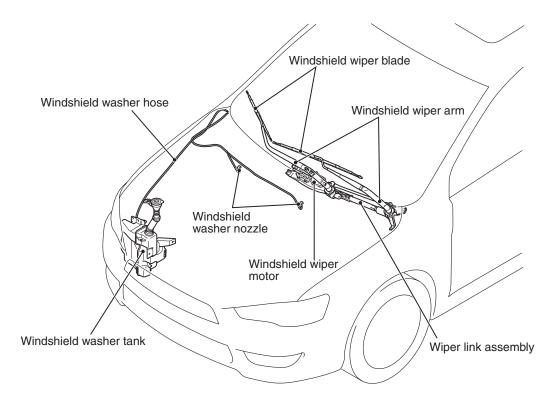
 Air dam skirt panels: Refer to BUMPER AND RADIATOR GRILLE P.51-3.

- Side air dams:
  - Smoothens the airflow under the floor and around the wheels to decrease the air resistance and lifting force.
- Aerodynamic rear bumper:
   The rear bumper is set to the optimum height to decrease the air resistance and lifting force.
- · Rear spoiler:
  - Separates the air vortex induced at the rear of the vehicle to smoothen the airflow. In addition, the rear spoiler horizontal wing has been enlarged and the helix angle has been optimized to reduce the air resistance and to generate the down force, and thus, the road holding quality of rear wheel has been increased to improve the driving stability while driving at high speed.

### WINDSHIELD WIPER AND WASHER

#### **CONSTRUCTION DIAGRAM**

M2510007000604



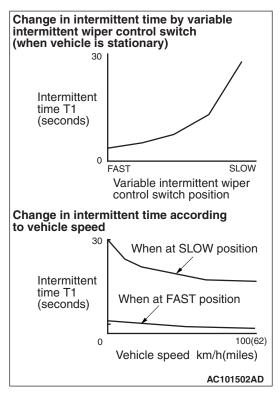
AC607909AB

- 2-speed (low/high speed) windshield wiper has been adopted.
- The intermittent wiper features a vehicle speed-dependent variable intermittent time system\*.
- 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.
- Wiper motor torque has been increased to improve the wiping performance while driving at high speed.

- Mist type 2-nozzle has been adpopted for the windshield washer.
- The mist type washer nozzle has been adopted.
   The washer fluid is injected to a large area, improving the wiping performance.
- 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 customisation function, the vehicle speed-dependent variable intermittent time system and the washer-linked wiper function can be adjusted (Refer to P.51-10).

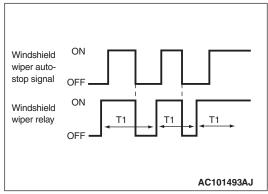
#### **DESCRIPTION OF CONSTRUCTION AND OPERATION**

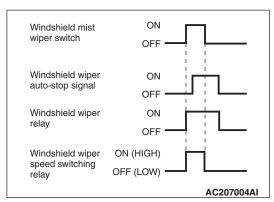


## Intermittent control (Vehicle speed-dependent variable type) <Initial condition: with function>

 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 combination meter to ETACS via CAN communication).

NOTE: Using the customisation function, the vehicle speed-dependent intermittent function can be invalidated (Refer to P.51-10).





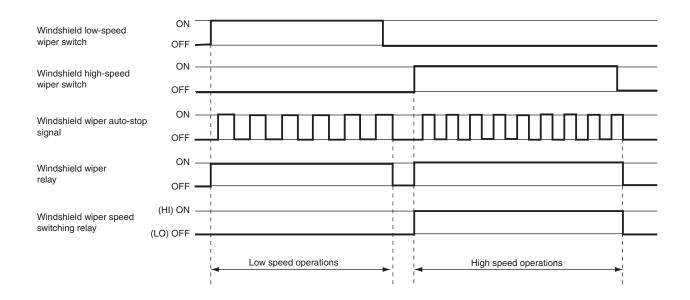
2. When ETACS receives the ON signal of the windshield intermittent wiper switch, it turns the windshield wiper relay ON. When the wiper reaches the stop position, the windshield wiper auto-stop signal turns OFF, and the windshield wiper relay turns OFF.

When the intermittent time T1 calculated by step 1 has elapsed after the windshield wiper relay ON, the windshield wiper relay 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 relay 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

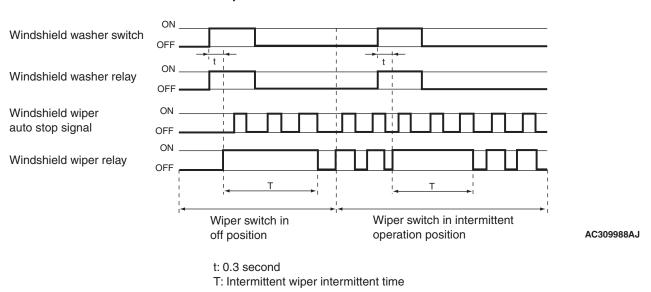


AC506610AH

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 relay 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 relay 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 <a href="Initial condition"></a>: with function, with windshield washer check valve>



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

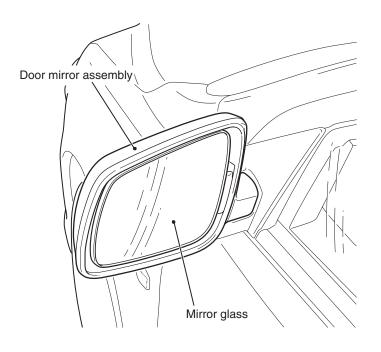
If the ignition switch is turned to ACC position while the windshield washer switch is ON, the windshield washer relay turns ON, but the windshield wiper does not perform the linked operation. When the windshield washer switch is turned OFF and then ON, the windshield wiper starts the linked operation.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

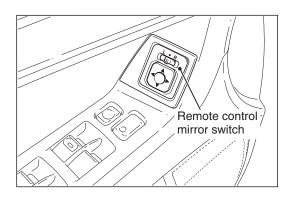
- Using the customisation function, the washer linked windshield wiper function can be invalidated (Refer to P.51-10).
- Using the customisation function, when the washer linked windshield wiper function is invalidated, only the washer operates. It is useful to melt down the ices of the frozen windshield.

## **DOOR MIRRORS**

M2510008100336

#### CONSTRUCTION DIAGRAM





AC607910AC

The outside mirror (door mirror) is a folded type and has the following characteristics.

## **EXTERIOR**CONFIGURATION FUNCTION

- Aerodynamic door mirror shape reduces wind noises, and the door glasses and mirrors do not easily get wet while driving in a rainy day.
- Electric remote-controlled door mirrors
- Heated door mirror (works with the defogger)
   Vehicles for Canada>

## **CONFIGURATION FUNCTION**

M2510001400091

Using the M.U.T.-III, the following functions can be programmed. The programmed information is held even when the battery is disconnected.

| Adjustment item (M.U.TIII display)                                               | Adjustment item     | Adjusting contents (M.U.TIII 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.                                               |  |  |
|                                                                                  |                     | Speed sensitive                                    | Intermittent wiper interval is calculated according to the intermittent wiper volume control and vehicle speed (default). |  |  |
| Front wiper Disabling or enabling washer-linked wipe function                    | Only washer         | No function                                        |                                                                                                                           |  |  |
|                                                                                  | washer-linked wiper | Washer and wiper                                   | With function (default)                                                                                                   |  |  |