

GROUP 00

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HOW TO USE THIS MANUAL

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ABBREVIATIONS

The following abbreviations are used in this manual for classification of model types.

2.0 L Engine: 1.998 liter <4B11> engine, or a model equipped with such an engine.

MFI: Multiport fuel injection, or engines equipped with multiport fuel injection.

PCM: Powertrain control module

M/T: Indicates manual transaxle, or models equipped with manual transaxle.

CVT: Indicates the continuously variable transmission.

FWD: 2-wheel drive vehicles.

SWS: Simplified wiring system

A/C: Air conditioning.

TARGETS OF DEVELOPMENT

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Since first launched in 1973, the LANCER has always been acknowledged as a motor sport based vehicle in the sporty sedan market. Keeping with the tradition of these LANCERS, the new LANCER has been developed aiming at acquiring additional LANCER users, and even more, Mitsubishi customers.

PRODUCT FEATURES

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STYLING

The global standard body size has been adopted to match the market trend.

DRIVING PERFORMANCE

- The newly-developed aluminum block engine and CVT have been adopted to achieve excellent power and performance.
 1. The power and performance greatly exceeds that of the previous LANCER.
 2. The fuel efficiency in cruising range has been greatly improved from the previous LANCER, both for M/T and CVT.
- High rigidity of body and suspension has been achieved.
- With fine tuning of suspension, sporty steering, flat cornering and superior driving comfort have been achieved.
- The paddle shift has been adopted to achieve "Fun to Drive."

COMFORT

- The Rockford Fosgate premium sound system has been installed.
- The comfort equipment such as keyless operation system (KOS)*¹, HDD navigation, handsfree phone for Bluetooth*² has been adopted.

NOTE:

- *¹: In this manual, F.A.S.T.-key (Free-hand Advanced Security Transmitter) is described as Keyless Operation System (KOS). Refer to [P.42B-2](#).
- *²: Refer to [P.54A-29](#).

SAFETY

- The impact safety body aiming at high score in New Car Assessment Program (NCAP) has been developed.
- With consideration of Insurance Institute for Highway Safety (IIHS), going ahead of competitors, the knee air bag has been equipped as a standard feature in addition to the driver's and passenger's (front) air bags, side-air bag, and curtain air bag.

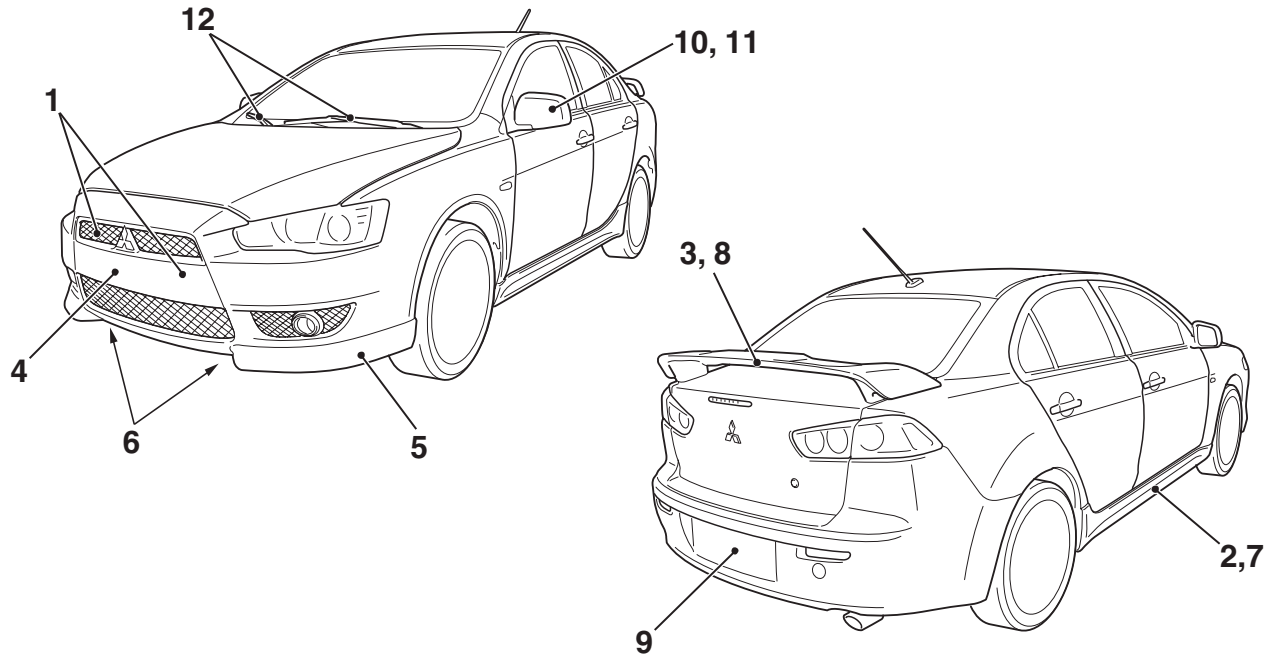
TECHNICAL FEATURES

EXTERIOR

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DESIGN FEATURES

The robust styling to create the image of LANCER EVOLUTION, the symbol of Mitsubishi Motors sport DNA, has been established.



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BETTER APPEARANCE

1. Radiator grille integrated front bumper
2. Side air dams
3. Rear spoiler
5. Air dam skirt panels

BETTER AERODYNAMIC CHARACTERISTICS

4. Aerodynamic front bumper
5. Air dam skirt panels
6. Engine room under cover with bulges at left and right (Refer to [P.51-3](#))
7. Side air dams
8. Rear spoiler
9. Aerodynamic rear bumper

BETTER USER-FRIENDLINESS

10. Electric remote-controlled door mirrors
11. Heated door mirrors

BETTER PRODUCT PACKAGE

12. Vehicle speed sensitive intermittent time variable windshield wiper

SUPPORT RECYCLING OF RESOURCES

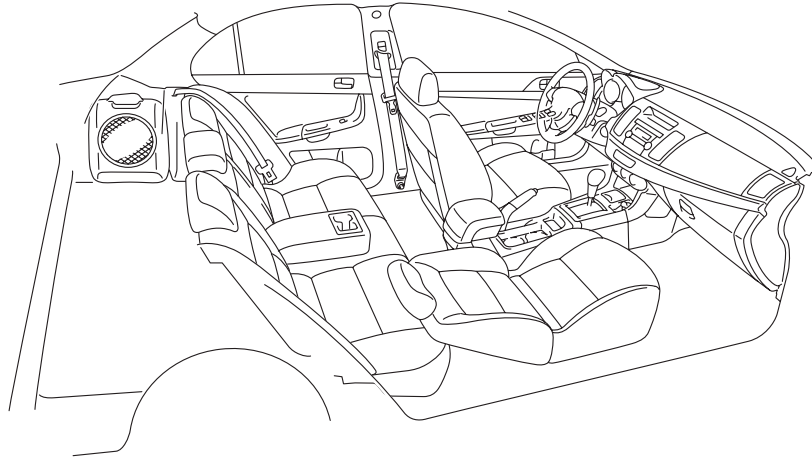
Uses PP (polypropylene) materials that are easy to recycle and easy to stamp material symbols on the plastic (resin) parts.

INTERIOR

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DESIGN FEATURES

Functionality, interior comfort, and safety have been emphasized, giving interior design for elegance and relaxation. Various measures have been taken to protect the environment and recycle resources.



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Quality improvement

- Two-tone interior
- Full interior trim

Usability improvement

- Armrest (floor console, rear seat, front door trim, rear door trim)
- Cup holder (floor console, rear seat armrest)
- Bottle holder (front door trim)

Convenient storage

- Glove box
- Card holder (Glove box)
- Seatback pocket [front seat (driver side)]
- Floor console box
- Door pocket (front door trim, rear door trim)
- Tissue paper holder (floor console)

Safety improvement

- Front and rear collision protection seat mechanism (front seat)
- ISO-FIX lower anchor (rear seat outside)
- Upper tether anchor (rear shelf)
- driver's and passenger's (front) air bags
- Knee air bag

- Side-airbag
- Curtain air bag
- ELR 3-point seat belt (driver side)
- ELR/ALR 3-point seat belt (front passenger side)
- ELR/ALR 3-point seat belt (rear)
- Seat belt retractor with a driver's side pretensioner and variable force limiter
- Seat belt retractor with a passenger's side pretensioner and force limiter
- Headliner energy absorption rib

Consideration for the optimum driving position

- Seat height adjustment (driver's seat)
- Headrest with height adjustment (front, rear)
- Seat slide adjustment (front)

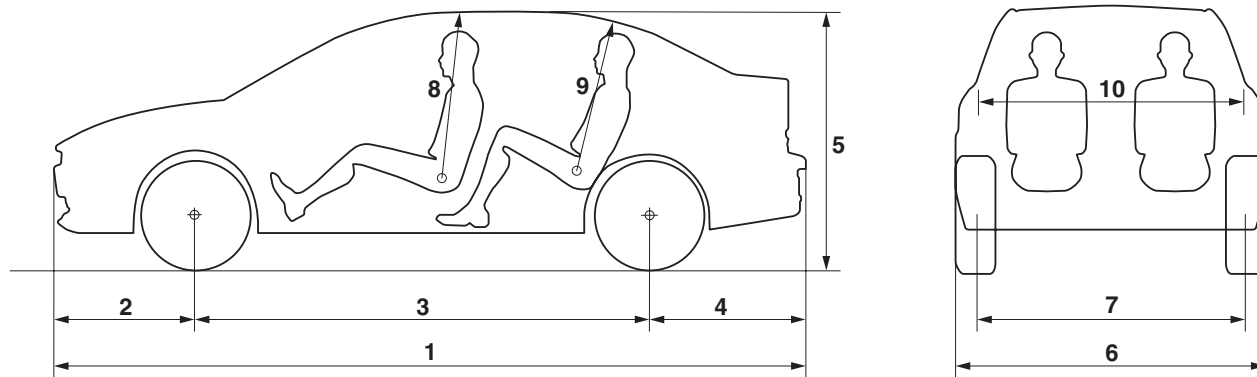
Measures for resource recycling

- Aggressively use PP materials that are easy to recycle and easy to stamp material symbols on the plastic (resin) parts.
- Reduction of chemical material (formaldehyde*, organic solvent)

*NOTE: *: Clear and colourless, toxic, irritating odour*

BODY DIMENSIONS AND SPACIOUS CABIN

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No.	Item	Dimension
1	Overall length mm (in)	4,570 (180.0)
2	Front overhang mm (in)	955 (37.6)
3	Wheel base mm (in)	2,635 (103.7)
4	Rear overhang mm (in)	980 (38.7)
5	Overall height mm (in)	1,490 (58.7)
6	Overall width mm (in)	1,760 (69.4)
7	Tread mm (in)	1,530 (60.2)
8	Front head room mm (in)	1,005 (39.6)
9	Rear head room mm (in)	935 (36.9)
10	Interior width mm (in)	1,390 (54.7)

ENGINE

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The newly-developed 4B11 MIVEC engine has been adopted. For the 4B11 engine, the aluminum die-cast cylinder block has been adopted to achieve the top level of this class in high performance, good fuel efficiency, while being compact and lightweight.

Technology and purpose for 4B11 engine adoption

Item	High performance /good fuel efficiency	Compact and lightweight	Low exhaust gas	Low vibration	Reliability improvement
Aluminum die-cast cylinder block		X			
Cylinder head cover made of resin		X			
Direct injection DOHC valve drive	X	X			X
Intake/exhaust continuously variable valve timing (MIVEC)	X		X	X	
Timing chain cam drive		X			X
Serpentine auxiliary drive		X			

Item	High performance /good fuel efficiency	Compact and lightweight	Low exhaust gas	Low vibration	Reliability improvement
Isometric long port intake manifold made of resin	X	X			
Exhaust manifold made of stainless steel (double structure)	X	X	X		
Rear exhaust engine layout		X	X		
Ultra fine injection			X		
EGR system <California only>	X		X		
Water pump with shroud-integrated resin impeller	X				
Returnless fuel system			X		
Iridium spark plug			X		X

TRANSAXLE

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MANUAL TRANSAXLE

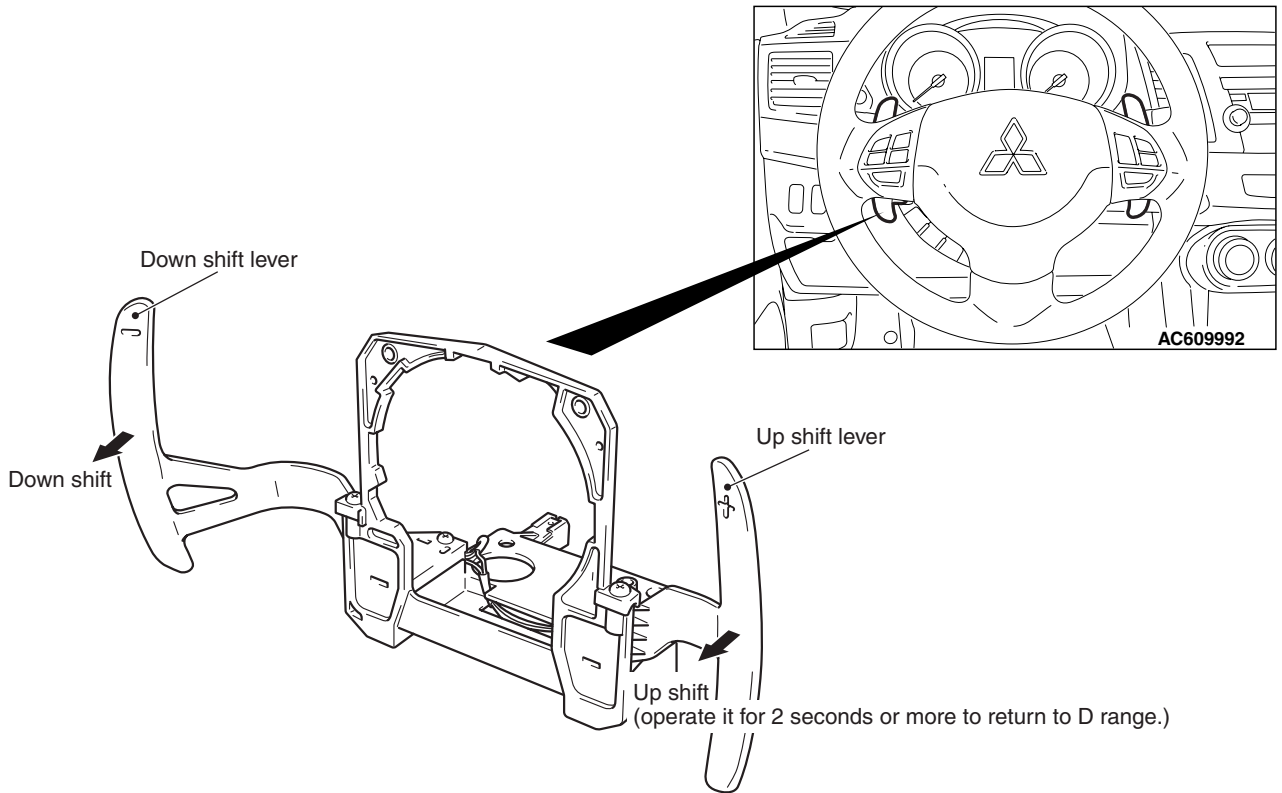
F5MBB type (5M/T) has been adopted.

CONTINUOUSLY VARIABLE TRANSAXLE (CVT)

The new CVT has been developed to achieve excellent fuel economy, driving ease, and fun. This CVT achieves quick and smooth acceleration suitable for LANCER from any speeds. The CVT combines "torque converter" and "continuously variable tran-

saxle mechanism by steel belt & pulley" to achieve "high driving performance" and "better fuel economy." Depending on the driving conditions, the comfortable gear ratio is automatically and continuously selected from low to overdrive, ensuring driver-intended smooth driving without shift shocks related to acceleration pedal operation.

PADDLE SHIFT <Vehicle with sports mode (CVT) >

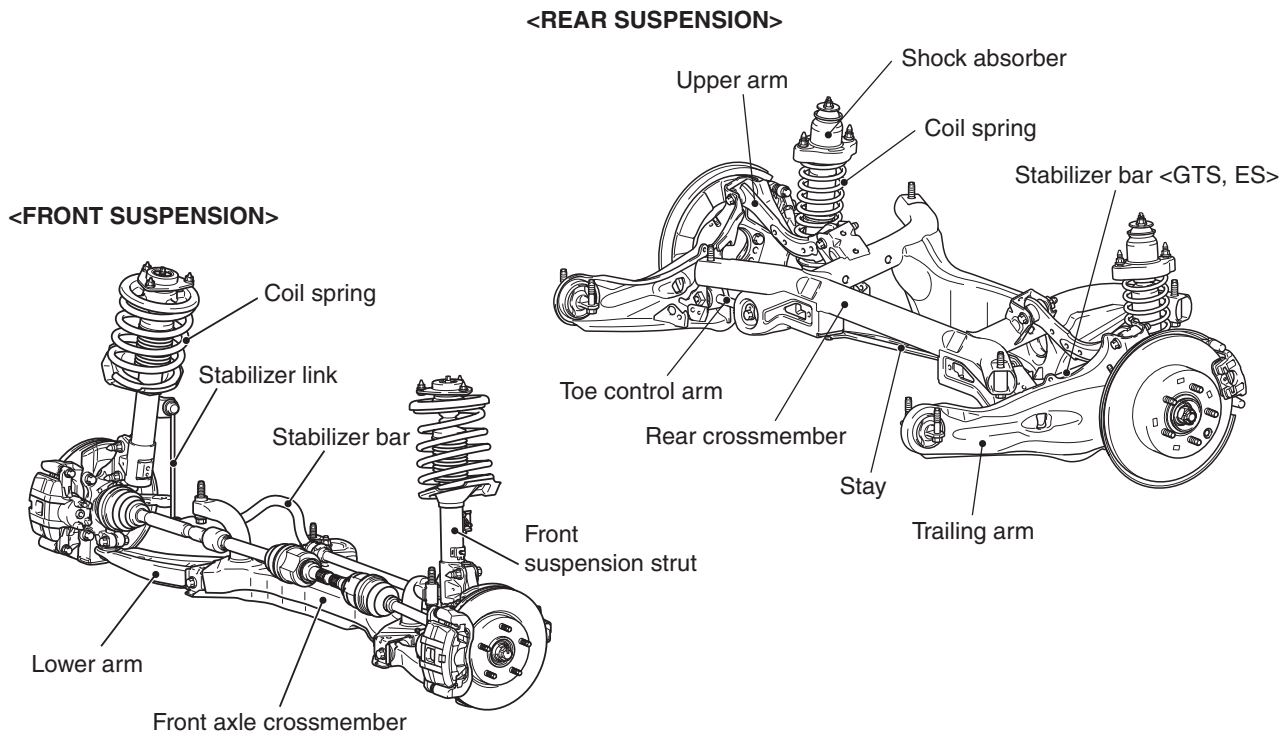


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For some models, the paddle-shaped up shift/down shift lever has been fitted just behind the steering wheel to allow the driver to operate up shift or down shift with his/her hands kept on the steering wheel.

SUSPENSION

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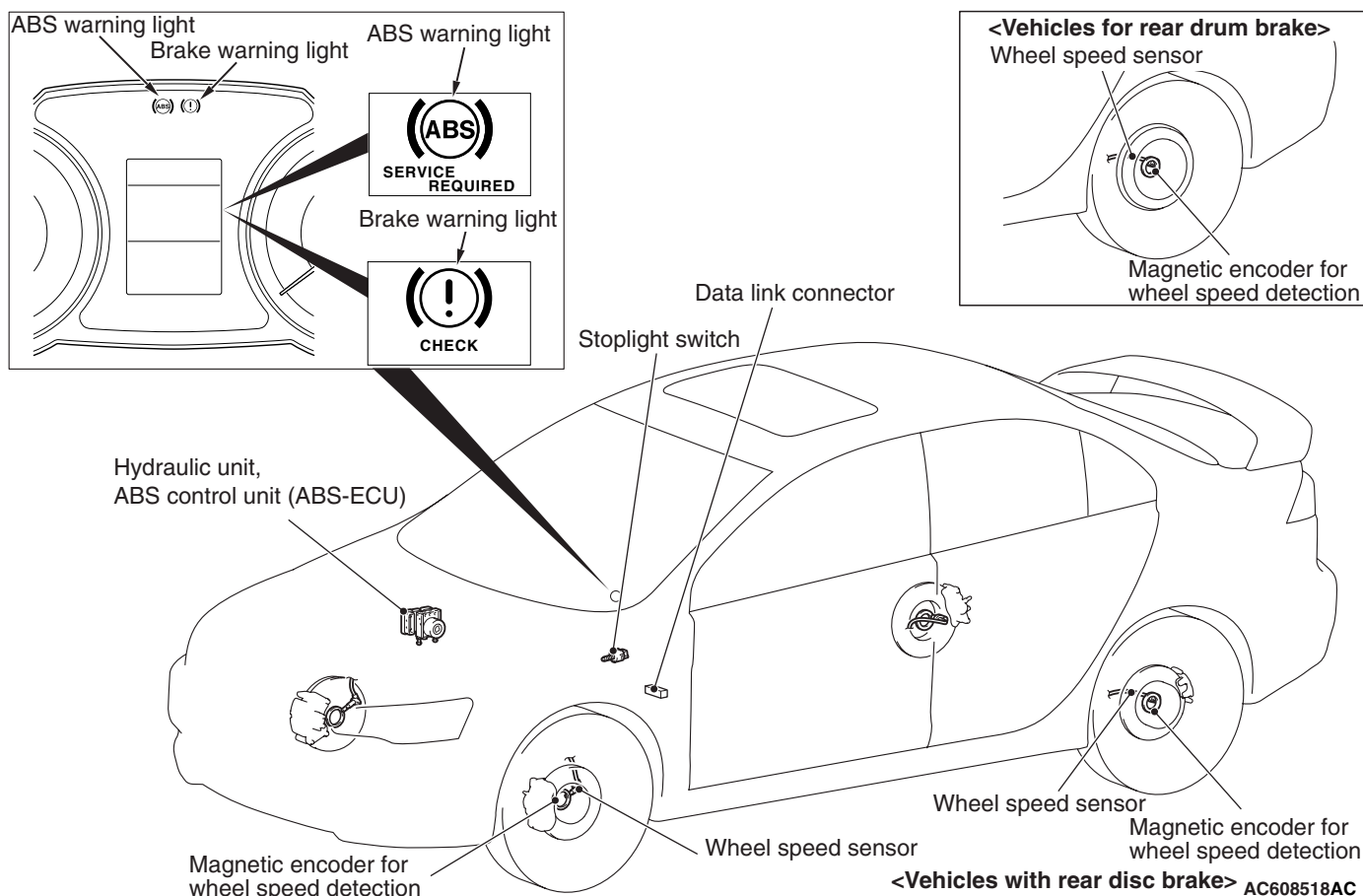
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- A MacPherson strut type suspension is adopted for the front suspension.
- A trailing arm type multi-link suspension is adopted for the rear suspension.
- Flexible steering stability is achieved, along with comfortable driving, secure handling, and flat cornering.

ACTIVE SAFETY

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BRAKING SYSTEM <VEHICLES WITH ABS>



The ABS that ensures directional stability and controllability during hard braking. ABS is standard equipment on the ES and GTS models but is optional.

This ABS uses a 4-sensor system that controls all four wheels independently of each other, and has the following features:

- EBD ^{*1} (Electronic Brake-force Distribution system) control that can obtain ideal rear wheel brake force has been employed.

- The magnetic encoder for detecting the wheel speed has been installed instead of the rotor as the wheel speed sensor.
- For wiring harness simplification and secure data communication, CAN ^{*2} bus has been adopted as a tool of communication with another ECU.

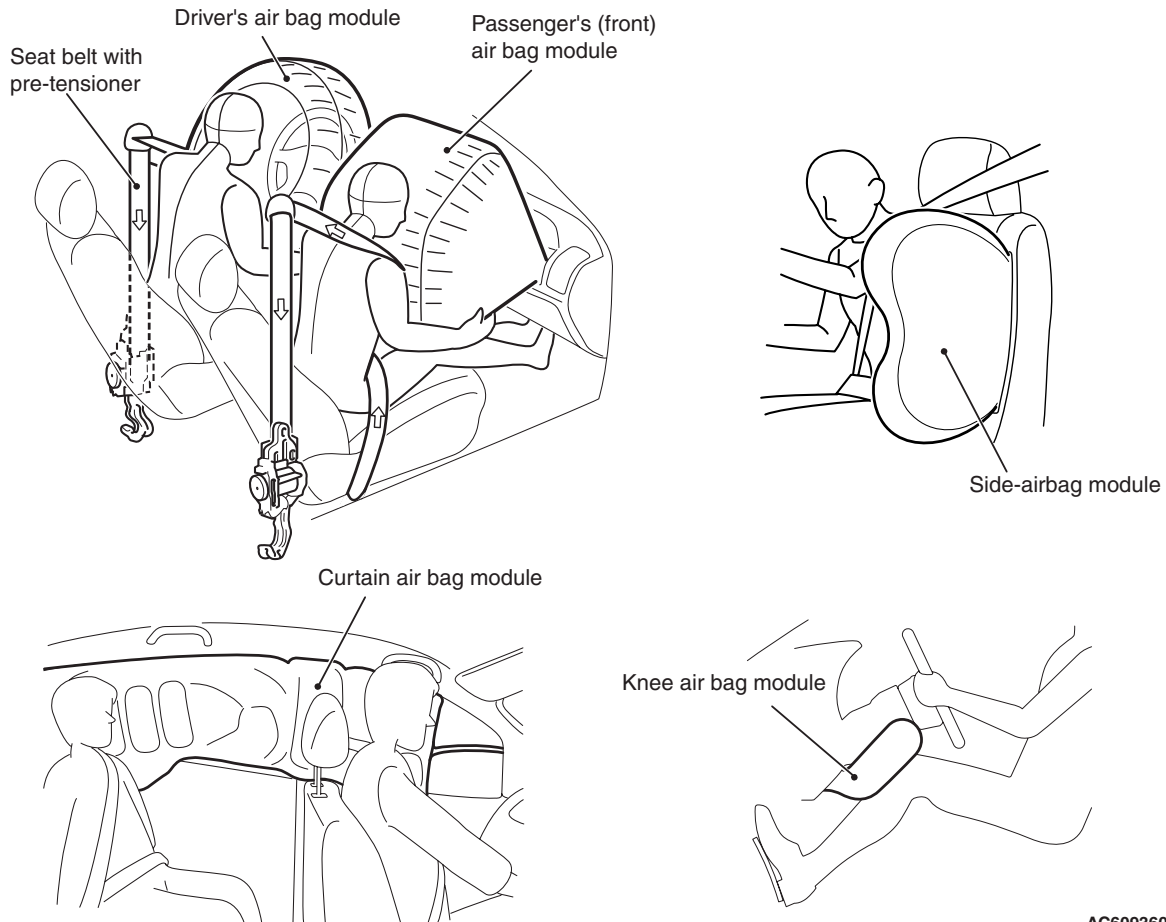
NOTE:

- ^{*1}: EBD (Electronic Brake-force Distribution)
- ^{*2}: For more information about CAN (Controller Area Network), refer to GROUP 54C P.54C-2.

PASSIVE SAFETY

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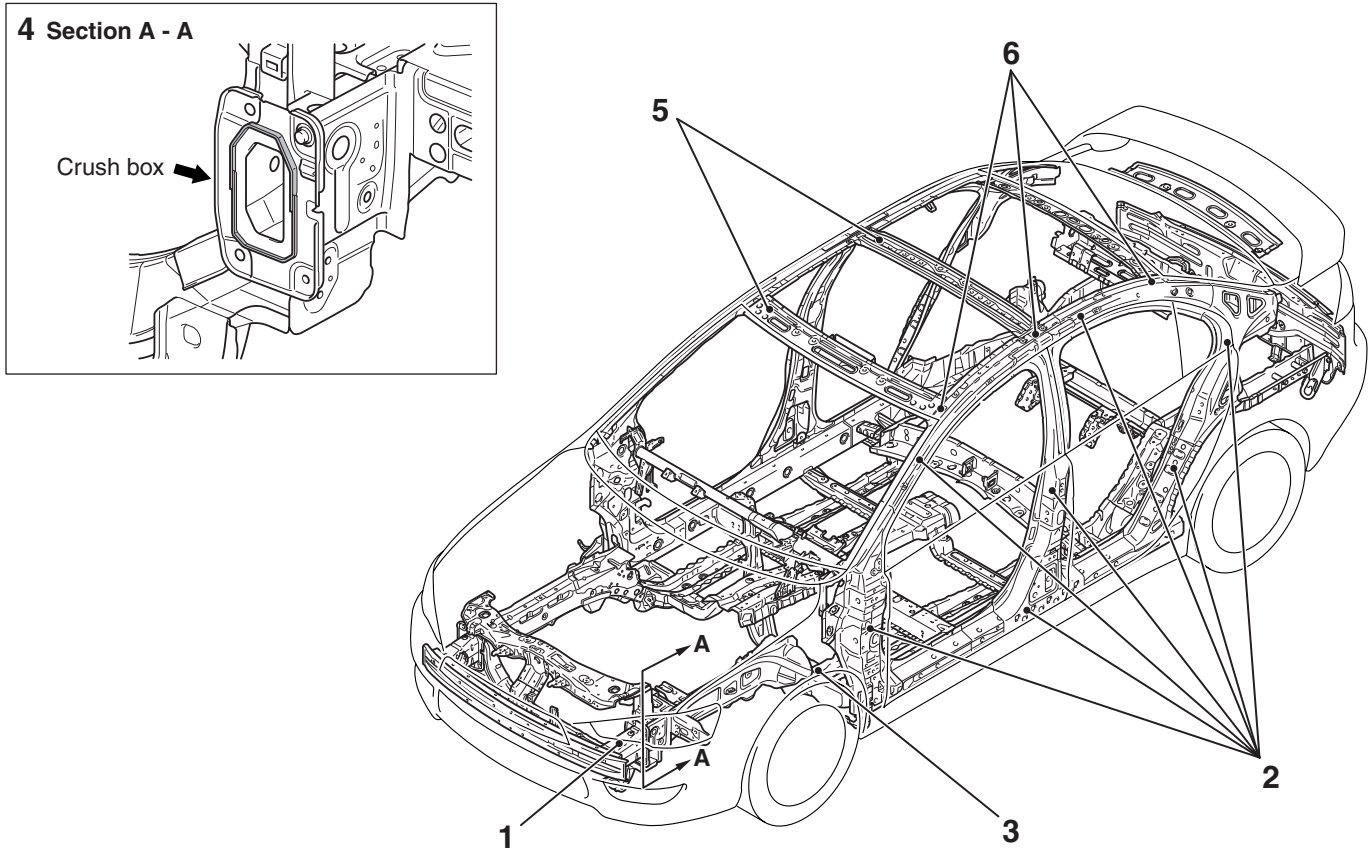
SRS AIR BAGS



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- Driver's and passenger's (front) air bags, side-air bags, knee air bag, curtain air bags and seat belts with pre-tensioner are installed on all the vehicles as standard.
- The SRS is a system that is effective with the seat belt fastened, and it is designed as a supplemental system of the seat belt.
- The advanced air bag system is adopted to the driver's and passenger's (front) sides. When a frontal impact exceeds the threshold upon a frontal collision, or depending on the seat position (driver's seat side), the air bag inflates the cushion air bag in two stages, improving the protection for the front seat passengers. When a frontal impact exceeds the threshold, the knee air bag is instantaneously inflated to protect the passenger's feet (knee and leg).
- The side-air bag is activated when an impact exceeds the threshold upon a side collision, and the cushion air bag is instantaneously inflated to protect the chest area of the front seat passengers.
- The curtain air bag is activated simultaneously with the side-air bag upon a side collision to protect the heads of the front seat and second seat passengers.
- All the air bag modules are equipped with the inflator that does not contain toxic sodium azide.
- The seat belt pre-tensioner is activated simultaneously with the deployment of driver's and passenger's (front) air bags in case of a frontal collision. Seat belts are pulled in to eliminate the slack upon a collision, thus improving the initial occupant restraint, and reducing the travel distance of the occupants. For the driver's seat, in addition to the seat belt pre-tensioner for the shoulder side, the lap pre-tensioner has been installed on the outer seat belt lower anchor side in order to improve the restraining performance in the waist and the chest areas.

BODY CONSTRUCTION



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The front and rear structures to absorb high energy, and the strong and sturdy cabin structure is adopted to reduce the risk of passenger injuries at front-, rear-, and side-impact collisions, secure the space for life protection, and facilitate rescuing passengers. The structures also have the following features:

1. The crush box structure is adopted for the front end of the sidemember to reduce the vehicle repair cost in a low speed collision.
2. An annular construction is used for the side structure reinforcement to improve collision safety and vehicle body rigidity.
3. The front frame structure is supported in three directions by the dash crossmember center, dash crossmember lower, and front sidemember rear in order to improve the frontal collision characteristics, and increase the vehicle body rigidity.
4. The crush box structure has been changed to straight type with an octagon cross-section so that the structure can effectively absorb energy from the impact at the time of collision.
5. The closed section structure has been adopted for the roof bow and roof rail to improve driving stability and reduce vibration and noise.

6. The roof bow and roof rail and the side outer panel have been jointed by the brace to improve driving stability.

SAFETY-ENHANCED FRONT SEATS

The front seats are designed to minimize the risk of whiplash in a collision from the rear. The head restraints have been ideally angled forward, while the seat frame was moved toward the rear.

OTHER SAFETY FEATURES

- Brake pedal recede-control device
- Collapsible steering column
- Child-protection rear door locks
- Front fog lamps
- Passenger's seat weight sensor system
- 3-point ELR seat belts <Driver's seat, rear seat on each side>
- 3-point ELR/ALR seat belts <Passenger's seat, rear seat center>
- Tire pressure monitoring system (TPMS)

ENVIRONMENTAL PROTECTION

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Mitsubishi has given careful consideration to protection of natural resources and the environment in the vehicle. Environmentally friendly features are shown below.

Items Dealing with Environmental Protection

Prevention of atmospheric pollution	Parts name	Features
Adoption of easy recycling material	Bumper, Instrument panel, Door trim, Interior trim and soon	Adoption of thermoplastic resin
Expansion of recycled material	Bumper, Instrument panel, Door trim, Radiator grille	Re-use of material discarded in plant
	Sound absorbing material in dash panel and roof, Oil level gauge	Re-use of discarded material in other industry
Reduction of hazardous substances	Fuel tank, Radiator, Heater core, Battery cable terminal, Balance weight for wheel, Pressure hose for power steering, Glass ceramics print, Harness, Electrostatic coating, Intake valve sheet, Crank bearing metal, Connecting rod bearing metal, Connecting rod	Adoption of lead free material

SERVICEABILITY AND RELIABILITY

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ENHANCED DIAGNOSIS SYSTEM

Diagnosis functions have been included for the following systems, so that it is possible to use the scan tool to read the diagnosis codes and service data and to carry out actuator tests. In addition, it is also possible to read the diagnosis codes by the flashing of the warning light in some systems.

- MFI
- Auto-cruise control system
- CVT
- ABS
- Power window
- Keyless operation system (KOS)

NOTE: In this manual, F.A.S.T.-key (Free-hand Advanced Security Transmitter) is described as Keyless Operation System (KOS).

- SRS air bag
- Immobilizer
- Combination meter
- Headlight auto leveling device

- ETACS
- Radio and CD player and visual information equipment etc.
- Heater and air conditioning

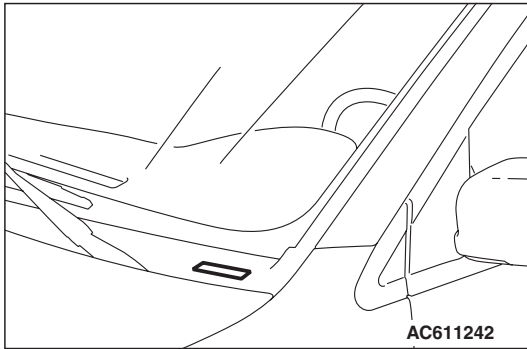
ADAPTATION OF BOLTS AND NUTS WITH STABILIZER FOR COEFFICIENT OF FRICTION *

The bolts and nuts with stabilizer for coefficient of friction are used for the connections such as the suspension arm and crossmember in order to stabilize the axial force and to ensure the high axial force at bolt/nut connections, resulting in improved reliability.

*NOTE: * : The bolts and nuts with stabilizer for coefficient of friction mean that the bolts and nuts with surface treatment to stabilize and reduce the coefficient of friction, allowing to achieve the stable axial force and to secure the high axial force with low tightening torque.*

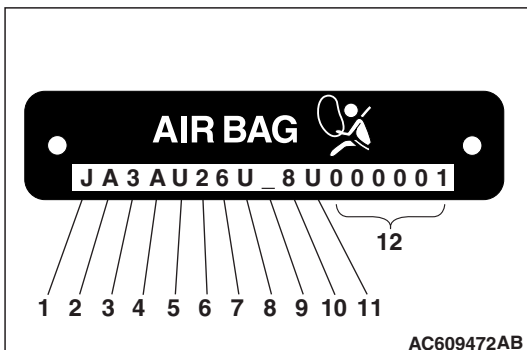
VEHICLE IDENTIFICATION

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VEHICLE IDENTIFICATION NUMBER LOCATION

The vehicle identification number (VIN) is located on a plate attached to the left top side of the instrument panel.



VEHICLE IDENTIFICATION CODE CHART PLATE

All vehicle identification numbers contain 17 digits. The vehicle number is a code which tells country, make, vehicle type, etc.

No.	Item	Content
1	Country	J: Japan
2	Make	A: Mitsubishi
3	Vehicle type	3: Passenger car
4	Others	Restraint system A: Driver and passenger air bags
5	Line	U: LANCER
6	Price class	1: Economy 2: Low 8: Sports
7	Body	6: 4-door sedan
8	Engine	U: 2.0 L (4B11) MIVEC
9	Check digits*	0, 1, 2, 3, -----9, X
10	Model year	8: 2008 year
11	Plant	U: Mizushima
12	Serial number	000001 to 999999

NOTE: *: Check digit means a single number, or letter X, used to verify the accuracy of transcription of vehicle identification number.

VEHICLE IDENTIFICATION NUMBER LIST

VEHICLES FOR USA

(VEHICLES FOR FEDERAL EMISSION REGULATION)

VIN (Except sequence number)	Brand	Engine displacement	Model code
JA3AU16U_8U	MITSUBISHI LANCER	2.0L	CY4ASNLHL2M
			CY4ASTLHL2M
JA3AU26U_8U			CY4ASNSHL2M
			CY4ASTSHL2M
JA3AU86U_8U			CY4ASNXL2M
			CY4ASTXHL2M

(VEHICLES FOR CALIFORNIA EMISSION REGULATION)

VIN (Except sequence number)	Brand	Engine displacement	Model code
JA3AU16U_8U	MITSUBISHI LANCER	2.0L	CY4ASNLHL7M
			CY4ASTLHL7M
JA3AU26U_8U			CY4ASNSHL7M
			CY4ASTSHL7M
JA3AU86U_8U			CY4ASNXL7M
			CY4ASTXHL7M

VEHICLES FOR PUERTO RICO

VIN (Except sequence number)	Brand	Engine displacement	Model code
JA3AU16U_8U	MITSUBISHI LANCER	2.0L	CY4ASNLHL2M
			CY4ASTLHL2M
JA3AU26U_8U			CY4ASNSHL2M
			CY4ASTSHL2M
JA3AU86U_8U			CY4ASNXL2M
			CY4ASTXHL2M

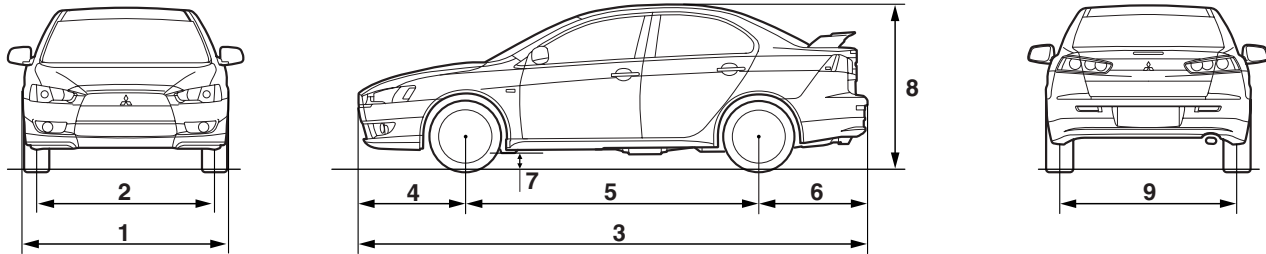
VEHICLES FOR CANADA

VIN (Except sequence number)	Brand	Engine displacement	Model code
JA3AU16U_8U	MITSUBISHI LANCER	2.0L	CY4ASNLHL3M
			CY4ASTLHL3M
JA3AU26U_8U			CY4ASNSHL3M
			CY4ASTSHL3M
JA3AU86U_8U			CY4ASNXL3M
			CY4ASTXHL3M

GENERAL DATA AND SPECIFICATIONS

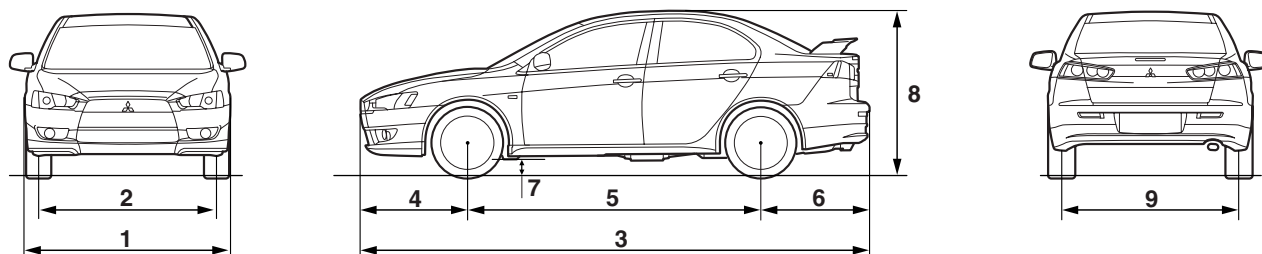
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GENERAL SPECIFICATIONS



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Item			CY4ASNLHL2M/ 3M/7M	CY4ASTLHL2M/ 3M/7M	CY4ASNSHL2M/ 3M/7M
Vehicle dimension mm (in)	Overall width	1	1,760 (69.4)	1,760 (69.4)	1,760 (69.4)
	Tread-front	2	1,530 (60.2)	1,530 (60.2)	1,530 (60.2)
	Overall length	3	4,570 (180.0)	4,570 (180.0)	4,570 (180.0)
	Overhang-front	4	955 (37.6)	955 (37.6)	955 (37.6)
	Wheelbase	5	2,635 (103.7)	2,635 (103.7)	2,635 (103.7)
	Overhang-rear	6	980 (38.7)	980 (38.7)	980 (38.7)
	Ground clearance	7	147 (5.8)	147 (5.8)	147 (5.8)
	Overall height (unladen)	8	1,490 (58.7)	1,490 (58.7)	1,490 (58.7)
	Tread-rear	9	1,530 (60.2)	1,530 (60.2)	1,530 (60.2)
Vehicle weight kg (lb)	Curb weight		1,325 (2,922)	1,360 (2,999)	1,335 (2,944)
	Gross vehicle weight rating		1,850 (4,079)	1,850 (4,079)	1,850 (4,079)
	Gross axle weight rating-front		1,010 (2,227)	1,010 (2,227)	1,010 (2,227)
	Gross axle weight rating-rear		910 (2,007)	910 (2,007)	910 (2,007)
Seating capacity			5	5	5
Engine	Model No.		4B11	4B11	4B11
	Piston displacement cm ³ (cu in)		1,998 (121.9)	1,998 (121.9)	1,998 (121.9)
	Maximum output kW/r/min (HP/r/min)		113/6,000 (152/6,000) <Except California>, 107/6,000 (143/6,000) <California>		
	Maximum torque N·m/r/min (ft-lb/r/min)		198/4,250 (146/4,250) <Except California>, 194/4,250 (143/4,250) <California>		
Fuel system	Fuel supply system		Electronic controlled multiport fuel injection		
Transaxle	Model No.		F5MBB	F1CJA	F5MBB
	Type		5-speed manual	CVT	5-speed manual
Turning radius m (ft)			5.0 (16.4)	5.0 (16.4)	5.0 (16.4)



AC608677AB

ITEM			CY4ASTSHL2M/ 3M/7M	CY4ASNXL2M/ 3M/7M	CY4ASTXHL2M/ 3M/7M
Vehicle dimension mm (in)	Overall width	1	1,760 (69.4)	1,760 (69.4)	1,760 (69.4)
	Tread-front	2	1,530 (60.2)	1,530 (60.2)	1,530 (60.2)
	Overall length	3	4,570 (180.0)	4,570 (180.0)	4,570 (180.0)
	Overhang-front	4	955 (37.6)	955 (37.6)	955 (37.6)
	Wheelbase	5	2,635 (103.7)	2,635 (103.7)	2,635 (103.7)
	Overhang-rear	6	980 (38.7)	980 (38.7)	980 (38.7)
	Ground clearance	7	147 (5.8)	147 (5.8)	147 (5.8)
	Overall height (unladen)	8	1,490 (58.7)	1,490 (58.7)	1,490 (58.7)
	Tread-rear	9	1,530 (60.2)	1,530 (60.2)	1,530 (60.2)
Vehicle weight kg (lb)	Curb weight		1,370 (3,021)	1,375 (3,032)	1,410 (3,109)
	Gross vehicle weight rating		1,850 (4,079)	1,850 (4,079)	1,850 (4,079)
	Gross axle weight rating-front		1,010 (2,227)	1,010 (2,227)	1,010 (2,227)
	Gross axle weight rating-rear		910 (2,007)	910 (2,007)	910 (2,007)
Seating capacity			5	5	5
Engine	Model No.		4B11	4B11	4B11
	Piston displacement cm ³ (cu in)		1,998 (121.9)	1,998 (121.9)	1,998 (121.9)
	Maximum output kW/r/min (HP/r/min)		113/6,000 (152/6,000) <Except California>, 107/6,000 (143/6,000) <California>		
	Maximum torque N·m/r/min (ft-lb/r/min)		198/4,250 (146/4,250) <Except California>, 194/4,250 (143/4,250) <California>		
Fuel system	Fuel supply system		Electronic controlled multiport fuel injection		
Transaxle	Model No.		F1CJA	F5MBB	F1CJA
	Type		CVT	5-speed manual	CVT with sport mode
Turning radius m (ft)			5.0 (16.4)	5.0 (16.4)	5.0 (16.4)