

GROUP 00

GENERAL

CONTENTS

HOW TO USE THIS MANUAL	00-2	TRANSAXLE	00-5
TARGETS OF DEVELOPMENT	00-2	ACTIVE CENTER DIFFERENTIAL (ACD)	00-7
PRODUCT FEATURES	00-2	SUSPENSION	00-8
TECHNICAL FEATURES	00-3	ACTIVE SAFETY	00-10
EXTERIOR	00-3	PASSIVE SAFETY	00-12
INTERIOR	00-4	ENVIRONMENTAL PROTECTION	00-15
BODY DIMENSIONS AND SPACIOUS		SERVICEABILITY AND RELIABILITY	00-15
CABIN	00-5	VEHICLE IDENTIFICATION	00-16
ENGINE	00-5	GENERAL DATA AND	
		SPECIFICATIONS	00-19

HOW TO USE THIS MANUAL

M2000029001609

ABBREVIATIONS

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

2.0L Engine:1,998cm³ (121.9 cu in) <4B11> engine, or a model equipped with such an engine.

2.4L Engine:2,360 cm³ (144.0 cu in) <4B12> engine, or a model equipped with such an engine.

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

CVT: Indicates the continuously variable transaxle.

TC-SST:Indicates the twin clutch-sportronic shift transmission.

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

AWD: Indicates the all wheel drive vehicles.

FWD: Indicates the front wheel drive vehicles.

ECM: Indicates the engine control module

TCM: Indicates the transaxle control module

A/C: Indicates the air conditioning.

TARGETS OF DEVELOPMENT

M2000004002070

Sporty & Stylish new concept hatchback "Sportback"

Since Lancer is a sporty sedan, the placement of Lancer Sportback as a high-sensed and stylish Hatchback with unique and strong individuality while it takes over sportiness of Lancer.

PRODUCT FEATURES

M2000005001047

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 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](#).

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.

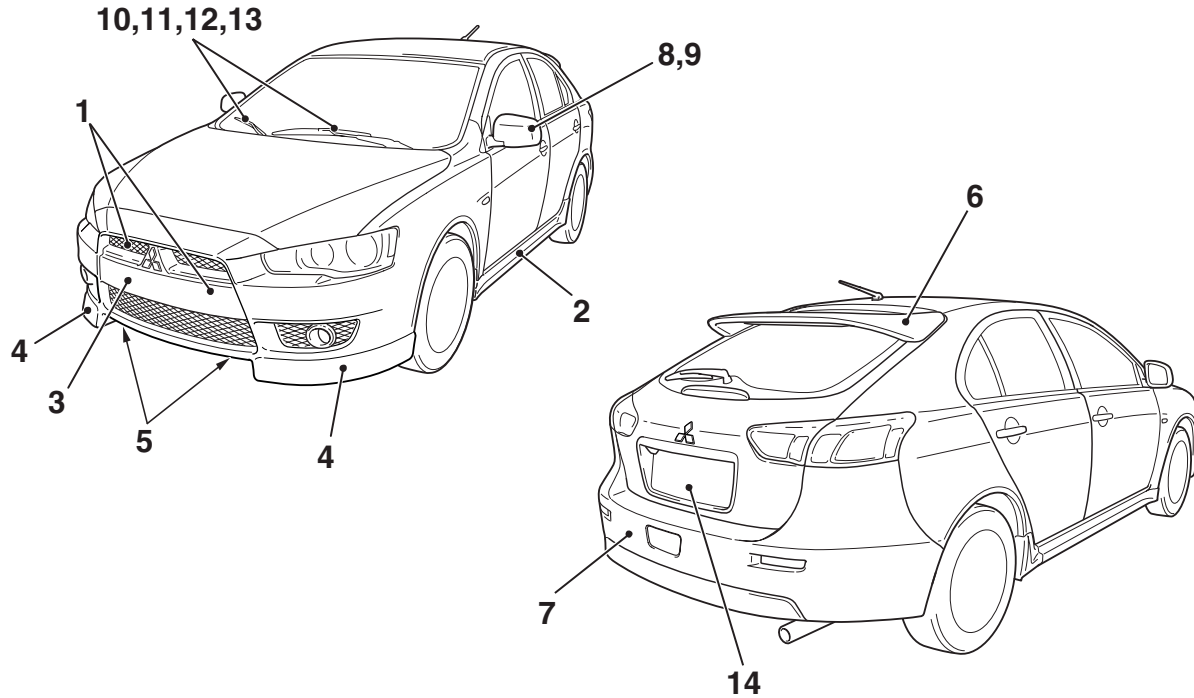
TECHNICAL FEATURES

EXTERIOR

DESIGN FEATURES

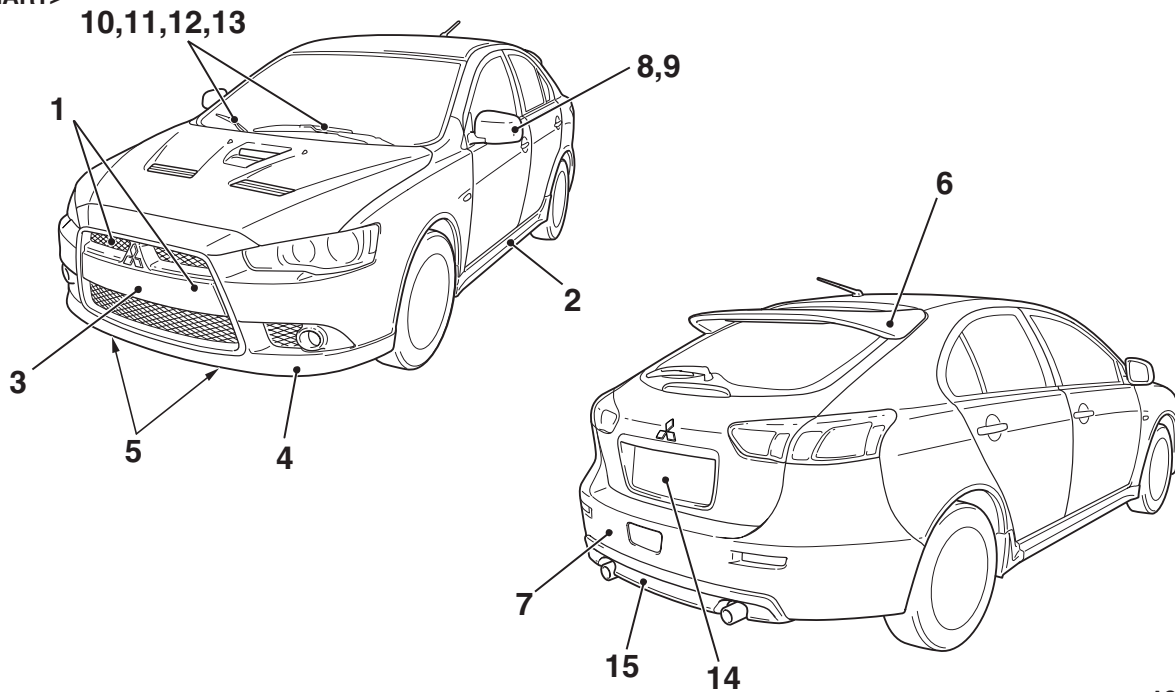
M2000017001798

<Except RALLIART>



AC808161 AD

<RALLIART>



AC808162 AE

BETTER APPEARANCE

- 1. Radiator grille integrated front bumper
- 2. Side air dams

BETTER AERODYNAMIC CHARACTERISTICS

- 3. Aerodynamic front bumper
- 4. Air dam skirt panel

5. Engine room under cover front with bulges at left and right (Refer to P.51-3)
6. Liftgate spoiler <Standard: RALLIART, Optional: Except RALLIART>
7. Aerodynamic rear bumper

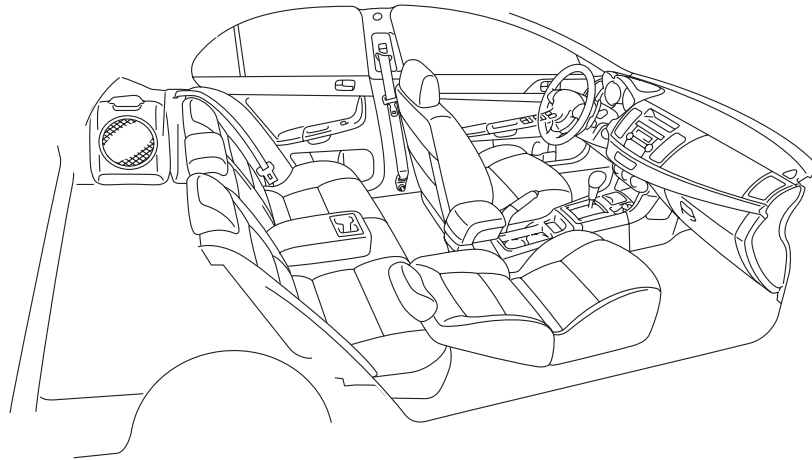
BETTER USER-FRIENDLINESS

- 8 Electric remote-controlled door mirrors
9. Heated door mirrors <Vehicles for Canada>

INTERIOR

DESIGN FEATURES

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



M2000018001810

AC807421

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
- Seatback pocket (passenger's seat)
- Card holder (glove box)
- Floor console box
- Door pocket (front door trim, rear door trim)

Safety improvement

- Front and rear collision protection seat mechanism (front seat)

BETTER PRODUCT PACKAGE

10. Vehicle speed sensitive intermittent time variable windshield wiper
11. Rain sensitive AUTO wiper <Optional>
12. Intelligent washer function
13. Delayed finishing wipe function
14. Liftgate garnish
15. Rear bumper extension <RALLIART>

- ISO-FIX lower anchor (rear seat outside)
- Upper tether anchor (rear seatback [back side])
- driver's and passenger's (front) air bags
- Knee air bag
- Side-airbag
- Curtain air bag
- ELR 3-point seat belt (driver's seat)
- ELR/ALR 3-point seat belt (passenger's seat, rear seat)
- Seat belt retractor with a driver's side pretensioner and force limiter
- Seat belt retractor with a passenger's side pretensioner and force limiter
- Headlining energy absorption box <Vehicles with sunroof>
- Seat belt retractor with a passenger's side pretensioner and force limiter

Consideration for the optimum driving position

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

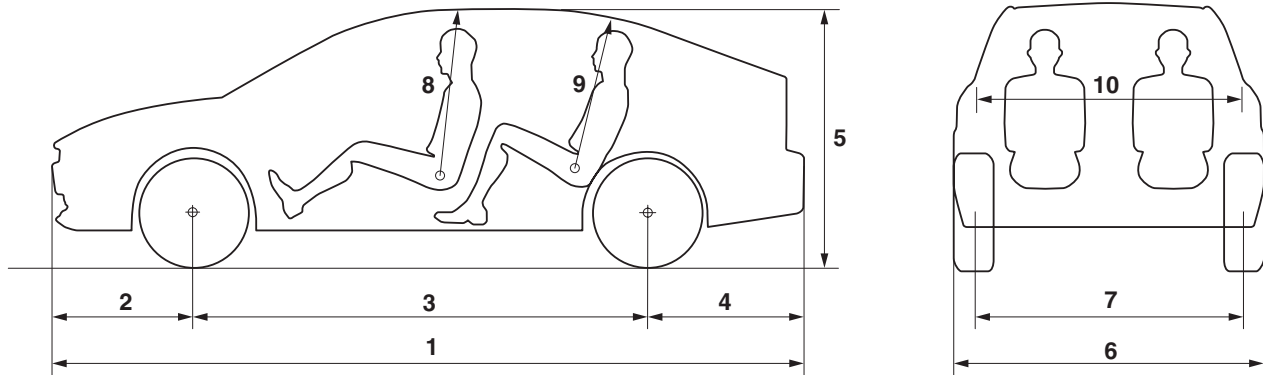
Measures for resource recycling

- 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 colorless, toxic, irritating odor*

BODY DIMENSIONS AND SPACIOUS CABIN

M2000019000393



AC807417 AB

No.	Item	Dimension
1	Overall length mm (in)	4,585 (180.4)
2	Front overhang mm (in)	955 (37.6)
3	Wheelbase mm (in)	2,635 (103.7)
4	Rear overhang mm (in)	995 (39.1)
5	Overall height mm (in)	1,515 (59.7)
6	Overall width mm (in)	1,760 (69.4)
7	Tread mm (in)	1,530 (60.2)
8	Front head room mm (in)	905 (35.6)
9	Rear head room mm (in)	835 (32.8)
10	Interior width mm (in)	1,390 (54.7)

ENGINE

M2000020001301

The newly-developed 4B11 MIVEC engine and 4B12 MIVEC engine have been adopted. The aluminum alloy cylinder block has been adopted to achieve the top level of this class in high performance, good fuel efficiency, while being compact and lightweight.

TRANSAXLE

M2000021001360

MANUAL TRANSAXLE

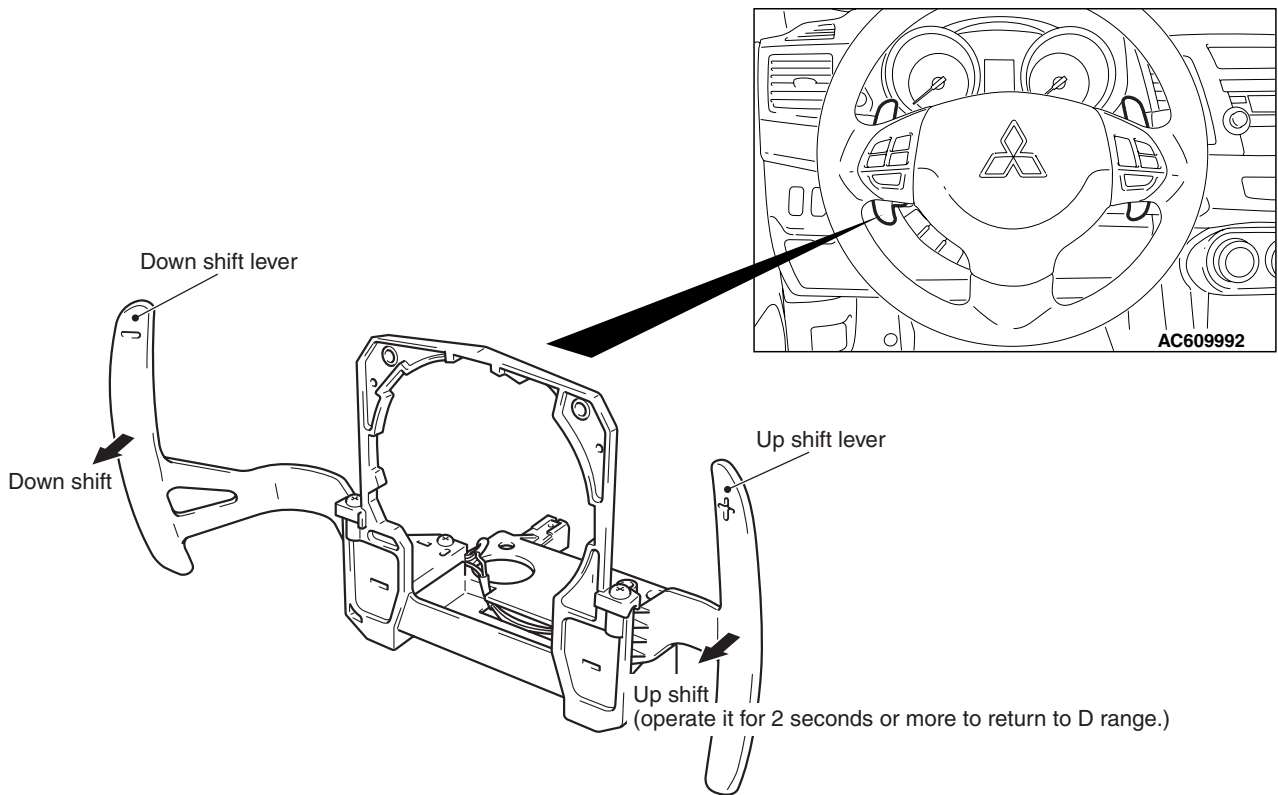
F5MBB type (5M/T) has been adopted.

TWIN CLUTCH-SPORTRONIC SHIFT TRANSMISSION (TC-SST)

Due to the addition of RALLIART, W6DGA, TC-SST (twin clutch-sportronic shift transmission) has been adopted. The TC-SST assembly is a twin clutch type automatic M/T that offers the easy driving similar to A/T, excellent sport driving, and enhanced fun to drive.

CONTINUOUSLY VARIABLE TRANSAXLE (CVT)

F1CJA type (CVT) has been adopted. The CVT combines "torque converter" and "continuously variable transaxle mechanism by steel belt and pulley" to achieve "high driving performance" and "better fuel economy." Depending on the driving conditions, the comfortable pulley ratio is automatically and continuously selected from low to overdrive, ensuring driver-intended smooth driving without shift shocks due to acceleration pedal operation.

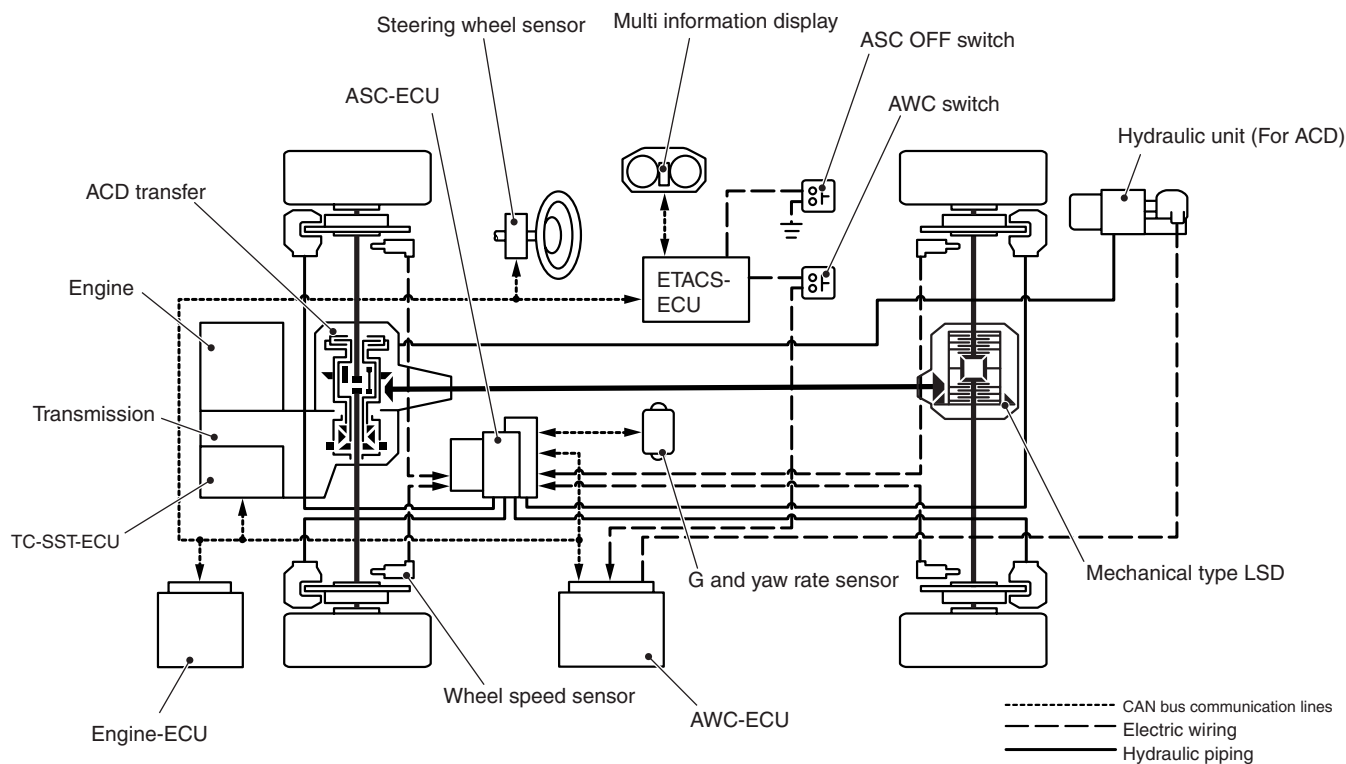
PADDLE SHIFT <CVT, TC-SST>

For some models, the paddle-shaped upshift/downshift lever has been fitted near the steering wheel to allow the driver to operate upshift or downshift with his/her hands kept on the steering wheel.

ACTIVE CENTER DIFFERENTIAL (ACD)

M200000800034

The ACD is the system to improve acceleration performance and straightforward driving ability by controlling the limitation force and driving force distribution of the center differential.



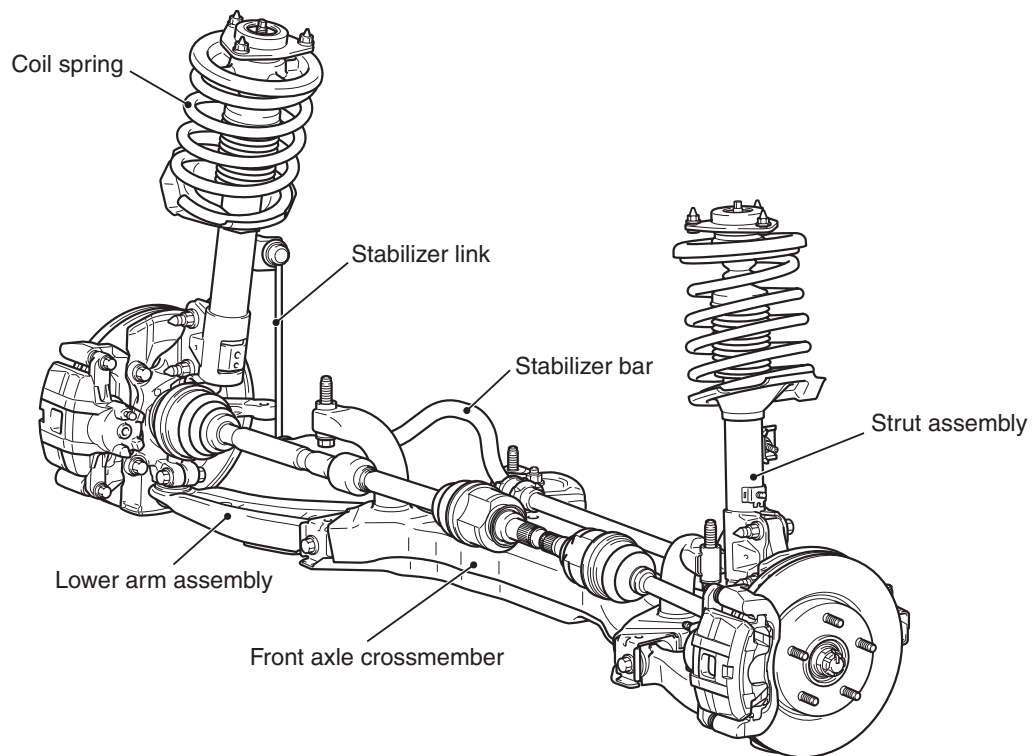
AC800672AC

AWC-ECU performs a calculation based on the information from ECU, sensors, and switches. Then, based on the calculation value, it appropriately operates the hydraulic unit (for ACD) to control in response to the driver's operations and vehicle behaviours.

SUSPENSION

M2000023001173

FRONT SUSPENSION

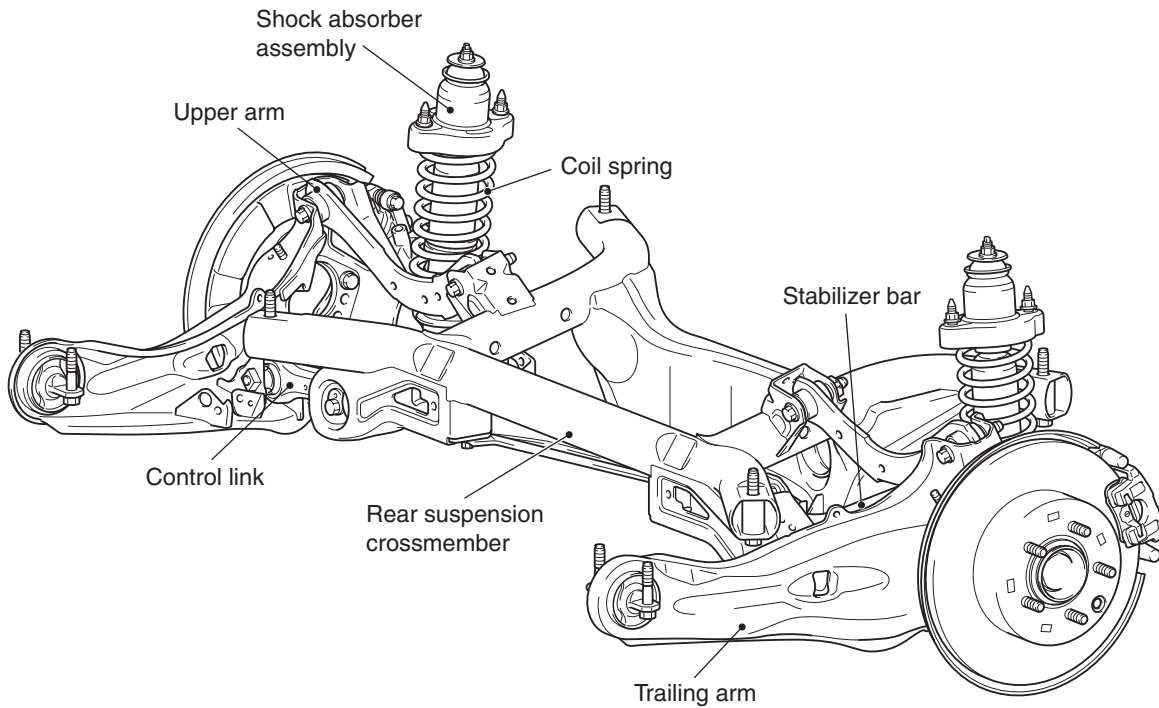


AC607283 AG

- A MacPherson strut type suspension is adopted for the front suspension.

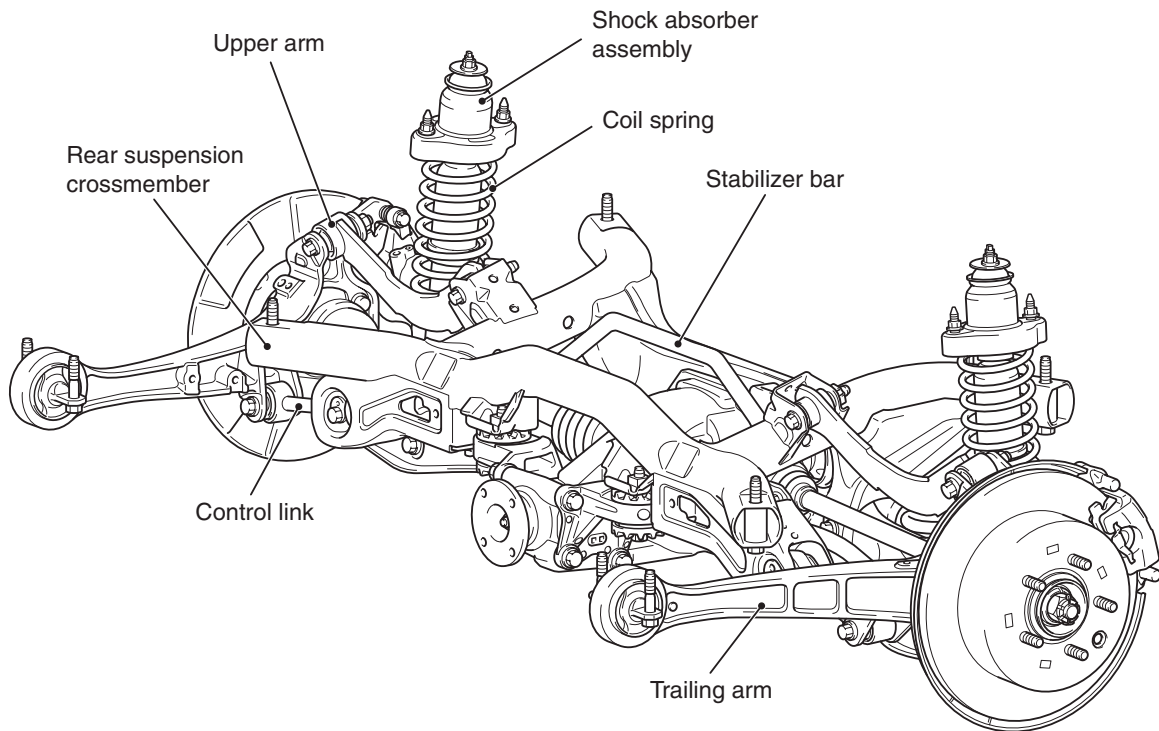
REAR SUSPENSION

<FWD>



AC612938 AD

<AWD>



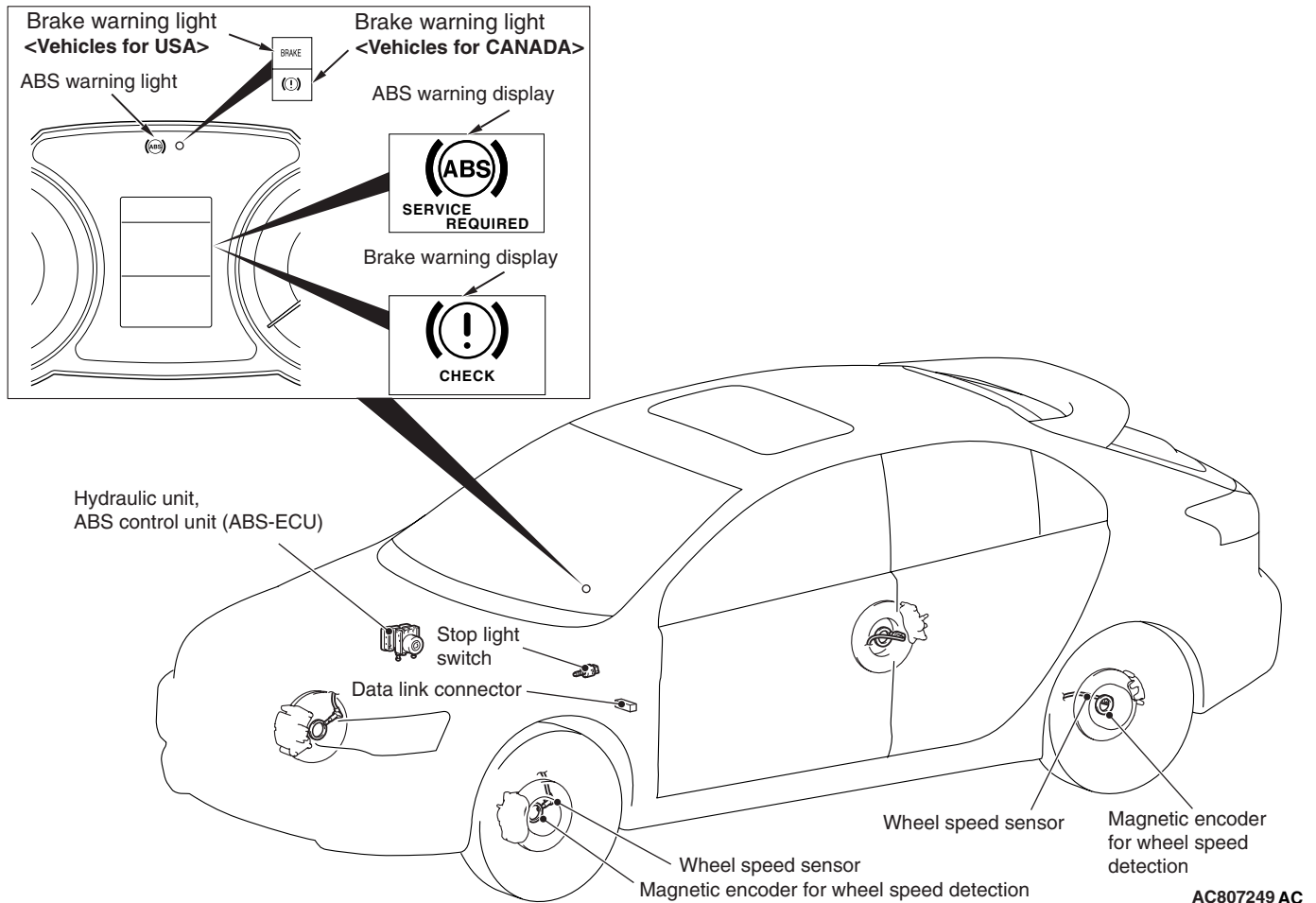
AC712227AE

- 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

M2000031001510

ANTI-LOCK BRAKING SYSTEM (ABS)



The ABS (with EBD) ensures directional stability and controllability during hard braking. The ABS is standard equipment on the all models.

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

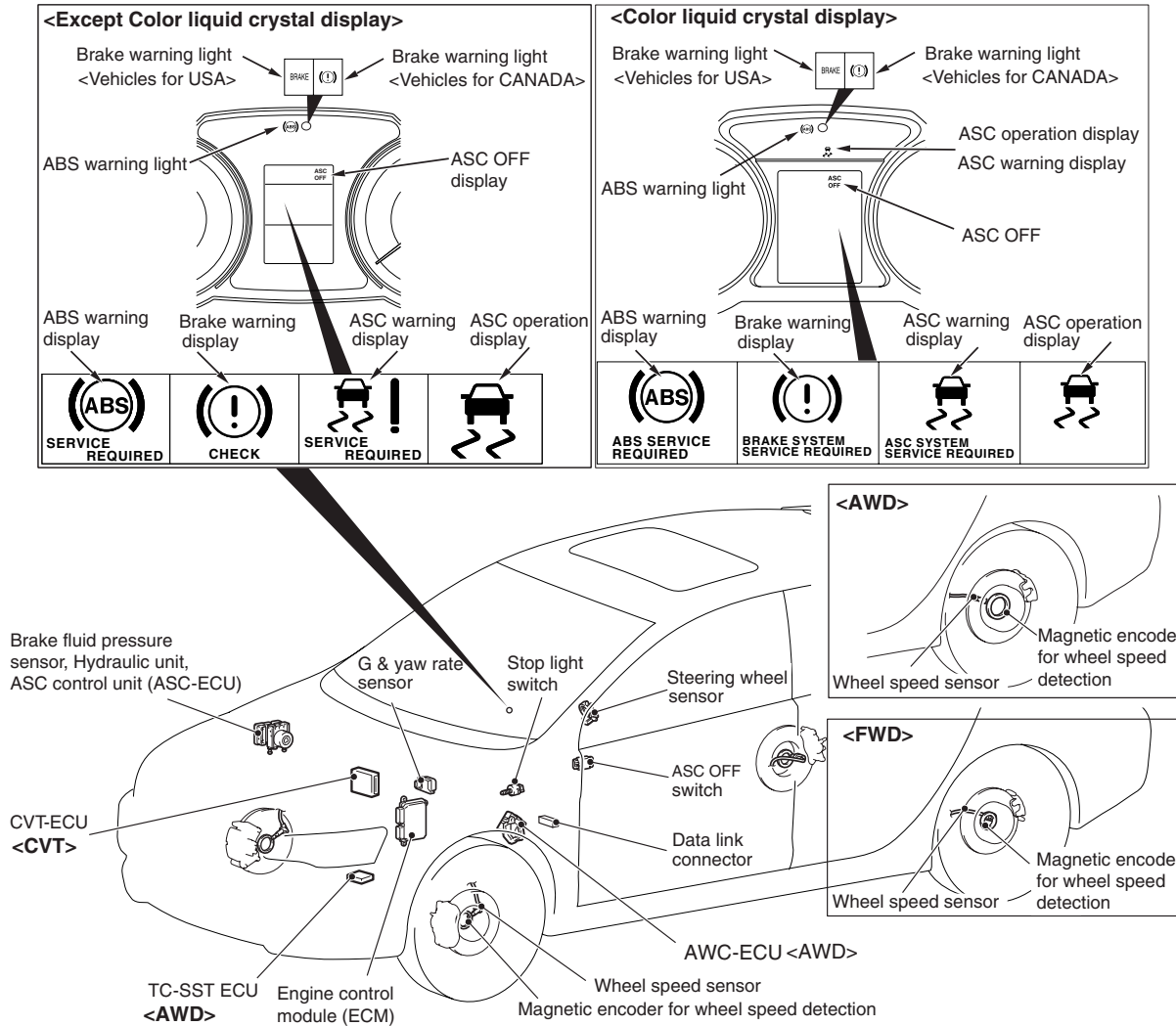
- EBD^{*1} control that can obtain ideal rear wheel brake force has been employed.

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

NOTE:

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

ACTIVE STABILITY CONTROL SYSTEM (ASC)



AC901704 AC

Active Stability Control System (ASC) has been installed.

- The ASC system integrates the traction control (TCL) function and skid control function.
- When TCL detects the slip of the driving wheel (ex. during startup on low μ road), it automatically applies the brakes to the slipping driving wheel. At the same time, TCL reduces the engine output and prevents the wheel spin when it determines that the engine torque is too high for the road surface μ .
- When the ASC-ECU determines that the vehicle is in a dangerous condition, it reduces the engine output and applies brake force to four wheels independently to control the vehicle behavior, avoiding the critical state.
- ASC has been added to the transmission <twin clutch sport shift transmission (TC-SST)^{*1}> and active center differential (ACD)^{*2} control, and the controls are integrated to improve the vehicle stability <Vehicles with AWD>.

- Hill Start Assist (HSA) function has been adopted to hold and prevent the roll back of the vehicle when the vehicle is on a slope and the foot is transferred from the brake pedal to the accelerator pedal <Vehicles with HSA>.

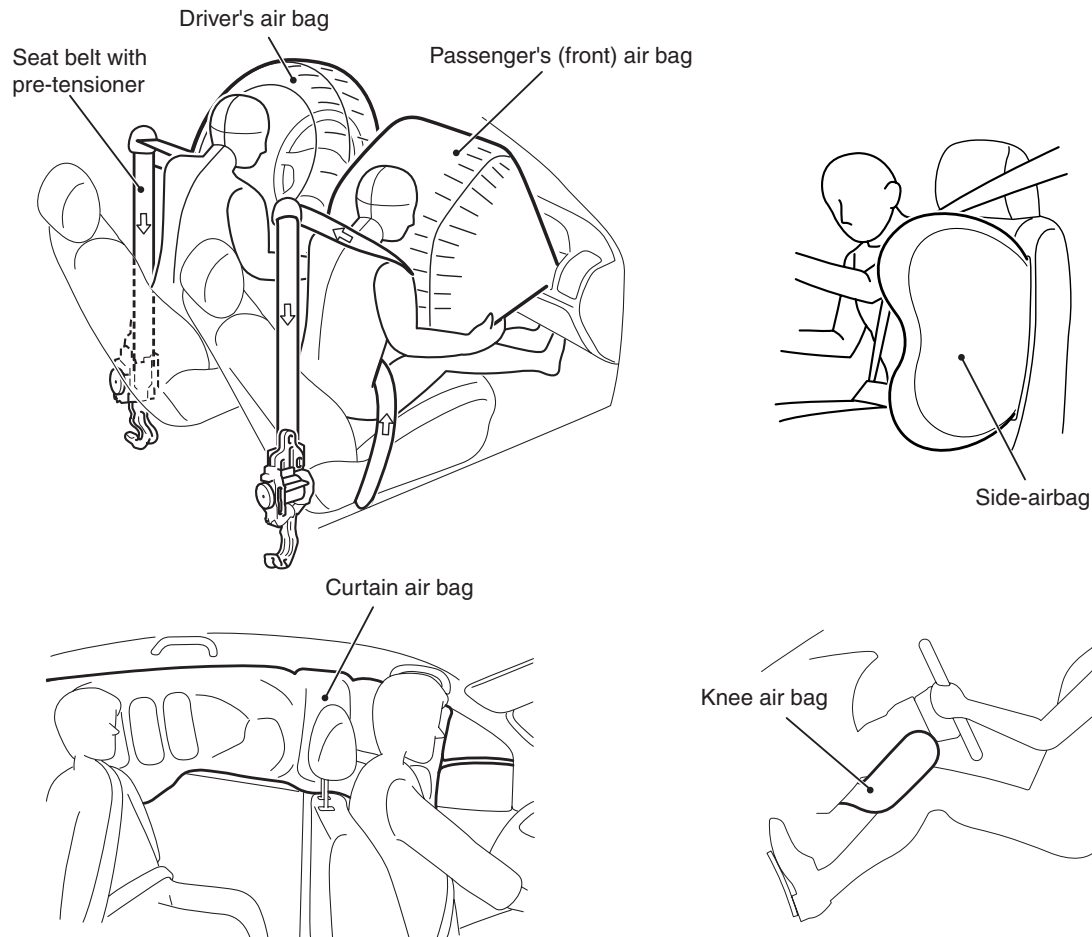
NOTE:

- ^{*1}: For the details on twin clutch sport shift transmission (TC-SST), refer to GROUP 22B –Twin Clutch Sport Shift Transmission (TC-SST) [P.22B-2](#).
- ^{*2}: For the details on active center differential (ACD), refer to GROUP 22B –Active Center Differential (ACD) [P.22B-19](#).
- By the integrated control with the anti skid brake system (ABS), the system stabilizes the vehicle attitude and at the same time secures the driving force.

PASSIVE SAFETY

M2000032001579

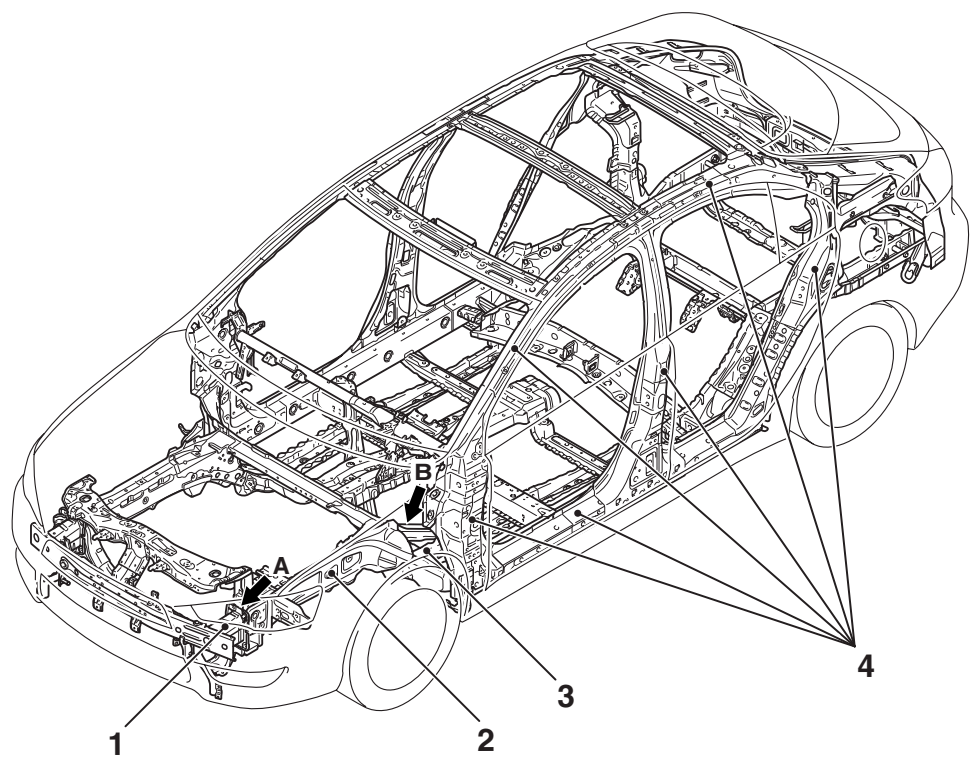
SRS AIR BAGS



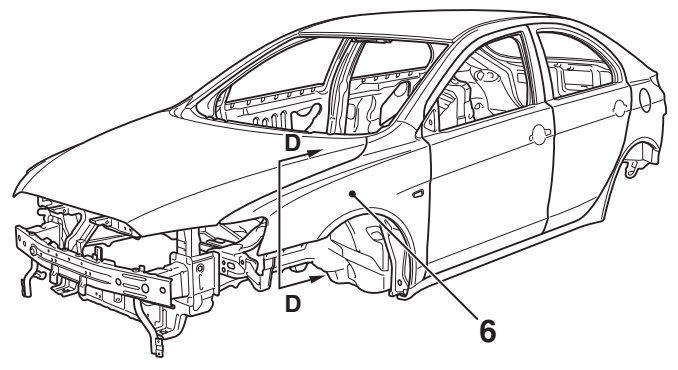
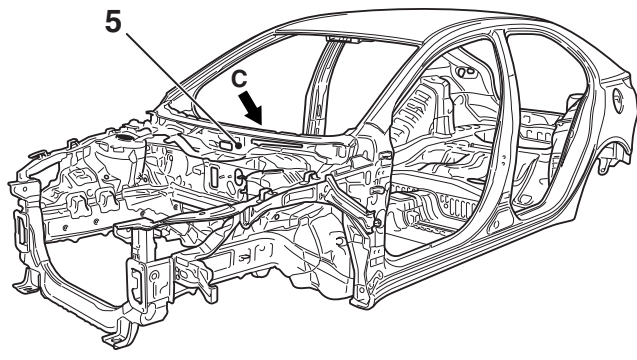
AC609360 AE

- Driver's and passenger's (front) air bags, side-airbags, knee air bag, curtain air bags and seat belts with pre-tensioner have been installed to 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 has been 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 driver's feet (knee and leg).
- The side-airbag 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-airbag upon a side collision to protect the heads of the front seat and second seat passengers.
- For the inflator, the gas which is harmless to the human body has been adopted.
- 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.

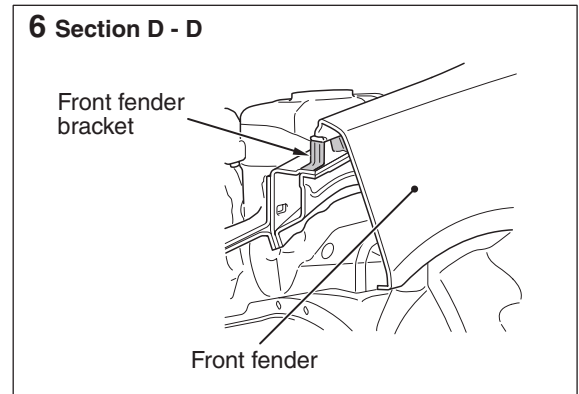
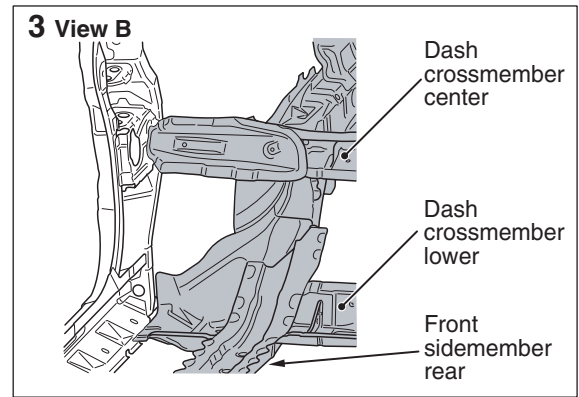
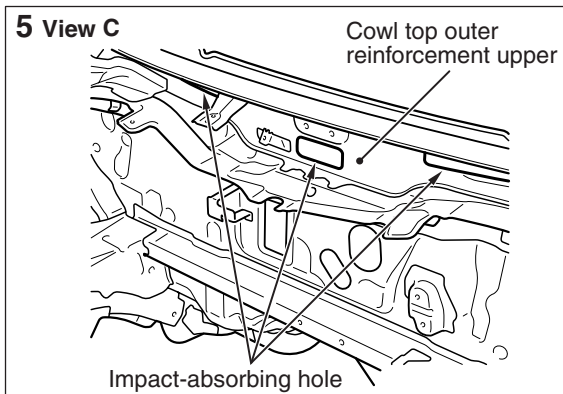
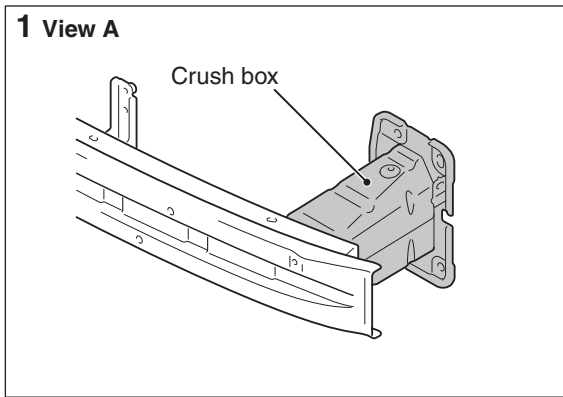
IMPACT SAFETY BODY RISE (REINFORCED IMPACT SAFETY EVOLUTION)



AB701367AB



AB800370



AB801227AB

The front and rear structures to absorb high energy, and the highly tough 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, which has an octagonal cross-section at the front end of the front side-member, has been adopted. This structure can effectively absorb energy upon frontal impact and reduces the vehicle repair cost caused by a light collision.
2. The straight frame structure has been adopted for the front sidemember to improve performance upon frontal impact.
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. An annular structure has been used for the side structure reinforcement to improve collision safety and vehicle body rigidity.

5. The impact absorbing hole on the cowl top outer reinforcement upper has been added to efficiently absorb energy upon impact and improve the pedestrian protection capability.
6. The padding structure of the front fender has been adopted to efficiently absorb energy upon impact and improve the pedestrian protection capability.

OTHER SAFETY FEATURES

- Brake pedal recede-control device
- Collapsible steering column
- Child-protection rear door locks
- Front fog lamps
- ELR 3-point seat belt (driver's seat)
- ELR/ALR 3-point seat belt (passenger's seat, rear seat)
- Tire pressure monitoring system (TPMS)
- Immobilizer
- Keyless operation system (KOS) <Vehicle with KOS >

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

ENVIRONMENTAL PROTECTION

M2000027000826

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 so on	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, Bush for M/T	Adoption of lead free material

SERVICEABILITY AND RELIABILITY

M2000028001316

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 diagnostic trouble codes and service data and to carry out actuator tests.

*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.*

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

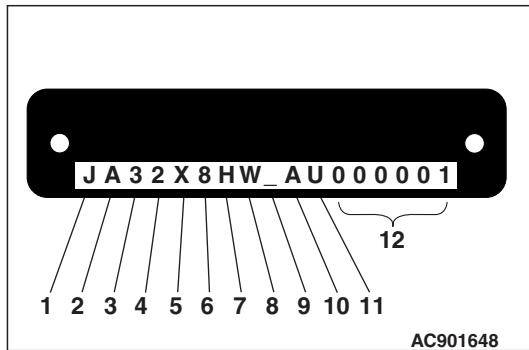
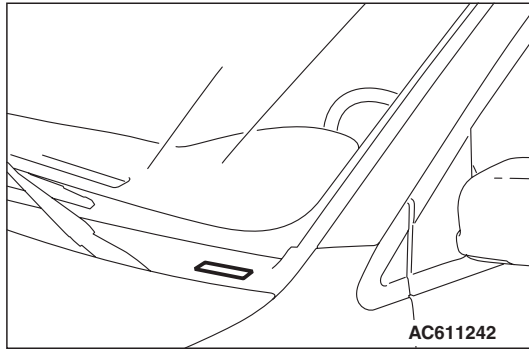
The bolts and nuts with stabilizer for coefficient of friction are used for the connections such as the suspension arm and crossmember in order to stabilize the axial force and to ensure the high axial force at bolt/nut connections, resulting in improved reliability.

VEHICLE IDENTIFICATION

M2000001004862

VEHICLES IDENTIFICATION NUMBER LOCATION

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



CODE CHART

No.	Item	Content	
1	Country	J	Japan
2	Make	A	Mitsubishi motors corporation
3	Vehicle type	3	Passenger car
4	Others	2	Air bags (driver, passenger, side curtain, driver knee)
5	Line	X	MITSUBISHI LANCER SPORTBACK (FWD)
		Y	MITSUBISHI LANCER SPORTBACK (AWD)
6	Price class	8	SPORTS
		6	SPECIAL
7	Body	H	5 door hatch back
8	Engine	V	2.0L DOHC Charge air cooler turbocharger (4B11) MIVEC
		W	2.4L DOHC (4B12) MIVEC
9	Check digits*	0, 1, 2, 3, -----9, X	
10	Model year	A	2010 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 serial number)	Model code		Engine model	Transaxle model	Fuel system
JA32Y6HV_AU	CX4AL	MUFZL2M	4B11 DOHC MIVEC with Charge air cooler turbocharger [1,998 cm ³ (121.9 cu in)] gasoline engine	W6DGA [AWD, Twin Clutch-Sportronic Shift Transmission (TC-SST)]	MFI
JA32X8HW_AU	CX5AL	NXHL2M	4B12 DOHC MIVEC [2,360 cm ³ (144.0 cu in)] gasoline engine	F5MBB (FWD, 5 M/T)	
		TXHL2M		F1CJA (FWD, INVECS-III CVT) with sport mode	

(VEHICLES FOR CALIFORNIA EMISSION REGULATION)

VIN (Except serial number)	Model code		Engine model	Transaxle model	Fuel system
JA32X8HW_AU	CX5AL	NXHL7M	4B12 DOHC MIVEC [2,360 cm ³ (144.0 cu in)] gasoline engine	F5MBB (FWD, 5 M/T)	MFI
		TXHL7M		F1CJA (FWD, INVECS-III CVT) with sport mode	

VEHICLES FOR PUERTO RICO

VIN (Except serial number)	Model code		Engine model	Transaxle model	Fuel system
JA32X8HW_AU	CX5AL	NXHL2M	4B12 DOHC MIVEC [2,360 cm ³ (144.0 cu in)] gasoline engine	F5MBB (FWD, 5 M/T)	MFI
		TXHL2M		F1CJA (FWD, INVECS-III CVT) with sport mode	

VEHICLES FOR GUAM AND SAIPAN

VIN (Except serial number)	Model code		Engine model	Transaxle model	Fuel system
JA32Y6HV_AU	CX4AL	MUFZL2M	4B11 DOHC MIVEC with Charge air cooler turbocharger [1,998 cm ³ (121.9 cu in)] gasoline engine	W6DGA [AWD, Twin Clutch-Sportronic Shift Transmission (TC-SST)]	MFI
JA32X8HW_AU	CX5AL	NXHL2M	4B12 DOHC MIVEC [2,360 cm ³ (144.0 cu in)] gasoline engine	F5MBB (FWD, 5 M/T)	
		TXHL2M		F1CJA (FWD, INVECS-III CVT) with sport mode	

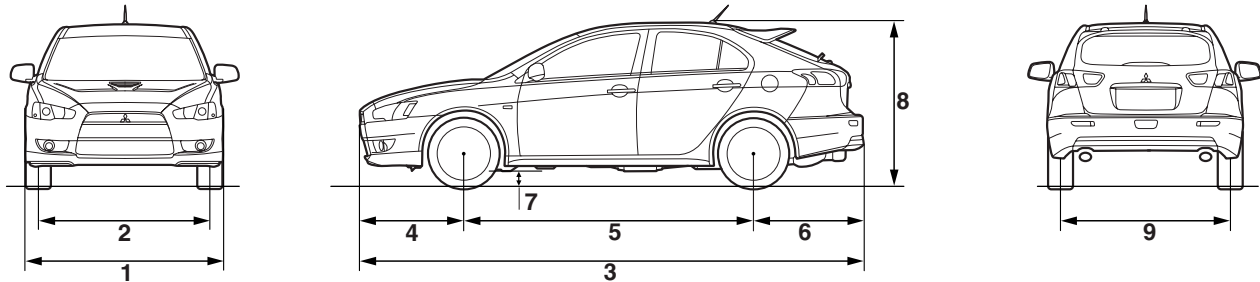
VEHICLES FOR CANADA

VIN (Except serial number)	Model code		Engine model	Transaxle model	Fuel system
JA32Y6HV_AU	CX4AL	MUFZL3M	4B11 DOHC MIVEC with Charge air cooler turbocharger [1,998 cm ³ (121.9 cu in)] gasoline engine	W6DGA [AWD, Twin Clutch-Sportronic Shift Transmission (TC-SST)]	MFI
JA32X8HW_AU	CX5AL	NXHL3M	4B12 DOHC MIVEC [2,360 cm ³ (144.0 cu in)] gasoline engine	F5MBB (FWD, 5 M/T)	
		TXHL3M		F1CJA (FWD, INVECS-III CVT) with sport mode	

GENERAL DATA AND SPECIFICATIONS

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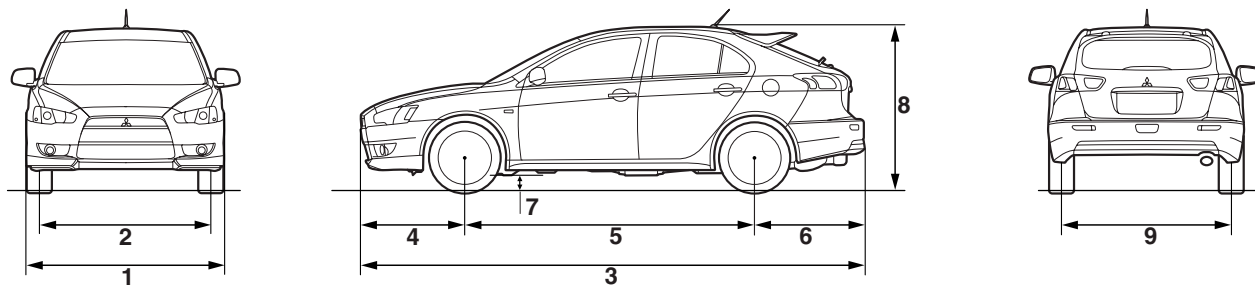
<2.0L ENGINE>



AC807869

Item		CX4AL	
		MUFZL2M/3M	
Vehicle dimension mm (in)	Overall width	1	1,760 (69.4)
	Tread-front	2	1,530 (60.2)
	Overall length	3	4,585 (180.4)
	Overhang-front	4	955 (37.6)
	Wheelbase	5	2,635 (103.7)
	Overhang-rear	6	995 (39.1)
	Ground clearance	7	147 (5.8)
	Overall height (unladen)	8	1,515 (59.7)
	Tread-rear	9	1,530 (60.2)
Vehicle weight kg (lb)	Curb weight	1,620 (3,572)	
	Gross vehicle weight rating	2,045 (4,509)	
	Gross axle weight rating-front	1,080 (2,381)	
	Gross axle weight rating-rear	1,015 (2,238)	
Seating capacity		5	
Engine	Model code	4B11 with Charge air cooler turbocharger	
	Piston displacement cm ³ (cu in)	1,998 (121.9)	
	Maximum output kW/r/min (HP/r/min)	177/6,000 (237/6,000)	
	Maximum torque N·m/r/min (ft-lb/r/min)	343/2,500-4,750 (253/2,500-4,750)	
Fuel system	Fuel supply system	MFI	
Transaxle	Model code	W6DGA	
	Type	TC-SST	
Minimum turning radius m (ft)		5.0 (16.4)	

<2.4L ENGINE>



AC807381AB

Item		CX5AL		
		NXHL2M/3M/7M	TXHL2M/3M/7M	
Vehicle dimension mm (in)	Overall width	1	1,760 (69.4)	1,760 (69.4)
	Tread-front	2	1,530 (60.2)	1,530 (60.2)
	Overall length	3	4,585 (180.4)	4,585 (180.4)
	Overhang-front	4	955 (37.6)	955 (37.6)
	Wheelbase	5	2,635 (103.7)	2,635 (103.7)
	Overhang-rear	6	995 (39.1)	995 (39.1)
	Ground clearance	7	147 (5.8)	147 (5.8)
	Overall height (unladen)	8	1,515 (59.7)	1,515 (59.7)
	Tread-rear	9	1,530 (60.2)	1,530 (60.2)
Vehicle weight kg (lb)	Curb weight		1,405 (3,098)	1,435 (3,164)
	Gross vehicle weight rating		1,900 (4,190)	1,900 (4,190)
	Gross axle weight rating-front		1,010 (2,227)	1,010 (2,227)
	Gross axle weight rating-rear		960 (2,117)	960 (2,117)
Seating capacity			5	5
Engine	Model code		4B12	4B12
	Piston displacement cm ³ (cu in)		2,360 (144.0)	2,360 (144.0)
	Maximum output kW/r/min (HP/r/min)		125/6,000 (168/6,000) <Except California>, 120/6,000 (161/6,000) <California>	
	Maximum torque N·m/r/min (ft-lb/r/min)		226/4,100 (167/4,100) <Except California>, 218/4,100 (161/4,100) <California>	
Fuel system	Fuel supply system		MFI	MFI
Transaxle	Model code		F5MBB	F1CJA
	Type		5 M/T	CVT
Minimum turning radius m (ft)			5.0 (16.4)	5.0 (16.4)