MITSUBISHI MOTORS

LANCER EVOLUTION-VIII

TECHNICAL INFORMATION

MITSUBISHI MOTORS CORPORATION

NEW MODEL INFORMATION MANUAL

LANCER EVOLUTION-VIII

FOREWORD

This manual has been prepared as an explanation of the main changes in the 2003 LANCER-EVOLUTION-VIII. It only describes the differences from the LANCER-EVOLUTION-VII. It should be used in conjunction with the related material in the following pages. This manual is based on the current model as of January 2003. Please note that its content may not conform to that of future models due to specification changes etc. Please also note that the units described in this manual are based on SI units, which is the International System of Units, and conventional units are not included.
(However, old units are used for some figures taken from existing documents)

Any opinions, requests, or questions concerning this manual, should be written on the 'Servicing Comment Form' at the end, and sent to us by fax.

January 2003

MITSUBISHI MOTOR CORPORATION

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Reference Materials 8

Related documentation

Document name	No.	Month and year of publication
New model information manuals		
• Mirage/Lancer	1036F30	October 1995
• Mirage/Lancer	1036F31	January 1996
• Mirage/Lancer	1036F32	August 1996
• Mirage/Lancer	1036F33	July 1997
• Lancer	1036F34	January 1998
• Mirage/Lancer	1036F35	October 1998
• Lancer	1036F36	January 1999
• Lancer	1036F37	December 1999
• Lancer Sedia	1036K30	May 2000
• Lancer Sedia	1036K31	July 2000
• Lancer Evolution-VII	1036K32	January 2001
• Lancer Sedia	1036K33	May 2001
• Lancer Sedia	1036K34	May 2001
• Lancer Evolution-VII	1036K35	January 2002
• Lancer Sedia	1036K36	May 2002
Maintenance manuals		
• Lancer Sedia	1036K00	May 2000
• Lancer Sedia (supplement)	1036K01	July 2000
• Lancer Evolution-VII (supplement)	1036K02	January 2001
• Lancer Sedia (supplement)	1036K03	May 2001
• Lancer Sedia (supplement)	1036K04	October 2001
• Lancer Evolution-VII (supplement)	1036K05	January 2002
• Lancer Sedia (supplement)	1036K06	May 2002
• Lancer Evolution-VII (supplement)	1036K07	January 2003
Body maintenance manuals		
• Mirage/Lancer (supplement)	1036F52	August 1996
• Lancer Sedia	1036K50	May 2000
• Lancer Sedia (supplement)	1036K51	July 2000
• Lancer Evolution-VII (supplement)	1036K52	May 2001
• Lancer Sedia (supplement)	1036K53	October 2001
Electrical wiring diagrams - maintenance manual		
• Lancer Evolution-VII	1036K77	January 2003
Engine service maintenance manuals		
• 4G6 Engine	1039G46	January 2001
• 4G6 Engine (supplement)	1039G63	January 2003
Transmission maintenance manuals		
• W5M51 Manual Transmission	1039M17	January 2001
• W5M51 Manual Transmission (supplement)	1039M22	January 2003
• W6MAA Manual Transmission	1039M23	January 2003

SECTION 0

GENERAL

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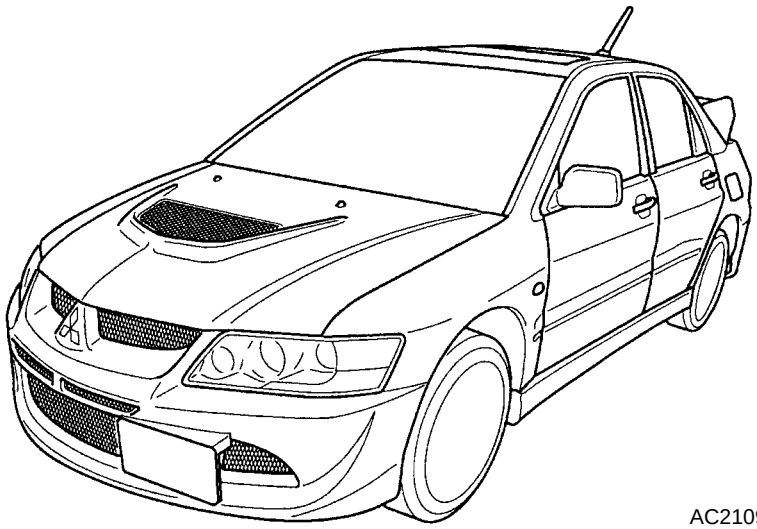
Exterior



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Vehicle Identification

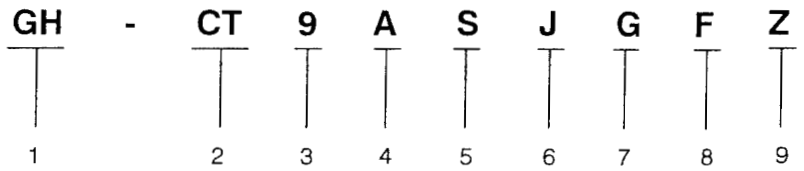
Model code	Class code	2003 code	Grade	Engine model	Transmission model	Fuel supply system
GH-CT9A	SNDFZ	○	RS	4G63 (2,000 cc DOHC 16 valve intercooler turbo)	W5M51 (4WD, 5M/T)	MPI
	SYGFZ	X	GT-A		W5A51 [4WD, INVECS –II Sports Mode 5A/T (Steering shift switch included)]	
	SJDFZ	●	RS		W6MAA (4WD, 6M/T)	
	SJGFZ	●	GSR			

Note [●] indicates new additional model [○] indicates continuation model [X] indicates discontinued model

Implementation Code

GH-CT9A: CT9A-0200001 ~

Model Code and Class Code



No	Items		Contents
1	Gas Emission conformity	G H	Conforms to Gas Emission Regulations 2000 (passenger vehicles fuelled by gasoline or LPG for carriage of passengers with a passenger capacity of 10 persons or less)
2	Development	C T	Lancer Evolution Series
3	Engine type	9	2,000 cc (4G63)
4	Sort	A	Passenger car
5	Body style	S	4-door saloon
6	Transmission type	N	5-speed manual transmission
		J	6-speed manual transmission
7	Trim level	D	RS
		G	GSR
8	Specification engine feature	F	DOHC-MPI-intercooler turbo
9	Special feature	Z	4WD

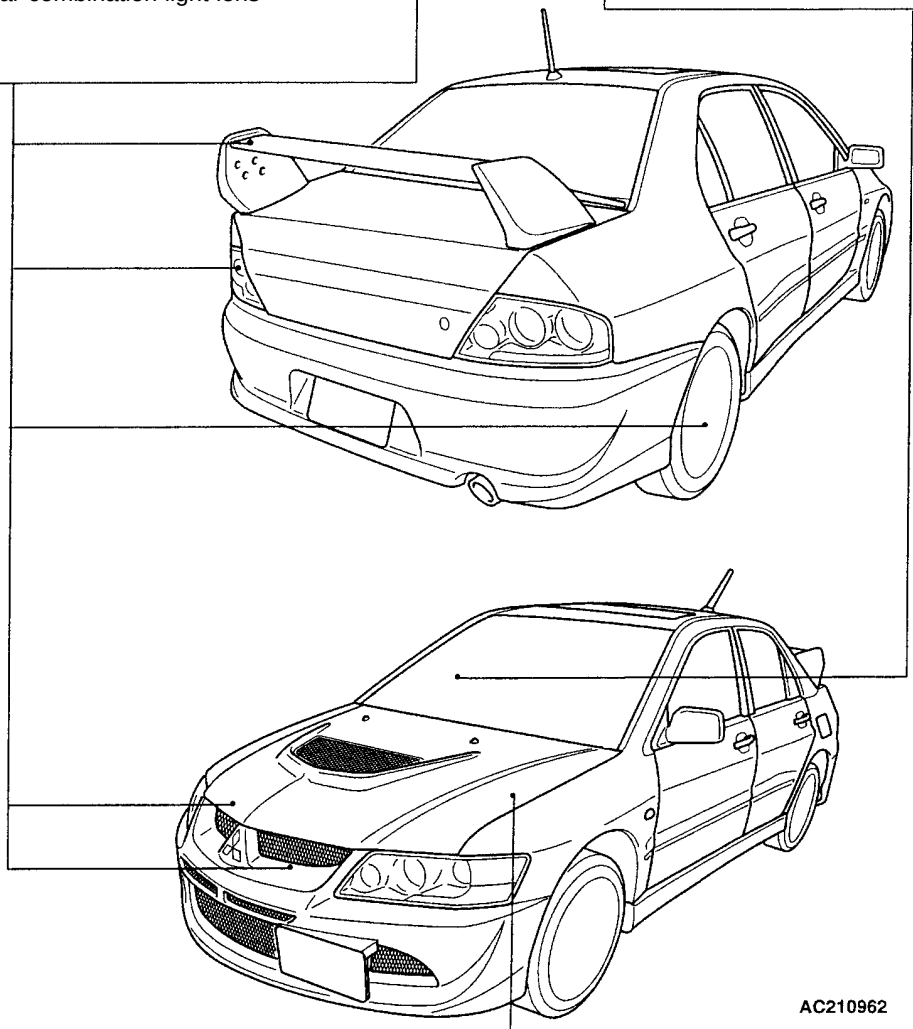
Development Aims

The Lancer Evolution-VIII is based on the Lancer Evolution-VII, which has proved its high speed capability in all fields of motor sport in Japan and internationally. At the same time, feedback from the actual experience of the Lancer Evolution-VII has been given to the Development team, and the standards for a motor sports based vehicle have been raised. In addition to the pursuit of further speed, improvements have been made to its performance and appearance through investment in new equipment such as a 6-speed manual transmission and changes to its interior and exterior appearance.

Technical Features

Exterior
- New shape front bumper
- Full carbon-fibre rear boot spoiler
- Newly designed alloy wheels
- New shape bonnet
- Clear rear combination light lens

Accessories
- Full-scale 270 km/h speedometer
- Immobiliser system



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Engine Transmission
- Improved engine reliability by strengthening the pistons and connecting rods
- Increased fuel tank capacity
- 6-speed manual transmission
- Super AYC

Lancer Evolution-VIII Index

Lancer Evolution-VIII			Base model (Lancer Evolution-VII)		
GH-CT9A	SNDFZ	RS (5M/T)	GH-CT9A	SNDFZ	RS
	SJDFZ	RS (6M/T)			
	SJGFZ	GSR		SNGFZ	GSR

Sections that are different from base model

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	Changes to body colour	4-4
	Changes to bonnet shape	4-4
	Additional security functions to keyless entry system	4-5
Exterior	Changes to shape of front bumper	5-1
	Full carbon-fibre rear boot spoiler	5-2
Interior	Evolution logo on floor console	6-1
	Changes to optional setting of front passenger's air bag (RS)	6-2
	Changes to structure of seat belt pre-tensioner	6-3
Equipment	Immobiliser system	7-1
	Changes to rear combination light lens colours and lens intrinsic colours	7-2
	Full-scale 270 km/h speedometer	7-2
	Changes to SWS functions	7-3

SECTION 1

ENGINE

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Engine (4G6)

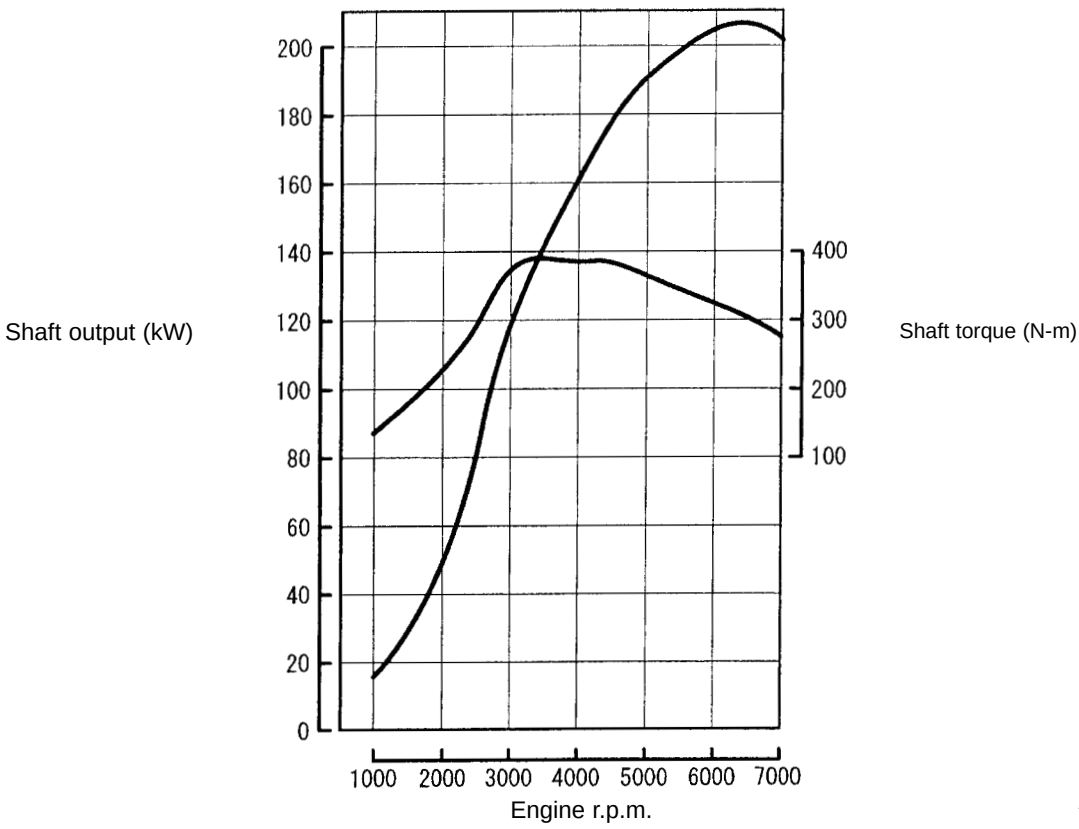
General information

The 4G63-T/C engine of the Lancer Evolution-VIII is basically the same as the 4G63-T/C engine of the Lancer Evolution-VII. The basic structure is the same, but the following improvements and performance upgrades have been implemented.
• Changes from a three section split mold to a two section split mold
• Changes to piston shape and materials
• Beehive-shaped valve springs
• Changes to delivery pipe materials

1. Major specifications

Items	Factors
Total displacement cc	1,997
Combustion chamber	Pentroof type
Bore x stroke mm	85.0 x 88.0
Compression ratio	8.8
Camshaft arrangement	DOHC 4-valve
Fuel used	Unleaded premium
Maximum output (kW/rpm)	206/6500
Maximum torque (Nm/rpm)	392/3500
Fuel system	Electronic controlled multipoint fuel injection
Ignition system	Electronic controlled two-coil
Lash adjuster	Equipped

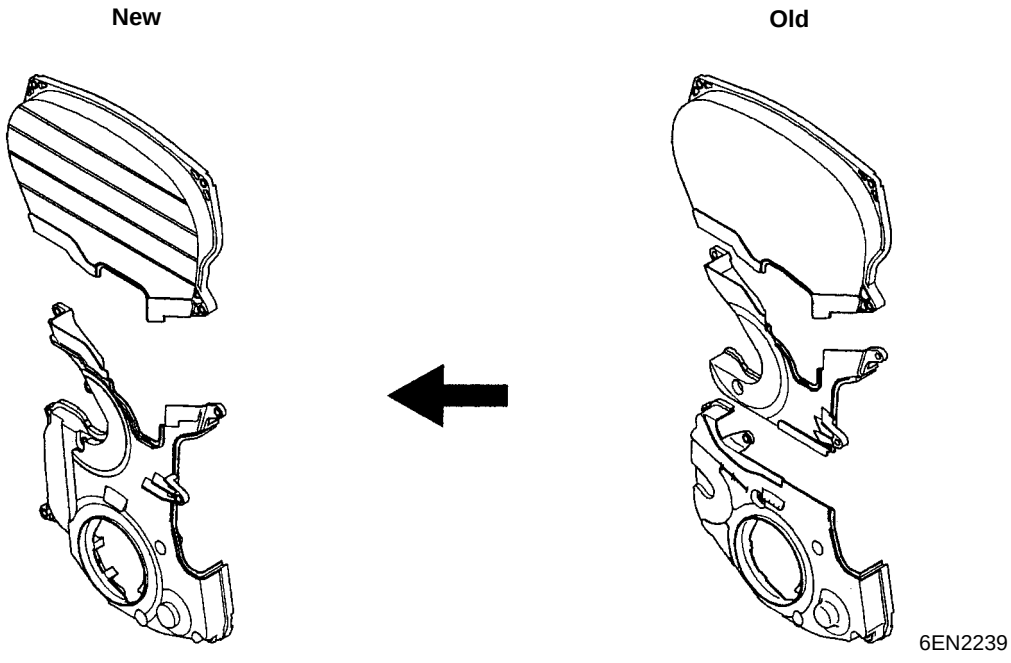
2. Engine Performance Curve



Base Engine

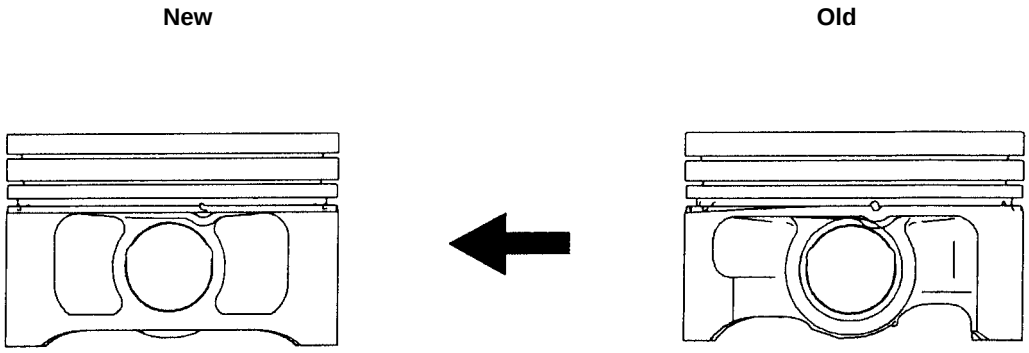
1. Timing belt cover

The timing belt cover has changed from a three section split mold to a two section split mold.
The materials have been changed from aluminium to resin.



2. Piston

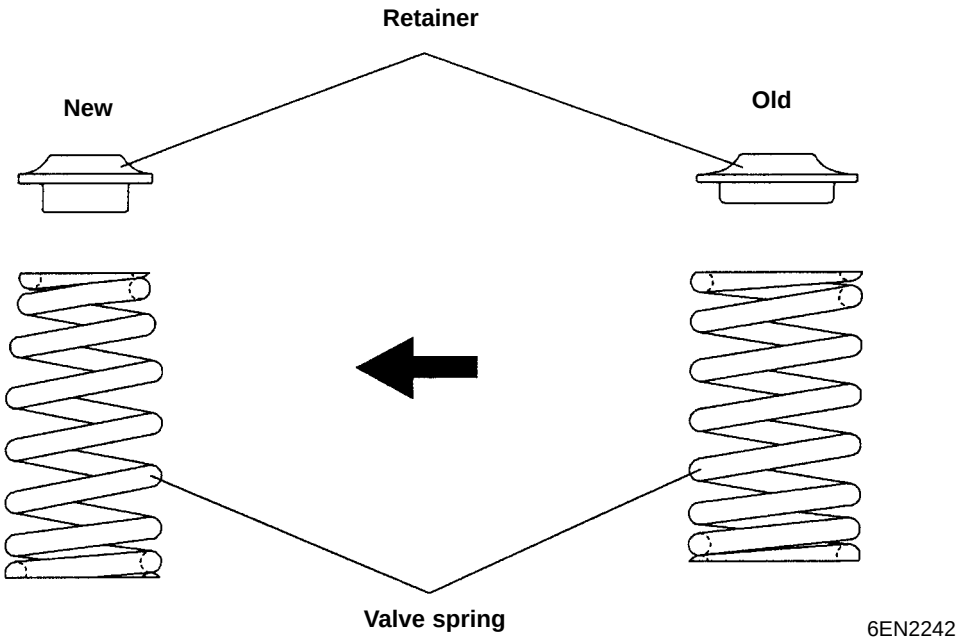
The skirt has been reinforced in order to reduce friction.
A high temperature fatigue resistant alloy has been adopted in order to improve reliability.



6EN2240

3. Valve spring

Beehive-shaped valve springs already introduced in Japan, have been adopted.
The diameter of the retainer has been reduced and its material has been changed from chrome to abrasion resistant alloy.



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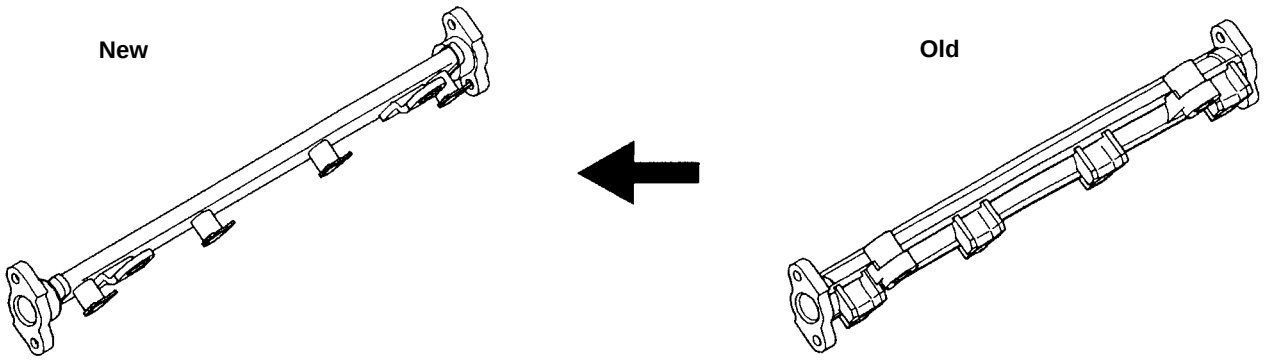
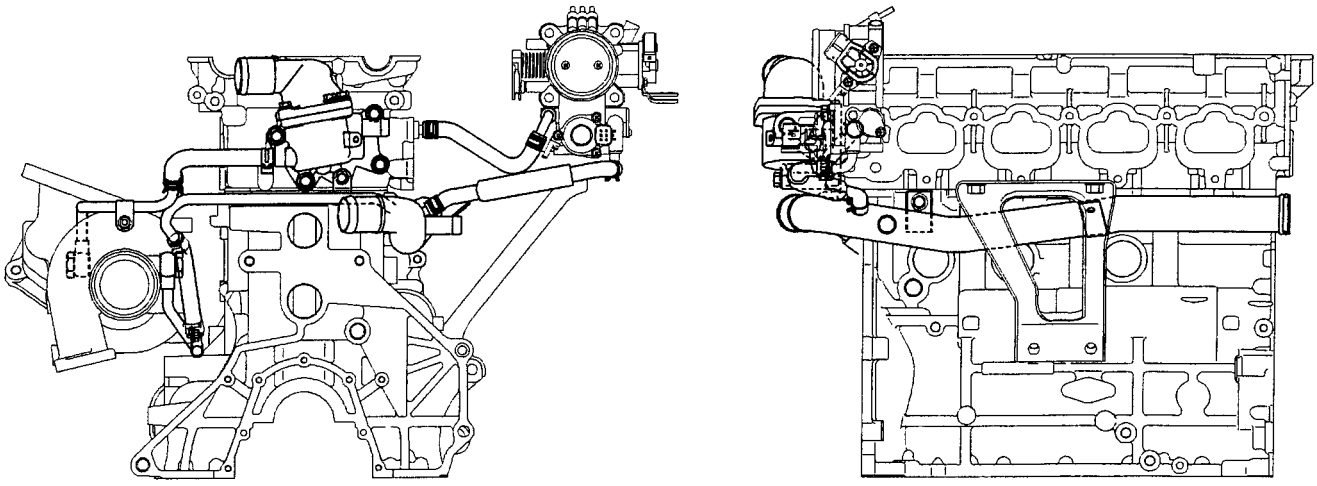
4. Delivery pipe

The material of the delivery pipe has changed from alloy to steel plate to reduce vibration noise.



Cooling System

The cooling system has changed as follows.



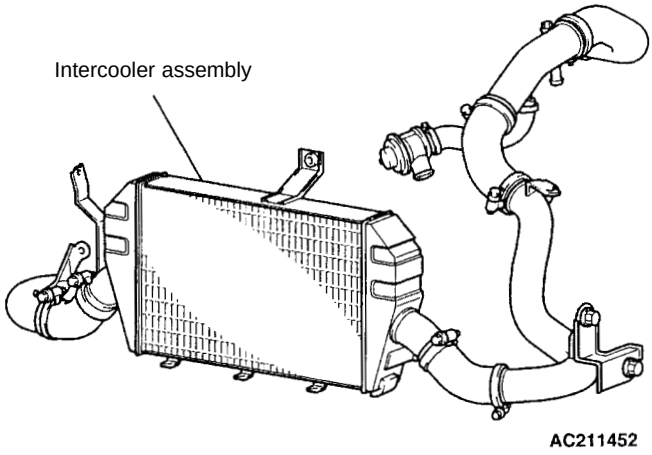
Intake and Exhaust Equipment

1. Air intake system

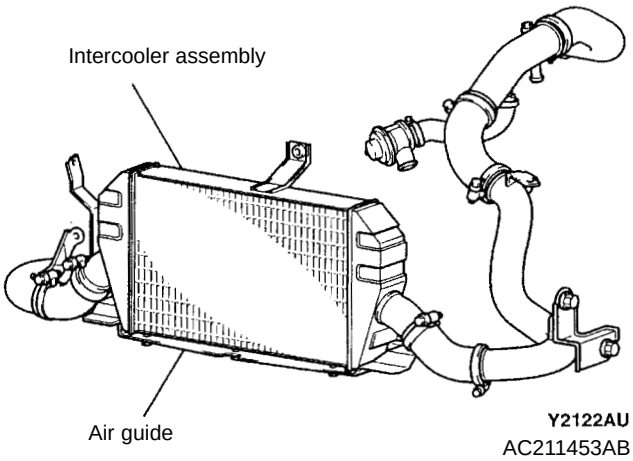
1-1 Intercooler

It is basically the same as the original Lancer Evolution-VII, but the air guides at the bottom of the intercooler assembly have been discontinued in line with changes to the front bumper.

New



Old



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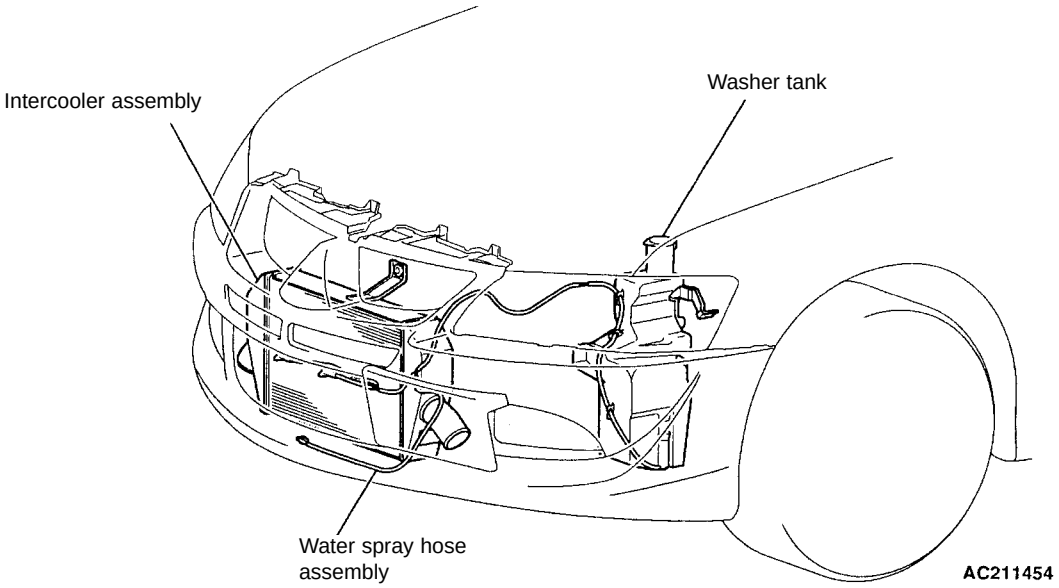
1-2 Intercooler water spray

It is basically the same as the original Lancer Evolution-VII, but the water spray hose has been changed in line with changes to the front bumper.

New



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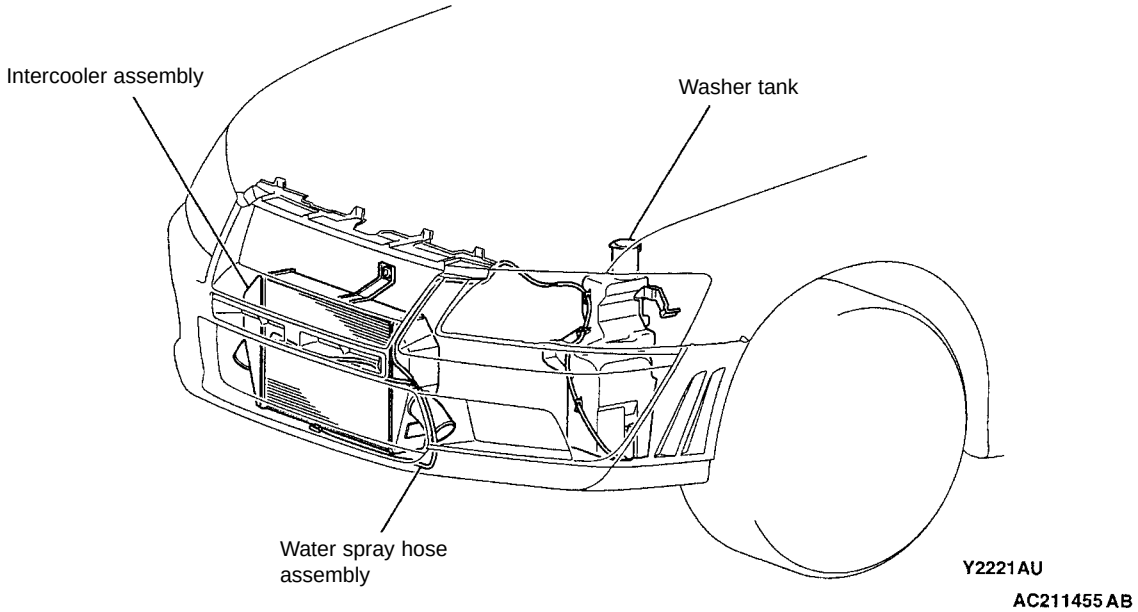


Fuel System

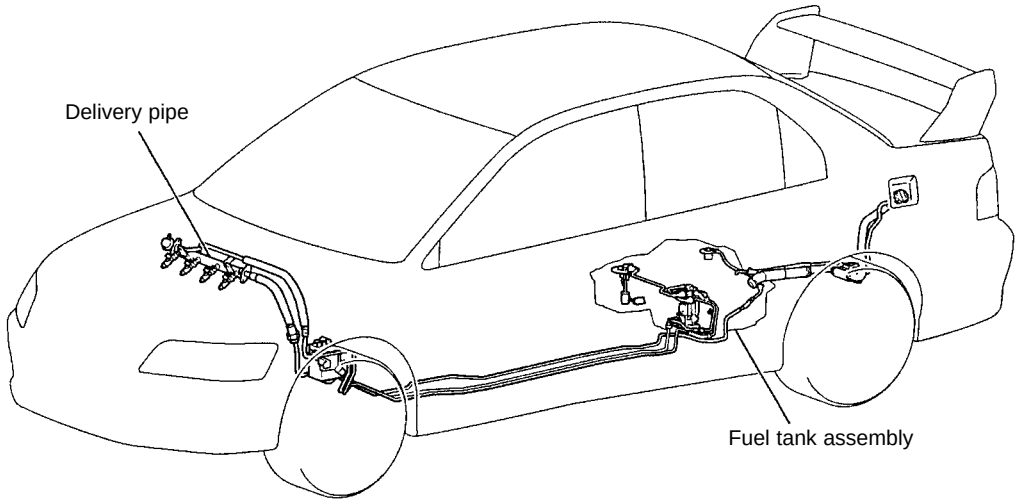
The fuel system is basically the same as that in the original Lancer Evolution-VII, but the following changes have been made:
• The fuel tank assembly has been changed and the tank capacity has been increased in order to extend the range.
• A steel plate fuel delivery pipe has been adopted, fuel pulsation has been reduced as have engine vibration and noise.

Specifications

Items		New	Old
Fuel tank capacity L	GSR	55	48
	RS	50	48

Construction Diagram

New



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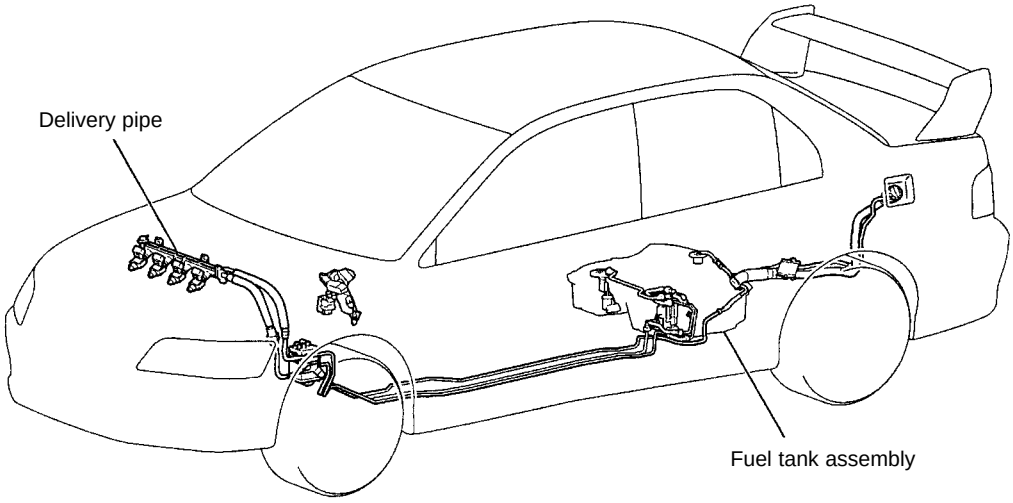
Old



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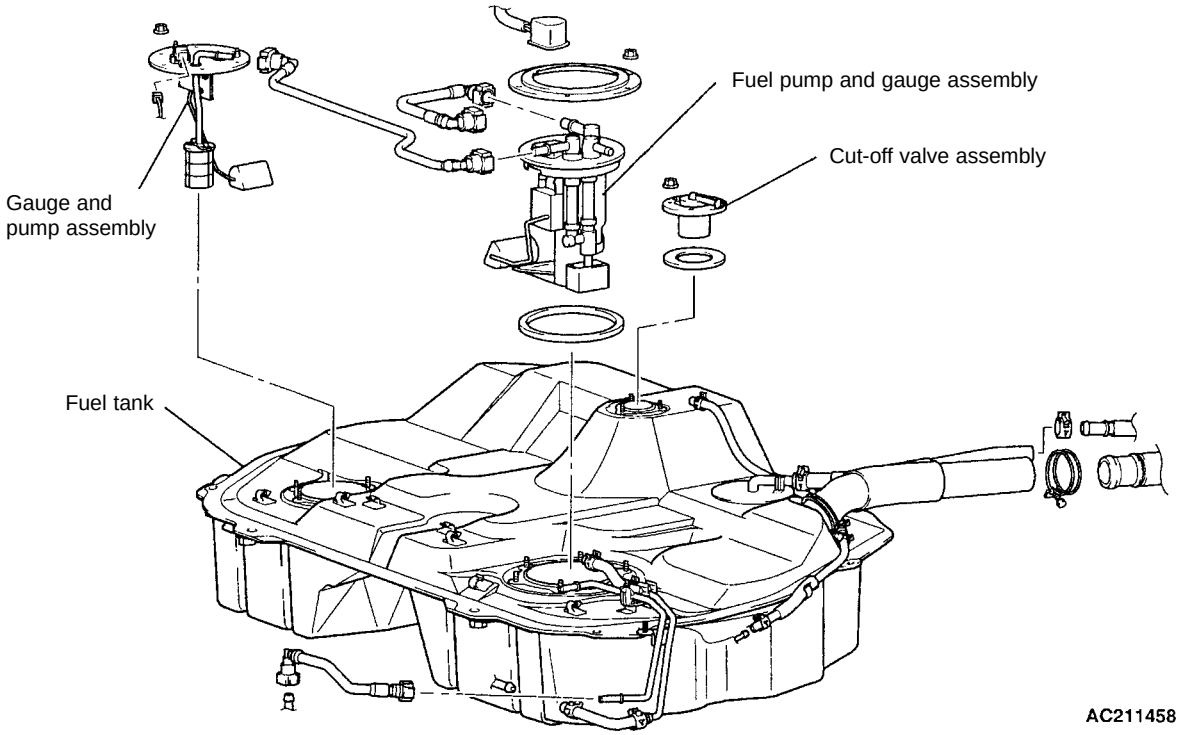
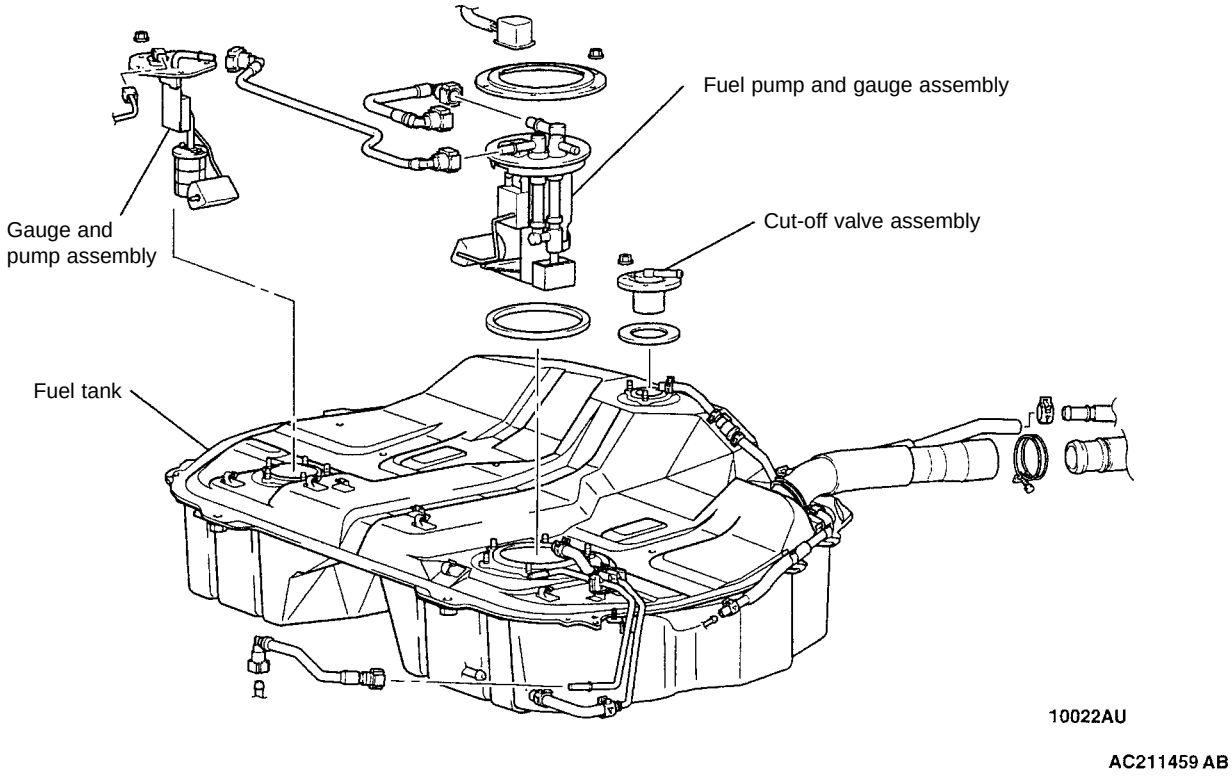
1. Fuel tank

The shape of the fuel tank has been changed. In order to extend the range, the tank capacity of the GSR has been increased to 55 litres, and the tank capacity of the RS has been increased to 50 litres taking into consideration the balance between range and the RS's weight, and motor sport requirements.

New



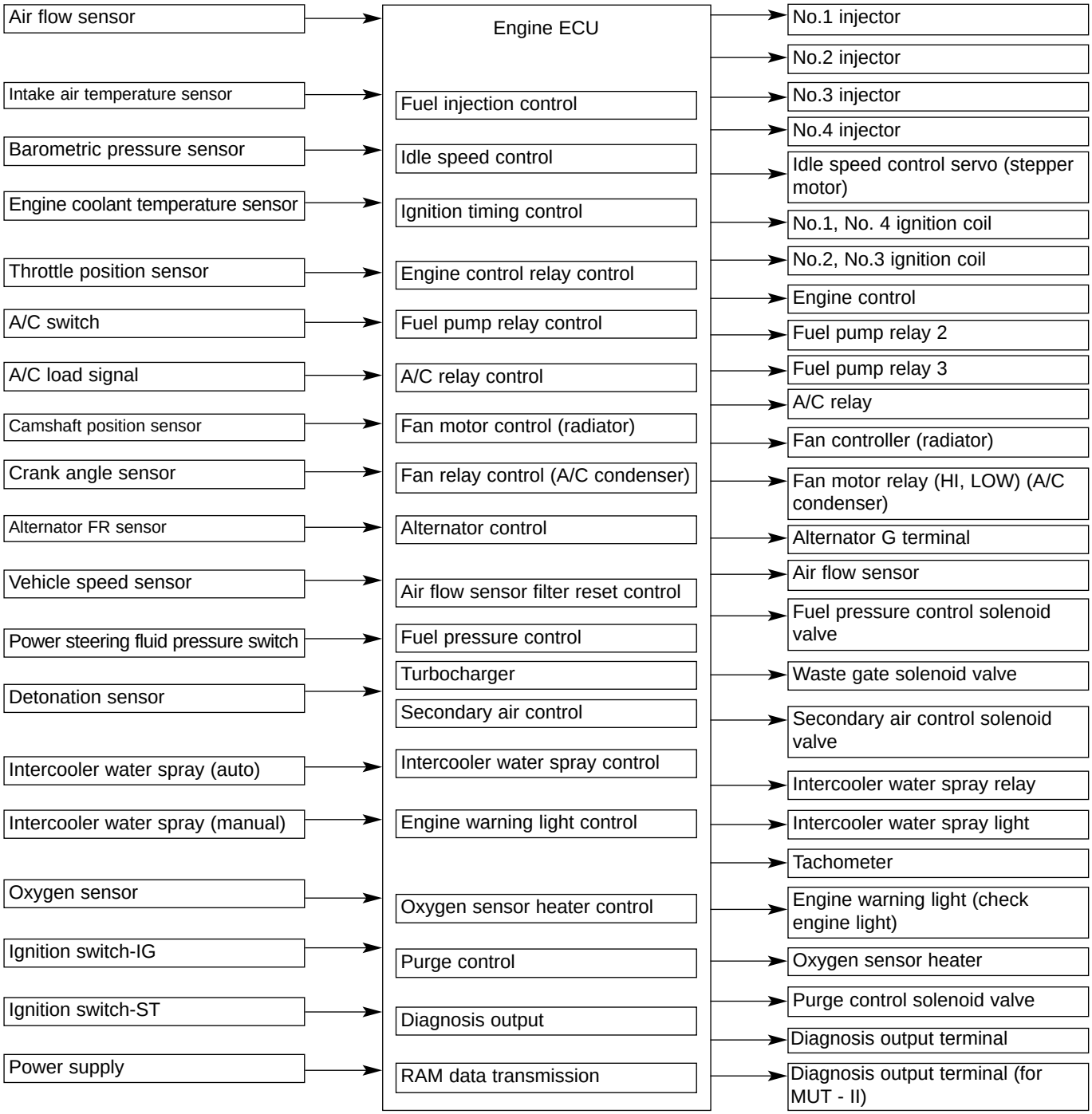
Old



Control System

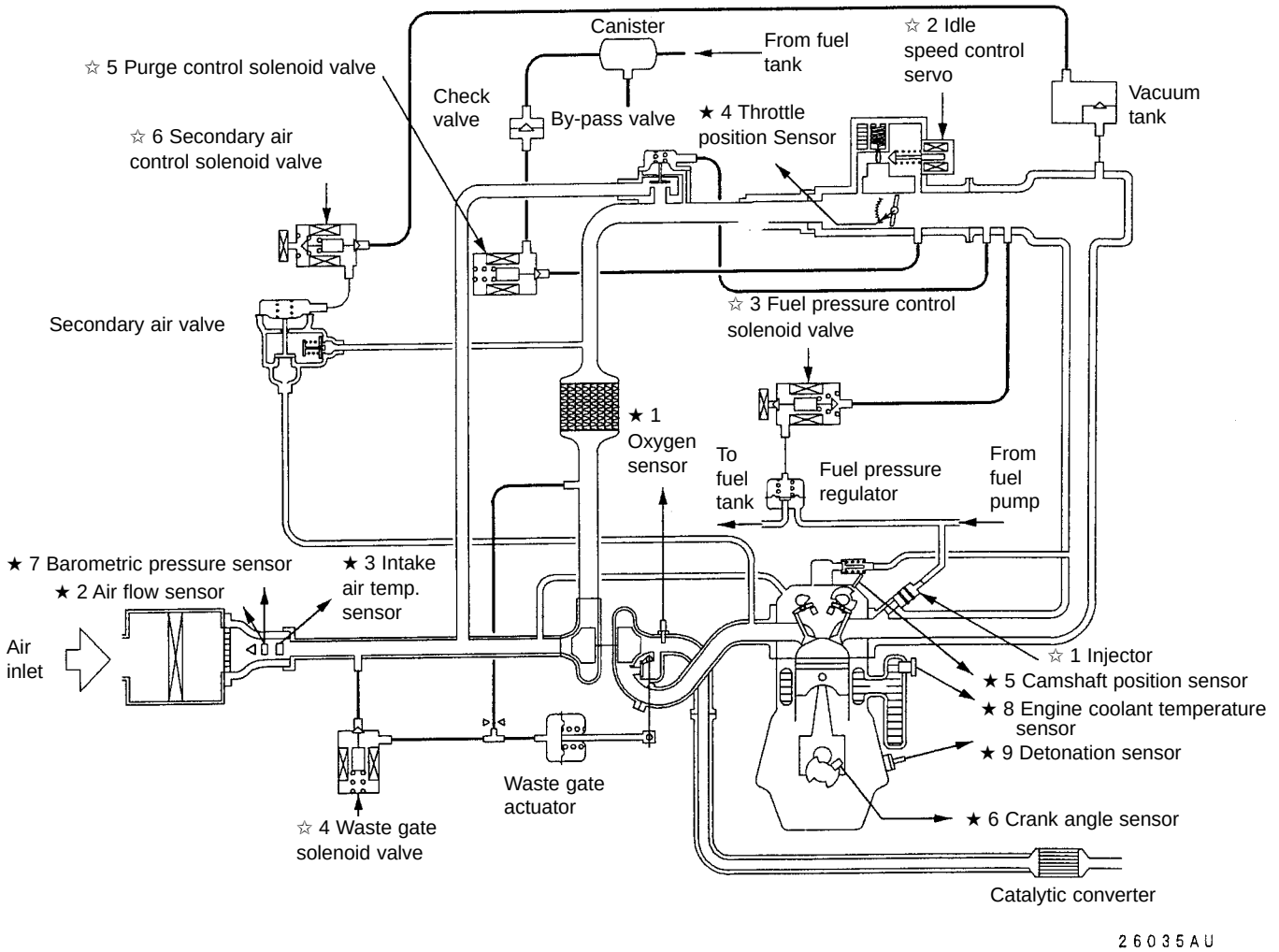
The following changes have been made to the controls of the 4G63-DOHC-Turbocharger engine installed in the original Lancer Evolution-VII:
• MDP (Manifold Differential Pressure) sensor has been discontinued.
• EGR control has been discontinued.
• Diagnostic control terminal has been discontinued.

System block diagram



Control system diagram

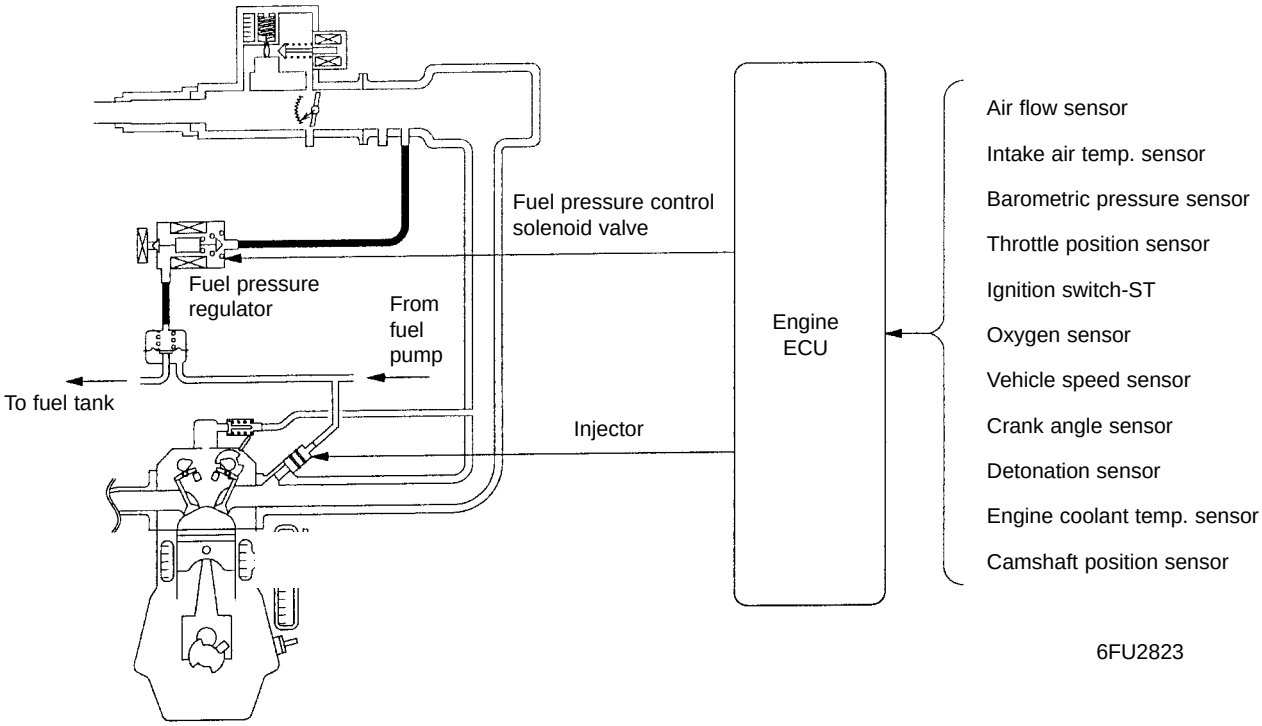
★ 1 Oxygen sensor ★ 2 Air flow sensor ★ 3 Intake air temperature sensor ★ 4 Throttle position Sensor ★ 5 Camshaft position sensor ★ 6 Crank angle sensor ★ 7 Barometric pressure sensor ★ 8 Engine coolant temperature sensor ★ 9 Detonation sensor	• Power supply • Ignition switch-IG • Ignition switch-ST • Vehicle speed sensor • A/C switch • A/C load signal • Power steering fluid pressure switch • Alternator FR terminal • Intercooler water spray switch (Auto) • Intercooler water spray switch (Manual)	⇨ Engine -ECU ⇨	☆ 1 Injector ☆ 2 Idle speed control servo ☆ 3 Fuel pressure control solenoid valve ☆ 4 Waste gate solenoid valve ☆ 5 Purge control solenoid valve ☆ 6 Secondary air control solenoid valve	• Engine control relay • Fuel pump relay 2, 3 • A/C relay • Ignition control • Fan controller • Condenser fan relay (HI) • Condenser fan relay (LOW) • Engine warning light • Diagnosis output • Alternator G terminal • Intercooler water spray relay • Intercooler water spray light	



1. Fuel injection control

This is basically the same as the control system in the 4G63-DOHC-Turbocharger engine installed in the original Lancer Evolution-VII.

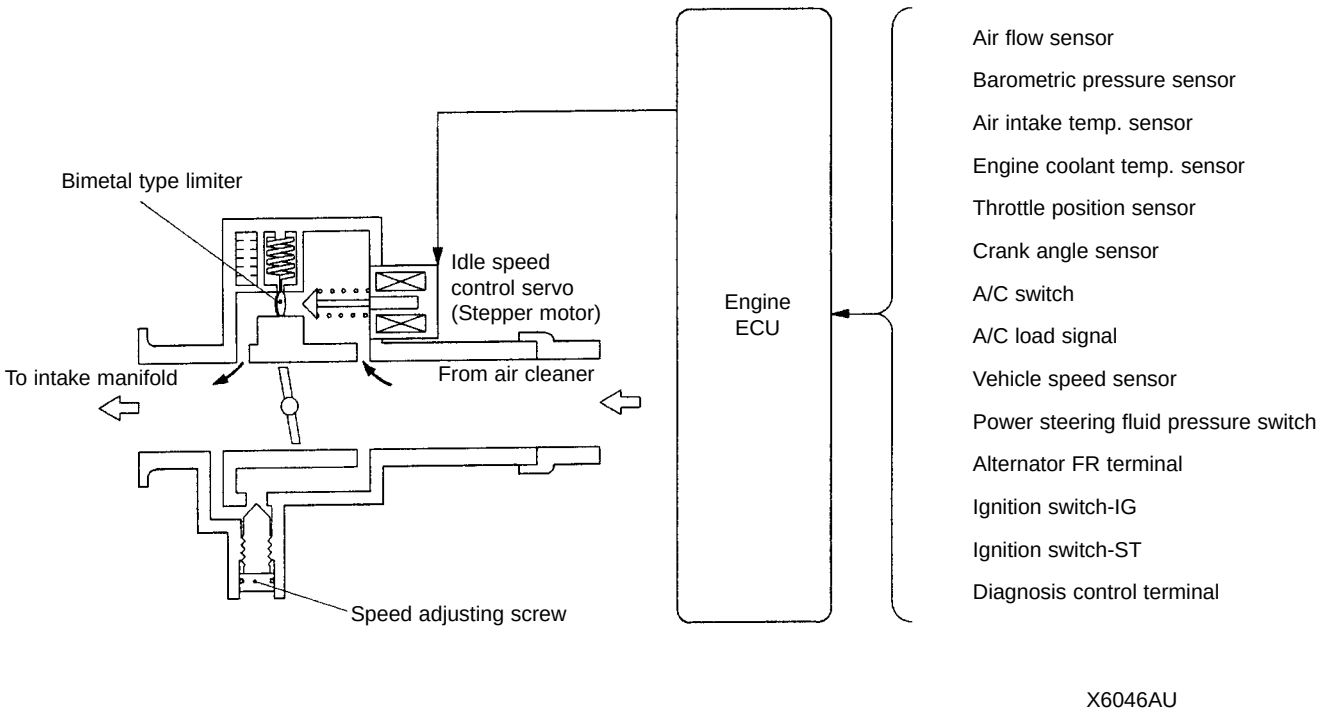
System configuration diagram



2. Idle speed control

This is basically the same as the control system in the 4G63-DOHC-Turbocharger engine installed in the original Lancer Evolution-VII.

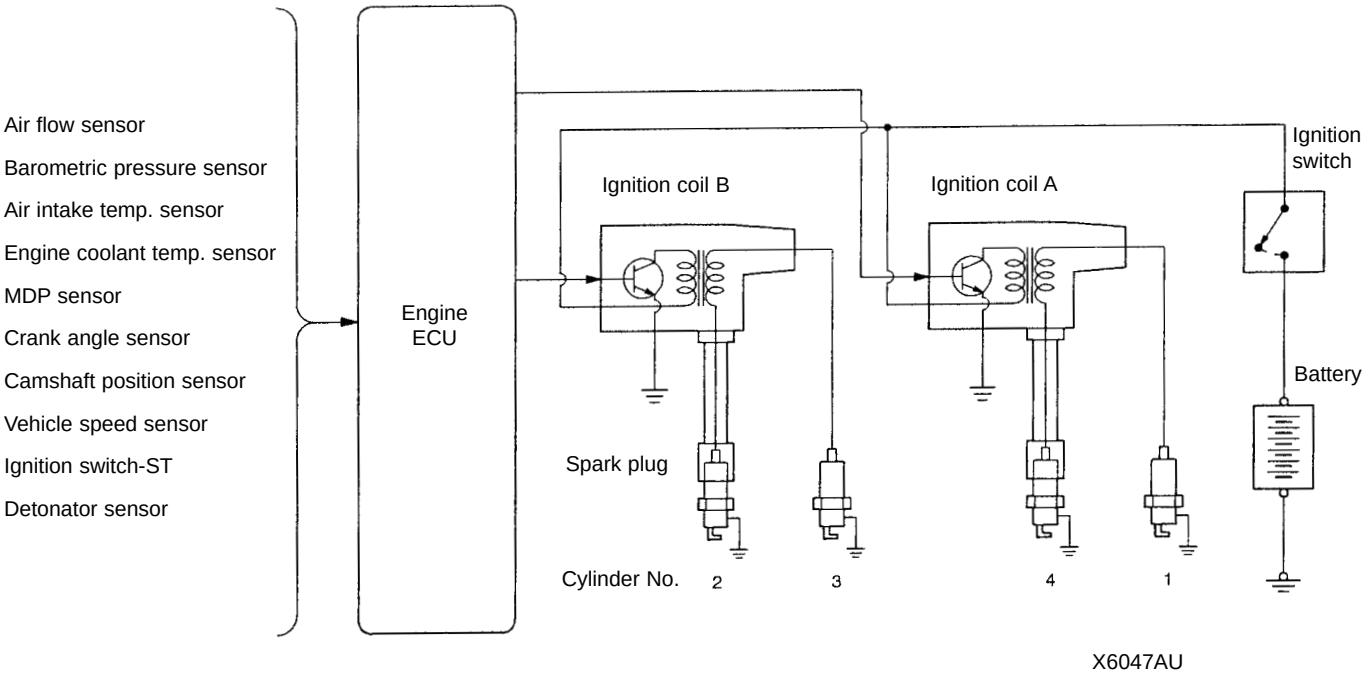
System configuration diagram



3. Ignition timing and distribution control

Basically the same control system has been adopted as in the 4G63-DOHC-Turbocharger engine installed in the original Lancer Evolution-VII.

System configuration diagram



4. Other controls

The following controls are basically the same as the control systems adopted in the 4G63-DOHC-Turbocharger engine installed in the original Lancer Evolution-VII.
- Radio fan motor relay control
- Power supply
- Air flow sensor filter reset control
- Fuel pressure control
- Supercharging pressure control
- Secondary air control
- Fuel pump control
- A/C condenser fan relay control
- Alternator control
- Oxygen sensor heater control
- Purge control

Please refer to Emission Control System.

5. Diagnosis system

The engine ECU has the following functions in order to facilitate system checks.
a. Engine warning light
b. Diagnosis function
c. Service data output
d. Actuator test

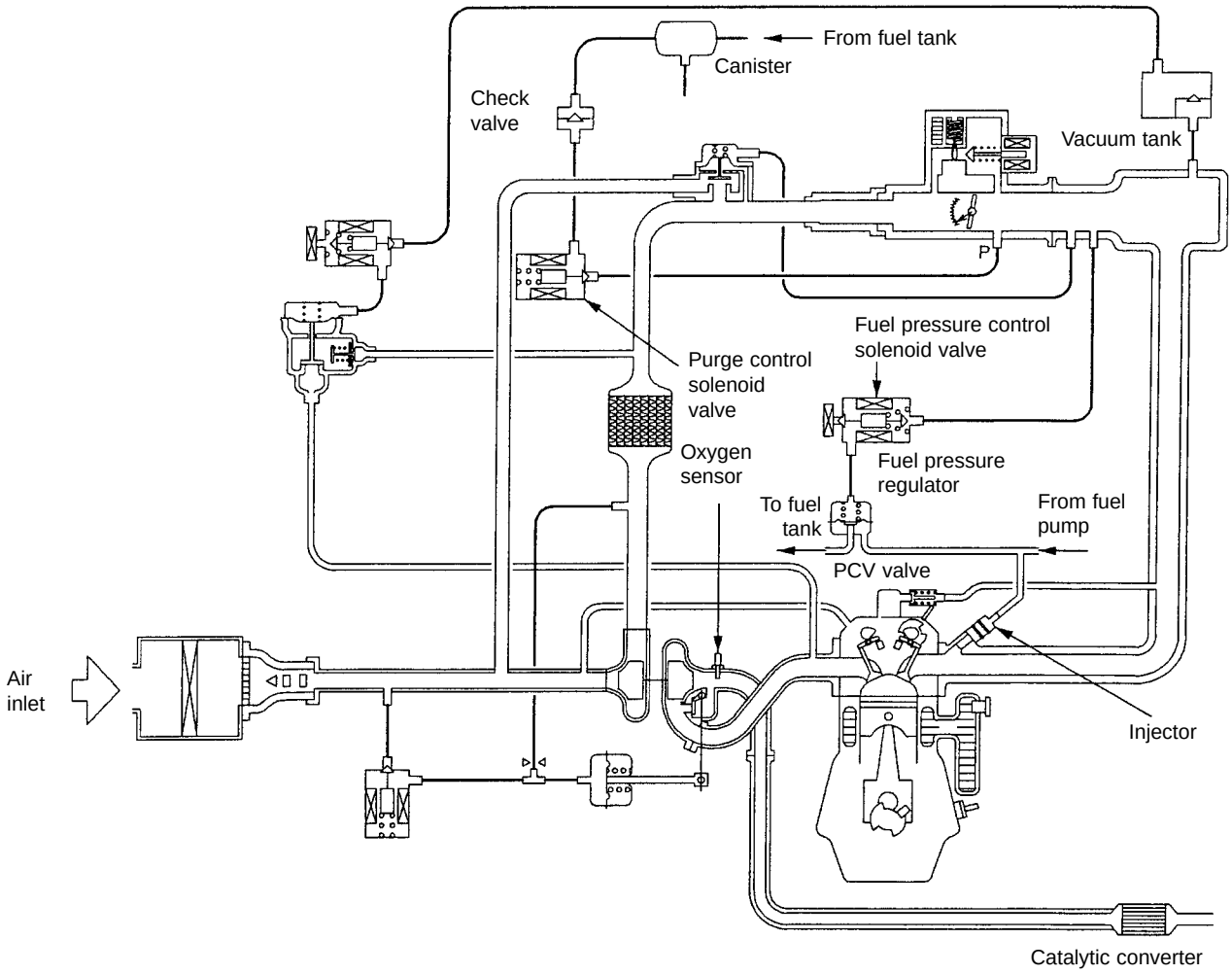
Note
Please refer to the maintenance manual for each item.

Emission Control System

The following change has been made based on the 4G63-DOHC-Turbocharger engine used in the original Lancer Evolution-VII.

• The EGR system has been discontinued.

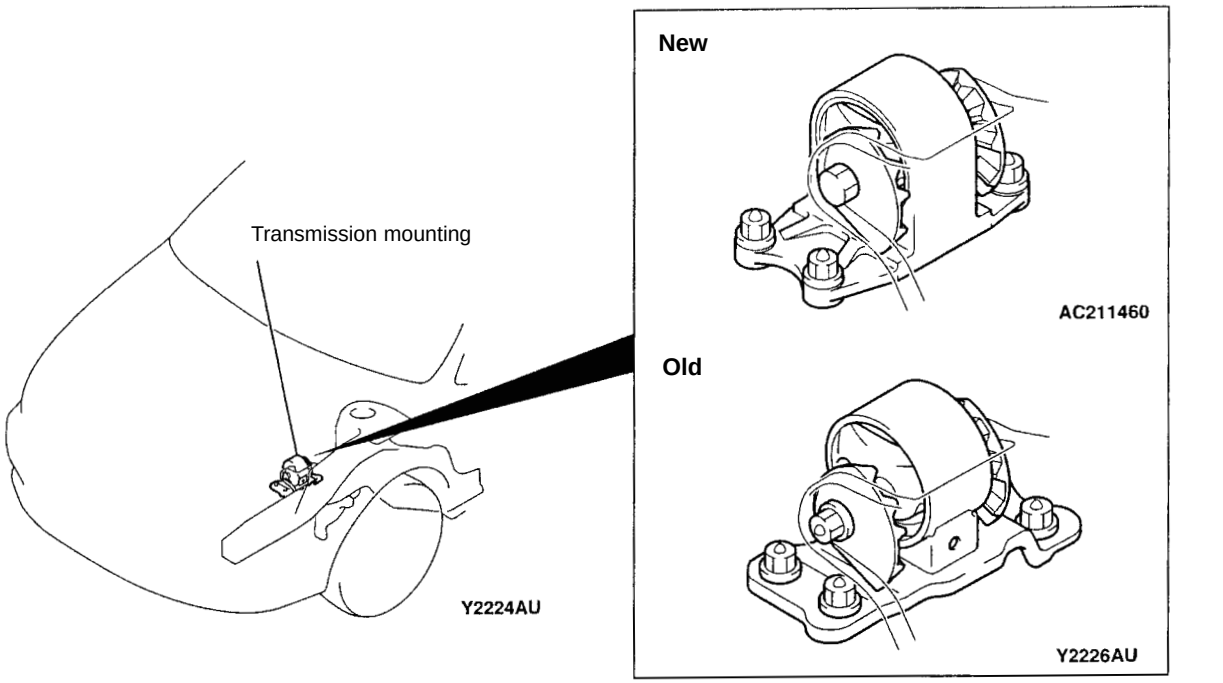
Emission Control System Diagram



Mounting

The shape of the transmission mounting has been changed for the new 6-speed manual transmission.

Construction diagram



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SECTION 2

POWER TRAIN

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Manual Transmission

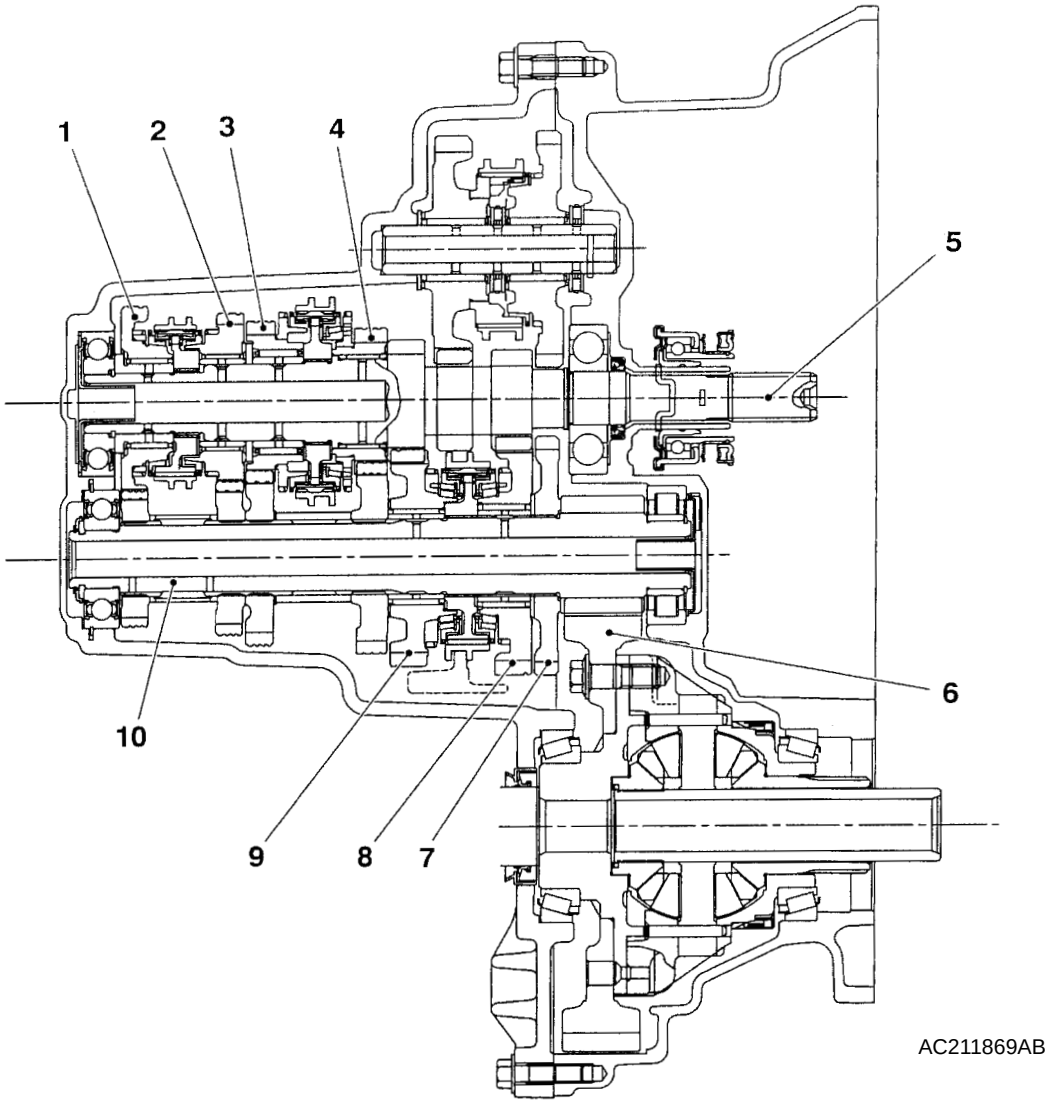
General Information

- In accordance with the new additions to the Lancer Evolution-VIII, both the newly developed 6-speed transmission (W6MAA type) and the original 5-speed transmission (W5M51 type) can be installed.
- The W6MAA type transmission (6-speed manual gearbox) is mounted in the GSR, and the W5M51 type (5-speed manual gearbox) transmission and the W6MAA type transmission (6-speed manual gearbox) are mounted in the RS.
- The W6MAA type transmission (6-speed manual gearbox) enhances acceleration and high-speed performance by using a 6-speed close ratio gearbox, and can handle a wide range of driving conditions.
- The W5M51 type transmission (5-speed manual gearbox) is basically the same as the super-close-ratio specification mounted on the original Lancer Evolution-VII (RS).
- As well as 5- and 6-speed manual gearbox options, The transmission includes Active Centre Differential (ACD) and helical gear LSD as standard equipment.

Specifications

Items		Specifications			
Classification		New		Old	
		GSR/RS	RS	GSR	RS (super-close gear)
Transmission type		W6MAA	W5M51	←	←
Engine type		4G63-DOHC-T/C	←	←	←
Transmission type		6 steps forward, 1 step reverse, always in contact	6 steps forward, 1 step reverse, always in contact	←	←
Gear ratios	1st	2.909	2.785	2.928	2.785
	2nd	1.944	1.950	←	←
	3rd	1.434	1.444	1.407	1.444
	4th	1.100	1.096	1.031	1.096
	5th	0.868	0.825	0.720	0.825
	6th	0.693	-	←	←
	Reverse	2.707	3.416	←	←
Final reduction gear		4.583	4.529	←	←
Helical gear LSD (front differential)		No	←	←	←
Transfer	Reduction Gear	3,307	←	←	←
	Limited slip differential	Hydraulic multiplate clutch (ACD)	←	←	VCU or Hydraulic multiplate clutch (ACD)

Sectional view
W6MAA (6-speed manual transmission)



1. 6th gear
2. 5th gear
3. 4th gear
4. 3rd gear
5. Input shaft
6. Final gear
7. Reverse gear
8. 1st gear
9. 2nd gear
10. Output shaft (main shaft)

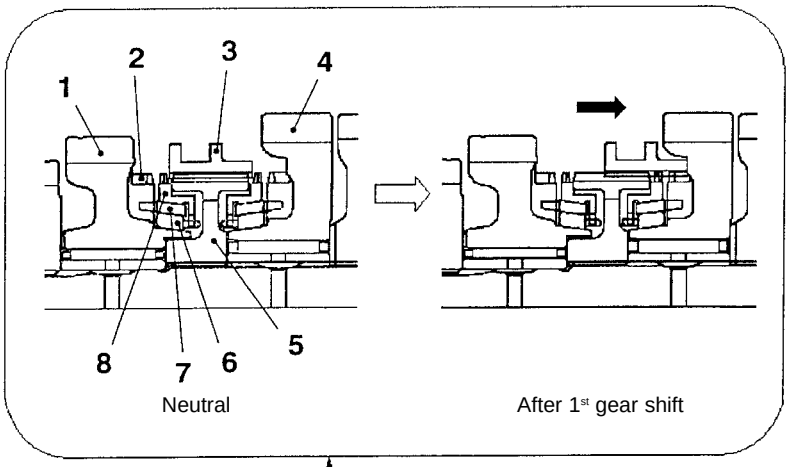
Description of structure and operations (6-speed manual transmission)

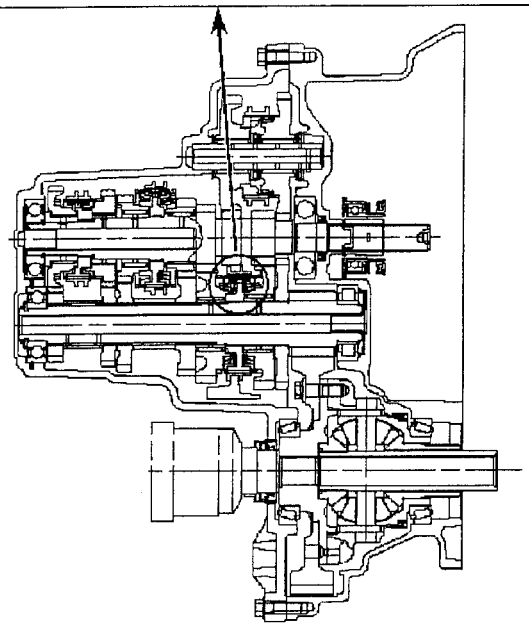
1. Synchromesh

• Triple-cone synchronisers are adopted on the 1st and 2nd gears. The gear change feels smooth and lighter.
• Reverse gear now has synchromesh, so that reverse can be engaged more smoothly and quietly.

1-1 Triple-cone synchromesh

The purpose of the triple-cone synchromesh is to enable smooth gear changes by spreading the cone friction across three surfaces on the same axis. The outer synchroniser ring and inner synchroniser ring have respectively been positioned outside and inside the synchroniser cone.
Because the interior of the inner synchroniser ring is also used as a friction surface, a much better system is achieved compared to the double-cone system.

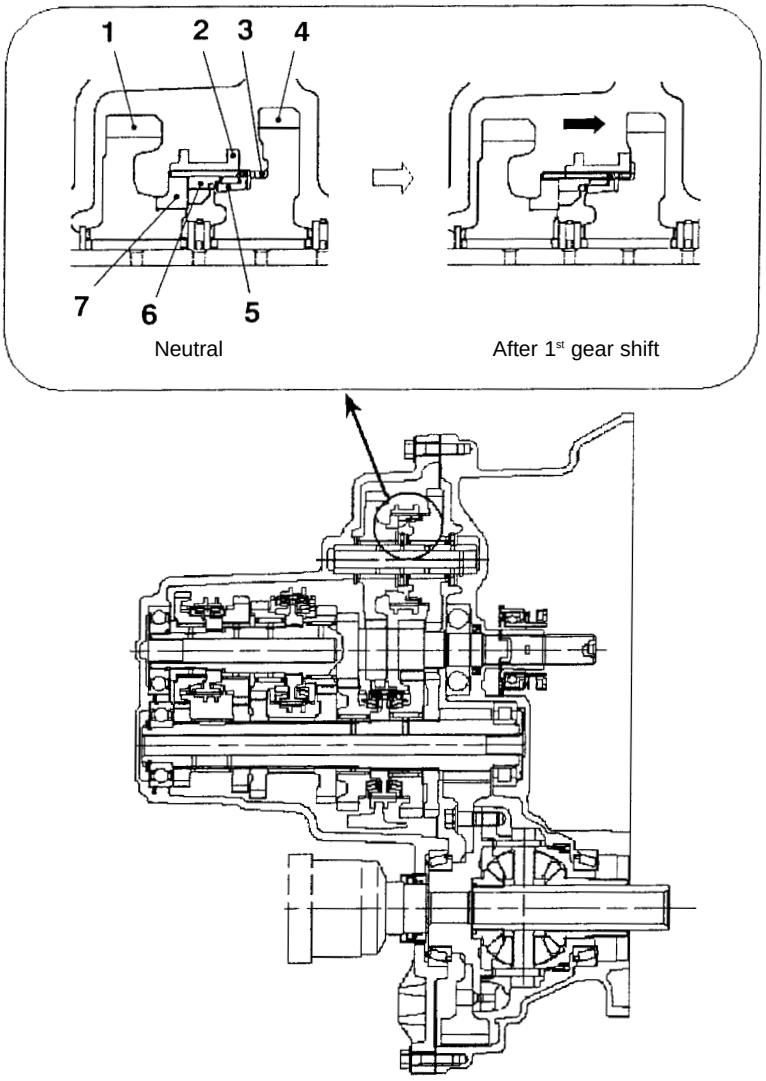




1. 2nd gear
2. Clutch
3. Coupling sleeve
4. 1st gear
5. Synchroniser hub
6. Inner synchroniser ring
7. Synchroniser cone
8. Outer synchroniser ring

1-2 Reverse synchromesh

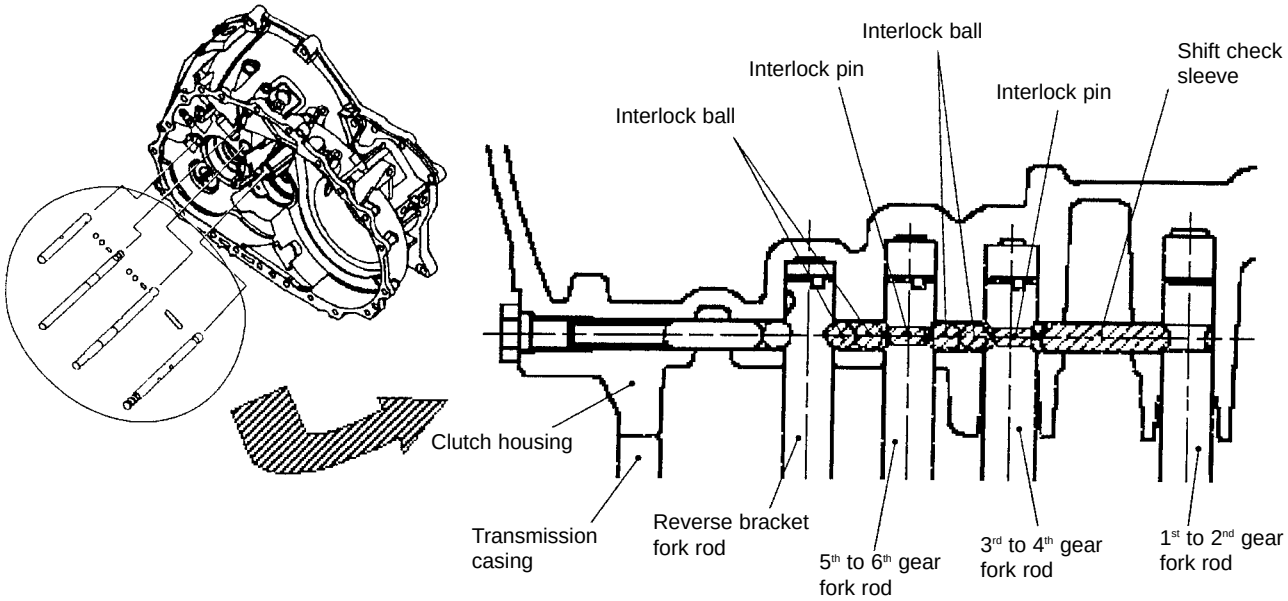
A synchroniser hub, coupling sleeve, synchroniser ring and insert spring installed on the reverse idle gear, has created a much smoother reverse gear change.
This prevents abnormal grating noises and vibration that can arise when changing rapidly into reverse or when changing into reverse while the engine revolutions are too high.



1. Rear reverse idler gear
2. Coupling sleeve
3. Clutch
4. Front reverse idler gear
5. Reverse synchroniser ring
6. Insert spring
7. Synchroniser hub

2. Mechanism to stop two gears being engaged at once.
This mechanism prevents engaging two gears at the same time, and is based on the selector forks which are not being used to change a gear being locked in neutral by a shift check sleeve and interlock ball.

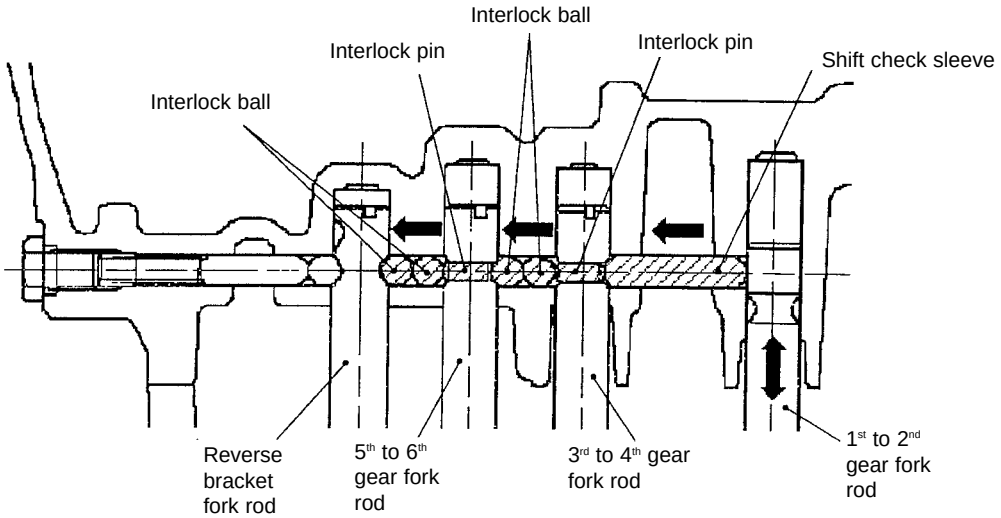
Operation
(When in neutral)
With the operation of the mechanism, the shift check sleeve, interlock pin and interlock ball are free when in neutral. In this case, any gear (1st to 2nd, 3rd to 4th, 5th to 6th, and reverse) can be engaged.



(When changing gear)

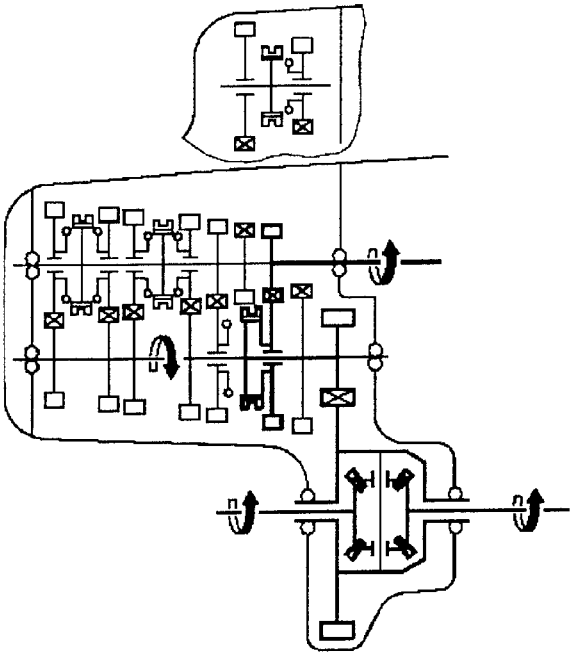
When the 1st/2nd gear fork rod moves to engage 1st or 2nd gear, the shift check sleeve is pushed against the 3rd/4th gear fork rod and the position of the 3rd/4th gear fork rod is locked when the shift check sleeve engages the grooves of the fork rod.
Also, being pushed by the shift check sleeve, the interlock pin in the 3rd/4th gear fork rod, their two interlock balls, the interlock pin in the 5th/6th gear fork rod and their two interlock balls, all move. The positions of the 5th/6th gear selector fork and the reverse gear selector fork are locked by the interlock balls engaging the grooves of each fork rod.
The system works for any gear change by locking, with the shift check sleeve and the interlock balls, those selector forks that are not being used to change a gear.

(Example: 1st/2nd gear)

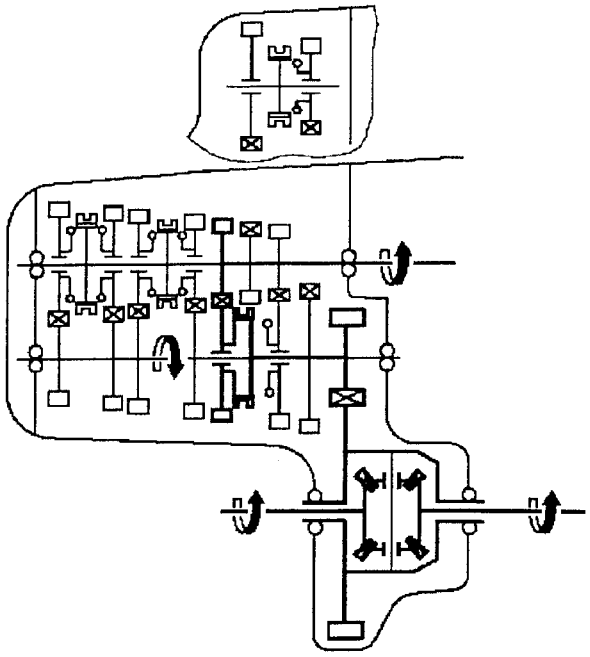


3. Power flow

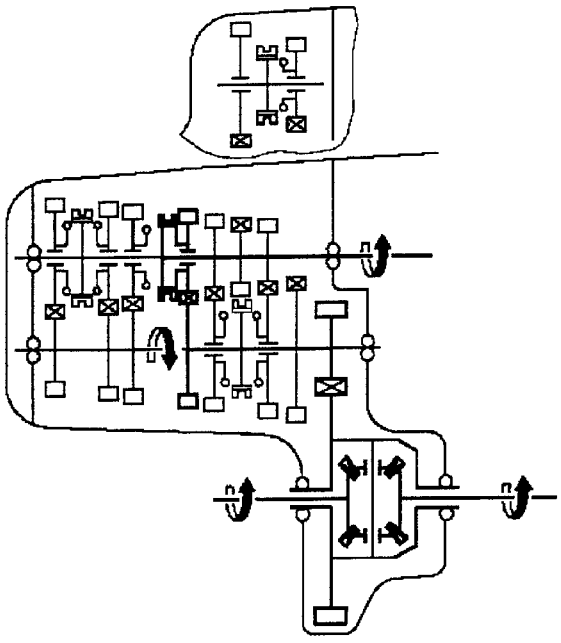
1st gear



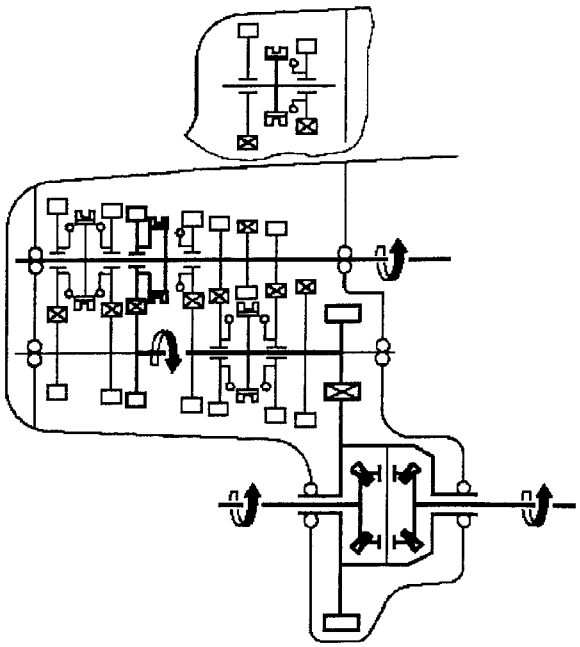
2nd gear



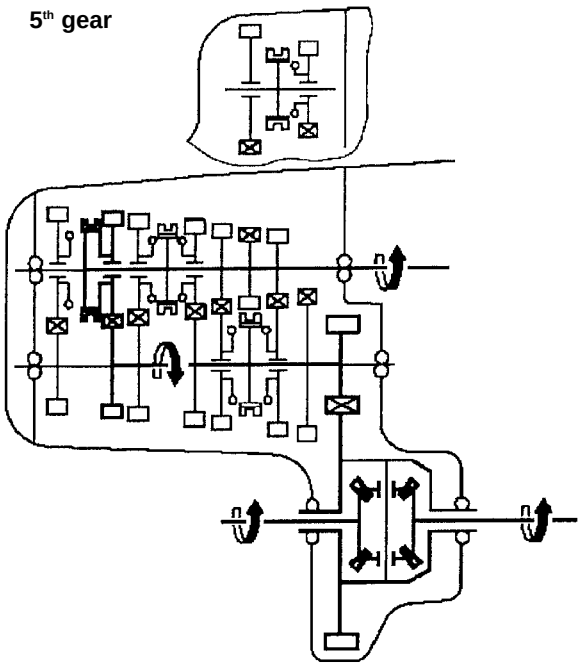
3rd gear



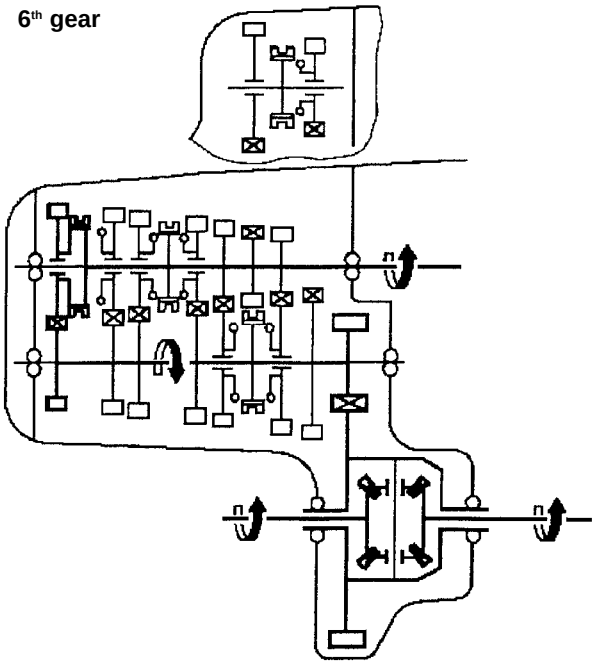
4th gear



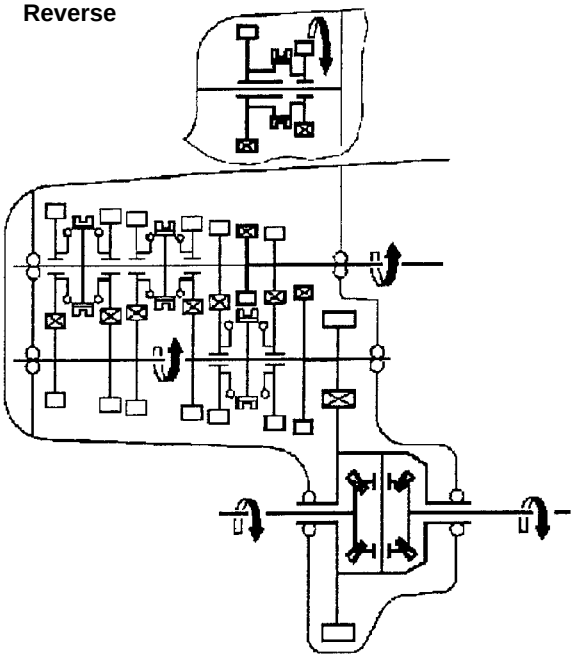
5th gear



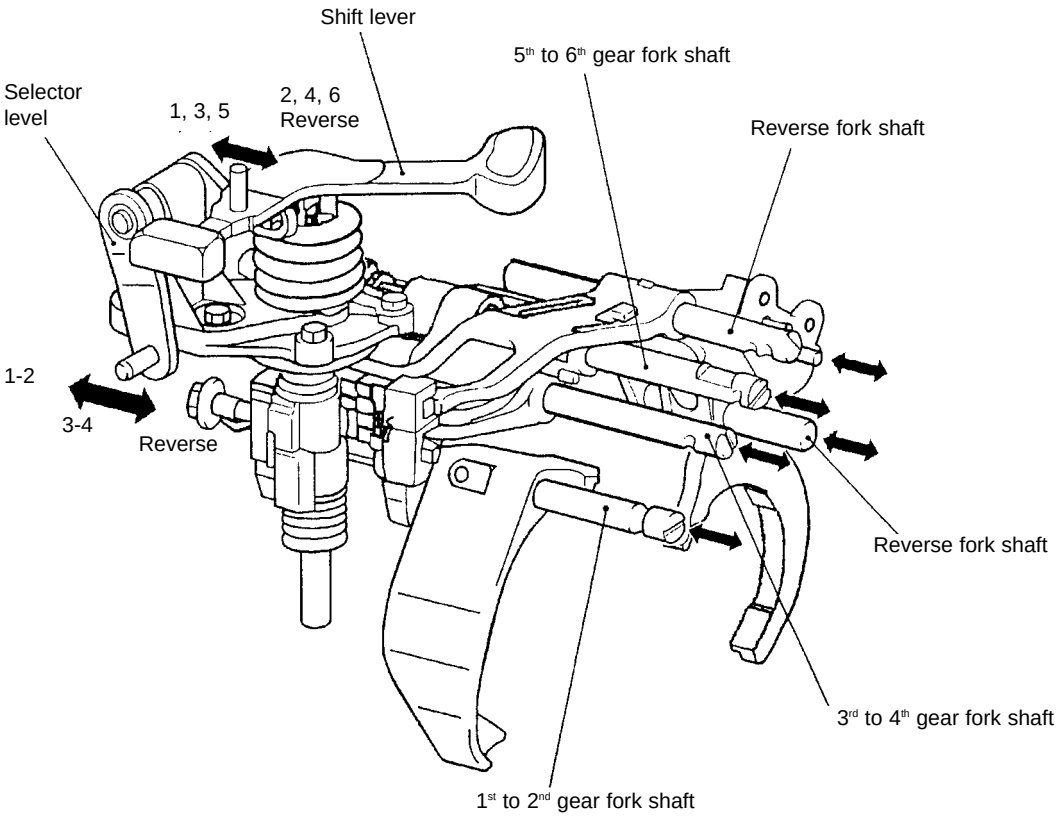
6th gear



Reverse

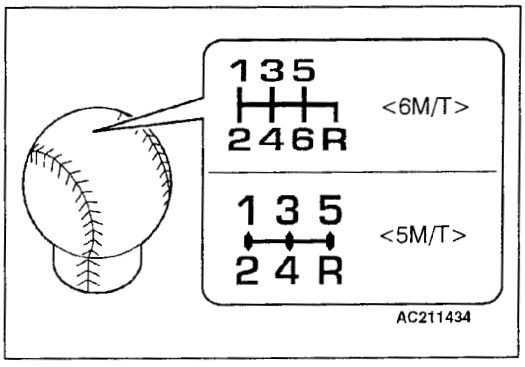


4. Shift lever

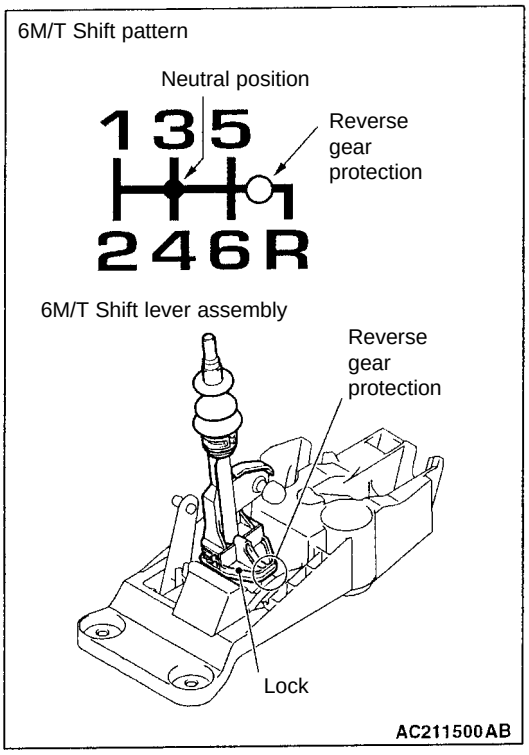


Transmission control

This is basically the same as for the original Lancer Evolution-VII, but the following changes have been made:
- A spherical gear knob is adopted only for the Lancer Evolution-VIII.
- A 6-speed gear lever assembly is adopted with the addition of 6-speed transmission (basically the same as for the original Lancer Evolution-VII in the case of 5-speed transmission)
- A system is adopted on the 6-speed gear lever assembly to prevent the accidental engagement of reverse gear.

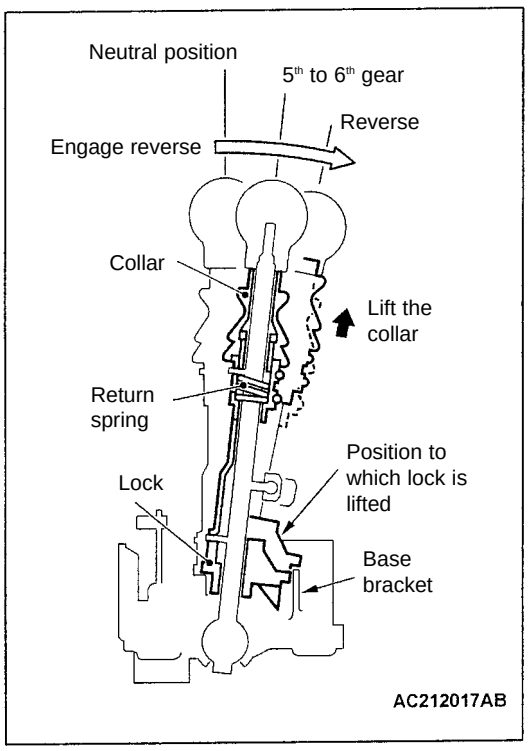


Gear knob
A spherical leather gear knob has been adopted.
The size of this gear knob takes into consideration the fact that racing gloves may be worn, and its shape allows maximum control. Its soft feel and leather finish protects the hand in competitive events such as endurance races.



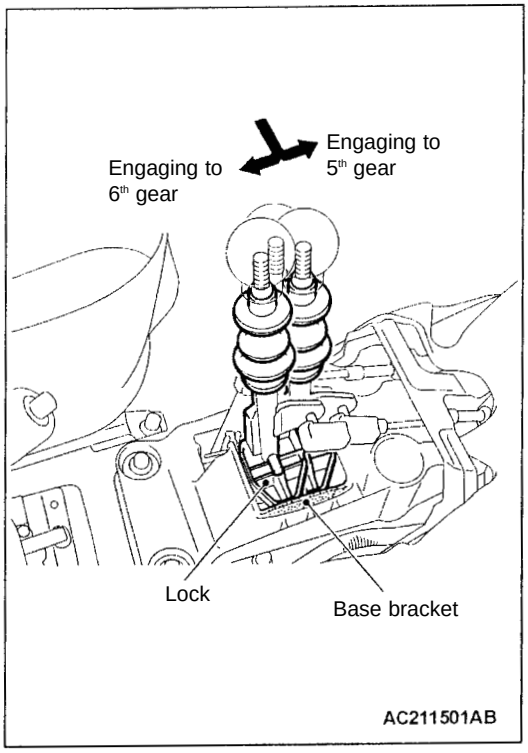
Gear lever assembly (6 M/T)

The 6-speed gear lever assembly has a 6th gear position in the reverse position of the 5-speed shift lever assembly, and the reverse gear is located further to the right. A mechanism has been added to prevent reverse gear being engaged when changing from 5th to 6th gear.
The change into 6th gear is made in the same way as a change into 5th and because of the revised gear selection mechanism, the change into these gears is now more positive.



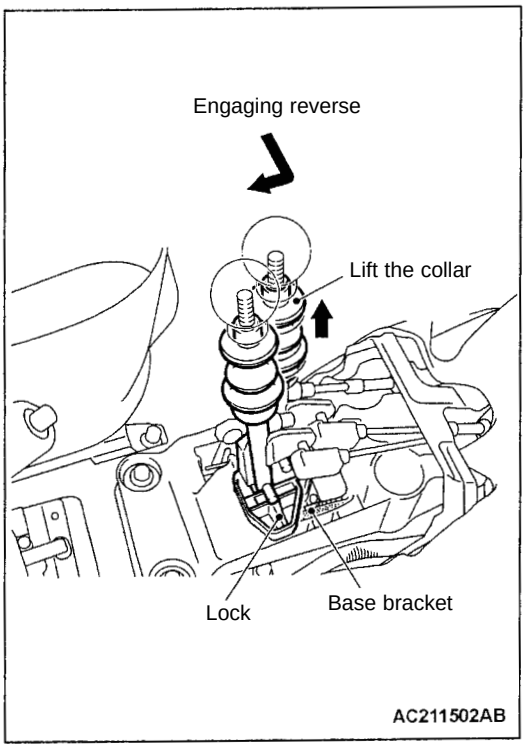
Operating the Reverse Gear Protection mechanism

The Reverse Gear Protection mechanism is mounted on the gear lever, and comprises a collar, lock and return spring.
In normal operation, the lock touches the base bracket so that changing into reverse is impossible. When it is necessary to change into reverse, the collar under the gear knob is lifted, pulling up the lock and the gear lever is released



Reverse Gear protection when changing into 5th or 6th gear

The lock moves against the base bracket when shifting to 5th or 6th gear, thus preventing a change into reverse.



When engaging reverse

Reverse can be engaged by pulling up the collar beneath the gear knob

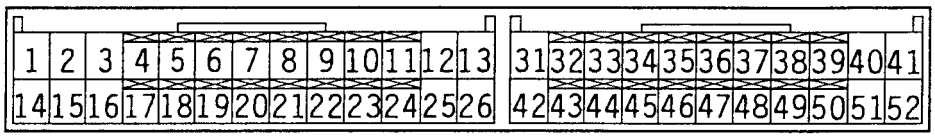
Active Centre Differential (ACD) and Active Yaw Control (AYC)

General information

The following has been changed with the new additions to the Lancer Evolution-VIII.
• Super AYC has been adopted in the rear differential (refer to P. 2-14).
• Only one position in line with the adoption of Super AYC.

Electronic control system

4WD-ECU



Y2121AU

The 4WD-ECU ABS monitor terminal No. 49 has changed to No. 48 in line with the adoption of Super AYC.
Other terminal numbers are the same as for the Lancer Evolution-VII. However, if the 4WD-ECU for the Lancer Evolution-VII is mounted in the Lancer Evolution-VIII, it becomes AYC control defect, and Diagnosis Code No. 65 appears 60 seconds after Ignition is switched ON and the ACD and AYC systems stop. (the same applies if the 4WD-ECU for the Lancer Evolution-VIII is mounted in the Lancer Evolution-VII)

Propeller Shaft

The specifications of the propeller shaft have changed as follows for the 6M/T mounting.

Specifications

Item		New 6M/T	New and old 5M/T
Universal joint	Journal diameter mm	18.3	16.3

Front Axle

EBJ has been adopted in the drive shaft wheel constant velocity joints.

Specifications

Item			New	Old
Drive shaft	Joint type	Wheel	EBJ*1	BJ
		Transmission	TJ	←
	Shaft length*2 x Shaft diameter mm	LH	352.5 x 26	350 x 26
		RH	429.5 x 26	427 x 26

Notes
*1: EBJ: by adopting 8 reduced diameter balls, the velocity joints weigh less and are more compact than the original BJ
*2: The location of the central point of each joint is shown.

Rear Axle

EBJ has been adopted in the drive shaft wheel constant velocity joints.

Specifications

Item			New		Old	
			AYC not mounted	AYC mounted	AYC not mounted	AYC mounted
Drive shaft	Joint type	Wheel	EBJ*1	←	BJ	←
		Trans-mission	TJ	←	TJ	←
	Shaft length*2 x Shaft diameter mm	LH	485.6 x 25	428.5 x 25	483 x 25	426 x 25
		RH	575.5 x 25	448.5 x 25	573 x 25	446 x 25

Notes
*1: EBJ: by adopting 8 reduced diameter balls, the velocity joints weigh less and are more compact than the original BJ
*2: The location of the central point of each joint is shown.

Differential

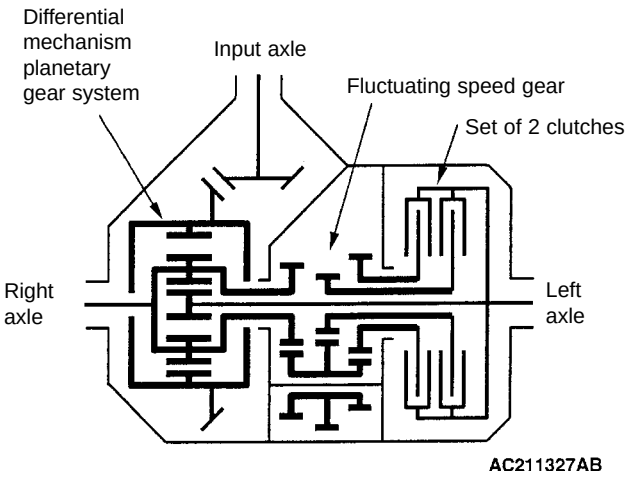
The differential has changed as follows.
• Optimisation and weight saving of the differential carrier wall thickness (RS)
• Installation of super AYC (standard for GSR; optional for RS)

Super AYC

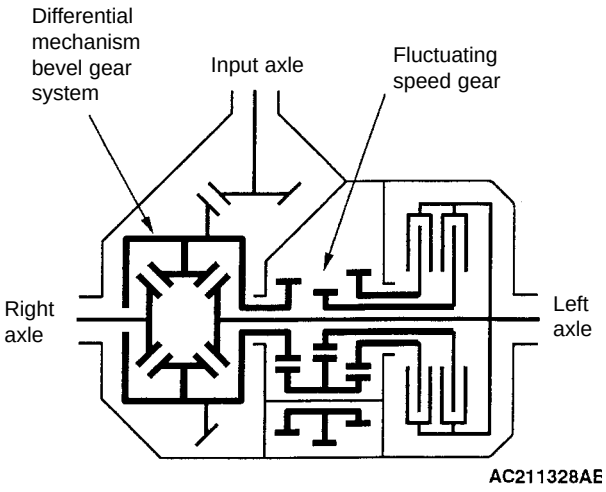
The performance in track competitions such as rally cross and circuit races has improved significantly with AYC, where the torque differential has increased by 1.6 compared to the original by changing the design of the AYC torque transfer differential. It is has the following features.
• Turning characteristics: The yaw has increased because of the increased torque differential between the right and left wheels. The turn-in has improved further and understeer is reduced.
• Traction performance: Improved performance (LSD effect) on a wide range of road conditions
• The original case-to-shaft system (system of transmitting torque between the differential case and the right axle) has been changed to a shaft-to-shaft system in order to increase the amount of torque movement.
• The differential mechanism has changed from bevel gear to a planetary gear type in order to operate the shaft-to-shaft system.

Construction Diagram

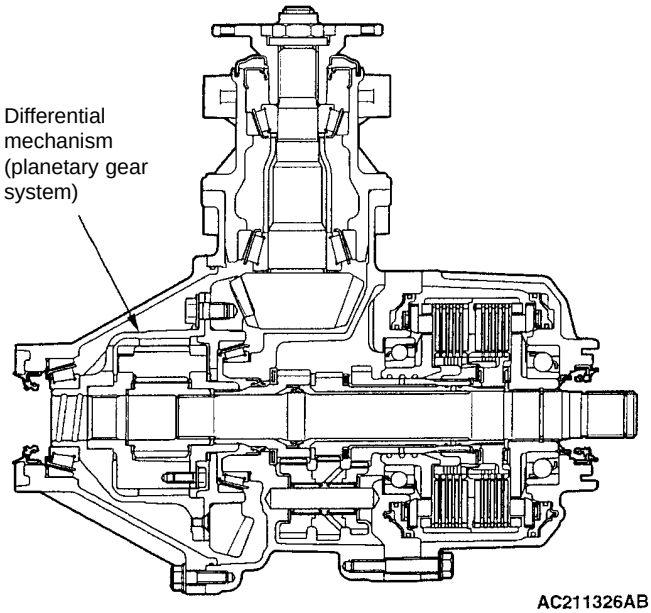
New: Super AYC (shaft-to-shaft system)



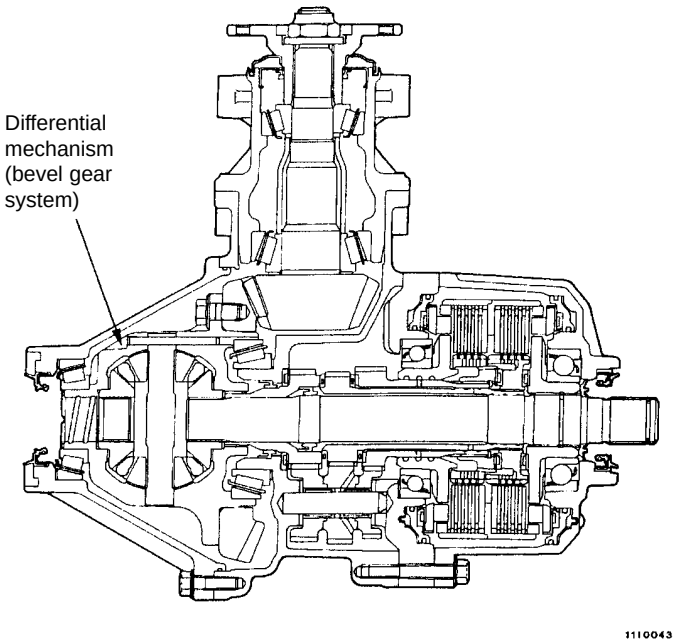
Old: AYC (case-to-shaft system)



New: Super AYC (Shaft to shaft system)



Old: AYC (Case to shaft system)



SECTION 3

DRIVE-CONTROL

CONTENTS

Front Suspension 3-1
Rear Suspension 3-1
Wheel and Tyre 3-2
Steering 3-2

Front Suspension

- Traction, response and damping have been improved by optimizing strut damping response.
- Ride comfort and driving stability have been improved by adjusting the spring rates

Specifications

Item	New		Old	
	RS	GSR	RS	GSR
Wire diameter mm	14	←	←	←
Average diameter mm	155	←	←	←
Free length mm	281	286	281 and 275*	281

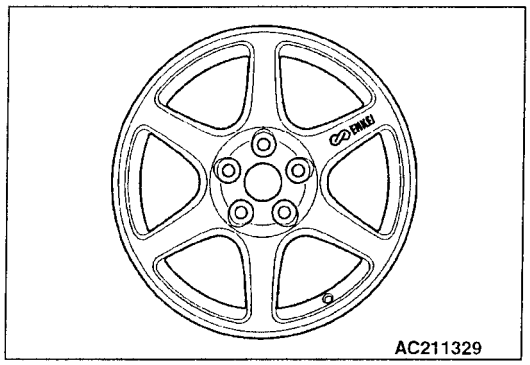
Note
*: 17-inch alloy wheels were used in this case.

Rear Suspension

- Improved damping response and linearity have been achieved and traction, response and damping have been improved by maximizing the diameter of the shock absorber rods.
- Ride comfort and driving stability have been improved by adjusting the spring rates.

Specifications

Item	New			Old		
	RS		GSR	RS		GSR
	AYC not mounted	AYC mounted		AYC not mounted	AYC mounted	
Wire diameter mm	12	9 to 12	12	9 to 12	12	9 to 12
Average diameter mm	88	←	←	←	←	←
Free length mm	281	284	287	287	281	284



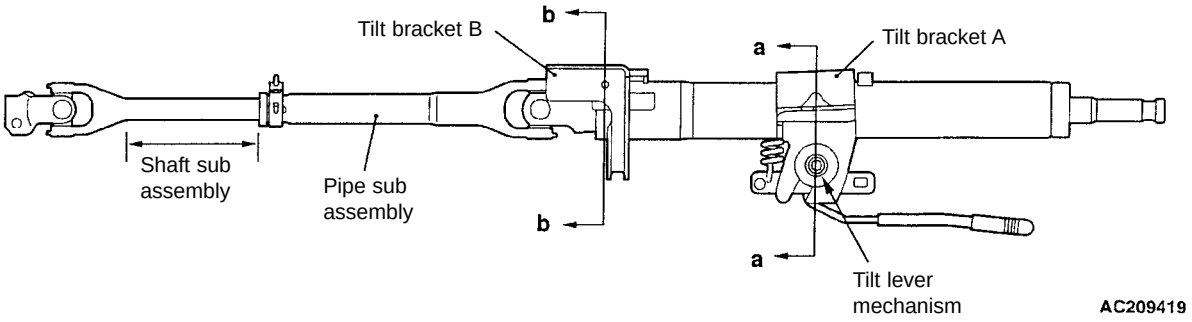
Wheel and Tyre

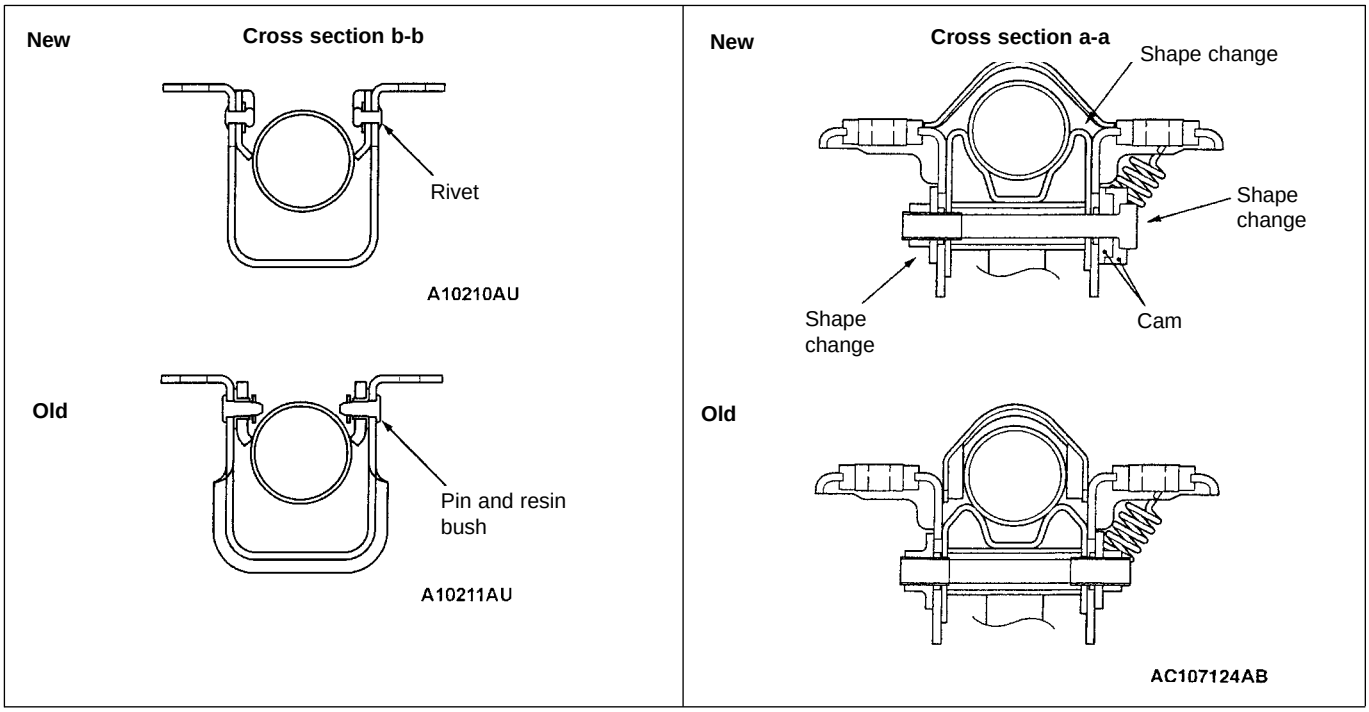
New design 17-inch alloy wheels are fitted. (standard for GSR and RS (6M/T); optional for RS (5M/T))
Note
For the specifications please refer to Section 8 – Main Accessories.

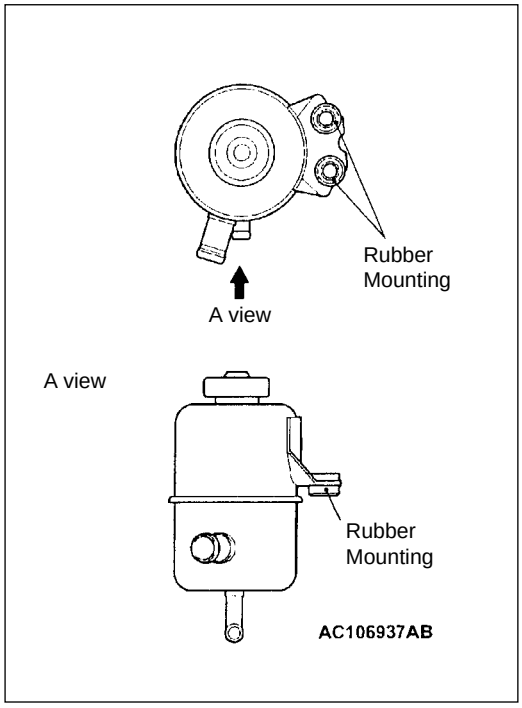
Steering

1. Steering shaft

- Changing the design of the steering shaft tilt bracket has reduced vibration.
- Increasing the amount by which the shaft sub assembly slides into the pipe sub assembly has reduced the amount by which the steering wheel moves backwards at the time of a collision.
- Column retention and operability have been improved by introducing a cam to the tilt lever mechanism

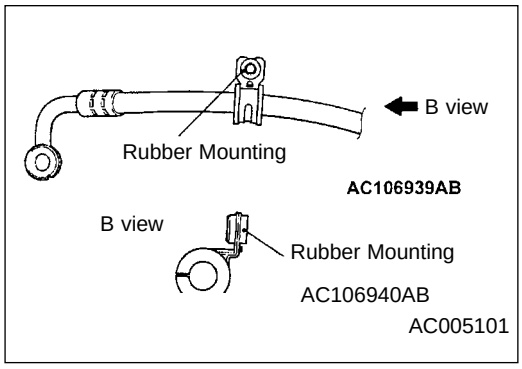






2. Oil line

Noise has been reduced by improving suspension insulation and by fitting rubber mountings to the oil reservoir tank and pressure hose assembly.



SECTION 4

BODY

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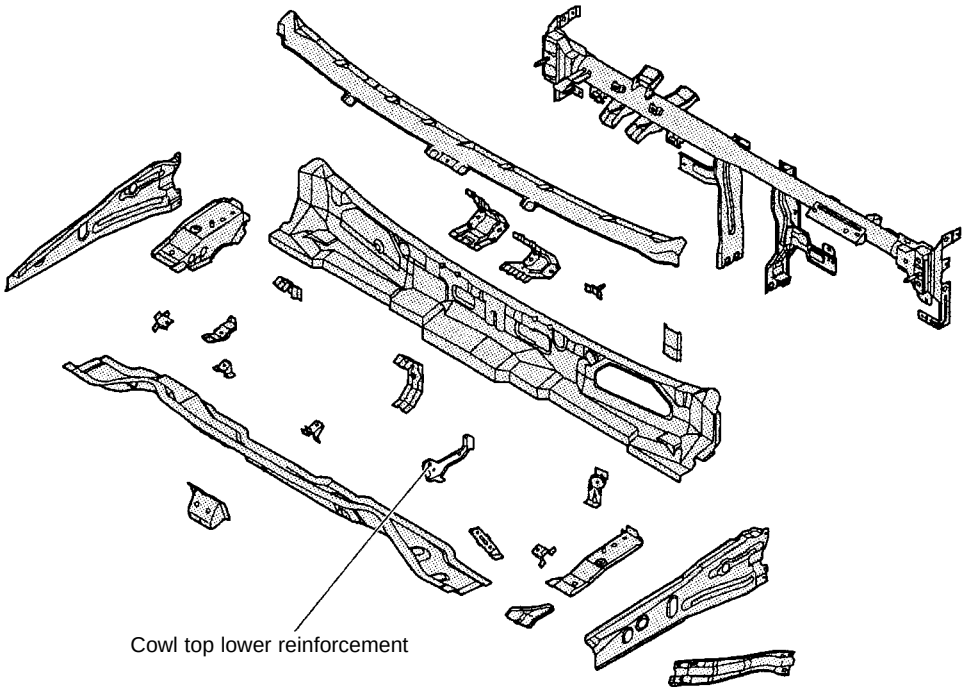
Side body.....4-2
Under body.....4-3
Coating.....4-4
Body colour chart.....4-4
Bonnet.....4-4
Door.....4-5
Keyless Entry System.....4-5

Main Body – Features of the Body Structure

Front body

Front deck
Rigidity of the strut tower bar installation has been improved by adding reinforcement inside the cowl top.



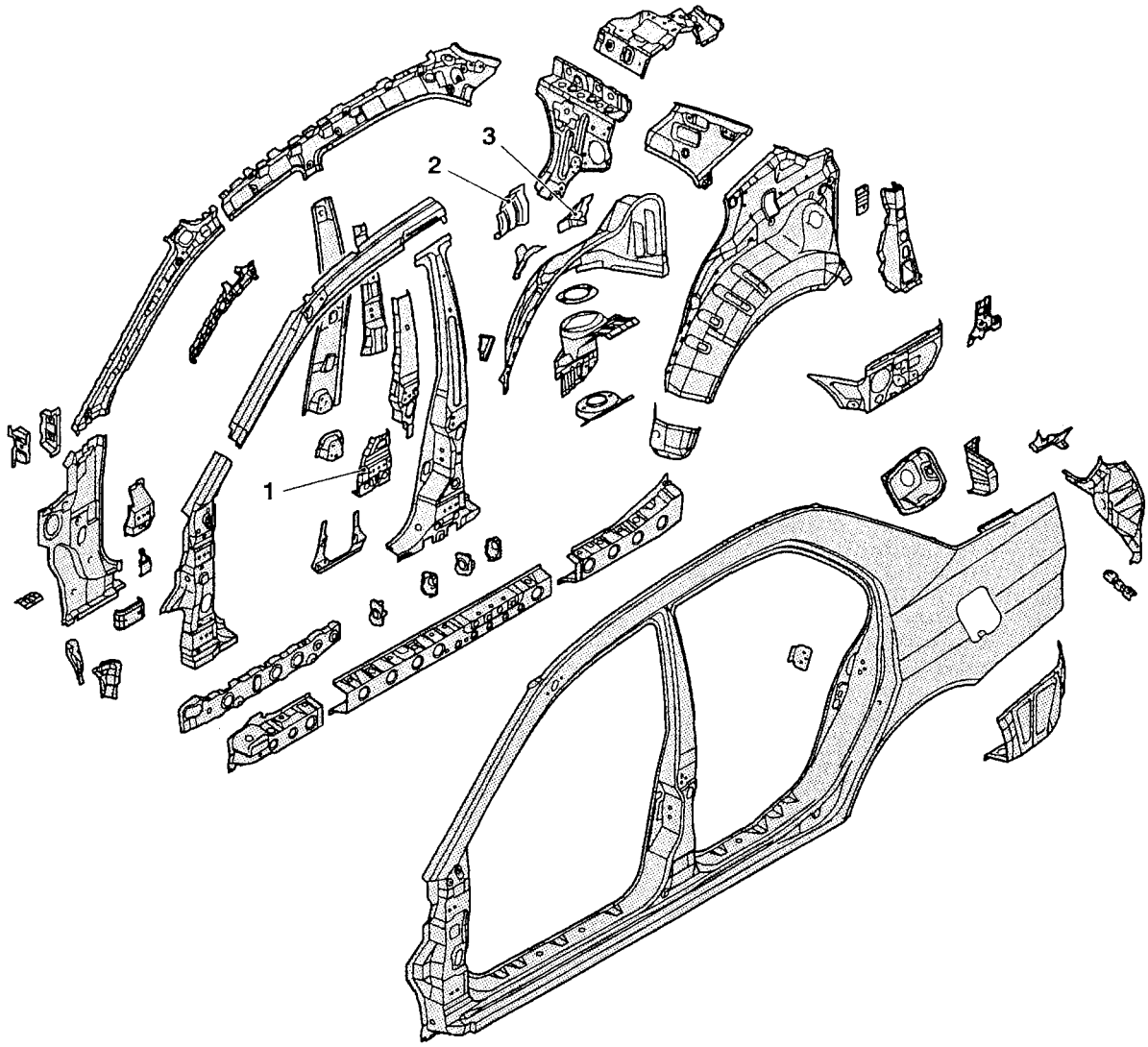
The parts shown are the same as for the original car.

AB202012AB

Side Body

Side structure

- Body rigidity has been improved by increasing the size of the rear door hinge reinforcement.
- Suspension rigidity has been improved by adding a rear spring housing brace to the upper surface of the rear wheel housing and by adding wheel housing inner reinforcement to the side surface.



AB202014AB

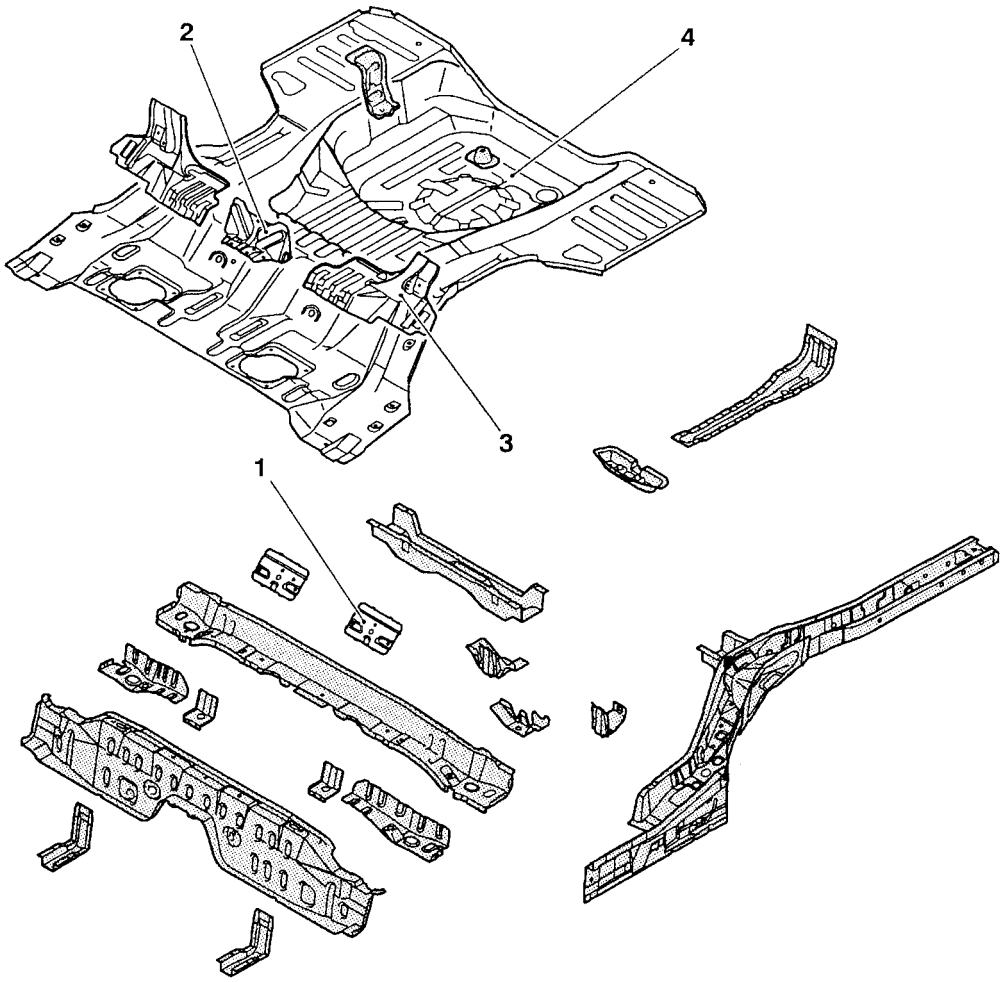
The parts shown are the same as for the original car

1. Rear door lower hinge reinforcement
2. Rear spring housing brace
3. Wheel housing inner reinforcement

Underbody

Rear floor

- Rigidity of the rear floor seatbelt reinforcement has been improved by changing its shape.
- Body rigidity has been improved by increasing the size of the seat back plate extension and the rear seat back reinforcement.
- The shape of the rear floor pan has been changed because of the increased size of the fuel tank.



AB202013AB

The parts shown are the same as for the original car

1. Rear floor seatbelt reinforcement
2. Seat back plate extension
3. Rear seat back reinforcement
4. Rear floor pan

Coating

Body colour chart

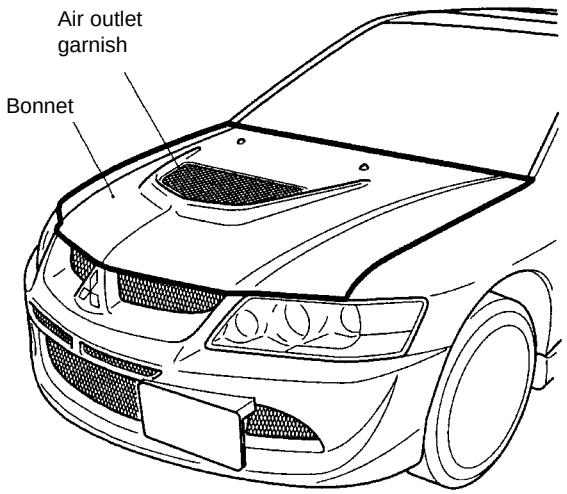
Colour name (former colour name)	Colour symbol	Colour code	Colour (paint) number	Coating ingredient	Maintenance symbol	Name of paint manufacturer
Cool Silver Metallic	CL	A31	CMA10031	Alloy	M	Kansai Paint
Medium Purple Mica	JR	V05	CMV10005	Alloy	M	Kansai Paint
Black Mica (Amethyst Black)	CI	X42	AC11342	Interference mica	2P	Tanabe Chemical
White Solid (Scotia White)	2E	W83	AC10983	-	S	Kansai Paint
Red Solid (Palma Red)	JW	P85	AC11185	-	S	Kansai Paint
Yellow Solid (Dandelion Yellow)	DN	Y01	CMY10001	-	S	Kansai Paint

Note
• The maintenance code is only for the top coat. S = Solid; M = Metallic; 2P = 2 coat pearl
• The name of the paint manufacturer is the name of the manufacturer of the paint used at the time of production.

Bonnet

Apart from the following, parts are basically the same as for the Lancer Evolution-VII.
• A newly designed bonnet has been adopted that reflects the new Mitsubishi image.
• Cooling efficiency within the engine compartment has been improved by increasing the dimensions of the bonnet air outlet (air outlet trim).
• Aerodynamic performance has been improved by discontinuing the bonnet air inlet (air inlet trim).

New



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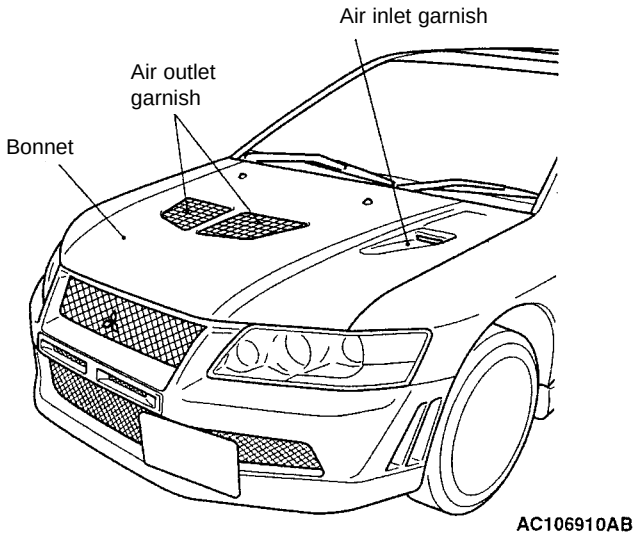
Old



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Door

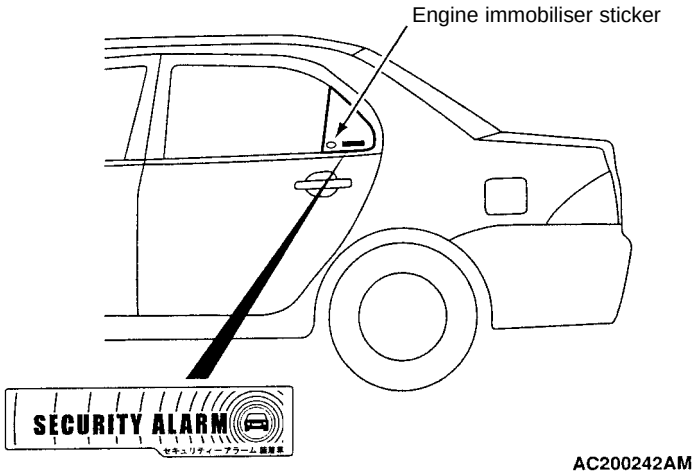
Security against theft has been improved by adding a security alarm function to the keyless entry system.

Keyless entry system

General information
The security alarm function controls locking and unlocking by a keyless entry transmitter, and the system raises the alarm if the door is opened by a control other than the keyless entry transmitter. It is set to “Off” at the time of leaving the factory and it can customised so as to be set to “On”. (Refer to Group 7 – SWS for details)
The system can be customised and this is described in the Handbook.

Security alarm sticker
(1) There is a security alarm sticker inside the glove box.
(2) Please explain to customers that the security alarm sticker can be attached to the window from outside the vehicle. It must not be attached to the windscreen or front door window where it will obstruct visibility.

Recommended location for attaching the security alarm sticker



Note
There is a danger of it becoming detached if it is attached to an opening window.

SECTION 5

EXTERNAL PARTS

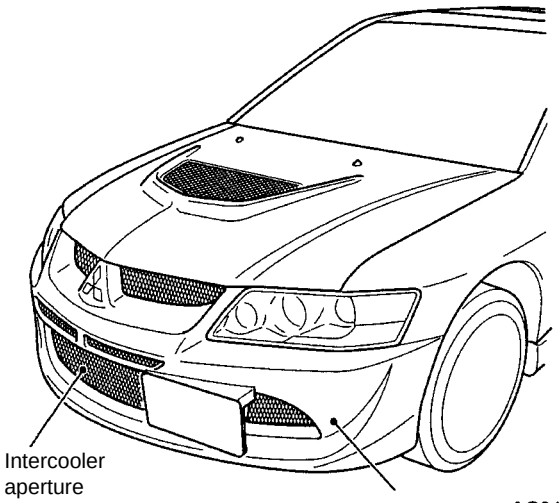
CONTENTS

Front Bumper 5-1
Underbody Protection 5-2
Rear Spoiler.....5-2
Indication marks 5-3

Front Bumper

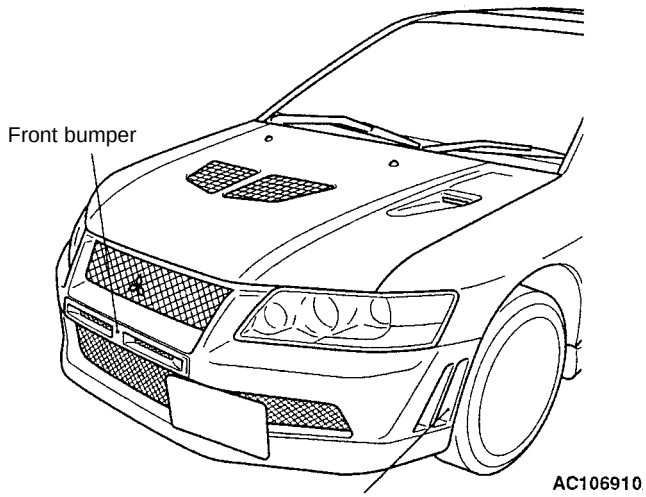
The front bumper has been redesigned to reflect the new Mitsubishi image, and has the following features.
• Cooling capability has been improved by increasing the dimensions of the intercooler aperture of the front bumper.
• Aerodynamic performance has been improved by discontinuing the front bumper side air outlet.
• Manoeuvrability has been improved by having a shape that reduces the bulge on the corner section of the front bumper.

New



AC211473AB

Old



AC106910

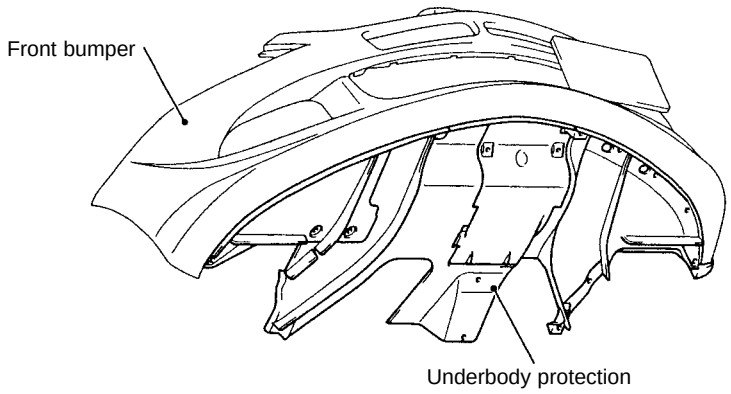
Front bumper
(Front bumper face)
Material: Mica infused synthetic rubber polypropylene
Symbol: PP + E/P – TP (HMPP)
Heat resistance temperature: 80 to 100°C

Note:

• To comply with ISO labeling standards for material symbols, “New” and “Former ( )” are written side by side if the new label is different from the old label.
ISO (INTERNATIONAL ORGANIZATION FOR STANDARDIZATION)
• The slash “/” in the material symbol indicates that the two types of material are copolymers, and the (+) indicates that it is a blend material. The name of manufacturer of the paint used at the time of production is shown.
• The material of a synthetic resin part is recorded by the material symbol in an inconspicuous place on the part.

Exterior Parts – Underbody protection

Aerodynamic and drive line cooling efficiencies have been improved by changing the shape of the underbody protection.



AC210652AK

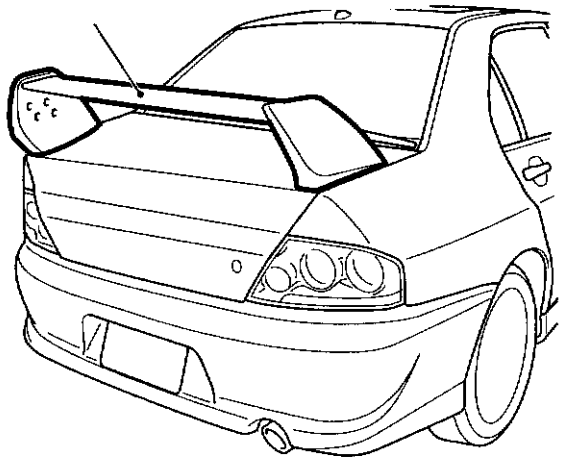
Rear Spoiler

The rear spoiler adopts a carbon construction of a new design that looks like the tail fin of an aeroplane. It has the following features:

- It has been made about 2 kg. lighter than the rear spoiler of the Lancer Evolution-VII (ABS resin) by using carbon in the material of the rear spoiler.
- Compared to the rear spoiler of the Lancer Evolution-VII (ABS resin), the vertical and horizontal rigidity of the central part of the horizontal fin have improved about twofold by using carbon in the material of the rear spoiler.
- Making the rear spoiler fin slimmer has reduced wind drag.
- Downforce efficiency has been improved by locating the mounting of the rear spoiler further back.

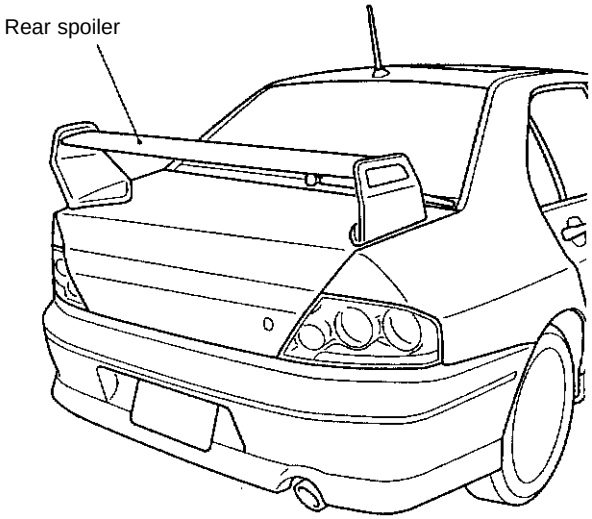
New

Rear spoiler
Material: Carbon fibre reinforced plastic
Symbol: PP + E/P – TP (HMPP)
Heat resistance temperature: 80 to 100°C



AC211474AC

Old



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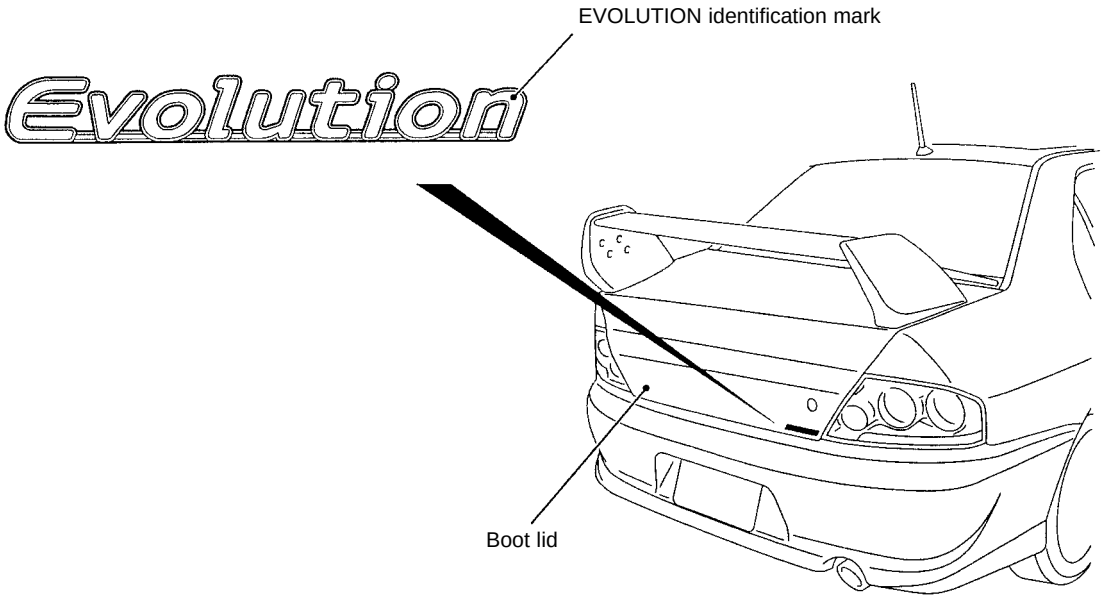
The material of a synthetic resin part is recorded by the material symbol in an inconspicuous place on the part.

Identification marks

The EVOLUTION identification mark on the boot lid has changed



SECTION 6

INTERNAL PARTS

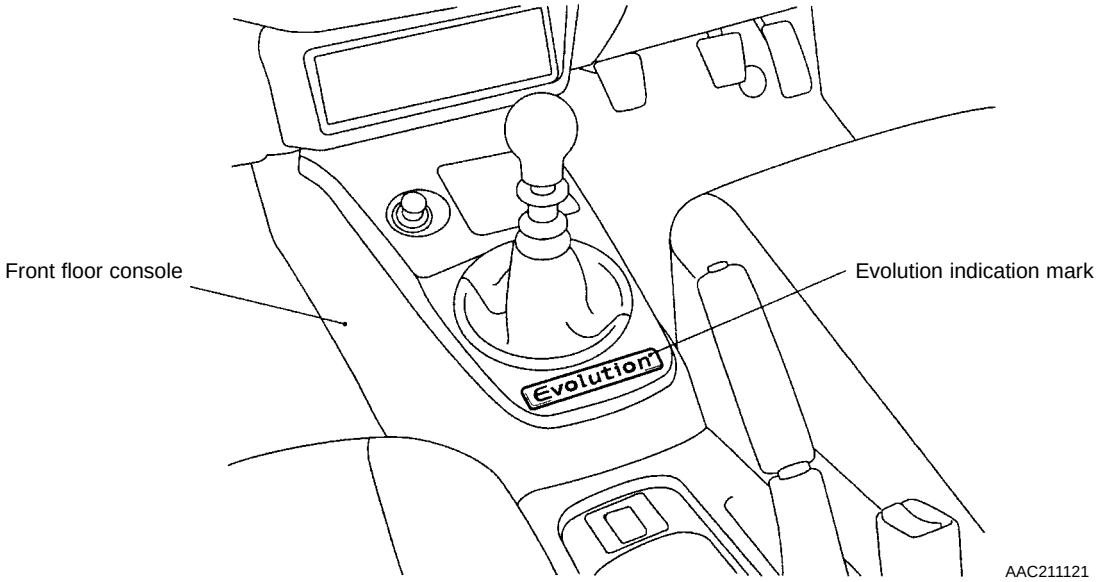
CONTENTS

Floor Console.....6-1

SRS Air Bag and Pretensioner with Seatbelt 6-2

Floor Console

The “Evolution indication mark” is affixed to the front floor console shift lever panel.



SRS Air Bag and Pretensioner with Seatbelt

The following changes have been made to the Supplemental Restraint System of the Lancer Evolution-VII.
• In the case of the sports-specific model RS, weight saving has been achieved by making the passenger-side airbag optional equipment instead of standard equipment. Accordingly, front impact sensors are fitted in order to optimize moment of operation of the airbag and seatbelt pretensioner when the passenger-side airbag is not fitted. The front impact sensors are not fitted when the optional passenger-side SRS airbag is fitted.

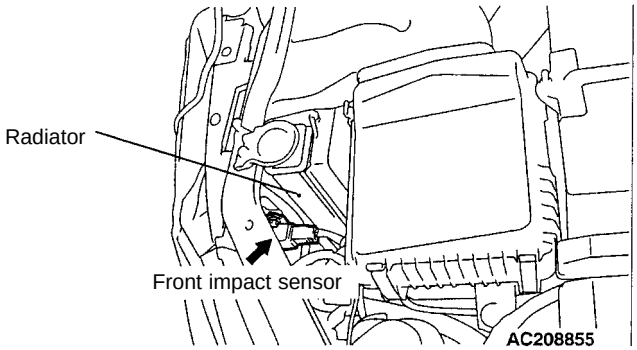
RS Airbag Specifications

Item		Vehicle without passenger-side airbag fitted	Vehicle with passenger-side airbag fitted
Airbag module	Driver-side	●	●
	Passenger-side	-	●
Seatbelt with pre-tensioner	Driver-side	●	●
	Passenger-side	●	●
Front impact sensors		●	-

Note
• [●] indicates fitted; [-] indicates not fitted

• Diagnosis functions have been added by changing the SRS-ECU.
• The seatbelt pretensioner structure has been changed.

Front impact sensor - RS (Vehicle without passenger-side airbag fitted)
The front impact sensors are fitted on the right and left headlight support panels.
Note
Please refer to the September 1999 Pajero New Model Instruction Manual (No. 1033H30) for the structure and operation of the front impact sensors.



SRS-ECU

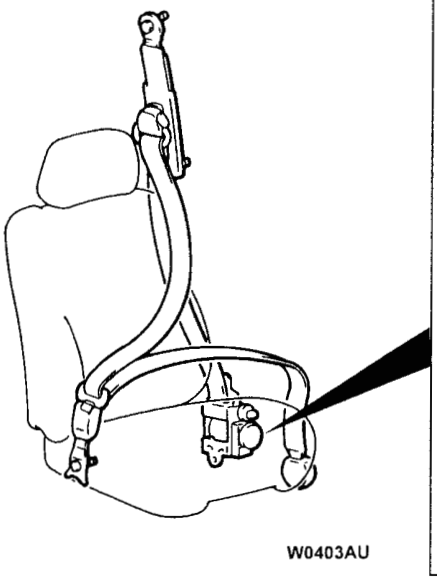
The following diagnosis items have been added.
Diagnosis items

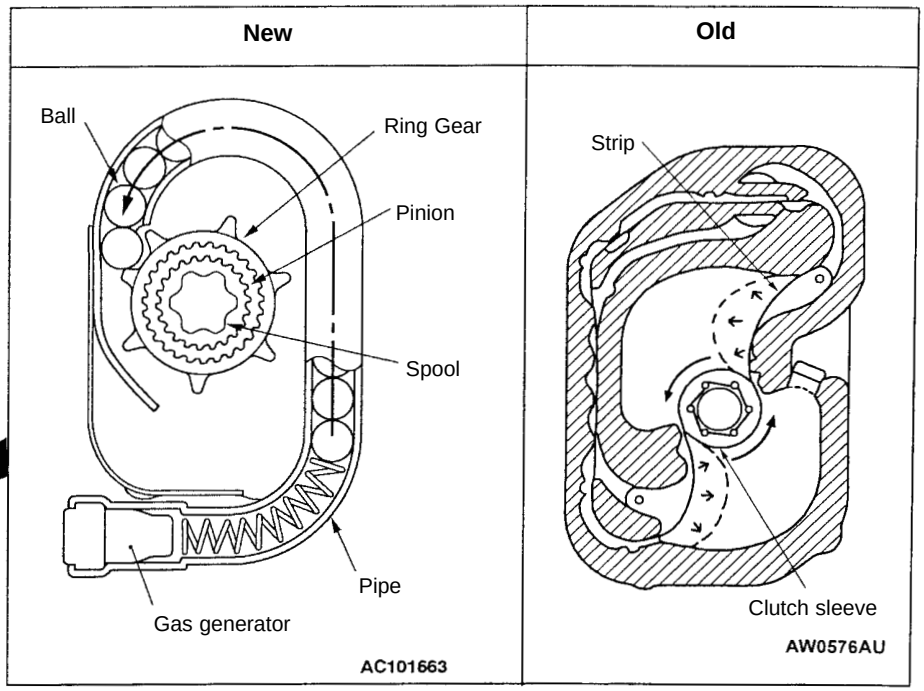
Diagnosis Code No.	Diagnosis items	Note
1A	Front impact sensor LH sensor short between terminals	RS (without passenger-side airbag fitted)
1B	Front impact sensor LH sensor circuit disconnected	
1C	Front impact sensor LH sensor short to the circuit power	
1D	Front impact sensor LH sensor short to the circuit earth	
2A	Front impact sensor RH sensor short between terminals	
2B	Front impact sensor RH sensor circuit disconnected	
2C	Front impact sensor RH sensor short to the circuit power	
2D	Front impact sensor RH sensor short to the circuit earth	
39	With batch expansion	-
46	Error	-

Seatbelt with pretensioner

Passenger restraint has been improved by changing the structure of the Lancer Evolution-VIII pretensioner.

Note
Please refer to the June 2001 Airtrek New Model Instruction Manual (No. 1036R30) for the structure and operation of the seatbelt with pretensioner.



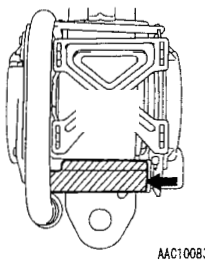


Caution label

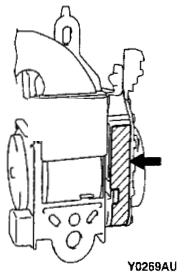
The caution label position has changed in accordance with the pretensioner changes.

Seatbelt with pretensioner

New



Old



SECTION 7

EQUIPMENT

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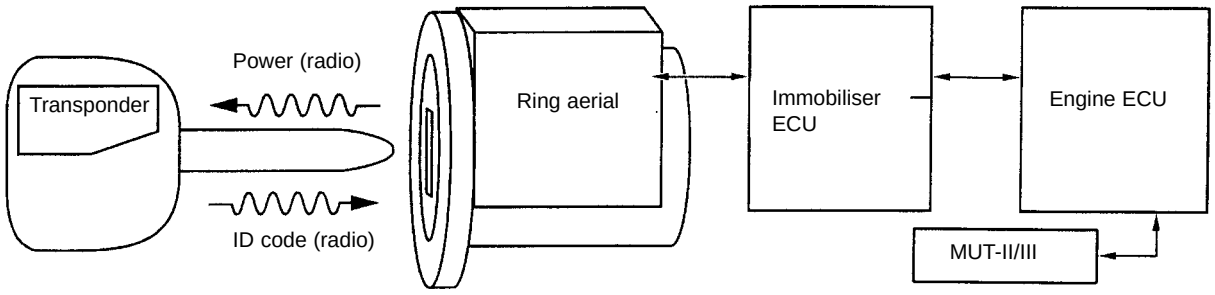
Engine Immobiliser System

The engine immobiliser system is anti-theft equipment that inhibits the engine's fuel injection and disables starting if someone tries to start the engine with an ignition key other than that which is registered for the car.
The engine immobiliser system comprises an ignition key, key ring aerial, immobiliser ECU and engine ECU. It has the following functions:
(1) When the ignition key is switched on, a transponder (miniature transmitter) that is built into the ignition key radios to the ring aerial an ID code that is unique to the ignition key.
(2) The immobiliser ECU for the ID code that has been sent is compared with the previously registered ID code and will control the engine ECU only if it matches.
(3) It is maintenance-free because the power of the transponder is supplied by the immobiliser ECU. Two ignition keys are provided, and up to eight keys can be registered to the car if required. At least 1 trillion combinations can be registered to the ID code, and this can be changed partially whenever the ignition key is switched on. This improves security and prevents theft resulting from replication.

Note
When the immobiliser ECU is changed or when an ignition key is replaced or a new one purchased, the ID code of each key needs to be re-registered using MUT-II/III as follows.
• All keys need to be re-registered if the immobiliser ECU is lost.
• If an ignition key is lost, all the keys other than the lost key need to be re-registered in order to eliminate the registration of the lost key.
• If a key is added, it is necessary to re-register all keys that are to be used for the car including the additional key.

Construction Diagram



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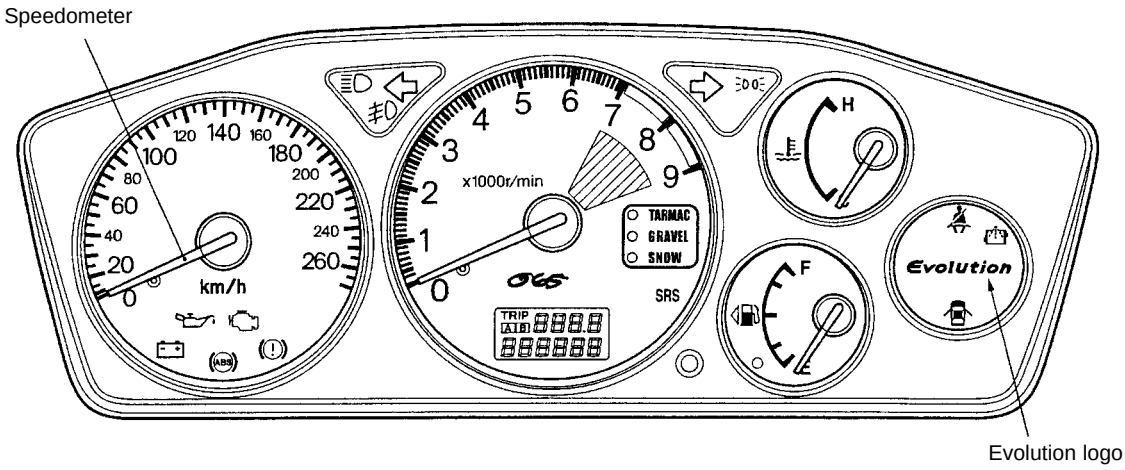
Exterior lights

- The appearance of the headlights has been improved by darkening the entire inside of the light except for the reflector.
- The appearance of the rear combination lights has been improved by making the outer lenses clear (the colour of the turn signal light is amber) and by darkening the entire inside of the light except for the reflector.

Combination Meter

The combination meter has been changed as follows.
- The maximum scale of the speedometer is now 270k.p.h.. The tachometer operates at about 180k.p.h. in the same way as the original.
- The Evolution logo has been adopted.

Construction Diagram



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Smart Wiring System (SWS)

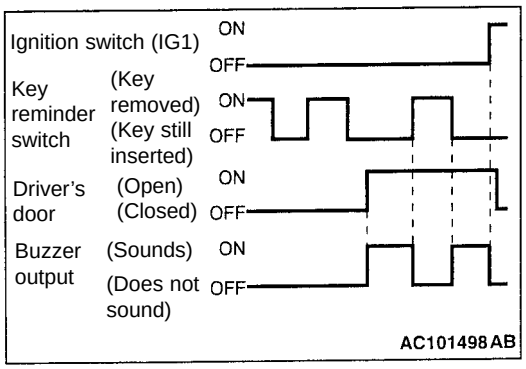
General Information

The SWS version has changed (changed from the original Ver. 0 to Ver. 3)

Functions and controls of SWS ECUs

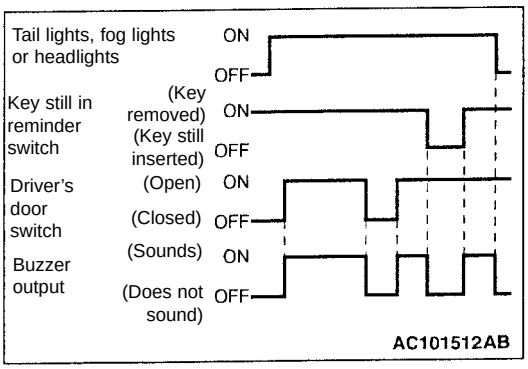
The following functions are controlled by the SWS ECUs

No.	Function	Control ECU
1	Ignition key still inserted reminder function	ETACS-ECU, column switch
2	Light still ON reminder function	ETACS-ECU
3	Door not properly closed reminder function	ETACS-ECU, column switch
4	Turn signal light operation sound function	ETACS-ECU
5	Multi centre display operation sound function	ETACS-ECU, multi centre display
6	Central door lock control function	ETACS-ECU
7	Multi mode keyless entry function	ETACS-ECU, electric window main switch, sunroof motor assembly
8	Keyless entry hazard feedback function	ETACS-ECU
9	Electric window timer function	ETACS-ECU, electric window main switch
10	Sunroof timer function	ETACS-ECU, sunroof motor assembly
11	Windscreen wiper and washer control function	ETACS-ECU, front ECU, column switch
12	Rear wiper and washer control function	ETACS-ECU, column switch
13	Electric retractable door mirror control function	ETACS-ECU
14	Ignition key cylinder illumination light control function	ETACS-ECU
15	Headlight auto-cut control function	ETACS-ECU, front ECU, column switch
16	Fog light control function	ETACS-ECU, front ECU, column switch
17	Flasher timer control function	ETACS-ECU, column switch
18	Dimmer type interior light function	ETACS-ECU
19	Interior light auto-cut function	ETACS-ECU
20	Security alarm function	ETACS-ECU
21	Adjustment function	ETACS-ECU, column switch, electric window main switch, sunroof motor assembly



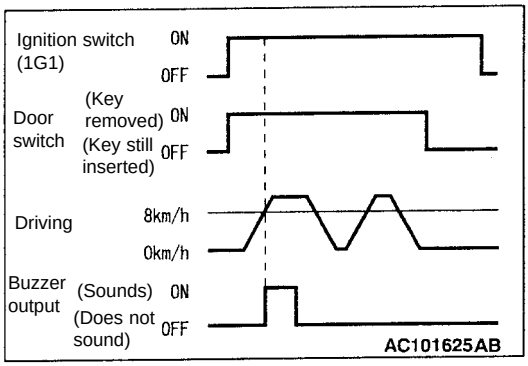
Ignition key still inserted reminder function

If the driver's door is opened when the ignition key is still in the ignition key cylinder (Ignition switch OFF), the buzzer will sound intermittently to warn that the ignition key is still inserted.



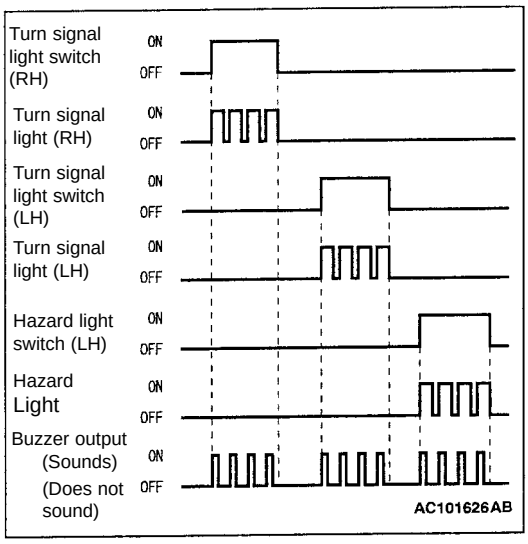
Light still ON reminder function

If the ignition key is still in when the driver's door is opened and a tail light, fog light or headlight is ON, a buzzer will sound continuously to warn that a light is on. However, the buzzer will not sound if the tail light, fog light or headlight is turned off by the auto-cut function



Door not properly closed reminder function (Initial setting: Function ON)

If the speed exceeds 8 k.p.h. when the door is not properly closed, the "door not properly closed reminder function" light will flash four times and a buzzer will sound four times to warn the driver that the door is not properly closed.
Note
The "door not properly closed reminder function" ON/OFF can be adjusted by the adjustment function. (Refer to Page 7-17)



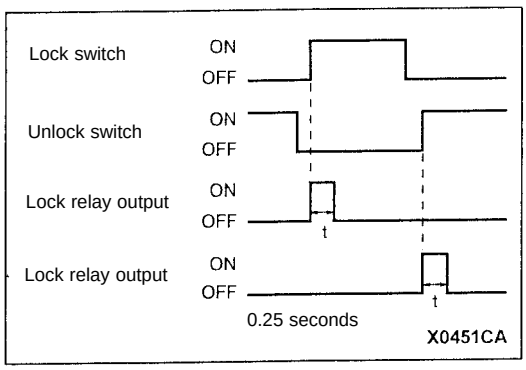
Turn signal light operation sound function

The ETACS-ECU buzzer sounds in synchronization with the flashing of the turn signal light and hazard light.

Note
The turn signal light operation noise function ON/OFF can be adjusted by the adjustment function.

Multi centre display operation noise function

A buzzer sounds when there is a signal from the multi centre display.



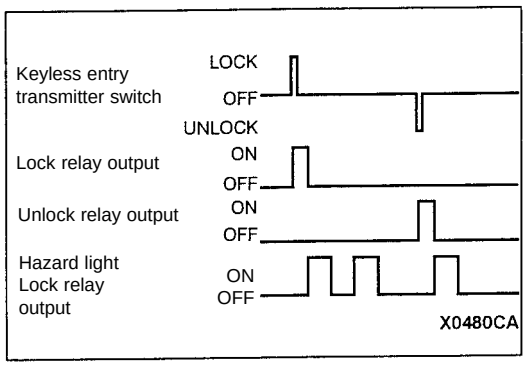
Central door lock control function

When the driver's door is locked (the lock switch is turned ON after the unlock switch in the driver's door actuator is turned OFF), the ETACS-ECU will activate the lock relay output for 0.25 seconds and lock all the doors. Next, when the driver's door is unlocked (after the unlock switch in the driver's door actuator is turned ON, the lock switch is turned OFF), the ETACS-ECU will activate the lock relay output for 0.25 seconds and unlock all the doors.

Multi mode keyless entry function (Initial Setting: Close activation only ON)

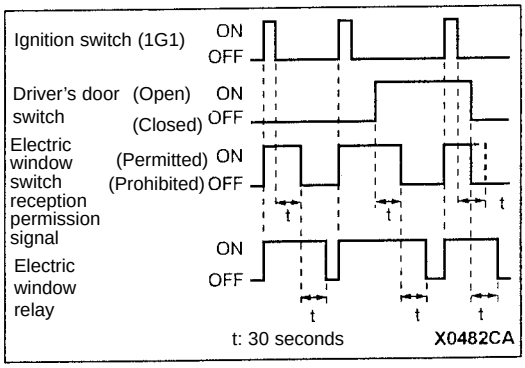
Locking, unlocking, electric windows, sunroof and door mirror can all be operated by a keyless entry transmitter.
Please refer to the May 2005 New Model Instruction Manual (No. 1036K00) regarding activation.

Note
Electric window and sunroof activation ON or OFF can be adjusted by the adjustment function. (Refer to Page 7-17)



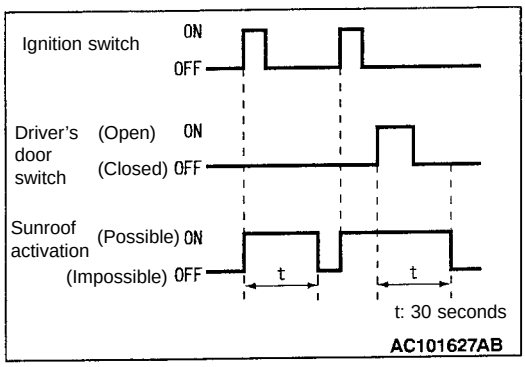
Keyless entry hazard feedback function (Initial setting: Both the lock and unlock functions ON)

A hazard feedback function has been installed to enable easy confirmation of lock and unlock activation even in the daytime.
When the lock signal is entered from the keyless entry transmitter to the ETACS-ECU,
all doors will be locked and the hazard light will reduce by 2, and when the unlock signal is entered, all doors will be unlocked and the hazard light will reduce by 1.
Note
This function can be disabled by the adjustment function. (Refer to Page 7-17)



Electric window timer function (Initial Setting: 30 seconds)

When the ignition switch is turned to the ON position, the ETACS-ECU will turn on the electric window relay and electric window switch reception permission signal (SWS signal sent from the ETACS-ECU). The electric window switch reception permission signal will remain on for about 30 seconds even after the ignition switch is turned off, and the door window can be opened and closed by the electric window switch. The electric window will go off about 30 seconds after the reception permission signal goes off. If the driver's door is opened while the timer is in operation, the reception permission signal will be turned on for about 30 seconds. However, the reception permission signal will be turned off if the driver's door is closed. The electric window relay will go off about 30 seconds after the reception permission signal goes off.
Note
The electric window timer activation time can be adjusted by the adjustment function. (Refer to Page 7-17)

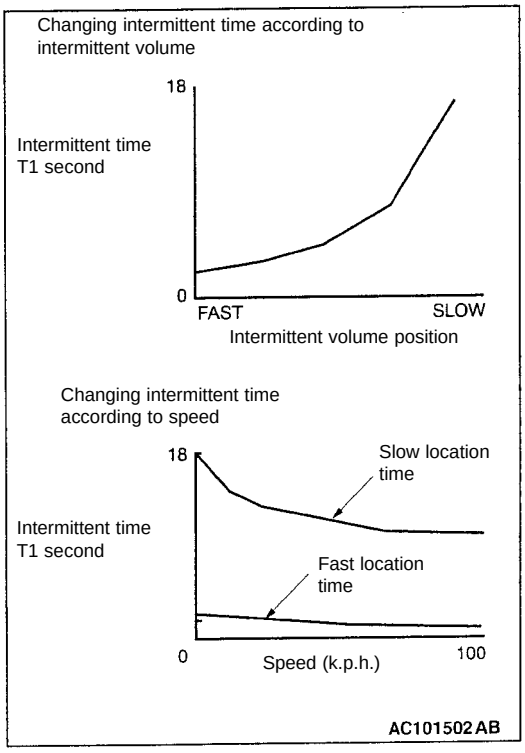


Sunroof timer function (Initial Setting: 30 seconds)

The sunroof can be moved by the sunroof switch for about 30 seconds after switching off the ignition switch.

Please refer to the sunroof section in Group 4 for activation.

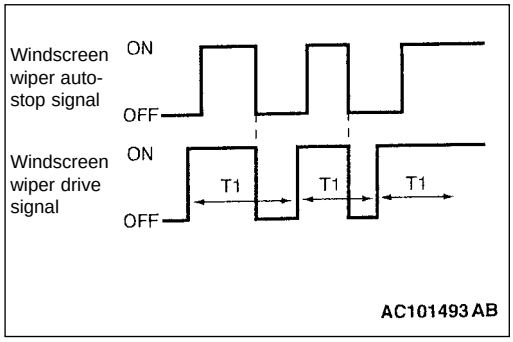
The sunroof timer activation time can be adjusted by the adjustment function. (Refer to Page 7-17)



Windscreen wiper and washer control function

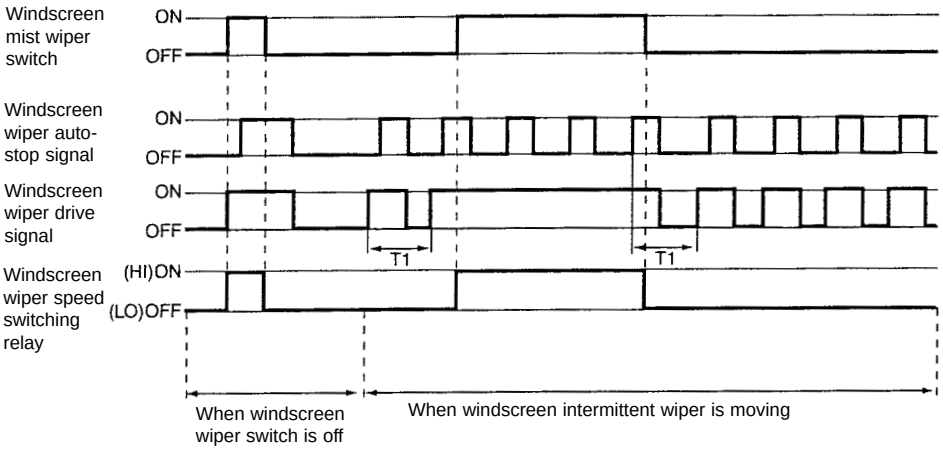
• Intermittent control (variable speed response)
(Initial setting: Function ON)
1. The ETACS-ECU calculates the intermittent time T1 from the speed that is calculated from the windscreen intermittent wiper volume of the column switch and the speed signal (engine CVT-ECU), and sends it to the front ECU as SWS data.

Note
The speed response function can be disabled by the adjustment function. (Refer to Page 7-17)



2. The front ECU decides the intermittent time T1 according to the incoming SWS data signal, and turns on the windscreen wiper drive signal. The windscreen wiper stop signal will go off when the wiper is in the stop position, and the windscreen wiper drive signal will be turned off.
   After intermittent time T1 seconds have elapsed from when the windscreen wiper drive signal is turned on, the windscreen wiper drive signal will be turned on again and the above operation repeated.

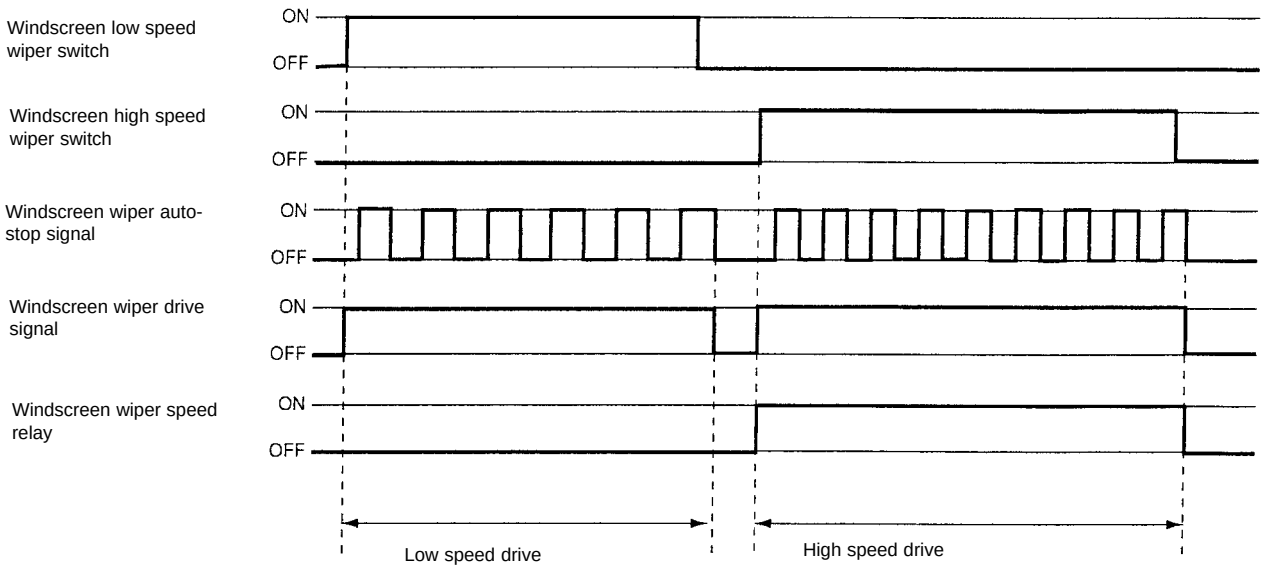
• Mist wiper control
If the windscreen mist wiper switch of the column switch is turned on when the ignition switch is in the ACC or ON position, the front ECU will turn on the windscreen wiper drive signal. The wiper speed switching relay will be turned on (HI) at the same time and the windscreen wiper will move at a higher speed while the windscreen mist wiper switch is on. If the windscreen wiper has been moving intermittently up to the point when the windscreen mist switch is turned on, it will move in the same way as described above while the windscreen mist wiper switch is on. After the windscreen mist wiper switch goes off, it will switch again to intermittent movement T1 seconds after the windscreen wiper auto-stop signal was last turned on.



T1: The intermittent wiper intermittent time

AC101511AB

• Low speed wiper, high speed wiper control
If the windscreen low speed wiper switch of the column switch is turned on when the ignition switch is in the ACC or ON position, the front ECU will turn on the windscreen wiper drive signal, turn off (LO) the windscreen wiper speed relay, and move the windscreen wiper at low speed.
Next, when the windscreen high speed wiper switch is turned on, the windscreen wiper drive signal will be turned on, the windscreen wiper speed relay will be turned on (HI), and the windscreen wiper will be moved at low speed.



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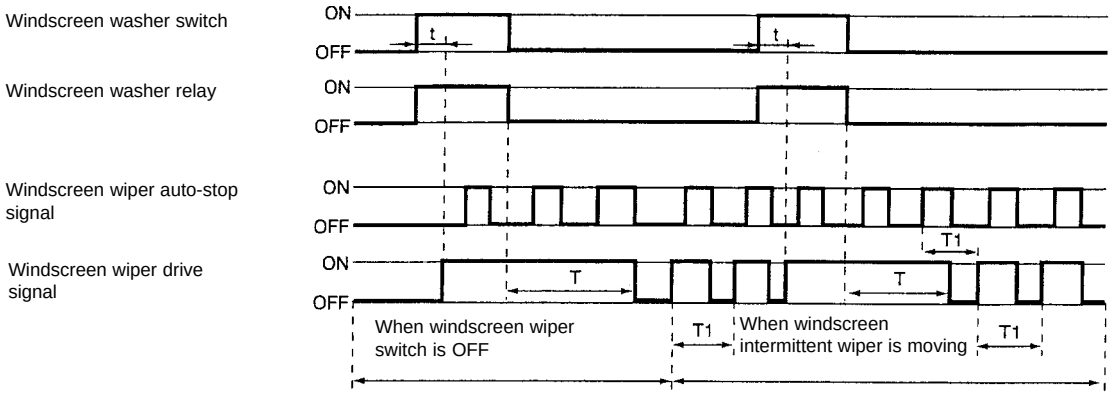
• Washer switch
If the windscreen washer switch of the column switch is turned on when the ignition switch is in the ACC or ON position, the front ECU will turn on the windscreen washer relay. 0.3 seconds later, the windscreen wiper drive signal will be turned on (the wiper drive signal output time varies according to conditions. Please refer to the following table for details) until 3 seconds after the windscreen washer switch goes off, and will move the windscreen wiper continuously.
If the windscreen wiper is moving intermittently when the windscreen washer switch is turned on, intermittent movement will be continued after continuous movement has finished.



T1: Intermittent wiper intermittent time

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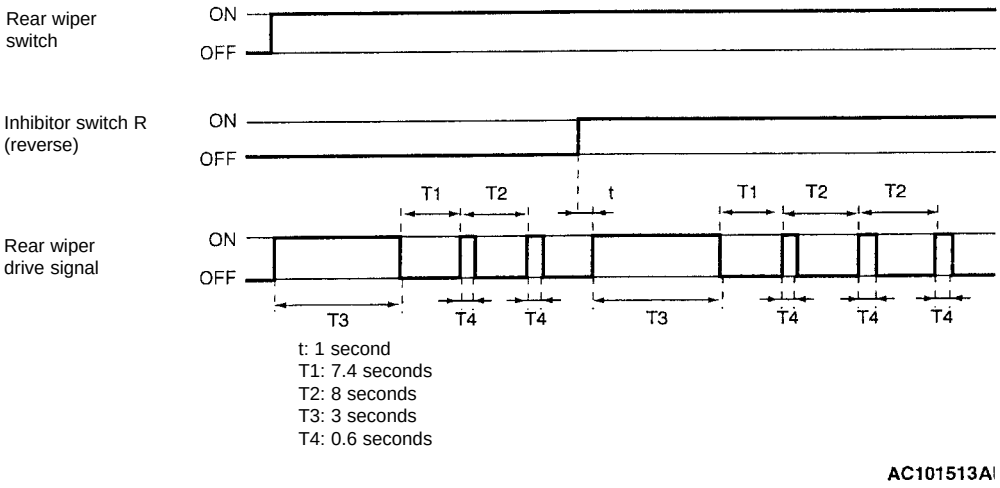
	When wiper switch is OFF					When wiper switch is INT			When wiper switch is LO or HI
t	Up to 0.3 sec.	0.3 to 0.5 sec.	0.5 to 0.7 sec.	0.7 sec. or more	Up to 0.2 sec.	0.3 to 0.5 sec.	0.5 to 0.7 sec.	0.7 sec. or more	-
T	0 sec.	1 sec.	2 sec.	3 sec.	0 sec.	1 sec.	2 sec.	3 sec.	3 sec.

Rear wiper and washer control function (Initial Setting: 8 seconds; continuous movement OFF)

1. If the rear wiper switch of the column switch is turned on when the ignition switch is in the ACC or ON position, the ETACS-ECU will carry out intermittent movement in 8 second cycles from 7.4 seconds after the rear wiper drive signal has been on for 3 seconds (moves approximately twice).
   If the selector bar is in the R (reverse) position when the rear wiper is moving, the inhibitor switch R will go on and, 1 second later, the ETACS-ECU will turn on the rear wiper drive signal for 3 seconds (moves approximately twice) and, 7.4 seconds after enhancing the rear visibility, there will be a return to intermittent movement in 8 second cycles.
2. By special switch operation (twice continuous control), the rear wiper can be moved continuously regardless of the intermittent time that has been set.

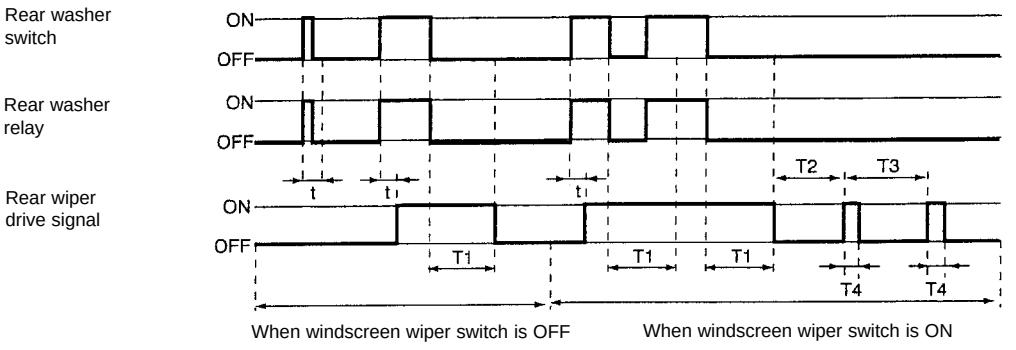
Note
The rear wiper intermittent time can be adjusted by the adjustment function. (Refer to Page 7-17)



t: 1 second
T1: 7.4 seconds
T2: 8 seconds
T3: 3 seconds
T4: 0.6 seconds

AC101513AI

• Washer control
The ETACS-ECU will turn on the rear washer relay if the rear washer switch of the column switch is turned on when the ignition switch is in the ACC or ON position. 0.3 seconds later, the rear wiper drive signal will be turned on until 3 seconds after the rear washer switch goes off, and the rear wiper will be moved.
If the rear wiper is moving when the rear washer switch is turned on, continuous intermittent movement in 8 second cycles will continue after 7.4 seconds from the time the rear wiper drive signal goes off.

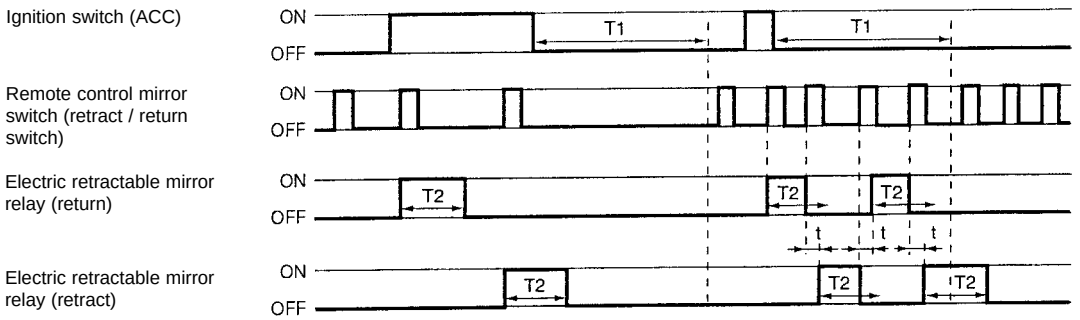


t: 0.3 second
T1: 3.0 seconds
T2: 7.4 seconds
T3: 8 seconds
T4: 0.6 seconds

AC101514AB

Electric retractable door mirror control function

• Electric retractable mirror timer function
If the retract / return switch of the electric remote control switch is turned on when the ignition switch is in the ACC or ON position, the electric retractable mirror relay (retract or return) will be on for 16 seconds, and retract or return will be operated. They will continue to be operable for about 10 seconds even after the ignition switch is OFF.
If the retract / return switch of the electric remote control switch in the retract or return drive goes on, there will be a delay of about 0.1 second, and then the opposite relay will be turned ON.
Note
When carrying out manual retraction, in order to decide whether the door mirror is in the retract or return position by remembering the relay that made the previous ON, sometimes it will not operate even if the next retract or return switch is pressed.



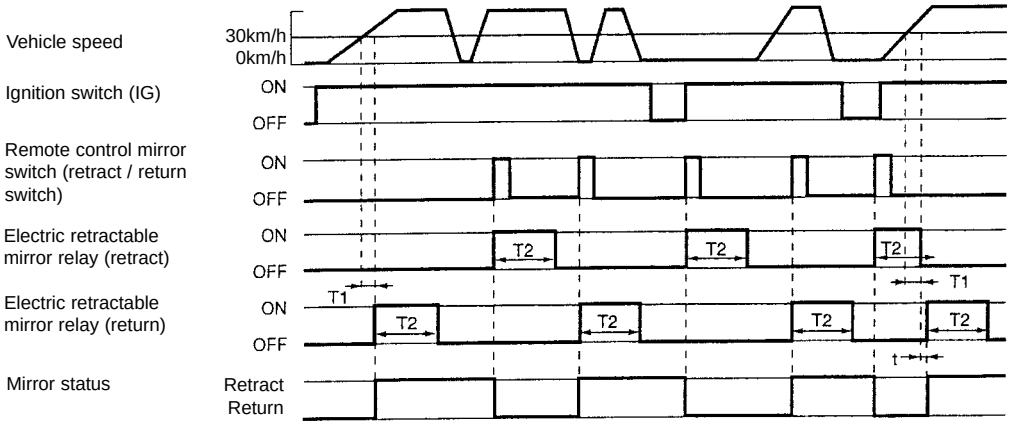
t: 0.1 second
T1: 2 seconds
T2: 16 seconds

AC101503

• Automatic return function (Initial Setting: speed response expansion)

Note
There is no automatic return when carrying out manual retraction in order to decide whether the door mirror is in the retract or return position by remembering the relay that made the previous ON.

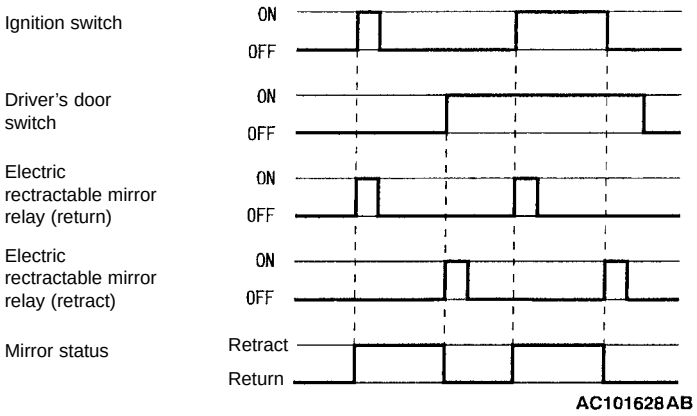
1. Speed response expansion
If the ignition switch is on and the mirror is in retract condition when the vehicle speed reaches 30 k.p.h. (for at least 2 seconds continuously), ETACS-ECU turns on the retractable mirror relay (return) for 16 seconds and the door mirror is returned. However, there is no automatic return if the retract / return switch of the remote control mirror switch is operated after turning the ignition switch from OFF to ON.
Even during mirror retraction operation, when the vehicle speed exceeds 30 k.p.h. (for least 2 seconds continuously), it will be delayed by 0.1 second as with the electric retractable mirror timer function and the retractable mirror relay (return) will be turned on.



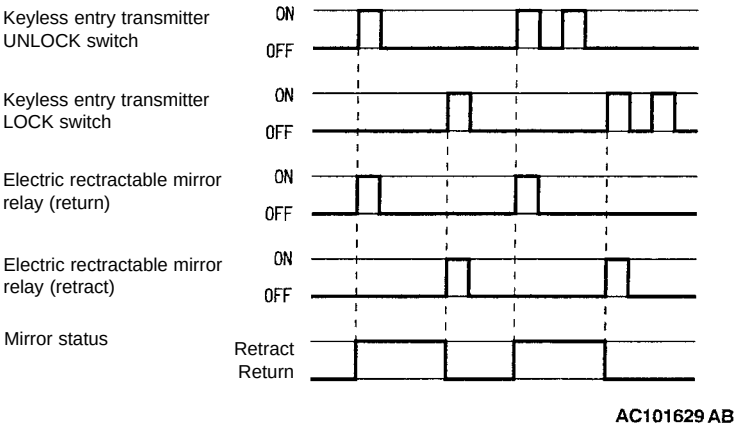
t: 0.1 second
T1: 30 seconds
T2: 16 seconds

AC101504

2. Ignition synchronized retract and return function
   It returns by switching on the ignition switch, and retracts when the ignition switch is in the OFF (LOCK) position and the driver's door is opened.

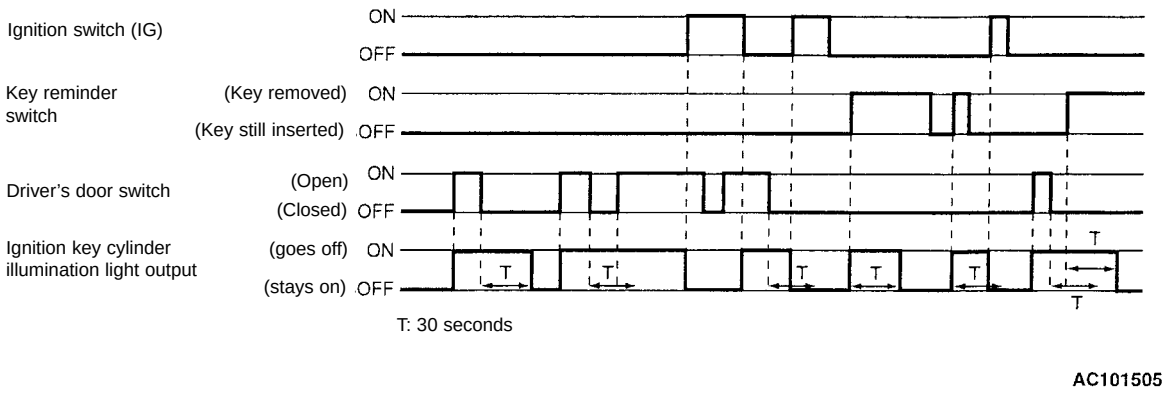


3. Keyless entry synchronized retract and return function
   It retracts by synchronous LOCK operation of the keyless entry transmitter and returns by synchronous UNLOCK operation of the keyless entry transmitter.



Note
Functions 1 to 3 can be selected or cancelled by the adjustment function. (Refer to Page 7-17)

Ignition key cylinder illumination light control function
The ignition key cylinder illumination light stays on when the ignition switch is off and the driver's door is open or for 30 seconds after the door is closed. It also stays on for 30 seconds after removing the ignition switch. In all cases, the light is turned off when the ignition switch is turned on.



Headlight auto-cut function (Initial setting: Function ON (no auto-cut when the ignition switch is in the LOCK (OFF) position and the tail lights have been put on))

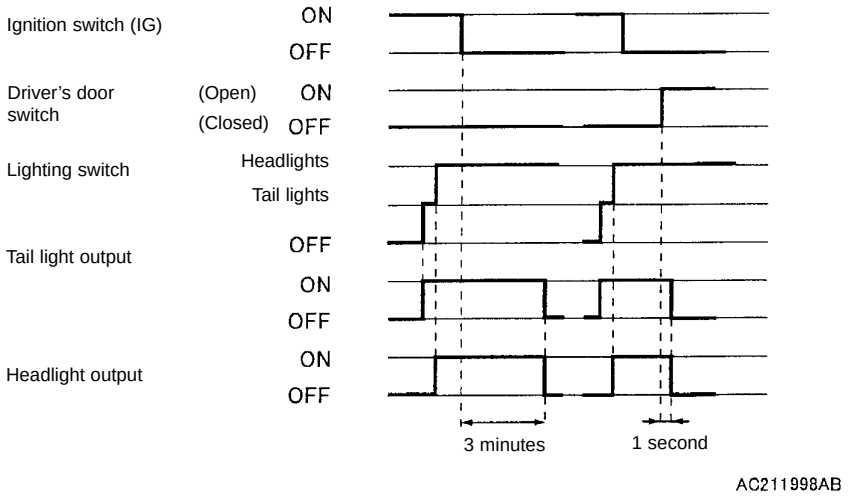
If the lighting switch (tail light switch or the headlight switch) is on, the headlights (including the tail light etc.) will automatically go off in the following conditions to prevent the battery from discharging.

1. The lighting switch will automatically be turned off if the ignition key is turned from ON to OFF with the lighting switch turned ON, and this condition will continue for 3 minutes. If the driver's door is opened during these 3 minutes, the light will go off after 1 second. (The light still on reminder warning buzzer will sound during the one second until the light goes off. However, if the driverÅfs door is opened with the ignition key inserted, the key inserted reminder warning buzzer will sound first.).
2. The headlights will go off automatically after 3 seconds if the headlight switch is turned ON with the ignition switch and lighting switch OFF.
3. The tail lights will not go off automatically if the tail light switch is turned ON with the ignition switch and lighting switch OFF.

Note
They can be set to go off automatically by the adjustment function. (Refer to Page 7-17)

After this function has been activated, the headlights are turned on again by turning ON the lighting switch after it has been turned OFF once or by turning ON the ignition switch. They will be turned off again when the conditions of (2) are fulfilled after turning on again.

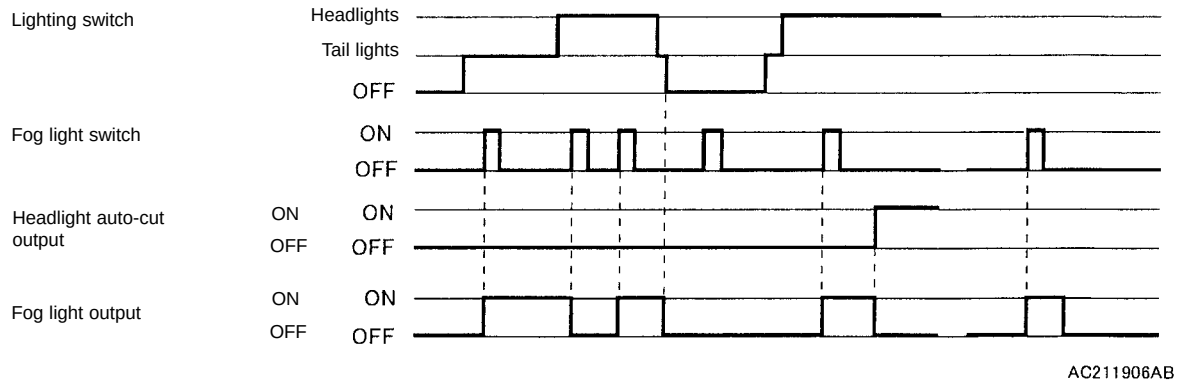
Note
This function can be disabled by the adjustment function. (Refer to Page 7-19)

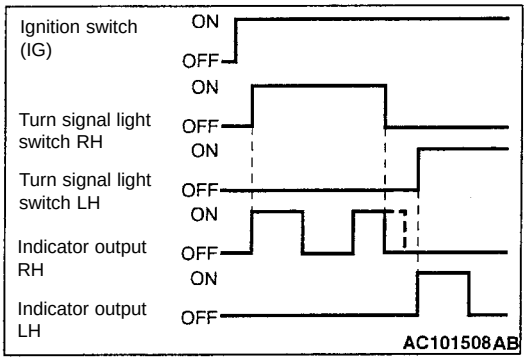


Fog light function

By turning the fog light switch ON when the tail lights or headlights have been turned on (tail light switch or headlight switch ON), the fog light relay goes ON and the fog lights are turned on.

If the tail lights and headlights are turned off by turning OFF the lighting switch while the fog lights are on, the fog lights will also go off at the same time, preventing the fog lights being left on. Also, if the tail light is turned off by the auto-light function, the fog lights will go off at the same time. However, the fog lights will not go on again when the tail lights are turned on again.



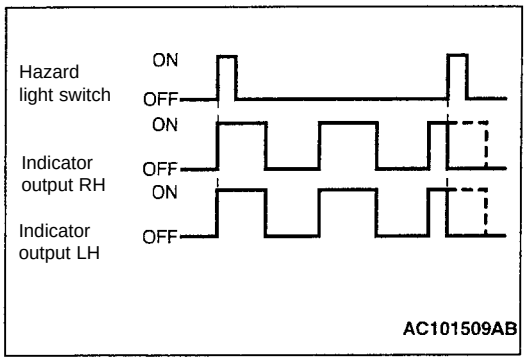


Flasher timer function

• Indicator light

The indicator light output (flashing signal) is turned ON when the ignition switch is ON and the indicator light switch is ON (LH or RH).

If either the front indicator light bulb or the rear indicator light bulb has burned out, the flashing speed increases in order to indicate that the bulb has burnt out.



• Hazard light

It checks the signal that changes hazard light input switch from OFF to ON, and reverses the flashing status according to this signal. (It makes the hazard light flash if is not flashing and switches it off if it is flashing.)

Note

1. The hazard light switch is now a push return switch.
2. The hazard light flashing speed will not change even if the bulb has burnt out.

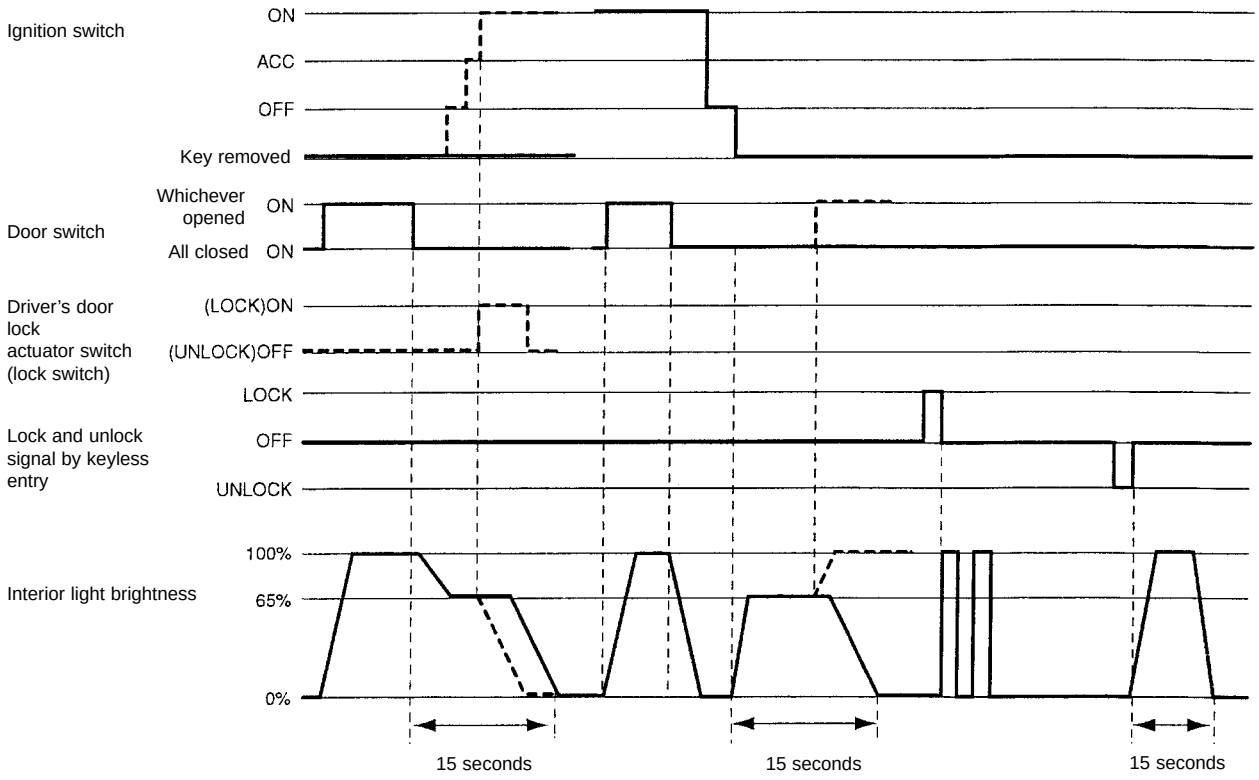
Dimmer type interior light function (Initial Setting: 15 seconds)

When the interior light switch is in the door position, the ETACS-ECU controls the turning on of the interior light as follows:

1. When a door is opened to get in or out of the vehicle (when the ignition switch is OFF), the light respectively goes on when opened (100%), dims when closed (75%) and goes off after 15 seconds.
   However, if the ignition switch is turned on or if the door is locked while the timer is illuminated, the light will go off at that point.
2. When the ignition switch is ON,
   the light respectively goes on when opened (100%), and off when closed.
3. When the ignition key is removed with all doors closed
   When the ignition key is removed with all doors closed, the light goes on (65%) and off after 15 seconds.
   The light goes off when the door is locked or when the ignition key is inserted again while the light is on.
4. Keyless entry interior light feedback
   For easy confirmation of the keyless entry operation, the interior light flashes twice when the door is locked. It also goes off after being on for 15 seconds (100%) when the door is unlocked.

Note

The delay time until the interior light goes on can be adjusted by the adjustment function. (Refer to Page 7-17)



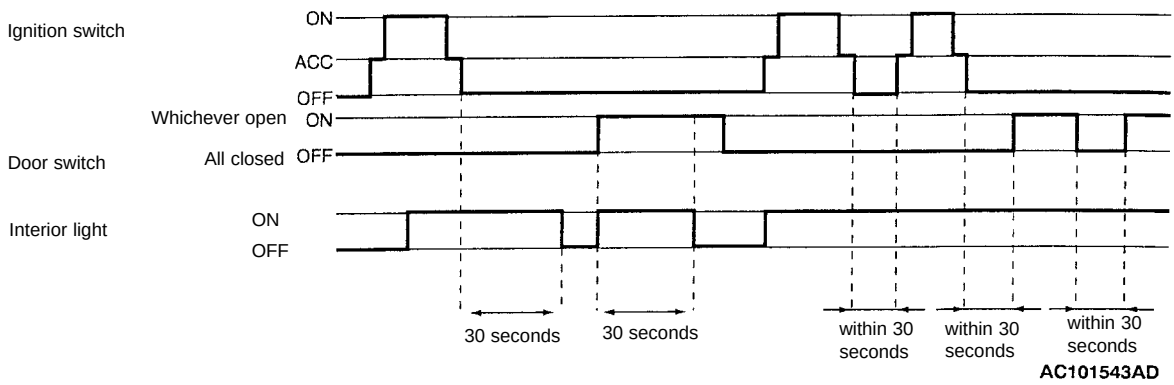
Interior light auto-cut function (Initial Setting: Automatic switch off - 15 seconds)

If they have been left on, interior lights (interior light, map light, luggage interior light and ignition key cylinder illumination light) that have interior light fuses, will turn off automatically in the following conditions, and battery leakage will be avoided.

- The interior light will go off automatically if it remains on 30 minutes after the ignition switch is turned off.
- The interior light will go off automatically if any door switch remains open continuously for 30 minutes.
- The interior light will revert to being switched on if, after being switched off automatically, the door is opened or closed, the key entry transmitter switch is used or if the ignition switch is put in the ACC position.

Note

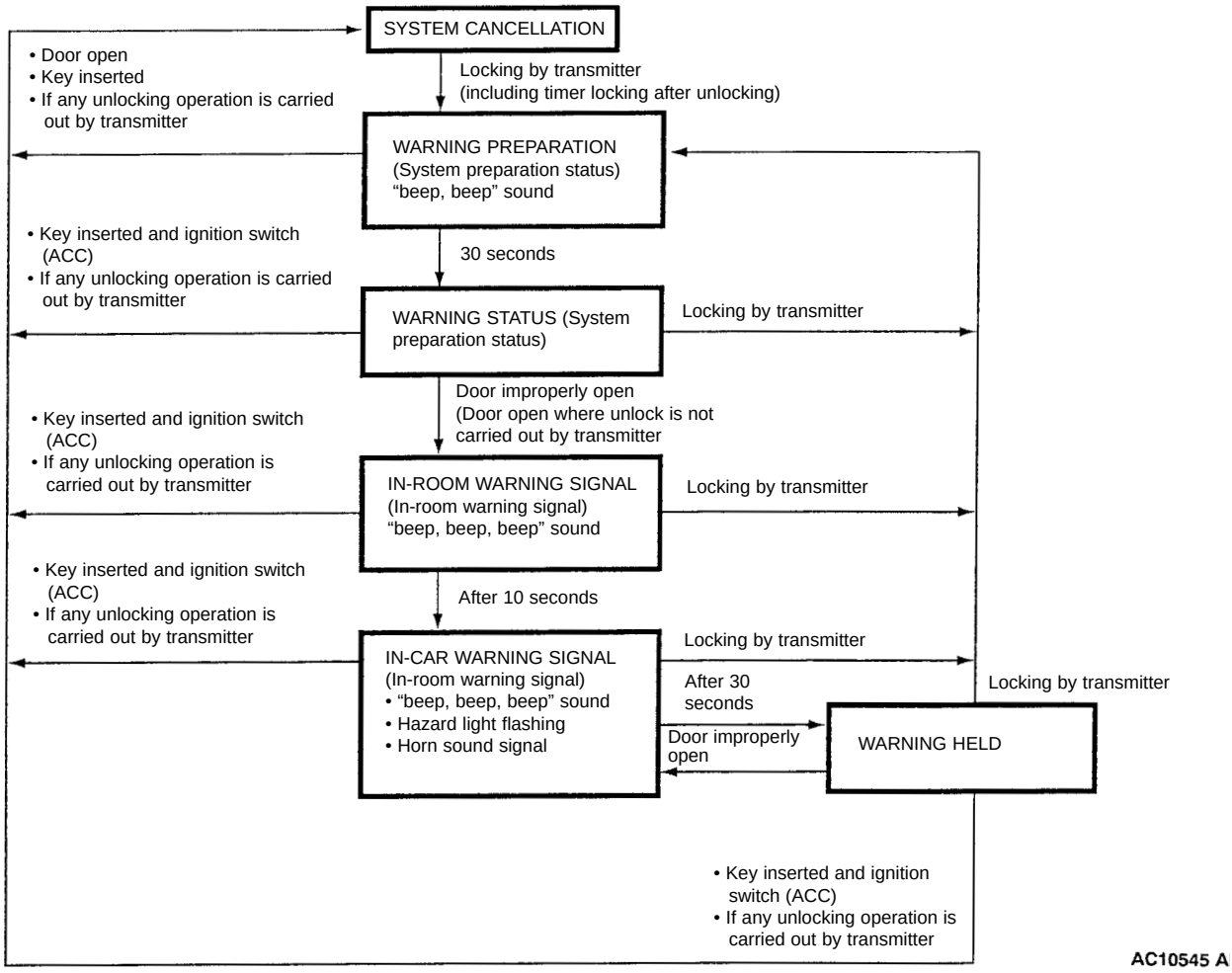
1. The time up to when the interior light is turned on can be adjusted by the adjustment function. (Refer to Page 7-17)
2. Even after reverting, it will go off automatically 30 minutes after the interior light auto-cut conditions are fulfilled.



Security alarm function (Initial Setting: Function OFF)

When locking the door with the transmitter (but not when locking by key), a “beep, beep” sound is emitted as an initial warning. It changes to warning status after 20 seconds, and an interior warning signal is given by a “beep, beep, beep” sound if there is a warning status caused by a door being improperly open (or a door being unlocked by the transmitter or the tailgate or bonnet is open). After 10 seconds, the hazard lights flash and the horn sounds intermittently in addition to the “beep, beep, beep” sound.

Note
It is possible to adjust whether or not there is a security alarm function and warning output by the adjustment function.
(Refer to Page 7-18)



Adjustment Functions (User Mode)

Security alarm function ON / OFF and warning signal output can be adjusted by the adjustment mode entry conditions according to each switch operation.

Information that is being adjusted will be remembered even if the battery is disconnected.

Adjustment mode entry conditions

1. Each switch sets the following conditions.
- Driver's door switch: ON (Driver's door open)
- Key reminder switch: ON (Ignition key removed)
- Lighting switch: OFF

2. When the windscreen washer switch is turned ON continuously for 10 seconds or more (by pulling the wiper lever forward), the ETACS-ECU internal buzzer will sound once and the adjustment mode will be entered. While in this condition (wiper lever pulled forward), the settings can be changed when the transmitter unlock switch is pressed.

Security alarm function adjustment

1. The security alarm ON / OFF and the alarm time change in the following sequence. (after (c), return to (a) and repeat the sequence from (a))
- Security alarm function OFF (initial condition): Buzzer sounds once
- Security alarm function ON (warning signal: hazard and horn): Buzzer sounds 3 times
- Security alarm function ON (warning signal: hazard only): Buzzer sounds 5 times

Adjustment mode entry cancellation conditions

1. The adjustment mode is cancelled when each of the following conditions has been met.
- Driver's door switch: OFF (DriverÅfs door open)
- Key reminder switch: OFF (Ignition key removed)
- Lighting switch: OFF
- Windscreen washer switch: OFF
- The keyless entry transmitter unlock switch is not pressed for 30 seconds

Note

1. Although wiper / washer switch and transmitter operations are carried out in adjustment mode entry conditions, the wiper / washer and keyless entry do not function.
2. These adjustment functions are also contained in the Instruction Manual so that users can carry out adjustment themselves.
3. Please set these functions by properly confirming the users' own requirements. As far as possible, please let the users set them themselves so that they understand the functions.

Security Alarm Sticker

1. A security alarm sticker is enclosed with the Instruction Manual.
2. Please explain to customers that they can personally attach the security alarm sticker to the rear quarter glass from outside the vehicle.
   Please tell them not to attach it to places such as the windscreen and front door window where it will obstruct visibility.

Note

There is a danger of it becoming detached if it is attached to opening window.

Adjustment Functions (Supplier Mode)

The following functions can be adjusted by MUT-II / III. Information that is being adjusted will be remembered even if the battery is disconnected.

- Door not properly closed reminder function
  When driving with a door still open, this function will give a warning signal that a door is not properly closed by sounding a buzzer and making the "door not properly closed reminder" light inside the combination meter flash.

• Turn signal light operation sound function
This function gives a buzzer sound signal in synchronization with a hazard light and turn signal light.

• Keyless entry hazard feedback function
This function can confirm whether a vehicle is locked or unlocked even when away from the vehicle by making a hazard light flash when locking or unlocking with the keyless entry transmitter.

• Multi mode keyless entry system electric window and sunroof function
This function activates the electric window and sunroof by operating the keyless entry transmitter even when away from the vehicle.

• Time lock time after keyless entry unlock
When a door does not open after unlocking by operating the keyless entry transmitter, this function locks the door automatically after a fixed time.

• Electric window and sunroof timer function time
This function enables operation of the electric window and sunroof timer for a fixed time even after the ignition switch has been turned to the OFF (LOCK) position.

• Electric window lock driver's seat operation
After pressing the electric window lock switch, which is inside the main electric window switch, this function enables operation of the electric windows other than the driver's seat electric window by electric window switch.

• Vehicle speed response wiper function
When the windscreen wiper switch is in the intermittent position, this function changes the intermittent time according to the vehicle speed with the intermittent adjusting knob

• Rear wiper intermittent time
The rear wiper switch functions intermittently when the rear wiper switch is turned ON. Also, this function makes the rear wiper operate continuously according to the continuous operation of the rear wiper switch.

• Electric retractable door mirror automatic return function
This function opens the door mirror automatically when driving with the door mirror retracted. It can also carry out retraction and return of the door mirror by other means.

• Headlight auto-cut function
This function turns the ignition switch into the OFF (LOCK) position when the lighting switch is in the TAIL, AUTO or HEAD position, and turns off the headlight automatically in order to avoid leaving the headlight on when opening the driver's door.

• Interior light delayed switch-off time
When the doors are closed and the ignition switch is in the OFF (LOCK) position, this function automatically switches off the interior lights after a fixed time.

• Interior light auto-cut function
When the ignition switch is in the OFF (LOCK) position, this function makes interior lights such as interior lights flash for a minimum fixed time, and automatically turns them off.

• It is possible to switch between security alarm function valid / invalid.

• Performance adjustment during electric window key-off timer
This function enables operation of electric windows other than the driver's seat electric window while the electric window timer is functioning.

ITEM NO.	ITEM MUT DISPLAY	ITEM	ADJUSTMENT CONTENT MUT DISPLAY	ADJUSTMENT CONTENT
2	HD AUTO-CUT	Headlight auto-cut adjustment	FUNCTION ON (A display)	Function ON: Goes ON automatically when the ignition switch is in the LOCK (OFF)
			FUNCTION ON (D display)	position and the tail light has been turned on Function ON: Goes OFF automatically when the ignition switch is in the LOCK (OFF) position and the tail light has been turned on (initial setting)
			FUNCTION OFF	Function OFF
4	VEHICLE SPEED RESPONSE WIPER	Vehicle speed response wiper function	FUNCTION ON	Function ON (initial setting)

			FUNCTION OFF	Function OFF
5	DOOR MIRROR	Electric retractable door mirror automatic return function	VEHICLE SPEED RESPONSE FUNCTION ON	Vehicle speed response function (initial setting)
			IG SYNC FUNCTION ON	Ignition synchronization
			KEYLESS SYNC FUNCTION ON	Keyless entry synchronization
			FUNCTION OFF	Function OFF
6*1	KEYLESS (HORN)	Keyless entry system horn answerback	LOCK SOUND	Sound signal on each lock
			LOCK TWICE SOUND	Sound signal when continuous lock operates twice with one second
			FUNCTION OFF	Function OFF
8*1	KEYLESS (HORN)	Keyless entry system horn answerback at night	NORMAL	Functions according to keyless entry horn answerback adjustment function setting
			AT NIGHT	Functions according to keyless entry horn answerback adjustment function setting, but sound signal prevented at night
9	KEYLESS (HAZARD)	Keyless entry system hazard answerback function	LOCK, UNLOCK, LIGHT ON	Function ON with both lock and unlock (initial setting)
			LIGHT ON ONLY WHEN LOCKED	Function ON only when locked
			LIGHT ON ONLY WHEN UNLOCKED	Function ON only when unlocked
			FUNCTION OFF	Function OFF
10	KEYLESS (P/W)	Multimode keyless entry system power window and sunroof function	OPEN, CLOSED ON	Closed and Open operation ON (Open operation is only for power window)
			CLOSED OPERATION ONLY	Closed operation only ON (initial setting)
			FUNCTION OFF	Function OFF
11	SECURITY ALARM	Security alarm	HORN, HAZARD	Function ON: Horn and hazard
			HAZARD ONLY	Function ON: Hazard only
			FUNCTION OFF	Function OFF: (initial setting)
15	TURN SIGNAL BUZZER	Turn signal buzzer activation sound function	FUNCTION OFF	Function ON
			FUNCTION ON	Function OFF: (initial setting)
16	ROOM LIGHT OFF T	Room light delayed switch-off time	60 SEC.	60 seconds
			30 SEC.	30 seconds
			15 SEC.	15 seconds (initial setting)
			7.5 SEC.	7.5 seconds
			DELAYED SWITCH-OFF OFF	0 seconds (no delay)
18	KEY OFF TIMER TIME	Power window and sunroof timer function time	TIMER FUNCTION OFF	Timer function OFF
			30 SEC.	30 seconds (initial setting)
			3 MIN.	3 minutes
			10 MIN.	10 minutes

19	PW/KEY OFF TIMER	Operation adjustment while power window key off timer is on *2	NORMAL OPERATION	Normal operation even while timer is on
			MAIN S/W OPERATION	While timer is on, operation of each power window (except the driver's seat power window) from the power window main switch is prohibited
24	KEYLESS TIMER LOCK T	Timer lock time after unlocking the keyless entry system	30 SEC.	30 seconds (initial setting)
			60 SEC.	1 minute
			120 SEC.	2 minutes
			180 SEC.	3 minutes
26	DOOR NOT PROPERLY CLOSED BUZZER	"Door not properly closed" alarm function	FUNCTION ON	Function ON (initial setting)
			FUNCTION OFF	Function OFF
27	WIPER SYNC HD	Wiper synchronization auto-light function	ONLY AT TIME OF AUTO-LIGHT	Function ON (initial setting)
			FUNCTION OFF	Function OFF (initial setting)
28	REAR WIPER INT TIME	Rear wiper interval time	8 sec.	8 seconds (no continuous operation)
			4 sec. (CONTINUOUS ON)	4 seconds (continuous operation)
			8 sec. (CONTINUOUS ON)	8 seconds (continuous operation)
			16 sec. (CONTINUOUS ON)	16 seconds (continuous operation)
			CONTINUOUS OPERATION	Continuous operation (intermittent OFF)
30	ROOM LIGHT AUTO-CUT	Interior light auto-cut function	3 MIN.	Automatic switch-off ON: 3 minutes
			30 MIN.	Automatic switch-off ON: 30 minutes
			60 MIN.	Automatic switch-off ON: 60 minutes
			FUNCTION OFF	Automatic switch-off OFF (initial setting)
31	P/W LOCK MODE	Power window driver's seat operation	ALL SEATS OPERATION ENABLED	Power windows for all seats can be operated at the time of LOCK
			DRIVER'S SEAT ONLY OPERATION ENABLED	Power window operation prohibited at the time of LOCK apart from driver's seat power window

Note

1. *1 can only be adjusted when the Smart Entry System has been installed. Adjustment function items will be displayed by operating the Smart Entry System once after it has been installed. Also, the adjustment function items will be completely deleted when activation of all functions has been carried out. However, new adjustment function items will be shown by activating the Smart Entry System.

2. Please refer to the Development Manual for details of *2
Initialization of all functions (Resetting initial conditions)
It is a function that can return all factory-installed adjustment functions. If items No. 6 and No. 8 are displayed, display will be removed by carrying out initialization of all functions. After initialization of all functions, adjustment function items that are reactivated by the Smart Entry System will be shown.

SECTION 8

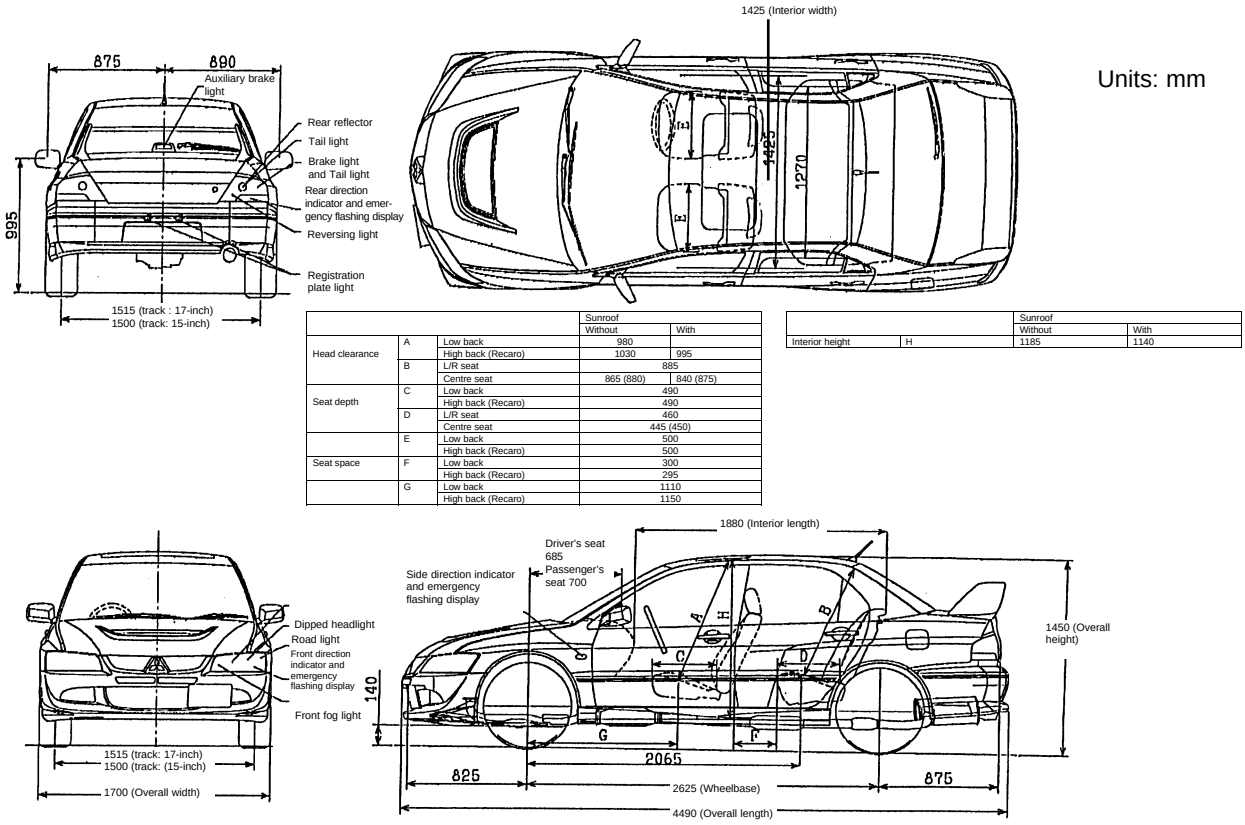
REFERENCE MATERIALS

CONTENTS

4-aspect Diagram.....8-2
Outline Specification.....8-3
Detailed Specification 8-6
Outline Equipment.....8-8
Cold Climate Specifications 8-10
Periodic Inspection.....8-10

4-aspect Diagram

The 4-aspect Diagram is included in the application materials and there are some differences from the actual equipment. Please refer to the Schedule of Lighting Devices for details of lighting devices.



Units: mm

			Sunroof	
			Without	With
Head clearance	A	Low back	980	
		High back (Recaro)	1030	995
	B	L/R seat	885	
		Centre seat	865 (880)	840 (875)
Seat depth	C	Low back	490	
		High back (Recaro)	490	
	D	L/R seat	460	
		Centre seat	445 (450)	
	E	Low back	500	
		High back (Recaro)	500	
Seat space	F	Low back	300	
		High back (Recaro)	295	
	G	Low back	1110	
		High back (Recaro)	1150	

		Sunroof	
		Without	With
Interior height	H	1185	1140

Schedule of Lighting Devices

The Schedule of Lighting Devices is included in the application materials and there are some differences from the actual equipment.
★ indicates sections where there are changes compared to the original vehicle.

ITEM			GH-CT9A
Dipped headlight	Installation height	Upper edge / Lower edge	675/600
	Distance from extreme side of vehicle		155
Front fog light*1	Installation height	Upper edge / Lower edge	630/565
	Distance from extreme side of vehicle		380
Road light	Installation height	Upper edge / Lower edge	685/615
	Distance from extreme side of vehicle		65
Tail light (inside)	Installation height	Upper edge / Lower edge	860/765
	Distance from extreme side of vehicle		230
Rear reflector	Installation height	Upper edge / Lower edge	840/785
	Distance from extreme side of vehicle		245
Tail light (outside) brake light	Installation height	Upper edge / Lower edge	855/765
	Distance from extreme side of vehicle		115

ITEM			GH-CT9A
Auxiliary brake light (interior installation type)	Installation height	Lower edge	1085
	Distance from bottom of window		above bottom of window
	Distance from centre of vehicle		0
Direction indicator and emergency flashing display light (front)	Installation height	Upper edge / Lower edge	610/560
	Inner edge distance		1 380
	Distance from extreme side of vehicle		80
Direction indicator (side)	Installation height	Upper edge / Lower edge	695/665
	Distance from forward end of vehicle ★		1 265
Direction indicator and emergency flashing display light (rear)	Installation height	Upper edge / Lower edge	745/710
	Under floor distance		1 120
	Distance from extreme side of vehicle		110

Note
*1 is displayed in the case of a vehicle with discharge type headlight installed.

Outline Specification

The Outline Specification is included in the application materials and there are some differences from the actual equipment.
★ indicates sections where there are changes compared to the original vehicle.

Vehicle name and type	Mitsubishi GH-CT9A
Chassis name and type	Mitsubishi CT9A
Name of manufacturer	Mitsubishi Motors Corporation
Type	Normal
Use	Passenger
Body shape	Box shaped
Engine type	4G63
Total emission cc	1 997
Unique number	National No. 1593
Designated number	10893

ITEM			GH-CT9A		
			SNDFZ	SJDFZ	SJGFZ
Classification No.			035 to 058	059 to 074	075 to 076
Dimensions	Vehicle length mm ·★		4 490		
	Vehicle width mm		1 770		
	Vehicle height mm		1 450		
	Wheelbase mm		2 625		
	Track	Front wheels	1515*1 / 1 500*2	1515*1	
		Rear wheels	1515*1 / 1 500*2	1515*1	
Weight			Entered in weight display		
Perfor-mance	Maximum stability Angle	Left	50°		
		Right	50°		
Others	Wheel alignment		Front 2 drive – Rear 2 drive		
	Tyre size	Front wheels	205/65R15 94H	235/45ZR17	
		Rear wheels	235/45ZR17		

Note
• The classification number and equipment refer to the Weight Chart

• *1 is indicated if the vehicle has 17 inch wheels; *2 if the vehicle has 15 inch wheels.

Weight Chart

ITEM			GH-CT9A							
			SNDFZ							
CLASSIFICATION NO.			035 (D,E)	036 (A,D, E)	037 (D,E, W)	038 A, D, E, W	039 (A,B, C,D, E,W)	040(A, B,C,D, E,W)	041 (D,E, J)	042 (A,D, E,J)
WEIGHT	VEHICLE WEIGHT kg.	Front axle weight	810	820	←	830	←	840	820	830
		Rear axle weight	510	←	520	←	530	←	510	←
		Total	1 320	1 330	1 340	1 350	1 360	1 370	1 330	1 340
	PASSENGERS		5							
	TOTAL VEHICLE WEIGHT kg.	Front axle weight	910	920	←	930	←	940	920	930
		Rear axle weight	685	←	695	←	705	←	685	←
		Total	1 595	1 605	1 615	1 625	1 635	1 645	1 605	1 615

ITEM			GH-CT9A							
			SNDFZ							
CLASSIFICATION NO.			043 (D,E, J,W)	044 (A,D, E,J, W)	045 (B,C, D,E,J ,W)	046 (A,B, C,D, E,J)	047 (D,E, P)	048 (A,D, E,P)	049 (D,E, P,W)	050 (A,D, E,P, W)
WEIGHT	VEHICLE WEIGHT kg.	Front axle weight	830	840	←	850	810	820	←	830
		Rear axle weight	520	←	530	←	520	←	530	←
		Total	1 350	1 360	1 370	1 380	1 330	1 340	1 350	1 360
	PASSENGERS		5							
	TOTAL VEHICLE WEIGHT kg.	Front axle weight	930	940	←	950	910	920	←	930
		Rear axle weight	695	←	705	←	695	←	705	←
		Total	1 625	1 635	1 645	1 655	1 605	1 615	1 615	1 635

ITEM			GH-CT9A							
			SNDFZ							
CLASSIFICATION NO.			051 (B,C, D,E, P,W)	052 (A,B, C,D, E,P, W)	053 (D,E, J,P)	054 (A,D, E,J,P)	055 (D,E, J,P, W)	056 (A,D, E,J,P ,W)	057 (B,C, D,E,J ,P)	058 A,B, C,D, E,J,P, W
WEIGHT	VEHICLE WEIGHT kg.	Front axle weight	830	840	820	830	←	840	←	850
		Rear axle weight	540	←	520	←	530	←	540	←
		Total	1 370	1 380	1 340	1 350	1 360	1 370	1 380	1 390
	PASSENGERS		5							
	TOTAL VEHICLE WEIGHT kg.	Front axle weight	930	940	920	930	←	940	←	950
		Rear axle weight	715	←	695	←	705	←	715	←
		Total	1 645	1 655	1 615	1 625	1 635	1 645	1 655	1 665

Note
The Classification No. indicates whether the following equipment is installed.

A: Air conditioning; B: ABS; C: AYC (Active Yaw Control); D: ACD (Active Centre Differential); E: 5M/T; J; Front passenger seat air bag; P: Power windows; W: 17 inch tyres

ITEM			GH-CT9A					
			SJDFZ					
CLASSIFICATION NO.			059 (D,F, W)	060 (A,D,F, W)	061 (B,C,D, F, W)	062 (A,B,C, D,F, W)	063 (D,F,J, W)	064 (A,D,F,J, W)
WEIGHT	VEHICLE WEIGHT kg.	Front axle weight	830	840	←	850	840	850
		Rear axle weight	520	←	530	←	520	←
		Total	1 350	1 360	1 370	1 380	1 360	1 370
	PASSENGERS		5					
	TOTAL VEHICLE WEIGHT kg.	Front axle weight	930	940	←	950	940	950
		Rear axle weight	695	←	705	←	695	←
		Total	1 625	1 635	1 645	1 655	1 635	1 645

ITEM			GH-CT9A					
			SJDFZ					
CLASSIFICATION NO.			065 (B,C, D,F,J, W)	066 (B,C,D,F ,J,W)	067 (D,F,P, W)	068 (A,D,F, P,W)	069 (B,C,D, F,P,W)	070 (A,B,C,D,F ,P,W)
WEIGHT	VEHICLE WEIGHT kg.	Front axle weight	850	860	830	840	←	850
		Rear axle weight	530	←	←	←	540	←
		Total	1 380	1 390	1 360	1 370	1 380	1 390
	PASSENGERS		5					
	TOTAL VEHICLE WEIGHT kg.	Front axle weight	950	960	930	940	←	950
		Rear axle weight	705	←	←	←	715	←
		Total	1 655	1 665	1 635	1 645	1 655	1 665

ITEM			GH-CT9A					
			SJDFZ					
CLASSIFICATION NO.			071 (D,F, J,P, W)	072 (A,D,F,J ,P,W)	073 (B,C,D, F,J,P,W)	074 (A,B,C, D,F,J,P, W)	075 (A,B,C, D,F,J,P, W)	076 (A,B,C,D,F ,J,P,S,W)
WEIGHT	VEHICLE WEIGHT kg.	Front axle weight	840	850	←	860	870	880
		Rear axle weight	530	←	540	←	←	550
		Total	1 370	1 380	1 390	1 1400	1 410	1 430
	PASSENGERS		5					
	TOTAL VEHICLE WEIGHT kg.	Front axle weight	940	950	←	960	970	980
		Rear axle weight	705	←	715	←	←	725
		Total	1 645	1 655	1 665	1 675	1 685	1 705

Note
The Classification No. indicates whether the following equipment is installed.

A: Air conditioning; B: ABS; C: AYC (Active Yaw Control); D: ACD (Active Centre Differential); E: 5M/T; J; Front passenger seat air bag; P: Power windows; W: 17 inch tyres

Detailed Specification

The Detailed Specification is included in the application materials and there are some differences from the actual equipment.
★ indicates sections where there are changes or additions compared to the original vehicle.

ITEM				GH-CT9A		
				SNDFZ	SNDFZ	SNDFZ
Minimum ground clearance m				1.140	←	←
Performance	Max. speed k.p.h.			180	←	←
	Fuel consumption ratio km/L*1 10/15 mode			9.6	9.7 ★	←
	Braking distance m			51.0 (100) [48.0 (100)	←	←
	Turning circle m			5.9	←	←
Engine	Bore x stroke mm			85.0 X 99.0	←	←
	Compression ratio			8.8 (Unleaded Premium)	←	←
	Max. output net [k/W r.p.m.]			206/6 500 (Net)	←	←
	Max. torque nm/rpm· ★			392/ 3 500 (Ne)	←	←
	Valve or port timing	Intake	Open	BTDC 21º	←	←
			Closed	ABDC 59º	←	←
		Exhaust	Open	BBDC 58º	←	←
			Closed	ATDC 18º	←	←
Fuel tank capacity (litres) · ★				50	←	55
Electrical equipment	Type and performance of ignition equipment			Electric type; -20º to 45º (Crank axle suited)	←	←
	Ignition plug type· ★			IGR7A, IGR7A-G, VW22PR-DA7, S22PR-A7)	←	←
	Battery weight Ah			34 (5), 48 (5) or 52 (5)	←	←
	Alternator output V-A			12 – 85, 90, 100 or 105	←	←
Power transmission equipment	Transmission	Change gear ratios	1st	2.785	2.909 ★	←
			2nd	1.950	1.944 ★	←
			3rd	1.444	1.434 ★	←
			4th	1.096	1.100 ★	←
			5th	8.825	0.868 ★	←
			6th	-	0.693 ★	←
			Reverse	3.416	2.707 ★	←
	Differential	Reduction gear ratios	Forward	4.529	4.583 ★	←
			Reverse	3.307	←	←
	Transfer		Reduction gear ratio	0.302	←	←
Running gear	Main brake type			Hydraulic: Front; Disk Rear: Disk	←	←
	Parking brake type			Mechanical wheel brake type	←	←
	Suspension		Front	Macpherson type	←	←
			Rear	Multi-link type	←	←

Note
*1 : Stationary (60 k.p.h.) fuel consumption has been deleted by application items.

ITEM			GH-CT9A		
			SNDFZ	SJDFZ	SJGFZ
Emission gas prevention equipment	Weight or density of emission gas	Unloaded condition CO:%,HC:ppm	CO: 0.1, HC: 100	←	←
		10 / 15 mode g/km	CO: 0.67, HC: 0.08, NOx: 0.08	←	←
		11 mode g/test	CO: 19.0, HC: 2.20, NOx: 1.40	←	←

Outline Equipment

● indicates standard equipment, Δ indicates manufacture option. There are no changes by the time of manufacture.

EQUIPMENT				4WD		
				RS	GSR	
				5M/T	6M/T	
ENGINE	Aluminium turbo			●	●	Δ
	Intercooler water spray system			●	●	●
	Intercooler water spray systemless			Δ	Δ	
	Engine oil cooler			●	●	●
POWER TRANSMISSION EQUIPMENT	5-speed manual (short stroke type, high gear)			●		
	6-speed manual (short stroke type)				●	●
	Gear lever		Leather	●	●	●
	Front LSD		Helical shape			
	Rear LSD		Machine shape	●	●	
	Active Centre Differential (ACD)			●	●	●
	Active Yaw Control Differential (AYC)			Δ	Δ	●
RUNNING GEAR	Front strut tower bar			●	●	●
	Tyres		205/65R15 94H	●		
			235/45ZR17	Δ	●	●
	Spare tyres		T125/70D16	●		
			T125/70D17	Δ	●	●
	Wheels 5-hole [114.3mm]	Scale	15x6.0Jjsilver (46mm)	●		
		Aluminium	17x8.0JJ (38mm)	Δ	●	●
		Spare tyres	4.0T-16 (40mm)	●		
			4.0T-17 (30mm)	Δ	●	●
	Centre cap		Black	●		
	Power steering					
	Steering wheel (Leather type, fitted with 3-spoke sports airbags		MOMO TYPE	●	●	●
	Tilt steering mechanism					
	Parking brake lever	Full cover				
		Release switch (bright)				●
		Leather grip				
	Brakes	Front	15 inch ventilated disc	●		
			17 inch ventilated disc	Δ	●	●
		Rear	15 inch ventilated disc (dram in)	●		
			16 inch ventilated disc (dram in) BREMBO TYPE	Δ	●	●
	Brake booster		8 + 9 inch	●	●	●
	4 ABS (Sports ABS)			Δ	Δ	●
	Pressure Control Valve (PCV)			●	●	
	Electronic Brake-Force Distribution System (EBD)			Δ	Δ	●

EQUIPMENT				4WD		
				RS	GSR	
				5M/T	6M/T	
BODY	Electric sliding sunroof with tilt-up mechanism					Δ
	Central door locking system			Δ	Δ	●
	Trunk lid option					
	Fuel filler door opener			●	●	●
	Child protection					
	Multi mode keyless entry					●
	Outside door handle		Black	●	●	
			Body colour			●
	Inside door handle		Colour	●	●	●
	Power windows with safety mechanism			Δ	Δ	●
	Windscreen (Laminated glass)		Clean	●	●	●
	Front door glass (UV cut glass)					
	Rear window glass (with heat absorbing print)		Clean	●	●	
			Clean with sunshield			●
			Privacy glass			Δ
	Rear door glass		Clean	●	●	●
			Privacy glass			Δ
	Rear stationary window glass		Clean	●	●	●
			Privacy glass			Δ
	Bonnet	Alloy	Air outlet	●	●	●
	Fender	Alloy				
	Rear end crossbar			●	●	
Exterior equipment	Exclusive front bumper		Body colour	●	●	●
	Exclusive rear bumper		Body colour			
	Molding (black)		Windscreen			
			Rear window			
			Pillar, roof			
			Belt line			
	Door mirror	Manual type (black)		●	●	
		Electric retractable remote controlled mirror (body colour)				●
	Exclusive extension	Front air dam		●	●	●
		Rear air dam				

Note
In the wheel columns, the numeric values of the offset distance are shown in round brackets indicate, and the P.C.D. (Pitch Circle Diameter) in the square brackets.

EQUIPMENT				4WD		
				RS		GSR
				5M/T		6M/T
Exterior equi	Rear spoiler (large size)			●	●	●
	Sunroof			Δ	Δ	Δ
Interior equipment	Seat material		Fabric	●	●	●
	Front seat	Standard type		●	●	
		Recaro type		Δ*1	Δ*1	●
		Adjustment mechanism	Slide	●	●	●
			Reclining			
		Headrest		●	●	
	Rear seat	Low back bench seat (fixed)				
		High back bench seat (fixed)				
		Centre arm rest (with cup holder)				●
	Seat belts	Front	3-point x 2 seat belt with ELR	●	●	●
			With pre-tensioner (Driver's seat and passenger's seat)			
			Adjuster pull seat belt anchor			
		Rear	3-point x 2 seat belt + with 2-point x 1 seat belt ELR/ALR			
	SRS air bags		Driver's seat	●	●	●
			Passenger's seat	Δ	Δ	●
	Parcel boxes	Accessories box (1DIN)		●	●	
		Parcel box (with lid)				●
		Coin box		●	●	●
	Glove box					
	Floor console	Standard type		●	●	
		Large type	Cross			●
		Shift boot ring				
		Ashtray	Front seat	●	●	●
			Rear seat			
		Cup holder (Front seat)		●	●	●
	Centre panel (unique type)			●	●	
			2DIN type			●
			Navi type			Δ
	Headlining		Cross	●	●	●

EQUIPMENT				4WD		
				RS		GSR
				5M/T		6M/T
Interior equipment	Front door trim		Molded type (soft)	●	●	●
			Door pocket (Driver's seat and passenger's seat)			
	Rear door trim		Molded type (soft)			
	Trunk room trim					●
	Trunk room floor carpet		Needle punch			
	Storage assistance straps		x 1 (Passenger's seat)	●	●	
			x 3 (and passenger's seat)			●
	Sun visors		Driver's seat	●	●	●
			Passenger's seat	Δ	Δ	
			Ticket holder (Driver's seat)	●	●	●
			Vanity mirror (with lid)			●
Accessories	Room mirror		Switching type	●	●	●
	Foot rest					
	Battery		44B20L			
	Exterior lights	Headlight assembly (rear type)	Halogen (low and high beam)	●	●	
			Discharge (low beam) Halogen (high beam)	Δ	Δ	
			Fog light*2			●
			Position light	●	●	●
			Auto light			●
			Headlight leveling	Δ	Δ	●
			Rear combination light (clear type*3)	●	●	●
	High mount stop light		Rear shelf mount (bulb type)			
	Interior lights		Front room light (with map light)			
			Rear room light	●	●	●*4
			Trunk room light			
	Combination meter		Special light			
	Meter gauge		Electric type analog speedometer	●	●	●
			Tachometer			
			Water temperature			
			Fuel			
	Indicator light		Fog light	Δ	Δ	●
			Up beam	●	●	●
			Turn signal and hazard			
			ACD			

Note
- *1 It is now 4-point seat belt non-response type, different from that mounted on the original vehicle (GSR).
- *2 The fog light is halogen.
- *3 The turn signal is urban colour.
- *4 It becomes less when a sunroof is mounted.

EQUIPMENT				4WD		
				RS		GSR
				5M/T		6M/T
Accessories	Warning light	ABS		Δ	Δ	●
		SRS air bag		●	●	●
		Fuel level				
		Parking brake				
		Charge				
		Brake fluid				
		Engine charge				
		Seat belt on				
		Door not properly closed				
	Buzzer	Lighting monitor warning				
		Ignition key LEFT IN warning				
	Windscreen wipers	2-speed	Fixed time type intermittent	●	●	
			Variable time type intermittent			●
			Mist	●	●	●
	Windscreen washer (wiper synchromesh)					

EQUIPMENT			4WD		
			RS		GSR
			5M/T		6M/T
Accessories	Rear window wiper/washer	Fixed time type intermittent. reverse (R) position synchro			●
	Audio related	AM/FM tuner radio + MD player + DVD-MMCS (DVD navigation Mitsubishi Multi-Communication System)			Δ
		Pole antenna	●	●	
		Roof antenna			●
		Roof and glass antenna (diversity antenna)			
		Audio less	●	●	●
		6 speakers (2DIN response kit)			Δ*5
	Digital clock		●	●	●
	Immobilizer system				
	Air conditioning	Manual heater	●	●	
		Air control prekit			
		Full auto air conditioning			●

Note
*5The brackets for the antenna and radio are mounted in standard conditions.

Cold Climate Specifications

Accessories		4WD		
		RS		GSR
		5M/T		6M/T
Batteries	44B20L → 55B24L	Δ	Δ	Δ
Weather strip silicon coating				
Rear seat heater duct				
Cold Climate Specification label				
Door mirror with heating coil print				Δ

Periodic inspection

Judging criteria chart

Checking and maintenance items			Judging criteria
Check points		Check items	
Equipment	Wheels	Front wheel bearings	Axial slack in the axle centre part: 0 to 0.05 mm
Power train system	Transmission and transfer	Oil leaks and oil level	Filled to the mouth of the filler plug (manual transmission, normal & ACD transfer) Transfer: High void gear