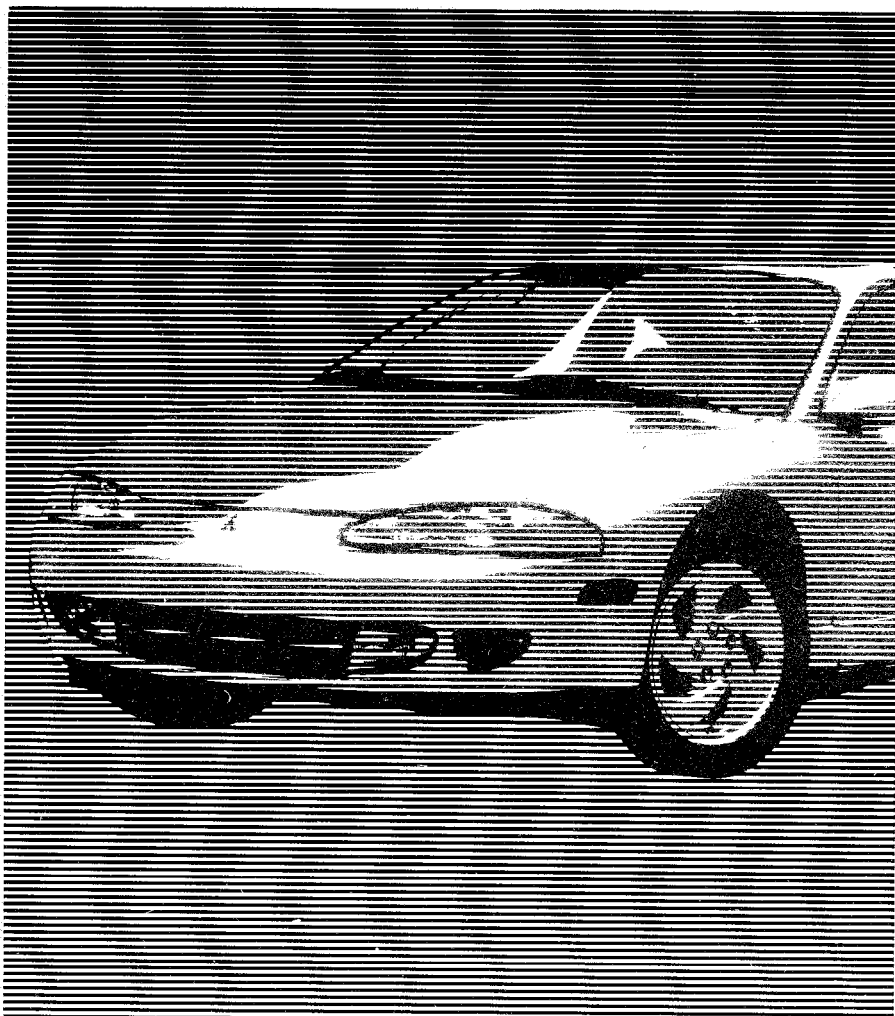




# *Technical Information Manual*



# ECLIPSE

# ECLIPSE

## TECHNICAL INFORMATION MANUAL

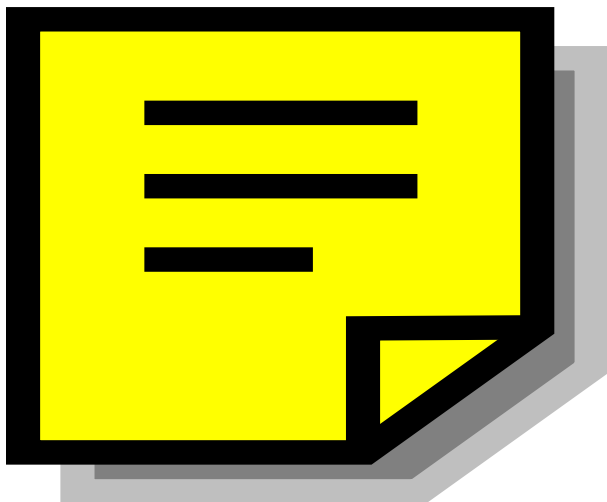
### FOREWORD

This manual has been prepared as an introduction to the specifications, features, construction and functions of the newly developed ECLIPSE.

Please read this manual carefully as it will be of assistance for service and sales activities.

Please note that the service manuals are also available and should be used in conjunction with this manual.

All information, illustrations and product descriptions contained in this manual are current as at the time of publication. We, however, reserve the right to make changes at any time without prior notice or obligation.



Mitsubishi Motors Corporation reserves the right to make changes in design or to make additions to or improvements in its products without imposing any obligations upon itself to install them on its products previously manufactured.

### GROUP INDEX

GENERAL .....	0
ENGINE .....	1
POWER-TRAIN .....	2
DRIVE-CONTROL COMPONENTS ...	3
BODY .....	4
EXTERIOR .....	5
INTERIOR .....	6
EQUIPMENT .....	7

# MODEL INDICATIONS

N70ZA01AA

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

M/T: Indicates the manual transaxle, or models equipped with the manual transaxle.  
 A/T: Indicates the automatic transaxle, or models equipped with the automatic transaxle.  
 MFI: Indicates the multiport fuel injection, or engines equipped with the multi-point injection.  
 DOHC: Indicates an engine with the double overhead camshaft, or a model equipped with such an engine.

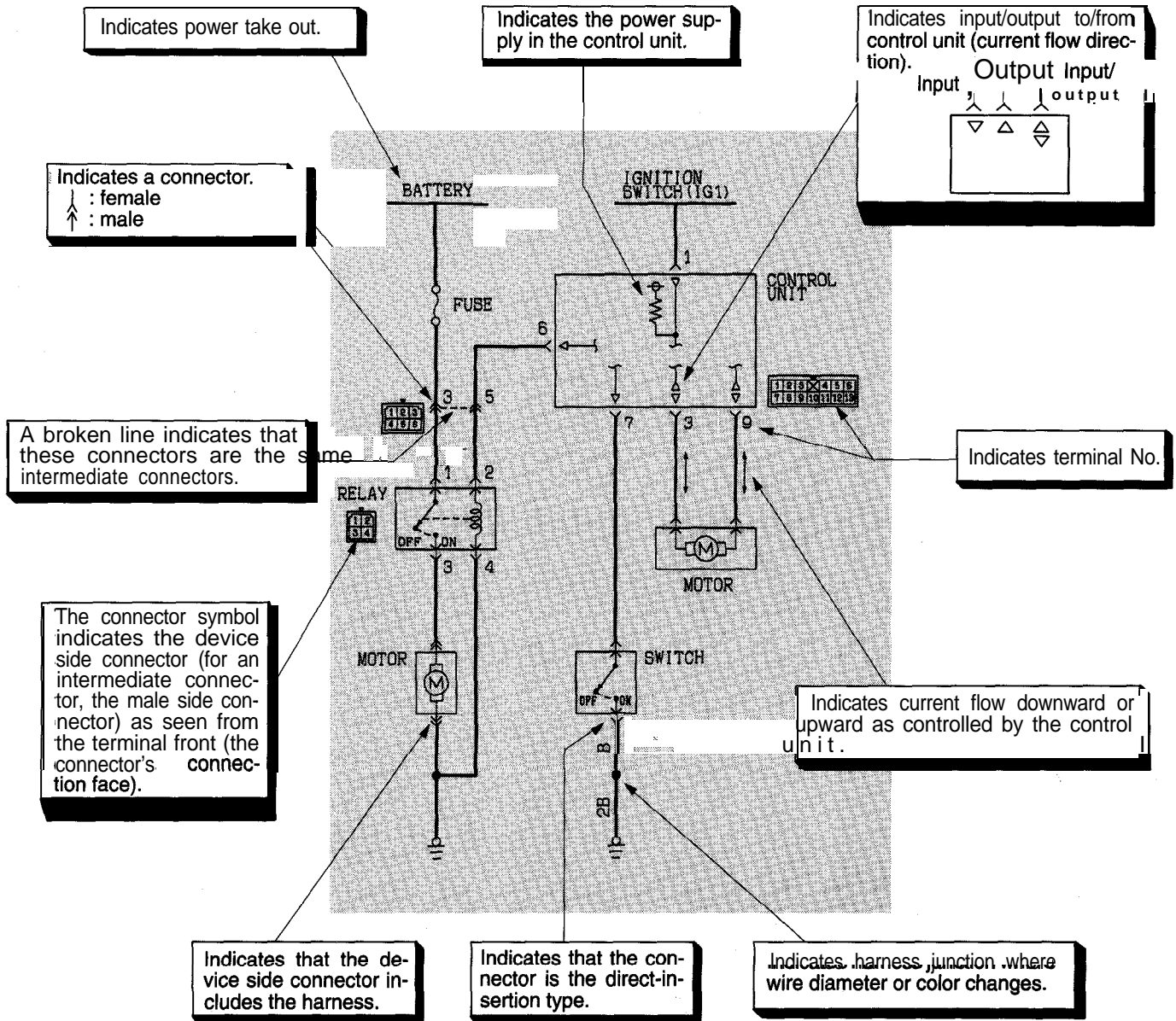
Turbo: Indicates an engine with turbocharger, or a model equipped with such an engine.  
 Non-Turbo: Indicates an engine without turbocharger, or a model equipped with such an engine.  
 FWD: Indicates the front wheel-drive vehicles.  
 AWD: Indicates the all wheel-drive vehicles.

# HOW TO READ A CIRCUIT DIAGRAM

N70ZB00AA

Circuit diagrams are prepared as follows using these symbols:

**NOTE**  
 For specific details concerning the interpretation of circuit diagrams, refer to the separately bound Service Manual.



# GENERAL

## CONTENTS

N70AA00AA

<b>DESIGN FEATURES</b> .....	3	Steering Stability, Ride Comfort and Active Safety .....	8
<b>GENERAL DATA AND SPECIFICATIONS</b> ...	17	Theft-alarm System .....	11
<b>TARGETS OF DEVELOPMENT</b> .....	2	<b>VEHICLE IDENTIFICATION</b> .....	14
<b>TECHNICAL FEATURES</b> .....	4	Engine Model Stamping .....	16
Aerodynamic Characteristics .....	5	Vehicle Identification Code Chart Plate .....	14
Body Dimensions .....	4	Vehicle Identification Number List .....	14
Engine .....	.	Vehicle Identification Number Location .....	14
Environmental Considerations .....	12	Vehicle Information Code Plate .....	15
Heater and Air Conditioning .....	12	Vehicle Safety Certification Label .....	15
Passive Safety .....	10		

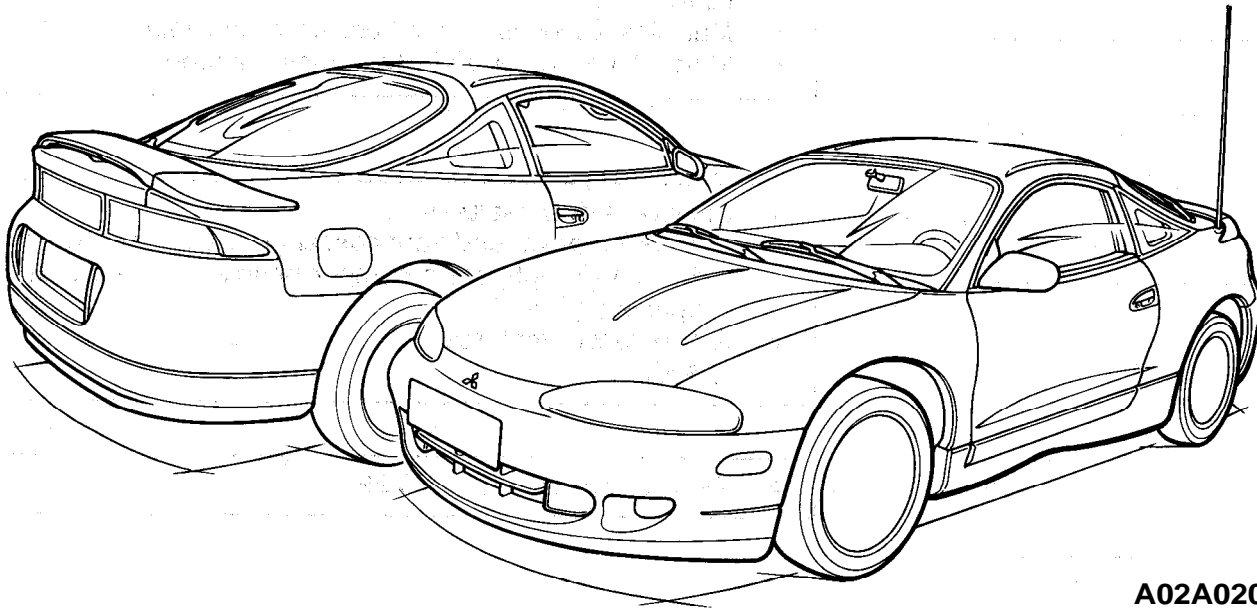


## TARGETS OF DEVELOPMENT

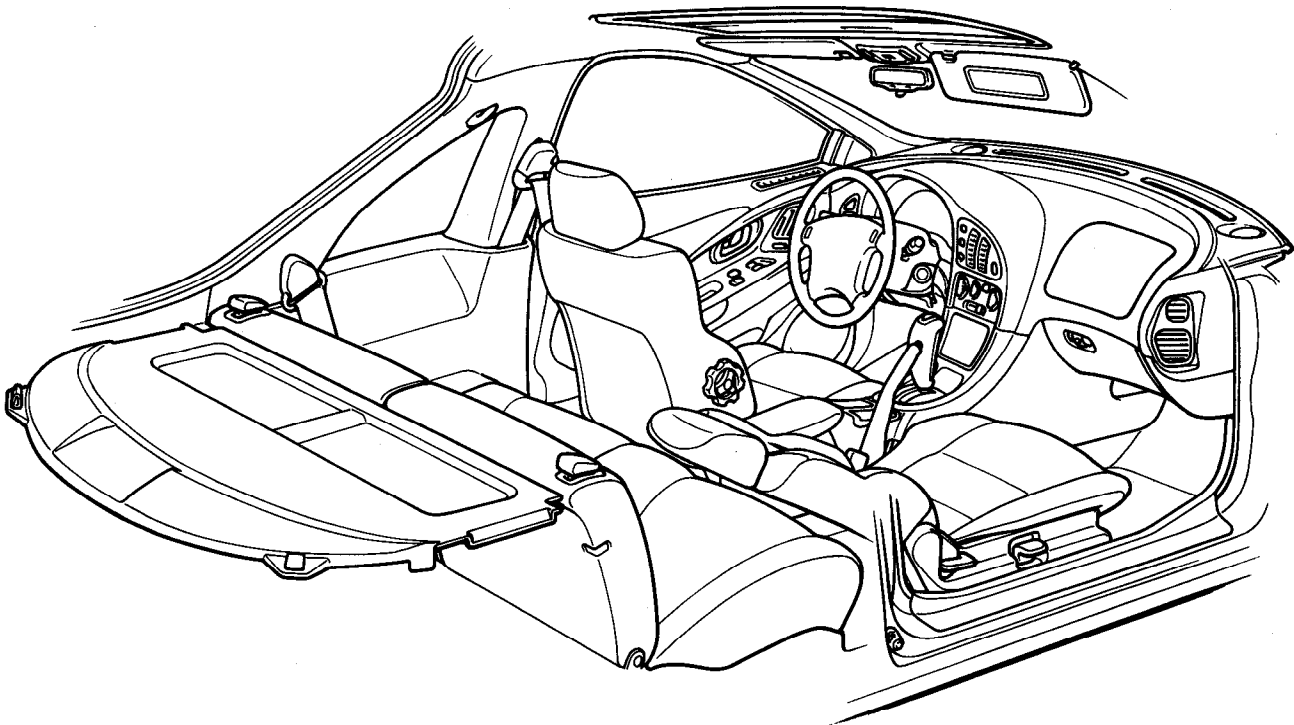
N70AB00AA

While the ECLIPSE has been finding wide acceptance as a compact sporty vehicle since its introduction early in 1989, Mitsubishi Motors Corporation has introduced further improvements with major accent on the following points to meet the market needs and make the ECLIPSE a top car in its class.

- Styling
  1. Organic and aerodynamic.
  2. Wide and low proportions.
- Fun to drive
  1. Quick acceleration and powerful response (All models equipped with DOHC engine)
  2. Outstanding straight ahead stability and linear steering response (4-wheel multi-link suspension adopted)
  3. Outstanding braking performance
- Value for money
  1. Rich array of features at low price
  2. Low fuel consumption and low repair cost



A02A020



B21B027

## DESIGN FEATURES

N70AC00AA

## Unique styling

- Forward extended cabin for roomy cabin and sporty styling
- Wide and low proportion body
- Aerodynamic oriented styling

## New techniques

- Chrysler-manufactured 2.0 lit. DOHC engine (420A engine)
- Multi-link suspension for both front and rear
- Motor-driven outer slide type glass sunroof

## Higher safety

- Passive safety features  
SRS (for driver and front passenger), side door beams, 8 km/h (5 mph) resin bumper beams, flame-retardant upholstery, etc.
- Active safety features  
**ABS**

## Aerodynamic characteristics

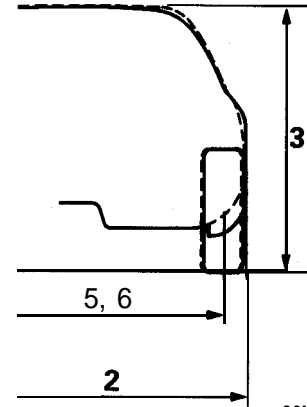
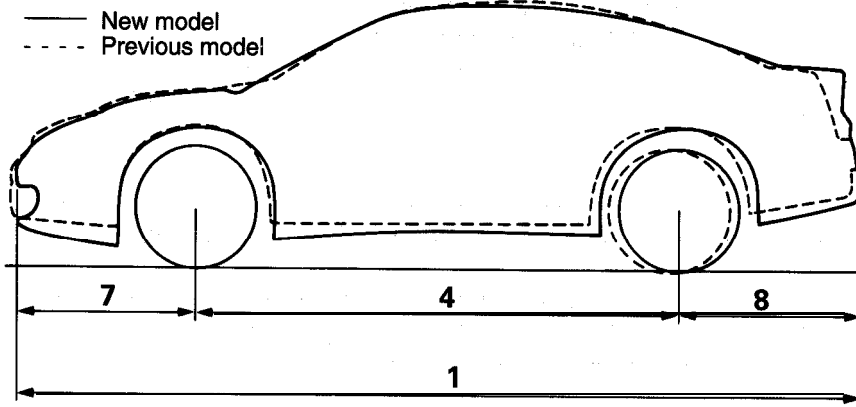
- World's top level Cd = 0.29

TECHNICAL FEATURES

BODY DIMENSIONS

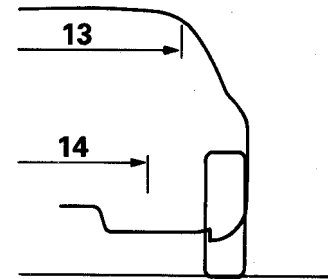
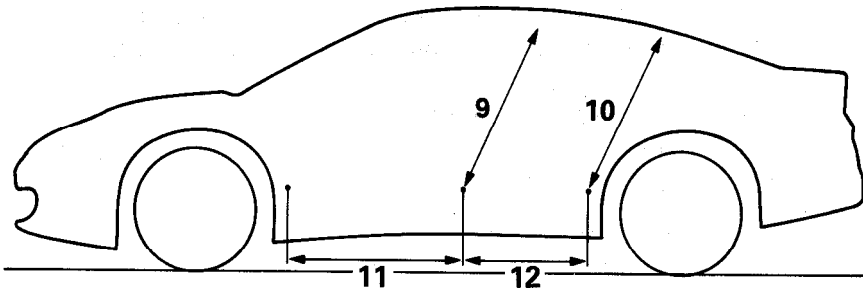
External Dimensions

N70AD02AA



00X0080

Internal Dimensions



00X0081

mm (in.)

Items		No.	New model	Difference between previous and new models
External dimensions	Overall Length	1	4,375 (172.2)	-15 (-59)
	Overall Width	2	1,735 (68.3) 1,745 (68.7)*1	+40 (+1.57) +50 (+1.97)**
	Overall Height	3	1,295 (51.0) 1,310 (51.6)*2	-11 (-.43) -4 (-.15)*2
	Wheelbase	4	2,510 (98.8)	+40 (+1.57)
	Tread (front)	5	1,515 (59.6)	+50 (+1.97)
	Tread (rear)	8	1,510 (59.4)	+60 (+2.36)
	Overhang (front)	7	930 (36.6)	-45 (-1.77)
	Overhang (rear)	8	935 (38.8)	-10 (-.39)

NOTES

\*1 denotes a vehicles with side air dam.

\*2 denotes AWD.

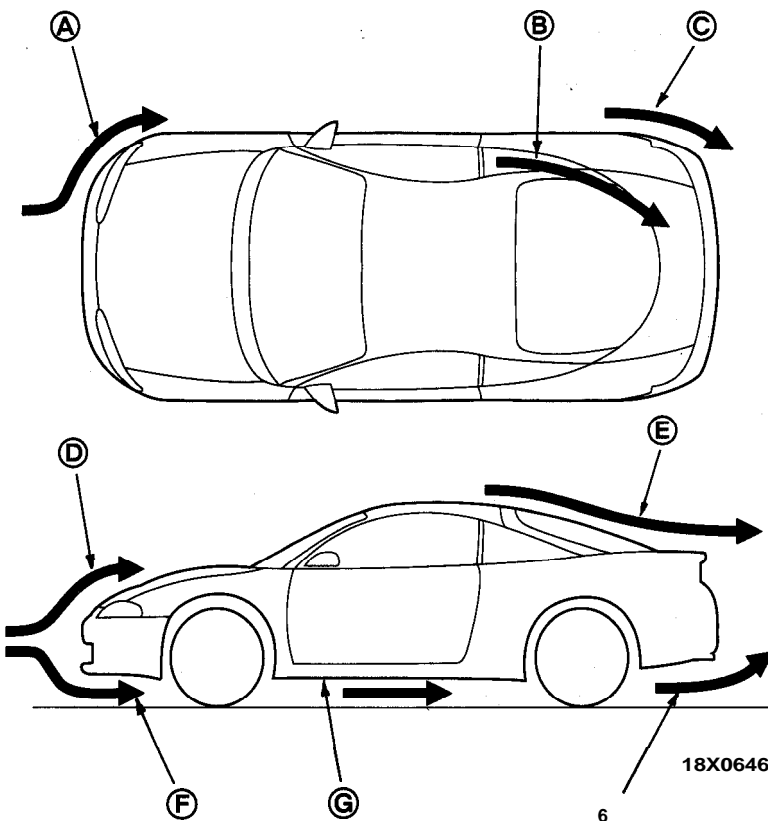
Items		No.	New model	Difference between previous and new models
Internal dimensions	Head Room 8 (front)	9	860 (33.9)	0
	Head Room 8 (rear)	10	785 (30.1)	0
	Brake Pedal Room	11	940 (37.0)	+15 (+.59)
	Hip Point Couple	12	635 (25.0)	0
	Front Hat Room	13	1,080 (41.7)	0
	Front Hip Point Couple	14	714 (28.1)	0

**AERODYNAMIC CHARACTERISTICS**

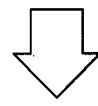
N70ADOJA

Many Cd reduction design features, including tapering at body corners, has raised ECLIPSE's aerody-

namic characteristics to the top level of the class (Cd = 0.29).



- Ⓐ Tapered front side corners
- Ⓑ Tapered rear pillar area
- Ⓒ Tapered rear side corners
- Ⓓ Slanted and rounded engine hood end
- Ⓔ Smaller rear window inclination angle for smoother air flow
- Ⓕ Venturi skirt
- Ⓖ Smoother and more flush under-floor surface
- Ⓗ Raised rear floor plane



- Greater contribution to fuel economy during high-speed operation
- Higher directional stability during high-speed operation

**ENGINE**

N70AEO0AA

Two basic DOHC engines are available.

**420A Engine**

On non-turbocharged models, the Chrysler-manufactured 2.0 lit. DOHC 16-valve engine increases domestic parts content. The engine and

transaxle unit, unlike the conventional MMC engine, is arranged with the engine on the passenger side and the transaxle on the driver's side.

**4G63 Engine**

N70AEO1AA

On turbocharged models, new techniques and improvements have been embodied in the 4G63 en-

gine to provide better performance and lower fuel consumption.

## NEW TECHNIQUES AND IMPROVEMENTS

Items	Aims					
	Smaller size and lighter weight	Higher performance and efficiency	Less noise	Resource and energy saving	Higher dependability and easier maintenance	Tighter exhaust emission control and better driveability
Higher compression ratio		X		X		
Better turbocharger performance		X				
Small-size pressure type Karman air flow sensor adopted	X	X				
Higher intercooler efficiency	X	X				
Cylinder head intake port is tumble-type		X		X		X
2-spray injector adopted		X		X		X
Optimized injector direction and timing		X		X		X
Engine coolant temperature inlet control system		X			X	
48 Kbyte computer adopted		X				X
Resonance type knock sensor adopted		X			X	X
Stainless steel exhaust manifold adopted					X	
Dual oxygen sensor system adopted						X
Oxygen sensor mounted to front exhaust pipe					X	
Piston top land height reduced						X
ECM-controlled EGR adopted						X
ECM-controlled fuel vapor control system adopted						X
Generator control improved		X				

NOTE:  
x: Applicable

Items	Aims					
	Smaller size and lighter weight	Higher performance and efficiency	Less noise	Resource and energy saving	Higher dependability and easier maintenance	Tighter exhaust emission control and better driveability
Cooling fan controlled by ECM (Total Control System)		X				
Integrated control of A/T					X	X
Higher accuracy coolant temperature sensor	X			X	X	
Crank angle sensor using Hall IC directly mounted to crankshaft	X	X				
Cylinder block reinforced			X			
Turbocharger piping revised					X	
Small-size and light-weight air cleaner made of resin which allows the air to pass with less resistance	X			X	X	
Dual mode damper			X			
Air bypass valve position optimized			X			
Power steering belt changed to V ribbed style			X			
Oil level gauge grip changed to resin					X	
Scan tool (MUT-II) compatible					X	

NOTE:  
x: Applicable

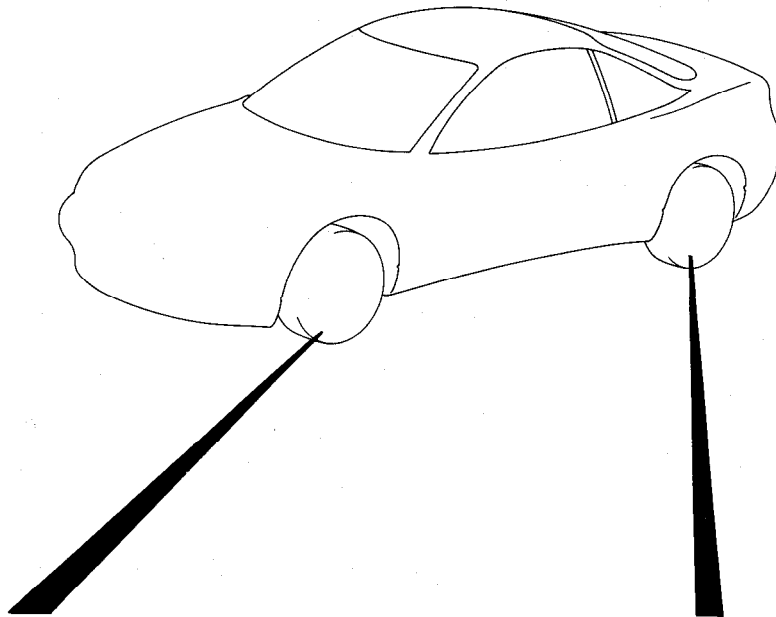
STEERING STABILITY, RIDE COMFORT AND ACTIVE SAFETY

N70AFO0AA

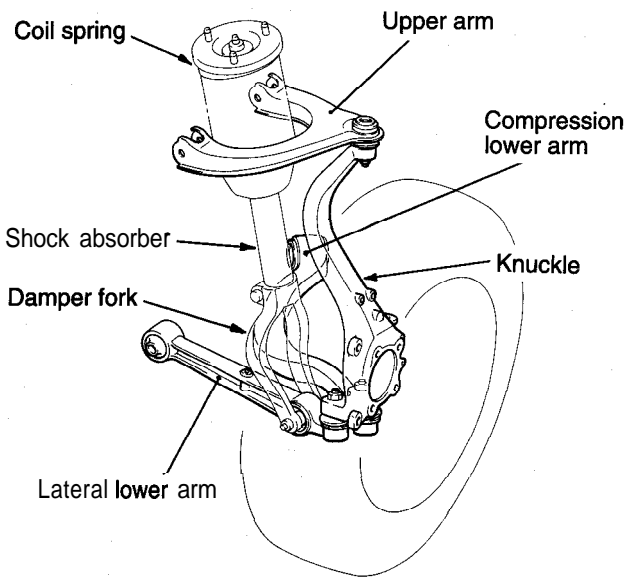
Multi-link Suspension for Four Wheels

A multi-link suspension similar to the 1994 Galant's, has been adopted for both the front and rear wheels. As a result, the straight line running characteristics

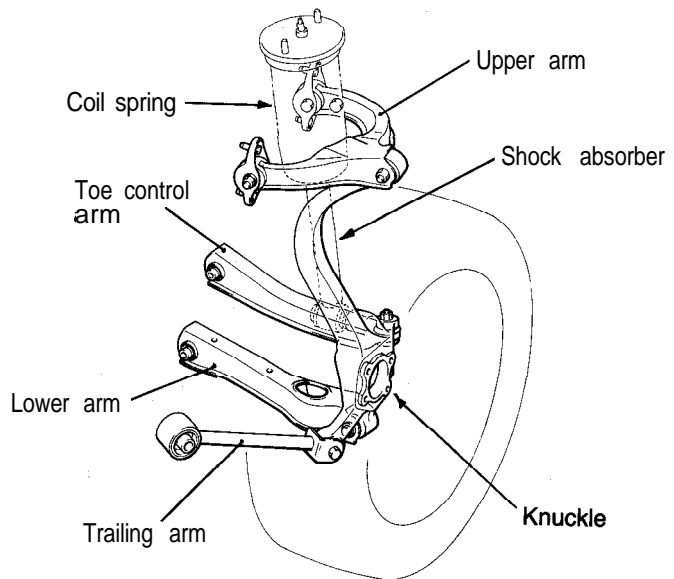
and stability have significantly improved, assuring outstanding directional stability without penalty on riding comfort.



18X0621



12X0161



12X0106

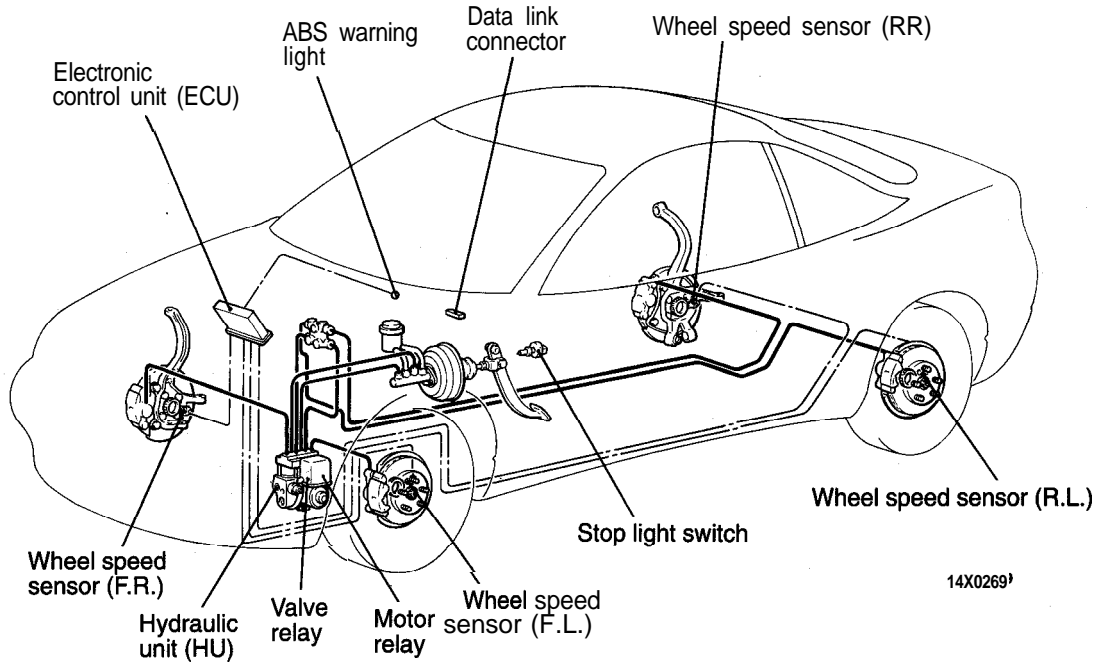
**ABS**

N70AFO1AA

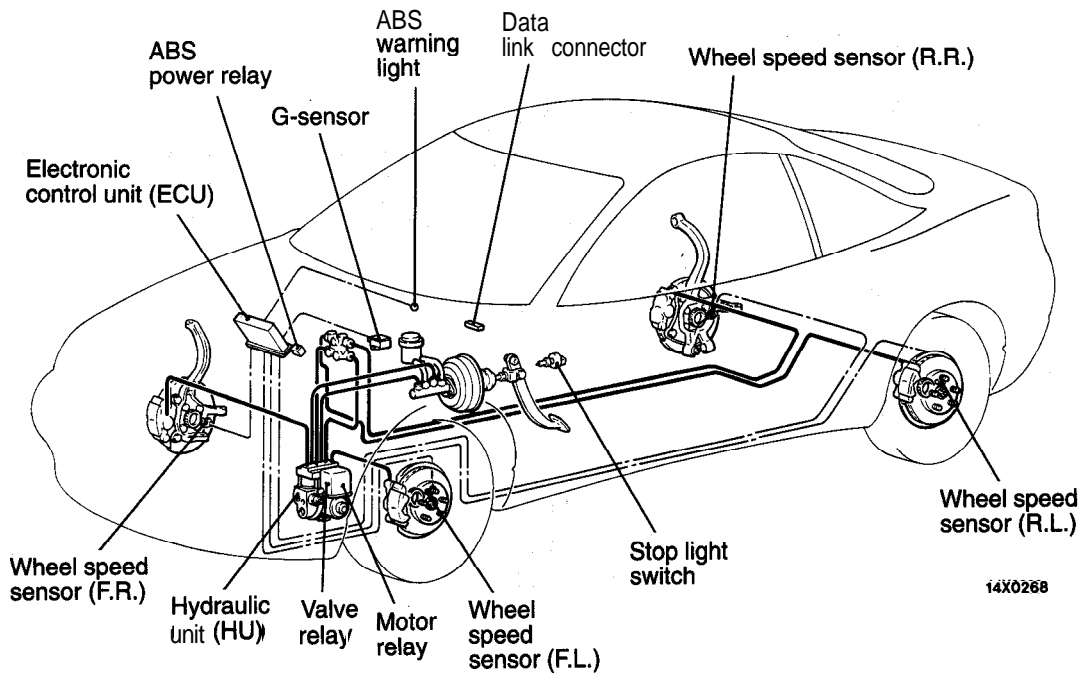
ABS is an option for all models to improve braking stability and safety. For the FWD vehicles, the 4-sensor, 3-channel configuration is adopted for independent control of the front right and left wheels and integrated control

(Select Low control) of the rear wheels. For AWD vehicles, the 4-sensor, 2-channel configuration is adopted for Select Low control of all the front and rear wheels.

**<FWD>**



**<AWD>**





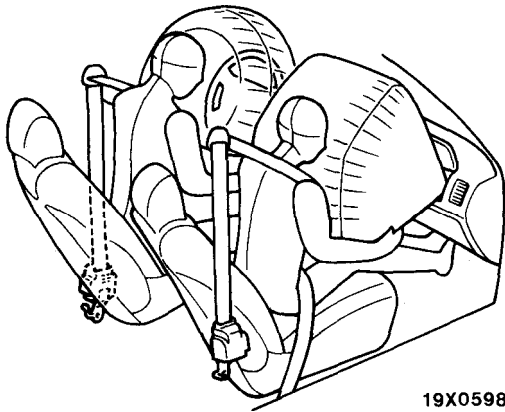
**PASSIVE SAFETY**

N70AG00AA

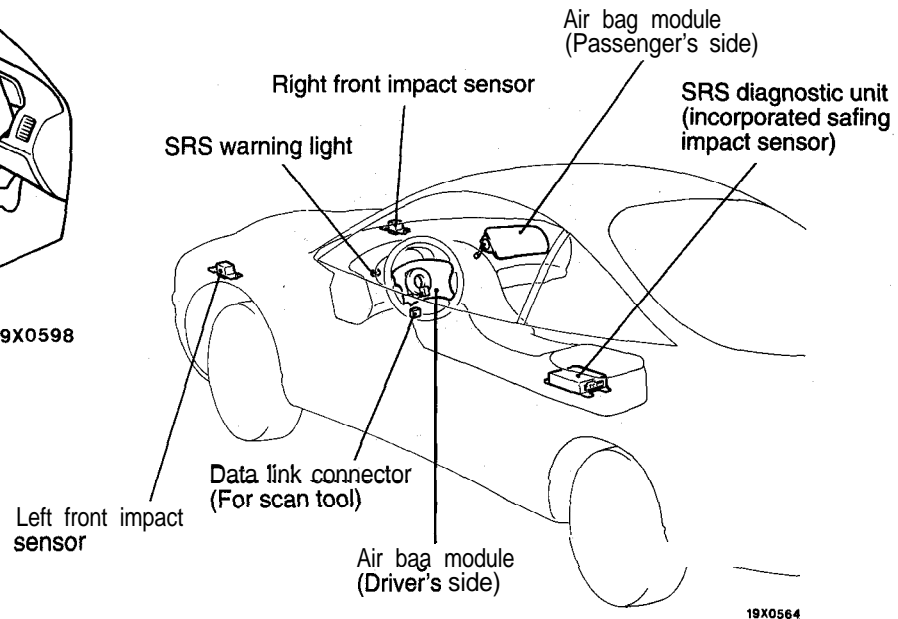
**Supplemental Restraint System (SRS)**

An airbag module has been provided for both the driver's and front passenger's seats for safety of the driver and front passenger. The driver's seat airbag module is mounted at the center of the steering wheel, whereas the front passenger's seat airbag module is mounted in the instrument panel above the glove compartment. As soon as a frontal collision over a design G-force is detected, the airbags inflate.

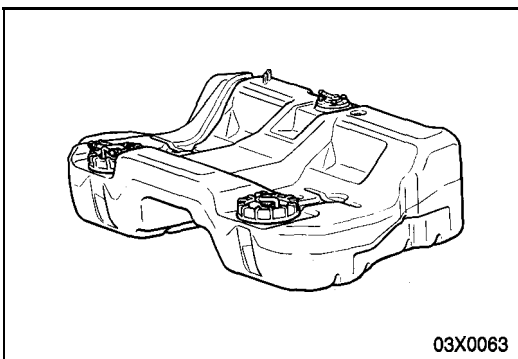
ing wheel, whereas the front passenger's seat airbag module is mounted in the instrument panel above the glove compartment. As soon as a frontal collision over a design G-force is detected, the airbags inflate.



19X0598



19X0564



03X0063

**Plastic fuel tank**

The AWD models are equipped with a plastic fuel tank which is highly resistant to shocks and offers good space efficiency. The fuel tank is installed under the floor for higher safety.

**Flame-retardant upholstery**

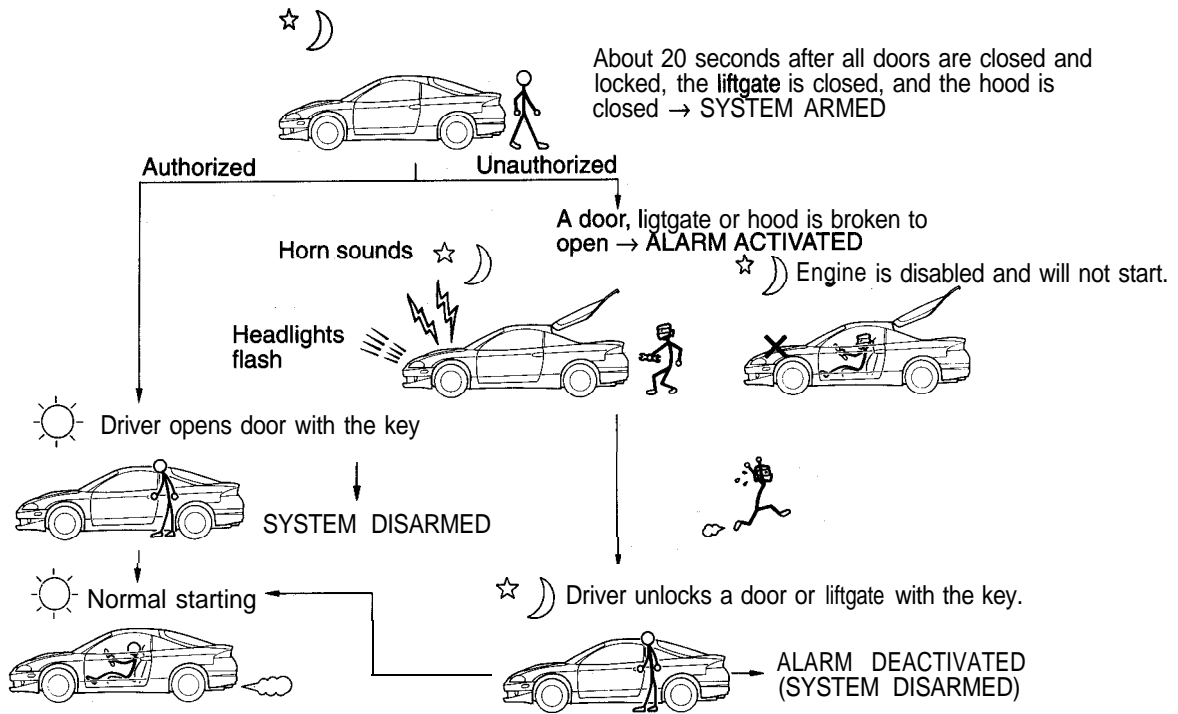
Flame-retardant materials have been used for interior upholstery wherever possible.

**THEFT-ALARM SYSTEM**

N70AH00AA

For theft protection, this system is so designed that the headlights go on and off and the horn is sounded intermittently for about three minutes when a locked door, hood or liftgate has been forced open without using a key.

Furthermore, the starter circuit is interrupted so that the engine may not be operated.



00X0088

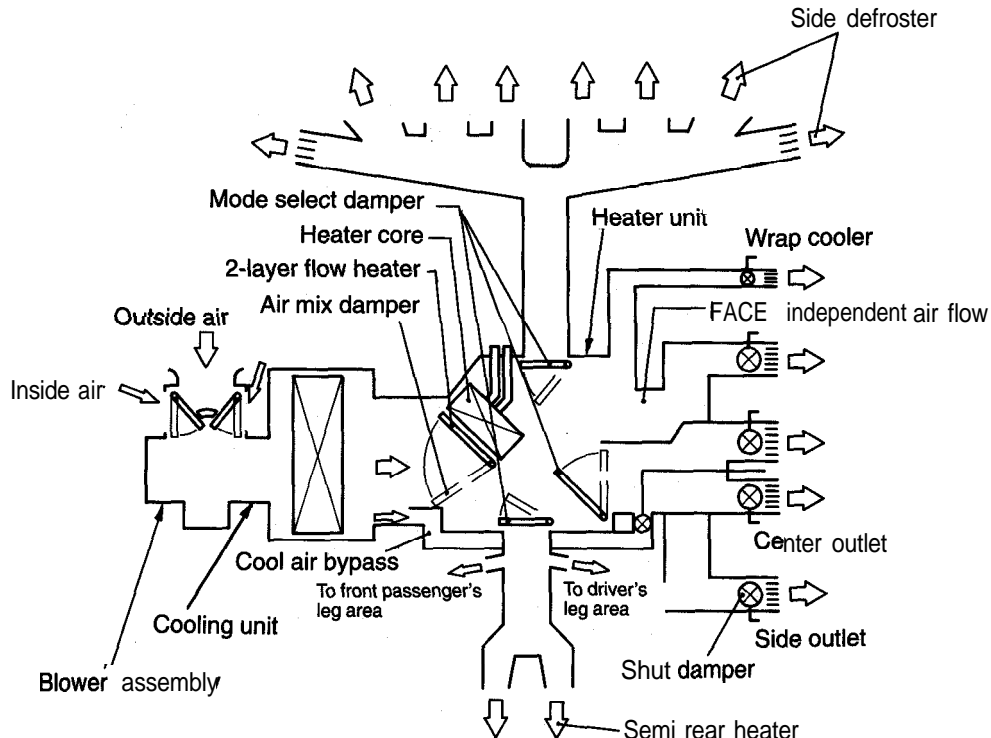
## HEATER AND AIR CONDITIONING

N70A100AA

The heater system uses a two-way-flow full-air-mix system that features high performance and low operating noise, and includes an independent face air blowing function and a cool air bypass function. Side defrosters have been provided in the door section to improve demister performance.

For the rear seat, a semi rear heater duct has been provided for better heating.

The air conditioning system is essentially the same as the conventional one, but it incorporates a new CFC-free refrigerant (R134a) system that uses hydro fluorocarbon (HFC) containing hydrogen atoms as the refrigerant gas to meet the CFC control regulations that call for protection of the ozone layer.



00X0082

## ENVIRONMENTAL CONSIDERATIONS

N70AJ00AA

To meet the growing world-wide demands for saving resources and protecting global environment, special considerations have been incorporated to make the ECLIPSE friendly to driver and passengers and to the earth.

### Considerations for recycling

- (1) Recyclable thermo-plastic material has been extensively used.
- (2) The names of the material have been marked on the plastic parts to facilitate recycling.
- (3) Recycled materials (regenerated materials) have been used wherever possible.

### Protection of global environment

- (1) Use of non-asbestos material for gaskets and pads
- (2) Non-Freon parts
  - Use of Freon has been limited to the necessary minimum in the processes for manufacture of seats, steering wheels, etc.
- (3) Extending material life expectancies for less waste
  - Anti-rust steel sheets have been used for about 80% of the outer panels and major members of the body.
  - Longer-life brake fluid and coolant additives are used
- (4) Better fuel economy by reducing friction and weight in various areas

**Use of maintenance-free parts**

- (1) Auto-lash adjusters have eliminated the need for adjustment of valve clearance.
- (2) An auto-tensioner has been adopted to eliminate the need for adjustment of the timing belt tension.
- (3) The improved mounting accuracies of the camshaft position sensor and crank angle sensor

have eliminated the need for adjustment of ignition timing.

- (4) The plastic region angle method has been adopted for tightening the cylinder head bolts.

**Increased diagnostic items**

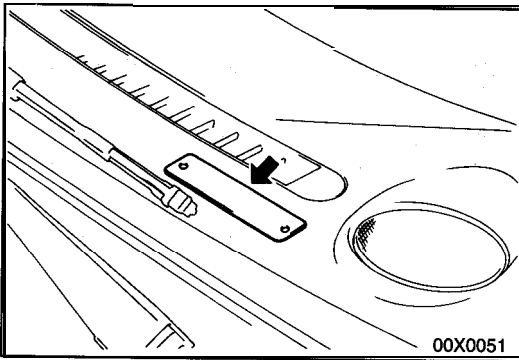
The diagnostic functions for the following system have been added so that the diagnostic trouble codes and service data for them can be read and actuator tests performed by use of the Scan tool (MUT-II).

- MFI
- \*Auto-cruise control
- ELC-4A/T
- ABS
- SRS

**Better serviceability and easier handling**

- (1) The engine oil and ATF level gauge grips have been changed to resin ones for easier handling. The name has been marked on each grip for identification.
- (2) The fuel gauge unit and related parts have been made demountable and remountable through the service hole under the rear seat cushion.
- (3) Both the front and rear hubs have been bolted to the knuckles for easier demounting and remounting.
- (4) When an ABS wheel speed sensor is mounted, there is no need for adjustment of the clearance between the sensor and rotor.

- (5) Headlight aiming adjustment can be easily performed from above the light, using a cross-pointed screwdriver.
- (6) An electric type speedometer has been adopted for easier demounting and remounting of the speedometer, instrument panel, transaxle, etc.
- (7) The luggage compartment floor board can be held raised so that the spare wheel, tools, etc. can be conveniently taken out and stored.



# VEHICLE IDENTIFICATION

N00AC00AB

## VEHICLE IDENTIFICATION NUMBER LOCATION

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

## VEHICLE IDENTIFICATION CODE CHART PLATE

N00AC01AB

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



1st Digit	2nd Digit	3rd Digit	4th Digit	5th Digit	6th Digit	7th Digit	8th Digit	9th Digit	10th Digit	11th Digit	12th to 17th Digits
Country	Make	Vehicle type	Others	Line	Price class	Body	Engine	*Check digits	Model year	Plant	Serial number
USA	A- Mitsubishi	3- Passenger car	A- Driver and Passenger Air Bags	K- ECLIPSE FWD L- ECLIPSE AWD	3- Medium 4- High 5- Premium	3-door Hatch-back	Y- 2.0 dm <sup>3</sup> (122.0 cu.in.) [DOHC-MFI] F- 2.0 dm <sup>3</sup> (122.0 cu.in.) [DOHC-MFI-Turbo]	1 2 3 . . . . . 9 X	S- 1995 Year	E- DSM Plant	000001 to 999999

NOTE

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

## VEHICLE IDENTIFICATION NUMBER LIST 4995 MODEL>

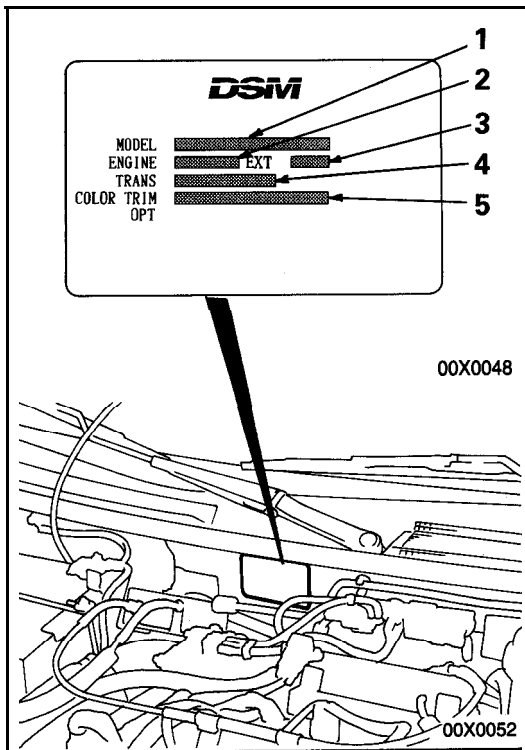
N00AC02AI

### VEHICLES FOR FEDERAL

V.I.N. (except sequence number)	Brand	Engine Displacement	Model Code
4A3AK34Y□SE	Mitsubishi Eclipse <FWD>	2.0 dm <sup>3</sup> (122.0 cu.in.) [DOHC-MFI (420A)]	D31AMNJML4M D31AMRJML4M
4A3AK44Y□SE			D31AMNHML4M D31AMRHML4M
4A3AK54S□SE	Mitsubishi Eclipse <FWD>	2.0 dm <sup>3</sup> (122.0 cu.in.) [DOHC-MFI-Turbo (4G63)]	D32AMNGFL4M D32AMRGFL4M
4A3AL54S□SE	Mitsubishi Eclipse <AWD>		D33AMNGFL4M D33AMRGFL4M

VEHICLES FOR CALIFORNIA

V.I.N. (except sequence number)	Brand	Engine Displacement	Model Code
4A3AK34Y□SE	Mitsubishi Eclipse <FWD>	2.0 dm <sup>3</sup> (122.0 cu.in.) [DOHC-MFI (420A)]	D31AMNJML9M D31AMRJML9M
4A3KF44Y□SE			D31AMNHML9M D31AMRHML9M
4A3AK54S□SE	Mitsubishi Eclipse <FWD>	2.0 dm <sup>3</sup> (122.0 cu.in.) [DOHC-MFI-Turbo (4G63)]	D32AMNGFL9M D32AMRGFL9M
4A3AL54S□SE	Mitsubishi Eclipse <AWD>		D33AMNGFL9M D33AMRGFL9M

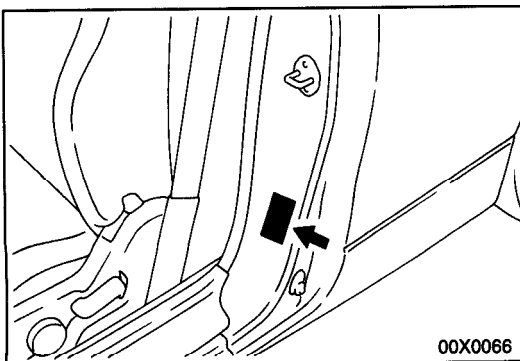


VEHICLE INFORMATION CODE PLATE

N00AC03AB

Vehicle information code plate is riveted onto the bulkhead in the engine compartment. The plate shows model code, engine model, transaxle model, and body color code.

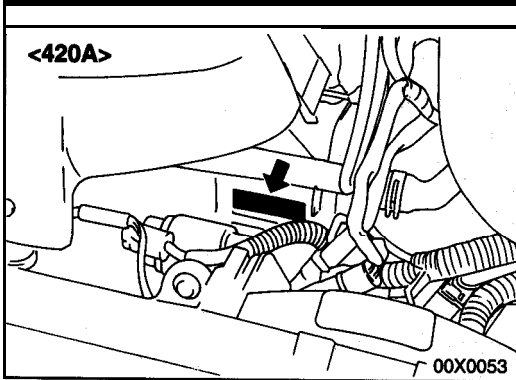
- 1. MODEL D32AM RGFL4M  
  - Model series
  - Vehicle model
- 2. ENGINE 4G63  
  - Engine model
- 3. EXT CA6A  
  - Exterior code
- 4. TRANS F4A33  
  - Transaxle model
- 5. COLOR TRIM OPT R25 67V 03V  
  - Equipment code
  - Interior code
  - Body color code



VEHICLE SAFETY CERTIFICATION LABEL

N00AC0SAB

- 1. The vehicle safety certification label is attached to face of left door pillar.
- 2. This label indicates Gross Vehicle Weight Rating (G.V.W.R.), Gross Axle Weight Rating (G.A.W.R.) front, rear and Vehicle Identification Number (V.I.N.).

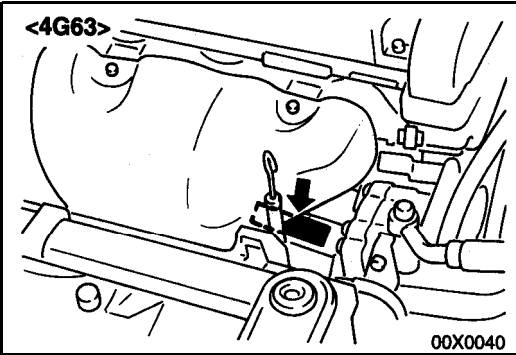


**ENGINE MODEL STAMPING**

N00AC06AB

1. The engine model number is stamped at the front side on the top edge of the cylinder block as shown in the following.

Engine model	Engine displacement
420A	2.0 dm <sup>3</sup> (122.0 cu.in.)
4G63	2.0 dm <sup>3</sup> (122.0 cu.in.)



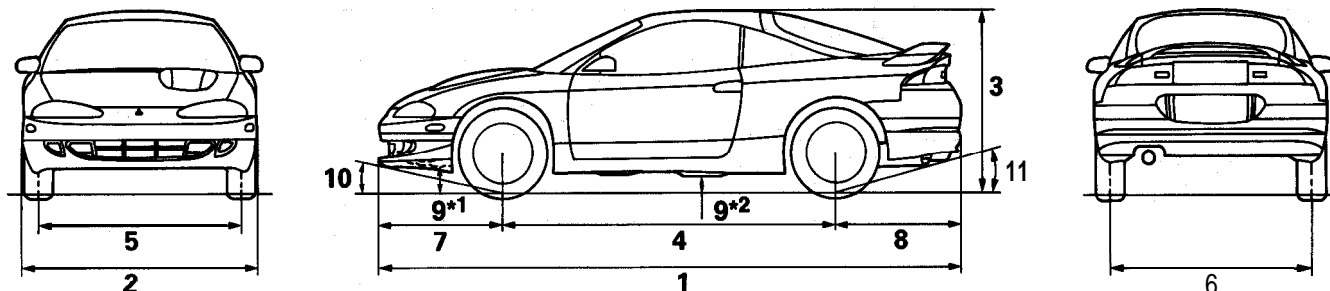
2. The 4G63 engine serial number is stamped near the engine model number, and the serial number cycles, as shown below.

Engine serial number	Number cycling
AA0201 to YY9999	— AA0201 - - -> AA9999 [ AB0001 - - -> AY9999 ] [ BA0001 - - -> YY9999 ]

3. The 420A engine serial number and identification number are stamped near the engine model number.

**GENERAL DATA AND SPECIFICATIONS**

N00AH00AB



\*1: FWD  
\*2: AWD 00X0073

**GENERAL SPECIFICATIONS**

<FWD>

Model code		D31A				D32A	
		MNJML4M MNJML9M	MRJML4M MRJML9M	MNHML4M MNHML9M	MRHML4M MRHML9M	MNGFL4M MNGFL9M	MNGFL4M MNGFL9M
Vehicle dimensions mm (in.)							
Overall length	1	4,375 (172.2)					
Overall width	2	1,735 (68.3), 1,745 (68.7)*3				1,745 (68.7)	
Overall height (Unladen)	3	1,295 (51.0)					
Wheel base	4	2,510 (98.8)					
Tread	Front	1,515 (59.6)					
	Rear	1,510 (59.4)					
Overhang	Front	930 (36.6)					
	Rear	935 (36.8)					
Minimum running ground clearance	9	145 (5.7)					
Angle of approach degrees	10	11.5					
Angle of departure degrees	11	15.8					
Vehicle weight	kg (lbs.)						
Curb weights		1,235 (2,722)	1,270 (2,800)	1,280 (2,822)	1,315 (2,899)	1,305 (2,877)	1,340 (2,954)
Gross vehicle weight rating		1,690 (3,726)		1,750 (3,858)			
Gross axle weight rating							
Front		1,010 (2,227)				1,025 (2,260)	
Rear		800 (1,764)				775 (1,709)	
Seating capacity		4					
Engine							
Model No.		420A (DOHC)				4G63 (DOHC)	
Piston displacement cm <sup>3</sup> (cu.in.)		1,996 (121.8)				1,997 (121.9)	
Transaxle							
Model No.		F5MC1	F4AC1	F5MC1	F4AC1	F5M33	F4A33
Type		5-speed manual	4-speed automatic	5-speed manual	4-speed automatic	5-speed manual	4-speed automatic
Fuel system		Electronic control multiport fuel injection					
Fuel supply system		Electronic control multiport fuel injection					

NOTE

● 3 denotes a vehicles with side air dam.