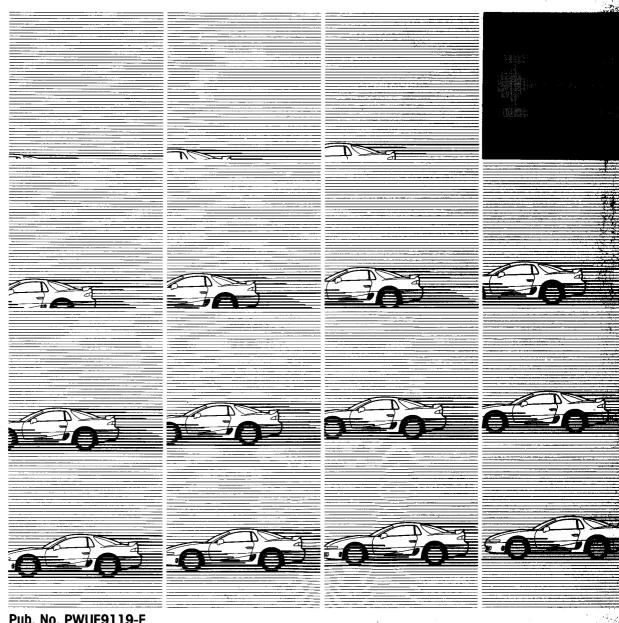


Workshop Manual

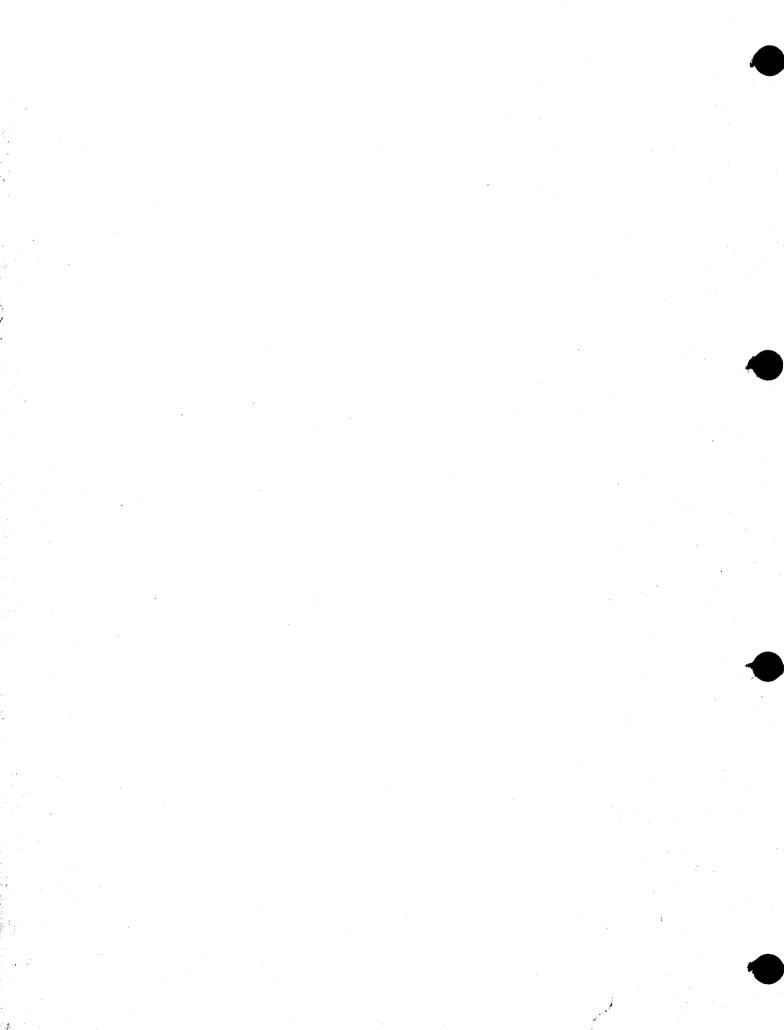
chassis

SUPPLEMENT

3000GT '96



Pub. No. PWUE9119-E Pub. No. PWUE9203-4



MITSUBISHI 3000GT

WORKSHOP MANUAL

SUPPLEMENT **FOREWORD**

This Workshop Manual contains procedures for removal, disassembly, inspection, adjustment, reassembly and installation, etc. for service mechanics. Use the following manuals in combination with this manual as required.

TECHNICAL INFORMATION MANUAL

PYUE9201

WORKSHOP MANUAL CHASSIS GROUP

PWUE9119

(Loose-leaf edition)

PWUE9203 (Basic) PWUE9203-1

(Supplement) PWUE9203-2 (Supplement)

PWUE9203-3 (Supplement)

ENGINE GROUP

PWEE . (Loose-leaf edition)

ELECTRICAL WIRING

PHUE9201

(Loose-leaf edition) PHUE9406 (Basic)

PHUE9406-1

PARTS CATALOGUE

(Supplement) B608K40□A□

B608K454A□

B608K406A□

B808K404A□

B808K454A□

BFA8K404A□

BFA8K454A

B808K405A□

B808K406A□

BFA8K406A□

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.



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Chassis Electrical	54

WARNINGS REGARDING OF SUPPLEMENTAL RESTRAINT SYSTEM (SRS) EQUIPPED VEHICLES

WARNING!

(1) Improper service or maintenance of any component of the SRS, or any SRS-related component, can lead to personal injury or death to service personnel (from inadvertent firing of the air bag) or to the driver (from rendering the SRS inoperative).

(2) If it is possible that the SRS components are subjected to heat over 93°C (200°F) in baking or in drying after painting, remove the SRS components (air bag module, SRS diagnosis unit, front impact sensors)

beforehand.

(3) Service or maintenance of any SRS component or SRS-related component must be performed only at

an authorized MITSUBISHI dealer.

(4) MITSUBISHI dealer personnel must thoroughly review this manual, and especially its GROUP 52B – Supplemental Restraint System (SRS), before beginning any service or maintenance of any component of the SRS or any SRS-related component.

NOTE

Section titles with asterisks (*) in the table of contents in each group indicate operations requiring warnings

GROUP 00 GENERAL

VEHICLE IDENTIFICATION

MODELS

VEHICLES FOR EUROPE

Model code	Engine model	Transmission model	Fuel supply system
Z16AMNGFL6	6G72 (2,972 mℓ)	W5MG1	MPI
Z16AMNGFR6			
Z16AMJGFL6		W6MG1	
Z16AMJGFR6			

VEHICLES FOR GENERAL EXPORT

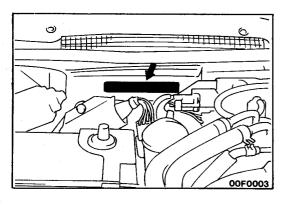
Model code	Engine model	Transmission model	Fuel supply system
Z16AMNGFL	6G72 (2,972 mℓ)	W5MG1	MPI
Z16AMNGFR			

VEHICLES FOR GCC

Model code	Engine model	Transmission model	Fuel supply system		
Z16AMNGFLW	6G72 (2,972 mℓ)	W5MG1	MPI		

VEHICLES FOR AUSTRALIA

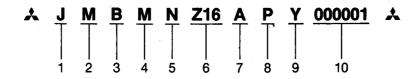
Model code Engine model		Transmission model	Fuel supply system		
Z16AMNGFR8	6G72 (2,972 mℓ)	W5G1	MPI		



CHASSIS NUMBER

The chassis number is stamped on the toeboard inside the engine compartment.

<VEHICLES FOR EUROPE AND AUSTRALIA>

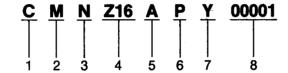


- 1. Asia
- 2. Japan
- 3. MITSUBISHI
 - A For Europe, right hand drive
 - B For Europe, left hand drive
 - F For Australia, right hand drive
- 4. Body style
 - M 2-door hatchback
- 5. Transmission type
 - N 5-speed manual transmission
 - J 6-speed manual transmission
- 6. Development order

Z16 - 2,972 mℓ (Full time 4WD)

- 7. Sort
 - A Passenger car
- 8. Model year
 - P 1993
 - R 1994
 - S 1995
 - T 1996
- 9. Plant
 - Y Ohe Motor Vehicle Works
- 10. Serial number

<VEHICLES FOR GENERAL EXPORT AND GCC>

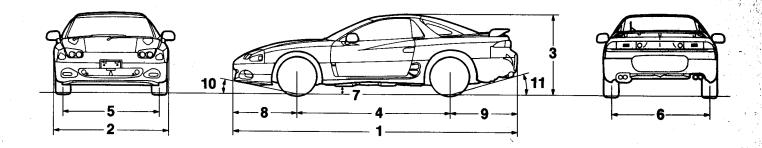


- 1. MITSUBISHI
 - C For General Export, right hand drive
 - D For General Export or GCC, left hand drive
- 2. Body style
 - M 2-door hatchback
- 3. Transmission type
 - N 5-speed manual transmission
- 4. Development order
 - Z16 2,972 mℓ (Full time 4WD)

- 5. Sort
 - A Passenger car
- 6. Model year
 - P 1993
 - R 1994
 - S 1995
 - T 1996
- 7. Plant
 - Y Ohe Motor Vehicle Works
- 8. Serial number

00F0064

MAJOR SPECIFICATIONS



Items Z16AMNGFL6 Z16AMJGFL6 Z16AMNGFR8 Z16AMNGFL Z16AMNGFR6 Z16AMJGFR6 **Z16AMNGFR** Z16AMNGFLW **Dimensions** mm (in.) Overall length 1 4,570 (179.9) 4,570 (179.9) 4,570 (179.9) 4,570 (179.9) Overall width 2 1,840 (72.4) 1,840 (72.4) 1,840 (72.4) 1,840 (72.4) Overall height (unladen) 3 1,285 (50.6) 1,285 (50.6) 1,285 (50.6) 1,285 (50.6) Wheelbase 4 2,470 (97.2) 2,470 (97.2) 2,470 (97.2) 2,470 (97.2) Track - front 5 1,560 (61.4) 1,560 (61.4) 1,560 (61.4) 1560 (61.4) Track - rear 6 1,580 (62.2) 1,580 (62.2) 1,580 (62.2) 1,580 (62.2) Ground clearance (unladen) 7 140 (5.5) 140 (5.5) 145 (5.7) 145 (5.7) Overhang - front 8 1,030 (40.6) 1,030 (40.6) 1,030 (40.6) 1,030 (40.6) 9 Overhang - rear 1,070 (42.1) 1,070 (42.1) 1,070 (42.1) 1,070 (42.1) Angle of approach degrees 10 11.0° 11.0° 12.0° 12.0° Angle of departure degrees 17.6° 17.6° 17.4° 17.4° Weight kg (lbs.) Kerb weight 1,720 (3,792) 1,730 (3,858) 1,695 (3,737) 1,700 (3,748) Gross vehicle weight 2,120 (4,674) 2,120 (4,674) 2,075 (4,575) 2,075 (4,575) Max. axle weight front 1,150 (2,535) 1,150 (2,535) 1,150 (2,535) 1,150 (2,535) rear 1,020 (2,249) 1,020 (2,249) 1,020 (2,249) 1,020 (2,249) Seating capacity 4 4 Engine Model 6G72 6G72 6G72 6G72 Total displacement 2,972 2,972 mℓ 2.972 2.972 Transmission Model W5MG1 W6MG1 **W5MG1 W5MG1** Type 5-speed manual 6-speed manual 5-speed manual 5-speed manual

NOTES

FUEL

CONTENTS

Outline of Changes	
SPECIFICATIONS	
TROUBLESHOOTING Engine Warning Lamp	2
(Check Engine Lamp)	2
Self-diagnosis	2
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Check Chart Classified by Problem Symptoms	3

ON-VEHICLE INSPECTION OF MPI COMPONENTS	4
Fuel Pump	4
Air Conditioner Switch and Power Relay	8
Engine Control Unit Terminal Voltage Check	9

GENERAL

OUTLINE OF CHANGES

The following maintenance service points have been established to correspond to the addition of vehicles with immobilizer system.

- An engine-ECÚ has been added.
- Engine warning lamp illumination details and self-diagnosis items have been added.
- Inspection procedures have been added for the fuel pump, air conditioner switch and power relay and for terminal voltages.

SPECIFICATIONS

GENERAL SPECIFICATIONS

Items	Specifications	
Engine control unit Identification model No.	Europe LHD 6 M/T – Vehicles with immobilizer system	E2T61481
Identification model No.	Europe LHD 5 M/T – Vehicles with immobilizer system	E2T61483
	Europe RHD 6 M/T – Vehicles with immobilizer system	E2T61482
	Europe RHD 5 M/T – Vehicles with immobilizer system	E2T61484
•	Australia – Vehicles with immobilizer system	E2T61486

TROUBLESHOOTING

ENGINE WARNING LAMP (CHECK ENGINE LAMP) ITEMS INDICATED BY THE ENGINE WARNING LAMP

Immobilizer system

SELF-DIAGNOSIS

Diagnosis Chart

Diagnosis itom	Malfunct	ion code	Check item (Remedy)
Diagnosis item	No.	Memory	Check Item (Nemedy)
Immobilizer system	ter system 54 Retained		(Inspect according to the troubleshooting procedures given in GROUP 54 – Ignition Switch and Immobilizer System.)

PROBLEM DIAGNOSIS CONTENT CHART

Malfunction code No.	Diagnosis item	Diagnosis contents	Probable cause	Remark (Trouble symptom, etc.)
54	Immobilizer system	Communication problem between the engine-ECU and the immobilizer-ECU	 (1) Malfunction of communication wire between the engine-ECU and immobilizer-ECU (2) Malfunction of immobilizer-ECU (3) Malfunction of engine-ECU 	Starting is impossible

CHECK CHART CLASSIFIED BY PROBLEM SYMPTOMS

<Vehicles with immobilizer system>

Problem symptor	ns Sta	rting	+	ling stat	oility		·	Dr	iving	, , , , , , , , , , , , , , , , , , , 	1	Stopping	
Check items	Will not start	Starting problem	Idling instability (Rough idling)	Incorrect idling speed	Improper idling continuity	Hesitation, sag	Poor acceleration	Stumble	Shock	Surge	Knocking	Run-on (Dieseling)	Reference page
Power supply and ignition switch-IG	11											 	*1P.13-54 *3P.13-52
Engine control unit power earth	22								1	-			*1P.13-57 *3P.13-55
Fuel pump	33	01			01	01	01						P.13-00 *1P.13-58 *3P.13-56
Air flow sensor	,				1311	99		⑤ 5	55		44		*1P.13-64 *3P.13-62
Intake air temperature sensor			⑤			65	66				22		*1P.13-69 *3P.13-67
Barometric pressure sensor			9			88	88				33		*1P.13-72 *3P.13-70
Engine coolant temperature sensor			65	01	6 5	77	77	44	,	33			*1P.13-74 *3P.13-72
Throttle position sensor						66		33	44				*1P.13-77 *3P.13-75
Idle position switch			33	22	44								*1P.13-80 *3P.13-78
Cam position sensor	⑤ 5	77			87				22				*1P.13-82 *3P.13-80
Crank angle sensor	66	88			98				33				*1P.13-86 *3P.13-84
Ignition switch-ST	44	34											*1P.13-89 *3P.13-87
Vehicle speed sensor					6				6				*1P.13-90 *3P.13-88
Power steering fluid pressure switch				3									*1P,13-92 *3P.13-90
Air conditioner switch and power relay				4									P.13-00 *1P.13-94 *3P.13-92
Detonation sensor											01		*1P.13-96 *3P.13-94
Electrical load switch				⑤									*1P.13-98 *3P.13-96
Fan motor relay (radiator fan, condenser fan)				6	1110								*2P.13-3 *3P.13-100-1
Oxygen sensor			10										*1P.13-100 *3P.13-98
Mixture adjusting screw (variable resistor)			11										*1P.13-106
Injectors	88	22	22		33	22	22	① II		01		①	*1P.13-109 *3P.13-101
Idle speed control servo (stepper motor type)		4 5	01	73	22				86			î	*1P.13-116 *3P.13-108
Ignition coil and power transistor	77				109		99		11		6 5		*1P.13-121 *3P.13-113
Purge control solenoid valve			8										*1P.13-127 *3P.13-119
EGR control solenoid valve						44		66		44		,	*1P.13-129 *3P.13-121
Fuel pressure control valve		6	9		@		44						*1P.13-131 *3P.13-123
Waste gate control solenoid valve							65						*1P.13-134 *3P.13-126
Anti-lock braking signal									7			•	*1P.13-138 *3P.13-130
Fuel pressure		56	44		76	33	33	22		22			*1P.13-139 *3P.13-131

O: Warm engine (number inside indicates check order)

^{☐ :} Cold engine (number inside indicates check order)

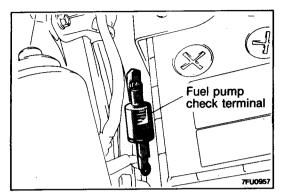
^{*1 :} Refer to 3000GT '93 Workshop Manual (Pub. No. PWUE9203)

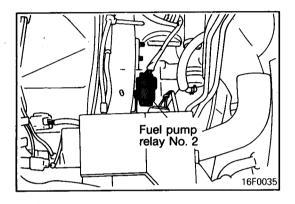
^{*2 :} Refer to 3000GT '95 Workshop Manual (Pub. No. PWUE9203-3)

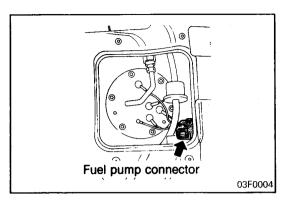
^{*3 :} Refer to 3000GT Workshop Manual (Pub. No. PWUE9119-D)

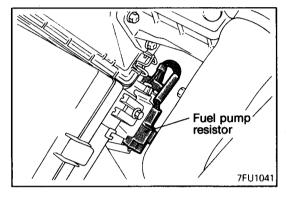
ON-VEHICLE INSPECTION OF MPI COMPONENTS

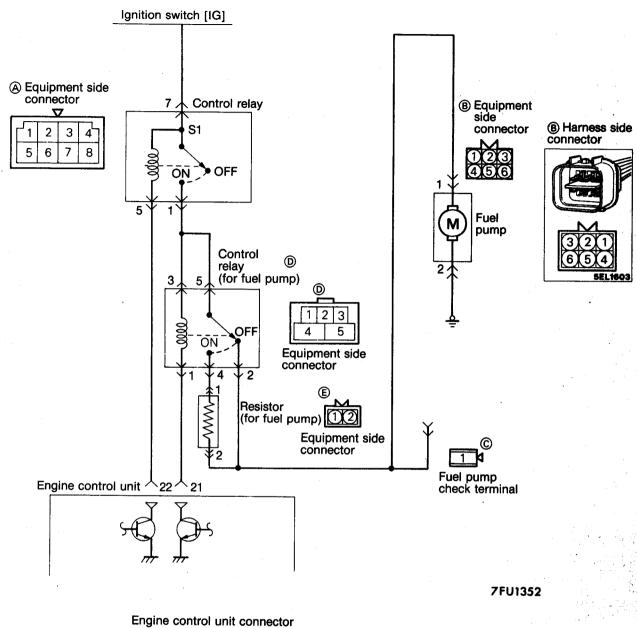
FUEL PUMP <Vehicles with immobilizer system>

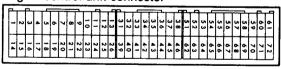






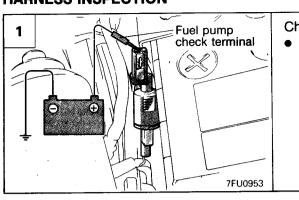






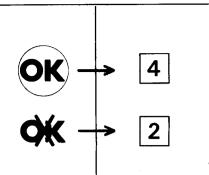
9FU0101

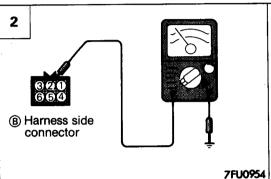
HARNESS INSPECTION



Check the fuel pump.

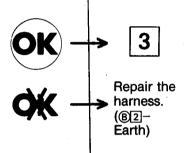
 Apply battery voltage to the checking terminal and operate the pump.

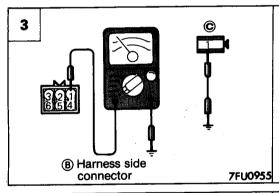




Check the earth circuit of the fuel pump.

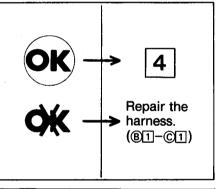
Fuel pump connector:
 Disconnected

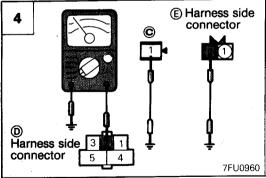




Check for continuity between the fuel pump and the checking terminal.

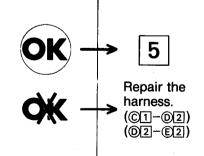
Connector: Disconnected

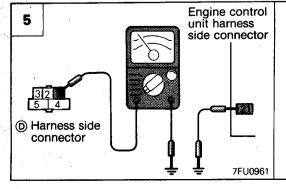




Check for continuity between the checking terminal and the control relay (for fuel pump), and between the resistor (for fuel pump).

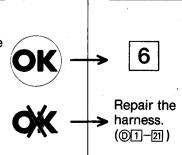
- Control relay (for fuel pump) connector: Disconnected
- Resistor (for fuel pump) connector: Disconnected
- Fuel pump connector: Disconnected

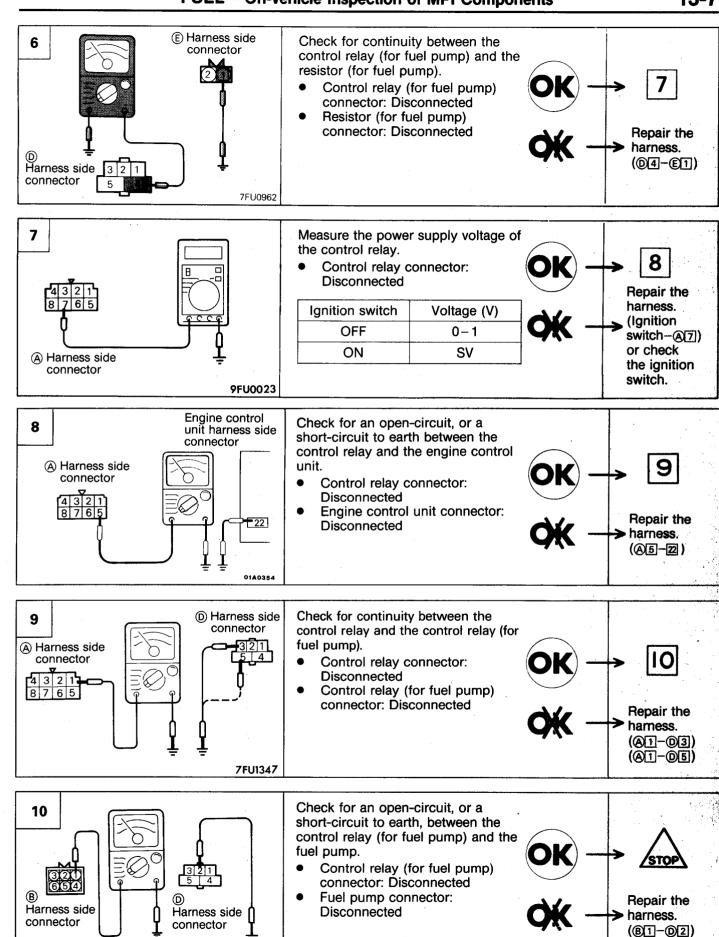




Check for an open-circuit, or a short-circuit to earth, between the control relay (for fuel pump) and the engine control unit.

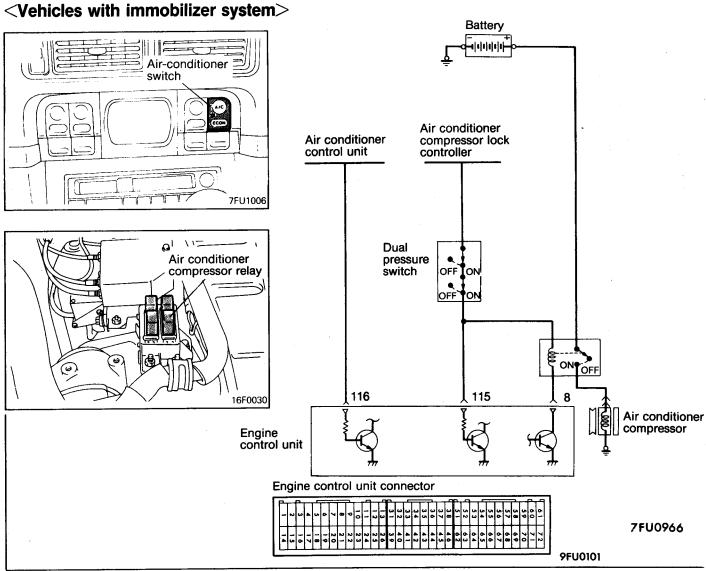
- Control relay (for fuel pump) connector: Disconnected
- Engine control unit connector: Disconnected



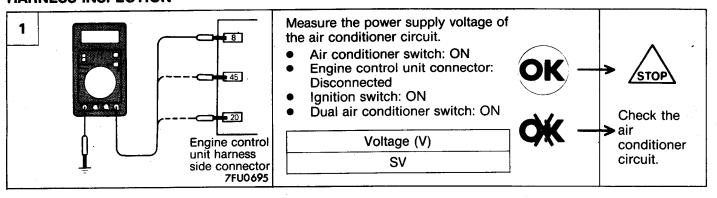


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AIR CONDITIONER SWITCH AND POWER RELAY



HARNESS INSPECTION



ENGINE CONTROL UNIT TERMINAL VOLTAGE CHECK TERMINAL VOLTAGE CHECK CHART

<Vehicles with immobilizer system>

Terminal No.	Check point	Check conditions (Engine conditions)	Standard value	Remarks
8 .	Air conditioner relay	 Engine: Running at idle Air conditioner switch: OFF → ON (Air compressor in driven state) 	SV or 6V or more for a moment → 0-3V	
22	Control relay	Ignition switch: ON	sv	
	(fuel pump)	Engine: Running at idle	0-3V	

NOTES

ENGINE ELECTRICAL

CONTENTS

NERAL 2 SERVICE ADJUSTMENT PROC		SERVICE ADJUSTMENT PROCEDURES
Outline of Change	2	Output Current Test
SPECIFICATIONS	2	
Service Specifications	2	

16-2 ENGINE ELECTRICAL – General/Specifications/Service Adjustment Procedures

GENERAL

OUTLINE OF CHANGE

• The nominal output of the alternator has been changed from 110A to 95A in vehicles for Australia and General Export. One of the service specification values has been changed to correspond to this.

SPECIFICATIONS

SERVICE SPECIFICATIONS

ALTERNATOR < Vehicles for Australia and General Export>

Item		Specifications	
Limit			
Output current	Α	66.5	

SERVICE ADJUSTMENT PROCEDURES

OUTPUT CURRENT TEST < Vehicles for Australia and General Export>

Inspection service points are the same as before.

Output current Limit: 66.5A

GROUP 42 BODY

GENERAL

OUTLINE OF CHANGE

• A power tilt and outer sliding sunroof has been provided as an option in vehicles for Europe.

SPECIFICATIONS

SERVICE SPECIFICATIONS

Items	Standard value
Roof lid sliding resistance N	147 or more
Sunroof motor clutch slippage force N	39 – 49

TROUBLESHOOTING

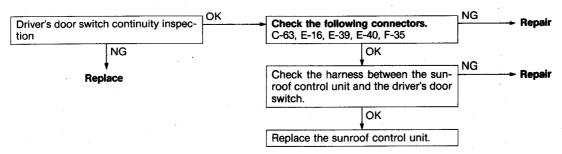
INSPECTION CHART FOR TROUBLE SYMPTOMS

Trouble symptom	Inspection procedure
Sunroof does not operate within 30 seconds after driver's door is opened.	1
Sunroof does not operate at all.	2

INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

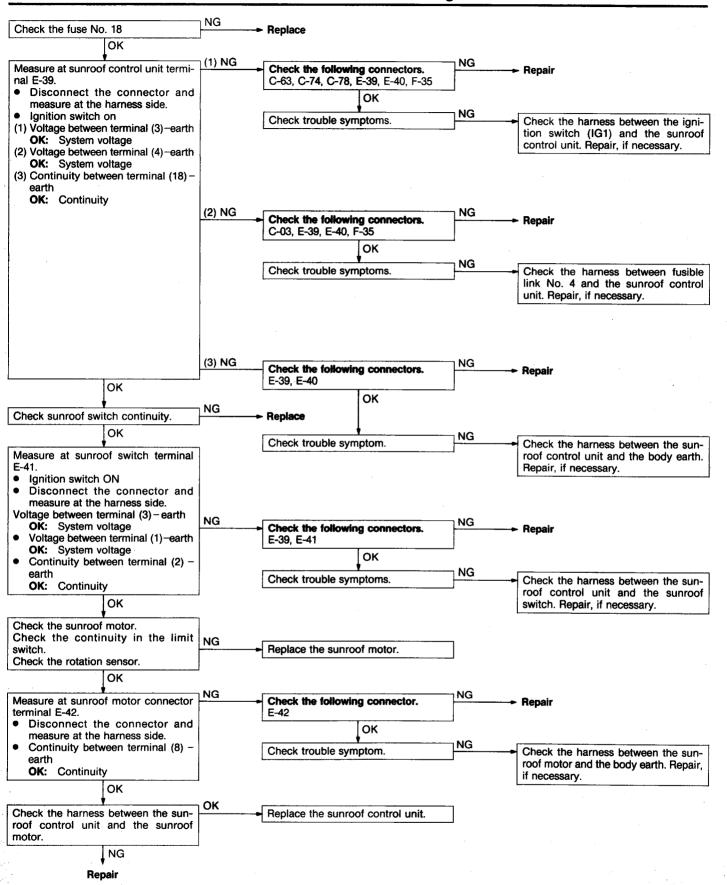
Inspection Procedure 1

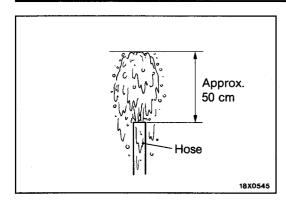
Front sunroof does not operate within 30 seconds after driver's door is opened.	Probable cause	
After the driver's door is opened within 30 seconds after the ignition switch is turned off, the sunroof can still be operated for a further 30 seconds. If it is impossible, the driver's door switch or the sunroof control unit may be defective.	 Malfunction of door switch (driver's side) Malfunction of sunroof control unit Malfunction of wiring harness or connector 	

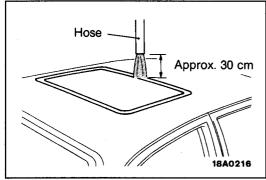


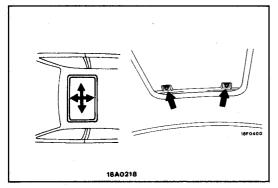
Inspection Procedure 2

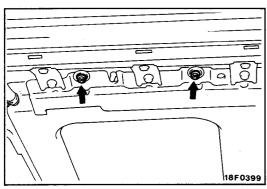
Sunroof does not operate at all.	Probable cause	
One of the following items may be defective. Sunroof switch Sunroof motor Sunroof control unit Power supply circuit (including the fuse)	 Malfunction of sunroof switch Malfunction of sunroof motor Malfunction of sunroof control unit Malfunction of wiring harness or connector 	











SERVICE ADJUSTMENT PROCEDURES SUNROOF LEAKAGE INSPECTION

Check if there are any leaks in the sunroof by the following procedure.

- (1) Fully close the roof lid glass.
- (2) Adjust the water pressure so that water comes out of the hose to a height of approximately 50 cm when the hose is held vertically facing upwards.
- (3) Hold the end of the hose about 30 cm above the roof and let the water run onto the weatherstrip for 5 minutes or more.
- (4) While doing this, check if any water leaks through into the passenger compartment from around the roof lid glass.

SUNROOF WORKING CHECK

- 1. Longitudinal and lateral direction adjustment
 - (1) Remove the roof lid trim.
 - (2) Fully close the roof lid.
 - (3) Loosen the four roof lid mounting nuts and adjust the position of the roof lid so that the clearances at the front and rear and at the left and right are the same.

2. Step adjustment

- (1) Remove the headlining.
- (2) Fully close the roof lid.
- (3) Loosen the four adjusting nuts and then adjust the height of the roof lid so that it is flush with the roof.

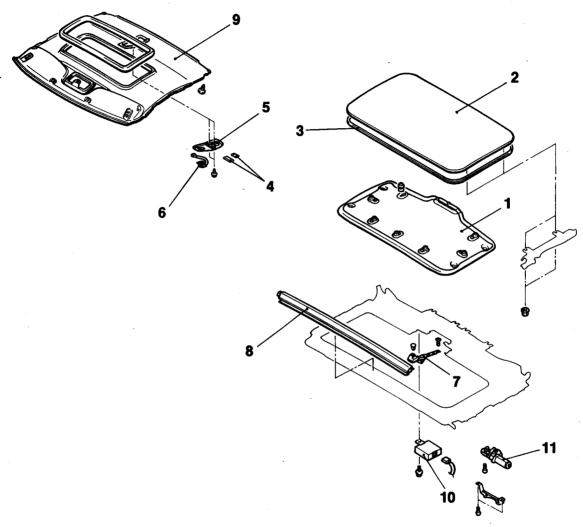
SUNROOF < POWER SLIDING TYPE>

REMOVAL AND INSTALLATION

- Post-installation Operation

 Sunroof Leakage Inspection

 Sunroof Fit Adjustment



18F0407



Roof lid removal steps

- 1. Roof lid trim
- 2. Roof lid
- 3. Roof lid weatherstrip

Sunroof switch removal steps

- 4. Cover
- 5. Sunroof switch panel assembly6. Sunroof switch

Deflector assembly removal steps

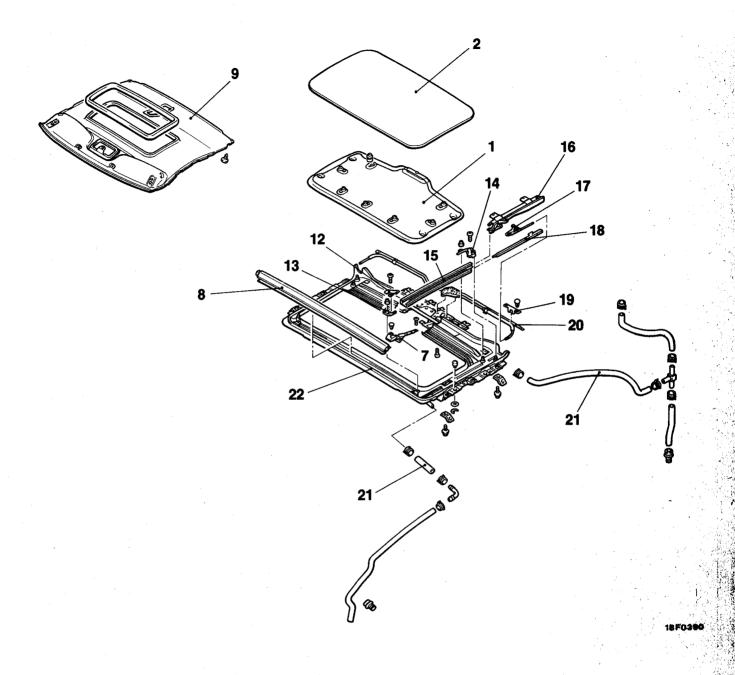
- While roof lid is opened fully
- 7. Link assembly
- 8. Deflector assembly

Sunroof control unit removal steps

- Room lamp assembly
- Cover
- 5. Sunroof switch panel assembly
- 9. Headlining
- 10. Sunroof control unit

Sunroof motor removal steps

- Room lamp assembly
- 4. Cover
- 5. Sunroof switch panel assembly
- 9. Headlining
- ▶B 11. Sunroof motor



Lifter assembly \cdot slider assembly/drive unit assembly removal steps

- 1. Roof lid trim
- 2. Roof lid
- 12. Front corner panel
- 13. Front holder
- 14. Rear holder
- 15. Slid rail
- 16. Lifter assembly
- 17. Slider assembly
- 18. Rear timing
- 19. Tube cover
- 20. Drive unit assembly



Frame assembly removal steps

- 1. Roof lid trim
- 2. Roof lid
- 7. Link assembly
- 8. Deflector assembly
- Room lamp assembly
- 4. Cover
- 5. Sunroof switch panel assembly
- 9. Headlining
- 21. Drain hose connection
- 22. Frame assembly

Drain hose removal steps

- Front splash shield
- Rear side trim

