EXTERIOR

EXTERIOR

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SERVICE SPECIFICATION

Item		Standard value
Windshield wiper blade installation position mm	Driver's side	23 – 33
	Passenger's side	25 – 35

ADHESIVE

Item	Specified adhesive
Door mirror inner delta cover	Adhesive tape: double-sided tape [5 mm width and 0.5 mm thickness]

SPECIAL TOOLS

Tool Number		Name	Use
B990784	MB990784	Ornament remover	Front deck garnish, front and rear flare, remote controlled mirror switch and door mirror inner delta cover removal
B990449	MB990449	Window moulding remover	Roof drip moulding removal
B990528	MB990528	Stripe tape spatula	Stripe tape bonding

51100030119

51100060095

FRONT BUMPER

REMOVAL AND INSTALLATION



Removal steps

- Radiator grille
- Radiator grille
 Front combination lamp assembly
 Headlamp washer hose connection <Vehicles with headlamp washer> (Refer to P.51-12.)
 Front bumper assembly
 Front bumper support
 Front bumper side stay

DISASSEMBLY AND REASSEMBLY

51100160122



A18V0192

Disassembly steps

- 1. Headlamp washer hose and nozzle Readiamp washer nose and nozze (Vehicles with headlamp washer> (Refer to P.51-12.)
 Front bumper beam assembly
 Front bumper lower reinforcement
 Front bumper side reinforcement

- 5. Bumper side corner reinforcement

- 6. Bumper center corner reinforcement
- 7. Licence plate bracket
- 8. Front bumper center face
 9. Front bumper face side extension
 <Vehicles with over fender>
- 10. Front bumper side face

GRILLE, MOULDING AND GARNISH REMOVAL AND INSTALLATION



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1B

1. Radiator grille

Roof drip moulding removal steps

- 2. Roof drip cover
- 3. Roof drip moulding

Front deck garnish removal steps

- 4. Wiper arm and blade assembly
- (Refer to P.51-9.)
- 5. Front deck garnish



REMOVAL SERVICE POINTS

∢A▶ RADIATOR GRILLE REMOVAL

Remove the radiator grille by pushing the tab of the radiator grille clips in the direction of the arrows with a flat-tipped screwdriver, while lightly pulling the radiator grille towards you.



∢B**▶** ROOF DRIP MOULDING REMOVAL

Use the special to lever out the moulding. Caution

Do not reuse the warped moulding.

OVER FENDER

51101380039

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation • Mud Guard Removal and Installation



Removal steps

- 1. Rivet 2. Front flare Rear flare
 Protector



REMOVAL SERVICE POINT ∢A▶ RIVET REMOVAL

Use a drill (ϕ 4.0 – 5.5 mm) to break the rivet by drilling a hole, and remove the rivet.



INSTALLATION SERVICE POINT

►A RIVET INSTALLATION

- Insert the rivet into the body panel and flare. Insert A of the rivet into the riveter. 1.
- 2.
- Pressing the flange surface of the rivet, move the handle 3. of the riveter.
- The thinnest point of A is cut and the rivet is hold in 4. the position

SIDE STEP **REMOVAL AND INSTALLATION**



DISASSEMBLY AND REASSEMBLY

51101430017



Disassembly steps

- Step cover
 Non-slip cover
 Step plate
 Side step pipe assembly

WINDSHIELD WIPER AND WASHER REMOVAL AND INSTALLATION



A18V0220

Wiper motor and link assembly removal steps

- 1. Wiper arm and blade assembly
- 2. Front deck garnish
- 3. Wiper motor

4. Wiper link assembly

Washer nozzle removal

5. Washer nozzle

Washer tank removal steps

- Washer fluid draining and supplying
- 6. Headlamp washer hose connection
- <Vehicles with headlamp washer> 7. Washer hose
- 8. Washer tank assembly
- 9. Washer motor
- 10. Headlamp washer motor <Vehicles with headlamp washer>

NOTE

For removal and installation of the column switch assembly (windshield wiper and washer switch), refer to GROUP 37A – Steering Wheel and Shaft.







REMOVAL SERVICE POINT

A WIPER MOTOR REMOVAL

Use a flat-tipped screwdriver to remove the connection between the wiper motor crank arm and the link assembly. **Caution**

Auto-stop angle is controlled so do not remove crank arm from wiper motor unless necessary.

When removing, mark crank arm and wiper motor.

INSTALLATION SERVICE POINT

►A WIPER ARM AND BLADE ASSEMBLY INSTALLATION

Install the wiper blade in the specified position (standard value).

Standard value:

Driver's side (A) 23 – 33 mm Passenger's side (B) 25 – 35 mm

INSPECTION COLUMN SWITCH CHECK

51100770103

Wiper and Washer Switch

<L.H. drive vehicles>

Switch position		Terminal No.						
		6	7	8	9	10		
Wiper switch	OFF		0—	—0				
	INT		0—	—0				
	1 (LO)			0—		\bigcirc		
	2 (HI)				0—	\bigcirc		
Washer switch	ON	0—				-0		

<R.H. drive vehicles>

Switch position		Terminal No.						
		8	9	10	11	12		
Wiper switch	OFF			\bigcirc	\cap			
	INT			\bigcirc	\cap			
	1 (LO)	\bigcirc		\cap				
	2 (HI)	\bigcirc	\cap					
Washer switch	ON	\bigcirc				-		

- 1. Connect the column switch connector.
- 2. Turn the ignition switch to ACC.
- 3. Inspect the intermittent operation time when the wiper switch is turned to INT.

Vehicles with variable intermittent control FAST: Approx. 2 seconds SLOW: Approx. 15 seconds

WIPER MOTOR CHECK

51101260050

Check the wiper motor after disconnecting the wiring harness connector, and with the wiper motor remaining installed to the body.

Wiper Motor at Low Speed and High Speed Operation

Connect a battery to the wiper motor as shown in the illustration and inspect motor operation at low speed and high speed.

Wiper Motor at Stop Position Operation

- 1. Run the wiper motor at low speed, disconnect the battery, and stop the motor.
- 2. Reconnect the battery as shown in the illustration, and confirm that after the motor starts turning at low speed, it stops at the automatic stop position.

WASHER MOTOR CHECK

51101270060

1. With the washer motor installed to the washer tank, fill the washer tank with water.

2. Check that the water squirts out strongly when battery voltage is applied to terminals (1) and (2).



HEADLAMP WASHER

51100970077

REMOVAL AND INSTALLATION



1. Headlamp washer relay

Washer nozzle and check valve removal steps

- Washer fluid draining
- Front bumper (Refer to P.51-3.)
- 2. Washer hose
- 3. Check valve
- 4. Washer nozzle



INSPECTION

NOTE

to P.51-9.

51100980070

COLUMN SWITCH (HEADLAMP WASHER SWITCH) CHECK

Check the continuity between terminal (2) of connector A and terminal (1) of connector B with headlamp washer switch in ON position.

1. For removal and installation of the column switch assembly (built-in headlamp washer switch), refer to

2. For removal and installation of the washer tank, refer

GROUP 37A - Steering Wheel and Shaft.





HEADLAMP WASHER RELAY CHECK

51101320048

1. Connect battery and test lamp to the relay as illustrated.

2. The relay is normal if the lamp lights for approximately 0.5 second upon connection of terminal (2) to battery (-).

CHECK VALVE CHECK 51101330041 Apply pressure to the inlet of the check valve to check its opening pressure.

Opening pressure: 78 kPa



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HEADLAMP WASHER MOTOR CHECK

- 1. With the headlamp washer motor installed to the washer tank, fill the washer tank with water.
- 2. Check that the water squirts out strongly when battery voltage is applied to terminals (1) and (2).

MARKS

REMOVAL AND INSTALLATION



1. Three dia. mark A ≤ 2. L200 mark A ≤ 3. MITSUBISHI mark



INSTALLATION SERVICE POINT

►A MARK AND DECAL INSTALLATION

- 1. Installation position
 - Attach to the position shown in the illustration.
- 2. Installation procedure
 - (1) Use unleaded petrol to clean the body surface at the installation position of the marks and decals.
 - (2) Peel the backing paper off from the reverse of the marks and decals and attach the marks and decals to the vehicle body.
 - (3) Remove the application tape from the decal.

Caution

- 1. When installing the marks and decals, the surrounding temperature should be $20 38^{\circ}C$ and the air should be completely free from dust.
- 2. If the surrounding temperature is lower than 20° C, the marks, decals and the body surface should be heated to $20 30^{\circ}$ C.

STRIPE TAPE

51101210017

INSTALLATION SERVICE POINT

1. Peel the backing paper off from the reverse of the stripe tape and attach the stripe tape to the vehicle body.

Caution

- 1. When installing the stripe tape, the surrounding temperature should be 20 – 38°C and the air should be completely free from dust.
- 2. If the surrounding temperature is lower than 20°C, the stripe tape and the body surface should be heated to $20 - 30^{\circ}$ C.









2. Use the special tool to press on the tape, beginning at the centre and moving evenly to both the top and bottom, in order to remove any trapped air bubbles.

Caution

- 1. If the special tool slides to the side, there will be slack at the end of the tape, causing wrinkles, and the tape may deviate from the correct application position.
- 2. If the tape is not applied properly, it may come off later.
- 3. Pull the tape off straight and slowly.
- 4. If there are any air bubbles in the tape after the application, use a sewing needle to make small holes in the bubbles, and use the corners of the spatula to press the air out.

DOOR MIRROR

REMOVAL AND INSTALLATION



1. Remote controlled mirror switch

Door mirror removal steps

- 2. Inner delta cover
- 3. Harness connector <Vehicles with remote controlled mirror>
- 4. Door mirror assembly
- 5. Mirror <Vehicles with remote controlled mirror>



REMOVAL SERVICE POINT

Disconnect the parts indicated by the arrows and remove the mirror from the actuator sub assembly.



INSPECTION

51100650056

REMOTE CONTROLLED MIRROR ASSEMBLY CHECK

Check to be sure that the mirror moves as described in the table when each terminal is connected to the battery.

Battery connection terminal			Direction operation
1	2	3	
Θ			UP
— —			DOWN
Θ			RIGHT
.			LEFT



REMOTE CONTROLLED MIRROR SWITCH CONTINUITY CHECK

Switch position		Terminal No.						
		2	3	4	6	7	8	9
Left side	UP			\bigcirc	0	-0	-0	
	DOWN			0—	0-	-0	-0	
	LEFT		0-	0	-0	-0		
	RIGHT		0-	-0	0-	-0		
Right side	UP	0-		-0	0-	-0		
	DOWN	0-		0-	-0	-0		
	LEFT			0-	0-	-0		-0
	RIGHT			0-	0-		-0	-0

GROUP 51 EXTERIOR

GENERAL

OUTLINE OF CHANGE

• The service procedures have been established to correspond to the adoption of the remote-controlled door mirror with printed heating wire.



DOOR MIRROR

INSPECTION

REMOTE-CONTROLLED MIRROR ASSEMBLY CHECK

Check to be sure that the mirror moves as described in the table when each terminal is connected to the battery.

Battery connection terminal			Operation direction		
5	6	7			
Θ			UP		
— —		-0	DOWN		
Θ			RIGHT		
—	θ		LEFT		

PRINTED HEATING WIRE CHECK

For the remote-controlled door mirror with printed heating wire, check to be sure that there is a continuity between the terminal 1 and the terminal 4.

GROUP 51 EXTERIOR

GENERAL

OUTLINE OF CHANGE(S)

Service procedures have been added due to the following modifications.

- The radiator grille has been modified.
- Newly designed door mirrors have been newly used.

GRILLE

REMOVAL AND INSTALLATION



AV0623AA

1. Radiator grille



REMOVAL SERVICE POINT

- 1. Remove the radiator grille upper screws.
- 2. Gently pulling the radiator grille forwards, push the clip tab with a flat-tipped screwdriver to remove the radiator grille, as shown.

DOOR MIRRORS

REMOVAL AND INSTALLATION





V0653AA

\$ Adhesive tape: Double-side tape

00008514

- 1. Remote controlled mirror switch
- Door mirror removal steps
- 2. Inner delta cover
- 3. Harness connector





4. Door mirror assembly 5. Mirror

REMOVAL SERVICE POINT A MIRROR REMOVAL

- 1. Tilting the mirror upwards by hand, insert a flat-tipped screwdriver wound with protection tape. Then, pry the claws out of the actuator.
- 2. Unhook the mirror by pulling it downwards.







INSPECTION

REMOTE CONTROLLED MIRROR ASSEMBLY CHECK

Check that the mirror moves as described in the table when each terminal is connected to the battery.

Battery connection terminal			Direction operation
5	6 7		
Θ		Ð	UP
— —			DOWN
— ——	θ		LEFT
Θ			RIGHT

PRINTED HEATING WIRE CHECK

For the remote-controlled door mirror with printed heating wire, check that continuity is present between terminals 1 and 4.



REMOTE CONTROLLED MIRROR SWITCH CONTINUITY CHECK

<Vehicles without power windows>

Switch position		Terminal No.						
		2	3	4	5	6	7	8
Left side	UP	0-	-0	0-			-0	
	DOWN	0-	0-	-0			-0	
	LEFT	0-	0-				-0	-0
	RIGHT	0-	-0				0-	-0
Right side	UP	0-	-0			0-	-0	
	DOWN	0-	0-			-0	-0	
	LEFT	0-	0-		-0		-0	
	RIGHT	0-	-0		0-		-0	



<Vehicles with power windows>

Switch position		Terminal No.							
		2	3	4	6	7	8	9	
Left side	UP			0-	0-	-0	-0		
	DOWN			0-	0-	-0	-0		
	LEFT		0-	0-	-0	-0			
	RIGHT		0-	-0	0-	-0			
Rightside	UP	0-		-0	0-	-0			
	DOWN	0-		0-	-0	-0			
	LEFT			0-	0-	-0		-0	
	RIGHT			0-	0-	-0		-0	

GROUP 51 EXTERIOR

GENERAL

OUTLINE OF CHANGE

• The service procedures have been established to correspond to the adoption of the side protector moulding.

MOULDING

REMOVAL AND INSTALLATION

Single cab, Club cab> 1 WOUSERA WOUSERA WOUSERA Monocomparison WOUSERA WOUSERA Monocomparison Monoc

 WO462AA

 Adhesive tape: double-sided tape [15 mm wide and 0.8 mm thick]

1. Side protector moulding



REMOVAL SERVICE POINT

∢A► SIDE PROTECTOR MOULDING REMOVAL

- 1. Attach protection tape all the way along the edges of the double-sided tape which is still adhering to the body.
- Fishing line



 Insert fishing line [Ø 0.8 mm] in between the body and the moulding, and pull both ends alternately to cut the adhesive section and remove the moulding.

Caution

- (1) If the moulding is to be reused, pull the fishing line along the edge of the body so as not to damage the edge of the moulding.
- (2) If the adhesive is difficult to remove, heat it to 40°C moulding has become warped, it should not be reused.
- 3. Scrape off the double-sided tape with a resin spatula.
- 4. Peel off the protection tape.
- 5. Wipe the body surface clean with a rag moistened with isopropyl alcohol.



INSTALLATION SERVICE POINT

►A SIDE PROTECTOR MOULDING INSTALLATION

Affixing Double-sided tape to the mouldings (when reusing mouldings)

- 1. Scrape off the double-sided tape with a resin spatula or gasket scraper.
- 2. Wipe the moulding adhesion surface clean with a rag moistened with isopropyl alcohol.
- 3. Affix the specified double-sided tape to the side protect moulding.

Specified adhesive tape: Double-sided tape [15 mm wide and 0.8 mm thick]



4. Remove the strip paper from the pressure sensitive double-side tape.

NOTE

Affix double-sided tape to the end of strip paper for ease of strip paper removal.

5. Remove strip paper from the pressure sensitive double - side tape.

NOTE

If it is hard to affix the double-side tape in winter, heat the application surfaces at both the vehicle body and the side protector moulding.

Body 40 – 60°C

Side protect moulding 20 - 30°C

Apply pressure fully to the side protector moulding.

OVER FENDER

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation
Mud Guard Removal and Installation



<>> :Resin clip position

Removal steps

1. Rivet

- 2. Front flare
 3. Rear flare
 4. Protector

NOTE

For each service point, refer to the Basic Manual.

GROUP 51 EXTERIOR

GENERAL

OUTLINE OF CHANGES

The following changes have been made. The same procedures as before are applied except for the items shown below:

- The separate front bumper has been united.
- The radiator grille design has been changed.
- The routing of the headlamp washer hoses has been changed.

FRONT BUMPER

REMOVAL AND INSTALLATION



Removal steps

- Radiator grille (Refer to P.51-3.)
- Headlamp
- 1. Front combination lamp assembly
- 2. Nut

- 3. Front bumper assembly
- Front bumper side stay
 Front bumper beam assembly
- 6. Front bumper support assembly

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DISASSEMBLY AND REASSEMBLY



NOTE Clips position

Disassembly steps

- 1. Clip
- 2. Front bumper reinforcement, upper
 3. Front bumper reinforcement, lower
 4. Front bumper reinforcement, side

- 5. Front bumper face side extension (Vehicle with over fender)
 6. Front bumper face

RADIATOR GRILLE

REMOVAL AND INSTALLATION



AY0246AA





REMOVAL SERVICE POINT

- 1. Remove the screws on the top side of the radiator grille.
- 2. Remove the radiator grille by pushing its tab clips in the direction of the arrows with a flat-tipped screwdriver, while lightly pulling the radiator grille toward you.

HEADLAMP WASHER

REMOVAL AND INSTALLATION



Washer nozzle and check valve removal steps

- Washer fluid draining
 Front bumper (Refer to P.51-1.)
 1. Washer hose

Check valve
 Washer nozzle

NOTE For inspection, refer to the Basic Manual.

GROUP 54 CHASSIS ELECTRICAL

GENERAL

OUTLINE OF CHANGE

The following service procedure of the immobilizer system has been changed. The same procedures as before are applied except for the items shown below.

 The troubleshooting has been changed due to the addition to the 4D56 engine which complies with emission regulation step III.

IMMOBILIZER SYSTEM

The same troubleshooting and ignition key registration method as 4G6 engine are applied except for the following.

Refer to 2000 L200 Workshop Manual. (Pub. No. PWTE96E1-D)

INSPECTION CHART FOR TROUBLE SYMPTOMS

Trouble symptom	Inspection pro- cedure No.	Reference page
Communication with MUT-II is not possible.	1	54-1
Encrypted code cannot be registered using the MUT-II.	2	54-2
Engine does not start (Cranking but no initial combustion).	3	54-2
Malfunction of the immobilizer-ECU power source and earth circuit.	4	54-3

INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS <4D56-Step III> Inspection Procedure 1

Communication with MUT-II is impossible	Probable cause
The cause is probably that a malfunction of the diagnosis line or the immobilizer-ECU is not functioning.	 Malfunction of diagnosis line Malfunction of harness or connector Malfunction of immobilizer-ECU



Inspection Procedure 2

Encrypted code cannot be registered using the MUT-II	Probable cause	
The cause is probably that there is no encrypted code registered in the immobilizer-ECU or there is a malfunction of the immobilizer-ECU.	 Malfunction of transponder Malfunction of ignition key ring antenna Malfunction of harness or connector Malfunction of immobilizer-ECU 	
No ignition key can be registered. YES Is a diagnosis code displayed? NO NO Check the immobilizer-ECU power source and the earth circuit. (Refer to P.54-3, Inspection Procedure 4.)	NG Replace the immobilizer-ECU. Register the password (secret code) and the anomalian and secret code)	

Inspection Procedure 3



Inspection Procedure 4

Malfunction of the immobilizer-ECU power source and earth circuit



CHECK AT IMMOBILIZER-ECU

Terminal Voltage Check Chart



20F0191

Terminal No.	Signal	Checking requirements	Terminal voltage
3	Immobilizer-ECU earth	Always	0 V
7	Immobilizer-ECU power supply	Ignition switch: OFF or approx. 5 or more seconds after switch has been turned from ON to OFF.	0 V
		Ignition switch: ON or within approx. 5 or more seconds after switch has been turned from ON to OFF	System voltage

NOTES