

# mitsubishi

## REAR WHEEL DRIVE AUTOMATIC TRANSMISSION

### WORKSHOP MANUAL

#### FOREWORD

This Workshop Manual contains procedures for removal, disassembly, inspection, adjustment, reassembly and installation, etc. for service mechanics.

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.

#### FILING INSTRUCTION

Please keep these manual pages in the binder No. BN940001.

File these pages according to the signs "Added", "Revised" and "Deleted" on the "List of effective pages" which are interpreted below.

**Added:** File the pages with this sign additionally in your manual.

**Revised. Deleted:** Replace the existing pages with the corresponding pages having this sign.

Missing sheets will be supplied upon request.

Automatic Transmission ..... **23A**  
R4AW2, V4AW2

Automatic Transmission ..... **23B**  
R4AW3, V4AW3

Automatic Transmission ..... **23C**  
V4AW4

Automatic Transmission ..... **23D**  
R4A51, V4A51

Automatic Transmission ..... **23E**  
V5A51

# HOW TO USE THIS MANUAL

## CONTENTS

The preceding page contains GROUP INDEX which lists the group title and group number.

## PAGE NUMBERS

All page numbers consist of three sets of digits separated by a dash. The digits preceding the dash identify the number of the group and the second digits identify the section. The digits following the dash represent the consecutive page number within the section. The page numbers can be found on the top left or right of each page.

## TEXT

Unless otherwise specified, each service procedure covers all models. Procedures covering specific models are identified by the model codes, destination or similar designation (engine type, transmission type, etc.)

## SERVICE PROCEDURES

The service steps are arranged in numerical order and attentions to be paid in performing vehicle service are described in detail in SERVICE POINTS.

Group title

Section title

Group number

Page number

**MANUAL TRANSMISSION – Transmission** **22A-3-1**

**3. TRANSMISSION** **F4M21, F5M21**

Denotes tightening torque

**NOTE:**

- Torque may also be shown in rectangles in the order of units (Nm, kgm and ft.lbs. from left) as follows.

33 | 3.3 | 23

- From January 1999 on, torque values are given only in SI unit.

Denotes non-reusable parts

**Disassembly steps**

<ol style="list-style-type: none"> <li>1. Transmission switch</li> <li>2. Gasket</li> <li>3. Rear cover</li> <li>4. Backup lamp switch</li> <li>5. Gasket</li> <li>6. Poppet plug</li> <li>7. Poppet spring</li> <li>8. Poppet ball</li> <li>9. Speedometer driven gear assembly</li> <li>10. Air breather</li> <li>11. Spring pin</li> <li>12. Lock nut</li> <li>13. Lock nut</li> <li>14. 5th speed synchronizer assembly</li> </ol>	<ol style="list-style-type: none"> <li>15. 5th speed shift fork</li> <li>16. Synchronizer ring</li> <li>17. 5th speed gear</li> <li>18. Needle bearing</li> <li>19. Bearing sleeve</li> <li>20. Dished washer</li> <li>21. Snap ring (From DEC. 1987 - F5M21)</li> <li>22. Spacer</li> <li>23. Roller bearing</li> <li>24. 5th speed intermediate gear</li> </ol>
--	---

NOTE  
③-④-⑧-⑨: Refer to "Details of Change" table

This number shows the sequence of removal or disassembly. For installation or reassembly, reverse the removal or disassembly steps.

© Mitsubishi Motors Corporation Nov. 1988

PWEE002

Issue date

Publication number – Revision code

## DEFINITION OF TERMS STANDARD VALUE

Indicates the value used as the standard for judging the quality of a part or assembly on inspection or the value to which the part or assembly is corrected and adjusted. It is given by tolerance.

## LIMIT

Shows the standard for judging the quality of a part or assembly on inspection and means the maximum or minimum value within which the part or assembly must be kept functionally or in strength. It is a value established outside the range of standard value.

## COMPARISON OF OLD AND NEW MODELS

New Model	Old Model
R4A2	AW372
V4A2	KM148
R4A3	—
V4A3	—
V4A4	—
R4A51	—
V4A51	—
V5A51	—

Operating procedures, cautions, etc. on removal, installation, disassembly and reassembly are described.

Denotes service point for removal or disassembly.

NOTE:  
◀A▶ is in use since Feb. 1991.  
◀▶A is in use since Jan. 1999.

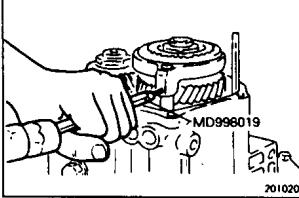
Denotes service point for installation or reassembly.

NOTE:  
▶A▶ is in use since Feb. 1991.  
▶▶A is in use since Jan. 1999.

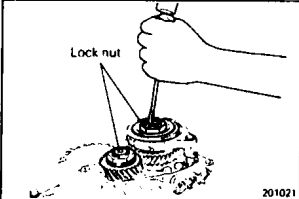
**MANUAL**

**TRANSMISSION – Transmission 22A-3-17**

**SERVICE POINTS OF DISASSEMBLY**

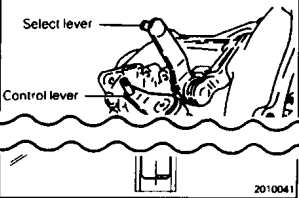


201020



Lock nut

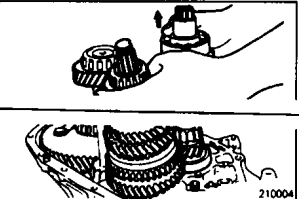
201021



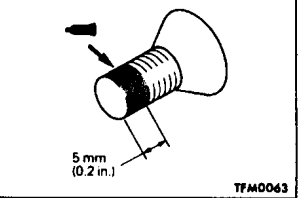
Select lever

Control lever

2010041



210004



5 mm (0.2 in.)

TFM0043

© Mitsubishi Motors Corporation Nov. 1988

PWEE2882

**TRANSMISSION – Transmission 22A-3-17**

**SERVICE POINTS OF DISASSEMBLY**

**A** REMOVAL OF SPRING PIN FOR OD-R SHIFT FORK

**B** REMOVAL OF LOCK NUTS FOR INPUT SHAFT / INTERMEDIATE GEAR

(1) Unstake lock nuts of the input shaft and intermediate gear.

(2) Shift the transmission in reverse using the control lever and select lever.

**C** INSTALLATION OF INTERMEDIATE GEAR ASSEMBLY / INPUT SHAFT ASSEMBLY

(1) Lifting up the input shaft assembly, install it simultaneously with the intermediate gear assembly.

**D** APPLICATION OF SEALANT TO BEARING RETAINER MOUNTING BOLT

Specified sealant: 3M STUD Locking No. 4170 or equivalent

## List of Effective Pages

Page	Revision code	Date	Remarks	Page	Revision code	Date	Remarks
23A-0-1	E	Mar. 1996		23A-16-7 and 23A-16-8	E	Mar. 1996	
23A-0-3 and 23A-0-4		Nov. 1989		23A-16-9	D	June 1994	
23A-0-5 and 23A-0-6	B	June 1991		23A-16-10	E	Mar. 1996	
23A-0-6a and 23A-0-6b	D	June 1994		23A-16-11 and 23A-16-12	D	June 1994	
23A-0-7	D	June 1994		23A-16-13	A	Feb. 1991	
23A-0-8 and 23A-0-9	B	June 1991		23A-16-14	D	June 1994	
23A-1-1		Nov. 1989		23A-16-15 to 23A-16-18	A	Feb. 1991	
23A-1-2	D	June 1994		23A-16-19 and 23A-16-20	E	Mar. 1996	
23A-1-2a and 23A-1-2b	D	June 1994		23A-16-21 and 23A-16-22	D	June 1994	
23A-1-2c to 23A-1-2f	H	July 1999		23A-17-1 to 23A-17-3	D	June 1994	
23A-1-3 to 23A-1-10	E	Mar. 1996		23A-18-1	D	June 1994	
23A-1-11 and 23A-1-12	E	Mar. 1996		23A-19-1	D	June 1994	
23A-2-1 and 23A-2-2	A	Feb. 1991		23A-20-1 and 23A-20-2	D	June 1994	
23A-2-3 and 23A-2-4		Nov. 1989		23A-21-1 and 23A-21-2	D	June 1994	
23A-3-1 to 23A-3-3	B	June 1991		23A-22-1	A	Feb. 1991	
23A-3-4 to 23A-3-6	D	June 1994		23A-23-1	A	Feb. 1991	
23A-3-7	B	June 1991		23A-24-1	A	Feb. 1991	
23A-3-8		Nov. 1989					
23A-3-9 to 23A-3-15	D	June 1994		23B-0-1	F	Dec. 1997	
23A-3-16	E	Mar. 1996		23B-0-2 to 23B-0-6	D	June 1994	
23A-4-1	E	Mar. 1996		23B-1-1 and 23B-1-2	E	Mar. 1996	
23A-4-2		Nov. 1989		23B-1-2a to 23B-1-2c	F	Dec. 1997	
23A-5-1 and 23A-5-2	E	Mar. 1996		23B-1-2d to 23B-1-2f	H	July 1999	
23A-6-1	B	June 1991		23B-1-3	D	June 1994	
23A-7-1 and 23A-7-2	B	June 1991		23B-1-4	E	Mar. 1996	
23A-8-1	B	June 1991		23B-1-5 and 23B-1-6	F	Dec. 1997	
23A-8-2		Nov. 1989		23B-1-6a and 23B-1-6b	F	Dec. 1997	
23A-9-1	D	June 1994		23B-1-7	F	Dec. 1997	
23A-9-2		Nov. 1989		23B-1-8 and 23B-1-9	D	June 1994	
23A-10-1	B	June 1991		23B-2-1 to 23B-2-4	D	June 1994	
23A-10-2 to 10-4		Nov. 1989		23B-3-1 and 23B-3-2	D	June 1994	
23A-11-1		Nov. 1989		23B-4-1 and 23B-4-2	D	June 1994	
23A-12-1	B	June 1991		23B-4-3 and 23B-4-4	E	Mar. 1996	
23A-13-1 and 23A-13-2		Nov. 1989		23B-4-4a and 23B-4-4b	E	Mar. 1996	
23A-14-1		Nov. 1989		23B-4-5 to 23B-4-25	D	June 1994	
23A-15-1 to 23A-15-5	B	June 1991		23B-4-26 and 23B-4-27	F	Dec. 1997	
23A-15-6	E	Mar. 1996		23B-4-27a and 23B-4-27b	F	Dec. 1997	
23A-15-7 to 23A-15-12	B	June 1991		23B-4-28 to 23B-4-32	E	Mar. 1996	
23A-15-13 to 23A-15-15	D	June 1994		23B-5-1 and 23B-5-2	C	Aug. 1993	
23A-15-16 to 23A-15-22	B	June 1991		23B-6-1 to 23B-6-3	C	Aug. 1993	
23A-16-1	E	Mar. 1996		23B-7-1 and 23B-7-2	D	June 1994	
23A-16-2 and 23A-16-3	A	Feb. 1991		23B-8-1 to 23B-8-3	C	Aug. 1993	
23A-16-4 and 23A-16-5	E	Mar. 1996		23B-9-1 to 23B-9-3	D	June 1994	
23A-16-6	D	June 1994		23B-10-1	C	Aug. 1993	

Missing sheets will be supplied upon request.

Page	Revision code	Date	Remarks
23B-11-1 and 23B-11-2	C	Aug. 1993	
23B-12-1 and 23B-12-2	C	Aug. 1993	
23B-13-1 und 23B-13-2	E	Mar. 1996	
23B-13-3 to 23B-13-5	D	June 1994	
23B-14-1	C	Aug. 1993	
23B-15-1 to 23B-15-3	C	Aug. 1993	
23B-15-4	F	Dec. 1997	
23B-15-5	E	Mar. 1996	
23B-15-6	C	Aug. 1993	
23B-16-1 to 23B-16-5	C	Aug. 1993	
23B-16-6	F	Dec. 1997	
23B-16-7 to 23B-16-9	E	Mar. 1996	
23B-17-1	E	Mar. 1996	
23B-17-1a and 23B-17-1b	E	Mar. 1996	
23B-17-2	E	Mar. 1996	
23B-17-2a and 23B-17-2b	E	Mar. 1996	
23B-17-3	D	June 1994	
23B-17-4	F	Dec. 1997	
23B-17-5	D	June 1994	
23B-17-6	F	Dec. 1997	
23B-18-1 to 23B-18-4	E	Mar. 1996	
23B-18-5 to 23B-18-10	C	Aug. 1993	
23B-18-11	E	Mar. 1996	
23B-18-12 to 23B-18-14	C	Aug. 1993	
23B-19-1	C	Aug. 1993	
23B-20-1	C	Aug. 1993	
23B-21-1 and 23B-21-2	C	Aug. 1993	
23B-22-1 and 23B-22-2	C	Aug. 1993	
23B-23-1	C	Aug. 1993	
23B-24-1	C	Aug. 1993	
23B-25-1	D	June 1994	
23B-26-1	C	Aug. 1993	
23B-27-1	C	Aug. 1993	
23C-0-1 to 23C-0-5	G	Jan. 1999	
23C-1-1 to 23C-1-8	G	Jan. 1999	
23C-2-1 to 23C-2-3	G	Jan. 1999	
23C-3-1 to 23C-3-23	G	Jan. 1999	
23C-4-1 to 23C-4-3	G	Jan. 1999	
23C-5-1 to 23C-5-3	G	Jan. 1999	
23C-6-1 and 23C-6-2	G	Jan. 1999	
23C-7-1 and 23C-7-2	G	Jan. 1999	
23C-8-1 and 23C-8-3	G	Jan. 1999	
23C-9-1 to 23C-9-3	G	Jan. 1999	

Page	Revision code	Date	Remarks
23C-10-1 to 23C-10-4	G	Jan. 1999	
23C-11-1 and 23C-11-2	G	Jan. 1999	
23C-12-1	G	Jan. 1999	
23C-13-1 to 23C-13-2	G	Jan. 1999	
23C-14-1 to 23C-14-8	G	Jan. 1999	
23C-15-1 and 23C-15-2	G	Jan. 1999	
23C-16-1 and 23C-16-2	G	Jan. 1999	
23C-17-1 to 23C-17-3	G	Jan. 1999	
23C-18-1 to 23C-18-14	G	Jan. 1999	
23C-19-1	G	Jan. 1999	
23C-20-1 and 23C-20-2	G	Jan. 1999	
23C-21-1	G	Jan. 1999	
23C-22-1 and 23C-22-2	G	Jan. 1999	
23C-23-1 and 23C-23-2	G	Jan. 1999	
23C-24-1 and 23C-24-2	G	Jan. 1999	
<b>23D-0-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-0-2 and 23D-0-3	H	July 1999	
<b>23D-0-4 and 23D-0-5</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-0-5a and 23D-0-5b</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
23D-0-6	H	July 1999	
<b>23D-1-1 to 23D-1-4</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-1-5	H	July 1999	
<b>23D-1-6</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-1-6a and 23D-1-6b</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
23D-1-7 and 23D-1-8	H	July 1999	
<b>23D-1-9 to 23D-1-11</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-1-12 and 23D-1-13</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
23D-2-1 and 23D-2-2	H	July 1999	
<b>23D-2-3 and 23D-2-4</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-2-5</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
23D-3-1 and 23D-3-2	H	July 1999	
<b>23D-4-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-5-1 and 23D-5-2	H	July 1999	
23D-6-1 and 23D-6-2	H	July 1999	
23D-7-1 to 23D-7-15	H	July 1999	
<b>23D-7-16 and 23D-7-17</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-7-18 to 23D-7-33	H	July 1999	
23D-8-1 to 23D-8-4	H	July 1999	
<b>23D-8-5</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-9-1	H	July 1999	
23D-10-1 and 23D-10-2	H	July 1999	
23D-11-1 and 23D-11-2	H	July 1999	
23D-12-1 to 23D-12-3	H	July 1999	

Missing sheets will be supplied upon request.

Page	Revision code	Date	Remarks
23D-13-1	H	July 1999	
<b>23D-13-2 and to 23D-13-3</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-13-4 to 23D-13-6	H	July 1999	
<b>23D-14-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-14-2	H	July 1999	
<b>23D-14-3</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-14-3a to 23D-14-3d</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
23D-14-4 to 23D-14-9	H	July 1999	
<b>23D-14a-1 to 23D-14a-11</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23D-15-1 and 23D-15-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-15-3</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23D-16-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-16-2	H	July 1999	
<b>23D-17-1 and 23D-17-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-18-1 to 23D-18-4</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-18-5</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23D-18a-1 and 23D-18a-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23D-19-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
23D-19-2	H	July 1999	
<b>23D-20-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Revised</b>
<b>23D-21-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23D-22-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23D-23-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-0-1 to 23E-0-5</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-1-1 to 23E-1-13</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-2-1 to 23E-2-5</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-3-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-4-1 and 23E-4-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-5-1 to 23E-5-35</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-6-1 to 23E-6-4</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-7-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-8-1 and 23E-8-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-9-1 and 23E-9-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-10-1 to 23E-10-3</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-11-1 to 23E-11-6</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-12-1 and 23E-12-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-13-1 to 23E-13-3</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-14-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-15-1 to 23E-15-11</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-16-1 and 23E-16-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-17-1 and 23E-17-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-18-1 and 23E-18-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-19-1 and 23E-19-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>

Page	Revision code	Date	Remarks
<b>23E-20-1 and 23E-20-2</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-21-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-22-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>
<b>23E-23-1</b>	<b>I</b>	<b>Mar. 2000</b>	<b>Added</b>

Missing sheets will be supplied upon request.