

Revision A:

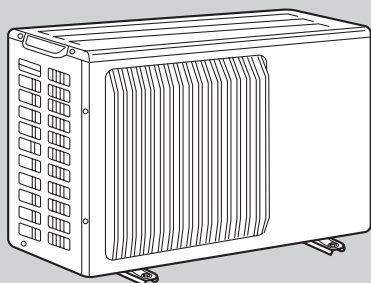
- MUH-A12YV -[E1] can be connected to MCFH-A12WW -[E1].

Please void OB331.

SERVICE MANUAL


**No. OB331
REVISED EDITION-A**
**Wireless type
Models**
MUH-A07YV -[E1]

MUH-A09YV -[E1]

MUH-A12YV -[E1]

 Indication of
model name

MUH-A07YV -[E1]

MUH-A09YV -[E1]

MUH-A12YV -[E1]

CONTENTS

1. TECHNICAL CHANGES	2
2. PART NAMES AND FUNCTIONS	5
3. SPECIFICATION	5
4. NOISE CRITERIA CURVES	6
5. OUTLINES AND DIMENSIONS	7
6. WIRING DIAGRAM	7
7. REFRIGERANT SYSTEM DIAGRAM	8
8. PERFORMANCE CURVES	9
9. MICROPROCESSOR CONTROL	22
10. SERVICE FUNCTIONS	24
11. TROUBLESHOOTING	24
12. DISASSEMBLY INSTRUCTIONS	31
13. PARTS LIST	34

NOTE:

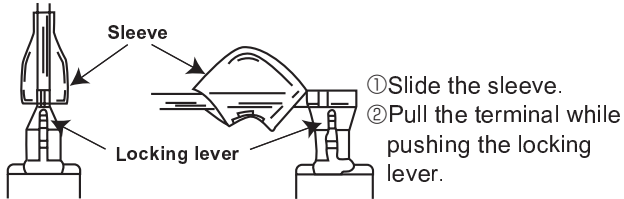
- This manual describes technical data of outdoor units.
- As for indoor units MSC-A07/A09/A12YV -[E1], refer to the service manual OB329.
- As for indoor unit MCFH-A12WW -[E1], refer to the service manual OB336.



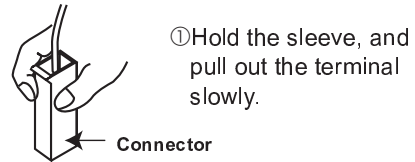
<"Terminal with lock mechanism" Detaching points>

In case of terminal with lock mechanism, detach the terminal as shown below.
There are two types (Refer to (1) and (2)) of the terminal with lock mechanism.
The terminal with no lock mechanism can be removed by pulling it out.
Check the shape of the terminal and work.

(1) Slide the sleeve and check if there is a locking lever or not.



(2) The terminal with this connector is a terminal with lock mechanism



MUH-A07YV -[E1] MUH-A09YV -[E1] MUH-A12YV -[E1]
OUTDOOR UNIT

OPERATING PROCEDURE	PHOTOS
<p>1. Removing the cabinet</p> <ol style="list-style-type: none"> (1) Remove the screws of the top panel. (2) Remove the screw of the service panel. (3) Remove the screws of the cabinet. (4) Remove the screws of the front panel and motor support. (5) Remove the service panel, and remove the screw from the insides. (6) Remove the top panel. (7) Remove the cabinet. <p>Photo 3</p> <p>Screws of the service panel Screws of the top panel</p> <p>Service panel</p>	<p>Photo 1</p> <p>Screws of the front panel and motor support</p> <p>Screws of the cabinet</p> <p>Screws of the cabinet</p> <p>Photo 2</p> <p>Screw of the top panel</p> <p>Screws of the cabinet</p>

OPERATING PROCEDURE

2. Removing the deicer P.C. board

- (1) Remove the service panel and the cabinet.
- (2) Disconnect all the connectors and the terminals on the deicer P.C. board.
- (3) Remove the deicer P.C. board.

3. Removing the propeller and the outdoor fan motor

- (1) Remove the cabinet. (Refer to 1.)
- (2) Remove the propeller nut.
- (3) Remove the propeller.

NOTE : Loose the propeller in the rotating direction for removal.

When attaching the propeller, align the mark on the propeller and the motor shaft cut section.

Set the propeller in position by using the cut on the shaft and the mark on the propeller.

- (4) Remove lead clamps and disconnect the outdoor fan motor connector.
- (5) Remove screws fixing the fan motor.
- (6) Remove the outdoor fan motor.

PHOTOS

Photo 4

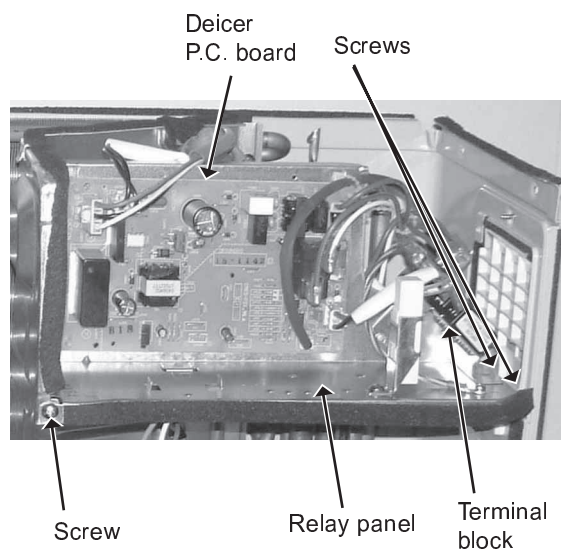
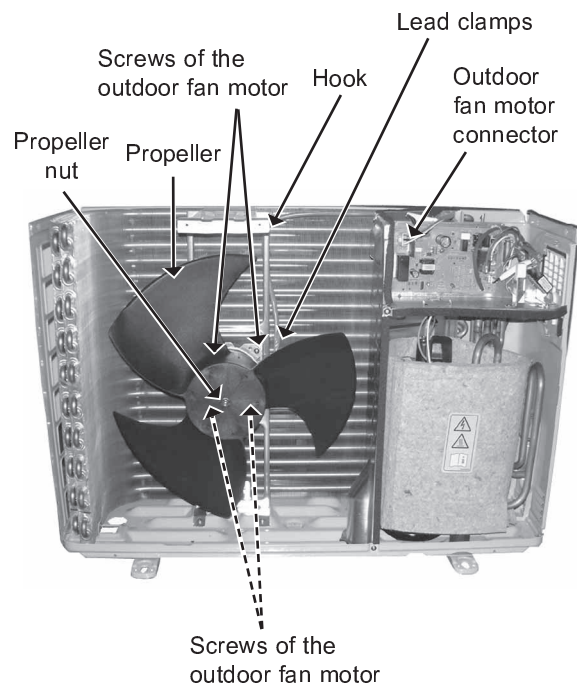
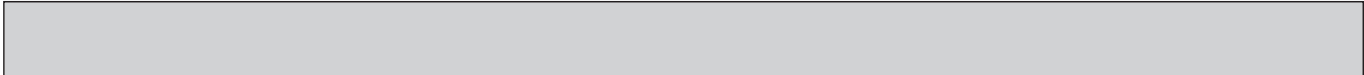


Photo 5





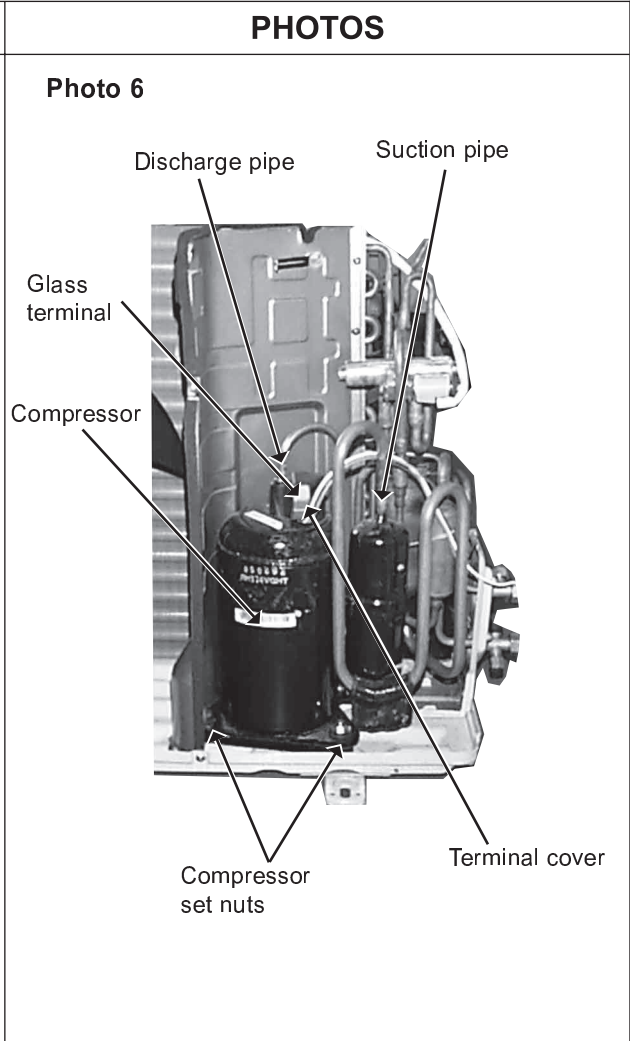
OPERATING PROCEDURE

4. Removing the compressor

- (1) Remove the cabinet. (Refer to 1.)
- (2) Remove the relay panel.
- (3) Remove the soundproof felt.
- (4) Remove the terminal cover on the compressor.
- (5) Disconnect lead wires from the glass terminal of the compressor.
- (6) Recover gas from the refrigerant circuit.
- (7) Disconnect the welded part of the discharge pipe.
- (8) Disconnect the welded part of the suction pipe.
- (9) Remove nuts fixing the compressor.
- (10) Remove the compressor.

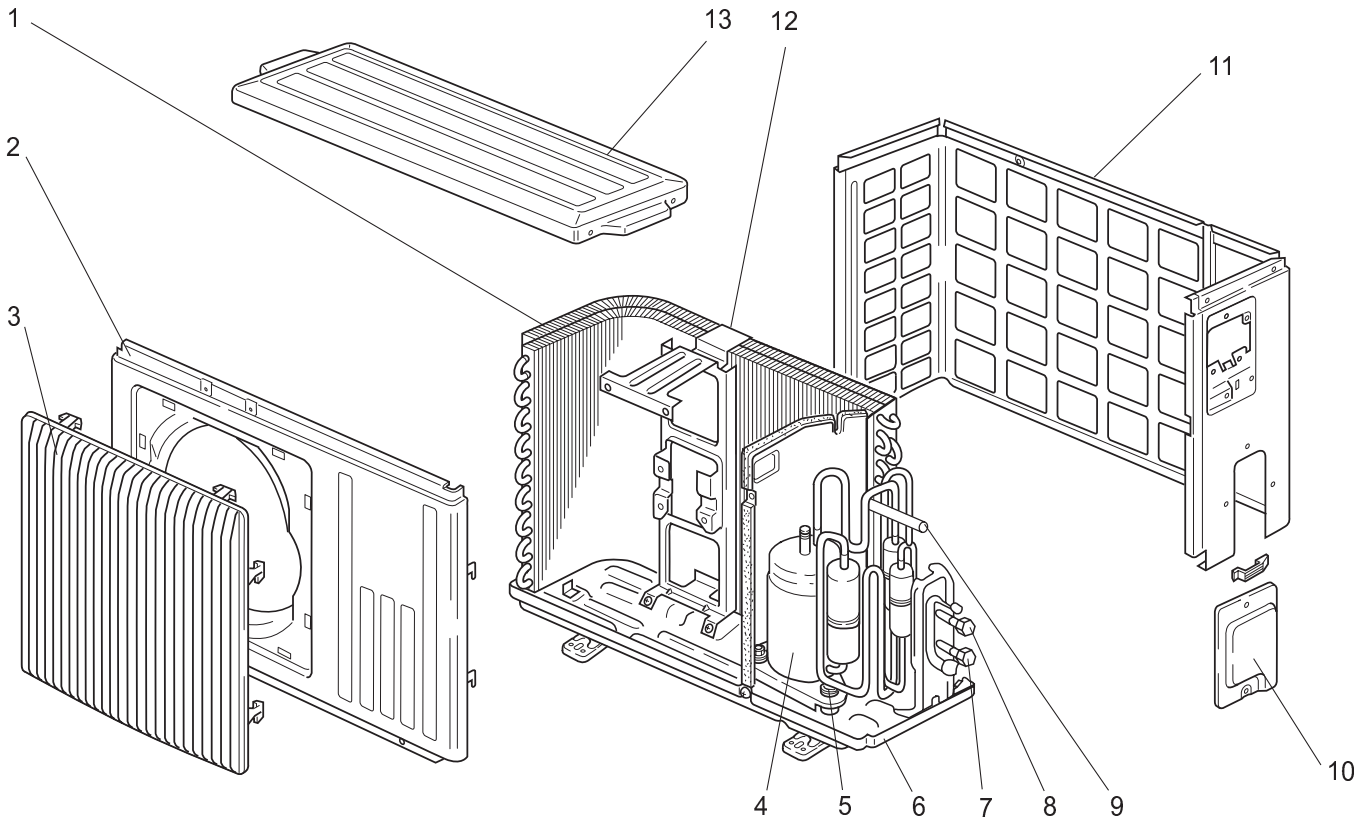
NOTE

- Before using a burner, reclaim gas from the pipes until the pressure gauge shows 0 kg/cm² (0 MPa).
- Use the burner under the condition that gas can be recovered even when the inner pressure rises by heat.



MUH-A07YV -E1 MUH-A09YV -E1 MUH-A12YV -E1

13-1. OUTDOOR UNIT STRUCTURAL PARTS

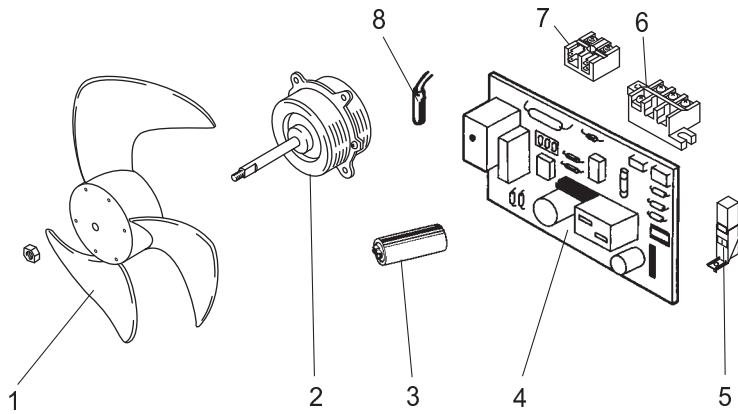


Part numbers that are circled are not shown in the illustration.

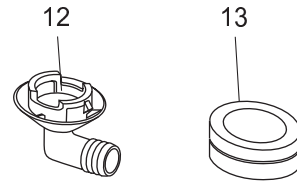
No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit			Remarks
				MUH-A07YV- E1	MUH-A09YV- E1	MUH-A12YV- E1	
1	E02 835 630	OUTDOOR HEAT EXCHANGER		1			
	E02 836 630	OUTDOOR HEAT EXCHANGER			1		
	E02 837 630	OUTDOOR HEAT EXCHANGER				1	
2	E02 815 232	CABINET		1	1	1	
3	E02 815 521	GRILLE(OUT)		1	1	1	
4	E02 742 900	COMPRESSOR	MC	1			RN092VHSHT
	E02 753 900	COMPRESSOR	MC		1		RN104VHSHT
	E02 754 900	COMPRESSOR	MC			1	RN135VHSHT
5	E02 075 506	COMPRESSOR RUBBER SET		3	3	3	3RUBBERS/SET
6	E02 832 290	BASE		1	1	1	
7	E02 742 661	STOP VALVE(GAS)		1	1		φ9.52
	E02 747 661	STOP VALVE(GAS)				1	φ12.7
8	E02 745 662	STOP VALVE(LIQUID)		1	1	1	φ6.35
9	E02 745 961	4-WAY VALVE		1	1	1	
10	E02 815 245	SERVICE PANEL		1	1	1	
11	E02 836 233	BACK PANEL		1	1	1	
12	E02 336 515	MOTOR SUPPORT		1			
	E02 442 515	MOTOR SUPPORT			1	1	
13	E02 815 297	TOP PANEL		1	1	1	
⑭	E02 159 936	CAPILLARY TUBE		2			φ3.0xφ1.4x800
	E02 156 936	CAPILLARY TUBE		1	2	2	φ3.0xφ1.4x500
	E02 339 936	CAPILLARY TUBE		1	1		φ3.0xφ1.4x600
	E02 024 936	CAPILLARY TUBE			1		φ3.0xφ1.4x1000
	E02 726 936	CAPILLARY TUBE				1	φ3.0xφ1.6x600
	E02 837 936	CAPILLARY TUBE				1	φ3.0xφ1.6x1050
⑮	E02 154 642	CHECK VALVE		1	1	1	

MUH-A07YV -E1 MUH-A09YV -E1 MUH-A12YV -E1

13-2. OUTDOOR UNIT ELECTRICAL PARTS AND FUNCTIONAL PARTS



13-3. ACCESSORY



13-2. OUTDOOR UNIT ELECTRICAL PARTS AND FUNCTIONAL PARTS

Part numbers that are circled are not shown in the illustration.

No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit			Remarks
				MUH-A07YV- E1	MUH-A09YV- E1	MUH-A12YV- E1	
1	E02 665 501	PROPELLER		1	1	1	
2	E02 835 301	OUTDOOR FAN MOTOR	MF	1			RC6V20-□□
	E02 672 301	OUTDOOR FAN MOTOR	MF		1	1	RA6V33-□□
3	E02 752 353	COMPRESSOR CAPACITOR	C1	1			20 μ F /440V AC
	E02 694 353	COMPRESSOR CAPACITOR	C1		1		25 μ F /440V AC
	E02 696 353	COMPRESSOR CAPACITOR	C1			1	30 μ F /440V AC
4	E02 835 451	DEICER P.C. BOARD		1			
	E02 836 451	DEICER P.C. BOARD			1	1	
5	E02 128 383	SURGE ABSORBER	DSAR	1	1	1	
6	E02 817 374	TERMINAL BLOCK	TB1	1	1	1	3P
7	E02 836 374	TERMINAL BLOCK	TB2	1	1	1	2P
8	E02 699 310	DEFROST THERMISTOR	RT61	1	1	1	
⑨	E02 440 490	R. V. COIL	21S4	1	1	1	
⑩	E02 095 382	FUSE	F61	1	1	1	250V 2A
⑪	E02 820 385	VARISTOR	NR61	1	1	1	

13-3. ACCESSORY

12	E02 817 704	DRAIN SOCKET		1	1	1	
13	E02 440 705	DRAIN CAP		2	2	2	2PCS/SET



HEAD OFFICE: MITSUBISHI DENKI BLDG. 2-2-3, MARUNOUCHI, CHIYODA-KU, TOKYO100-8310, JAPAN

© Copyright 2003 MITSUBISHI ELECTRIC ENGINEERING CO.,LTD
Distributed in Feb. 2004. No.OB331 REVISED EDITION-A 6
Distributed in Dec. 2003. No.OB331 6
Made in Japan

New publication, effective Feb. 2004
Specifications subject to change without notice.