MITSUBISHI ELECTRIC

Changes for the Better

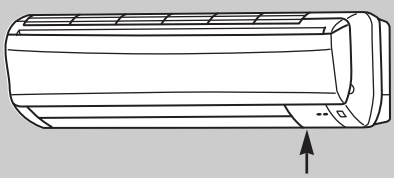
SPLIT-TYPE, AIR CONDITIONERS

No. OB396

SERVICE MANUAL

Wireless type
Models

MS-A08VD-P1
MS-A10VD-P1
MS-A13VD-P1



Indication of model name
MS-A08VD -P1
MS-A10VD -P1
MS-A13VD -P1

CONTENTS

Mr.SLIM™

NOTE:
- This service manual describes technical data of indoor units.
- As for outdoor units MU-A08VD -P1,MU-A10VD -P1 and MU-A13VD -P1, refer to the service manual OB397.

1 TECHNICAL CHANGES

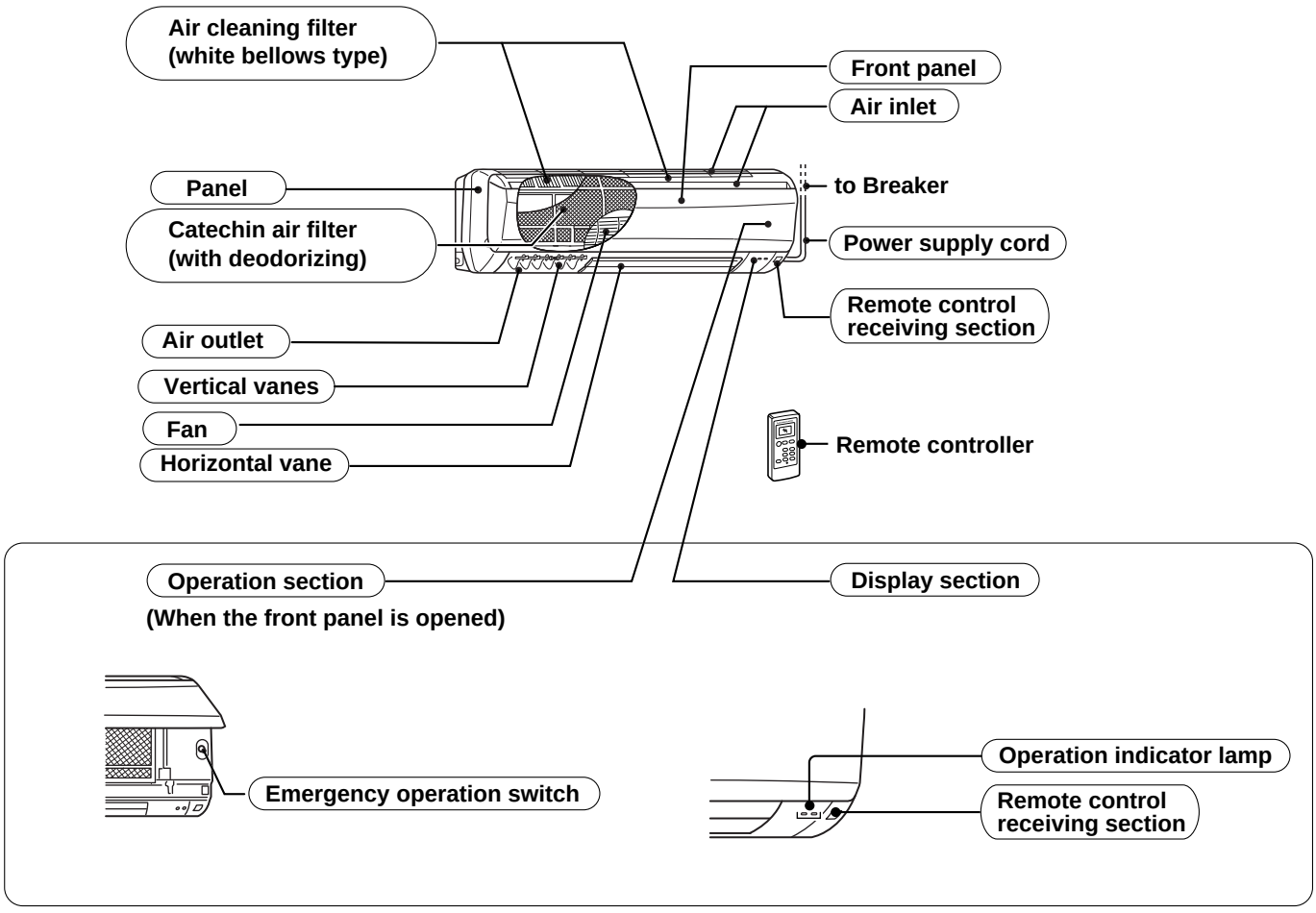
MS-07UV -P1 → MS-A08VD -P1
MS-10UV -P1 → MS-A10VD -P1
MS-13UV -P1 → MS-A13VD -P1

1. Indoor unit has been changed.
   • Front panel has been changed. (Grill → Flat)
   • Dimension has been changed. (850W×278H×191D → 815W×278H×244D)
2. Easy clean function has been added.
3. Catechin air filter has been added.
4. Air cleaning filter has been added.
5. Fan motor has been changed.
6. Fan motor capacitor has been changed.
7. P.C. board has been changed.
8. Fin pattern of cooler has been changed.
9. Remote controller has been changed.
   • OPERATE/STOP(ON/OFF) button and TEMPERATURE buttons have been remodeled to be luminous.

2 PART NAMES AND FUNCTIONS

INDOOR UNIT

MS-A08VD - P1
MS-A10VD - P1
MS-A13VD - P1

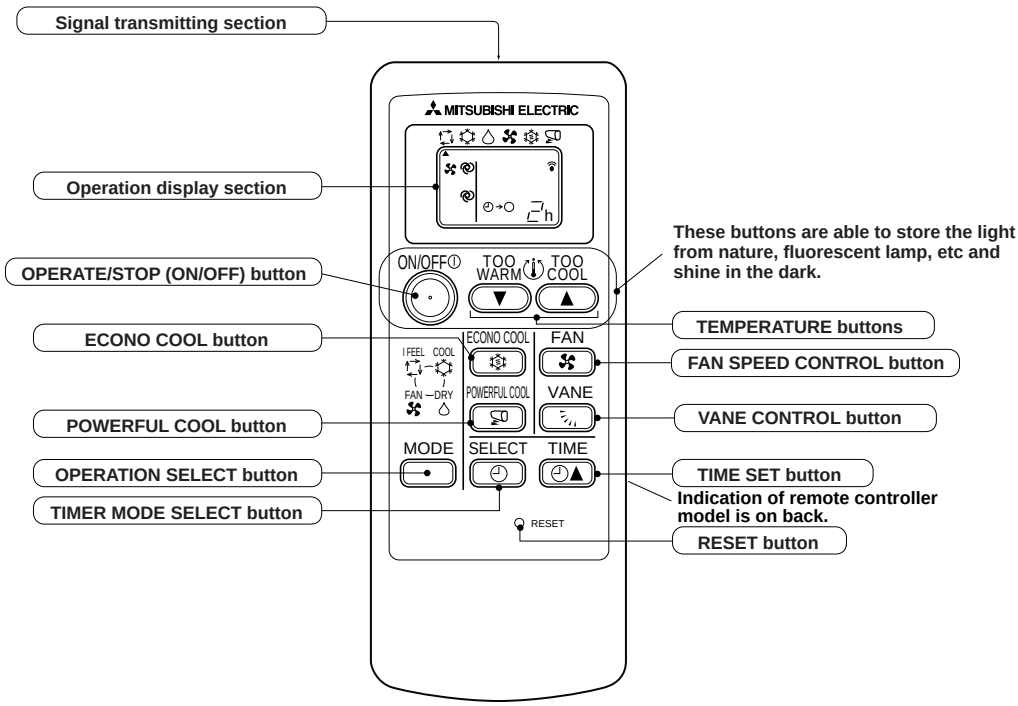


ACCESSORIES

		MS-A08VD - P1 MS-A10VD - P1 MS-A13VD - P1
①	Installation plate	1
②	Installation plate fixing screw 4 x 25 mm	5
③	Remote controller holder	1
④	Fixing screw for ③ 3.5 x 16 mm (Black)	2
⑤	Battery (AAA) for remote controller	2
⑥	Wireless remote controller	1
⑦	Felt tape (Used for left or left-rear piping)	1
⑧	Air cleaning filter	2

REMOTE CONTROLLER

MS-A08VD - P1
MS-A10VD - P1
MS-A13VD - P1



3 SPECIFICATION

Indoor model			MS-A08VD - P1	MS-A10VD - P1	MS-A13VD - P1
Function			Cooling		
Power supply			Single phase 220-230-240V, 50Hz		
Capacity	Air flow(High/Med※/Low※)	m³ /h	630/498※/360※		630/558※/486※
Electrical data	Power outlet	A	10		
	Running current	A	0.17		0.19
	Power input	W	35		40
	Auxiliary heater	A(kW)	——		
	Fan motor current	A	0.17		0.19
Fan motor	Model		RC4V19-JA		RC4V19-HA
	Winding resistance(at 20℃)	Ω	WHT-BLK 283 BLK-RED 188		WHT-BLK 224 BLK-RED 318
	Dimensions W×H×D	mm	815×278×244		
	Weight	kg	9		10
Special remarks	Air direction		5		
	Sound level (High/Med※/Low※)	dB	39/32※/26※		42/36※/29※
	Fan speed(High/Med※/Low※)	rpm	960/760※/550※		960/850※/740※
	Fan speed regulator		3		
	Thermistor RT11(at 25℃)	kΩ	10		
	Thermistor RT12(at 25℃)	kΩ	10		
Remote controller model			MP04B		

NOTE: Test conditions are based on JIS C 9612.
Cooling : Indoor DB27°C / WB19°C
Outdoor DB35°C / WB24°C
Indoor-Outdoor piping length : 5 m

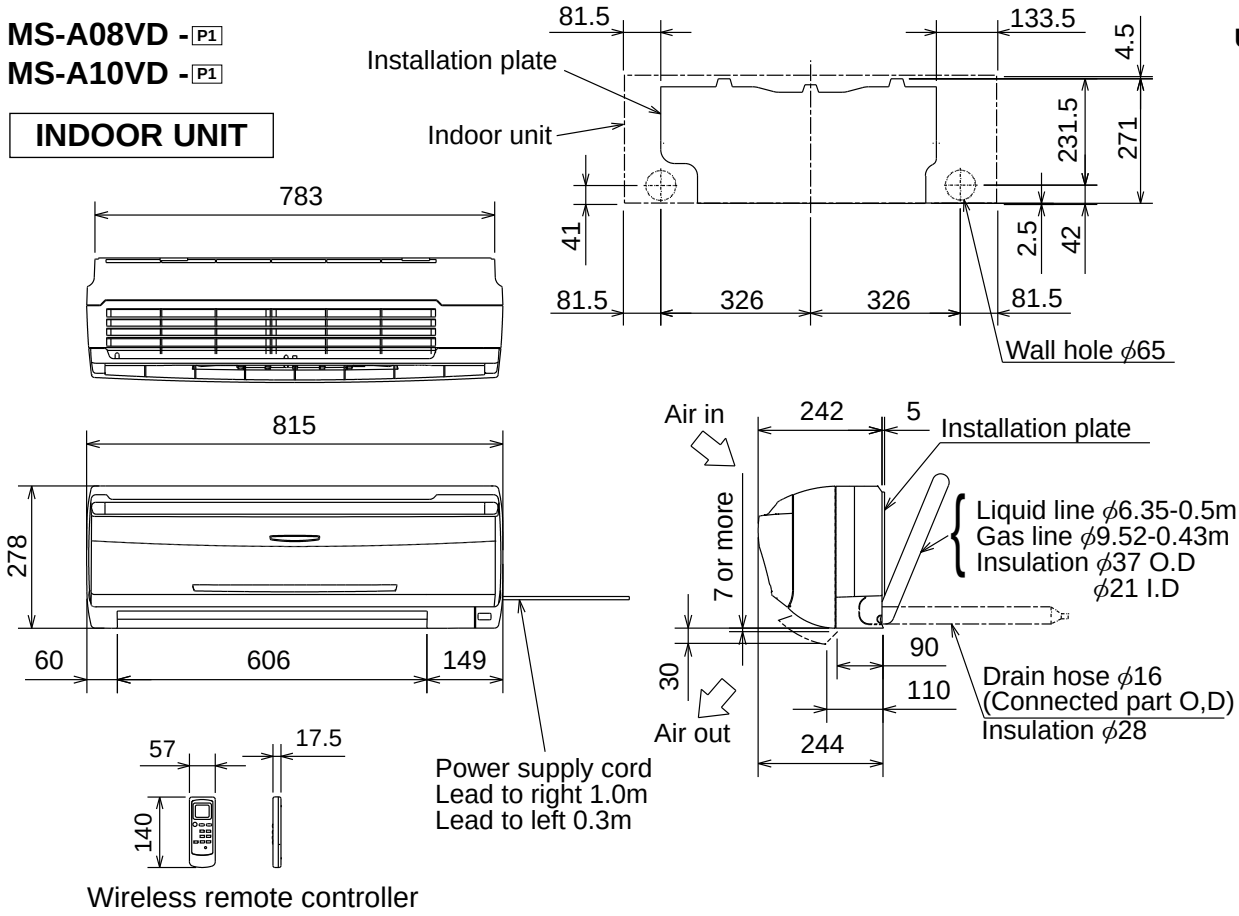
※ Reference value

4 OUTLINES AND DIMENSIONS

MS-A08VD - P1
MS-A10VD - P1

INDOOR UNIT

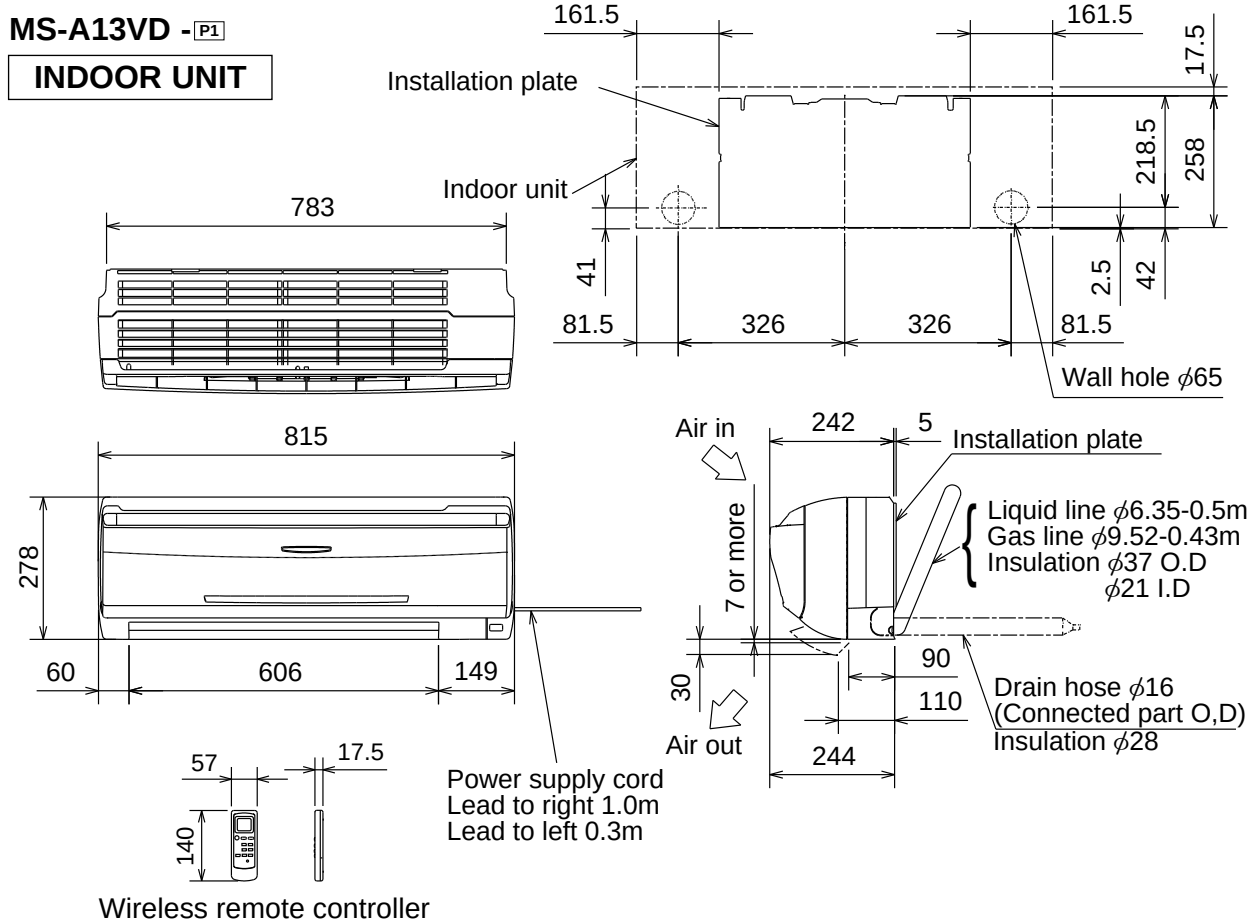
Unit : mm



Wireless remote controller

MS-A13VD - P1

INDOOR UNIT



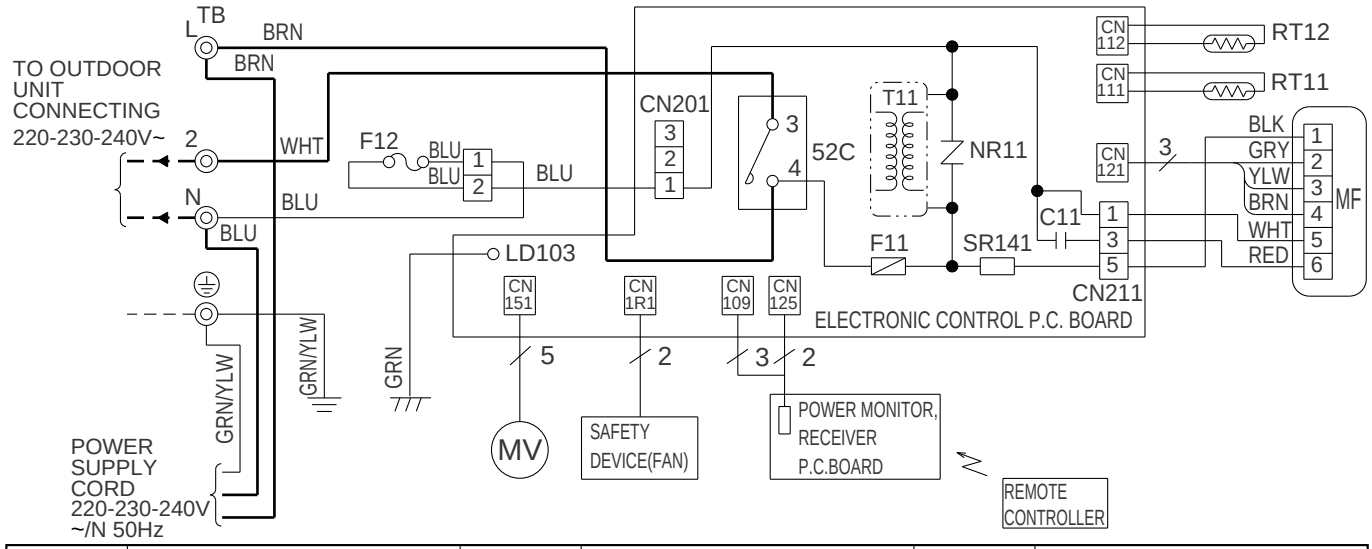
Wireless remote controller

5 WIRING DIAGRAM

MS-A08VD -P1 MS-A10VD -P1 MS-A13VD -P1

INDOOR UNIT

MODELS WIRING DIAGRAM



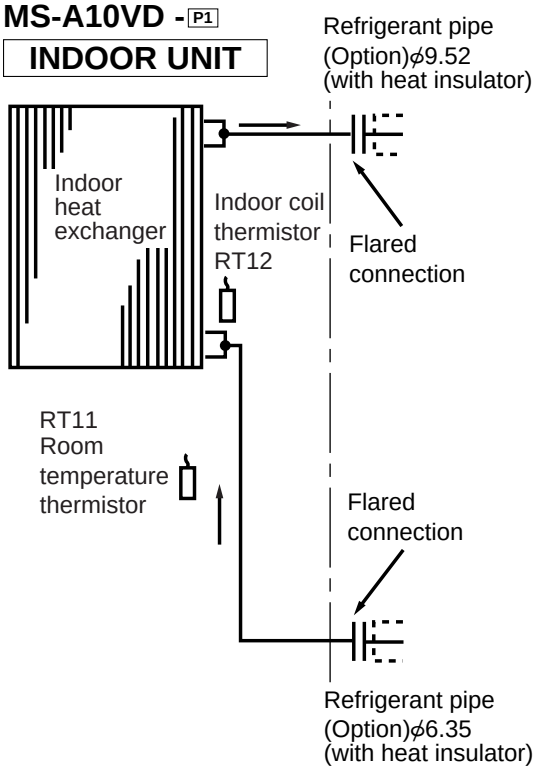
SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
C11	INDOOR FAN CAPACITOR	MV	VANE MOTOR	SR141	SOLID STATE RELAY
F11	FUSE(3.15A)	NR11	VARISTOR	TB	TERMINAL BLOCK
F12	THERMAL FUSE(93℃)	RT11	ROOM TEMPERATURE THERMISTOR	T11	TRANSFORMER
MF	INDOOR FAN MOTOR(INNER FUSE)	RT12	INDOOR COIL THERMISTOR	52C	CONTACTOR

NOTE:1. About the outdoor side electric wiring refer to the outdoor unit electric wiring diagram for servicing.
2. Use copper conductors only. (For field wiring)
3. Symbols below indicate.
◎: Terminal block, □□□□: Connector

6 REFRIGERANT SYSTEM DIAGRAM

MS-A08VD -P1
MS-A10VD -P1

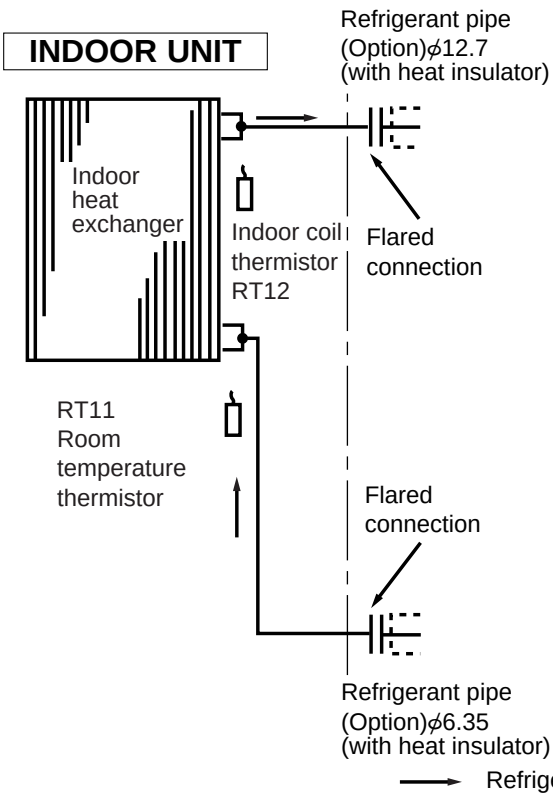
INDOOR UNIT



MS-A13VD -P1

Unit : mm

INDOOR UNIT



→ Refrigerant flow in cooling

7 SERVICE FUNCTIONS

MS-A08VD - P1
MS-A10VD - P1
MS-A13VD - P1

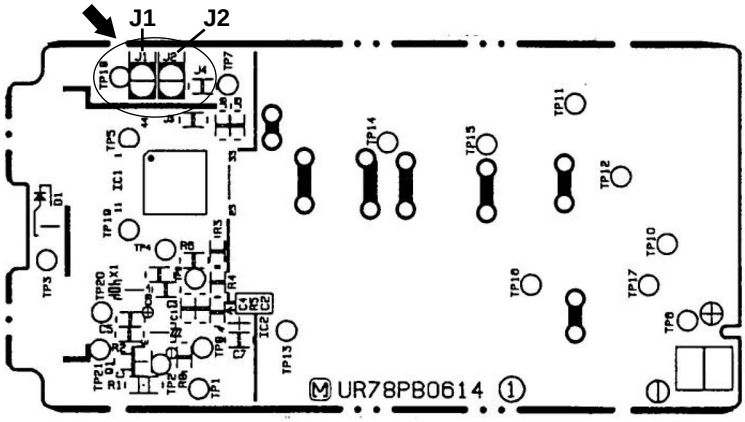
7-1. TIMER SHORT MODE

For service, set time can be shortened by short circuit of JPG and JPS the electronic control P.C. board.
The time will be shortened as follows. (Refer to 8-6.)
Set time : 1-minute ➔ 1-second
Set time : 3-minute ➔ 3-second
It takes 3 minutes for the compressor to start operation. However, the starting time is shortened by short circuit of JPG and JPS.

7-2. P.C. BOARD MODIFICATION FOR INDIVIDUAL OPERATION

A maximum of 4 indoor units with wireless remote controllers can be used in a room.
In this case, to operate each indoor unit individually by each remote controller, P.C. boards of remote controller must be modified according to the number of the indoor unit.

How to modify the remote controller P.C. board
Remove batteries before modification.
The board has a print as shown below :
Remote controller model : MP04B



NOTE : For remodelling, take out the batteries and push the OPERATE/STOP(ON/OFF)button twice or 3 times at first.
After finish remodelling, put back the batteries then press the RESET button.

The P.C. board has the print “J1” and “J2”. Solder “J1” and “J2” according to the number of indoor unit as shown in Table 1.
After modification, press the RESET button.

Table 1

	1 unit operation	2 units operation	3 units operation	4 units operation
No. 1 unit	No modification	Same as at left	Same as at left	Same as at left
No. 2 unit	–	Solder J1	Same as at left	Same as at left
No. 3 unit	–	–	Solder J2	Same as at left
No. 4 unit	–	–	–	Solder both J1 and J2

How to set the remote controller exclusively for particular indoor unit

After you turn the breaker ON, the first remote controller that sends the signal to the indoor unit will be regarded as the remote controller for the indoor unit.
The indoor unit only accepts the signal from the remote controller that has been assigned to the indoor unit once they are set.
The setting will be cancelled if the breaker has turned off, or the power supply has shut down.
Please conduct the above setting once again after the power has restored.

7-3. AUTO RESTART FUNCTION

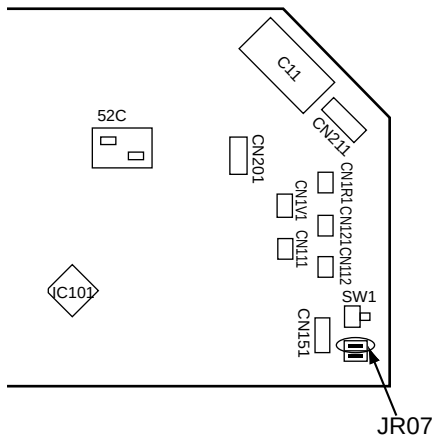
When the indoor unit is controlled with the remote controller, the operation mode, set temperature, and the fan speed are memorized by the indoor electronic control P.C.board. The “AUTO RESTART FUNCTION” sets to work the moment power has restored after power failure. Then, the unit will restart automatically. However if the unit is operated in “I FEEL CONTROL” mode before power failure, the operation is not memorized. In “I FEEL CONTROL” mode, the operation is decided by the initial room temperature.

Operation

①If the main power has been cut, the operation settings remain.
②After the power is restored, the unit automatically resumes the same operation as the memory has recorded.
However, it takes the compressor at least 3 minutes to get started.

How to release “AUTO RESTART FUNCTION”

①Turn off the main power for the unit.
②Pull out the indoor electronic control P.C. board and the power monitor, receiver P.C. board. (Refer to 9-1.)
③Solder the Jumper wire to the JR07 on the indoor electronic control P.C.board. (Refer to 8-6.)



NOTE:

- The operation settings are memorized when 10 seconds have passed after the indoor unit was operated with the remote controller.
- If the main power is turned off or a power failure occurs while AUTO START/STOP timer is active, the timer setting is cancelled.
- If the unit has been off with the remote controller before power failure, the auto restart function does not work as the power button of the remote controller is off.
- To prevent breaker off due to the rush of starting current, systematize other home appliances not to turn on at the same time.
- When some air conditioners are connected to the same supply system, if they are operated before power failure, the starting current of all the compressors may flow simultaneously at restart.
  Therefore, the special counter-measures are required to prevent the main voltage-drop or the rush of the starting current by adding to the system that allows the units to start one by one.

8 TROUBLESHOOTING

MS-A08VD -P1
MS-A10VD -P1
MS-A13VD -P1

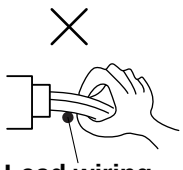
8-1. Cautions on troubleshooting

1. Before troubleshooting, check the following:

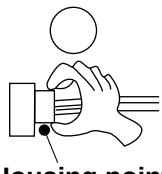
1) Check the power supply voltage.
2) Check the indoor/outdoor connecting wire for mis-wiring.

2. Take care the following during servicing.

1).Before servicing the air conditioner, be sure to turn off the main unit first with the remote controller, and then after confirming the horizontal vane is closed, turn off the breaker and / or disconnect the power plug.
2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel and the electronic control P.C. board.
3) When removing the electronic control P.C. board, hold the edge of the board with care NOT to apply stress on the components.
4) When connecting or disconnecting the connectors, hold the housing of the connector. DO NOT pull the lead wires.



Lead wiring



Housing point

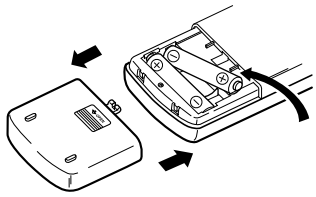
3. Troubleshooting procedure

1) First, check if the OPERATION INDICATOR lamp on the indoor unit is flashing on and off to indicate an abnormality. To make sure, check how many times the abnormality indication is flashing on and off before starting service work.
2) Before servicing that the connector and terminal are connected properly.
3) If the electronic control P.C. board is supposed to be defective, check the copper foil pattern for disconnection and the components for bursting and discolouration.
4) When troubleshooting, refer to 8-2. and 8-3.

4. How to replace batteries

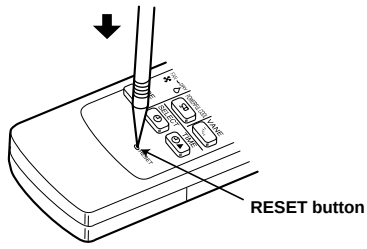
Weak batteries may cause the remote controller malfunction.
In this case, replace the batteries to operate the remote controller normally.

① Remove the back lid and insert batteries.
Then reattach the back lid.



Insert the negative pole of the batteries first. Check if the polarity of the batteries are correct.

② Press the RESET button with tip end of ball point pen or the like, and then use the remote controller.



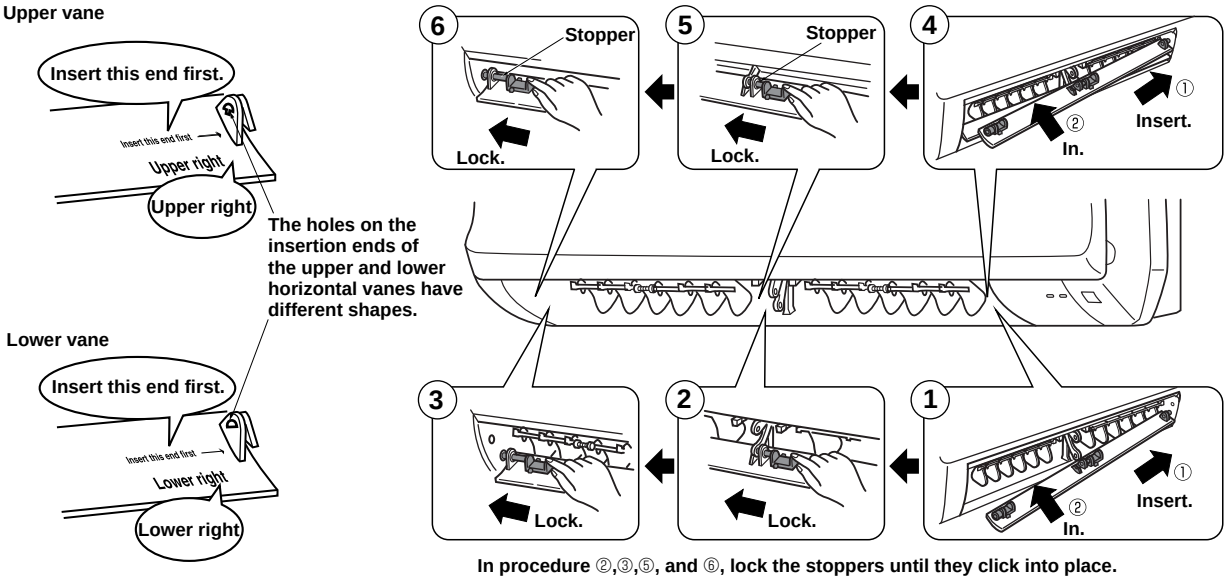
RESET button

NOTE : 1. If the RESET button is not pressed, the remote controller may not operate correctly.
2. This remote controller has a circuit to automatically reset the microcomputer when batteries are replaced. This function is equipped to prevent the microcomputer from malfunctioning due to the voltage drop caused by the battery replacement.

5. How to install the horizontal vanes

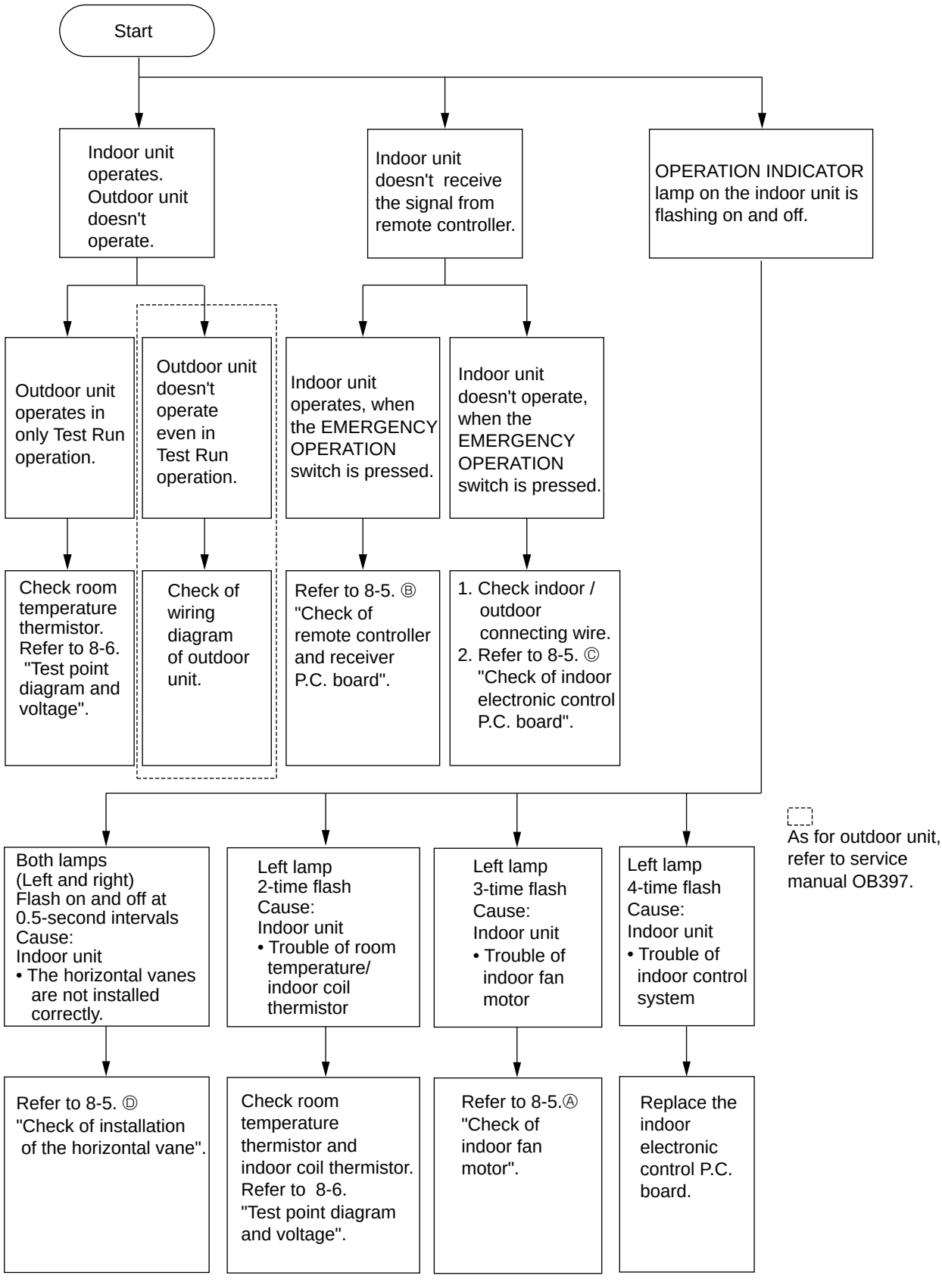
If horizontal vanes are not installed correctly, both of the operation indicator lamps will flash.
In this case, install the horizontal vanes correctly by following the procedures ① to ⑥.

NOTE: Before installation of the horizontal vanes, disconnect the power supply plug and/ or turn off the breaker.



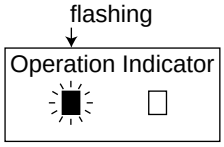
In procedure ②,③,⑤, and ⑥, lock the stoppers until they click into place.

8-2. Instruction of troubleshooting



8-3. Troubleshooting check table

• The following indication applies regardless of shape of the indicator.



· Flashing of the OPERATION INDICATOR lamp (on the left) indicates possible abnormalities.
· The OPERATION INDICATOR lamp (on the left) is lighting during normal operation.

Before taking measures, make sure that the symptom reappears for accurate troubleshooting.
Self check table

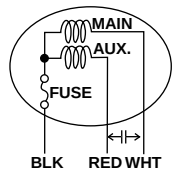
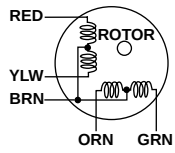
No.	Abnormal point	Indication	Symptom	Detection method	Check point
1	Attachment of the horizontal vane	Both lamps flash at the same time. 0.5-second ON 0.5-second OFF	Indoor unit and outdoor unit do not operate.	When the electricity is not conducted to the safety device (FAN) of the horizontal vane.	• Refer to 8-5. Ⓓ "Check of installation of the horizontal vanes".
2	Indoor coil thermistor Room tempera-ture thermistor	Left lamp flashes. 2-time flash 2.5-second OFF	Outdoor unit does not operate.	Detect Indoor coil/room temperature thermistor short or open circuit every 8 seconds during operation.	• Refer to the characteristics of indoor coil thermistor and room temperature thermistor shown in 8-6.
3	Indoor fan motor.	Left lamp flashes. 3-time flash 2.5-second OFF	Indoor fan motor repeats 12 seconds ON and 3 minutes OFF. When the indoor fan motor breaks, the fan keeps stopping.	When rotational frequency feedback signal is not emitting during 12-second indoor fan operation.	• Refer to 8-5.Ⓐ "Check of indoor fan motor".
4	Indoor control system	Left lamp flashes. 4-time flash 2.5-second OFF	Outdoor unit does not operate.	When it cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board.	• Replace the indoor electronic control P.C. board.

NOTE : When the indoor unit has started operation and the above detection method has detected an abnormality (the first detection after the power ON), the indoor electronic control P.C. board turns OFF the indoor fan motor with the OPERATION INDICATOR lamp flashing.

8-4. Trouble criterion of main parts

MS-A08VD - P1
MS-A10VD - P1
MS-A13VD - P1

<table>
<tr><th>Part name</th><th colspan="3">Check method and criterion</th><th>Figure</th></tr>
<tr><td>Room temperature thermistor (RT11)
Indoor coil thermistor (RT12)</td><td colspan="3">Measure the resistance with a tester.
(Part temperature 10°C ~ 30°C)<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>8kΩ ~ 20kΩ</td><td>Open or short-circuit</td></tr></table></td><td></td></tr>
<tr><td rowspan="2">Indoor fan motor (MF)

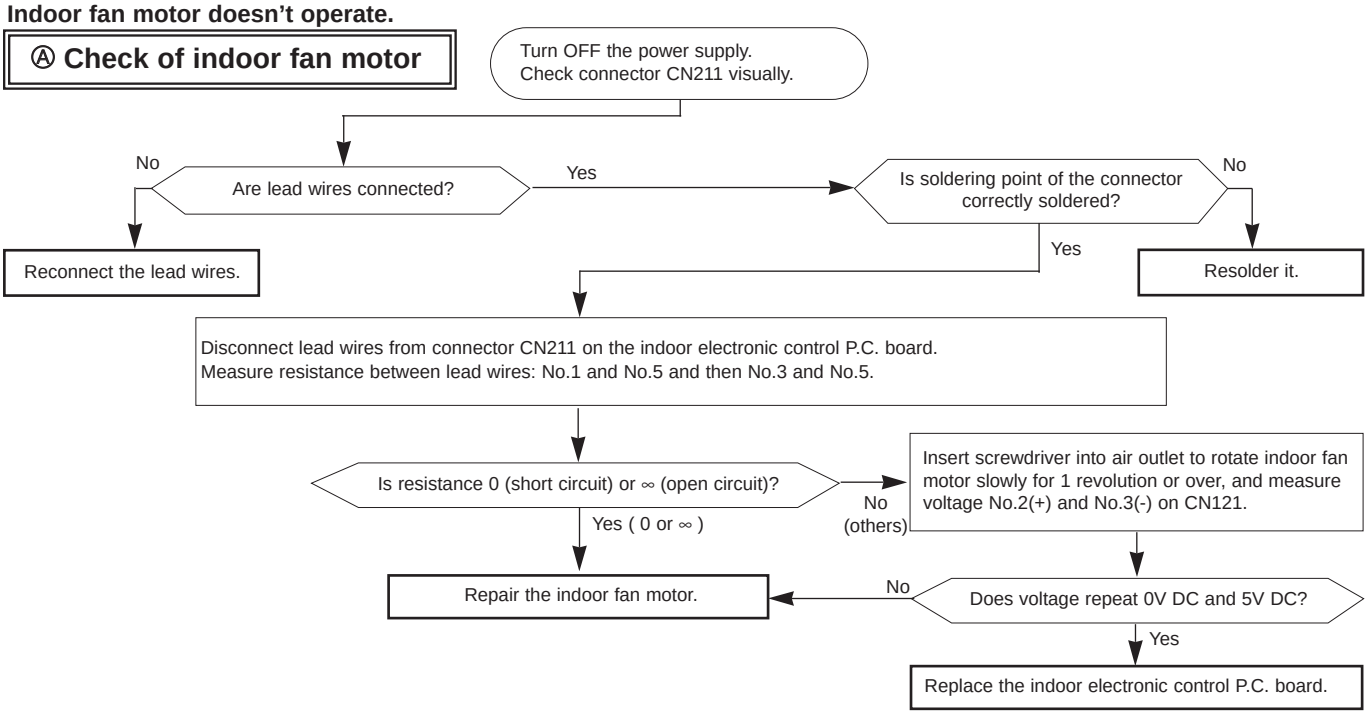
INNER FUSE
145± 2℃ CUT OFF</td><td>Motor part</td><td colspan="2">Measure the resistance between the terminals with a tester.
(Coil wiring temperature10°C ~ 30°C)<table><tr><th>Color of lead wire</th><th colspan="2">Normal</th><th>Abnormal</th></tr><tr><td></td><td>MS-A08/A10VD</td><td>MS-A13VD</td><td rowspan="3">Open or short-circuit</td></tr><tr><td>WHT-BLK</td><td>271~294Ω</td><td>215~233Ω</td></tr><tr><td>BLK-RED</td><td>180~195Ω</td><td>305~331Ω</td></tr></table></td><td rowspan="2"> 
</td></tr>
<tr><td>Sensor part</td><td colspan="2">Measure the voltage Power ON.<table><tr><th>Color of lead wire</th><th>Normal</th><th>Abnormal</th></tr><tr><td>BRN-YLW</td><td>4.5 ~ 5.5V</td><td rowspan="2">Remain 0V or 5V</td></tr><tr><td>YLW-GRY</td><td>(When fan revolved one time)
0V→5V→0V
(Approx.)</td></tr></table></td></tr>
<tr><td>Vane motor (MV)</td><td colspan="3">Measure the resistance between the terminals with a tester.
(Part temperature10°C ~ 30°C)<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>240 ~ 260Ω</td><td>Open or short-circuit</td></tr></table></td><td> 
</td></tr>
</table>

8-5. Troubleshooting flow

When left OPERATION INDICATOR lamp flashes 3-time.

Indoor fan motor doesn't operate.

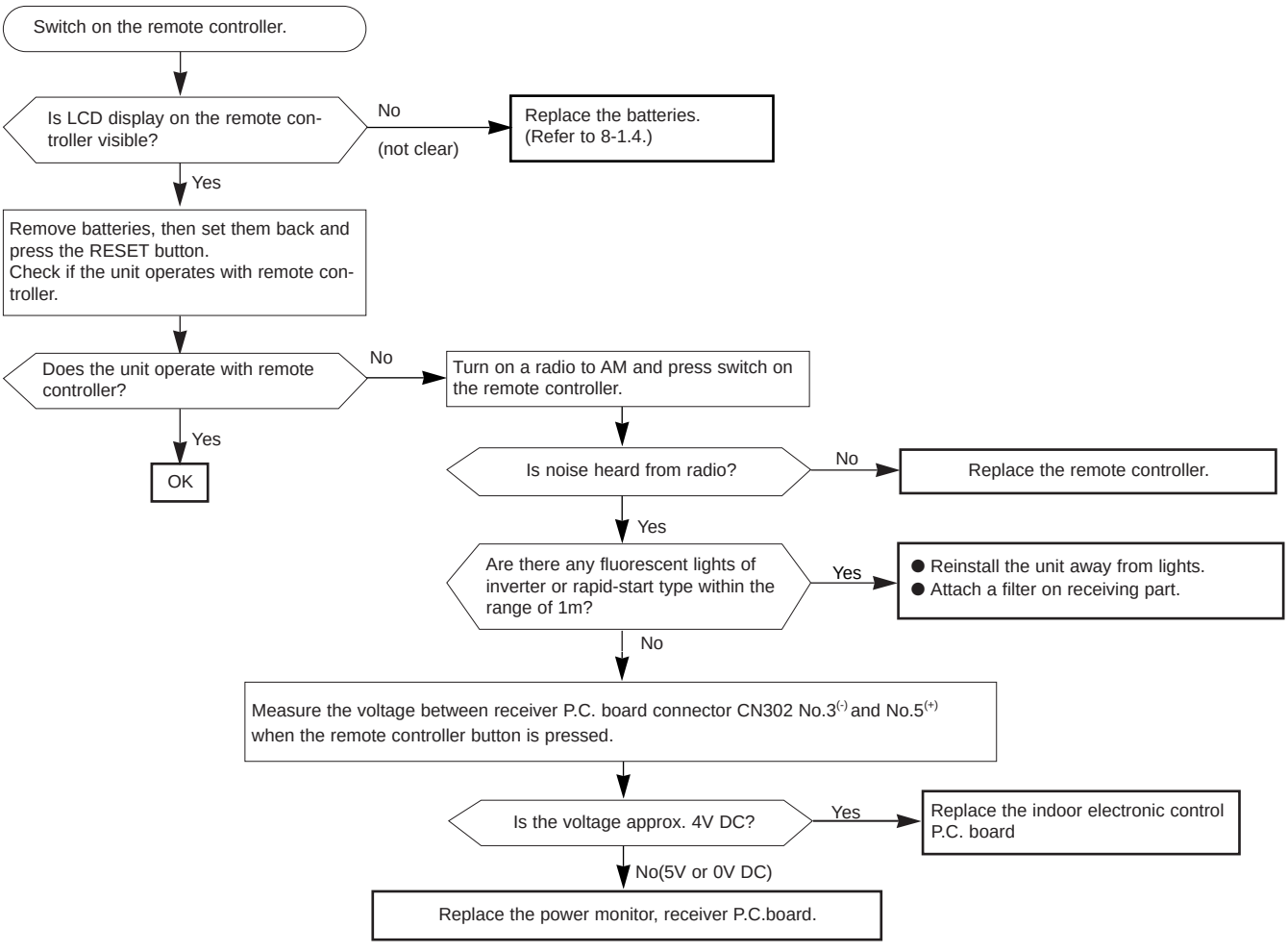
Ⓐ Check of indoor fan motor



Indoor unit operates by pressing the EMERGENCY OPERATION switch, but doesn't operate with the remote controller.

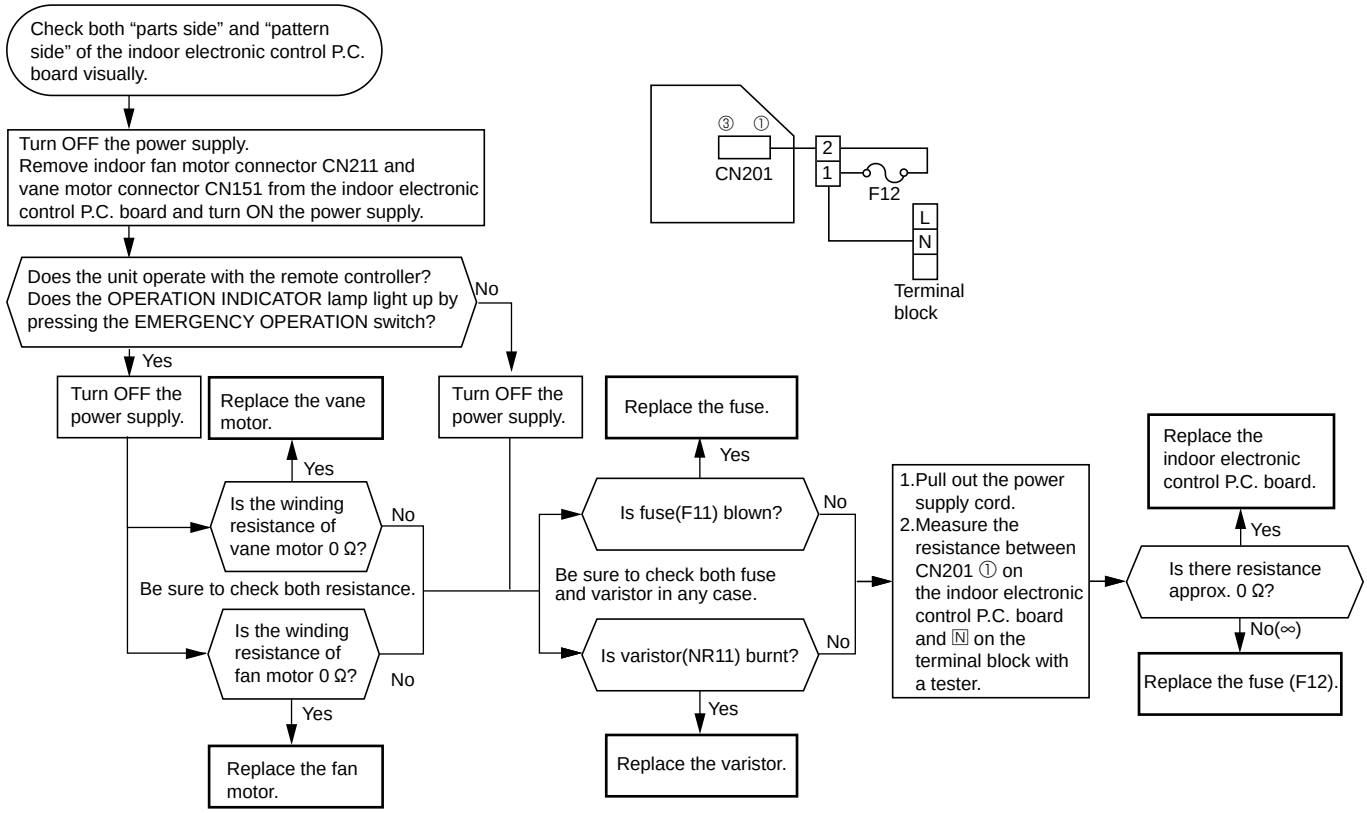
Ⓑ Check of remote controller and receiver P.C. board

※ Check if the remote controller is exclusive for this air conditioner.



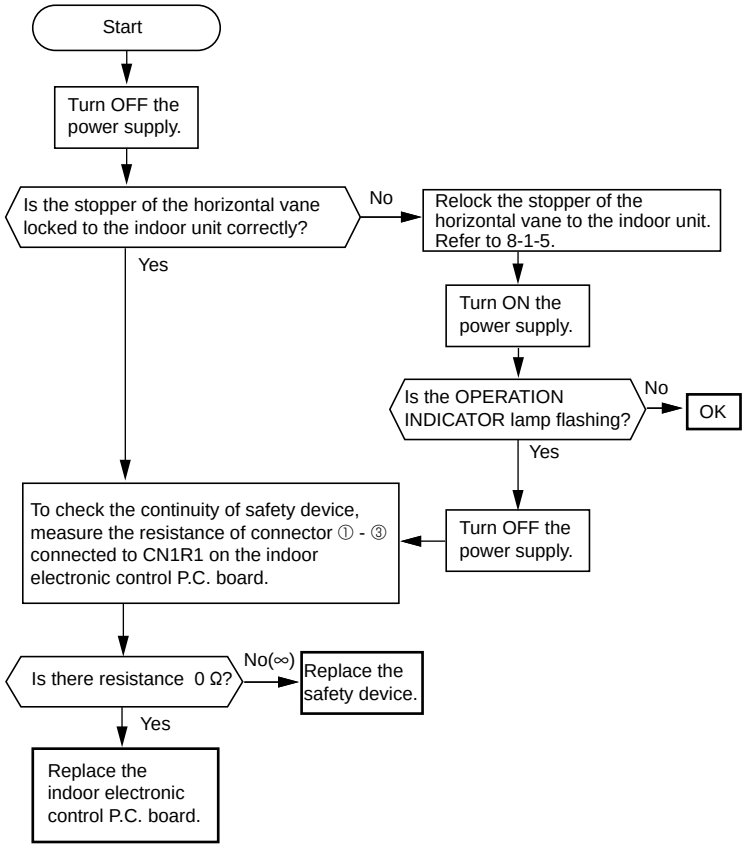
The unit doesn't operate with the remote controller.
Also, the OPERATION INDICATOR lamp doesn't light up by pressing the EMERGENCY OPERATION switch.

ⓒCheck of indoor electronic control P.C. board



When both OPERATION INDICATOR lamps flash ON and OFF every 0.5-second.
Indoor unit and outdoor unit don't operate.

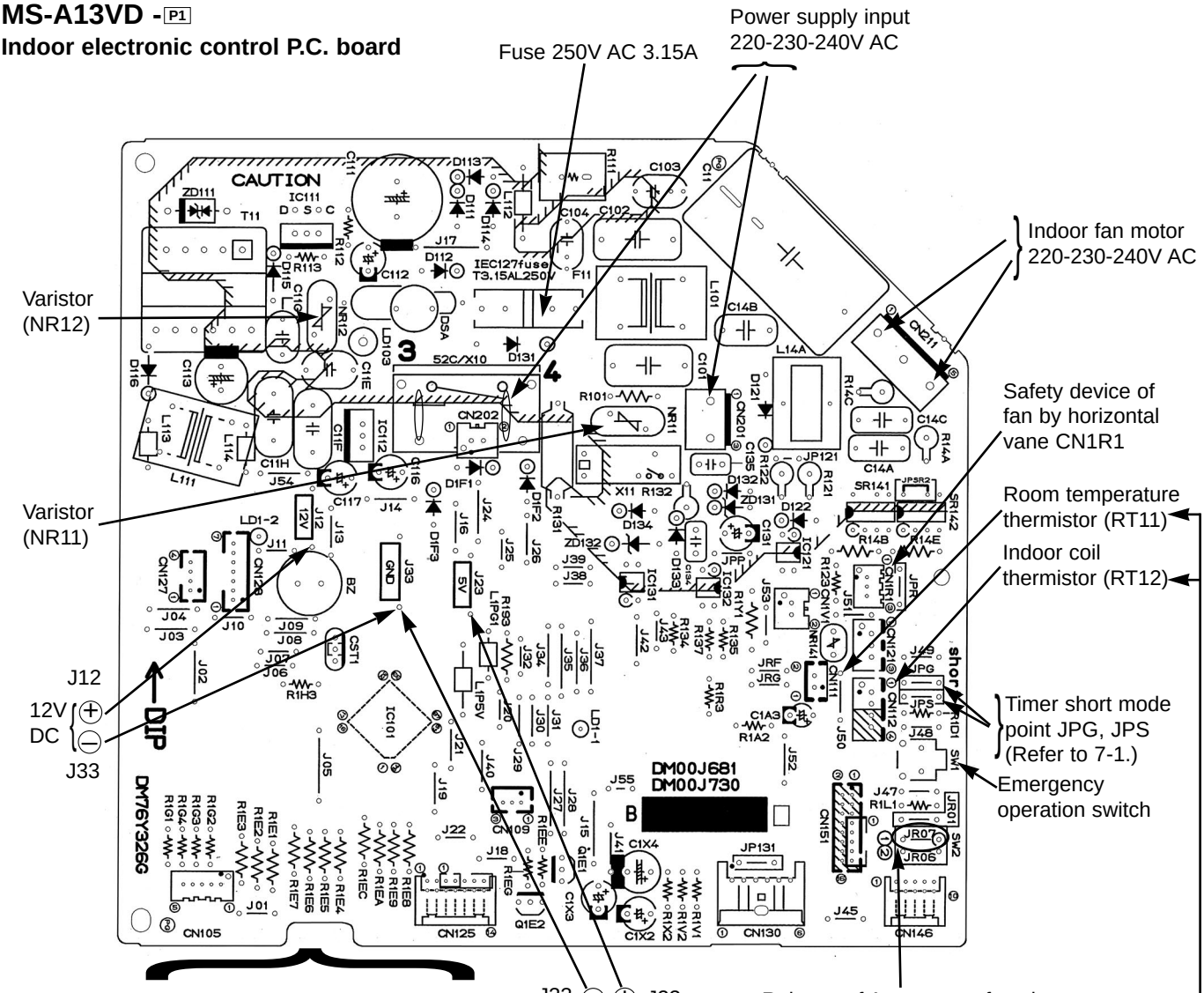
Ⓓ Check of installation of the horizontal vane



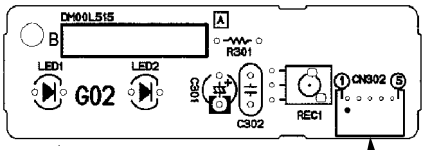
8-6. Test point diagram and voltage

MS-A08VD - P1
MS-A10VD - P1
MS-A13VD - P1

Indoor electronic control P.C. board

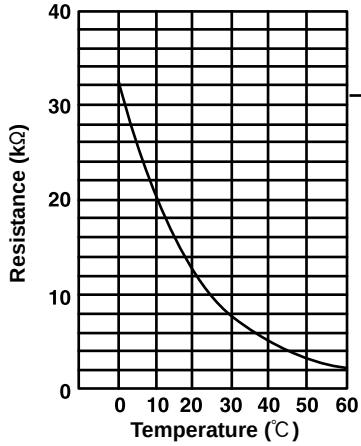


Power monitor, receiver P.C. board



CN302

Indoor coil thermistor (RT12)
Room temperature thermistor (RT11)

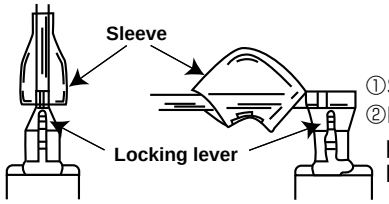


9 DISASSEMBLY INSTRUCTIONS

<"Terminal with locking mechanism" Detaching points>

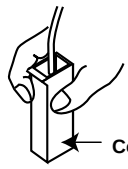
The terminal which has the locking mechanism can be detached as shown below.
There are two types (Refer to (1) and (2)) of the terminal with locking mechanism.
The terminal without locking mechanism can be detached by pulling it out.
Check the shape of the terminal before detaching.

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



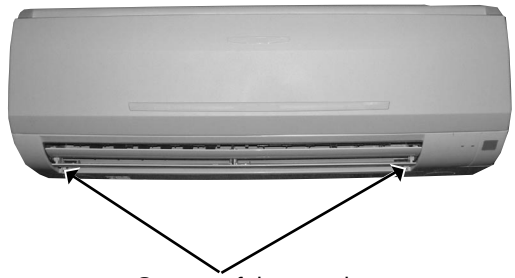
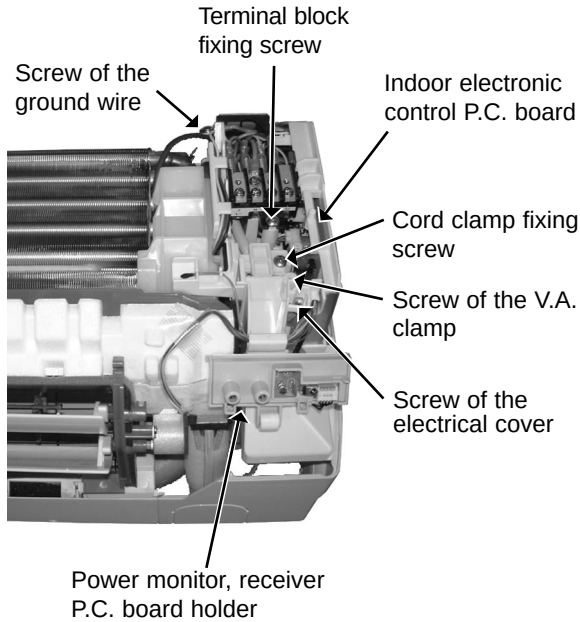
①Slide the sleeve.
②Pull the terminal while pushing the locking lever.

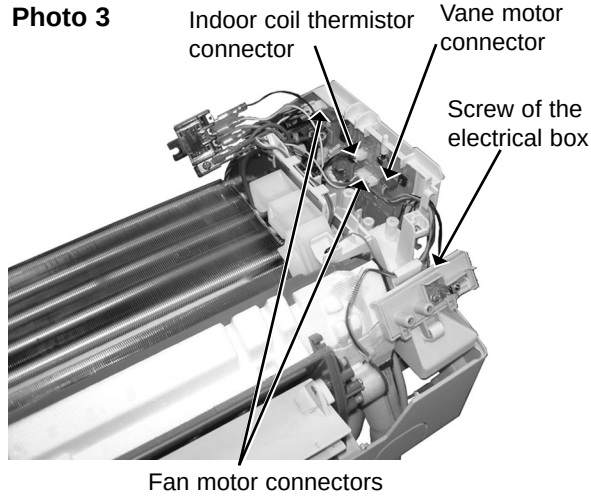
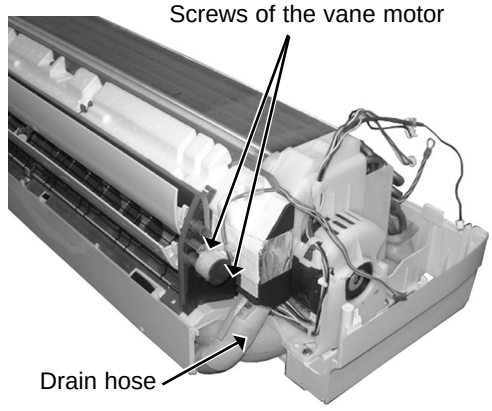
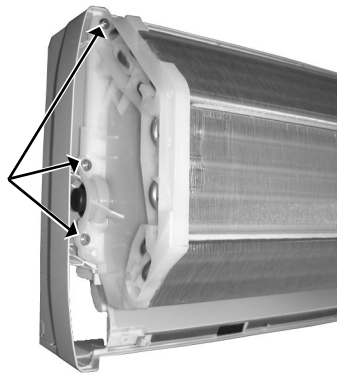
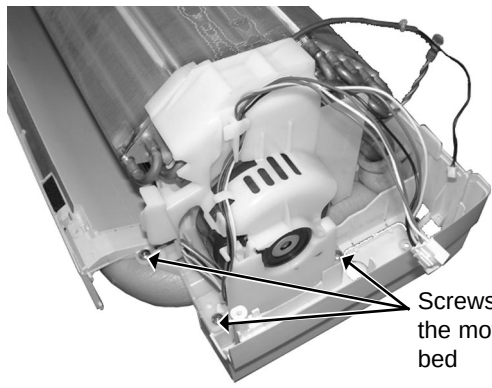
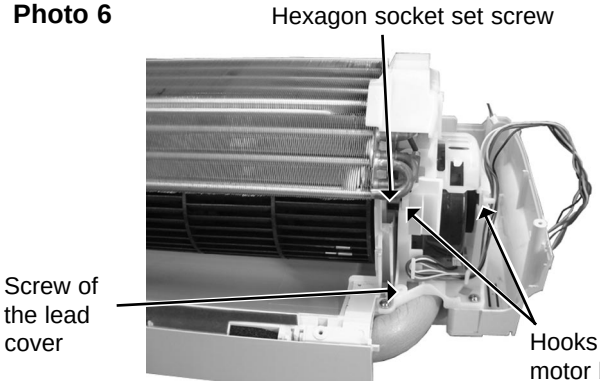
(2) The terminal with this connector has the locking mechanism.



①Hold the sleeve, and pull out the terminal slowly.

9-1. MS-A08VD -P1 MS-A10VD -P1 MS-A13VD -P1 INDOOR UNIT

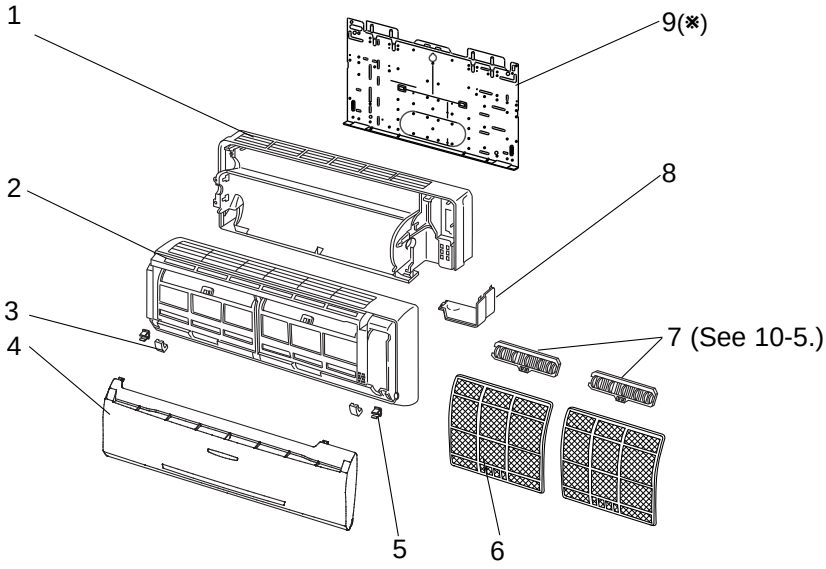
OPERATING PROCEDURE	PHOTOS
1. Removing the panel (1) Remove the screw caps of the panel. Remove the screws. (2) Pull the panel down to your side slightly and unhook the catches at the top.	**Photo 1**  Screws of the panel
2. Removing the electronic control P.C. board and the power monitor, receiver P.C. board **NOTE :** In case of removing only indoor electronic control P.C. board work (3) is not necessary. (1) Remove the panel. (Refer to 1.) (2) Remove the power monitor, receiver P.C. board holder from the bottom of electrical box. (3) Open the power monitor, receiver P.C. board holder and remove the power monitor, receiver P.C. board. (4) Remove the screw of the electrical cover and the electrical cover. (5) Remove the screw of the V.A. clamp and the V.A. clamp. (6) Remove the screw of the cord clamp and the cord clamp. (7) Remove the screw of the terminal block. (8) Remove the screw of the ground wire. (9) Pull out indoor electronic control P.C. board slightly. (10) Disconnect all (except CN125, CN109) the connectors on the electronic control P.C. board. (11) Remove the electronic control P.C. board. (12) Disconnect the connector of power monitor, receiver P.C. board (CN 125, CN109) on the electronic control P.C. board.	**Photo 2**  Terminal block fixing screw Screw of the ground wire Indoor electronic control P.C. board Cord clamp fixing screw Screw of the V.A. clamp Screw of the electrical cover Power monitor, receiver P.C. board holder

OPERATING PROCEDURE	PHOTOS
3. Removing the electrical box (1) Remove the panel. (Refer to 1.) (2) Remove the electrical cover. (Refer to 2.) (3) Remove the V.A. clamp. (Refer to 2.) (4) Remove the cord clamp. (Refer to 2.) (5) Remove the terminal block. (Refer to 2.) (6) Remove the screw of ground wire. (Refer to 2.) (7) Disconnect the connector of the indoor coil thermistor (CN112), the fan motor connector (CN211 and CN121) and the vane motor connector (CN151)on the electronic control P.C. board. (8) Remove the fan motor lead wire and indoor coil thermistor from the electrical box. (9) Remove the lead wire of vane motor from the bottom of electrical box. (10) Remove the screw fixing the electrical box, remove the electrical box.	**Photo 3** 
4. Removing the nozzle assembly and the vane motor (1) Remove the panel. (Refer to 1.) (2) Remove the electrical box. (Refer to 3.) (3) Pull out the drain hose from the nozzle assembly, remove the nozzle assembly. (4) Remove the screws of the vane motor, disconnect the vane motor connector. (5) Remove the vane motor.	**Photo 4** 
5. Removing the indoor fan motor and the line flow fan (1) Remove the panel. (Refer to 1.) (2) Remove the electrical box. (Refer to 3.) (3) Pull out the drain hose from the nozzle assembly, and remove the nozzle assembly. (Refer to 4.) (4) Remove the screw of the lead cover and lead cover. (5) Release the hooks to open the motor band slightly. (6) Loosen the hexagon socket set screw from the line flow fan. (7) Remove the screws fixing the motor bed, and remove the fan motor with motor band and the motor bed. (8) Remove the screws fixing the left side of the heat exchanger. (9) Lift the left side of the heat exchanger. (10) Remove the line flow fan.	**Photo 5**  **Photo 7** 
Photo 6  	

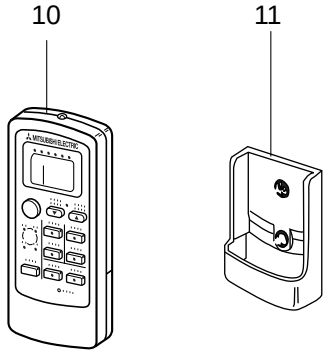
10 PARTS LIST

MS-A08VD - P1
MS-A10VD - P1
MS-A13VD - P1

10-1. INDOOR UNIT STRUCTURAL PARTS



10-2. ACCESSORY AND REMOTE CONTROLLER



(※) This figure shows MS-A13VD.

10-1. INDOOR UNIT STRUCTURAL PARTS

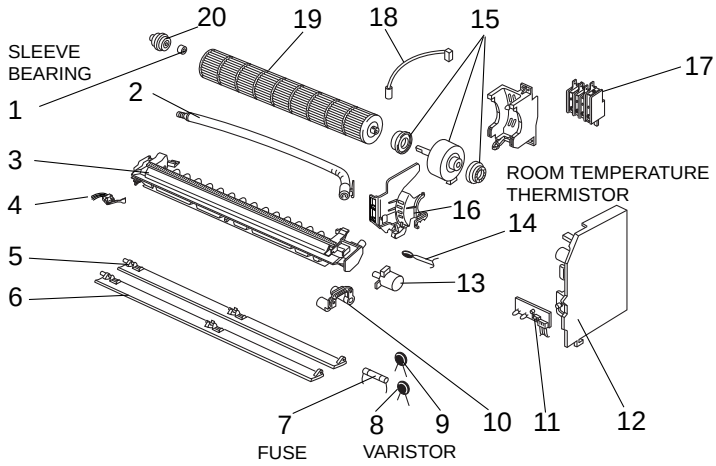
No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit			Remarks	Price
				MS-A08VD - P1	MS-A10VD - P1	MS-A13VD - P1		
1	E02 763 234	BOX		1	1			
	E02 764 234	BOX				1		
2	E02 940 000	PANEL ASSEMBLY		1	1	1	Including No.3,4,5	
3	E02 763 067	SCREW CAP		2	2	2	2PCS/SET	
4	E02 940 010	FRONT PANEL		1	1	1		
5	E02 408 142	CATCH		2	2	2	2PCS/SET	
6	E02 763 100	CATECHIN AIR FILTER		2	2		2PCS/SET	
	E02 764 100	CATECHIN AIR FILTER				2	2PCS/SET	
7	————	AIR CLEANING FILTER		2	2	2	MAC-1300FT	
8	E02 763 975	CORNER BOX (RIGHT)		1	1	1		
9	E02 408 970	INSTALLATION PLATE		1	1			
	E02 751 970	INSTALLATION PLATE				1		

10-2. ACCESSORY AND REMOTE CONTROLLER

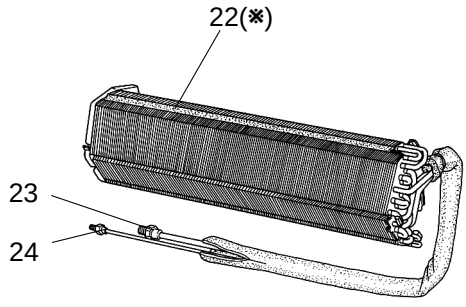
10	E02 846 426	REMOTE CONTROLLER		1	1	1	MP04B	
11	E02 527 083	REMOTE CONTROLLER HOLDER		1	1	1		

MS-A08VD - P1
MS-A10VD - P1
MS-A13VD - P1

10-3. INDOOR UNIT ELECTRICAL PARTS AND FUNCTIONAL PARTS



10-4. INDOOR UNIT HEAT EXCHANGER



(※) This figure shows MS-A13VD.

10-3. INDOOR UNIT ELECTRICAL PARTS AND FUNCTIONAL PARTS

Part number that is circled is not shown in the illustration.

No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit			Remarks	Price
				MS-A08VD- P1	MS-A10VD- P1	MS-A13VD- P1		
1	E02 001 504	SLEEVE BEARING		1	1	1		
2	E02 661 702	DRAIN HOSE		1	1	1		
3	E02 815 235	NOZZLE ASSEMBLY		1	1	1		
4	E02 815 316	SAFETY DEVICE		1	1	1		
5	E02 965 040	VANE UPPER		1	1	1		
6	E02 965 041	VANE LOWER		1	1	1		
7	E02 127 382	FUSE	F11	1	1	1	3.15A	
8	E02 661 385	VARISTOR	NR12	1	1	1		
9	E02 815 385	VARISTOR	NR11	1	1	1		
10	E02 763 034	VANE CRANK SET		1	1	1		
11	E02 815 468	POWER MONITOR, RECEIVER P.C. BOARD		1	1	1		
12	E02 940 452	ELECTRONIC CONTROL P.C. BOARD		1			AUTO RESTART	
	E02 941 452	ELECTRONIC CONTROL P.C. BOARD			1		AUTO RESTART	
	E02 942 452	ELECTRONIC CONTROL P.C. BOARD				1	AUTO RESTART	
13	E02 749 303	VANE MOTOR	MV	1	1	1		
14	E02 151 308	ROOM TEMPERATURE THERMISTOR	RT11	1	1	1		
15	E02 665 300	INDOOR FAN MOTOR(RC4V19-□□)	MF	1	1		Including fan motor rubber mount 2PCS/SET	
	E02 678 300	INDOOR FAN MOTOR(RC4V19-□□)	MF			1	Including fan motor rubber mount 2PCS/SET	
16	E02 749 333	MOTOR BAND		1	1	1		
17	E02 427 375	TERMINAL BLOCK	TB	1	1	1	3P	
18	E02 749 311	INDOOR COIL THERMISTOR	RT12	1	1	1		
19	E02 749 302	LINE FLOW FAN		1	1	1		
20	E02 408 509	BEARING MOUNT		1	1			
	E02 751 509	BEARING MOUNT				1		
(21)	E02 408 381	THERMAL FUSE	F12	1	1	1	93℃	

10-4. INDOOR UNIT HEAT EXCHANGER

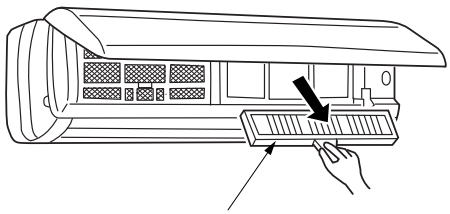
22	E02 749 620	INDOOR HEAT EXCHANGER		1	1			
	E02 751 620	INDOOR HEAT EXCHANGER				1		
23	E02 151 666	UNION (GAS)		1	1		ϕ9.52	
	E02 155 666	UNION (GAS)				1	ϕ12.7	
24	E02 151 667	UNION (LIQUID)		1	1	1	ϕ6.35	

10-5. AIR CLEANING FILTER

- AIR CLEANING FILTER removes fine dust of 0.01 micron from air by means of static electricity.
- Normal life of AIR CLEANING FILTER is 4 months. However, when it becomes dirty, replace it as soon as possible.
- Clogged AIR CLEANING FILTER may reduce the air conditioner capacity or cause frost on the air outlet.
- Do not reuse AIR CLEANING FILTER even if it is washed.
- Do not remove or attach AIR CLEANING FILTER during unit operation.

NOTE: The frame is necessary for the installation of AIR CLEANING FILTER on the unit.

Model	Part No.
	With frame type 
MS-A08VD- P1 **MS-A10VD-** P1 **MS-A13VD-** P1	MAC-1300FT



Air cleaning filter
(White bellows type)

Mr.SLIM™

MITSUBISHI ELECTRIC CORPORATION

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

Distributed in Mar. 2005. No.OB396 106
Made in Japan

New publication, effective Mar. 2005
Specifications subject to change without notice.