Changes for the Better

MITSUBISHI ELECTRIC

SPLIT-TYPE, HEAT PUMP AIR CONDITIONERS

INDOOR UNIT

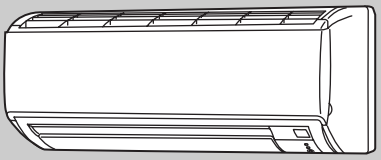
SERVICE MANUAL

No. OB452

Wireless type
Models

MSZ-HA25VA - E1
MSZ-HA35VA - E1

Outdoor unit service manual
MUZ-HA·VA Series (OB453)



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NOTE:
This service manual describes technical data of the indoor units.
RoHS compliant products have <G> mark on the spec name plate.
For servicing of RoHS compliant products, refer to the RoHS Parts List.

CE

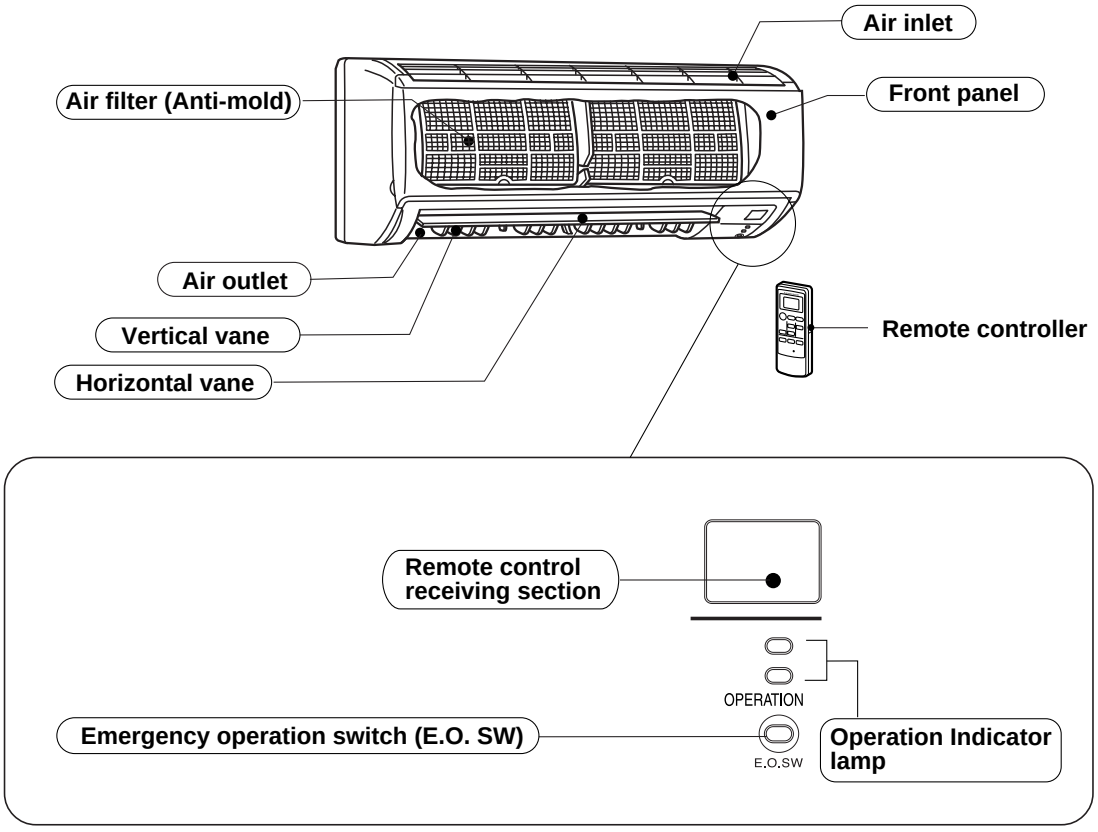
1 TECHNICAL CHANGES

MSZ-GA25VA -E1 → MSZ-HA25VA -E1
MSZ-GA35VA -E1 → MSZ-HA35VA -E1

1. Indoor model has been changed.

2 PART NAMES AND FUNCTIONS

MSZ-HA25VA
MSZ-HA35VA

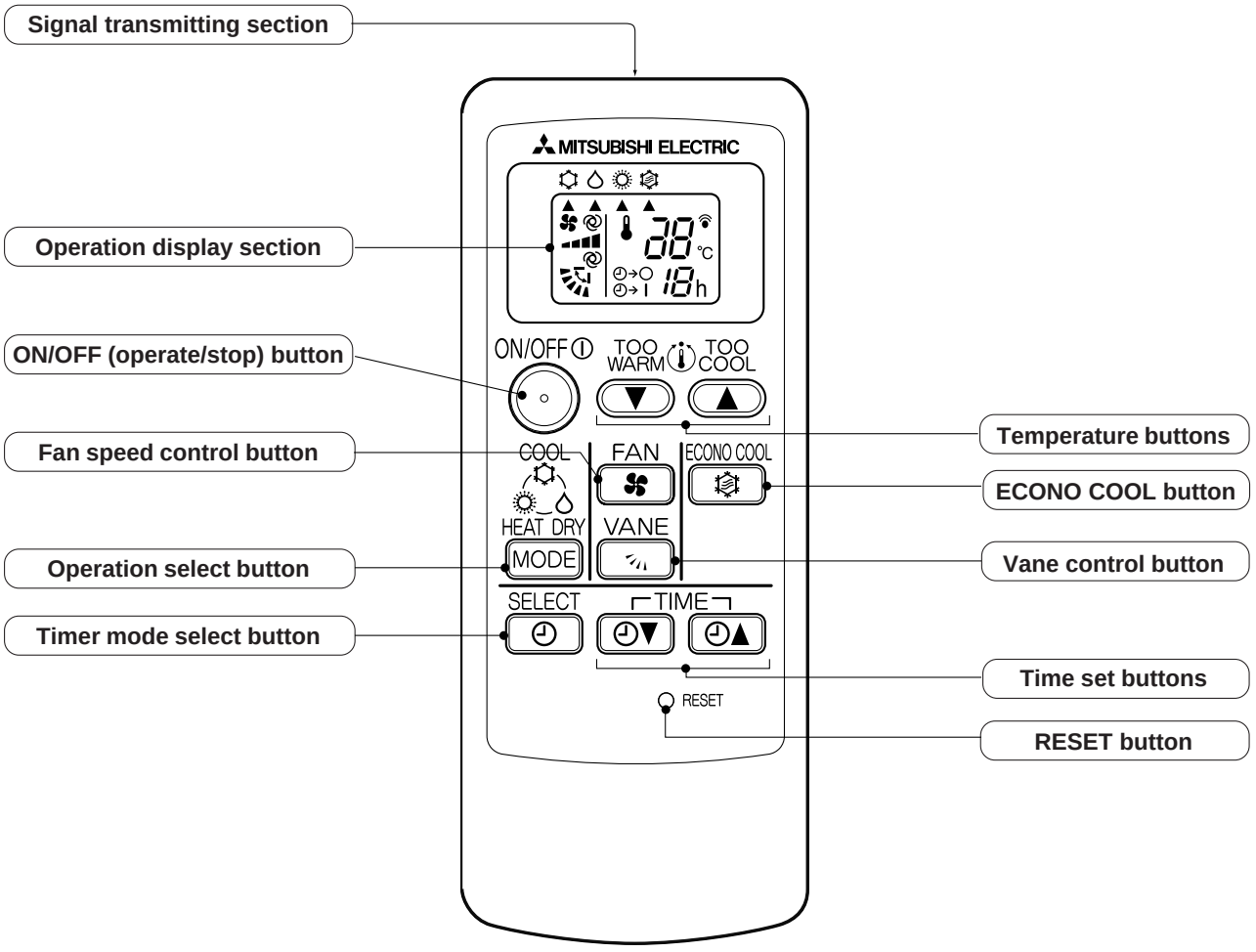


MSZ-HA25VA
MSZ-HA35VA

ACCESSORIES

①	Installation plate	1
②	Installation plate fixing screw 4 × 25 mm	5
③	Fixing screw for ③ 3.5 × 1.6 mm (Black)	2
④	Battery (AAA) for remote controller	2
⑤	Wireless remote controller	1
⑥	Felt tape (Used for left or left-rear piping)	1

REMOTE CONTROLLER



3 SPECIFICATION

Indoor model			MSZ-HA25VA		MSZ-HA35VA	
Function			Cooling	Heating	Cooling	Heating
Power supply			Single phase 230V,50Hz		Single phase 230V,50Hz	
Capacity	Air flow(Super High)	m³ /h	630	546	630	660
	Air flow(High/Med./Low)	m³ /h	558/420/318	468/390/306	558/420/318	546/426/306
Electrical data	Power outlet	A	10		10	
	Running current ✻1	A	0.22		0.22	
	Power input ✻1	W	23		23	
	Fan motor current ✻1	A	0.22		0.22	
Fan motor	Model		RCOJ 40-ED		RCOJ 40-ED	
	Dimensions W×H×D	mm	788×295×225		788×295×225	
	Weight	kg	9		9	
Special remarks	Air direction		4		4	
	Sound level(Super High)	dB(A)	43		43	
	Sound level(High/Med./Low)	dB(A)	38/32/26		38/32/26	
	Fan speed(Super High)	rpm	1110	980	1110	1150
	Fan speed(High/Med./Low)	rpm	1000/800/650	870/750/630	1000/800/650	980/810/630
	Fan speed regulator		4		4	
	Remote controller model		MP06B		MP06B	

NOTE : Test conditions are based on ISO 5151

Cooling : Indoor Dry-bulb temperature 27℃ Wet-bulb temperature 19℃
Outdoor Dry-bulb temperature 35℃ Wet-bulb temperature 24℃
Heating : Indoor Dry-bulb temperature 20℃ Wet-bulb temperature 15℃
Outdoor Dry-bulb temperature 7℃ Wet-bulb temperature 6℃
Refrigerant piping length (one way): 5m
✻1 Measured under rated operating frequency.

Specifications and rating conditions of main electric parts

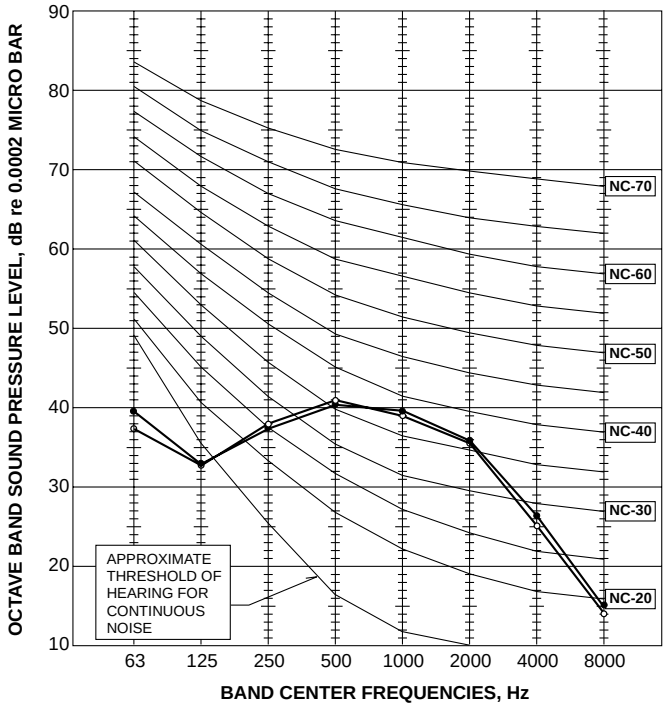
INDOOR UNIT

Fuse	(F11)	T3.15AL 250V
Horizontal vane motor	(MV)	12V DC
Varistor	(NR11)	ERZV14D471
Terminal block	(TB)	3P

4 NOISE CRITERIA CURVES

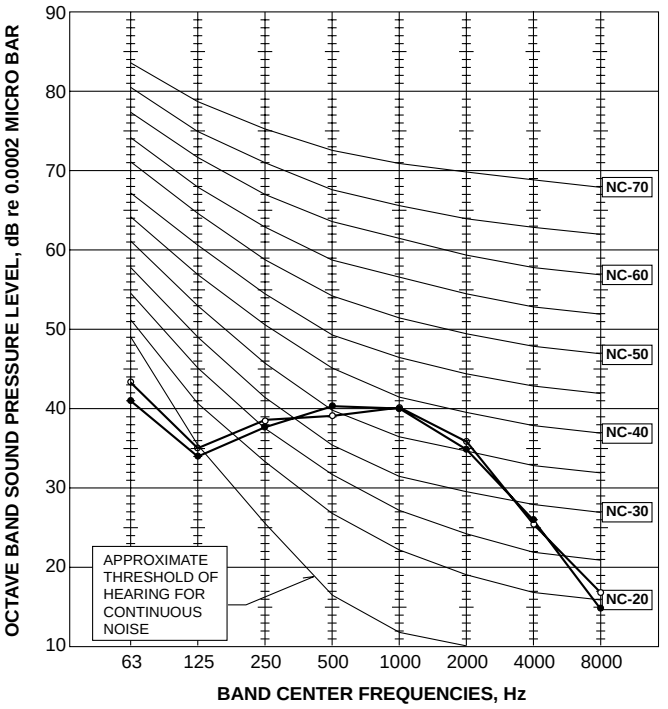
MSZ-HA25VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	43	●——●
	HEATING	43	○——○

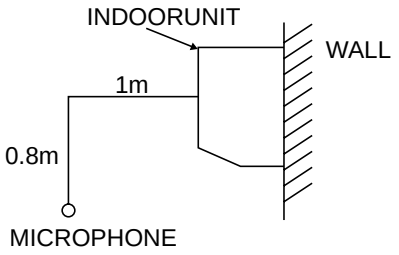


MSZ-HA35VA

FAN SPEED	FUNCTION	SPL(dB(A))	LINE
Super High	COOLING	43	●——●
	HEATING	43	○——○



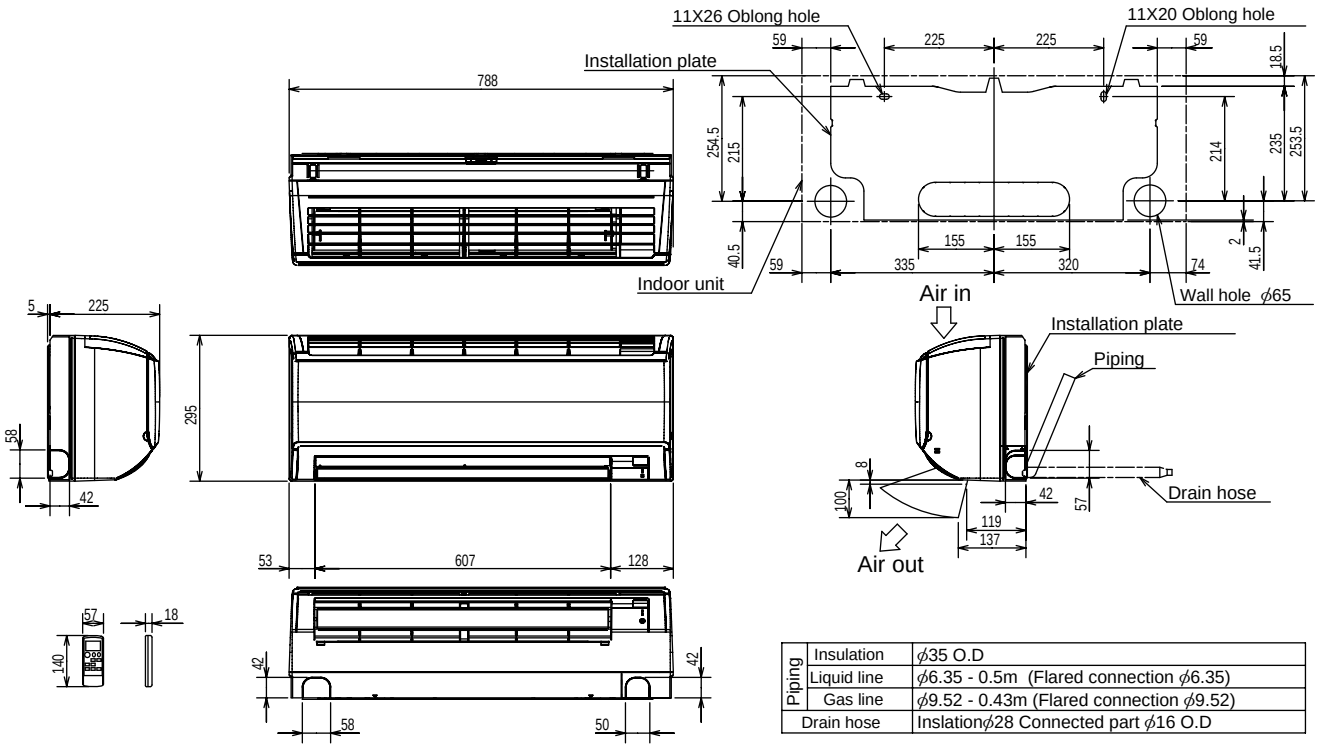
Test conditions,
Cooling : Dry-bulb temperature 27℃ Wet-bulb temperature 19℃
Heating : Dry-bulb temperature 20℃ Wet-bulb temperature 15℃



5 OUTLINES AND DIMENSIONS

MSZ-HA25VA
MSZ-HA35VA

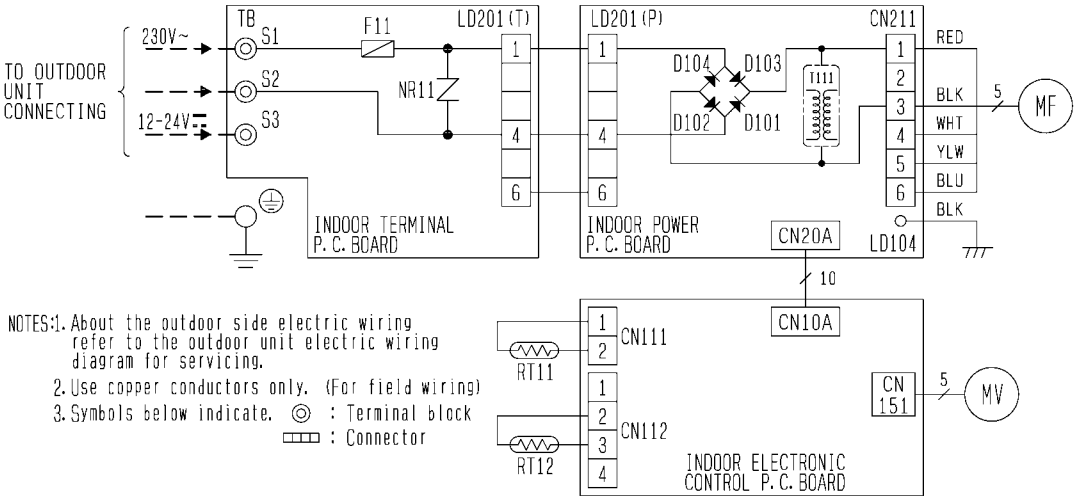
Unit : mm



Piping		
	Insulation	ϕ35 O.D
	Liquid line	ϕ6.35 - 0.5m (Flared connection ϕ6.35)
	Gas line	ϕ9.52 - 0.43m (Flared connection ϕ9.52)
Drain hose		Inslationϕ28 Connected part ϕ16 O.D

6 WIRING DIAGRAM

MSZ-HA25VA
MSZ-HA35VA

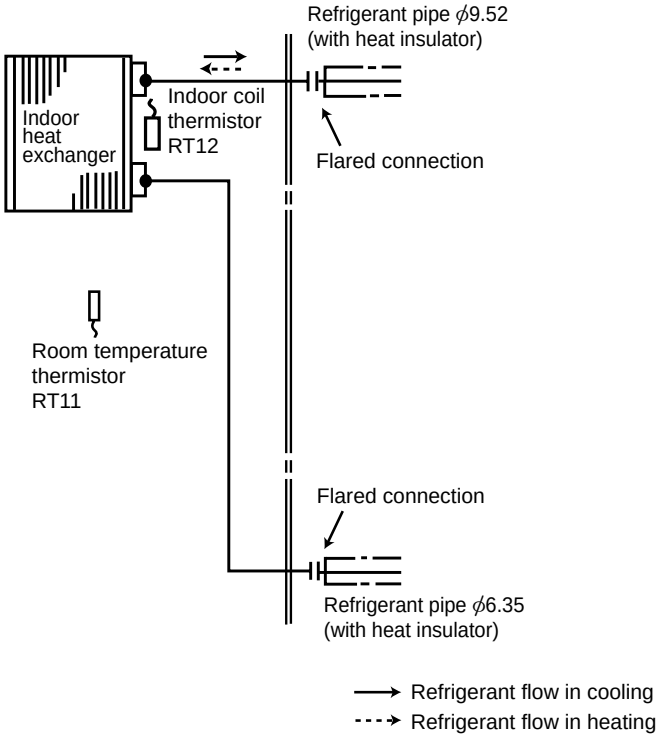


SYMBOL	NAME
D101~D104	DIODE
F11	FUSE (T3.15AL250V)
MF	FAN MOTOR
MV	VANE MOTOR (HORIZONTAL)
NR11	VARISTOR
RT11	ROOM TEMP. THERMISTOR
RT12	COIL TEMP. THERMISTOR
T111	TRANSFORMER
TB	TERMINAL BLOCK

7 REFRIGERANT SYSTEM DIAGRAM

MSZ-HA25VA
MSZ-HA35VA

Unit : mm



8 SERVICE FUNCTIONS

MSZ-HA25VA
MSZ-HA35VA

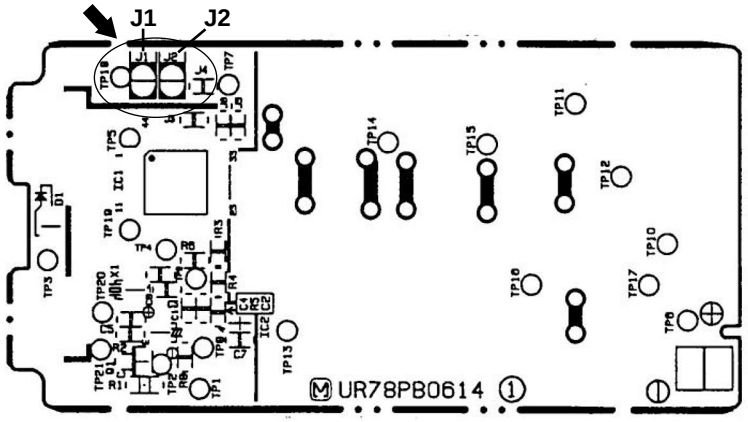
8-1. TIMER SHORT MODE

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 9-7.)
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.)

8-2. 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 :



NOTE : For remodelling, take out the batteries and press 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 will only accept 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.

8-3. AUTO RESTART FUNCTION

When the indoor unit is controlled with the remote controller, the operation mode, the 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.

Operation

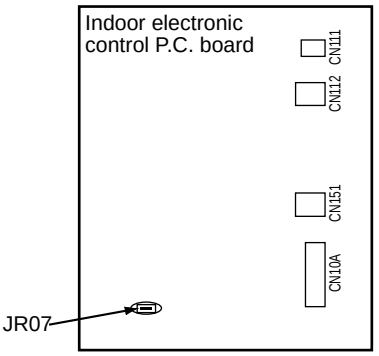
① If the main power has been cut, the operation settings remain.

② After the power is restored, the unit restarts automatically according to the memory.
(However, it takes at least 3 minutes for the compressor to start running.)

How to release “AUTO RESTART FUNCTION”

①Turn off the main power for the unit.

②Solder the Jumper wire to JR07 on the indoor electronic control P.C. board. (Refer to 9-7.)



NOTE:

- The operation settings are memorized when 10 seconds have passed after the indoor unit was operated with the remote controller.
- If 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 appliance 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.

9 TROUBLESHOOTING

MSZ-HA25VA MSZ-HA35VA

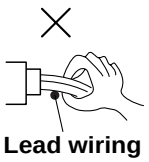
9-1. Cautions on troubleshooting

1. Before troubleshooting, check the following:

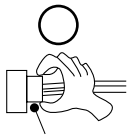
1) Check the power supply voltage.
2) Check the indoor/outdoor connecting wire for mis-wiring.

2. Take care the following during servicing.

1) Before servicing the air conditioner, be sure to turn off the 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 P.C. board.
3) When removing the 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

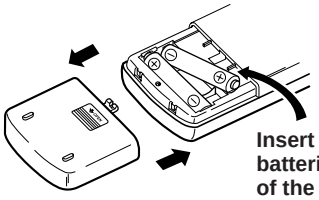
3. Troubleshooting procedure

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 check that the connector and terminal are connected properly.
3) If the P.C. board is supposed to be defective, check the copper foil pattern for disconnection and the components for bursting and discoloration.
4) When troubleshooting, refer to 9-2., 9-3. and 9-4.

4. How to replace batteries

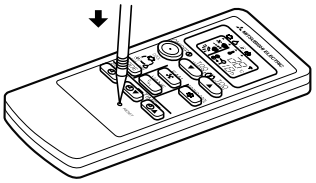
Weak batteries may cause the remote controller malfunction.
In this case, replace the batteries to operate the remote controller normally.

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



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

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



NOTE : 1. If 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.

9-2. Failure mode recall function

Outline of the function
This air conditioner can memorize the abnormal condition which has occurred once.
Even though LED indication listed on the troubleshooting check table (9-4.) disappears, the memorized failure details can be recalled.
This mode is very useful when the unit needs to be repaired for the abnormality which doesn't recur.

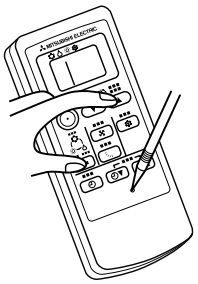
1. Flow chart of failure mode recall function for the indoor/outdoor unit

Operational procedure

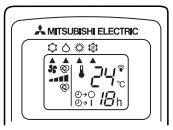
The cause of abnormality cannot be found because the abnormality doesn't recur.

Setting up the failure mode recall function

Turn ON the power supply.
<Preparation of the remote controller>
① While pressing both OPERATION SELECT button and TOO COOL button on the remote controller at the same time, press RESET button.
② First, release RESET button.
And release the other two buttons after all LCD in operation display section of the remote controller is displayed after 3 seconds.



Press OPERATE/STOP(ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit. ※1



※1. Regardless of normal or abnormal, a short beep is emitted once as the signal is received.

Does the upper lamp of OPERATION INDICATOR lamp on the indoor unit blink at the interval of 0.5 seconds?
Blinks: Either indoor or outdoor unit is abnormal.
Beep are emitted at the same timing as the blinking of the upper lamp of OPERATION INDICATOR lamp. ※2

No (OFF) → Indoor unit is normal.
But the outdoor unit might be abnormal because there are some abnormalities that can't be recalled with this way.
Confirm if outdoor unit is abnormal according to the detailed outdoor unit failure mode recall function.

Yes (Blinks)

Judgment of indoor/outdoor abnormality

Before blinking, does the upper lamp of OPERATION INDICATOR lamp stay ON for 3 seconds?
Stays ON for 3 seconds (without beep):
The outdoor unit is abnormal.

Yes → The outdoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point with the outdoor unit failure mode table (Refer to outdoor unit service manual.)
Make sure to check at least two consecutive blinking cycles. ※3

No → The indoor unit is abnormal.
Check the blinking pattern, and confirm the abnormal point with the indoor unit failure mode table(9-2.2.).
Make sure to check at least two consecutive blinking cycles. ※2

Releasing the failure mode recall function

Release the failure mode recall function by the following procedures.
Turn OFF the power supply and turn it ON again.
Press RESET button of the remote controller.

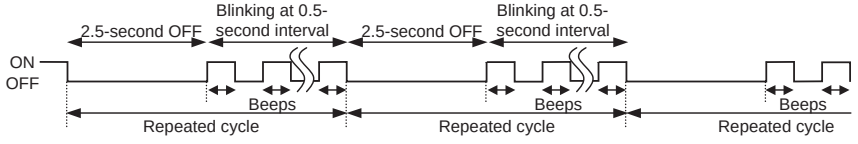
Repair the defective parts.

Deleting the abnormal memorized condition

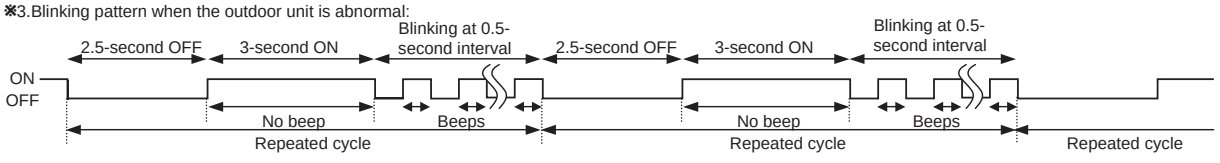
①After repairing the unit, recall the failure mode again according to "Setting up the failure mode recall function" mentioned above.
②Press OPERATE/STOP(ON/OFF) button of the remote controller (the set temperature is displayed) with the remote controller headed towards the indoor unit.
③Press EMERGENCY OPERATION switch so that the memorized abnormal condition is deleted.
④Release the failure mode recall function according to "Releasing the failure mode recall function" mentioned above.

Note1.Make sure to release the failure mode recall function once it's set up, otherwise the unit cannot operate properly.
2.If the abnormal condition is not deleted from the memory, the last abnormal condition is kept memorized.

※2. Blinking pattern when the indoor unit is abnormal:



※3.Blinking pattern when the outdoor unit is abnormal:

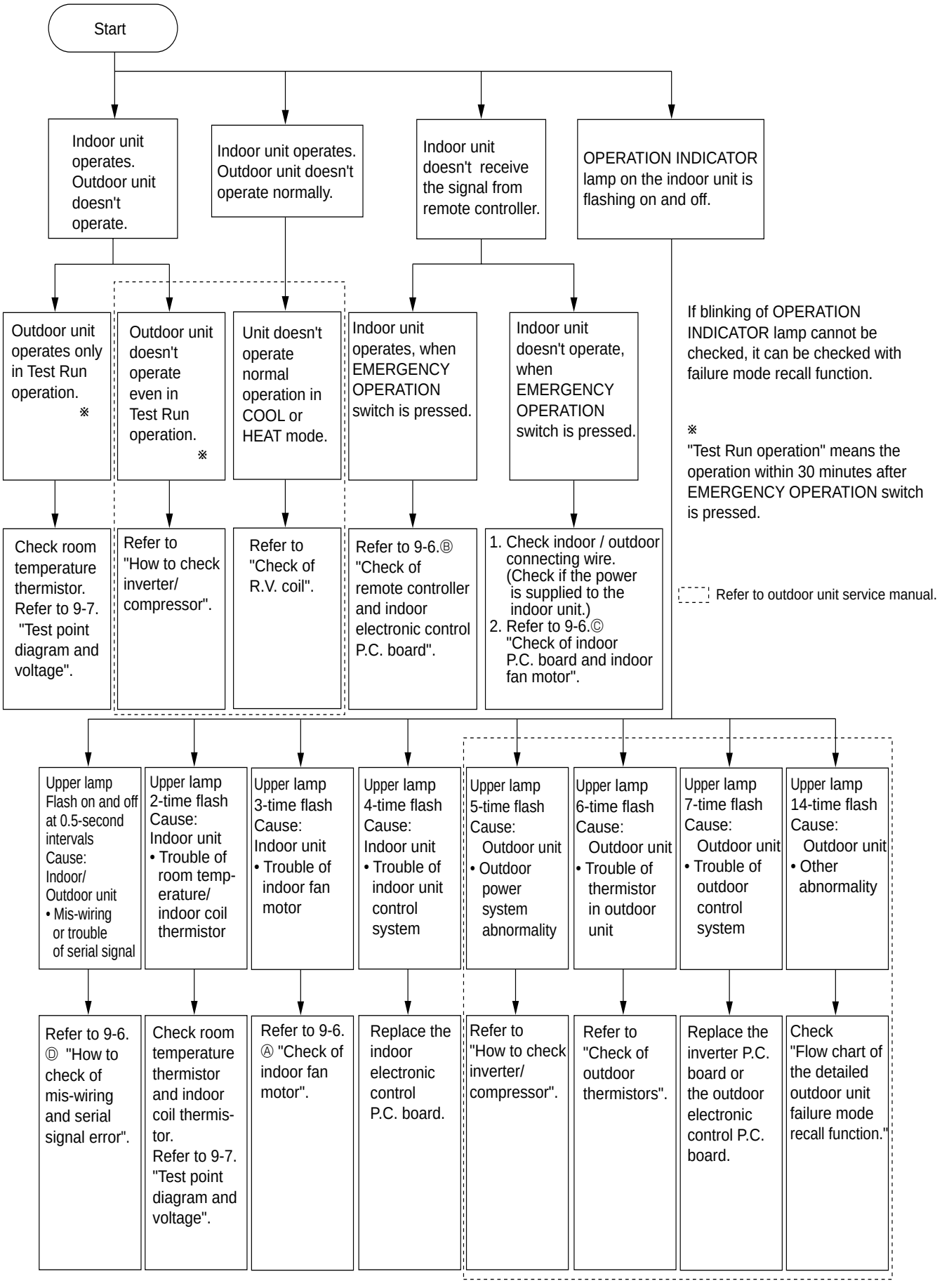


2. Indoor unit failure mode table

Upper lamp of OPERATION INDICATOR lamp	Abnormal point (Failure mode)	Condition	Correspondence
Not lighted	Normal	—	—
1-time flash every 0.5-second	Room temperature thermistor	When the room temperature thermistor short or open circuit is detected every 8 seconds during operation.	Refer to the characteristics of the room temperature thermistor (9-7.).
2-time flash 2.5-second OFF	Indoor coil thermistor	When the indoor coil thermistor short or open circuit is detected every 8 seconds during operation.	Refer to the characteristics of the indoor coil thermistor (9-7.).
3-time flash 2.5-second OFF	Serial signal	When the serial signal from outdoor unit is not received for a maximum of 6 minutes.	Refer to 9-6.Ⓓ "How to check mis-wiring and serial signal error".
11-time flash 2.5-second OFF	Indoor fan motor	When the rotational frequency feedback signal is not emit during the 12-seconds the indoor fan operation.	Refer to 9-6.Ⓐ "Check of indoor fan motor".
12-time flash 2.5-second OFF	Indoor control system	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.

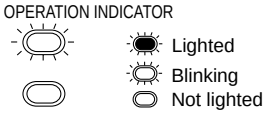
NOTE : Blinking patterns of this mode differ from the ones of Troubleshooting check table (9-4.).

9-3. Instruction of troubleshooting



9-4. Troubleshooting check table

Before taking measures, make sure that the symptom reappears for accurate troubleshooting.
When the indoor unit has started operation and the following 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 OPERATION INDICATOR lamp flashing.



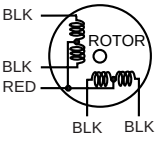
· Flashing of OPERATION INDICATOR lamp (upper lamp) indicates abnormalities.

No.	Abnormal point	Operation indicator lamp	Symptom	Condition	Correspondence
1	Mis-Wiring or serial signal	Upper lamp flashes. 0.5-second ON 0.5-second OFF	Indoor unit and outdoor unit do not operate.	When the serial signal from the outdoor unit is not received for a maximum of 6 minutes.	• Refer to 9-6.Ⓓ "How to check mis-wiring and serial signal error".
2	Indoor coil thermistor Room temperature thermistor	Upper lamp flashes. 2-time flash 2.5-second OFF		When the indoor coil or the room temperature thermistor is short or open circuit.	• Refer to 9-7.the characteristics of indoor coil thermistor, and the room temperature thermistor.
3	Indoor fan motor	Upper lamp flashes. 3-time flash 2.5-second OFF		When the rotational frequency feedback signal is not emitted during the indoor fan operation.	• Refer to 9-6.Ⓐ "Check of indoor fan motor".
4	Indoor control system	Upper lamp flashes. 4-time flash 2.5-second OFF		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.
5	Outdoor power system	Upper lamp flashes. 5-time flash 2.5-second OFF		When it consecutively occurs 3 times that the compressor stops for overcurrent protection or start-up failure protection within 1 minute after start-up.	• Refer to "How to check of inverter/compressor". Refer to outdoor unit service manual. • Check the stop valve.
6	Outdoor thermistors	Upper lamp flashes. 6-time flash 2.5-second OFF		When the outdoor thermistors short or open circuit during the compressor operation.	• Refer to "Check of outdoor thermistor". Refer to outdoor unit service manual.
7	Outdoor control system	Upper lamp flashes. 7-time flash 2.5-second OFF		When it cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.	• Replace the inverter P.C. board or the outdoor electronic control P.C. board. Refer to outdoor unit service manual.
8	Other abnormality	Upper lamp flashes. 14-time flash 2.5-second OFF		An abnormality other than above mentioned is detected.	• Confirm the abnormality in detail using the failure mode recall function for outdoor unit.
9	Outdoor control system	Upper lamp lights up	Outdoor unit does not operate.	When it cannot properly read data in the nonvolatile memory of the inverter P.C. board or the outdoor electronic control P.C. board.	• Check the blinking pattern of the LED on the inverter P.C. board or the outdoor electronic control P.C. board.

9-5. Trouble criterion of main parts

MSZ-HA25VA MSZ-HA35VA

<table>
<tr><th>Part name</th><th>Check method and criterion</th><th>Figure</th></tr>
<tr><td>Room temperature thermistor(RT11)
Indoor coil thermistor (RT12)</td><td>Measure the resistance with a tester.

Refer to 9-7."Test point diagram and voltage",
"2.Indoor electronic control P.C. board", the chart of thermistor.</td><td></td></tr>
<tr><td>Indoor fan motor(MF)</td><td>Check 9-6. Ⓐ.</td><td></td></tr>
<tr><td>Vane motor(MV)</td><td>Measure the resistance between the terminals with a tester.
(Part temperature 10°C ~ 30°C)
<table><tr><th>Color of the lead wire</th><th>Normal</th></tr><tr><td>RED-BLK</td><td>235 Ω ~ 255 Ω</td></tr></table></td><td> 
</td></tr>
</table>

9-6. Troubleshooting flow

When OPERATION INDICATOR lamp flashes 3-time.
Indoor fan does not operate.

Ⓐ Check of indoor fan motor

The indoor fan motor error has occurred, and the indoor fan doesn't operate.

Turn OFF the power supply.

Is there any foreign matter that interferes the rotation of the line flow fan?

No

Yes

Remove the foreign matter and adjust the line flow fan.

Pay careful attention to the high voltage on the fan motor connector CN211.

Turn ON the power supply, wait 5 seconds or more, and then press EMERGENCY OPERATION switch.
Measure the supply voltage as follows within 12 seconds after EMERGENCY OPERATION switch is pressed.
If more than 12 seconds passes by, turn OFF the power supply and turn ON it again, then measure the following voltage on the indoor P.C. board. ※
<Indoor power P.C. board>
1.Measure the voltage between CN211 ①(+) and ③(–).
2.Measure the voltage between CN211 ⑤(+) and ③(–).
<Indoor electronic control P.C. board>
1.Measure the voltage between CN10A ⑥(+) and JPG(GND)(–).

※ If more than 12 seconds or more passes after EMERGENCY OPERATION switch is pressed, the voltage mentioned above 2 goes 0V DC although the indoor P.C. board is normal.

Is there 325V DC between CN211 ① (+) and ③ (–) ?

Yes

Does the voltage between CN211 ⑤ (+) and ③ (–) on the power P.C. board rise to the range of 2V to 6V DC within 12 seconds after EMERGENCY OPERATION switch is pressed?

Yes

Replace the indoor fan motor.

No

No

Does the voltage between CN10A ⑥ (+) and JPG (GND)(–) on the indoor electronic control P.C. board fall to 2V or less within 12 seconds after EMERGENCY OPERATION switch is pressed?

Yes

Replace the indoor power / terminal P.C. board.

No

Replace the indoor electronic control P.C. board.

The indoor fan motor error has occurred, and the indoor fan repeats "12-second ON and 30-second OFF" 3times, and then stops.

Measure the voltage between CN211 ⑥(+) and ③(–) while the fan motor is rotating.

Is it unchanged holding 0V DC or 15V DC?

No (Changed)

Measure the voltage CN10A ②(+) and JPG (GND)(–) on the indoor electronic control P.C board when the fan motor is rotaring.

Yes (Unchanged)

Replace the indoor fan motor.

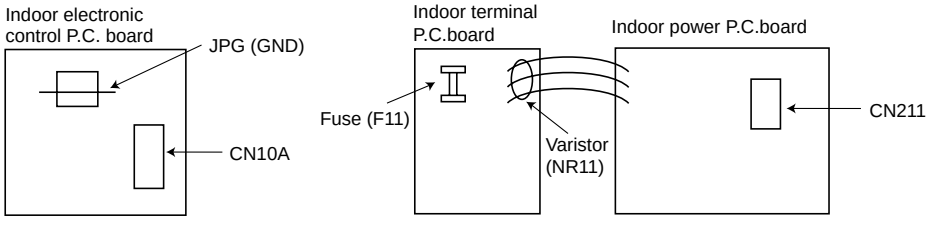
Is it unchanged holding 0V DC or 15V DC?

Yes (Unchanged)

Replace the indoor power / terminal P.C. board

No (Changed)

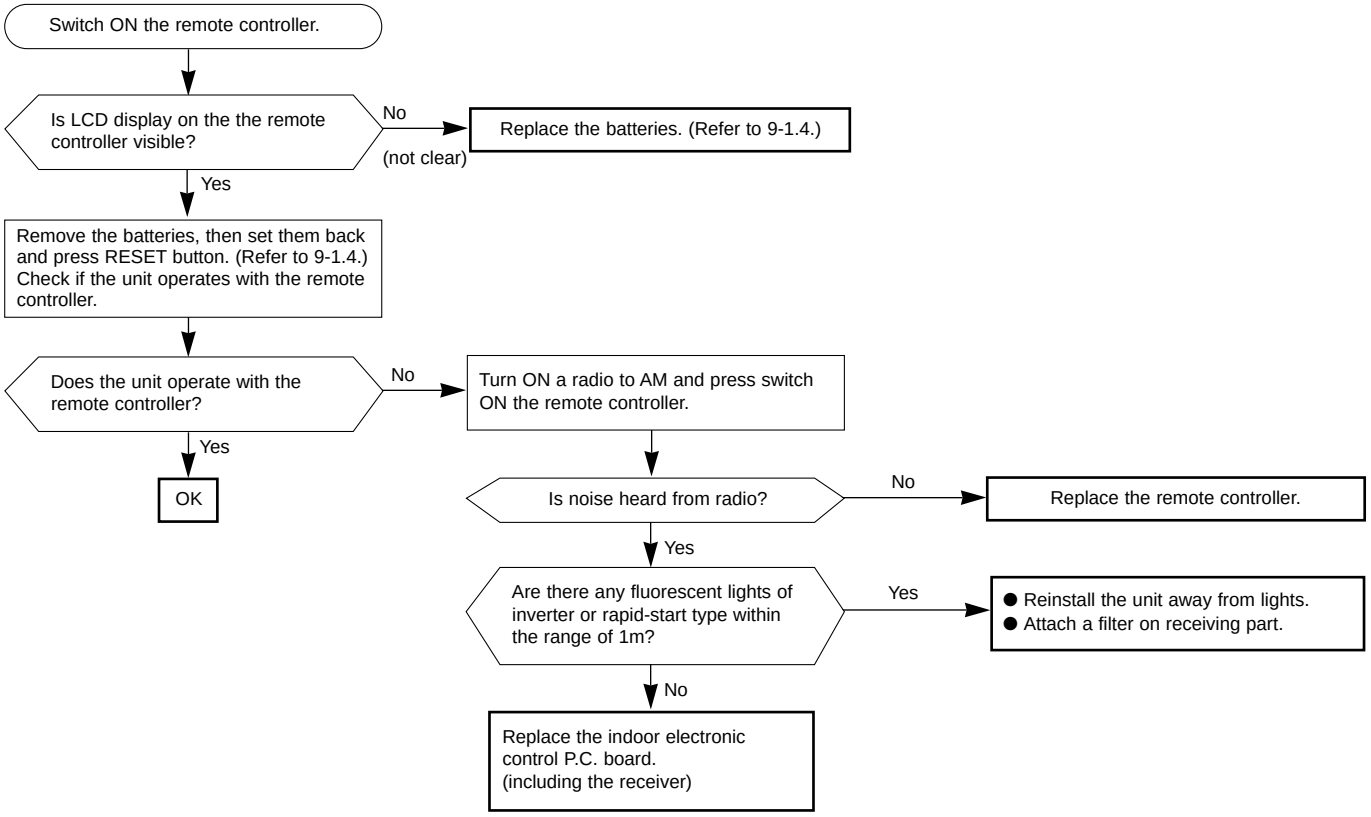
Replace the indoor electronic control P.C. board



Indoor unit operates by pressing EMERGENCY OPERATION switch, but does not operate with the remote controller.

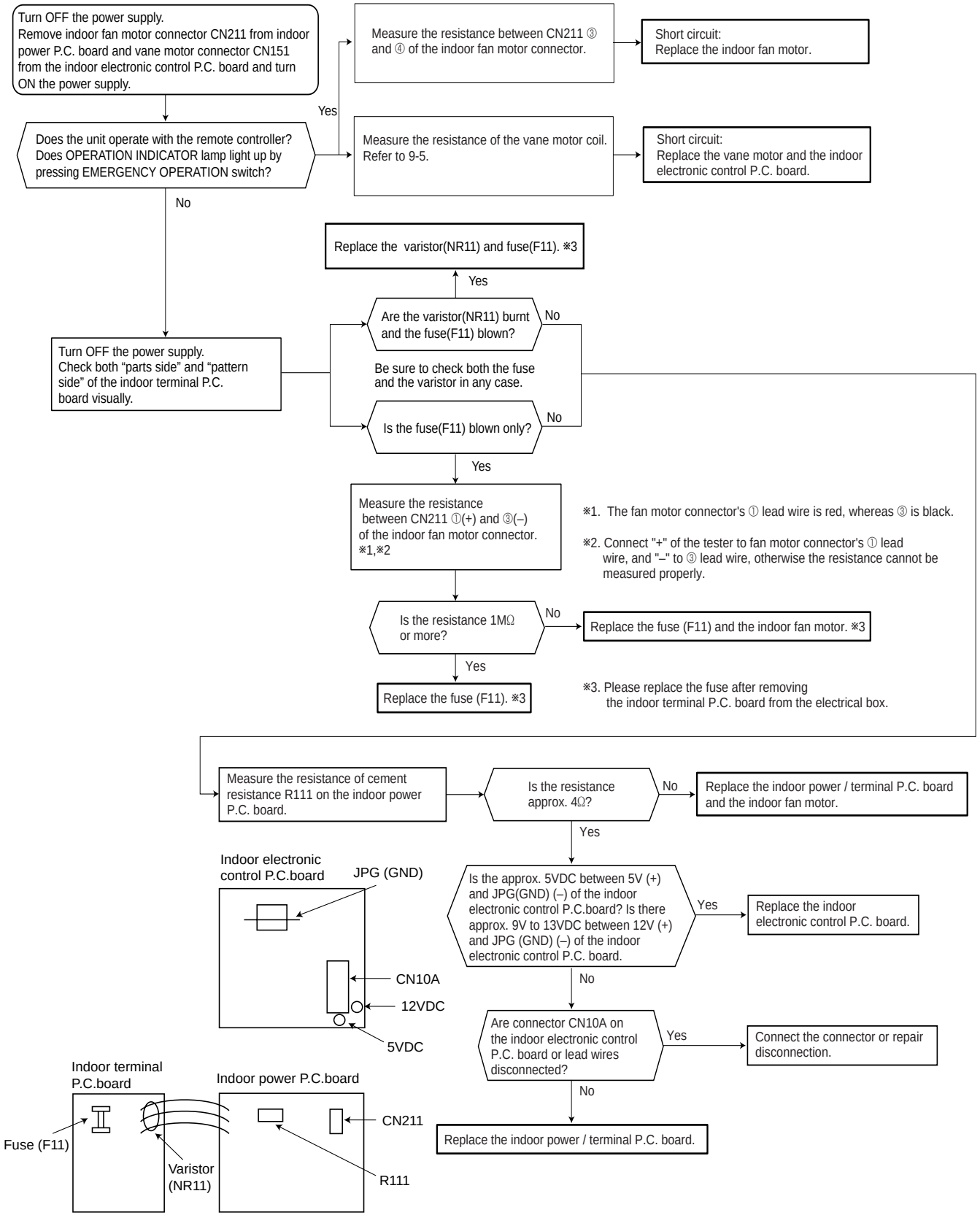
Ⓑ Check of remote controller and indoor electronic control P.C. board

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



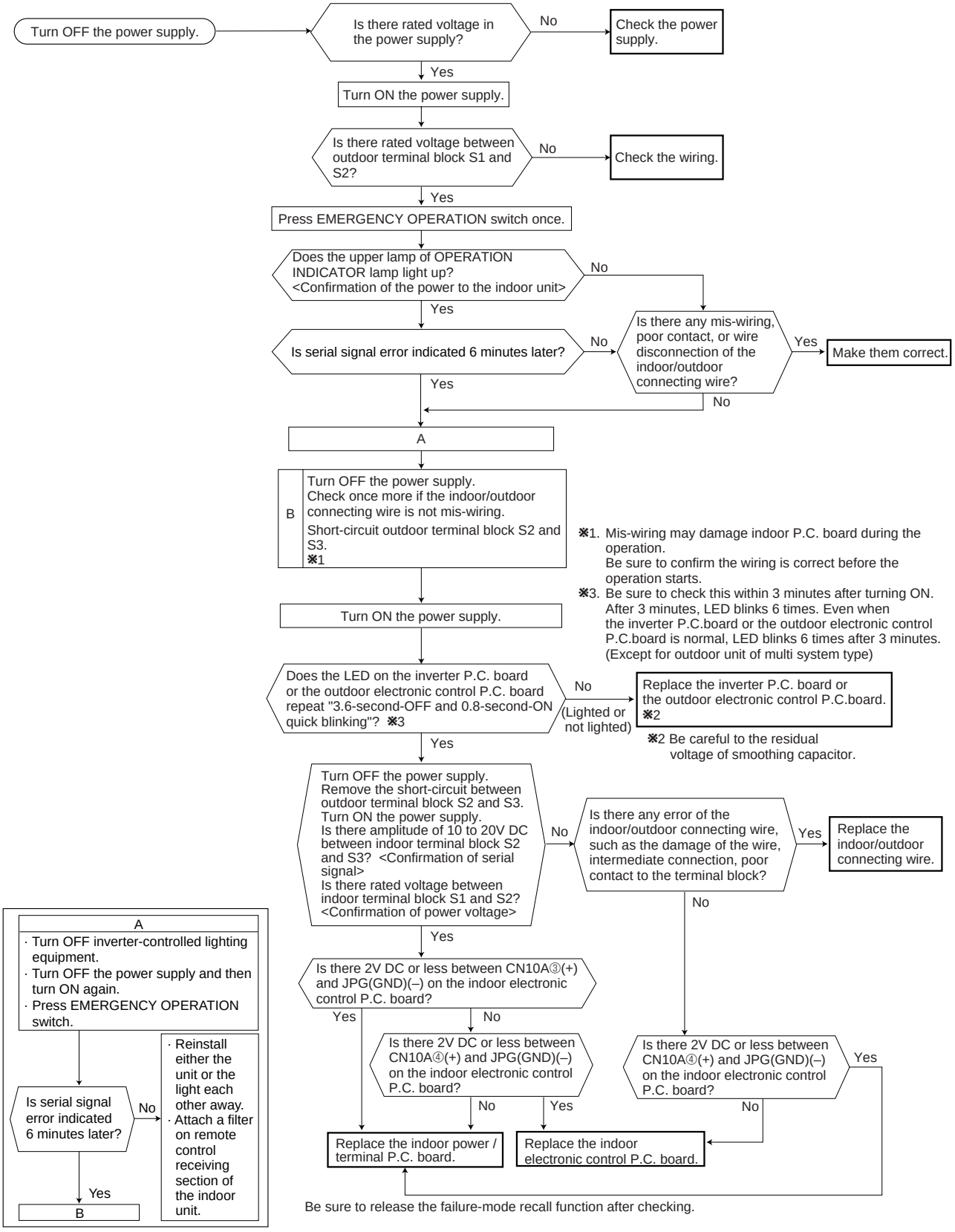
The unit does not operate with the remote controller.
Also, OPERATION INDICATOR lamp does not light up by pressing EMERGENCY OPERATION switch.

ⓒCheck of indoor P.C. board and indoor fan motor



- **When unit cannot operate neither by the remote controller nor by EMERGENCY OPERATION switch. Indoor unit does not operate.**
- **When OPERATION INDICATOR lamp flashes ON and OFF in every 0.5-second. Outdoor unit does not operate.**

Ⓓ How to check mis-wiring and serial signal error

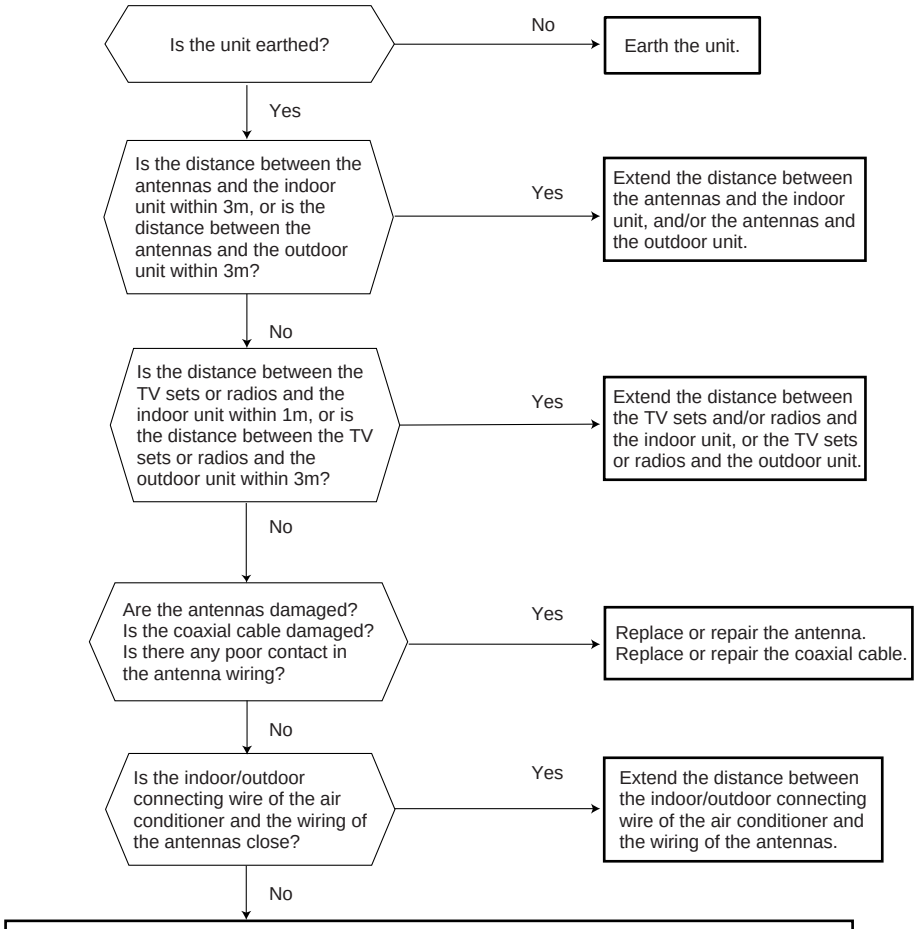


※1. Mis-wiring may damage indoor P.C. board during the operation.
Be sure to confirm the wiring is correct before the operation starts.

※3. Be sure to check this within 3 minutes after turning ON. After 3 minutes, LED blinks 6 times. Even when the inverter P.C.board or the outdoor electronic control P.C.board is normal, LED blinks 6 times after 3 minutes. (Except for outdoor unit of multi system type)

※2 Be careful to the residual voltage of smoothing capacitor.

Ⓔ Electromagnetic noise enters into TV sets or radios



Even if all of the above conditions is fulfilled, the electromagnetic noise may enter, depending on the electric field strength or the installation condition (combination of specific conditions such as antennas or wiring).
Check the followings before asking for service.

1. Devices affected by the electromagnetic noise
   TV sets, radios (FM/AM broadcast, shortwave)
2. Channel, frequency, broadcast station affected by the electromagnetic noise
3. Channel, frequency, broadcast station unaffected by the electromagnetic noise
4. Layout of ;
   indoor/outdoor unit of the air conditioner, indoor/outdoor wiring, grounding wire, antennas, wiring from antennas, receiver
5. Electric field intensity of the broadcast station affected by the electromagnetic noise
6. Presence or absence of amplifier such as booster
7. Operation condition of air conditioner when the electromagnetic noise enters in.
   1) Turn OFF the power supply once, and then turn ON the power supply. In this situation check for the electromagnetic noise.
   2) Within 3 minutes after turning ON the power supply, press OPERATE/STOP (ON/OFF) button on the remote controller for power ON, and check for the electromagnetic noise.
   3) After a short time (3 minutes later after turning ON), the outdoor unit starts running. During operation, check for the electromagnetic noise.
   4) Press OPERATE/STOP (ON/OFF) button on the remote controller for power OFF, when the outdoor unit stops but the indoor/outdoor communication still runs on. In this situation check for the electromagnetic noise.

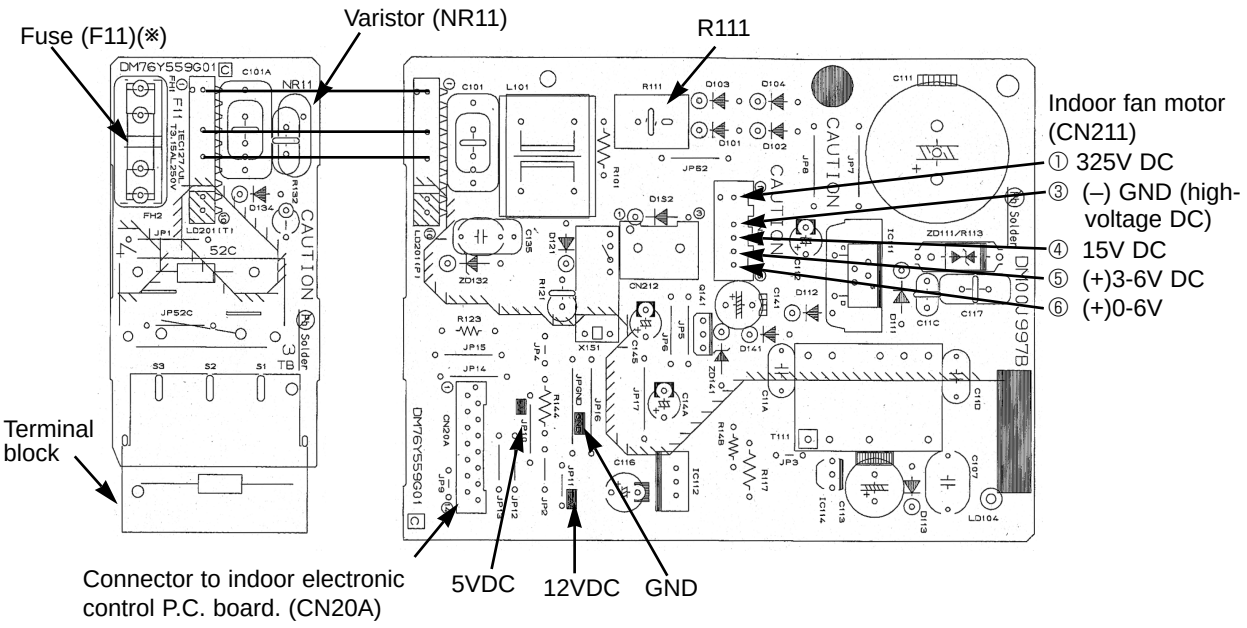
After checking the above, consult the service representative.

9-7. Test point diagram and voltage

MSZ-HA25VA MSZ-HA35VA

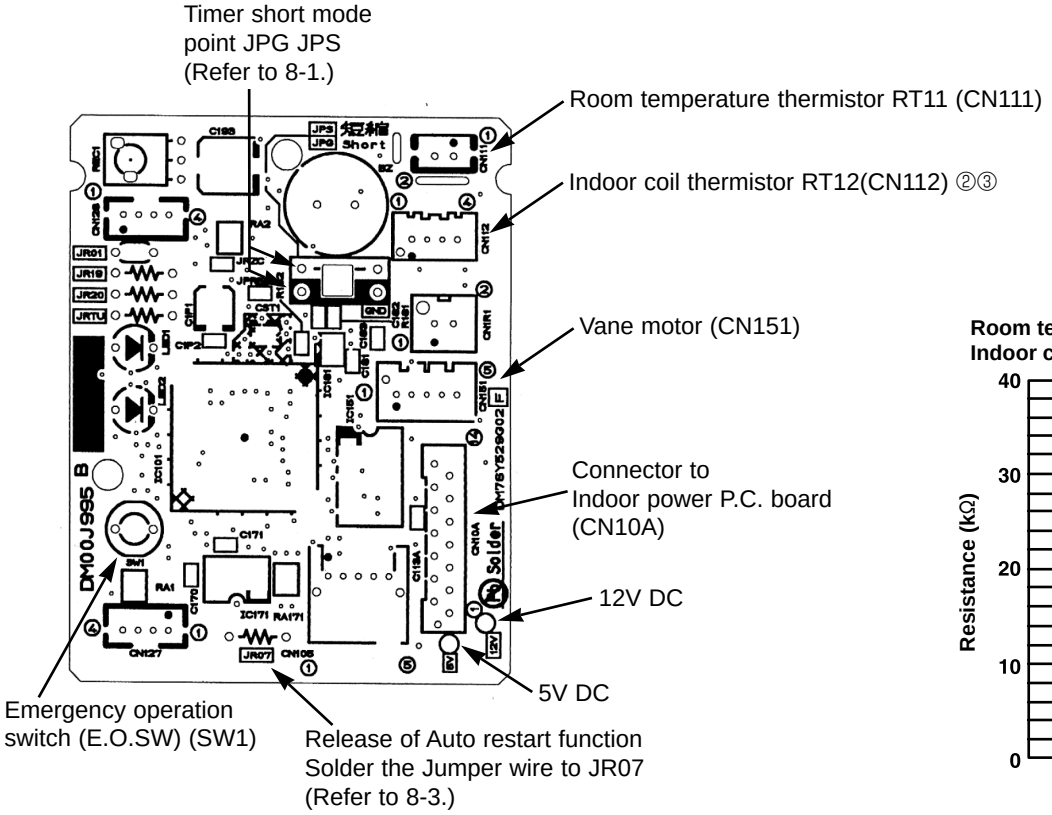
1. Indoor power P.C. board, Indoor terminal P.C. board

Indoor terminal P.C. board **Indoor power P.C. board**

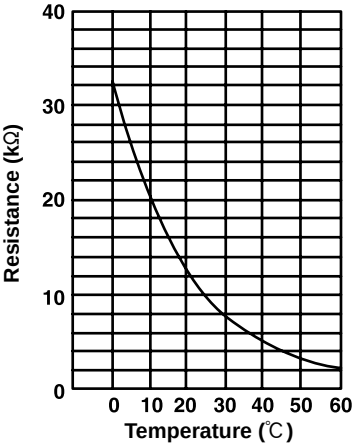


※ Please replace the fuse after removing the indoor terminal P.C. board from the electrical box.

2. Indoor electronic control P.C. board



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

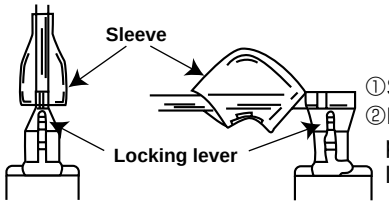


10 DISASSEMBLY INSTRUCTIONS

<"Terminal with locking mechanism" Detaching points>

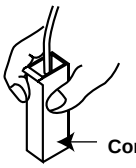
The terminal which has the locking mechanism can be detached as shown below.
There are two types (Refer to (1) and (2)) of the terminal with locking mechanism.
The terminal without locking mechanism can be detached by pulling it out.
Check the shape of the terminal before detaching.

(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.

MSZ-HA25VA MSZ-HA35VA

OPERATING PROCEDURE	PHOTOS
1. Removing the panel (1) Remove the screw caps of the panel. Remove the screws. (2) Hold the lower ends part of the panel and pull it slightly toward you, and then remove the panel by pushing it upward.	**Photo 1**  Screws of the panel

OPERATING PROCEDURE

2. Removing the indoor electronic control P.C. board and the room temperature thermistor.

(1) Turn the breaker OFF.
(2) Remove the panel (Refer to 1) and the corner box.
(3) Open the indoor electronic control P.C. board holder (to right side), and disconnect connectors of the indoor coil thermistor (CN112), vane motor (CN151), and connector (CN10A) to the indoor power P.C. board on the indoor electronic control P.C. board.
(4) Unhook the catches of the indoor electronic control P.C. board holder from the nozzle and the electrical box (right side).
(5) Remove the room temperature thermistor from the hook of the indoor electronic control P.C. board holder.
(6) Open the back side of the indoor electronic control P.C. board holder, and remove the indoor electronic control P.C. board.
(7) Remove the room temperature thermistor from the indoor electronic control P.C. board.

3. Removing the indoor power P.C. board, the indoor terminal P.C. board, and the electrical box

(1) Turn the breaker OFF.
(2) Remove the panel (Refer to 1) and the corner box.
(3) Remove the screw of V.A. clamp, and then the indoor/outdoor connecting wire.
(4) Remove the earth wire connected to the indoor heat exchanger from the electrical box.
(5) Unhook first the lower, then the upper catches of the electrical box, and pull out the electrical box.
(6) Remove the screw of the electrical cover and remove the electrical cover.
(7) Disconnect all the connectors on the indoor power P.C. board and unhook all lead wires.
(8) Remove the screw of terminal block on the indoor terminal P.C. board.
(9) Remove the indoor power P.C. board and the indoor terminal P.C. board.

PHOTOS

Photo 2

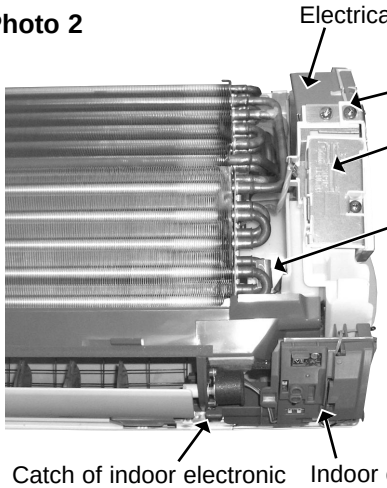
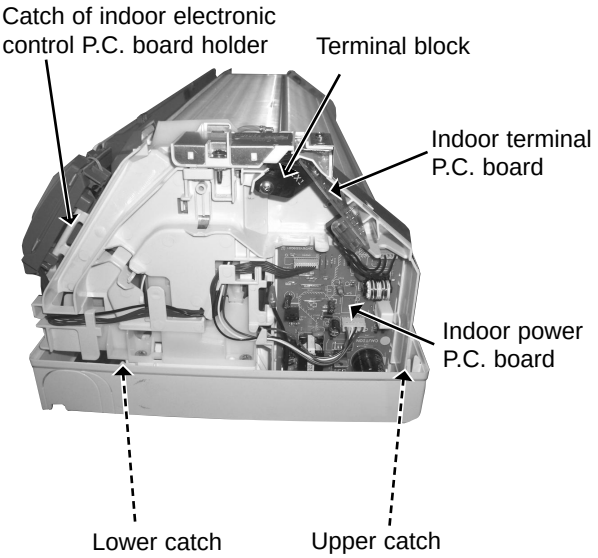
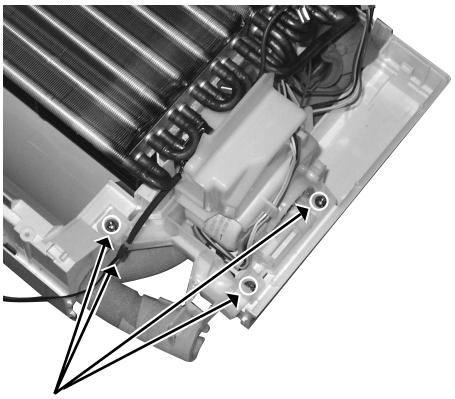


Photo 3



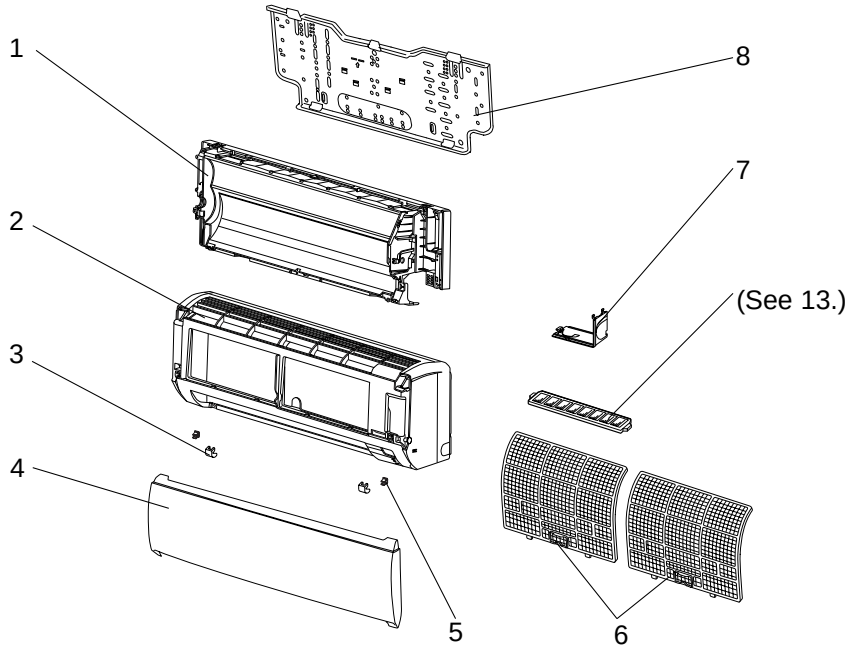
OPERATING PROCEDURE	PHOTOS
4. Removing the vane motor (1) Turn the breaker OFF. (2) Remove the panel (Refer to 1) and the corner box. (3) Remove the indoor electronic control P.C. board holder (Refer to 2). (4) Remove the screws of vane motor and remove the vane motor. (5) Disconnect the connector from vane motor.	**Photo 4** Screws of the vane motor 
5. Removing the indoor fan motor, the indoor coil thermistor, and the line flow fan (1) Remove the panel (Refer to 1) and the corner box. (2) Remove the indoor electronic control P.C. board holder (Refer to 2) and the electrical box (Refer to 3) . (3) Remove the drain hose from the nozzle assembly, and remove the nozzle assembly. (4) Loosen the screw fixing the line flow fan. (5) Remove the screws fixing the motor bed. Lift the right side of motor bed a little, and pull right to remove the fan motor together with motor band/ bed. (6) Remove the indoor coil thermistor from the heat exchanger (※) Install the indoor coil thermistor in its former position when assembling it. (Refer to Photo 2) (7) Remove the screws fixing the left side of the heat exchanger. (8) Lift the left side of the heat exchanger, and pull out the line flow fan to the lower-left.	**Photo 5**  Screws of the line flow fan **Photo 6**  Screws of the motor bed

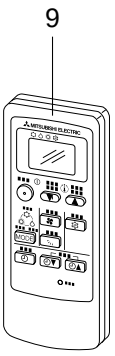
11 PARTS LIST (non-RoHS compliant)

MSZ-HA25VA
MSZ-HA35VA

11-1. INDOOR UNIT STRUCTURAL PARTS

11-2. ACCESSORY AND REMOTE CONTROLLER





11-1. INDOOR UNIT STRUCTURAL PARTS

No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MSZ-HA25VA - E1	MSZ-HA35VA - E1	
1	E02 A89 234	BOX		1	1	
2	E02 A89 000	PANEL ASSEMBLY		1	1	Including No.3,4
3	E02 913 067	SCREW CAP		2	2	2PCS/SET
4	E02 A89 010	FRONT PANEL		1	1	
5	E02 408 142	CATCH		2	2	2PCS/SET
6	E02 A89 100	AIR FILTER		2	2	2PCS/SET
7	E02 A89 975	CORNER BOX (RIGHT)		1	1	
8	E02 A89 970	INSTALLATION PLATE		1	1	

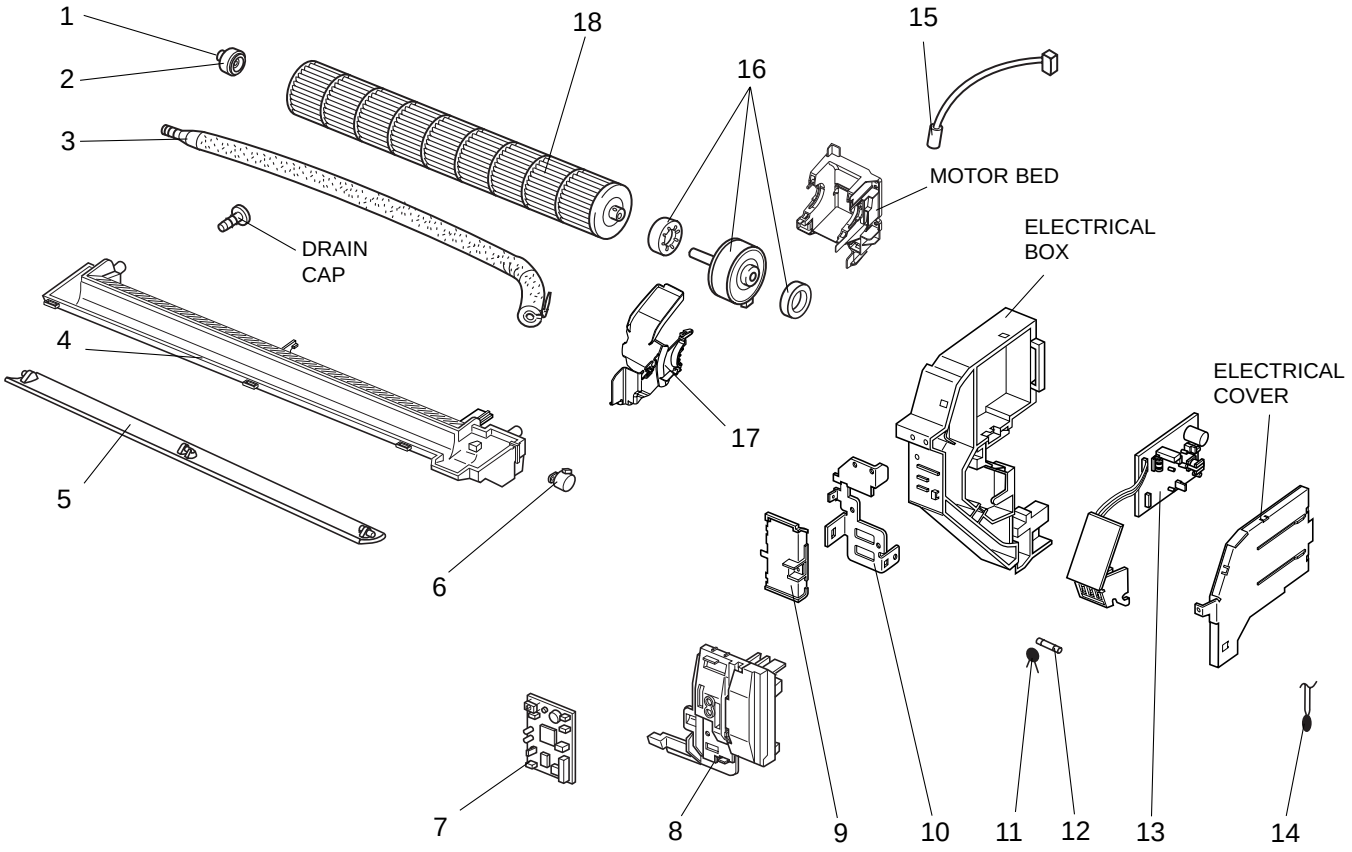
11-2. ACCESSORY AND REMOTE CONTROLLER

9	E02 A89 426	REMOTE CONTROLLER		1	1	MP06B

PARTS LIST (non-RoHS compliant)

MSZ-HA25VA
MSZ-HA35VA

11-3. INDOOR UNIT ELECTRICAL PARTS AND FUNCTIONAL PARTS



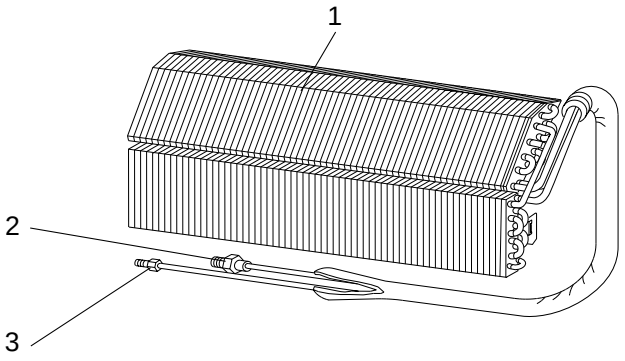
No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MSZ-HA25VA - E1	MSZ-HA35VA - E1	
1	E02 A89 509	BEARING MOUNT ASSEMBLY		1	1	
2	E02 001 504	SLEEVE BEARING		1	1	
3	E02 897 702	DRAIN HOSE		1	1	
4	E02 A89 235	NOZZLE ASSEMBLY		1	1	
5	E02 A89 040	HORIZONTAL VANE		1	1	
6	E02 A89 303	VANE MOTOR	MV	1	1	UP & DOWN
7	E02 A89 452	ELECTRONIC CONTROL P.C. BOARD		1		AUTO RESTART
	E02 A90 452	ELECTRONIC CONTROL P.C. BOARD			1	AUTO RESTART
8	E02 A89 095	INDOOR ELECTRONIC CONTROL P.C. BOARD HOLDER		1	1	
9	E02 A89 784	V.A. CLAMP		1	1	
10	E02 A89 780	TERMINAL BLOCK COVER		1	1	
11	E02 661 385	VARISTOR	NR11	1	1	
12	E02 A49 382	FUSE	F11	1	1	T3.15AL250V
13	E02 A89 440	POWER P.C. BOARD ※1		1	1	
14	E02 A89 308	ROOM TEMPERATURE THERMISTOR	RT11	1	1	
15	E02 A89 307	INDOOR COIL THERMISTOR	RT12	1	1	
16	E02 A89 300	INDOOR FAN MOTOR ※2	MF	1	1	RC0J40- □□
17	E02 A89 333	MOTOR BAND ASSEMBLY		1	1	
18	E02 A89 302	LINE FLOW FAN		1	1	

※1 Including TERMINAL BLOCK with TERMINAL P.C. BOARD
※2 Including FAN MOTOR RUBBER MOUNT (2 PCS/SET)

PARTS LIST (non-RoHS compliant)

MSZ-HA25VA
MSZ-HA35VA

11-4. INDOOR UNIT HEAT EXCHANGER

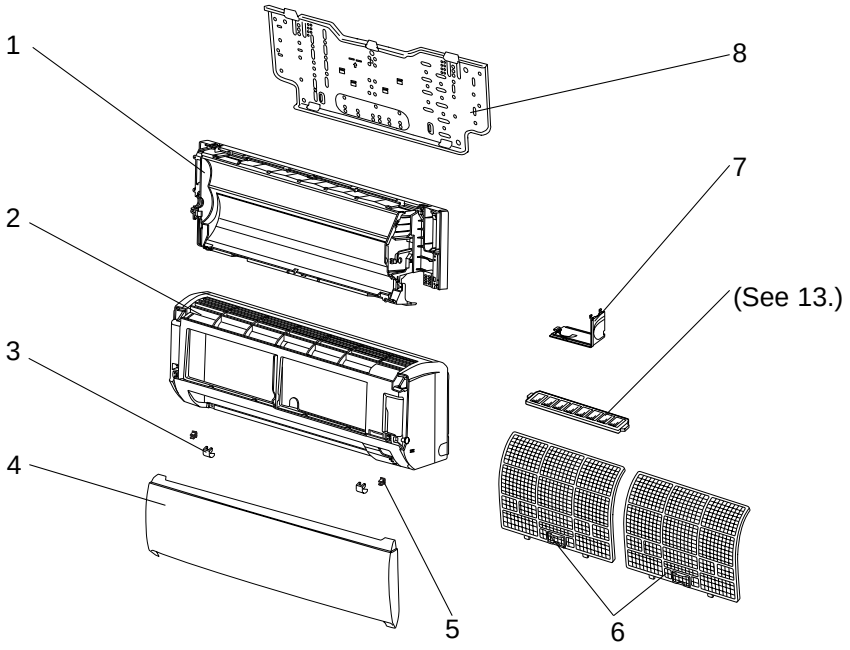


No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
				MSZ-HA25VA - E1	MSZ-HA35VA - E1	
1	E02 A89 620	INDOOR HEAT EXCHANGER		1		
	E02 A90 620	INDOOR HEAT EXCHANGER			1	
2	E02 815 666	UNION (GAS)		1	1	ϕ9.52
3	E02 151 667	UNION (LIQUID)		1	1	ϕ6.35

12 RoHS PARTS LIST (RoHS compliant)

MSZ-HA25VA
MSZ-HA35VA

12-1. INDOOR UNIT STRUCTURAL PARTS



12-2. ACCESSORY AND REMOTE CONTROLLER

12-1. INDOOR UNIT STRUCTURAL PARTS

No.	RoHS	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
					MSZ-HA25VA - E1	MSZ-HA35VA - E1	
1	G	E12 A89 234	BOX		1	1	
2	G	E12 A89 000	PANEL ASSEMBLY		1	1	Including No.3,4
3	G	E12 913 067	SCREW CAP		2	2	2PCS/SET
4	G	E12 A89 010	FRONT PANEL		1	1	
5	G	E12 408 142	CATCH		2	2	2PCS/SET
6	G	E12 A89 100	AIR FILTER		2	2	2PCS/SET
7	G	E12 A89 975	CORNER BOX (RIGHT)		1	1	
8	G	E12 A89 970	INSTALLATION PLATE		1	1	

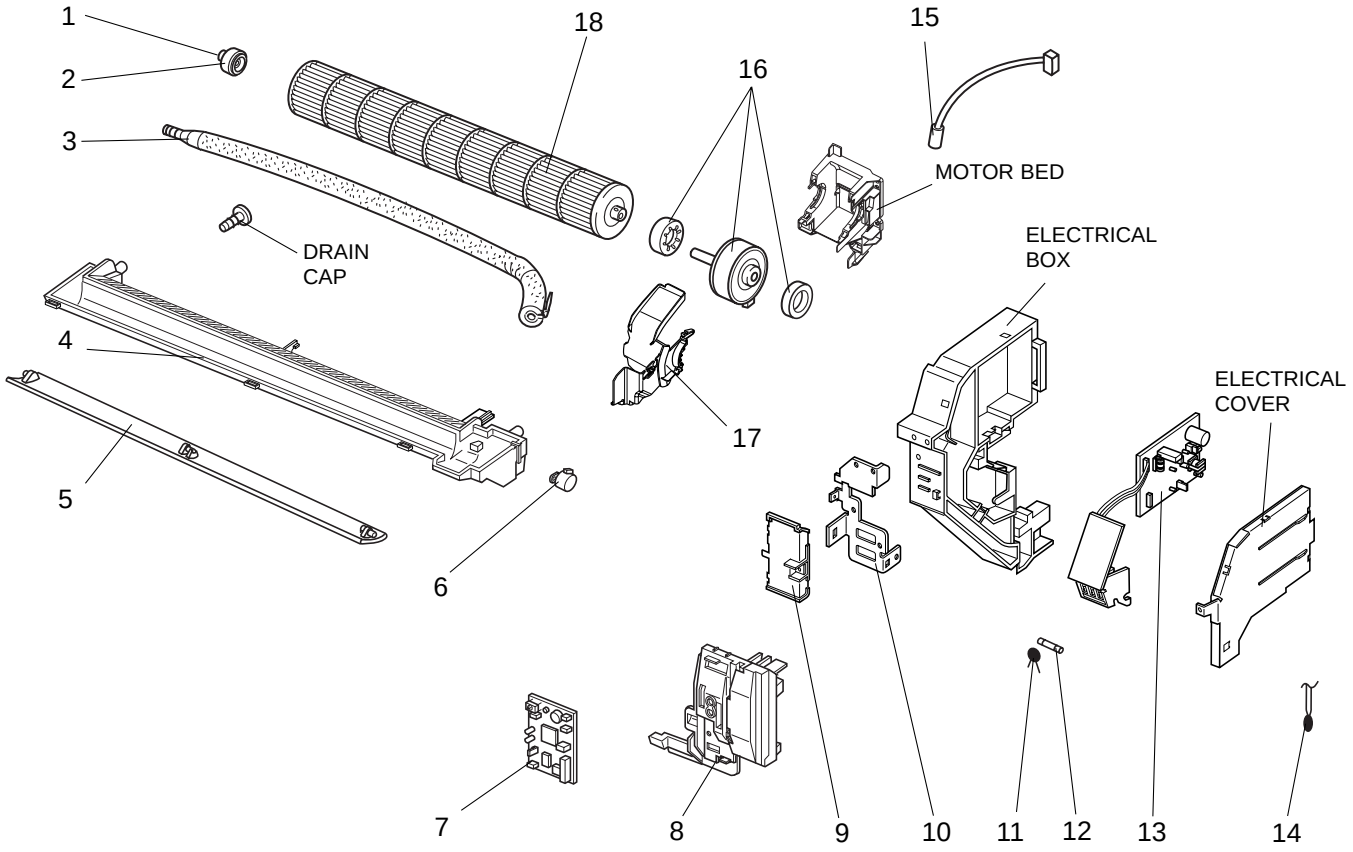
12-2. ACCESSORY AND REMOTE CONTROLLER

9	G	E12 A89 426	REMOTE CONTROLLER		1	1	MP06B

RoHS PARTS LIST (RoHS compliant)

MSZ-HA25VA
MSZ-HA35VA

12-3. INDOOR UNIT ELECTRICAL PARTS AND FUNCTIONAL PARTS



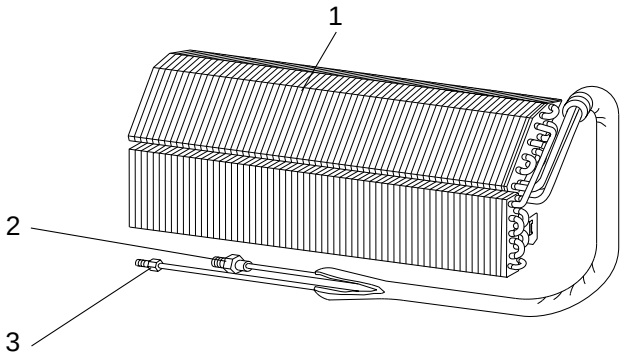
No.	RoHS	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
					MSZ-HA25VA - E1	MSZ-HA35VA - E1	
1	G	E12 A89 509	BEARING MOUNT ASSEMBLY		1	1	
2	G	E12 001 504	SLEEVE BEARING		1	1	
3	G	E12 897 702	DRAIN HOSE		1	1	
4	G	E12 A89 235	NOZZLE ASSEMBLY		1	1	
5	G	E12 A89 040	HORIZONTAL VANE		1	1	
6	G	E12 A89 303	VANE MOTOR	MV	1	1	UP & DOWN
7	G	E12 A89 452	ELECTRONIC CONTROL P.C. BOARD		1		AUTO RESTART
	G	E12 A90 452	ELECTRONIC CONTROL P.C. BOARD			1	AUTO RESTART
8	G	E12 A89 095	INDOOR ELECTRONIC CONTROL P.C. BOARD HOLDER		1	1	
9	G	E12 A89 784	V.A. CLAMP		1	1	
10	G	E12 A89 780	TERMINAL BLOCK COVER		1	1	
11	G	E12 661 385	VARISTOR	NR11	1	1	
12	G	E12 A49 382	FUSE	F11	1	1	T3.15AL250V
13	G	E12 A89 440	POWER P.C. BOARD ※1		1	1	
14	G	E12 A89 308	ROOM TEMPERATURE THERMISTOR	RT11	1	1	
15	G	E12 A89 307	INDOOR COIL THERMISTOR	RT12	1	1	
16	G	E12 A89 300	INDOOR FAN MOTOR ※2	MF	1	1	RC0J40-□□
17	G	E12 A89 333	MOTOR BAND ASSEMBLY		1	1	
18	G	E12 A89 302	LINE FLOW FAN		1	1	

※1 Including TERMINAL BLOCK with TERMINAL P.C. BOARD
※2 Including FAN MOTOR RUBBER MOUNT (2 PCS/SET)

RoHS PARTS LIST (RoHS compliant)

MSZ-HA25VA
MSZ-HA35VA

12-4. INDOOR UNIT HEAT EXCHANGER



No.	RoHS	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit		Remarks
					MSZ-HA25VA - E1	MSZ-HA35VA - E1	
1	G	E12 A89 620	INDOOR HEAT EXCHANGER		1		
	G	E12 A90 620	INDOOR HEAT EXCHANGER			1	
2	G	E12 815 666	UNION (GAS)		1	1	ϕ9.52
3	G	E12 151 667	UNION (LIQUID)		1	1	ϕ6.35

13 OPTIONAL PARTS

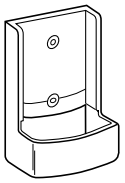
13-1. CATECHIN AIR FILTER

- The air filter contains a natural material, catechin, that is extracted from green tea. The catechin air filter deodorizes odor and noxious gases such as formaldehyde, ammonia, and acetaldehyde. Moreover, it restrains the activity of the viruses adhering to the filter.
- Clean the AIR FILTER about once every 2weeks. Cleaning way is same as way of AIR FILTER (ANTI-MOLD). Refer to the instruction book.
- Clogged AIR FILTER may reduce the air conditioner capacity or cause frost on the air outlet.

Model	Part No.
MSZ-HA25VA **MSZ-HA35VA**	MAC-3003CF

13-2. REMOTE CONTROLLER HOLDER

Model	Part No.
MSZ-HA25VA **MSZ-HA35VA**	MAC-1200RC



MITSUBISHI ELECTRIC CORPORATION
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