MITSUBISHI ELECTRIC

*Changes for the Better*

FLOOR AND CEILING TYPE AIR CONDITIONERS

**Revision A:**
- Power input of SPECIFICATION has modified.
- Model name of remote controller has been added to PARTS LIST.

Please void OB336.

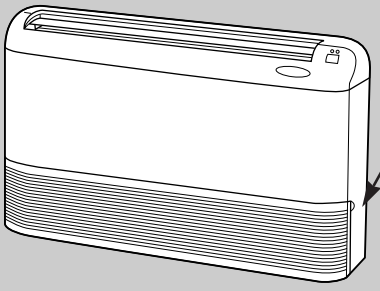
**No. OB336**
**REVISED EDITION-A**

# SERVICE MANUAL

## Wireless type
## Models

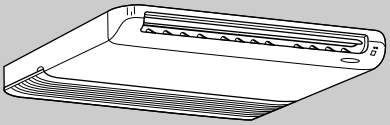
# MCFH-A12WV-E1(WH)
# MCFH-A18WV-E1(WH)
# MCFH-A24WV-E1(WH)

(When installed on the floor)



Indication of model name
**MCFH-A12WV-E1**
**MCFH-A18WV-E1**
**MCFH-A24WV-E1**

(When installed on the ceiling)



## CONTENTS



NOTE:
- This manual describes technical data of indoor units
- As for outdoor units MUCFH-A18/A24WV-E1, refer to the service manual OB337 REVISED EDITION-A.
- As for outdoor unit MUH-A12YV-E1, refer to the service manual OB331 REVISED EDITION-A.
- As for outdoor units MXZ-A18/A26/A32WV-E1, refer to the service manual OB319.

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**Revision A:**
•Power input of SPECIFICATION has modified.
•Model name of remote controller has been added to PARTS LIST.

# 1 TECHNICAL CHANGES

### MCFH-13NV-E4 ➔ MCFH-A12WV-E1
1. Rated voltage has changed. (220-240V ➔ 230V)
2. Indoor electronic control P.C. board has changed.
3. Horizontal vane has changed.
4. Terminal block has changed.
5. Indoor heat exchanger has changed.
6. Remote controller has changed.
   Econo cool operation has been added.
7. Indoor fan motor has changed. (RB4V25-AB ➔ RB4V25-AC)

### MCFH-18NV-E3 ➔ MCFH-A18WV-E1
1. Rated voltage has changed. (220-240V ➔ 230V)
2. Indoor electronic control P.C. board has changed.
3. Horizontal vane has changed.
4. Terminal block has changed.
5. Indoor heat exchanger has changed.
6. Remote controller has changed.
   Econo cool operation has been added.
7. Gas of union has changed. ($\phi$15.88 ➔ $\phi$12.7)
8. Indoor fan motor has changed. (RB4V36-AB ➔ RB4V36-AC)

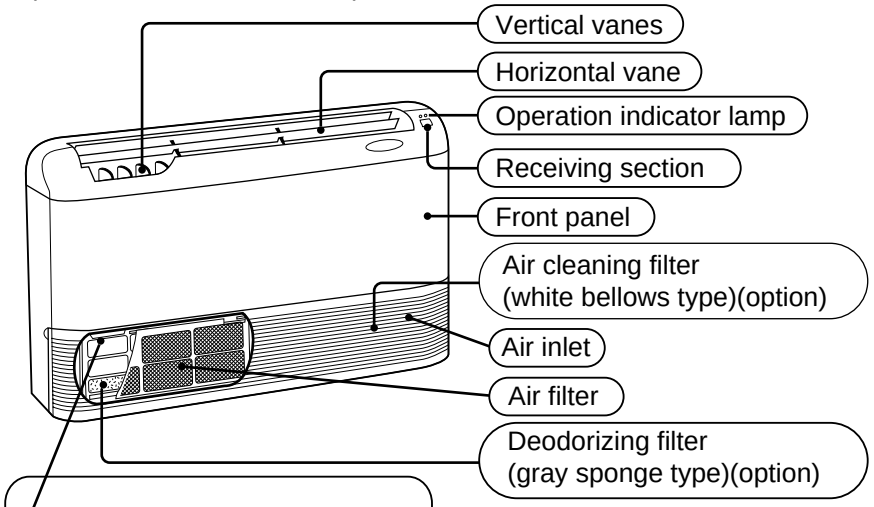
### MCFH-24NV-E3 ➔ MCFH-A24WV-E1
1. Rated voltage has changed. (220-240V ➔ 230V)
2. Indoor electronic control P.C. board has changed.
3. Horizontal vane has changed.
4. Terminal block has changed.
5. Indoor heat exchanger has changed.
6. Remote controller has changed.
   Econo cool operation has been added.
7. Liquid of union has changed. ($\phi$9.52 ➔ $\phi$6.35)
8. Indoor fan motor has changed. (RB4V36-AB ➔ RB4V36-DB)

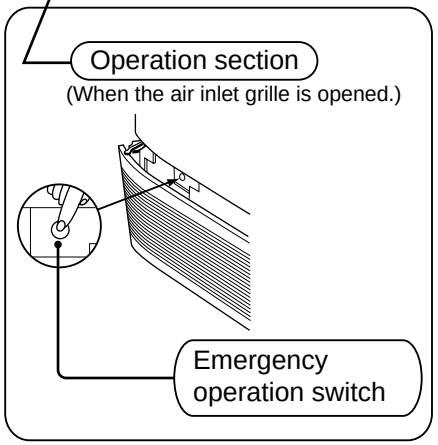
# 2 PART NAMES AND FUNCTIONS

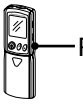
### MCFH-A12WV -E1 MCFH-A18WV -E1 MCFH-A24WV -E1

**INDOOR UNIT**

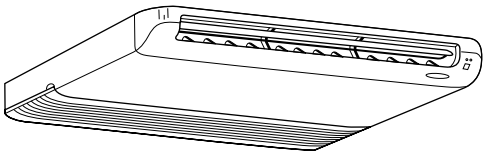
(When installed on the floor)




(When installed on the ceiling)

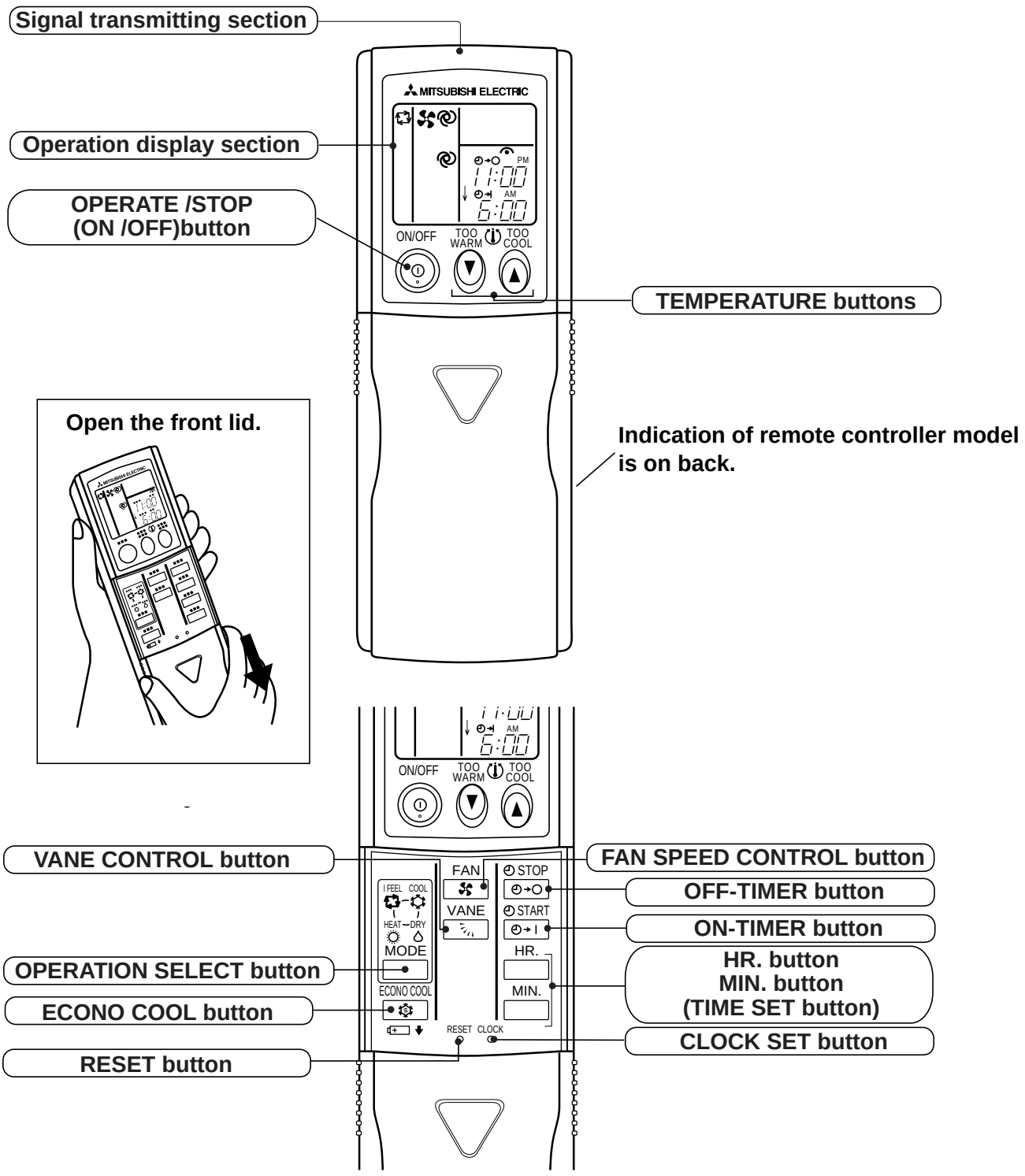


ACCESSORIES

| | Item | Q'ty |
|---|---|---|
| ① | Installation plate | 2 |
| ② | Unit fixing screw 5 × 12mm | 2 |
| ③ | Wireless remote controller | 1 |
| ④ | Remote controller mounting hardware | 1 |
| ⑤ | Fixing screw for ④ 3.5 × 16mm (Black) | 2 |
| ⑥ | Battery (AAA) for remote controller | 2 |
| ⑦ | Drain hose | 1 |
| ⑧ | Drain pipe cover | 1 |
| ⑨ | Knockout cover | 1 |
| ⑩ | Screw for ⑨ 4 × 10mm | 2 |

**MCFH-A12WV -** E1
**MCFH-A18WV -** E1
**MCFH-A24WV -** E1

## REMOTE CONTROLLER



# 3 SPECIFICATION

| Indoor model | | | MCFH-A12WV- E1 | | MCFH-A18WV- E1 | | MCFH-A24WV- E1 | |
|---|---|---|---|---|---|---|---|---|
| Function | | | Cooling | Heating | Cooling | Heating | Cooling | Heating |
| Power supply | | | Single phase 230V, 50Hz | | | | | |
| Capacity | Air flow(High/Med.※/Low※) | m³ /h | 780/636※/492※ | | 840/696※/570※ | | 840/744※/642※ | |
| Electrical data | Power outlet | A | 10 | | 10 | | 10 | |
| | Running current | A | 0.30 | | 0.36 | | 0.36 | |
| | Power input | W | 66 | | 80 | | 80 | |
| | Auxiliary heater | A(kW) | — | — | — | — | — | — |
| | Power factor | % | 96 | | 97 | | 97 | |
| | Fan motor current | A | 0.30 | | 0.36 | | 0.36 | |
| Fan motor | Model | | RB4V25-AC | | RB4V36-AC | | RB4V36-DB | |
| | Winding resistance(at20℃) | Ω | WHT-BLK 182.2 BLK-YLW 68.9 YLW-BLU 47.5 BLU-BRN 31.5 BRN-RED 22.9 | | WHT-BLK 82.9 BLK-YLW 65.6 YLW-BLU 36.0 BLU-BRN 27.0 BRN-RED 13.7 | | WHT-BLK 84.0 BLK-YLW 46.2 YLW-BLU 37.2 BLU-BRN 45.2 BRN-RED 13.6 | |
| | Dimensions W×H×D | mm | 1100 X 650 X 180 | | | | | |
| | Weight | kg | 25 | | 25 | | 25 | |
| Special remarks | Air direction | | 5 | | 5 | | 5 | |
| | Sound level(High/Med.※/Low※) | dB | 46/41※/36※ | | 48/44※/39※ | | 48/45※/42※ | |
| | Fan speed(High/Med.※/Low※) | rpm | 1,240/1,060/845 | | 1,320/1,145/960 | | 1,320/1,190/1,060 | |
| | Fan speed regulator | | 3 | | 3 | | 3 | |
| | Thermistor RT11(at25℃) | kΩ | 10 | | 10 | | 10 | |
| | Thermistor RT12(at25℃) | kΩ | 10 | | 10 | | 10 | |
| | Remote controller model | | KG04C | | KG04C | | KG04C | |

NOTE: Test conditions are based on ISO 5151

Cooling : Indoor DB27°C WB19°C Heating : Indoor DB20°C WB 15°C

Outdoor DB35°C WB(24°C) Outdoor DB 7°C WB 6°C

Indoor-Outdoor piping length : 5 m

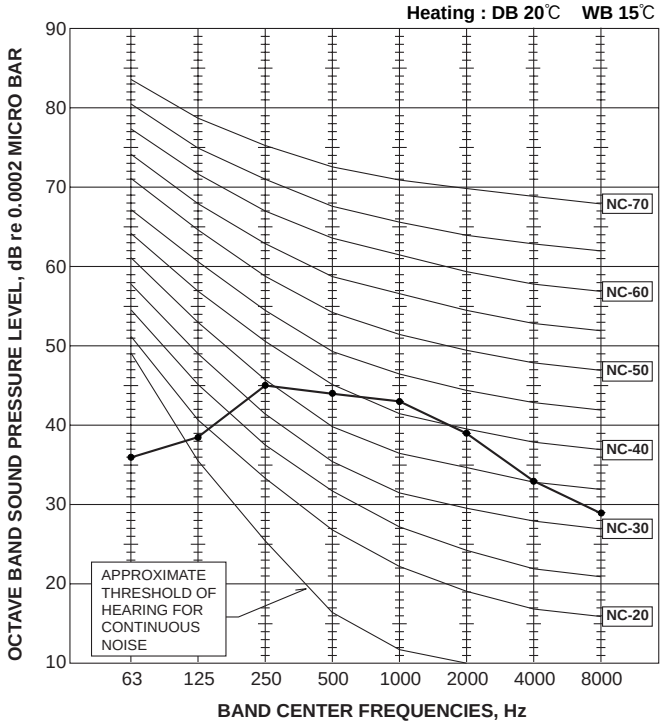
※ Reference value

# 4 NOISE CRITERIA CURVES

## MCFH-A12WV - E1

| SPEED | SPL(dB(A)) | LINE |
|---|---|---|
| High | 46 | |

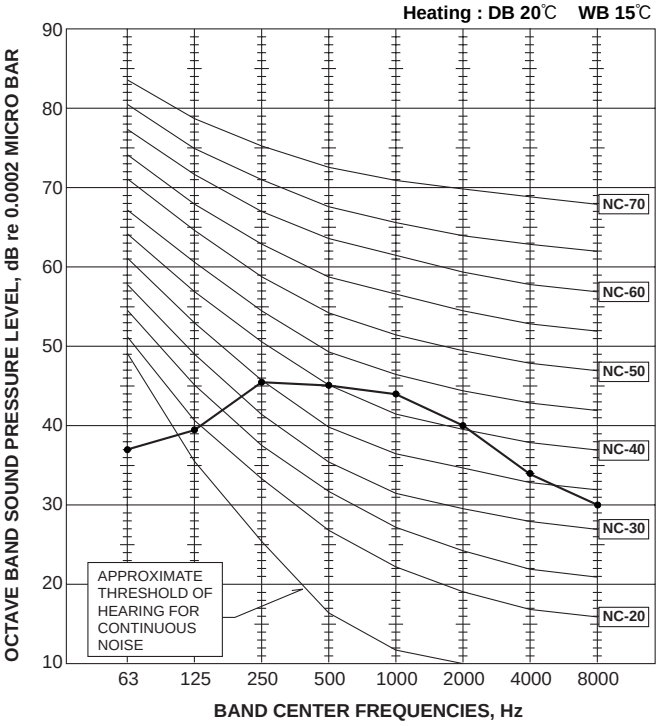
**Test conditions,**
**Cooling : DB 27℃ WB 19℃**
**Heating : DB 20℃ WB 15℃**




## MCFH-A18WV - E1

| SPEED | SPL(dB(A)) | LINE |
|---|---|---|
| High | 48 | |

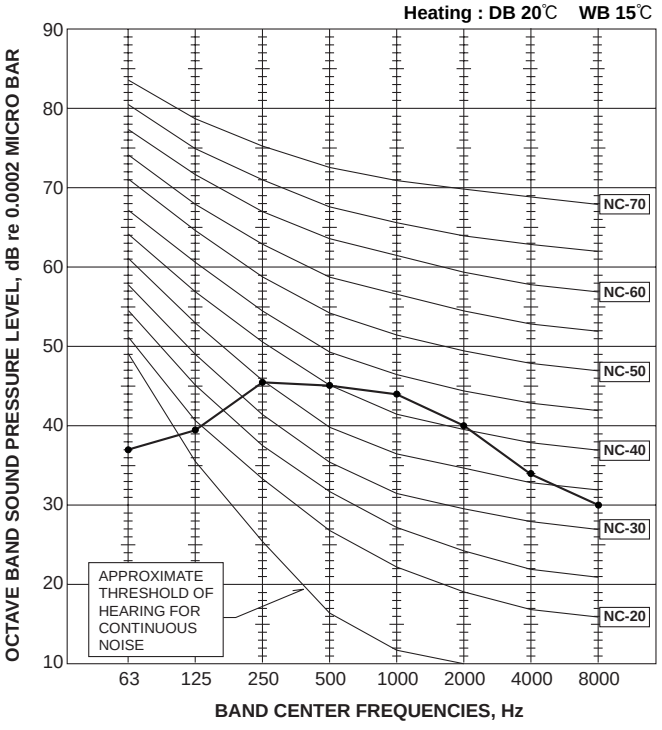
**Test conditions,**
**Cooling : DB 27℃ WB 19℃**
**Heating : DB 20℃ WB 15℃**

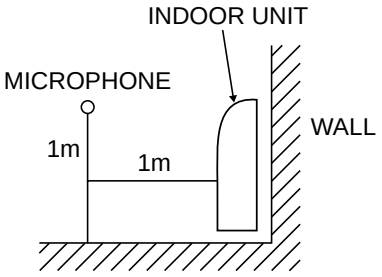



## MCFH-A24WV - E1

| SPEED | SPL(dB(A)) | LINE |
|---|---|---|
| High | 48 | |

**Test conditions,**
**Cooling : DB 27℃ WB 19℃**
**Heating : DB 20℃ WB 15℃**



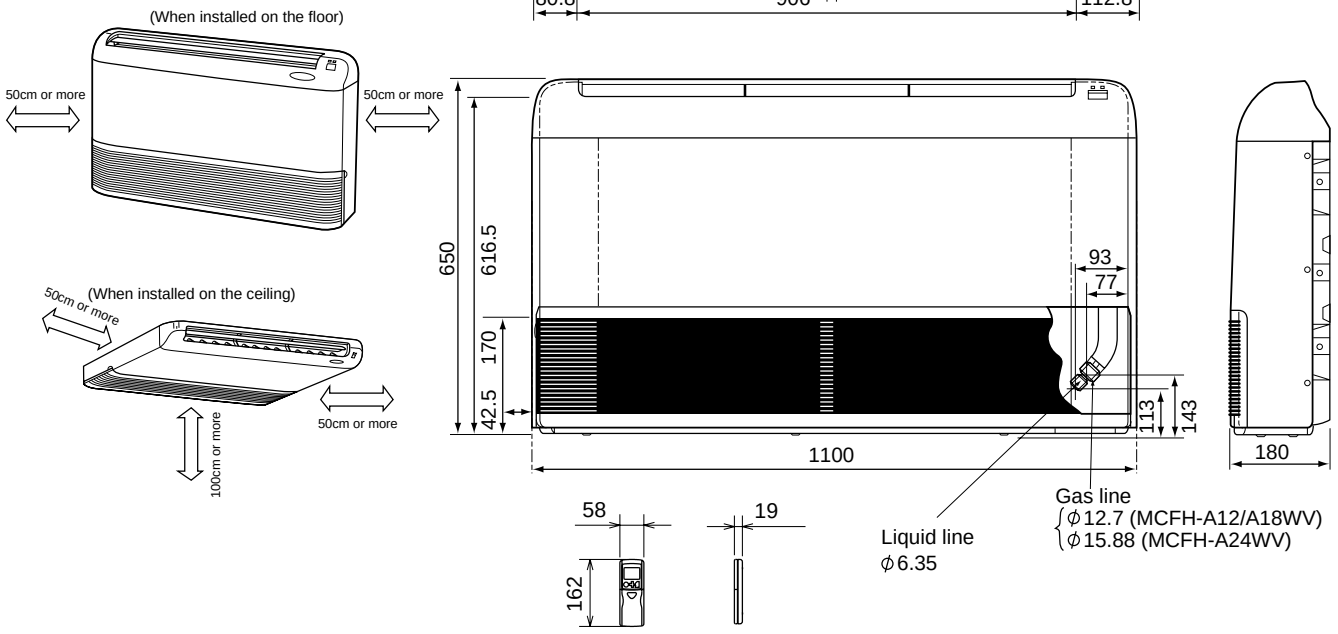



# 5 OUTLINES AND DIMENSIONS

**MCFH-A12WV - E1**
**MCFH-A18WV - E1**
**MCFH-A24WV - E1**

Unit: mm

## INDOOR UNIT

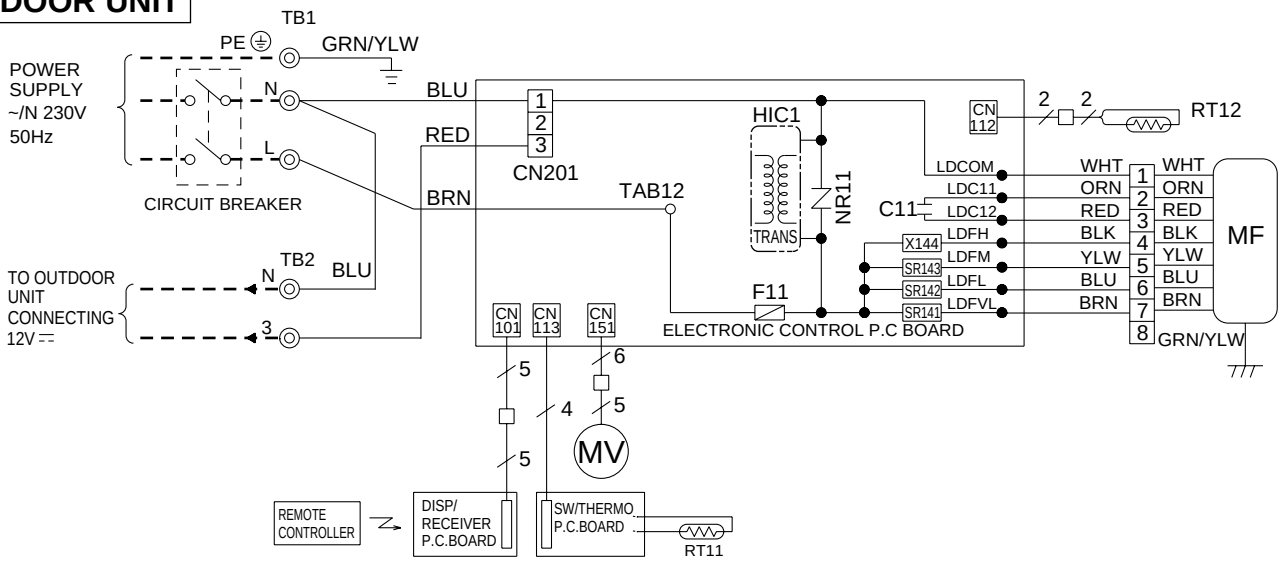



**Wireless remote controller**

# 6 WIRING DIAGRAM

**MCFH-A12WV -** E1 MODELS WIRING DIAGRAM
**MCFH-A18WV -** E1
**MCFH-A24WV -** E1

## INDOOR UNIT



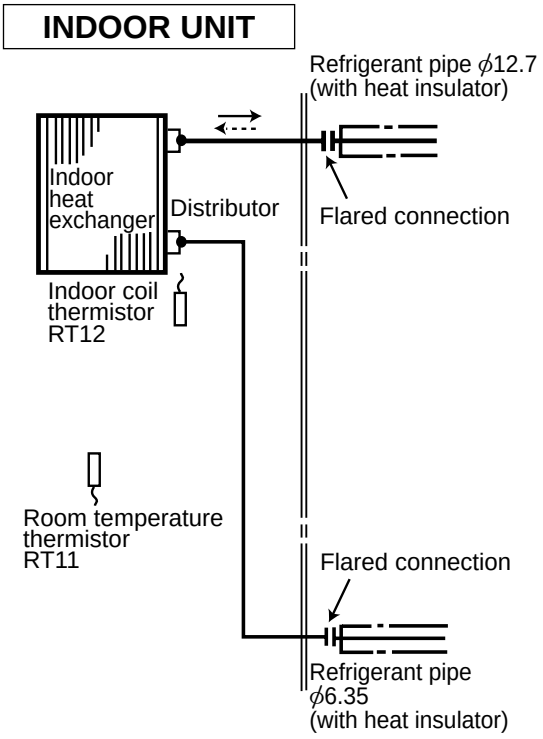

| SYMBOL | NAME | SYMBOL | NAME | SYMBOL | NAME |
|---|---|---|---|---|---|
| C11 | INDOOR FAN CAPACITOR | MV | VANE MOTOR | SR141~SR143 | SOLID STATE RELAY |
| F11 | FUSE (3.15A) | NR11 | VARISTOR | TB1, TB2 | TERMINAL BLOCK |
| HIC1 | DC/DC CONVERTER | RT11 | ROOM TEMPERATURE THERMISTOR | X144 | RELAY |
| MF | INDOOR FAN MOTOR(INNER FUSE) | RT12 | INDOOR COIL THERMISTOR | | |

NOTES: 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

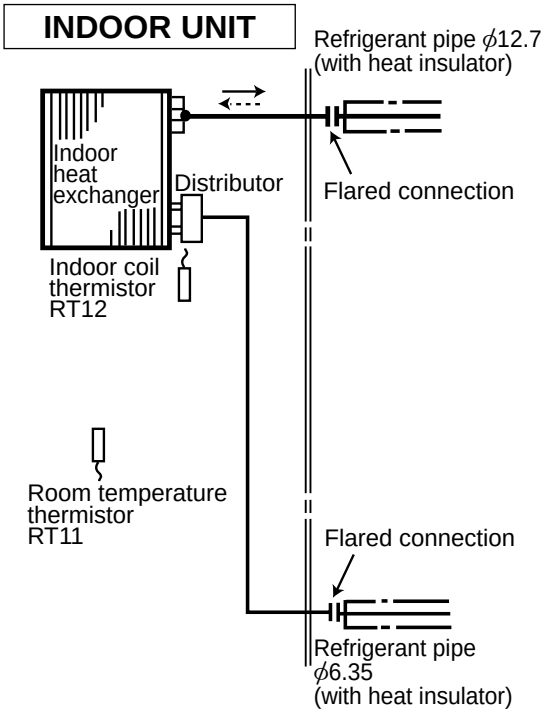
# 7 REFRIGERANT SYSTEM DIAGRAM

**Unit : mm**

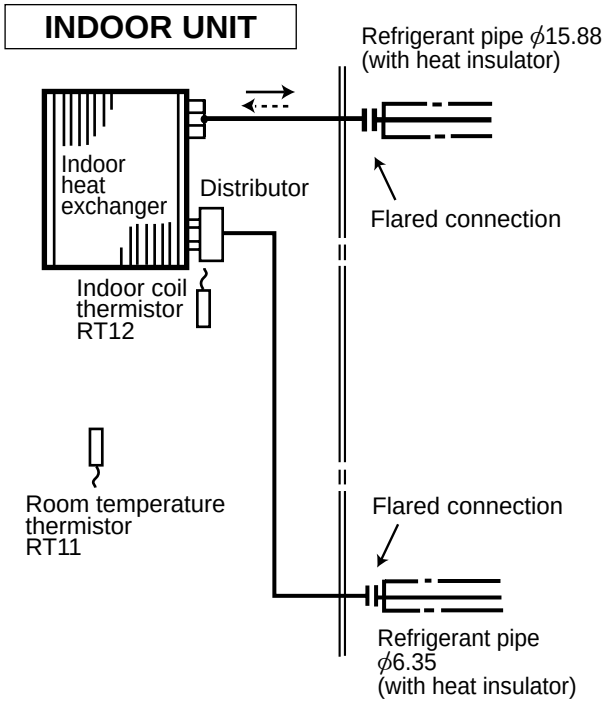
## MCFH-A12WV- E1

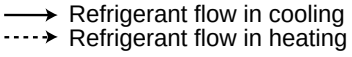



## MCFH-A18WV- E1




## MCFH-A24WV- E1



# 8 SERVICE FUNCTIONS

## MCFH-A12WV -E1 MCFH-A18WV -E1 MCFH-A24WV -E1

### 8-1. TIMER SHORT MODE

For service, set time can be shortened by short circuit of JPG and JPS on the electronic control P.C. board.
The time will be shortened as follows. (Refer to page 18.)
3-minutes time delay : 3-minutes → 3-seconds
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.)

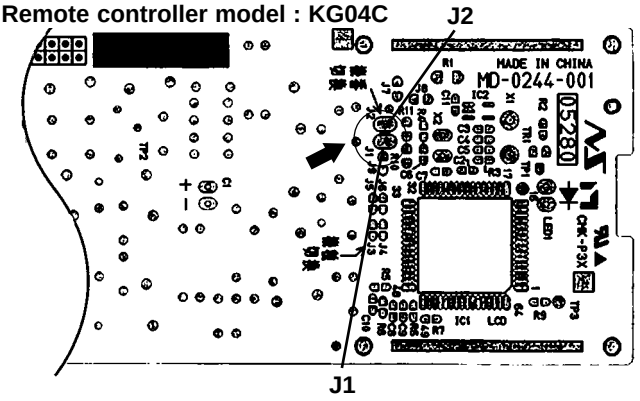
### 8-2. P.C. BOARD MODIFICATION FOR INDIVIDUAL OPERATION

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;

**Remote controller model : KG04C**




**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.

Table1.

| | 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**

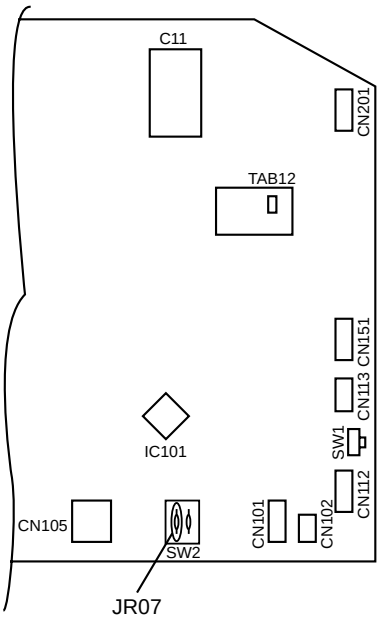
After you turn the breaker ON, the first remote controller that sends the signal to the indoor unit will be regarded as the remote controller for the indoor unit.
The indoor unit will only accepts the signal from the remote controller that has been assigned to the indoor unit once they are set.
The setting 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.

## 8-3. 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.

### How to release “AUTO RESTART FUNCTION”

①Turn off the main power for the unit.
②Pull out the electronic control P.C. board. (Refer to page 19.)
③Solder jumper wire to the JR07 on the indoor electronic control P.C. board. (Refer to page 18.)




### Operation

①If the main power (230V AC) has been cut, the operation settings remain.
②After 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.)

### NOTE

- The operation settings are memorized when 10 seconds have passed after the remote controller 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 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.

# 9 TROUBLESHOOTING

## MCFH-A12WV -E1 MCFH-A18WV -E1 MCFH-A24WV -E1

### 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.

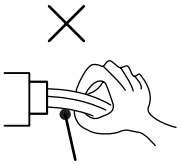
**2. Take care the following during service.**

(1) Before servicing the air conditioner, be sure to first turn off the remote controller to stop the main unit, and then after confirming the horizontal vane has completely closed, turn off the breaker.

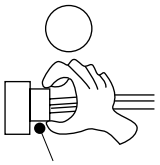
(2) Be sure to unplug the power cord before removing the air inlet grille, the front panel, the cabinet, the top panel and the electronic control P.C. boards.

(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) 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 discoloration.

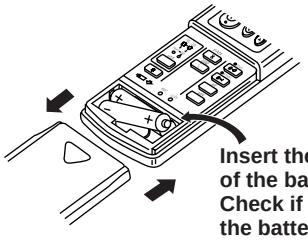
(3) When troubleshooting, refer to the flow chart and the check table on page 12 and 13.

**4. How to replace batteries**

Weak batteries may cause the remote controller malfunction.

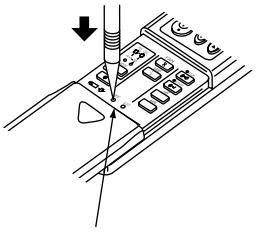
In this case, replace the batteries to operate the remote controller normally.

① Remove the front lid and insert batteries. Then reattach the front 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**

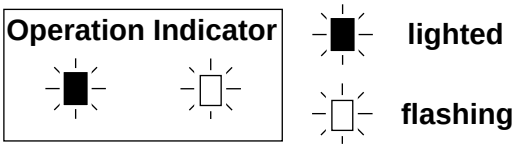
**NOTE** : If the RESET button is not pressed, the remote controller may not operate correctly.

**INFORMATION FOR MULTI SYSTEM AIR CONDITIONER**

**OUTDOOR UNIT : MXZ-A18WV-E1 MXZ-A26WV-E1 MXZ-A32WV-E1**

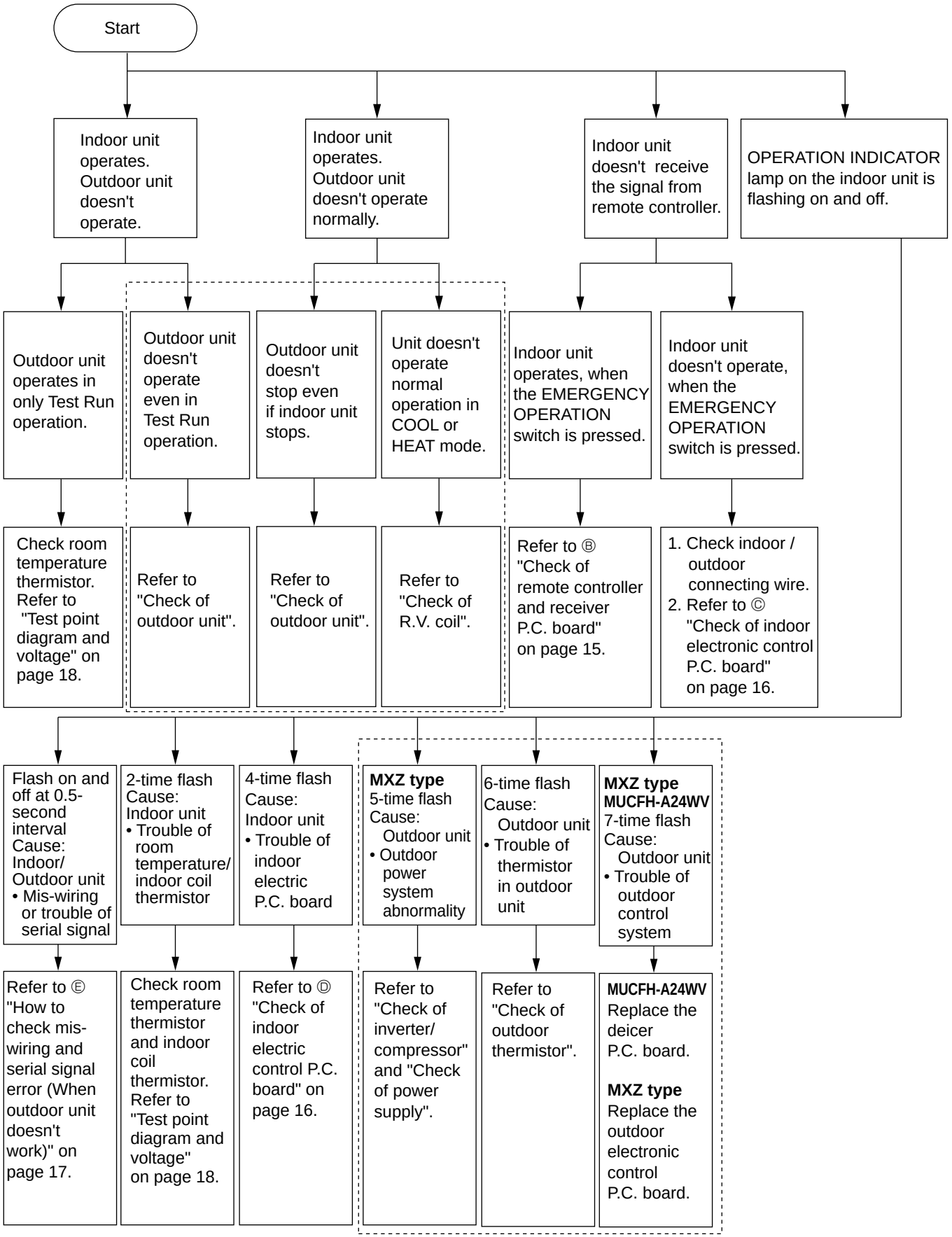
Multi system air conditioner can connect two or more indoor units with one outdoor unit.

- Unit won't operate in case the total capacity of indoor units exceeds the capacity of outdoor units. Do not connect indoor units beyond the outdoor unit capacity.
  Operation indicator lamp flashes as shown in the figure below.
- When you try to operate two or more indoor units with one outdoor unit simultaneously, one for the cooling and the other for heating, the operation mode of the indoor unit that operates earlier is selected. The other indoor units that will start the operation later cannot operate, indicating as shown in the figure below. In this case, please set all the indoor units to the same operation mode.



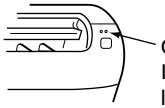

- When indoor units starts the operation while the defrosting of outdoor unit is being done, it takes a few minutes (max. 10 minutes) to blow out the warm air.
- In the heating operation, though indoor unit that does not operate may get warm or the sound of refrigerant flowing may be heard, they are not malfunction. The reason is that the refrigerant continuously flows into it.

## 9-2. Instruction of troubleshooting




As for outdoor unit MUCFH type, refer to the service manual OB337 REVISED EDITION-A.
As for outdoor unit MUH type, refer to the service manual OB331 REVISED EDITION-A.
As for outdoor unit MXZ type, refer to the service manual OB319.

## 1. Troubleshooting check table



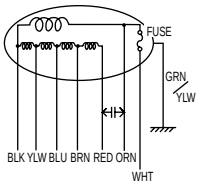
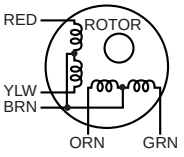

Before taking measures, make sure that the symptom reappears, for accurate troubleshooting.
Self check table

| NO. | Abnormal point | Indication | Symptom | Detect method | Check point |
|---|---|---|---|---|---|
| 1 | Mis-wiring or Serial signal | 0.5-second ON<br>0.5-second OFF | Outdoor unit does not run. | When serial signal stops for 4 to 5 seconds. | ● Check wiring (visual check and conductivity check).<br>● Check indoor electronic control P.C.board.<br>● Check outdoor deicer P.C. board.<br>● Check electrical parts. |
| 2 | Indoor coil thermistor<br>Room temperature thermistor | 2-time flash<br>2.5-second OFF | Outdoor unit does not run. | Detect Indoor coil/room temperature thermistor short or open circuit every 8 seconds during operation. | ● Check resistance of thermistor.<br>● Reconnect connector.<br>● Check indoor electronic control P.C. board. |
| 3 | Indoor control P.C. board | 4-time flash<br>2.5-second OFF | Indoor unit does not run | When it cannot properly read data in the nonvolatile memory of the indoor electronic control P.C. board. | ● Check indoor electronic control P.C. board. |
| 4 | Outdoor thermistor | 6-time flash<br>2.5-second OFF | Outdoor unit does not run | When the outdoor thermistors short or open after the compressor start-up. | ● Check outdoor deicer P.C. board.<br>● Check resistance of thermistor.<br>● Reconnect connector.<br>Refer to service manual OB337 REVISED EDITION-A, OB331 REVISED EDITION-A or OB319. |
| 5 | **MCFH-A24WV MXZ type** Outdoor control P.C. board | 7-time flash<br>2.5-second OFF | Outdoor unit does not run | When it cannot properly read data in the nonvolatile memory of the outdoor deicer P.C. board or outdoor electronic control P.C. board. | ● Check the outdoor deicer P.C. board or outdoor electronic control P.C. board.<br>Refer to service manual OB337 REVISED EDITION-A or OB319. |
| ✵ 6 | **MXZ type** Outdoor power system | 5-time flash<br>2.5-second OFF | Outdoor unit does not run | When the compressor operation is continuously three times interrupted by over current protection within 1 minute after start-up , it stops operation. | ● Check the inverter output.<br>● Check the compressor.<br>Refer to service manual OB319. |
| ✵ 7 | **MXZ type** Operation mode setting | Operation Indicator<br>: Lighted<br>: Flashing<br>2.5-second OFF | Outdoor unit operates but indoor unit does not operate. | When the operation mode of each indoor unit is differently set to COOL(includes DRY) and HEAT at same time, the operation mode of indoor unit that has operated at first has the priority. | ● Unify the operation mode.<br>Refer to service manual OB319. |

✵The indication is shown only when the indoor unit connects with the outdoor unit MXZ type.

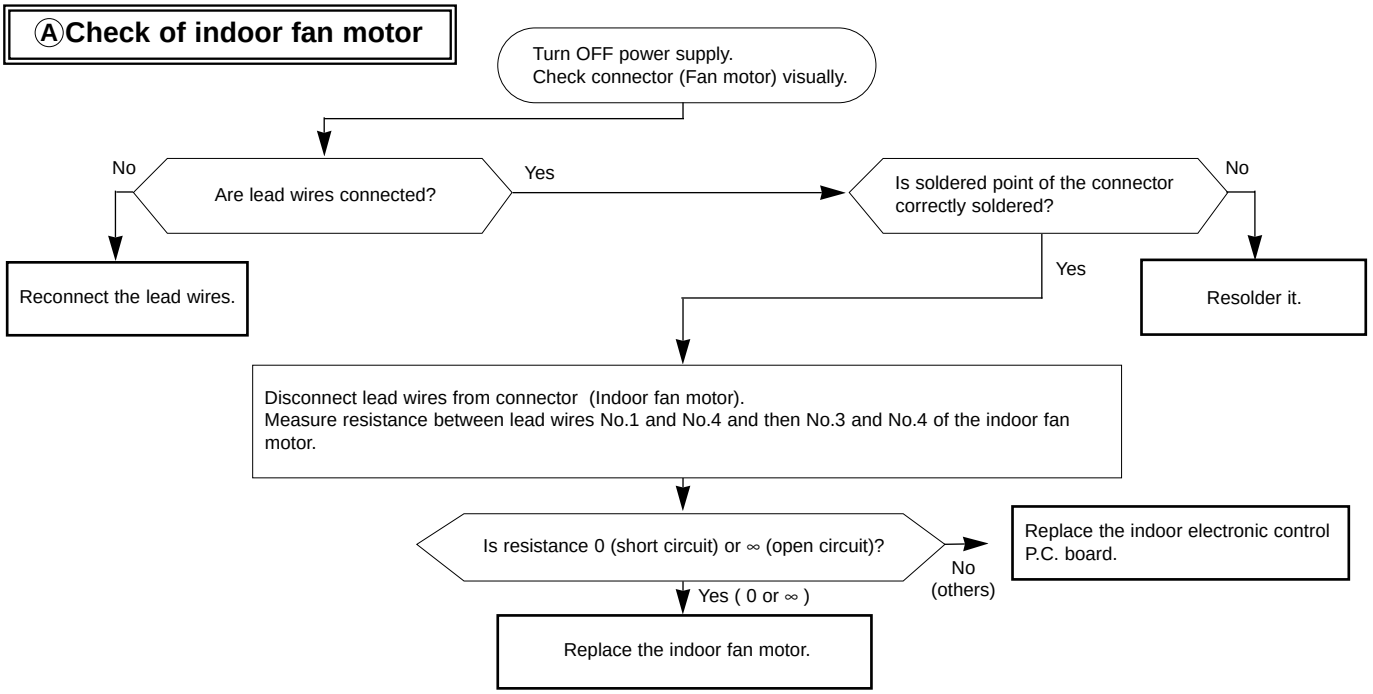
## 2. Trouble criterion of main parts

### MCFH-A12WV -E1 MCFH-A18WV -E1 MCFH-A24WV -E1

<table>
<tr><th>Part name</th><th>Check method and criterion</th><th>Figure</th></tr>
<tr><td>Room temperature thermistor (RT11)<br>Indoor coil thermistor (RT12)</td><td>Measure the resistance with a tester.<br>(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>Indoor fan motor (MF)<br><br>INNER FUSE<br>145 ± 5℃ CUT OFF</td><td>Measure the resistance between the terminals with a tester.<br>(Part temperature10°C ~ 30°C)<table><tr><th rowspan="2">Color of lead wire</th><th colspan="3">Normal</th><th rowspan="2">Abnormal</th></tr><tr><th>MCFH-A12WV</th><th>MCFH-A18WV</th><th>MCFH-A24WV</th></tr><tr><td>WHT-BLK</td><td>175~190Ω</td><td>79~87Ω</td><td>80~88Ω</td><td rowspan="5">Open or short-circuit</td></tr><tr><td>BLK-YLW</td><td>66~72Ω</td><td>63~69Ω</td><td>44~49Ω</td></tr><tr><td>YLW-BLU</td><td>45~50Ω</td><td>34~38Ω</td><td>35~39Ω</td></tr><tr><td>BLU-BRN</td><td>30~33Ω</td><td>25~29Ω</td><td>43~47Ω</td></tr><tr><td>BRN-RED</td><td>22~24Ω</td><td>13~15Ω</td><td>13~15Ω</td></tr></table></td><td> 
</td></tr>
<tr><td>Vane motor (MV)</td><td>Measure the resistance between the terminals with a tester.<br>(Part temperature10°C ~ 30°C)<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>328~356Ω</td><td>Open or short-circuit</td></tr></table></td><td> 
</td></tr>
</table>

**Indoor fan does not operate.**

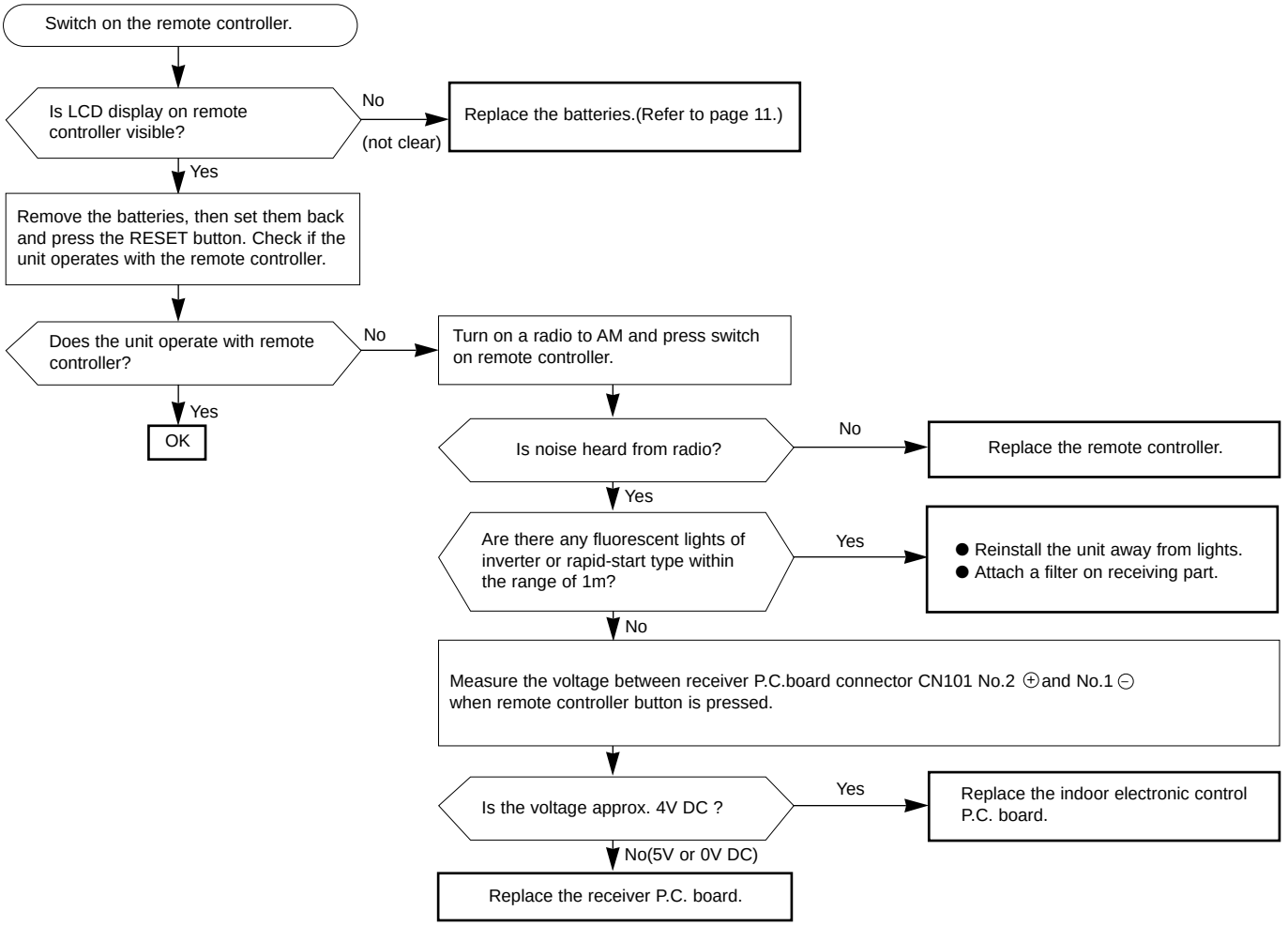
## Ⓐ Check of indoor fan motor




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

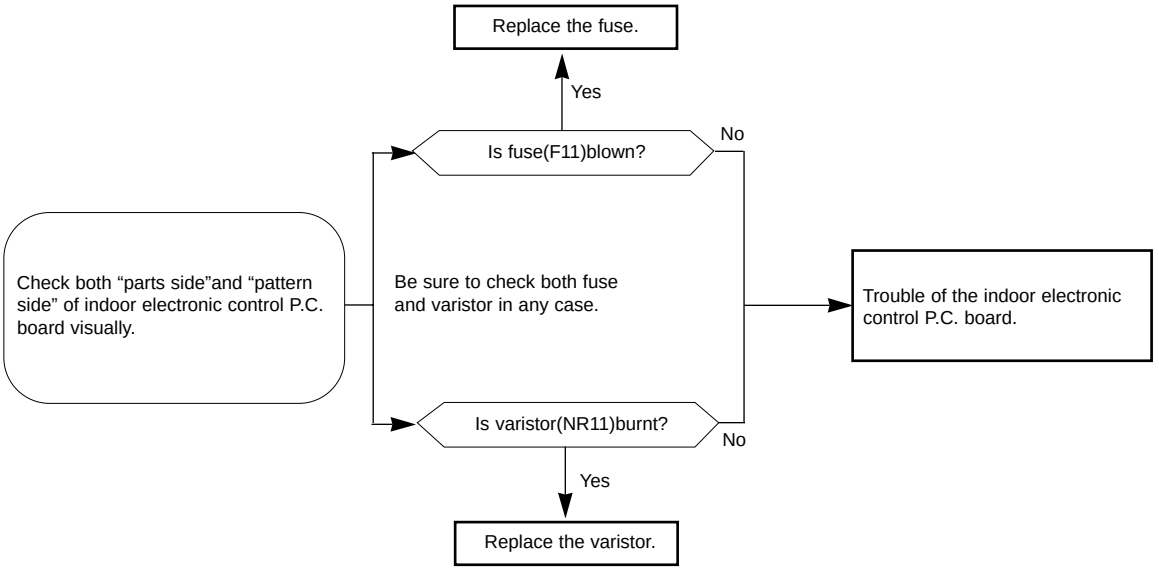
## Ⓑ Check of remote controller and receiver P.C. board

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



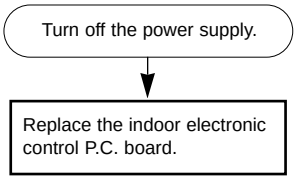
**The unit does not operate with the remote controller.**
**Also, the OPERATION INDICATOR lamp doesn't light up by pressing the EMERGENCY OPERATION switch.**

## ⓒCheck of indoor electronic control P.C. board




**When OPERATION INDICATOR lamp flashes 4 - time.**
**Indoor unit does not operate.**

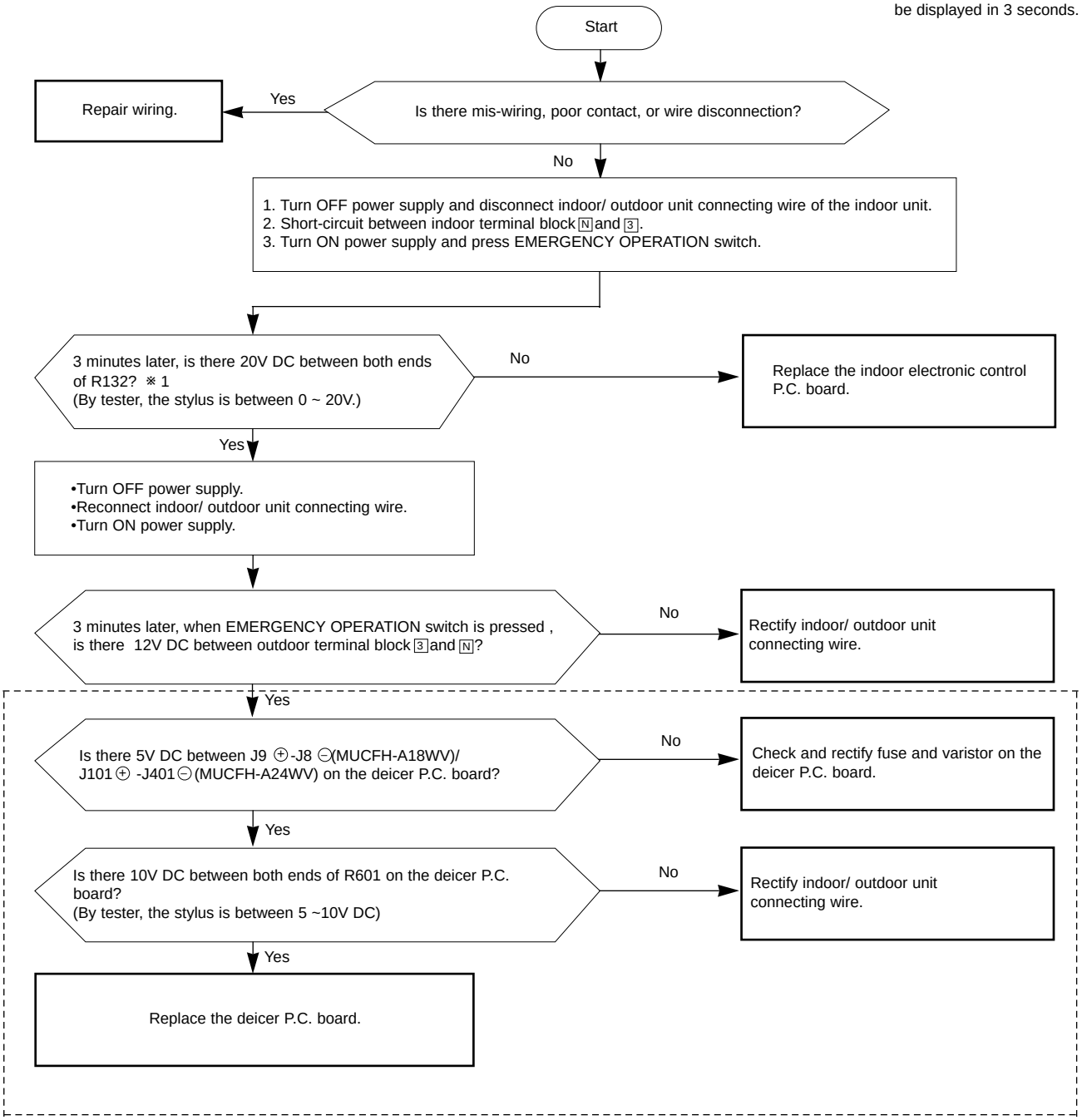
## ⓓCheck of indoor electronic control P.C. board



**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 (when outdoor unit does not work)

※ 1 Short circuit of JPG and JPS on the electronic control P.C. board enables self-check to be displayed in 3 seconds.




As for outdoor unit MUCFH type, refer to the service manual OB337 REVISED EDITION-A.
As for outdoor unit MUH type, refer to the service manual OB331 REVISED EDITION-A.
As for outdoor unit MXZ type, refer to the service manual OB319.

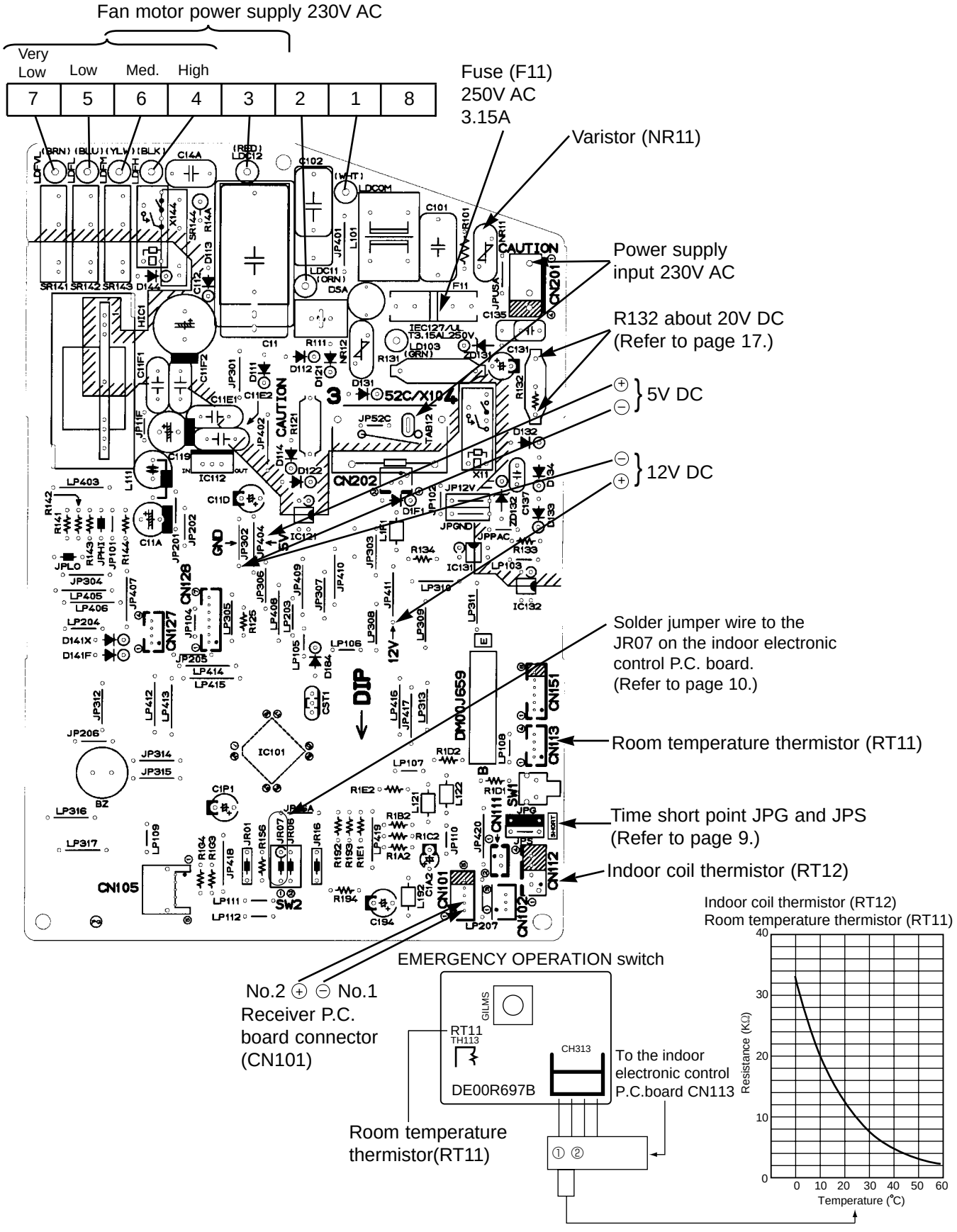
## TEST POINT DIAGRAM AND VOLTAGE

**MCFH-A12WV -** E1

**MCFH-A18WV -** E1

**MCFH-A24WV -** E1

Indoor electronic control P.C. board

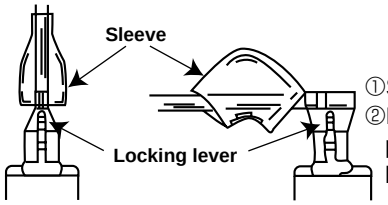


# 10 DISASSEMBLY INSTRUCTIONS

<"Terminal with lock mechanism" Detaching points>

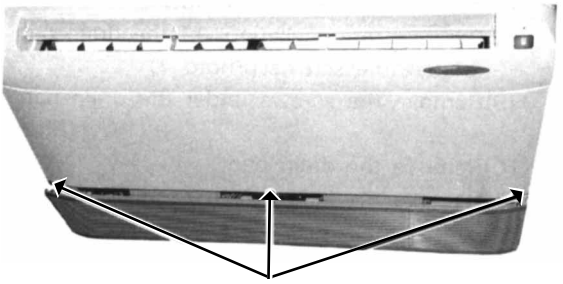
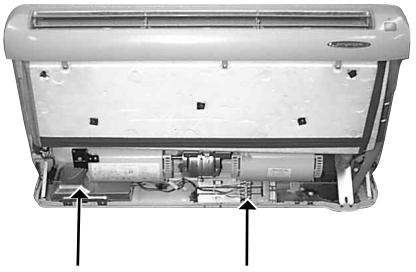
In case of terminal with lock mechanism, detach the terminal as shown below.
There are two types ( Refer to (1) and (2)) of the terminal with lock mechanism.
The terminal with no lock mechanism can be removed by pulling it out.
Check the shape of the terminal and work.

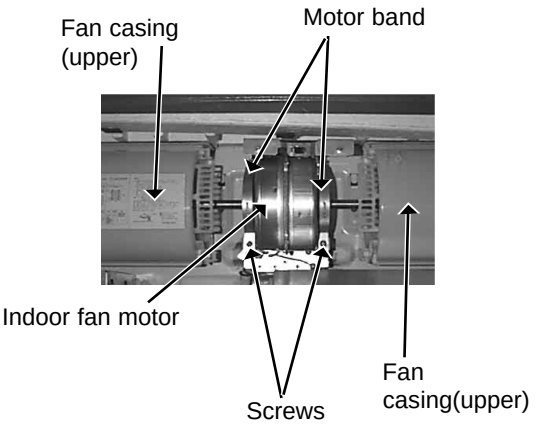
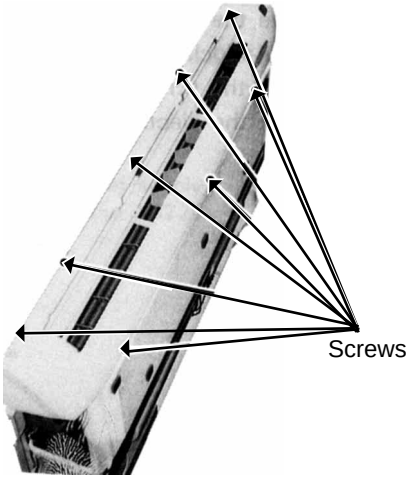
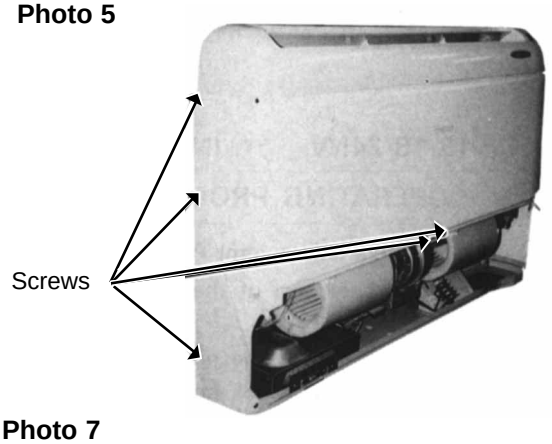
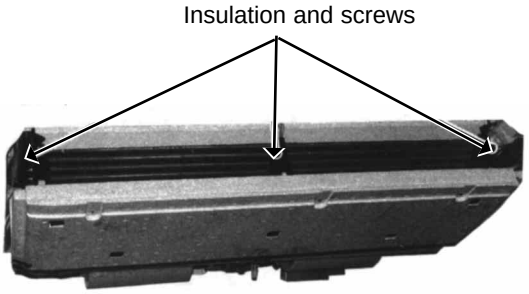
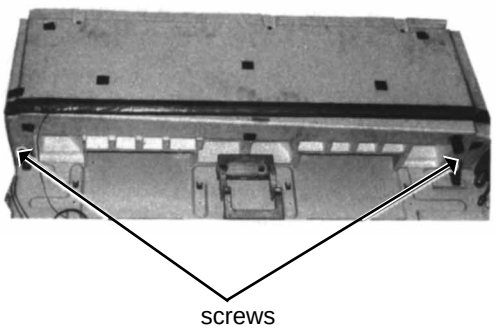
Slide the sleeve and check if there is a locking lever or not.




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

## 10-1. MCFH-A12WV-E1 MCFH-A18WV-E1 MCFH-A24WV-E1 INDOOR UNIT

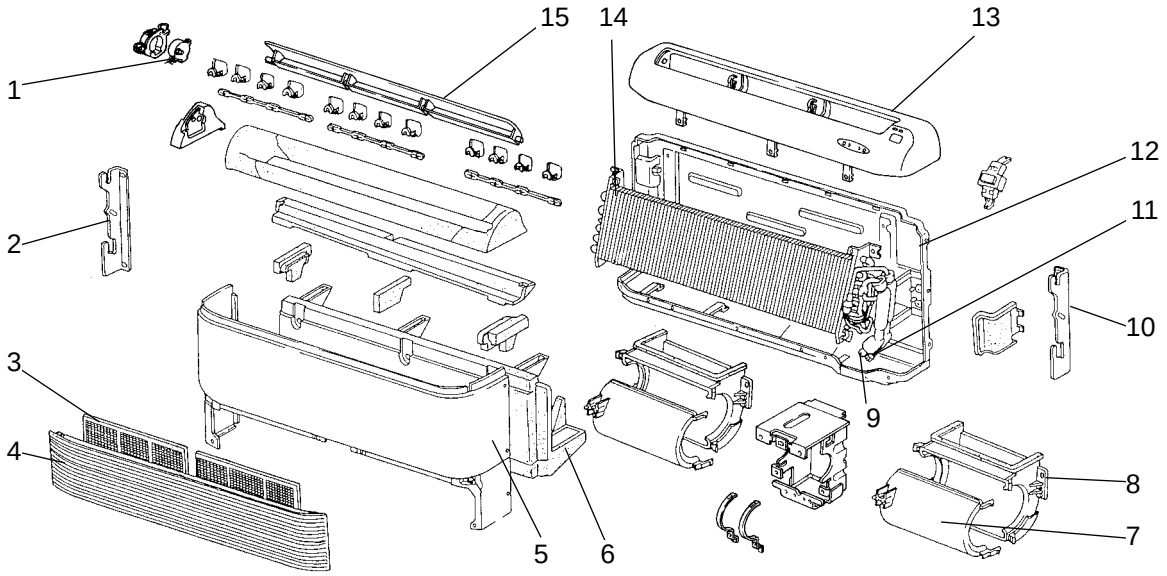
| OPERATING PROCEDURE | PHOTOS |
|---|---|
| **1. Removing the electronic control P. C . board.**<br>(1) Pull out the upper part of the grille. (Photo 1)<br>(2) Remove the screws of the grille.<br>(3) Remove screws of terminal block cover. Remove the terminal block cover and remove the terminal block.<br>(4) Remove the screws of the electronic box cover.<br>(5) Pull out the electronic control P. C. board.<br><br>**Photo 3**<br>  <br>Electronic control P.C. board | **Photo 1**<br>  <br>Screws<br><br>**Photo 2**<br>  <br>Electronic box Terminal block |

| OPERATING PROCEDURE | PHOTOS |
|---|---|
| **2. Removing the indoor fan motor**<br>(1) Remove the grille. (Refer to 1(1) (2).)<br>(2) Remove the fan casing.(upper)<br>(3) Disconnect the connector of the indoor fan motor.<br>(4) Disconnect the ground wire of the fan motor.<br>(5) Remove the screws of the motor band and remove the catch.<br>(6) Take out the sirocco fan and the indoor fan motor. | **Photo 4**<br>  <br> |
| **3. Removing the indoor heat exchanger.**<br>(1) Remove the grille. (Refer to 1(1) (2).)<br>(2) Remove the screws on both side and in front of the front panel. (Photo 5)<br>(3) Remove the screws of the nozzle assembly. (Photo 6)<br>(4) Remove the electronic box. (Refer to 1.)<br>(5) Remove the indoor fan motor. (Refer to 2.)<br>(6) Remove the screws of the motor support .<br>(7) Remove the fan casing. (lower)<br>(8) Remove the insulation of the drain pan and remove the screws. (Photo 7)<br>(9) Remove the screws under the drain pan. (Photo 8)<br>(10) Remove the drain pan.<br>(11) Remove the indoor heat exchanger.<br><br>**Photo 6**<br>  <br> | **Photo 5**<br>  <br><br>**Photo 7**<br>  <br><br>**Photo 8**<br>  <br> |

# 11 PARTS LIST

**MCFH-A12WV - E1 (WH)**
**MCFH-A18WV - E1 (WH)**
**MCFH-A24WV - E1 (WH)**

## 11-1. INDOOR UNIT STRUCTURAL PARTS

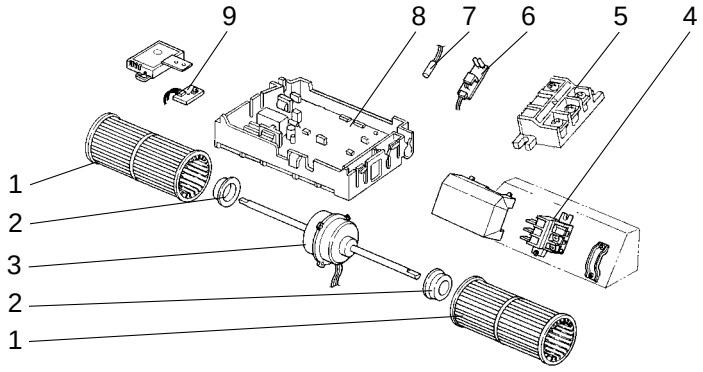



Part number that is circled is not shown in the illustration.

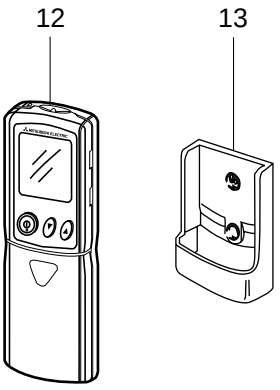
| No. | Part No. | Part name | Symbol in Wiring Diagram | Q'ty/unit | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | MCFH-A12WV - E1 (WH) | MCFH-A18WV - E1 (WH) | MCFH-A24WV - E1 (WH) | |
| 1 | E02 227 303 | VANE MOTOR | MV | 1 | 1 | 1 | |
| 2 | E02 179 971 | INSTALLATION METAL (L) | | 1 | 1 | 1 | |
| 3 | E02 179 100 | AIR FILTER | | 2 | 2 | 2 | |
| 4 | E02 179 010 | GRILLE (WH) | | 1 | 1 | 1 | |
| 5 | E02 179 000 | FRONT PANEL (WH) | | 1 | 1 | 1 | |
| 6 | E02 215 700 | DRAIN PAN | | 1 | 1 | 1 | |
| 7 | E02 179 237 | FAN CASING (U) | | 2 | 2 | 2 | |
| 8 | E02 179 238 | FAN CASING (L) | | 2 | 2 | 2 | |
| 9 | E02 179 667 | UNION (GAS) | | 1 | 1 | | ϕ12.7 |
| | E02 138 666 | UNION (GAS) | | | | 1 | ϕ15.88 |
| 10 | E02 179 972 | INSTALLATION METAL (R) | | 1 | 1 | 1 | |
| 11 | E02 138 667 | UNION (LIQUID) | | 1 | 1 | 1 | ϕ6.35 |
| 12 | E02 179 231 | BACK PANEL (IN) | | 1 | 1 | 1 | |
| 13 | E02 227 235 | NOZZLE (WH) | | 1 | 1 | 1 | |
| 14 | E02 823 620 | INDOOR HEAT EXCHANGER | | 1 | | | |
| | E02 824 620 | INDOOR HEAT EXCHANGER | | | 1 | 1 | |
| 15 | E02 227 040 | VANE (WH) | | 1 | 1 | 1 | |
| ⑯ | E02 179 142 | GRILLE CATCH (WH) | | 3 | 3 | 3 | 3PCS/SET |

**MCFH-A12WV -E1(WH)**
**MCFH-A18WV -E1(WH)**
**MCFH-A24WV -E1(WH)**

## 11-2. INDOOR UNIT ELECTRICAL PARTS




## 11-3. ACCESSORY AND REMOTE CONTROLLER




## 11-2. INDOOR UNIT ELECTRICAL 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 |
|---|---|---|---|---|---|---|---|
| | | | | MCFH-A12WV -E1 (WH) | MCFH-A18WV -E1 (WH) | MCFH-A24WV -E1 (WH) | |
| 1 | E02 179 500 | SIROCCO FAN | | 2 | 2 | 2 | |
| 2 | E02 179 505 | FAN MOTOR RUBBER MOUNT | | 2 | 2 | 2 | 2PCS/SET |
| 3 | E02 228 300 | INDOOR FAN MOTOR | MF | 1 | | | RB4V25-□□ |
| | E02 229 300 | INDOOR FAN MOTOR | MF | | 1 | | RB4V36-□□ |
| | E02 684 300 | INDOOR FAN MOTOR | MF | | | 1 | RB4V36-□□ |
| 4 | E02 826 375 | TERMINAL BLOCK | TB2 | 1 | 1 | 1 | 3P |
| 5 | E02 823 375 | TERMINAL BLOCK | TB1 | 1 | 1 | 1 | 3P |
| 6 | E02 227 468 | RECEIVER P.C. BOARD | DISP/RECEIVER P.C. BOARD | 1 | 1 | 1 | |
| 7 | E02 327 307 | INDOOR COIL THERMISTOR | RT12 | 1 | 1 | 1 | |
| 8 | E02 826 452 | ELECTRONIC CONTROL P.C. BOARD | | 1 | | | |
| | E02 827 452 | ELECTRONIC CONTROL P.C. BOARD | | | 1 | | |
| | E02 828 452 | ELECTRONIC CONTROL P.C. BOARD | | | | 1 | |
| 9 | E02 215 328 | SWITCH & ROOM TEMPERATURE THERMISTOR P.C. BOARD | SW/THERMO P.C. BOARD | 1 | 1 | 1 | |
| ⑩ | E02 820 385 | VARISTOR | NR11 | 1 | 1 | 1 | |
| ⑪ | E02 127 382 | FUSE | F11 | 1 | 1 | 1 | 3.15A |

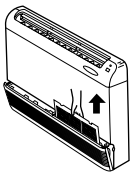
## 11-3. ACCESSORY AND REMOTE CONTROLLER

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12 | E02 826 426 | REMOTE CONTROLLER | | 1 | 1 | 1 | KG04C |
| 13 | E02 527 083 | REMOTE CONTROLLER HOLDER | | 1 | 1 | 1 | |

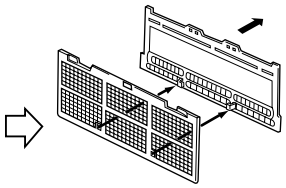
# 12 OPTIONAL PARTS

## 12-1. AIR CLEANING FILTER

- If the air cleaning filter is clogged, it may lower the unit's capacity or cause condensation at the air outlet .
- The air cleaning filter is disposable . The standard usable term is about 4 months . However , if the color of the filter turns to dark brown , replace soon .



Remove the air filter and the air cleaning filter together.

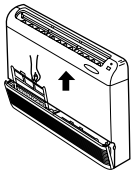


Separate the air cleaning filter (white bellows type) from the air filter.

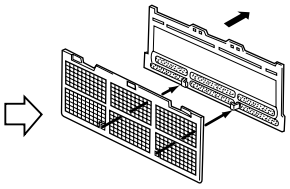
| Models | Part No. |
|---|---|
| **MCFH-A12WV -** E1<br>**MCFH-A18WV -** E1<br>**MCFH-A24WV -** E1 | MAC - 1200 FT |

## 12-2. DEODORIZING FILTER

- Clean the filter every two weeks . When it becomes too dirt , clean it more often .
- Replace the filter with a new one when its color can not be restored even after washing or when the filter becomes dark.
- Standard interval for the filter replacement is about 1 year .



Remove the air filter and the deodorizing filter together.



Separate the deodorizing filter (gray sponge type) from the air filter.

| Models | Part No. |
|---|---|
| **MCFH-A12WV -** E1<br>**MCFH-A18WV -** E1<br>**MCFH-A24WV -** E1 | MAC - 1700 DF |

MITSUBISHI ELECTRIC CORPORATION

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


**Distributed in Apr. 2004. No.OB336 REVISED EDITION-A 6**
**Distributed in Jan. 2004. No.OB336 6**
**Made in Japan**

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