MITSUBISHI ELECTRIC

*Changes for the Better*

FLOOR AND CEILING TYPE AIR CONDITIONERS

**Revision A:**
● RoHS PARTS LIST has been added.

Please void OB382.

# INDOOR UNIT

# SERVICE MANUAL

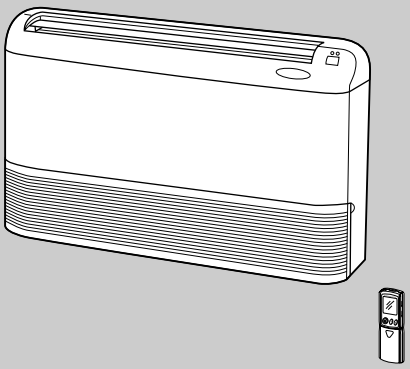
**No. OB382**
**REVISED EDITION-A**

**Wireless type**
**Models**

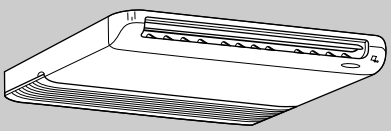
**MCF-GA35VB - E1**
**MCF-GA50VB - E1**
**MCF-GA60VB - E1**

**Outdoor unit service manual**
**MUCF-GA•VB Series (OB383)**

(When installed on the floor)



(When installed on the ceiling)



## CONTENTS



**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 (RoHS compliant).

CE

**Revision A :**

• RoHS PARTS LIST has been added.

# 1 TECHNICAL CHANGES

**MCF-A12WV -E1 → MCF-GA35VB -E1**

1. Model name has been changed.

**MCF-A18WV -E1 → MCF-GA50VB -E1**

1. Model name has been changed.

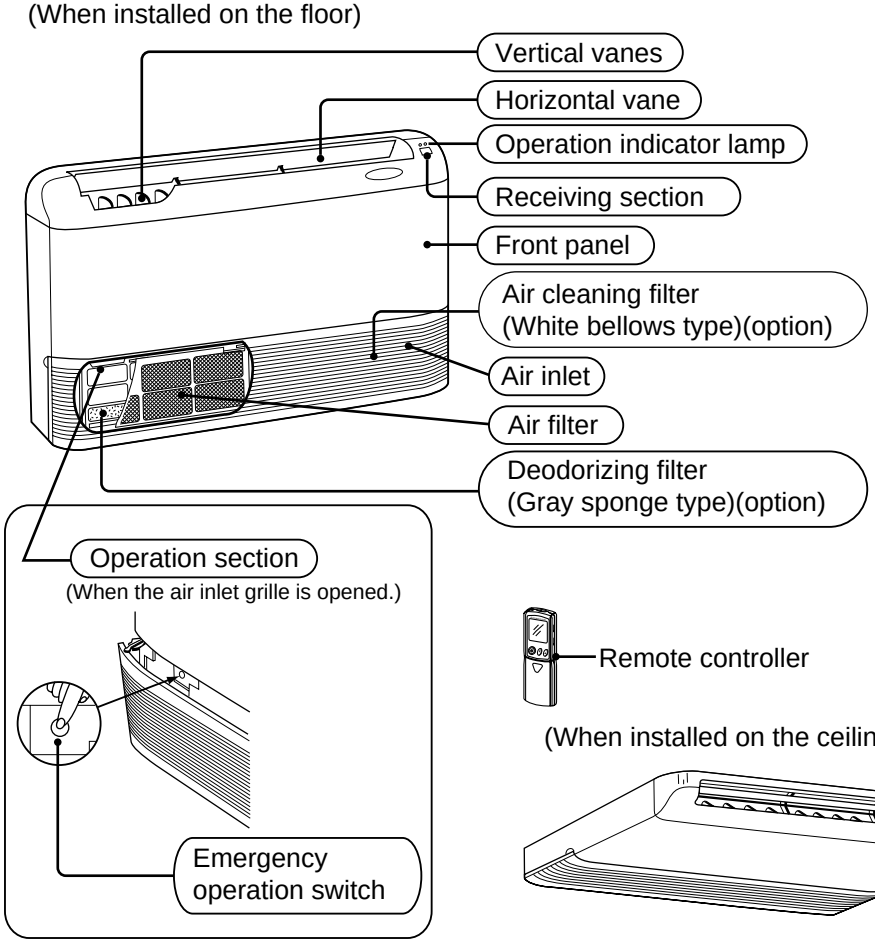
**MCF-A24WV -E1 → MCF-GA60VB -E1**

1. Model name has been changed.

# 2 PART NAMES AND FUNCTIONS

**MCF-GA35VB MCF-GA50VB MCF-GA60VB**

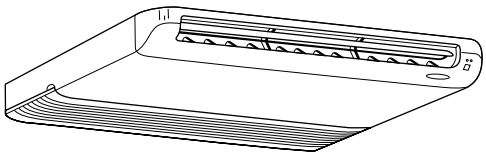
(When installed on the floor)






Remote controller

(When installed on the ceiling)

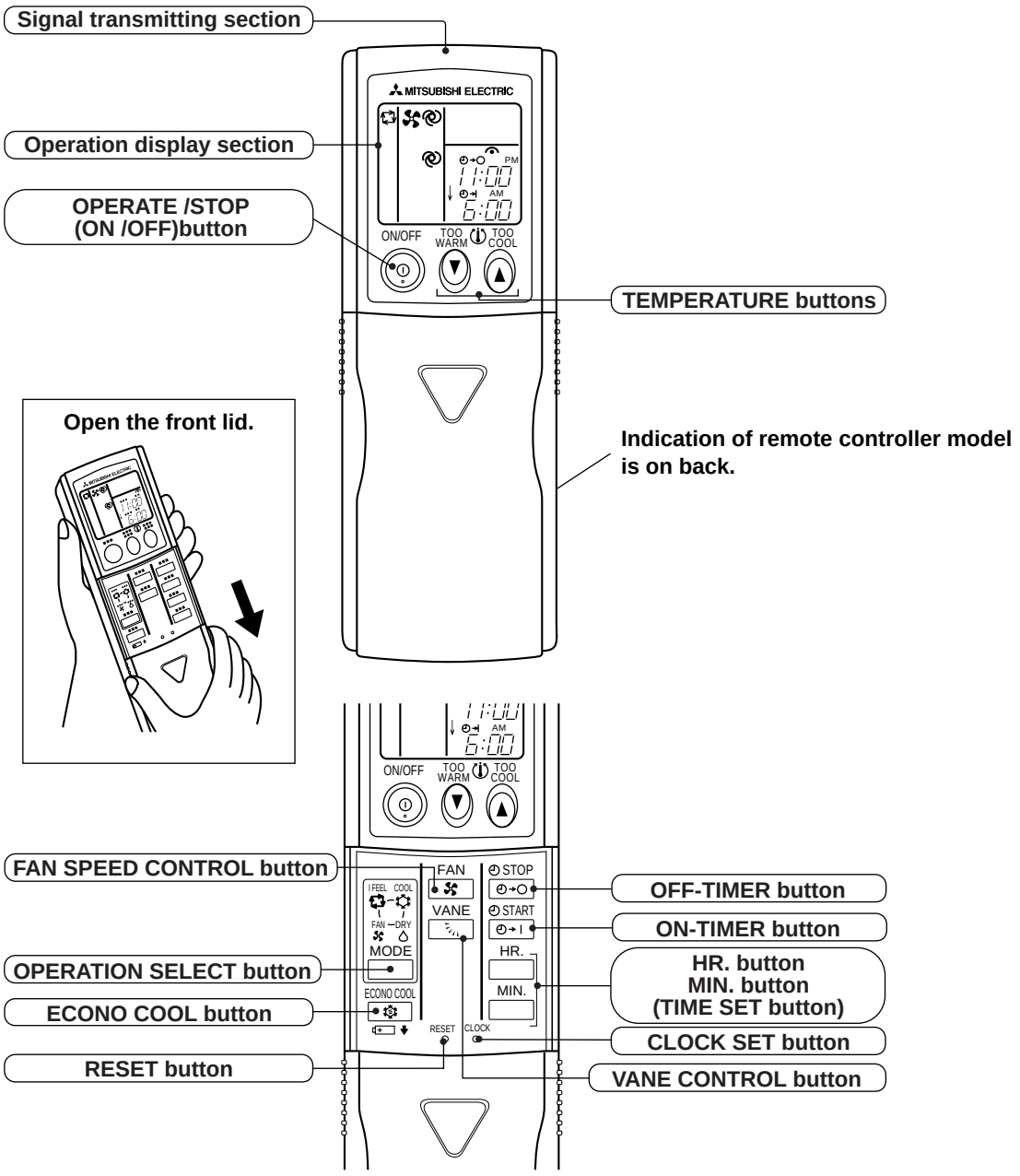


ACCESSORIES

| | Item | Q'ty |
|---|---|---|
| ① | Installation plate | 2 |
| ② | Unit fixing screw 5 × 12mm | 2 |
| ③ | Wireless remote controller | 1 |
| ④ | Remote controller holder | 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 |

**MCF-GA35VB MCF-GA50VB MCF-GA60VB**

## REMOTE CONTROLLER



# 3 SPECIFICATION

| Indoor model | | | MCF-GA35VB | MCF-GA50VB | MCF-GA60VB |
|---|---|---|---|---|---|
| Function | | | Cooling | Cooling | Cooling |
| Power supply | | | Single phase 230V, 50Hz | Single phase 230V, 50Hz | Single phase 230V, 50Hz |
| Capacity | Air flow (High/Med.※/Low※) | m³ /h | 678 /582※ /474 ※ | 780 / 636※ / 492※ | 840/ 744※ / 642※ |
| Electrical data | Power outlet | A | 10 | | |
| | Running current | A | 0.26 | 0.30 | 0.36 |
| | Power input | W | 56 | 66 | 80 |
| | Power factor | % | 94 | 96 | 97 |
| | Fan motor current | A | 0.26 | 0.30 | 0.36 |
| Fan motor | Model | | RB4V19-AC | RB4V25-AC | RB4V36-DB |
| | Winding resistance(at 20℃) | Ω | WHT-BLK 203.2 BLK-YLW 45.9 YLW-BLU 32.7 BLU-BRN 44.4 BRN-RED 23.3 | WHT-BLK 182.2 BLK-YLW 68.9 YLW-BLU 47.5 BLU-BRN 31.5 BRN-RED 22.9 | WHT-BLK 84 BLK-YLW 46.2 YLW-BLU 37.2 BLU-BRN 45.2 BRN-RED 13.6 |
| Dimensions W×H×D | | mm | 1,100×650×180 | | |
| Weight | | kg | 25 | | |
| Special remarks | Air direction | | 5 | | |
| | Sound level (High/Med.※/Low※) | dB | 44 /40※ /34※ | 46 /41※ / 36※ | 48 /45※ / 42※ |
| | Fan speed (High/Med.※/Low※) | rpm | 1,105 /970※ / 820※ | 1,240 /1,060※ / 845※ | 1,320 /1,190※ / 1,060※ |
| | Fan speed regulator | | 3 | | |
| | Thermistor RT11(at 25℃) | kΩ | 10 | | |
| | Thermistor RT12(at 25℃) | kΩ | 10 | | |
| Remote controller model | | | KM04N | | |

NOTE:Test conditions are based on ISO 5151.
Cooling : Indoor DB27°C WB19°C
Outdoor DB35°C WB(24°C)
Indoor-Outdoor piping length : 5m

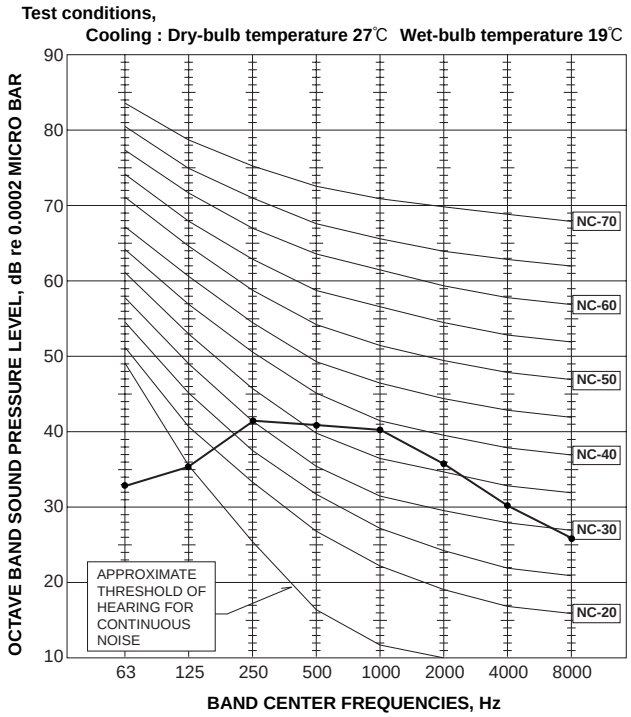
※Reference value

# 4 NOISE CRITERIA CURVES

## NOISE CRITERIA CURVES

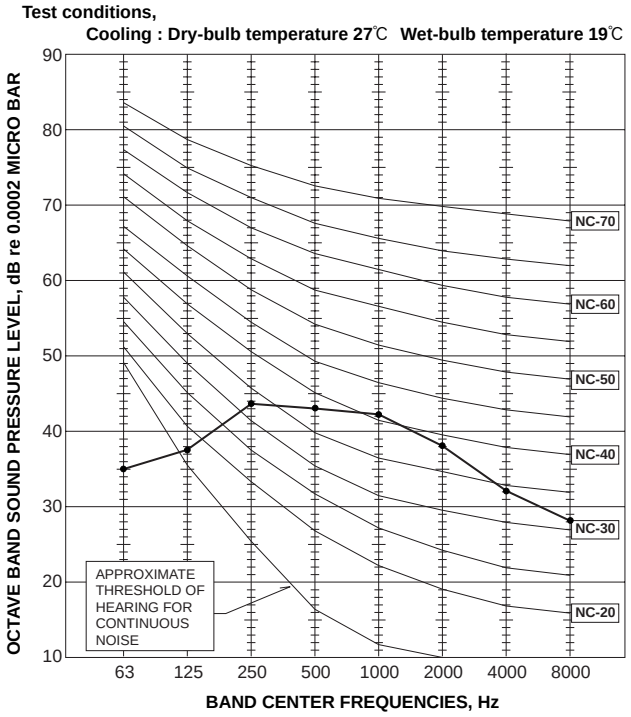
### MCF-GA35VB

| FAN SPEED | SPL(dB(A)) | LINE |
|---|---|---|
| High | 44 | ●——● |



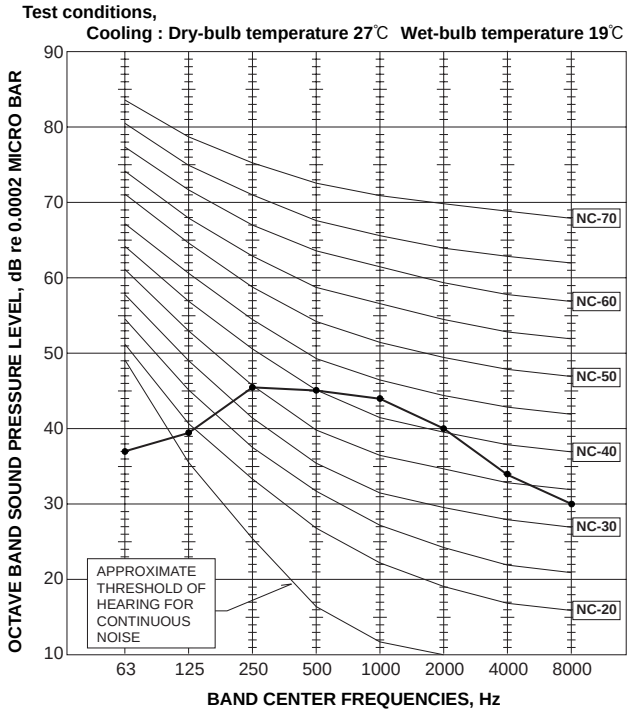

### MCF-GA50VB

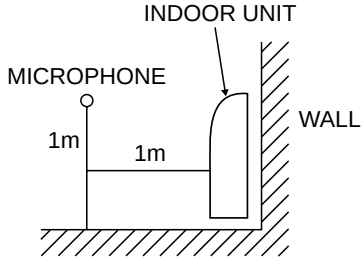
| FAN SPEED | SPL(dB(A)) | LINE |
|---|---|---|
| High | 46 | ●——● |




### MCF-GA60VB

| FAN SPEED | SPL(dB(A)) | LINE |
|---|---|---|
| High | 48 | ●——● |

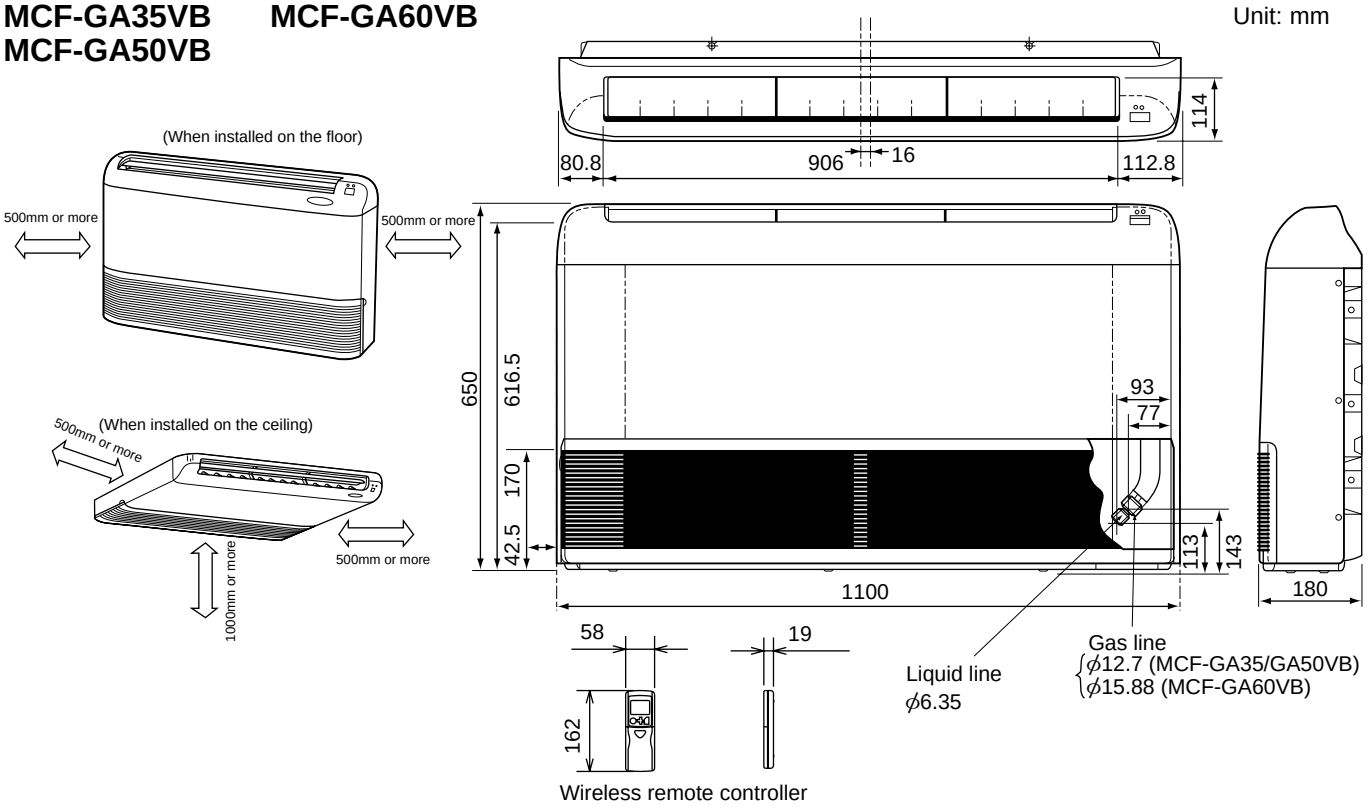


# 5 OUTLINES AND DIMENSIONS

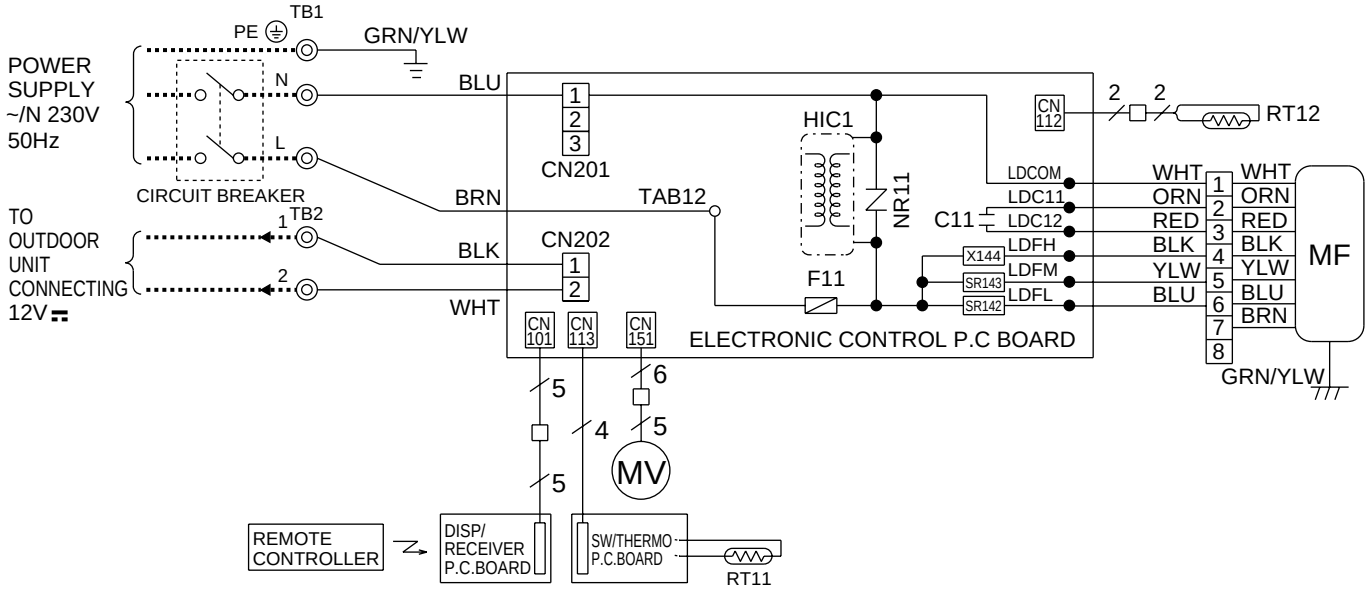
**MCF-GA35VB MCF-GA60VB**
**MCF-GA50VB**

Unit: mm




# 6 WIRING DIAGRAM

**MCF-GA35VB MCF-GA50VB MCF-GA60VB**

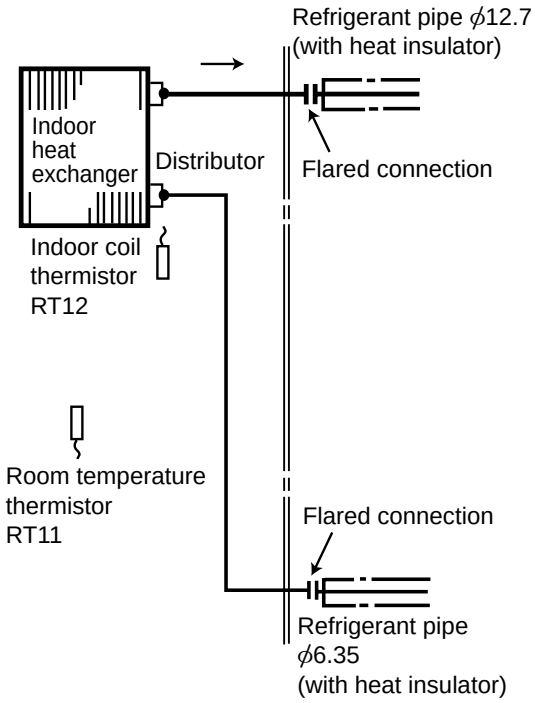



| SYMBOL | NAME | SYMBOL | NAME | SYMBOL | NAME |
|---|---|---|---|---|---|
| C11 | INDOOR FAN CAPACITOR | MV | VANE MOTOR | SR142~SR143 | SOLID STATE RELAY |
| F11 | FUSE (3.15A) | NR11 | VARISTOR | TB1, TB2 | TERMINAL BLOCK |
| HIC1 | DC/DC CONVERTER | RT11 | ROOM TEMPERATURE THERMISTOR | X144 | RELAY |
| MF | INDOOR FAN MOTOR(INNER FUSE) | RT12 | INDOOR COIL THERMISTOR | | |

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

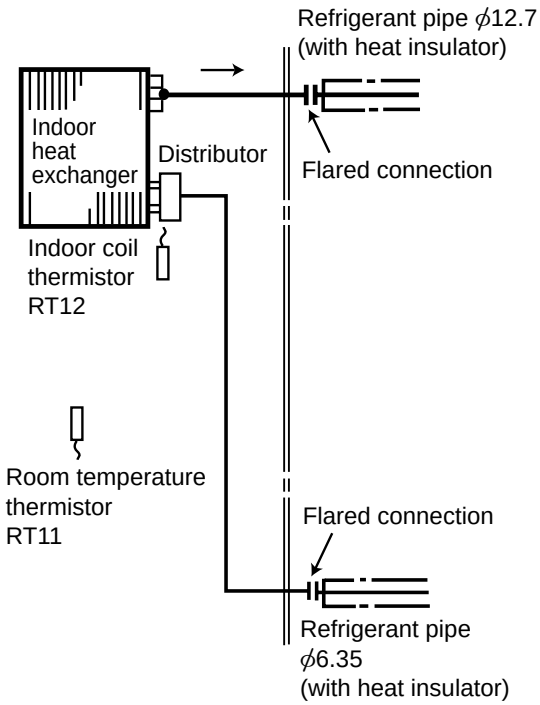
# 7 REFRIGERANT SYSTEM DIAGRAM

## MCF-GA35VB

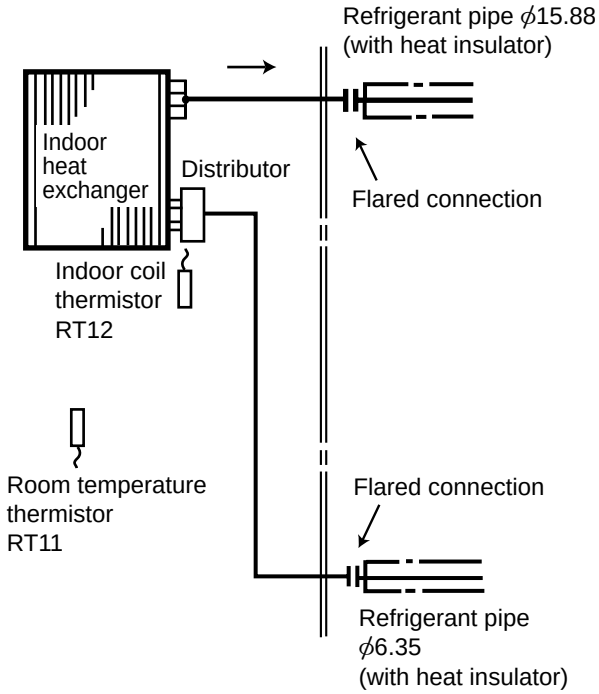



## MCF-GA50VB

Unit : mm




## MCF-GA60VB




⟶ Refrigerant flow in cooling

# 8 SERVICE FUNCTIONS

## MCF-GA35VB MCF-GA50VB MCF-GA60VB

### 8-1. TIMER SHORT MODE

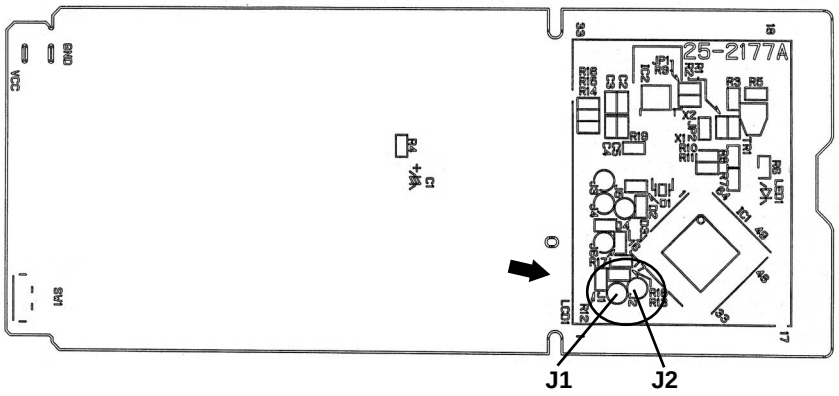
For service, set time can be shortened by short circuit of JPG and JPS on the electronic control P.C. board.
The time will be shortened as follows. (Refer to 9-6..)
3-minutes time delay : 3-minutes → 3-seconds
Set time : 1 minute ➔ 1-second
Set time : 3 minute ➔ 3-second (It takes 3 minutes for the compressor 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 : KM04N**




**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 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.

### Operation

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

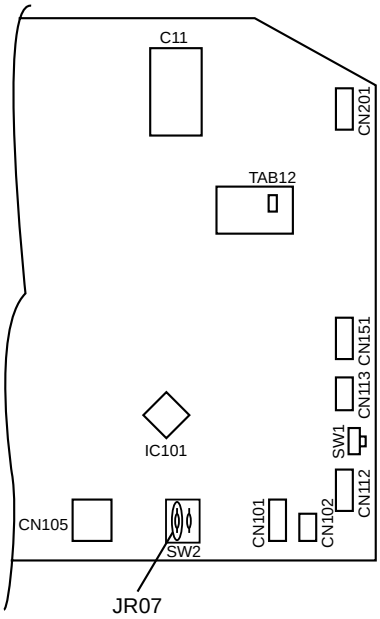
②After the power is restored, the unit restarts automatically according to the memory.(However, it takes at least 3 minutes for the compressor to start running.)

### How to release “AUTO RESTART FUNCTION”

①Turn OFF the main power for the unit.

②Pull out the electronic control P.C. board. (Refer to 10.)

③Solder jumper wire to the JR07 on the indoor electronic control P.C. board. (Refer to 9-6..)




### 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

## MCF-GA35VB MCF-GA50VB MCF-GA60VB

### 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.

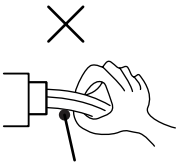
**2. Take care the following during servicing.**

(1) Before servicing the air conditioner, be sure to turn OFF the 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.

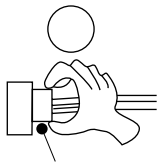
(2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel, and the electronic control P.C. board.

(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 discoloration.

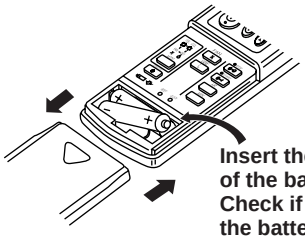
(4) When troubleshooting, refer to 9-2. “Instruction of troubleshooting” and 9-3. “Troubleshooting check table”.

**4. How to replace batteries**

Weak batteries may cause the remote controller malfunction.

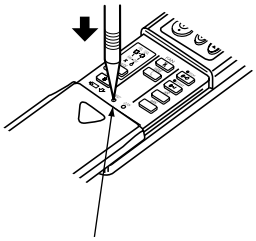
In this case, replace the batteries to operate the remote controller normally.

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.**

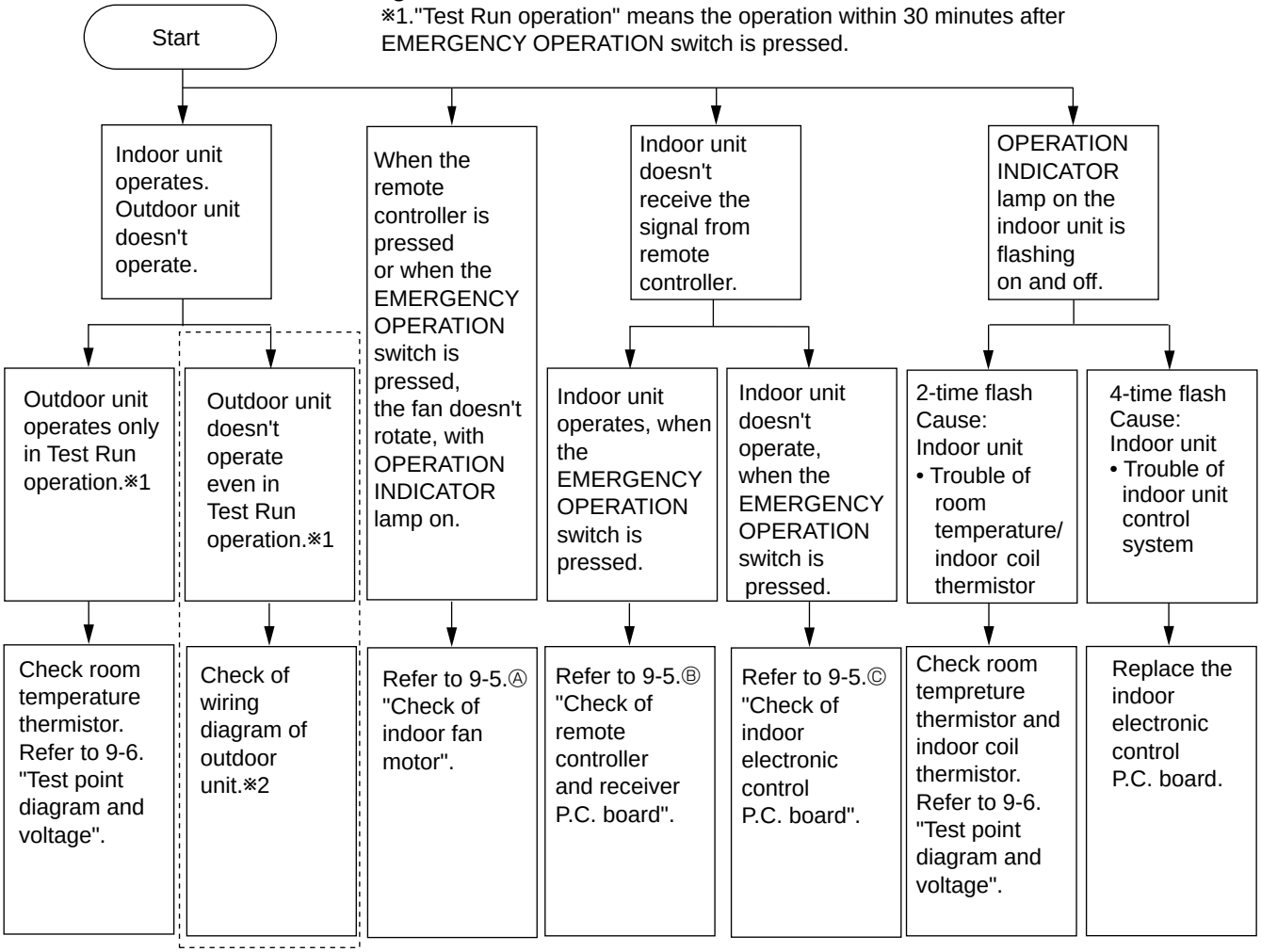
② Press the RESET button with tip end of ball point pen or the like, and then use the remote controller.



**RESET button**

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

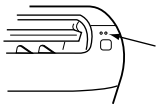
## 9-2. Instruction of troubleshooting




※2 Before checking the outdoor unit, make sure if any signal or power is being transmitted from the indoor unit.

Refer to outdoor unit service manual.

## 9-3. Troubleshooting check table

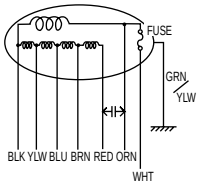
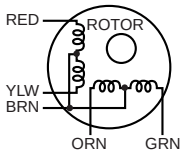



❋ Before taking measures, make sure that the symptom reappears, for accurate troubleshooting.
Self check table

| No. | Abnormal point | Operation indicator lamp | Symptom | Detection method | Checkpoint |
|---|---|---|---|---|---|
| 1 | Indoor coil thermistor<br>Room temperature thermistor | 2-time flash<br>●○●○○○○○●○●○○<br>2.5-second OFF | Outdoor unit does not operate. | Detect Indoor coil/room temperature thermistor short or open circuit. | • Check the resistance of thermistor.<br>• Reconnect the connector.<br>• Check the indoor electronic control P.C. |
| 2 | Indoor control system | 4-time flash<br>●○●○●○●○○○○○●○●○●○○<br>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. | • Check the indoor electronic control P.C. board. |

### 9-4. Trouble criterion of main parts

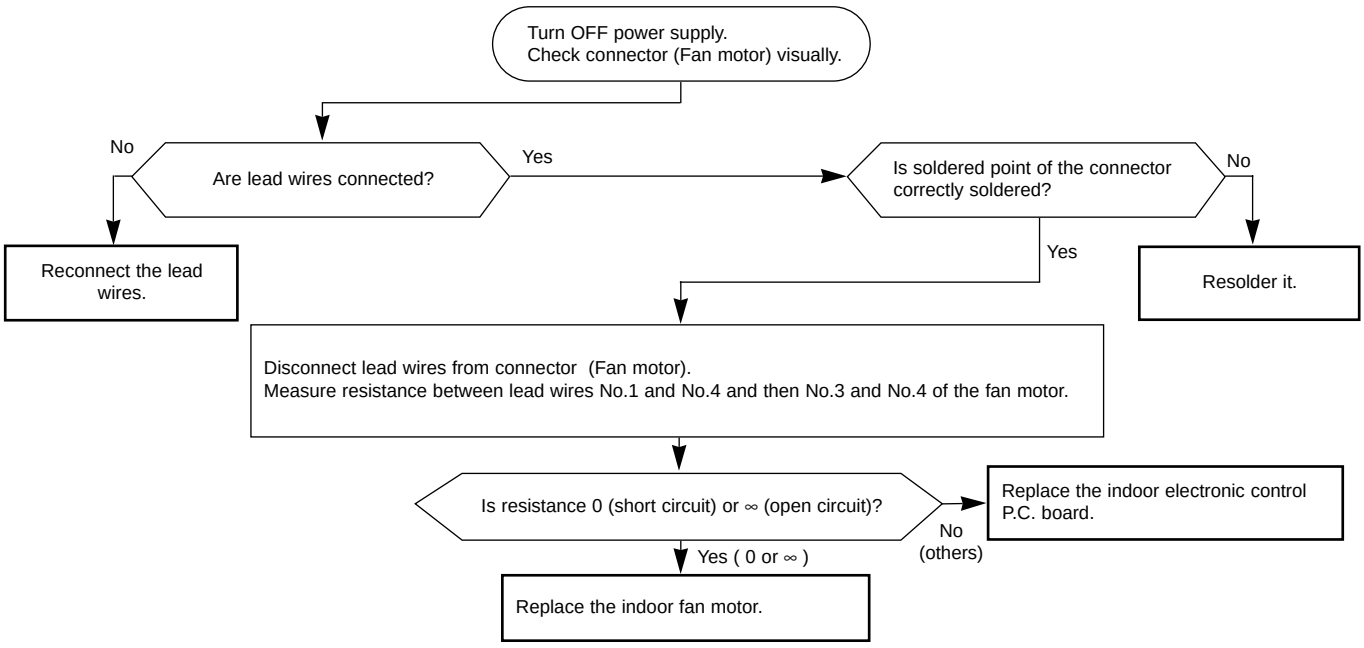
## MCF-GA35VB MCF-GA50VB MCF-GA60VB

<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 temperature 10°C ~ 30°C)<table><tr><th rowspan="2">Color of lead wire</th><th colspan="3">Normal</th><th>Abnormal</th></tr><tr><th>MCF-GA35VB</th><th>MCF-GA50VB</th><th>MCF-GA60VB</th><th></th></tr><tr><td>WHT-BLK</td><td>195 ~ 212Ω</td><td>175 ~ 190Ω</td><td>80 ~ 88Ω</td><td rowspan="5">Open or short-circuit</td></tr><tr><td>BLK-YLW</td><td>44 ~ 48Ω</td><td>66 ~ 72Ω</td><td>44 ~ 49Ω</td></tr><tr><td>YLW-BLU</td><td>31 ~ 34Ω</td><td>45 ~ 50Ω</td><td>35 ~ 39Ω</td></tr><tr><td>BLU-BRN</td><td>42 ~ 47Ω</td><td>30 ~ 33Ω</td><td>43 ~ 47Ω</td></tr><tr><td>BRN-RED</td><td>22 ~ 25Ω</td><td>22 ~ 24Ω</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 temperature 10°C ~ 30°C)<table><tr><th>Normal</th><th>Abnormal</th></tr><tr><td>329 ~ 357Ω</td><td>Open or short-circuit</td></tr></table></td><td> 
</td></tr>
</table>

### 9-5. Troubleshooting flow

**Indoor fan does not operate.**

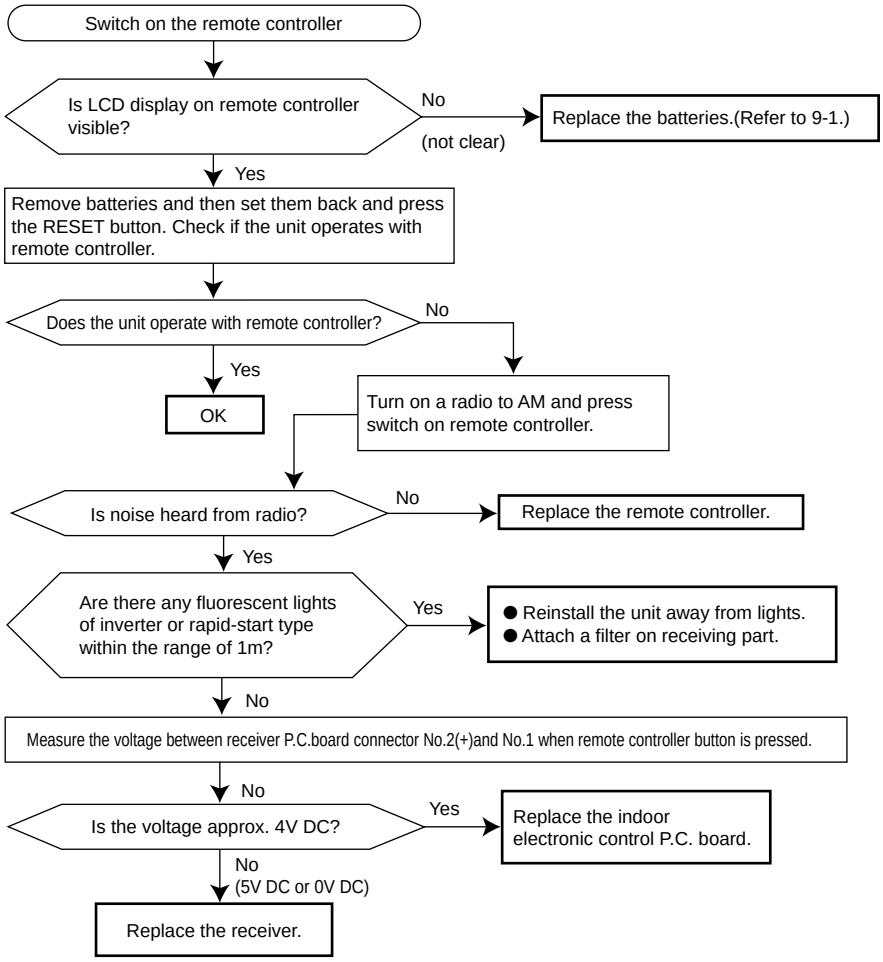
**Ⓐ Check of indoor fan motor**



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

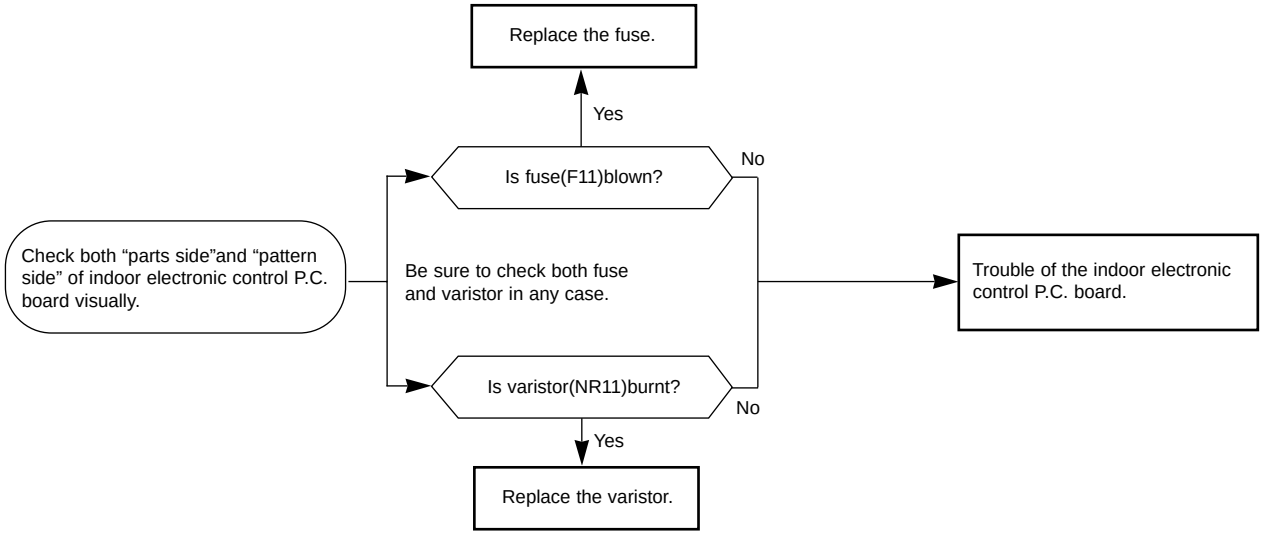
## Ⓑ Check of remote controller and receiver P.C. board

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




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

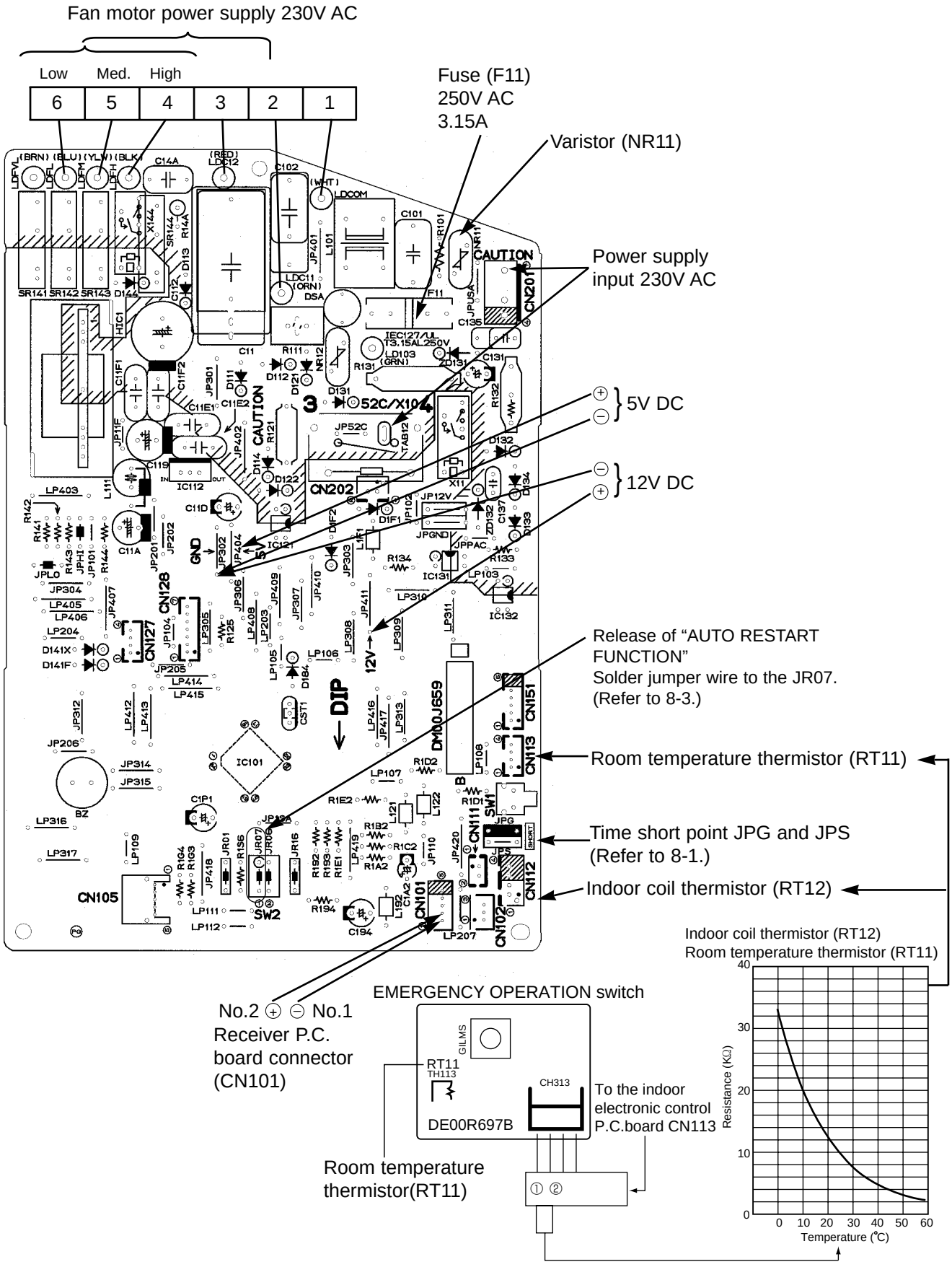
## Ⓒ Check of indoor electronic control P.C. board



### 9-6. Test point diagram and voltage

## MCF-GA35VB MCF-GA50VB MCF-GA60VB

Indoor electronic control P.C. board

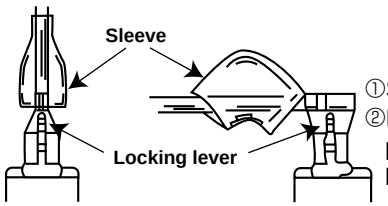


# 10 DISASSEMBLY INSTRUCTIONS

## <"Terminal with locking mechanism" Detaching points>

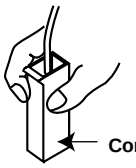
The terminal which has the locking mechanism can be detached as shown below.
There are two types ( Refer to (1) and (2)) of the terminal with locking mechanism.
The terminal without locking mechanism can be detached by pulling it out.
Check the shape of the terminal before detaching.

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



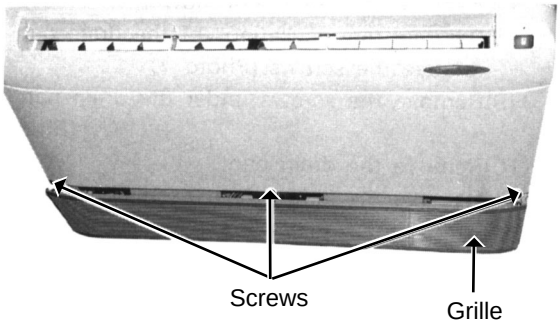
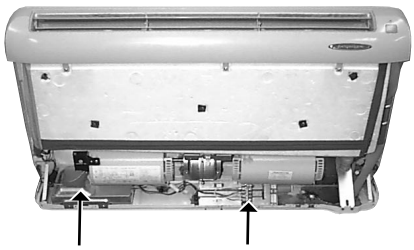
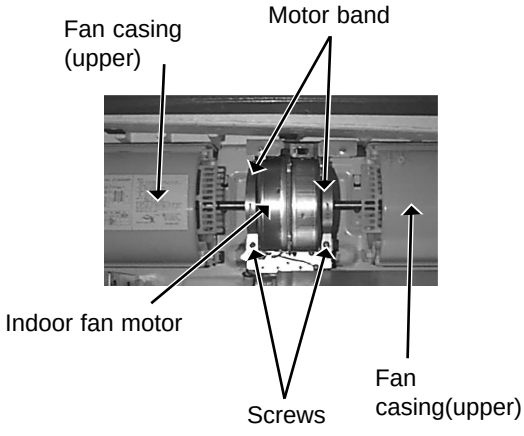

①Slide the sleeve.
②Pull the terminal while pushing the locking lever.

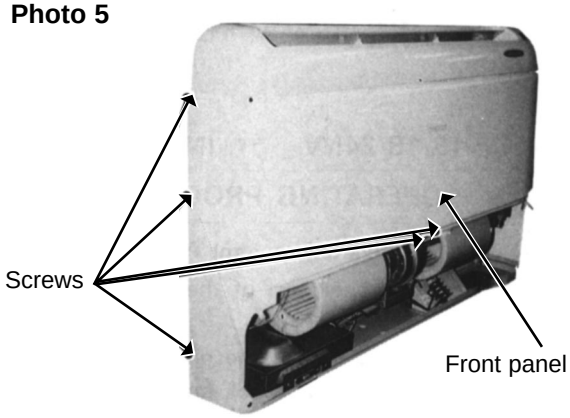
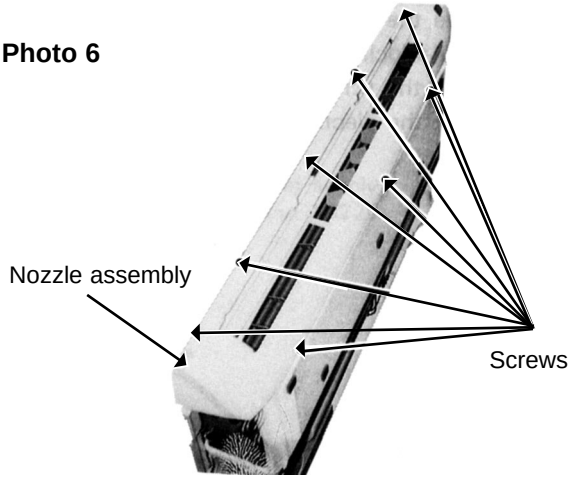
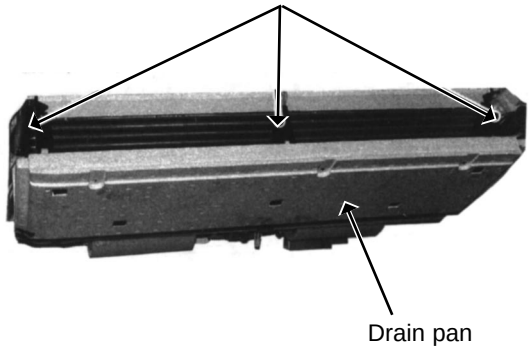
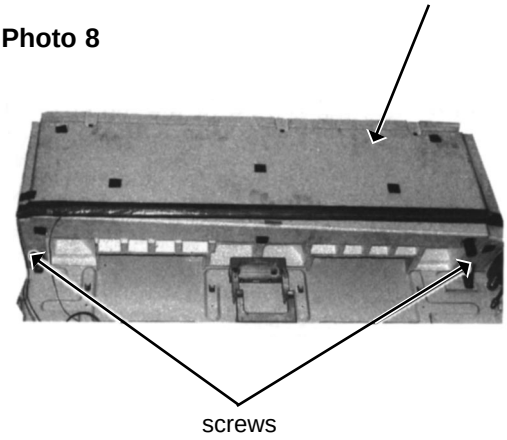
(2) The terminal with this connector has the locking mechanism.




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

**MCF-GA35VB MCF-GA50VB MCF-GA60VB**

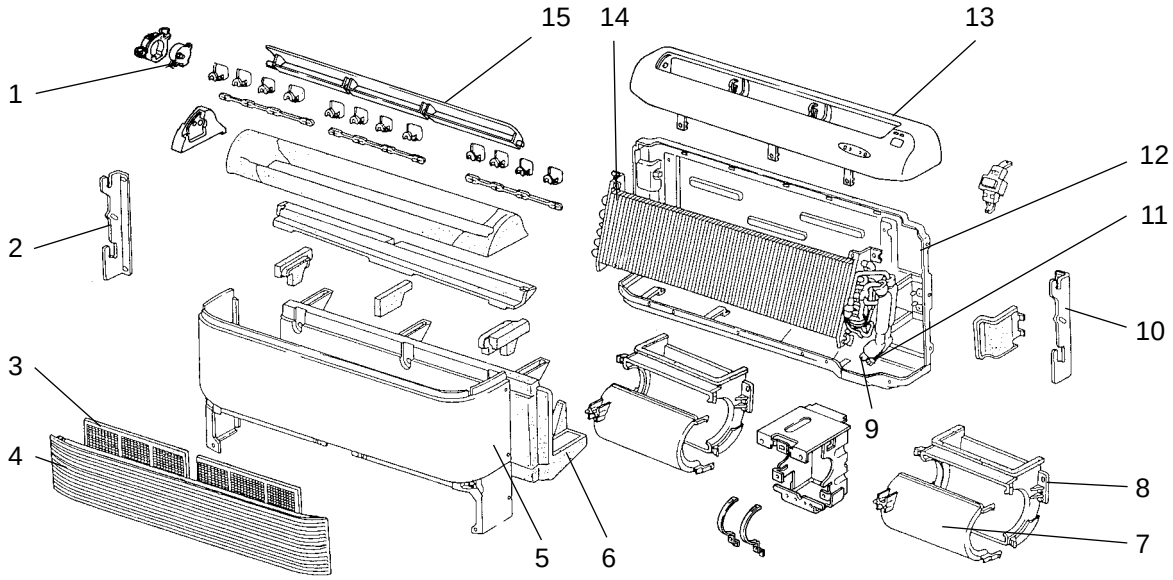
| OPERATING PROCEDURE | PHOTOS |
|---|---|
| **1. Removing the electronic control P.C. board.**<br>(1) Pull out the upper part of the grille. (See Photo 1.)<br>(2) Remove the screws of the grille.<br>(3) Remove screws of terminal block cover. Remove the terminal block cover and remove the terminal block.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

| OPERATING PROCEDURE | PHOTOS |
|---|---|
| **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. (See Photo 5.)<br>(3) Remove the screws of the nozzle assembly. (See 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. (See Photo 7.)<br>(9) Remove the screws under the drain pan. (See Photo 8.)<br>(10) Remove the drain pan.<br>(11) Remove the indoor heat exchanger. | **Photo 5**<br>  <br><br>**Photo 6**<br>  <br><br>**Photo 7**<br>  <br><br>**Photo 8**<br>  <br> |

# 11 PARTS LIST (non-RoHS compliant)

**MCF-GA35VB**
**MCF-GA50VB**
**MCF-GA60VB**

## 11-1. INDOOR UNIT STRUCTURAL PARTS



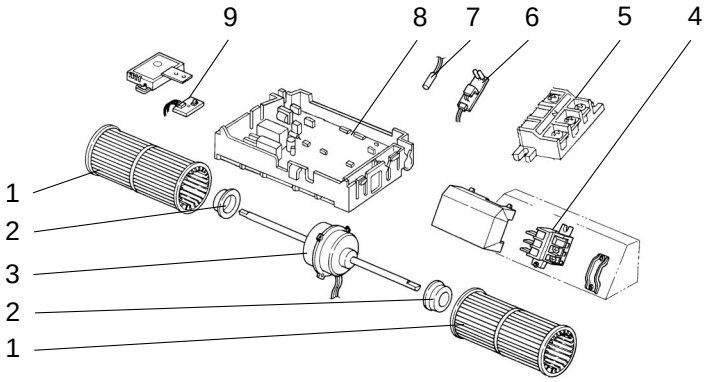

Part number that is circled is not shown in the illustration.

| No. | Part No. | Part name | Symbol in Wiring Diagram | Q'ty/unit | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | | | MCF-GA35VB -E1 | MCF-GA50VB -E1 | MCF-GA60VB -E1 | |
| 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 | 1PCE/SET |
| 4 | E02 179 010 | GRILLE | | 1 | 1 | 1 | |
| 5 | E02 179 000 | FRONT PANEL | | 1 | 1 | 1 | |
| 6 | E02 215 700 | DRAIN PAN | | 1 | 1 | 1 | |
| 7 | E02 179 237 | FAN CASING (U) | | 2 | 2 | 2 | 1PCE/SET |
| 8 | E02 179 238 | FAN CASING (L) | | 2 | 2 | 2 | 1PCE/SET |
| 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 | | 1 | 1 | 1 | |
| 14 | E02 823 620 | INDOOR HEAT EXCHANGER | | 1 | | | |
| | E02 824 620 | INDOOR HEAT EXCHANGER | | | 1 | 1 | |
| 15 | E02 227 040 | VANE | | 1 | 1 | 1 | |
| ⑯ | E02 179 142 | GRILLE CATCH | | 3 | 3 | 3 | 3PCS/SET |

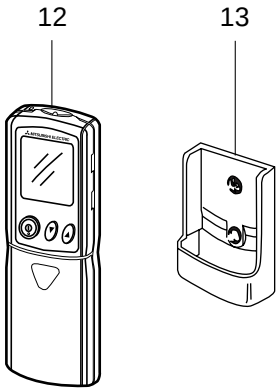
# PARTS LIST (non-RoHS compliant)

**MCF-GA35VB**
**MCF-GA50VB**
**MCF-GA60VB**

## 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 |
|---|---|---|---|---|---|---|---|
| | | | | MCF-GA35VB -E1 | MCF-GA50VB -E1 | MCF-GA60VB -E1 | |
| 1 | E02 179 500 | SIROCCO FAN | | 2 | 2 | 2 | |
| 2 | E02 179 505 | FAN MOTOR RUBBER MOUNT | | 2 | 2 | 2 | 2PCS/SET |
| 3 | E02 227 300 | INDOOR FAN MOTOR | MF | 1 | | | RB4V19-□□ |
| | E02 228 300 | INDOOR FAN MOTOR | MF | | 1 | | RB4V25-□□ |
| | E02 684 300 | INDOOR FAN MOTOR | MF | | | 1 | RB4V36-□□ |
| 4 | E02 824 375 | 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 324 307 | INDOOR COIL THERMISTOR | RT12 | 1 | 1 | 1 | |
| 8 | E02 823 452 | ELECTRONIC CONTROL P.C. BOARD | | 1 | | | |
| | E02 824 452 | ELECTRONIC CONTROL P.C. BOARD | | | 1 | | |
| | E02 825 452 | 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 |

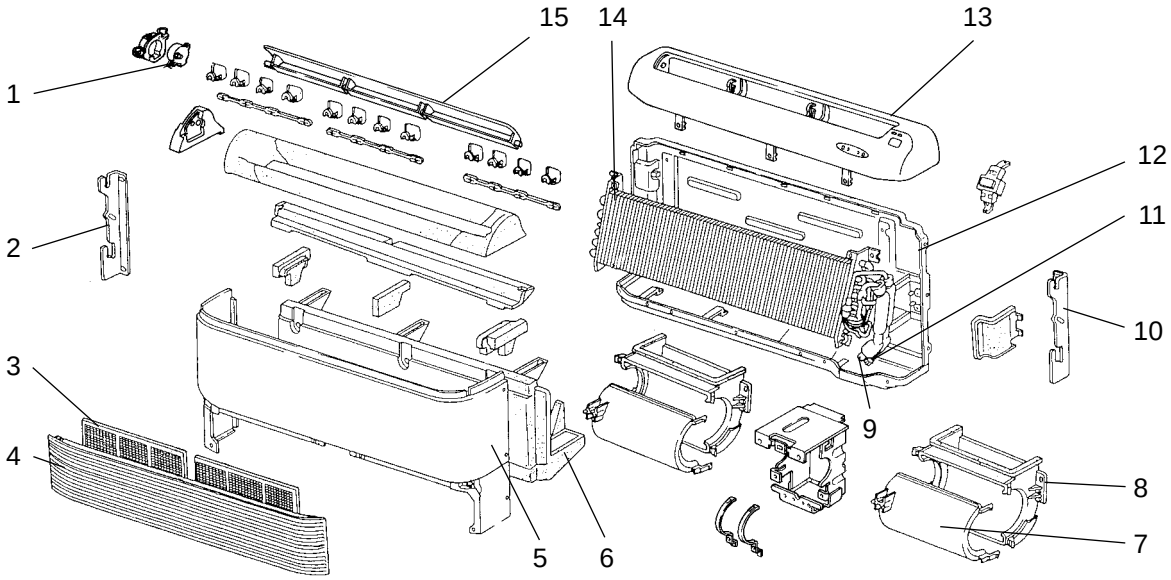
## 11-3. ACCESSORY AND REMOTE CONTROLLER

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12 | E02 823 426 | REMOTE CONTROLLER | | 1 | 1 | 1 | KM04N |
| 13 | E02 527 083 | REMOTE CONTROLLER HOLDER | | 1 | 1 | 1 | |

# 12 RoHS PARTS LIST (RoHS compliant)

**MCF-GA35VB**
**MCF-GA50VB**
**MCF-GA60VB**

## 12-1. INDOOR UNIT STRUCTURAL PARTS



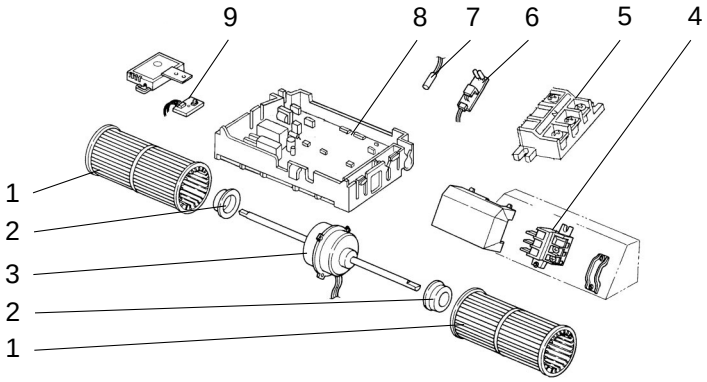

Part number that is circled is not shown in the illustration.

| No. | RoHS | Part No. | Part name | Symbol in Wiring Diagram | Q'ty/unit | | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | MCF-GA35VB -E1 | MCF-GA50VB -E1 | MCF-GA60VB -E1 | |
| 1 | G | E12 227 303 | VANE MOTOR | MV | 1 | 1 | 1 | |
| 2 | G | E12 179 971 | INSTALLATION METAL (L) | | 1 | 1 | 1 | |
| 3 | G | E12 179 100 | AIR FILTER | | 2 | 2 | 2 | 1PCE/ SET |
| 4 | G | E12 179 010 | GRILLE | | 1 | 1 | 1 | |
| 5 | G | E12 179 000 | FRONT PANEL | | 1 | 1 | 1 | |
| 6 | G | E12 215 700 | DRAIN PAN | | 1 | 1 | 1 | |
| 7 | G | E12 179 237 | FAN CASING (U) | | 2 | 2 | 2 | 1PCE/ SET |
| 8 | G | E12 179 238 | FAN CASING (L) | | 2 | 2 | 2 | 1PCE/ SET |
| 9 | G | E12 179 667 | UNION (GAS) | | 1 | 1 | | ϕ12.7 |
| | G | E12 138 666 | UNION (GAS) | | | | 1 | ϕ15.88 |
| 10 | G | E12 179 972 | INSTALLATION METAL (R) | | 1 | 1 | 1 | |
| 11 | G | E12 138 667 | UNION (LIQUID) | | 1 | 1 | 1 | ϕ6.35 |
| 12 | G | E12 179 231 | BACK PANEL (IN) | | 1 | 1 | 1 | |
| 13 | G | E12 227 235 | NOZZLE | | 1 | 1 | 1 | |
| 14 | G | E12 823 620 | INDOOR HEAT EXCHANGER | | 1 | | | |
| | G | E12 824 620 | INDOOR HEAT EXCHANGER | | | 1 | | |
| | G | E12 825 620 | INDOOR HEAT EXCHANGER | | | | 1 | |
| 15 | G | E12 227 040 | VANE | | 1 | 1 | 1 | |
| ⑯ | G | E12 179 142 | GRILLE CATCH | | 3 | 3 | 3 | 3PCS/SET |

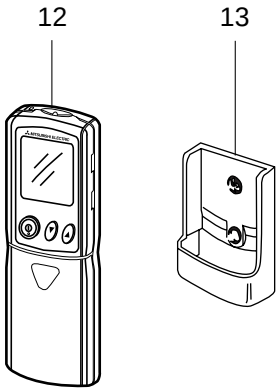
# RoHS PARTS LIST (RoHS compliant)

**MCF-GA35VB**
**MCF-GA50VB**
**MCF-GA60VB**

### 12-2. INDOOR UNIT ELECTRICAL PARTS




### 12-3. ACCESSORY AND REMOTE CONTROLLER




## 12-2. INDOOR UNIT ELECTRICAL PARTS

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

| No. | RoHS | Part No. | Part name | Symbol in Wiring Diagram | Q'ty/unit | | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | | | | MCF-GA35VB -E1 | MCF-GA50VB -E1 | MCF-GA60VB -E1 | |
| 1 | G | E12 179 500 | SIROCCO FAN | | 2 | 2 | 2 | 1PCE/SET |
| 2 | G | E12 179 505 | FAN MOTOR RUBBER MOUNT | | 2 | 2 | 2 | 2PCS/SET |
| 3 | G | E12 227 300 | INDOOR FAN MOTOR | MF | 1 | | | RB4V19-□□ |
| | G | E12 228 300 | INDOOR FAN MOTOR | MF | | 1 | | RB4V25-□□ |
| | G | E12 684 300 | INDOOR FAN MOTOR | MF | | | 1 | RB4V36-□□ |
| 4 | G | E12 824 375 | TERMINAL BLOCK | TB2 | 1 | 1 | 1 | 3P |
| 5 | G | E12 823 375 | TERMINAL BLOCK | TB1 | 1 | 1 | 1 | 3P |
| 6 | G | E12 227 468 | RECEIVER P.C. BOARD | DISP/RECEIVER P.C. BOARD | 1 | 1 | 1 | |
| 7 | G | E12 324 307 | INDOOR COIL THERMISTOR | RT12 | 1 | 1 | 1 | |
| 8 | G | E12 823 452 | ELECTRONIC CONTROL P.C. BOARD | | 1 | | | |
| | G | E12 824 452 | ELECTRONIC CONTROL P.C. BOARD | | | 1 | | |
| | G | E12 825 452 | ELECTRONIC CONTROL P.C. BOARD | | | | 1 | |
| 9 | G | E12 215 328 | SWITCH & ROOM TEMPERATURE THERMISTOR P.C. BOARD | SW/THERMO P.C. BOARD | 1 | 1 | 1 | |
| ⑩ | G | E12 820 385 | VARISTOR | NR11 | 1 | 1 | 1 | |
| ⑪ | G | E12 A49 382 | FUSE | F11 | 1 | 1 | 1 | T3.15AL250V |

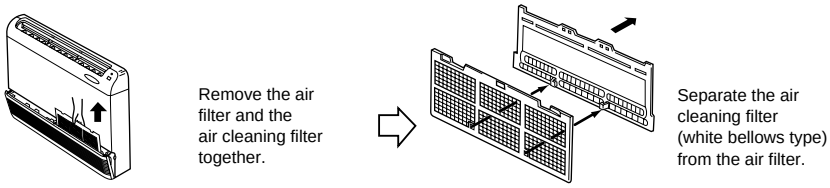
## 12-3. ACCESSORY AND REMOTE CONTROLLER

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 12 | G | E12 823 426 | REMOTE CONTROLLER | | 1 | 1 | 1 | KM04N |
| 13 | G | E12 527 083 | REMOTE CONTROLLER HOLDER | | 1 | 1 | 1 | |

# 13 OPTIONAL PARTS

## 13-1. AIR CLEANING FILTER

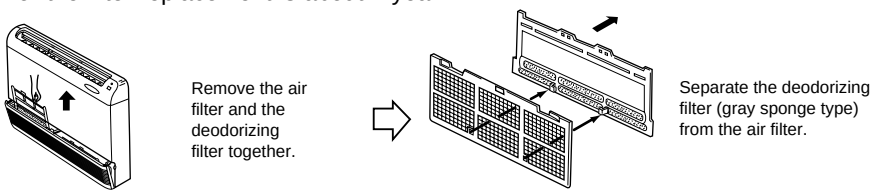
- If the air cleaning filter is clogged, it may lower the unit's capacity or cause condensation at the air outlet.
- The air cleaning filter is disposable. The standard usable term is about 4 months. However, if the color of the filter turns to dark brown, replace soon.




| Models | Part No. |
|---|---|
| **MCF-GA35VB**<br>**MCF-GA50VB**<br>**MCF-GA60VB** | MAC - 1200 FT |

## 13-2. 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.




| Models | Part No. |
|---|---|
| **MCF-GA35VB**<br>**MCF-GA50VB**<br>**MCF-GA60VB** | MAC - 1700 DF |

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HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN


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**Made in Japan**

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Specifications subject to change without notice.