

## 5. Troubleshooting

Since the inverter air conditioner is equipped with Electrical control circuits at both Indoor & outdoor unit, the trouble shooting shall be performed according to the error mode.

Inside the controller of the outdoor unit (inverter), the large capacity of electrolytic condenser so that it takes the time to discharge after the power off since the electrical charge remains (the charging voltage DC 340V).

Take care of the electrical shock by contact on the charging part before the discharge after the power off. (It takes approximately 2 minutes to discharge).

### 5-1 Basic items for trouble shooting

1) Is the power source proper?

The power source shall be in the range of the rated voltage  $\pm 10\%$  If it is out of this range, it may cause the abnormal operation.

2) Is the connection made between the indoor and outdoor unit?

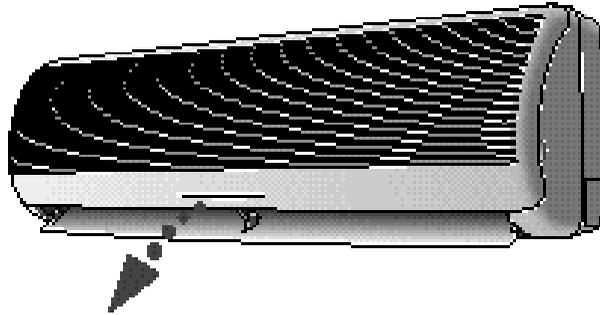
The connection between indoor and outdoor unit shall be performed with 4 wire. (connection cable of indoor and outdoor unit + ground wire).

3) The phenomena as follows are not out of order.

| NO | Phenomena  | Cause and reason   |
|----|--|--|
| 1  | The operation is not done.   | <ul style="list-style-type: none"> <li>Is the power off or the power unplugged?</li> <li>Does it stop because it is the completion time?</li> <li>Unplug and plug again the power source for 2 minutes.</li> </ul>   |
| 2  | The wind comes out but the heating/cooling is not performed.                     | <ul style="list-style-type: none"> <li>Is the filter clogged with dust or dirty?</li> <li>Is there any direct light on the outdoor unit or any obstacle against it?</li> <li>Is the selected temperature too high? Lower the selected temperature lower than the current one (during cooling).</li> <li>Is the selected temperature too low? Raise the desired temperature than the current one?</li> <li>Is the "Fan only Mode" operation?</li> </ul> |
| 3  | The remote controller does not operate.  | <ul style="list-style-type: none"> <li>Is the battery run out?</li> <li>Is the battery inserted in the wrong way(+, -)?</li> <li>Is the detection part of the indoor unit blocked?</li> <li>Does it interfered with the radio of neon sign?</li> </ul>   |
| 4  | The wind volume is not adjusted.   | <ul style="list-style-type: none"> <li>Is the operation selected among one of Auto / Dry / Turbo / Sleeping?</li> <li>The temperature setting is not required since the wind volume set automatically.</li> <li>Check again at the state of Cooling / Fan only / Heating.</li> </ul>   |
| 5  | The reservation does not operate.  | <ul style="list-style-type: none"> <li>Is the current time input? The reservation can be made only when the current time is input.</li> <li>Is it on the stop condition? The reservation can not be made at the stop state. Press the Operation / Stop button to make the reservation.</li> </ul>  |
| 6  | The temperature is not set.  | <ul style="list-style-type: none"> <li>Is the operation selected among the Dry / Turbo / Sleeping / Fan only Mode. Since the temperature is automatically set, the temperature setting is not required.</li> <li>Check again at the cooling/heating state.</li> <li>The standard temperature <math>\pm 2^{\circ}\text{C}</math> during the automatic operation.</li> </ul>   |
| 7  | The operation lamp continues to be flickering.                                   | <ul style="list-style-type: none"> <li>Push the Operation / Stop button.</li> <li>Unplug and plug the power source.</li> </ul>   |
| 8  | The immediate operation starts without control of remote controller when plugged | <ul style="list-style-type: none"> <li>It is the case that the auto restart function works.</li> <li># Auto restart function is the convenient function where the operation state is memorized in the Memory IC during the blackout and the operation restarts when the power comes back.</li> </ul>   |

## 5-2 The first determination method of troubled part

### 5-2-1 Error mode display of indoor unit



|    |    |    |  |    |      | Error mode   |
|---|---|---|---|---|---|--|
| Operation   | Defrost   | Reservation   | Power monitor   | Fan   | Turbo   |  |
| X   | X   | X   | X   | X   | X   | Operation off  |
|   | X   | X   | X   | X   | X   | Power reset  |
| X   | X   |   | X   | X   | X   | Trouble of indoor temperature sensor (open/short)  |
|  | X   |  | X   | X   | X   | Temperature sensor trouble of the indoor heat exchanger (open/short)   |
| X   | X   | X   | X   |  | X   | Stuck of the indoor fan motor (trouble of rotation)  |
|  | X   | X   | X   |  | X   | Trouble of outdoor unit temperature sensor<br>- Discharge temperature sensor<br>- OLP temperature sensor of COMP top<br>- Defrost temperature sensor<br>- Outdoor temperature sensor |
| X   | X   |  | X   |  | X   | Communication trouble between the indoor and outdoor units (Misconnection or circuit trouble of the indoor and outdoor units)  |
| X   | X   | X   | X   | X   |  | Abnormal increase of the operation current   |
| X   | X   |  | X   | X   |  | Occurring of the inverter circuit instantaneous over current.  |
| X   | X   | X   | X   |  |  | Abnormal increase of the COMP. Top and discharge gas temperature.  |
|  |  |  | LAMP ON   |  |  | Refrigerant Refill operation (test operation)  |

(Lamp status)

: Lamp flickering    X: Lamp off

### 5-2-2 Error mode display of outdoor unit board



|     |       |        | ERROR MODE  |
|-----|-------|--------|---|
| RED | GREEN | YELLOW |   |
| X   | X     | X      | Operation off   |
| ●   | ◐     | X      | Indoor-outdoor unit normal communication and operation  |
| ●   | X     | X      | Abnormal communication between the indoor and outdoor unit (miconnection or trouble of circuit between the indoor and outdoor unit) |
| X   | X     | X      | Trouble of the control power of the outdoor(+12V)   |
| X   | X     | ◐      | Instantaneous over current of inverter circuit  |
| ●   | X     | ◐      | Abnormal increase of the discharge temperature  |
| X   | ●     | ◐      | Abnormal increase of operation current  |
| ●   | ●     | ◐      | Abnormal increase of comp top temperature.  |
| ◐   | X     | ◐      | Trouble of outdoor temperature sensor (open/short)  |
| ◐   | ◐     | ◐      | Trouble of the OLP temperature sensor (open/short)  |
| ◐   | ●     | ◐      | Trouble of outdoor Heat exchanger temperature sensor (defrost temperature sensor) (open/short)                                      |

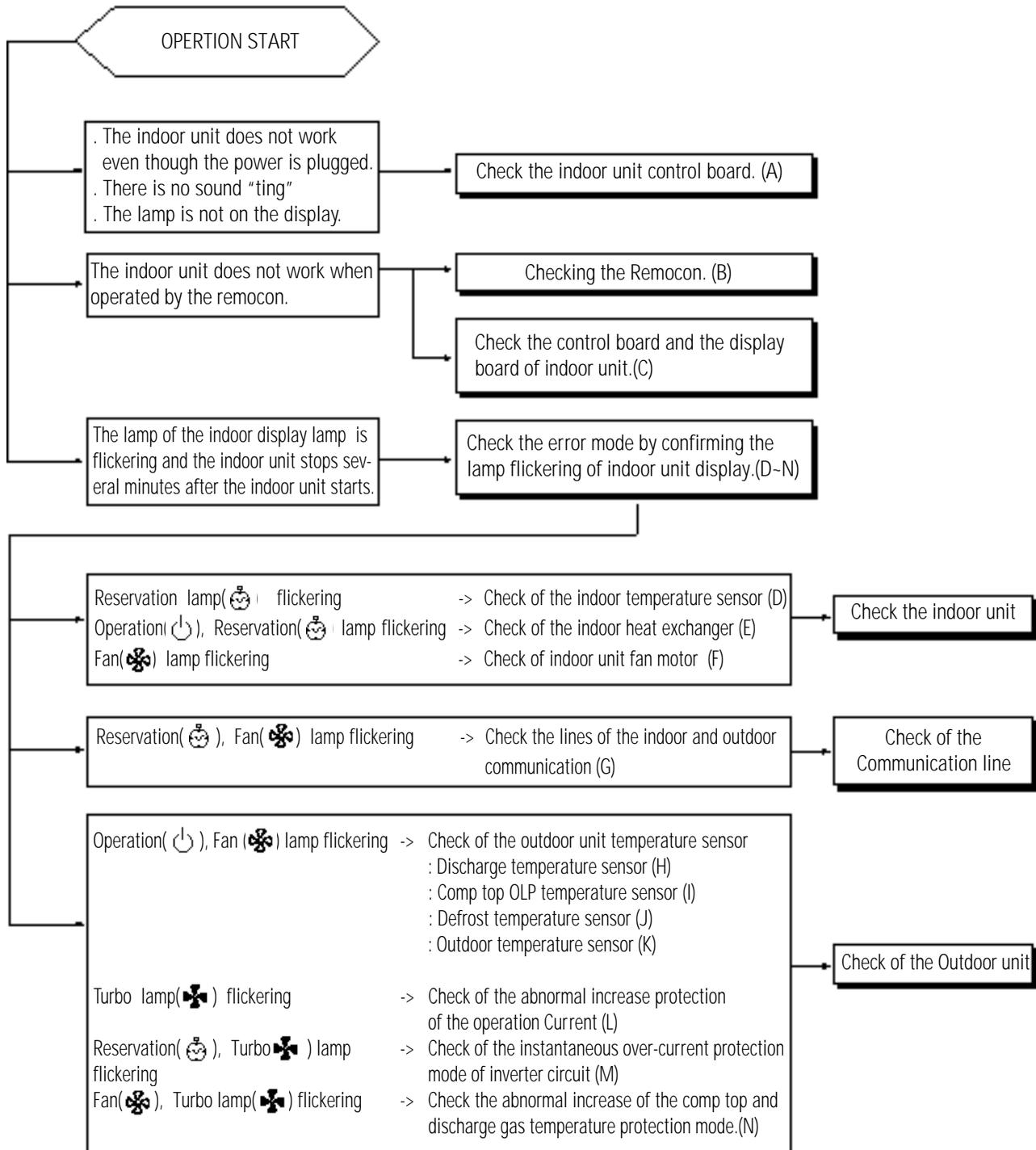
(LAMP )

● : LAMP ON

◐ AMP FLICKERING

X : LAMP OFF

### 5-3 Sequence of trouble shooting for inverter aircon



### 5-3-1 (A) Check of indoor unit control board

- ▷ Unplug the power cord and plug it after 5 seconds.
- ▷ Open the grille of indoor unit and press the on/off switch located inside to operate the air conditioner.
  - If the air conditioner operates, check the remote control and indoor unit display board.
  - If the air conditioner does not operate, check according to the sequence of the followings:
- ▷ Check sequence of indoor unit control board
  - Step 1 : Check whether two wires of power cord (Sky-blue, brown) are connected correctly to the control board.
    - Sky -blue : connected to TB71
    - Brown : connected to #4 terminal of RY71.  
(If it is connected to #3 of RY71, the power is not supplied) ⚠Take care.
  - Step 2: Check whether the wire connected to the terminal block is connected correctly to the control board.
    - Sky -blue : connected to TB72
    - Brown : connected to #3 terminal of RY71.
    - Black : Connected to CN75
  - Step 3 : Check whether the fuse (F701) on the control board is normal. (3.15 [A]/250[V])
    - If the fuse is broken, replace it with the new one.
  - Step 4 : check the output of transformer on the control board (TN71).
    - Input power AC 240V, 50 Hz—IC 01 output: DC 12V  
IC 02 output : DC 5V

### 5-3-2 (B)(C) Display board and remote control check of indoor unit

- ▷ Check whether the connection wire of Display board is correctly connected to CN92 connector.
- ▷ Check the voltage of remote control battery. - the voltage of one battery shall be higher than about 1.4 V, and then the remote control operates normally.
- ▷ Check whether the neon sign is on and the 3 wave long fluorescent lamp is on around the indoor unit. - After putting all the lamps of the indoor unit and then operates it by remote control. If it operates with the remote control, it is the abnormality due to the interference from the lights of lamps. (Aircon unit is normal).

### 5-3-3 (D)(E) Check the indoor temperature sensor and indoor heat exchanger temperature sensor.

Take out the thermistor connected to the connector (CN41) of control board of indoor unit and measure the resistance between two wires and if it is same as follows: it is normal but if not, replace it.

|                               |       |       |      |      |      |      |                                 |
|-------------------------------|-------|-------|------|------|------|------|---------------------------------|
| Ambient temperature (°C)      | 15°C  | 20°C  | 25°C | 30°C | 35°C | 40°C | The error of data of within 1%. |
| Resistance of thermistor [K ] | 14.68 | 12.09 | 10   | 8.31 | 6.94 | 5.83 |                                 |

### 5-3-4 (F) Check of indoor unit fan motor

- ▷ Check whether the wire of fan motor is connected to the connector of control board (CN43, CN73) of indoor unit.
- ▷ Check whether the error mode displays after the strong revolution for approximately 15 seconds since aircon is on.
  - > In case the error mode displays after the fan motor is rotating for 15 seconds → Defect of HALL IC of fan motor and Control board
  - > In case that the error mode displays without running of fan motor after 15 seconds. → Operate with the pin of SSR(SS71) short of indoor unit control board and then if the fan motor does not run, it is the fan motor defect.  
If it rotates, it is the defect of control board (SS71, IC07, IC04).

### 5-3-5 (G) Check of communication line between the indoor unit and outdoor unit

(Communication error mode)

#### 1) Check of connection

- ▷ Check whether the cable wire connecting the indoor unit with outdoor unit is correctly connected to the C, N, R terminal. (If the wire is connected reversely, the communication error occurs)
- ▷ If the cable connecting the indoor unit and outdoor unit is longer than 20 M, error mode occurs (shorten the cable length).

(Check of indoor unit)

- ▷ Check whether the connection wire of the terminal block and control of indoor unit board is correct.
  - Sky -blue : connected to TB72
  - Brown : connected to #3 terminal of RY71.
  - Black : Connected to CN75

(Check of outdoor unit)

- ▷ Check whether the connection wire of the terminal block and control board of outdoor unit is correct.
  - Sky -blue : connected to TB1
  - Brown : Fuse terminal - connected to TB72
  - Black : Connected to CN71(Connected to the R701 line)

#### 2) Check of power supply to the outdoor unit

After operation of aircon, select the turbo mode and approximately 3minutes later, check whether the red color lamp of control board (to be seen if the top cover of outdoor unit) is on.

-> If the red lamp (LED 3) is not on, check the power part of control board of outdoor unit.

Check the connection of reactor, polarity of C-ELEC (2200 $\mu$ F/400V) and connection of two diode - bridge.

-> If the red lamp (LED3) is on and green lamp is flickering, it is normal.

### 5-3-6 (H)(I) Check of discharge temperature sensor and comp top OLP temperature sensor.

- ▷ Connector of outdoor unit control board  
(PIN#3,4 of CN41 - discharge temperature sensor)  
Pin1, 2 - Take out the thermistor connected to comp top OLP temperature sensor and measure the resistance between two wires and if it is same as follows, it is normal but if not, replace.

|                               |     |      |      |      |      |      |                                 |
|-------------------------------|-----|------|------|------|------|------|---------------------------------|
| Ambient temperature (°C)      | 0°C | 10°C | 20°C | 30°C | 40°C | 50°C | The error of data of within 5%. |
| Resistance of thermistor [K ] | 553 | 362  | 242  | 166  | 165  | 82   |                                 |

### 5-3-7 (J)(K) Check the defrost temperature sensor and outdoor temperature sensor

- ▷ Connector of outdoor unit control board  
(PIN#1,2 of CN41 - outdoor temperature sensor)  
Pin3, 4 - Take out the thermistor connected to defrost temperature sensor and measure the resistance between two wires and if it is same as follows, it is normal but if not, replace it.

|                               |       |       |      |      |      |      |                                 |
|-------------------------------|-------|-------|------|------|------|------|---------------------------------|
| Ambient temperature (°C)      | 15°C  | 20°C  | 25°C | 30°C | 35°C | 40°C | The error of data of within 1%. |
| Resistance of thermistor [K ] | 14.68 | 12.09 | 10   | 8.31 | 6.94 | 5.83 |                                 |

### 5-3-8 (L) Check of operation current abnormal rise mode

- ▷ The operation abnormal current mode is the protection control for the safe operation by detecting the operation current of inverter aircon by the current sensor on the control board.
- ▷ If the operation current abnormal rise occurs,
  - The ventilation is not good because the outdoor unit is installed wrong (the ambient temperature is higher than 50 °C)
    - > Reinstall the outdoor unit so that the good ventilation can be made.
  - If the Refrigerant is overcharged.
    - > Check the amount of Refrigerant.
  - If the comp is locked.
    - > Replace the comp.
  - If the comp is operating without the revolution of fan motor.
    - > Check the fan motor connector, replace the fan motor.
  - If the protection cover is operating with bending to the outdoor.
    - > Take out the protection cover.
  - If two outdoor units are operating face to face. (the bad ventilation is made)
    - > Reinstall the outdoor unit for the good ventilation.
  - The air circulation is bad due to the attachment of falling leaves
    - > Take away the leaves for the good ventilation.

Check the elements of current sensor block of the outdoor control board.

- R801 — 1 K
- R802 — 1.5 K
- R803 — 15 K

### 5-3-9 (M) Check of instantaneous over-current protection of inverter circuit.

- ▷ Inverter instantaneous over-current protection mode is the mode to be actuated in order to prevent the damage of elements from the peak current of inverter circuit elements.
- ▷ In case that the inverter circuit instantaneous over-current protection mode actuates.

(condition of installation)

The ventilation is not good because the outdoor unit is installed wrong (the ambient temperature is higher than 50 (°C) )

-> Reinstall the outdoor unit so that the good ventilation can be made.

In case that the operation is made with the cover bent of the outdoor unit.

-> Take out the cover.

If two outdoor units are operating face to face, (the bad ventilation is made)

-> Reinstall the outdoor unit for the good ventilation.

The air circulation is bad due to the attachment of falling leaves.

-> Take away the leaves for the good ventilation.

If the Refrigerant is overcharged.

-> Check the amount of Refrigerant.

(Unit defect)

If the comp is locked.

-> Replace the comp.

If the comp is operating without the revolution of fan motor.

-> Check the fan motor connector and replace the fan motor.

In case the parts of the control board is damaged.

-> Replace simultaneously the inverter control board and the power TR.

If only the inverter control board is replaced with the state the power TR. is damaged, the control board is damaged again.  
(Same as for the vice versa of the above.)

### 5-3-10 (N) Check of the comp Top OLP and discharge gas temperature abnormal rise.

- ▷ If the comp top temperature and the discharge gas temperature rises higher than a certain level, it protects the circuit.
- ▷ If the comp top OLP temperature and the discharge gas temperature rises abnormally,

(Condition of installation)

The ventilation is not good because the outdoor unit is installed wrong (the ambient temperature is higher than 50 (°C) )

-> Reinstall the outdoor unit so that the good ventilation can be made.

In case that the operation is made with the cover bent of the outdoor unit.

-> Take out the cover.

If two outdoor units are operating face to face, (the bad ventilation is made)

-> Reinstall the outdoor unit for the good ventilation.

The air circulation is bad due to the attachment of falling leaves

-> Take away the leaves for the good ventilation.

If the refrigerant is insufficient.

-> Fill up the amount of refrigerant.

**(Unit defect)**

**If the comp is locked.**

-> **Replace the comp.**

**If the comp is operating without the revolution of fan motor**

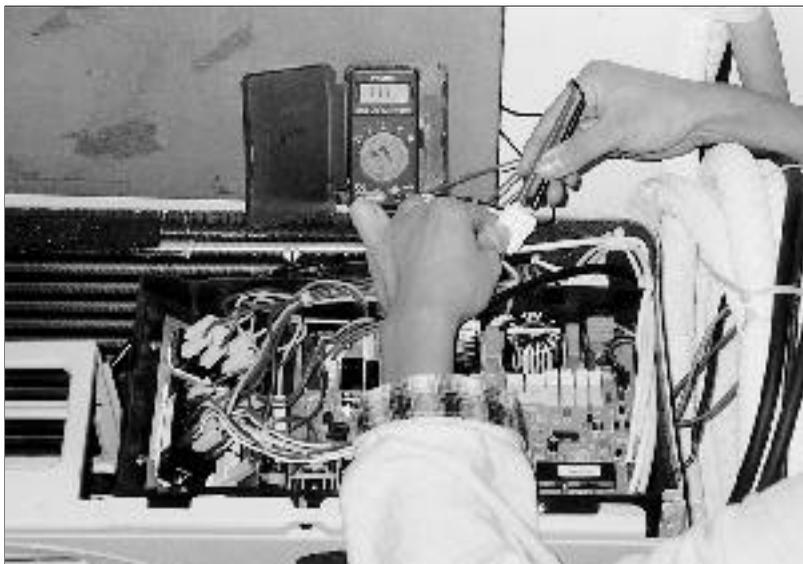
-> **Take out the protection cover.(cooling mode)**

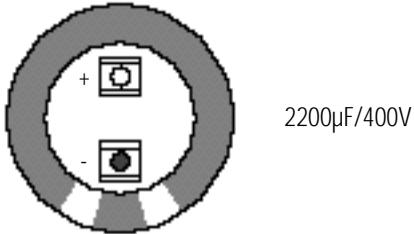
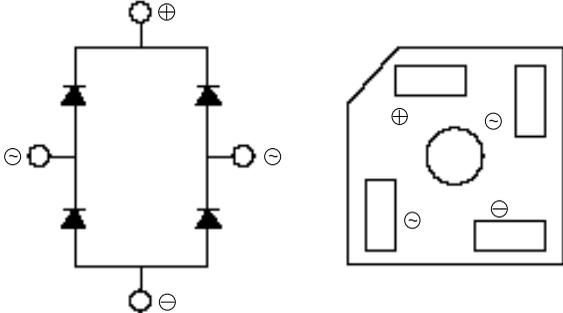
-> **Check the fan motor connector and replace the fan motor.**

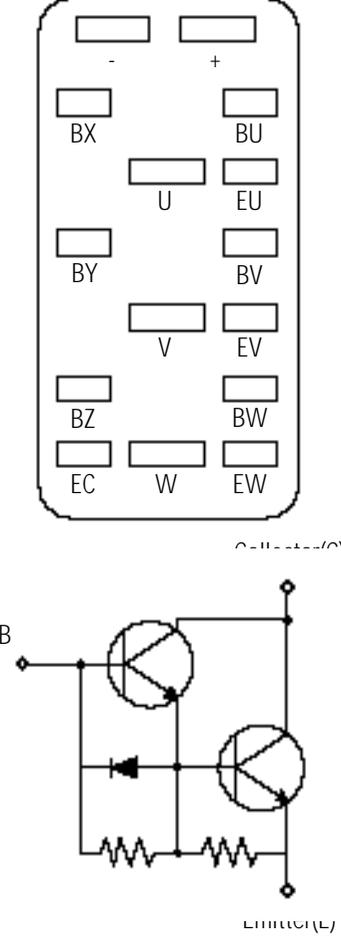
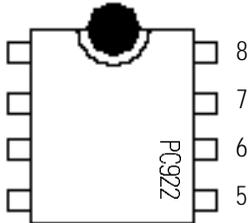
### 5-4 Check method of major parts

| NO | Parts   | Check method   |
|----|---|--|
| 1  | Inverter controller (outdoor unit controller) | <ol style="list-style-type: none"> <li>1. Open the top cover of outdoor unit.</li> <li>2. Separate the connector (3P) connecting the comp from the outdoor unit controller. (wire to wire connector).</li> <li>3. Operate the aircon in the turbo mode. (operate the outdoor 3 minutes after)</li> <li>4. Measure the voltage across the terminals of comp connector (3p) from the power TR module if the outdoor fan is running.</li> </ol> <p>( If normal)</p> <p>AC voltage of each terminal is similar.</p> <ul style="list-style-type: none"> <li>•Phase U-V : AC voltage is measured (80V- 190V)</li> <li>•Phase V-W : AC voltage is measured (80V- 190V)</li> <li>•Phase W-U : AC voltage is measured (80V- 190V) (at AC220V)</li> </ul> <p>(If abnormal)</p> <ul style="list-style-type: none"> <li>•The AC voltage is not measured from any one(or two) of Phase U-V, V-W or W-U.                             <ul style="list-style-type: none"> <li>- Check the power TR module.</li> <li>- Check the other parts</li> </ul> </li> </ul> |

MEASURING METHOD of INVERTER CONTROLLER



| NO         | Parts                                      | Check method  |            |  |                                      |     |     |   |   |  |   |   |   |   |   |   |
|------------|--|---|------------|--|--------------------------------------|-----|-----|---|---|--|---|---|---|---|---|---|
| 2          | Electrolytic condenser<br>(film condenser) | <ol style="list-style-type: none"> <li>1. Put off the power.</li> <li>2. Discharge all of condenser completely.</li> <li>3. Take the lead out of (±) side completely.</li> <li>4. Check whether any part of the safety hole is damaged from condenser.</li> <li>5. Check whether the container is expand or damaged.</li> <li>6. Check whether the analytical is out.</li> <li>7. Check whether the normal discharge characteristics are obtained during the energized check of tester.</li> </ol> <div style="text-align: center;">  <p>2200µF/400V</p> </div> <p>If it is good, the needle rises but falls down slowly. The needle comes back after the polarity reversed.</p>   |            |  |                                      |     |     |   |   |  |   |   |   |   |   |   |
| 3          | Bridge Diode block                         | <ol style="list-style-type: none"> <li>1. Put off the power.</li> <li>2. Discharge all of condenser completely.</li> <li>3. Remove 4 terminals connected to the diode block.</li> <li>4. Check whether the normal discharge characteristics are obtained during the energized check of tester.</li> </ol> <div style="text-align: center;">  </div> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="text-align: center;">Tester rod</th> <th rowspan="2" style="text-align: center;">If it is good one,<br/>the resistance</th> </tr> <tr> <th style="text-align: center;">(-)</th> <th style="text-align: center;">(+)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">⊖</td> <td style="text-align: center;">⊕</td> <td rowspan="4"></td> </tr> <tr> <td style="text-align: center;">⊖</td> <td style="text-align: center;">⊖</td> </tr> <tr> <td style="text-align: center;">⊕</td> <td style="text-align: center;">⊖</td> </tr> <tr> <td style="text-align: center;">⊕</td> <td style="text-align: center;">⊕</td> </tr> </tbody> </table> <p style="text-align: right;">•When the tester rod is reversed : 10-20 ohm.</p> | Tester rod |  | If it is good one,<br>the resistance | (-) | (+) | ⊖ | ⊕ |  | ⊖ | ⊖ | ⊕ | ⊖ | ⊕ | ⊕ |
| Tester rod |  | If it is good one,<br>the resistance  |            |  |                                      |     |     |   |   |  |   |   |   |   |   |   |
| (-)        | (+)  |   |            |  |                                      |     |     |   |   |  |   |   |   |   |   |   |
| ⊖          | ⊕  |   |            |  |                                      |     |     |   |   |  |   |   |   |   |   |   |
| ⊖          | ⊖  |   |            |  |                                      |     |     |   |   |  |   |   |   |   |   |   |
| ⊕          | ⊖  |   |            |  |                                      |     |     |   |   |  |   |   |   |   |   |   |
| ⊕          | ⊕  |   |            |  |                                      |     |     |   |   |  |   |   |   |   |   |   |

| NO         | Parts            | Check method  |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
|------------|------------------|---|------------|--|------------------------------|-----|-----|---|---|------------|---|---|---|---|---|-----------|---|---|----|----|----|----|----|----|----|----|----|----|--|
| 4          | Power TR module  | <p>1. Put the power off completely.<br/>                     2. Discharge all of condenser completely.<br/>                     3. Separate the transistor module from the inverter body.<br/>                     4. Check the leak current between C and E and B by tester for 6 transistors</p>  <table border="1" data-bbox="1047 744 1437 1276"> <thead> <tr> <th colspan="2">Tester rod</th> <th rowspan="2">If it is good one resistance</th> </tr> <tr> <th>(+)</th> <th>(-)</th> </tr> </thead> <tbody> <tr> <td rowspan="3">-</td> <td>+</td> <td rowspan="6">10K ~ 500K</td> </tr> <tr> <td>U</td> </tr> <tr> <td>V</td> </tr> <tr> <td>W</td> </tr> <tr> <td>U</td> <td rowspan="3">+</td> <td rowspan="6">400 ~ 500</td> </tr> <tr> <td>V</td> </tr> <tr> <td>W</td> </tr> <tr> <td>BU</td> <td>EU</td> </tr> <tr> <td>BV</td> <td>EV</td> </tr> <tr> <td>BW</td> <td>EW</td> </tr> <tr> <td>BX</td> <td rowspan="2">EC</td> </tr> <tr> <td>BY</td> </tr> <tr> <td>BZ</td> <td></td> </tr> </tbody> </table> | Tester rod |  | If it is good one resistance | (+) | (-) | - | + | 10K ~ 500K | U | V | W | U | + | 400 ~ 500 | V | W | BU | EU | BV | EV | BW | EW | BX | EC | BY | BZ |  |
| Tester rod |                  | If it is good one resistance  |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| (+)        | (-)              |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| -          | +                | 10K ~ 500K  |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
|            | U                |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
|            | V                |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| W          |                  |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| U          | +                |   | 400 ~ 500  |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| V          |                  |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| W          |                  |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| BU         | EU               |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| BV         | EV               |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| BW         | EW               |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| BX         | EC               |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| BY         |                  |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| BZ         |                  |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| 5          | PC 922 (IC3-IC8) | <p>5. If the power transistor module is defective, check the parts of (PC3-PC8) of control board out of inverter controller.</p>  <table border="1" data-bbox="998 1691 1437 1840"> <thead> <tr> <th colspan="2">Tester rod</th> <th rowspan="2">If it is good one resistance</th> </tr> <tr> <th>(+)</th> <th>(-)</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>7</td> <td rowspan="2"></td> </tr> <tr> <td>7</td> <td>6</td> </tr> </tbody> </table> <p>If the resistance between the 6 and 7 is a couple of Kohm, it is defective.</p>  | Tester rod |  | If it is good one resistance | (+) | (-) | 6 | 7 |            | 7 | 6 |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| Tester rod |                  | If it is good one resistance  |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| (+)        | (-)              |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| 6          | 7                |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |
| 7          | 6                |   |            |  |                              |     |     |   |   |            |   |   |   |   |   |           |   |   |    |    |    |    |    |    |    |    |    |    |  |