

SHARP SERVICE MANUAL

No.S3004FPJ30EUBT

AIR PURIFIER



MODELS

FP-J30EU-B/P/A

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used

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SAFETY INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliances, basic safety precautions should be followed, including the following:

WARNING - To reduce the risk of electrical shock, fire or injury to persons:

- Read all instructions before using the unit.
- Use only a 220-240 volt outlet.
- **Do not use the unit if the power cord or plug is damaged or the connection to the wall outlet is loosened.**
- Periodically remove dust from the power plug.
- **Do not insert fingers or foreign objects into the air intake or air outlet.**
- **When removing the power plug, always hold the plug and never pull the cord. Electrical shock and/or fire from short circuit may occur as a result.**
- Be careful not to damage the power cord, it may cause electric shock, excess heat or fires.
- **Do not remove the plug when your hands are wet.**
- **Do not use this unit near gas appliances or fireplaces.**
- **Remove the power plug from the wall outlet before cleaning the unit and when not using the unit. Electrical shock from bad insulation and/or fire from short circuit may occur as a result.**
- When cleaning the unit, or when the unit is not in use, be sure to unplug the unit. **Electrical shock and/or fire from a short circuit may result.**
- **If the power cord is damaged, it must be replaced by the manufacturer, its service agent, Sharp Approved Service Center or similarly qualified person in order to avoid a hazard.**
- Do not operate when using aerosol insecticides or in rooms where there is oily residue, incense, sparks from lit cigarettes, chemical fumes in the air or in very high humidity conditions, such as a bathroom.
- Be cautious when cleaning the unit. Corrosive cleansers may damage the exterior.
- Only a Sharp Authorized Service Center should service this air purifier. Contact the nearest Service Center for any problems, adjustments, or repairs.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

NOTE - Radio or TV Interference

If this air purifier should cause interference to radio or television reception, try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the unit and radio/TV/wave-clock receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTIONS CONCERNING OPERATION

- Do not block the intake and/or air outlet.
- Do not use the unit near or on hot objects, such as stoves or heaters or where it may come into contact with steam.
- Do not lay the unit down when using.
- **Always hold the handle on the back of the unit when moving it.**
- **Do not use without the filter inside the unit.**
- **Do not wash and reuse the HEPA filter.**
Not only does it not improve filter performance, it may cause electric shock or malfunction.

INSTALLATION GUIDELINES

- **When using the unit, place it away from equipment utilizing electric waves such as televisions or radios to avoid electrical interference.**
- **Avoid use in locations where furniture, fabrics or other items may come in contact with and restrict the air intake and/or air outlet.**
- **Avoid use in locations where the unit is exposed to condensation or drastic temperature changes. Appropriate conditions are when room temperature is between 0 – 35 °C.**
- **Place on a stable surface with sufficient air circulation.**
When placing the unit on a heavily carpeted area, the unit may vibrate slightly.
- **Avoid locations where grease or oily smoke is generated.**
The unit surface may crack as a result.
- **Place the unit about 30 cm(1 ft) away from the wall in order to ensure proper airflow.**
The dust collecting performance will be the same even if using the unit 3cm away from the wall, but place it as far as possible(30cm away recommended) because it may dirty the wall or floor around.

FILTER GUIDELINES

- **Follow the instructions in this manual for correct care and maintenance of the filter.**

PRECAUTIONS FOR USING LEAD-FREE SOLDER

■ ADOPTION OF LEAD-FREE SOLDER

This model uses lead-free solder. The LF mark indicates lead-free solder and appears on circuit boards and in the service manual. The letter following the LF mark indicates the type of lead-free solder.

(Example)



Indicates lead-free solder of tin, copper and nickel

■ USING LEAD-FREE SOLDER

When soldering to repair a lead-free solder board, use a lead-free solder. Do not use conventional lead solder, as this may cause accidents and failures due to cracking. The melting point of lead-free solder (Sn-Cu-Ni) is 45°C higher than lead solder, and thus it is recommended that you use a special soldering iron. If you do not know where to obtain lead-free solder and a suitable soldering iron, please contact your nearest SHARP service center or service branch.

■ SOLDERING WORK

The melting point of lead-free solder (Sn-Cu-Ni) is approximately 225°C, 45°C higher than conventional solder, and wettability is not as good. For this reason there is a tendency to keep the soldering iron in contact with the board for a long time. However, this may cause lifted lands and heating in excess of the heat tolerance of components, and thus the soldering iron should be removed from the board as soon as you have verified that a bond has formed. Lead-free solder has a higher proportion of tin, which causes increased corrosion of the tip of the soldering iron, and thus care should be taken to turn off the soldering iron whenever it is not in use. Any different type of solder remaining on the tip of the soldering iron will form an alloy with lead-free solder, thus the tip should be cleaned after you have finished soldering. If the tip of the soldering iron turns a dark color while you are soldering, clean the tip with steel wool or fine-grained sandpaper.

APPLICABLE CIRCUIT BOARDS

| PART CODE | PART NAME |
|---------------|-------------------|
| DPWB-B252KKKZ | FPJ30TA PWB ASS'Y |

CHAPTER 1. PRODUCT SPECIFICATIONS

[1] SPECIFICATION

| | | | |
|-----------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------|
| Type | FP-J30EU | | |
| Power supply | 220-240V 50-60Hz | | |
| Fan level adjustment | Max | Med | SLEEP |
| Rated power (W) | 50 | 30 | 13 |
| Fan level (m ³ / hour) | 180 | 120 | 60 |
| Applicable floor area *1 | ~ 22m ² | | |
| Dust correcting method | Mechanical purification | | |
| Protective devices | Current fuse | Turning off: 2.5A | |
| Thermal protector | Turning off: 90°C Turning on: 60°C (Thermal protector is inside of AC motor.) | | |
| Control panel | Power ON/OFF, Plasmacluster ON/OFF, MODE, CLEAN ION SHOWER | | |
| Indication lamp | Operation mode | Fan Speed Indicator (SLEEP, Med, Max), Plasmacluster ion ON/OFF, Timer (4h, 8h), Replace filter | |
| Outside dimension (mm) | 431 (W) x 211 (D) x 411 (H) | | |
| Weight (kg) | 4.2 | | |
| Cord length (m) | 2.0 | | |
| Installation | Free standing | | |
| Accessories | Instruction manual, Filter | | |
| Replace the filter *2 | Filter: about 2 years after opening | | |
| Option | Replace filter: FZ-F30DFE, FZ-F30HFE | | |

*1: Based on the standard of The Japan Electrical Manufacturers' Association, JEM1467

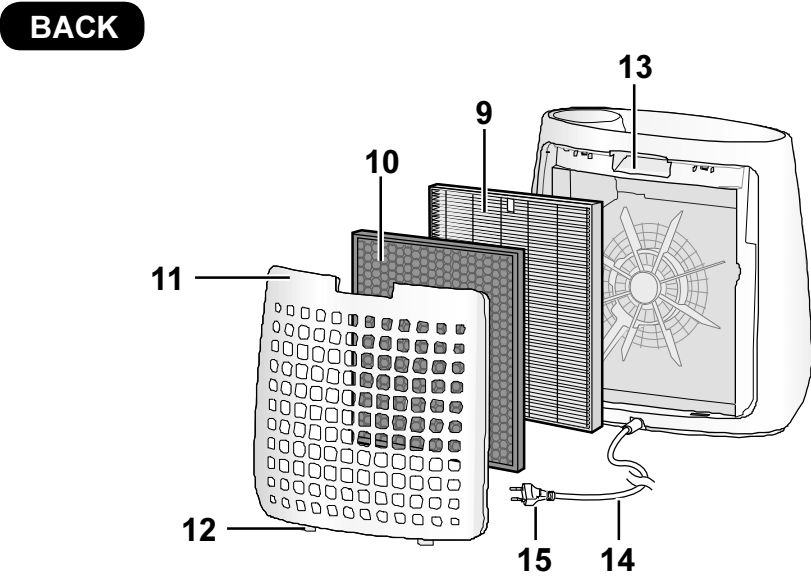
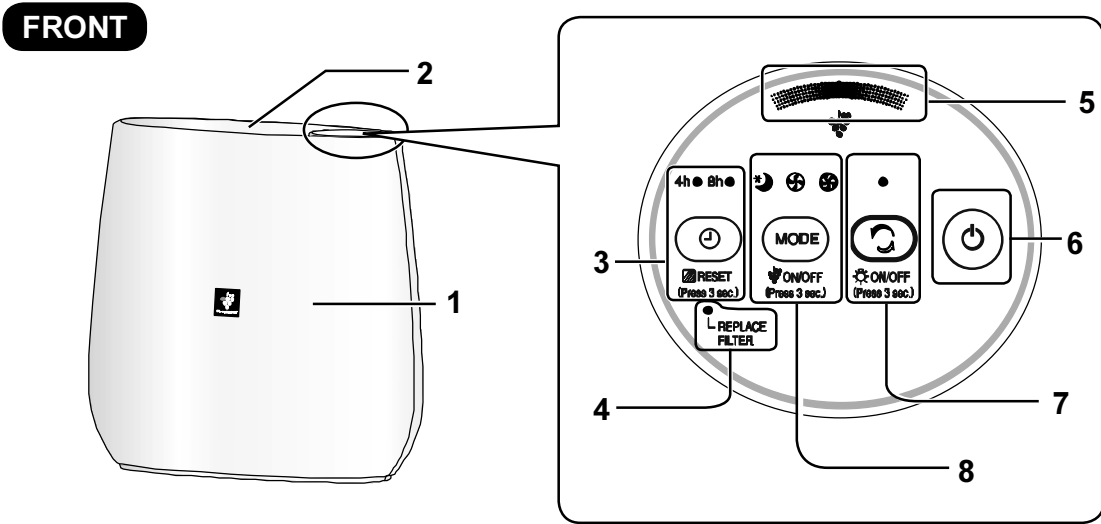
The size of the room to be referred to is the one in which dust concentration of 1.25mg/m³ may be reduced to 0.15mg/m³ within 30 minutes under the condition that the natural ventilation is performed once per hour.

*2: Based on the standard of The Japan Electrical Manufacturers' Association, JEM1467 Ten cigarettes are smoked per day in the place where the air cleaner is installed.

Reduction of stand-by power consumption

While this product is plugged in, it consumes the stand-by power of approximately 0.6W to activate the electric circuit

[2] APPLIANCE VIEW



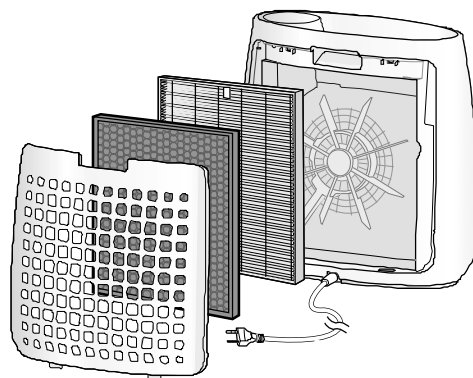
| | | | |
|---|-------------------------------------------------------------------------------------------|----|-------------------------------------------------------------------------------------------|
| 1 | Main Unit | 8 | MODE Button, Indicator Light (green) (Press 3 sec.) Plasmacluster Ion ON/OFF Button |
| 2 | Air Outlet | 9 | HEPA Filter |
| 3 | OFF TIMER Button, Indicator Light (green) (Press 3 sec.) Filter Reset Button | 10 | Deodorizing Filter |
| 4 | Replace Filter Indicator Light (orange) | 11 | Back Panel (Pre-Filter) |
| 5 | Plasmacluster Ion Indicator Light (blue) | 12 | Bottom Tabs |
| 6 | POWER ON/OFF Button | 13 | Handle |
| 7 | Clean Ion Shower Button, Indicator Light (green) (Press 3 sec.) LIGHT ON/OFF Button | 14 | Power Cord |
| | | 15 | Plug |

CHAPTER 2. PRODUCT OVERVIEW

[1] THE CAUTIONS ON USE

1. THE METHOD OF EFFECTIVE INSTALLATION

The air purifier is designed to remove air-suspended dust and odour, but not harmful gases (for example, carbon monoxide contained in cigarette smoke). If the odour sources still exist, it cannot completely remove the odour. (for example, odours from construction materials and pet odours). It is suggested to open the window a bit when you are smoking in order to facilitate ventilation.



2. PRECAUTIONARY INFORMATION

Please follow these precautions when using the air purifier. Failure to do so may damage the unit and/or cause an accident (fire, electrical shock, injury).

- Do not use the air purifier as a ventilation fan or stove exhaust fan.
- Do not insert your fingers or other objects into the air intake, air outlet, or filter case.
- The high-voltage components and rotating fan parts inside the air purifier are extremely dangerous.
- Do not use the air purifier in a humid environment.
- Do not use the air purifier when placed on top of or located close to heating equipment.
- Do not allow flammable substances to enter the air purifier.
- Do not block the air purifier's air intake or air outlet.
- Do not knock over or drop the air purifier.
- Always ventilate closed rooms.
- The air purifier does not function to provide ventilation or remove carbon monoxide.

3. REPLACING THE AIR PURIFIER'S FILTER

1) FILTER SERVICE LIFE TIMES

Service lifetimes for the air purifier's filter in a normal residential setting are as follows:

- HEPA Filter : About 2 years after opening
- Deodorant Filter : About 2 years after opening

These estimates indicate the period over which the air purifier's ability to absorb odours and collect dust will be reduced by 50% in an operating environment where 5 cigarettes are smoked daily (based on Japan Electrical Manufacturers' Association standard JEM 1467). These service lifetimes are provided for reference purposes only. Depending on the conditions in which the air purifier is operated, filter performance may deteriorate within several months. It is recommended to replace the unit's filter as soon as any unpleasant odors become noticeable.

2) HOW FREQUENTLY TO REPLACE FILTER

How frequently the air purifier's filter will need to be replaced depends on where the unit is being used.

3) FILTER WILL NEED TO BE REPLACED MUCH MORE FREQUENTLY UNDER THESE CIRCUMSTANCES

When the purifier is used in proximity to soot or carbonized substances. When the purifier is used in an office or business setting, such as a restaurant, mahjong parlor, barbershop, or hair salon.

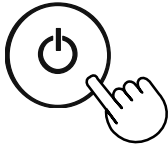
4) THE OPTIONAL FILTER FOR EXCHANGE

MODEL: FZ-F30DFE, FZ-F30HFE

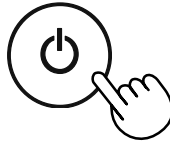
[2] FUNCTIONS

CLEAN AIR

START



STOP

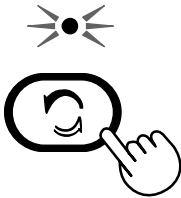


- Select the desired fan speed.
- Unless the power cord has been unplugged, the operation starts in the previous mode it was operated in.


CLEAN ION SHOWER

Releases high-density Plasmacluster ions and discharges strong air flow for 60 minutes.

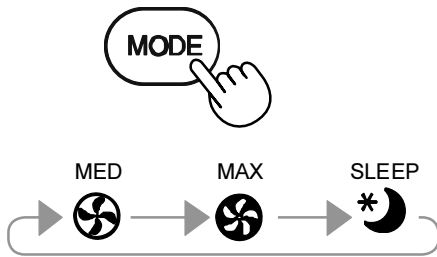
START



NOTE


- When the operation finishes, the unit will return to the prior operation mode. It is able to change the other mode and  during this mode.
- If Plasmacluster Ion is OFF, Plasmacluster Ion will not be released.

FAN SPEED



NOTE

SLEEP *

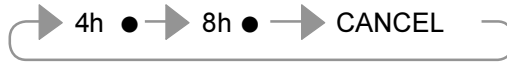
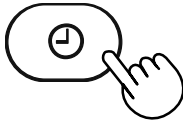
- The unit will operate very quietly with low fan speed. Plasmacluster Ion Indicator goes off automatically. Even though the indicator is off, Plasmacluster Ion is dispersed into air unless Plasmacluster Ion is turned off by .

 ON/OFF
(Press 3 sec.)

OFF TIMER

Select the time turning off the unit during operation. The unit automatically stops once the selected time is reached.

4h ● 8h ○



Light Control

You can set the Plasmacluster Ion Indicator to OFF when the Plasmacluster Ion Indicator is bright.

ON



☀ ON/OFF
(Press 3 sec.)

more 3 sec.



OFF



☀ ON/OFF
(Press 3 sec.)

more 3 sec.



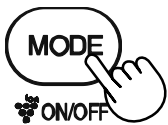
NOTE

- When the unit starts operation, the operation starts in the previous mode it was operated in.

Plasmacluster Ion ON/OFF

When Plasmacluster Ion is ON, the Plasmacluster Ion Indicator Light will turn on. (blue)

ON



☀ ON/OFF
(Press 3 sec.)

more 3 sec.

OFF



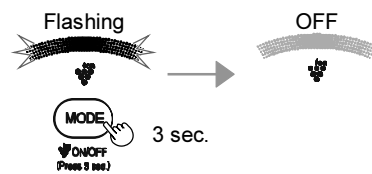
☀ ON/OFF
(Press 3 sec.)

more 3 sec.

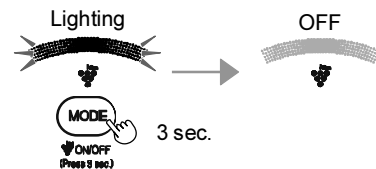
NOTE

When Indicator is off,

- If Plasmacluster Ion is ON,



- If Plasmacluster Ion is OFF,



CHAPTER 3. TROUBLESHOOTING GUIDE





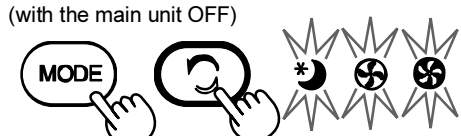
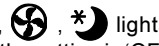
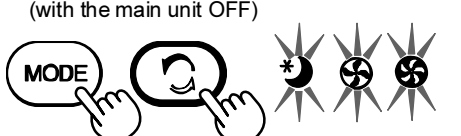

- Always use the designated parts when replacing parts.
- Service of the PWB ass'y:
The electrical circuit is composed of the Control PWB ass'y, and the Power supply PWB ass'y.

| No. | Problem | Cause and symptoms | Solution |
|-----|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 1 | The purifier will not operate. | Faulty wiring. | Check whether connectors are inserted properly; repair; replace. |
| | | Fan feels unusually heavy when rotated manually (motor failure + PWB current fuse burned out). | Replace motor and PWB. |
| | | Power supply PWB assembly current fuse (FUSE) burned out. | Inspect the motor (rotate the fan manually and replace motor and PWB if fan feels heavy). |
| | | Power supply PWB assembly current fuse (FUSE) burned out and varistor (VRS1) failure. | Replace PWB. |
| | | Faulty PWB. | Replace. |
| | | Broken connection in power cord. | Replace. |
| 2 | The purifier is making an unusual noise. | Faulty motor. | Replace. |
| | | Faulty motor mount | Repair. |
| | | Faulty fan shape | Replace. |
| | | Faulty fan mount | Repair or Replace. |
| | | Sound discharge from Plasmacluster unit | Nothing is wrong when the sound hurts feelings, please keeps away the commodity. |
| 3 | The sound from Plasmacluster unit becomes sparse. | Change in humidity. | Nothing is wrong the problem is not in the effect. |
| 4 | The air purifier's ability to collect dust has deteriorated. | Filter replacement is overdue. | Replace the filter. |
| | | The prefilter has become clogged. | Clean the prefilter. |
| | | There is an obstruction near the air inlet or outlet. | Move the air purifier to a different location. |
| 5 | The air coming from the air outlet smells bad. | Undesirable odours that have accumulated in the filter are being released. | Replace The filter. |
| 6 | The air purifier resets itself immediately. | Faulty PWB. | Replace PWB. |
| 7 | Malfunction of the keys. | The PWB is defective. | Replace. |
| | | The unit is not assembled properly. | Repair or Replace. |
| | | The key remains pressed down. | Repair. |

| This symptom | Does not indicate a problem with the air purifier. |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The purifier is making clicking noise. | This sound is produced when plasmacluster ions are being generated. |
| Sometimes a clicking sound is audible coming from the purifier; sometimes, it is not. | While this sound may grow louder or softer and may even become almost inaudible depending on the humidity of the room where the air purifier is being used, the plasma-cluster ion effectiveness remains the same. |
| The purifier is having difficulty removing odors and smoke from the air. | Did you remove the filter from its plastic bag before installing it? |
| | Is the filter excessively dirty? If so, clean or replace it as necessary. |
| The air coming out of the purifier smells bad. | Is the filter excessively dirty? If so, clean or replace it as necessary. |
| | Sometimes ozone from the cluster ion generator produces a noticeable odor. This odor is not dangerous to your health. |

TROUBLESHOOTING

Before calling for repair, please review the list below, since the problem may not be a unit malfunction.

| SYMPTOM | REMEDY (not a malfunction) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Dust and smoke are not removed.</p> | <ul style="list-style-type: none"> • Clean or replace the filter if they appear to be heavily soiled. (Refer to Page EN-8, EN-9 of Operation Manual.) |
| <p>A clicking or ticking sound is heard from the unit.</p> | <ul style="list-style-type: none"> • Clicking or ticking sound may be audible when the unit is generating ions. (Refer to EN-7 of Operation Manual.) |
| <p>The discharged air has an odor.</p> | <ul style="list-style-type: none"> • Check to see if the filter are heavily soiled. Replace the filter. • Plasmacluster Air Purifiers emit small traces of ozone which may produce an odor. These ozone emissions are well below safety levels. |
| <p>The Plasmacluster Ion Indicator doesn't Light on.</p> | <ul style="list-style-type: none"> • Check to see if the SLEEP mode is selected. The Plasmacluster Ion Indicator Light is turned off 3 seconds after the SLEEP mode is selected. • Check to see if the Plasmacluster Ion OFF is selected. Press  for 3 seconds to light On.  (Press 3 sec.) • Check to see if the Light Control OFF is selected. Press  for 3 seconds to light On.  (Press 3 sec.) |
| <p>AUTO RESTART</p> | <ul style="list-style-type: none"> • Even when the plug is unplugged or the breaker is thrown during operation, the unit resumes at the previous operation mode and settings if the power recovers. |
| <div style="border: 1px solid black; padding: 10px;"> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>OFF (with the main unit OFF)</p>  <p>(simultaneously for more than 3 sec.)</p> <p>If the  lights flashes for 3 seconds, the setting is 'OFF'.</p> </div> <div style="width: 45%; text-align: right;"> <p>ON(default) (with the main unit OFF)</p>  <p>(simultaneously for more than 3 sec.)</p> <p>If the  lights Lights up for 10 seconds, the setting is 'ON'.</p> </div> </div> </div> | |

CHAPTER 4. REPLACEMENT OF MAIN PARTS

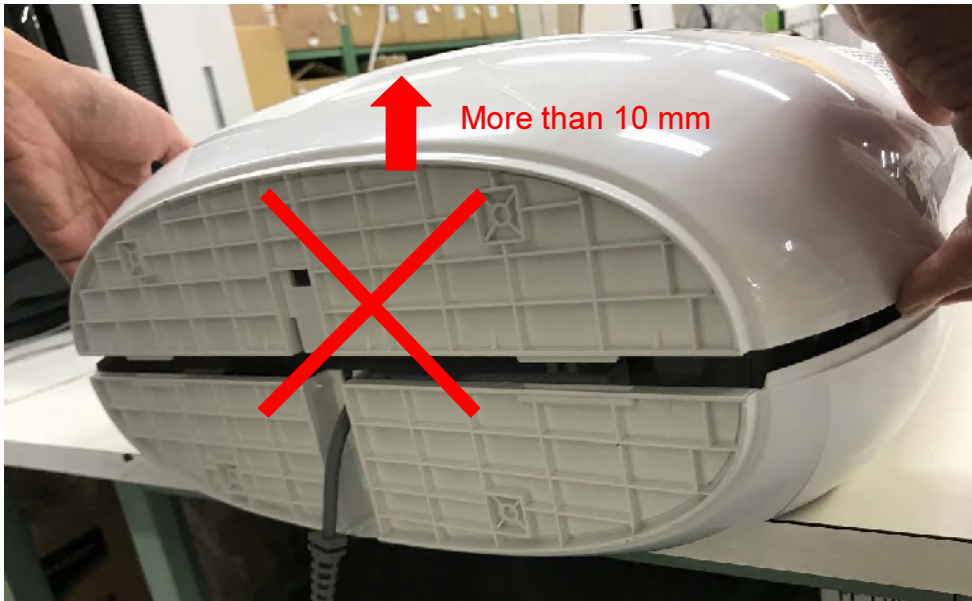
CAUTION!

About FP-J30 series, FRONT CABINET and TOP PANEL are fixed strongly.

So opening by force, FRONT CABINET and / or TOP PANEL are broken.

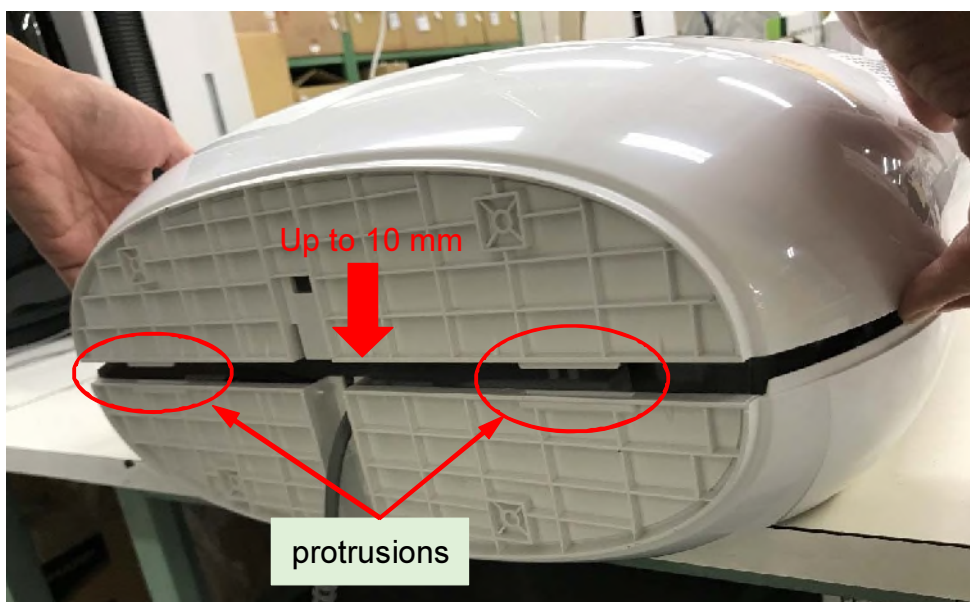
When you disassembly this model, please don't lift up Front Cabinet more than 10 mm.

If it's necessary to overhaul this model, please remove Front Cabinet as follows;



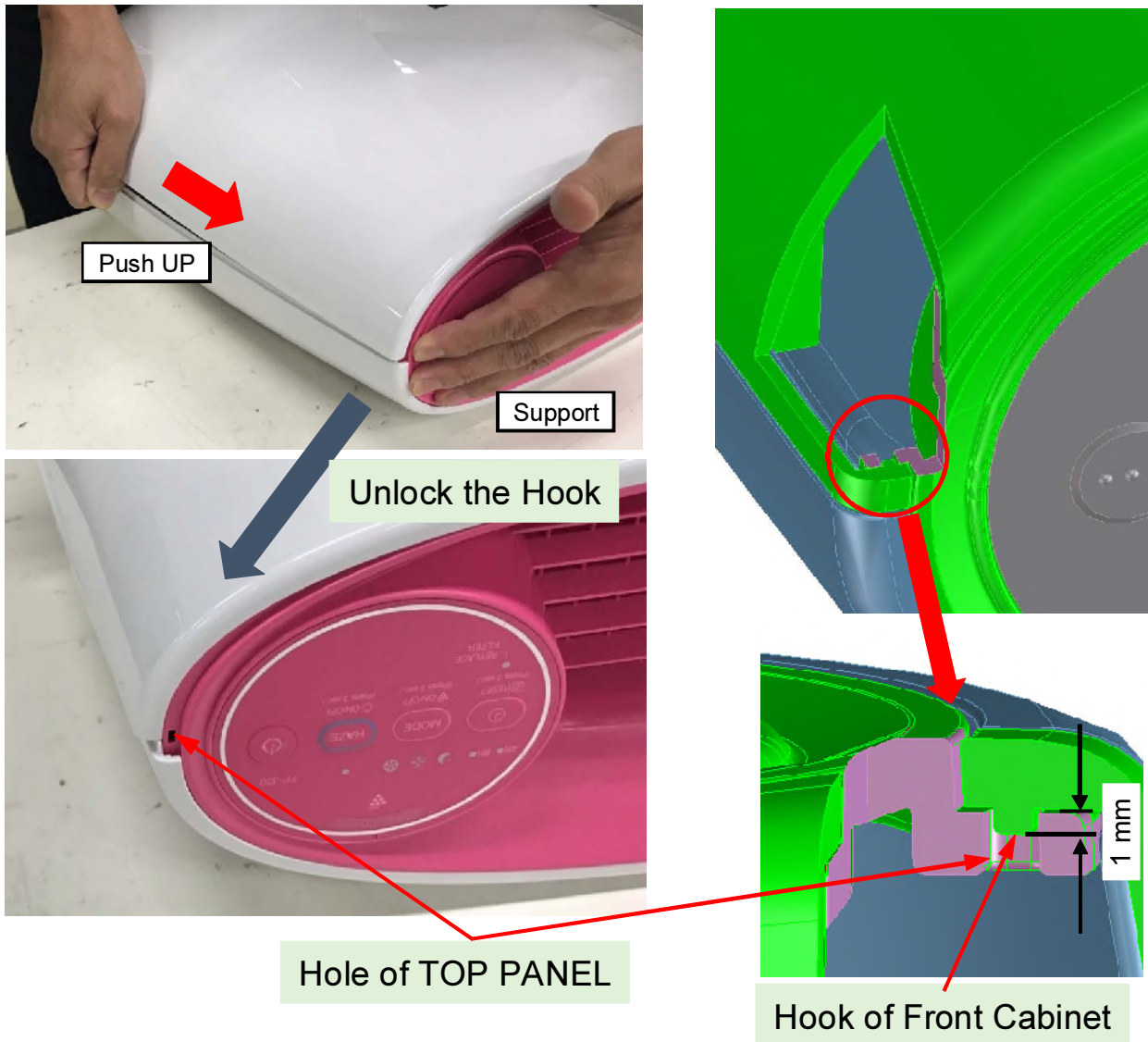
How to remove the Front Cabinet of FP-J30

[1] Lift the front cabinet until the two protrusions are removed from the back cabinet.



[2] (1) While lifting the Front Cabinet, support the Top Panel with one hand.

(2) Push up Front Cabinet to unlock the hook of Front Panel from the hole of Top Panel.



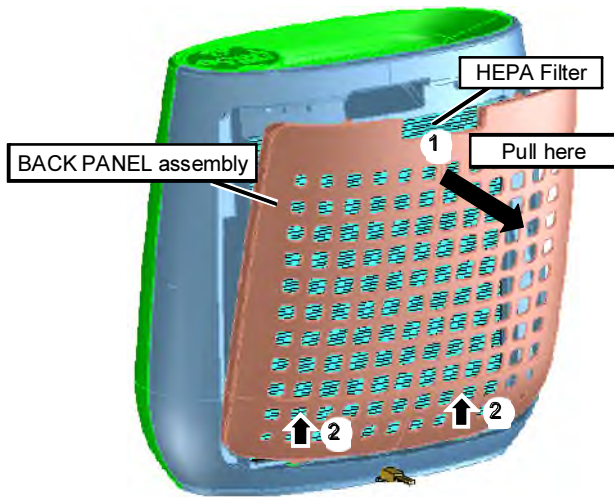
[3] Hold the front cabinet with both hands and rotate it to remove the hook of Front Panel in turn.



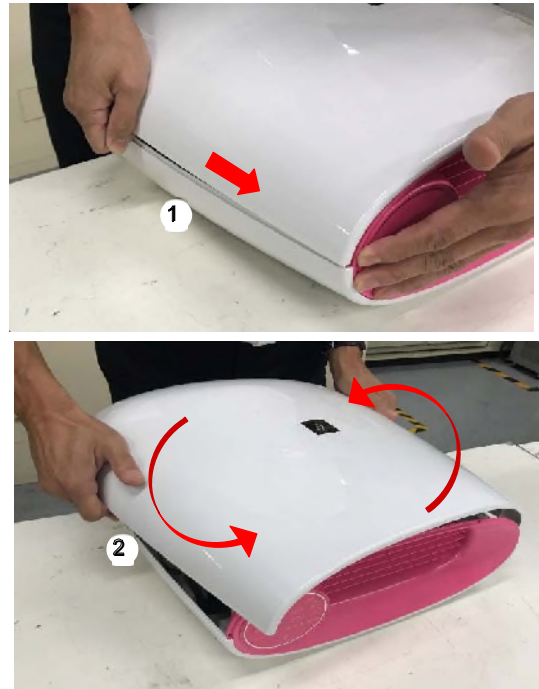
[1] REPLACEMENT PROCEDURE

CAUTION: Remove the plug from the power outlet before servicing/disassembling the unit (danger of electrical shock).

1. Removing BACK PANEL and HEPA FILTER.

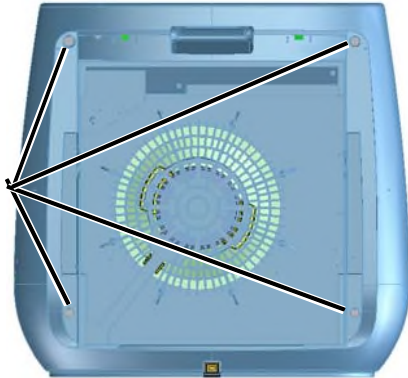


3) Remove the FRONT CABINET from the main body.

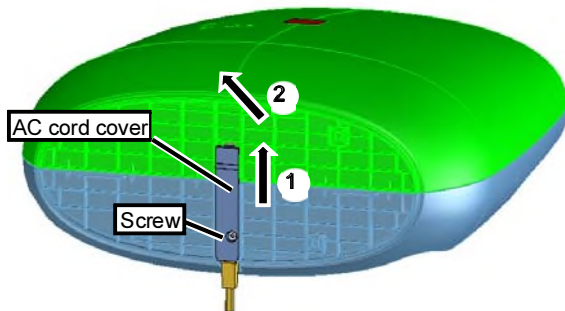


2. Removing the FRONT CABINET.

1) Remove four (4) screws from the BACK CABINET.

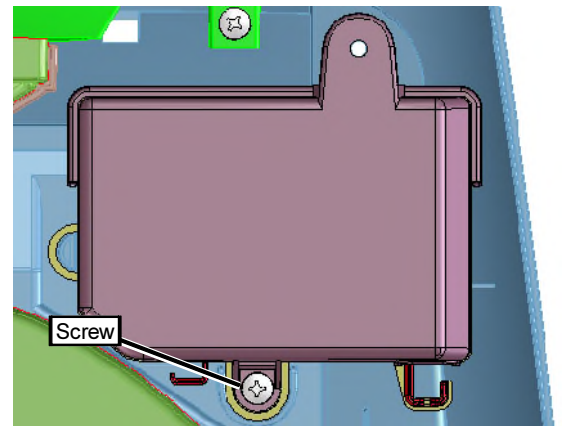


2) Remove the one (1) screw from bottom side of the BACK CABINET. And remove the AC CORD COVER.



3. Removing PWB BOX and PWB (Power Supply unit)

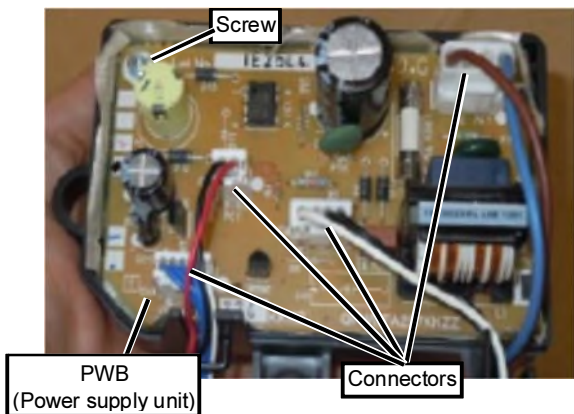
1) Remove the one (1) screw holding the PWB BOX.



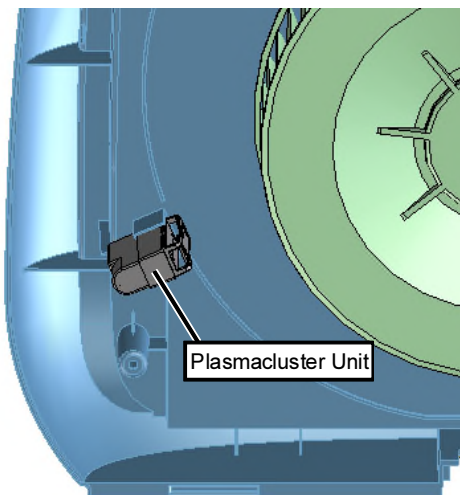
2) Lift the PWB UPPER BOX and remove it.



- 3) Disconnect the connectors on PWB and remove the one (1) screw holding the PWB. Now, PWB is free.

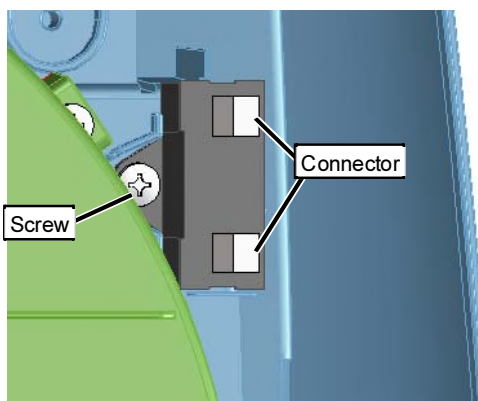


6. Pick up Plasmacluster Unit



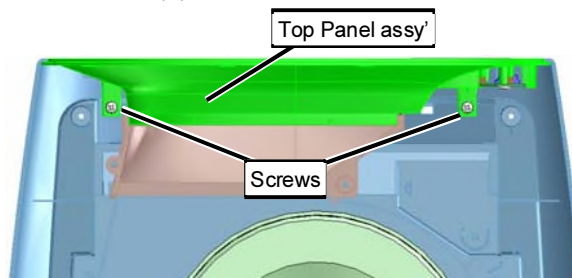
4. Removing Fan Condenser

- 1) Disconnect 2 connectors and remove the one (1) screw.

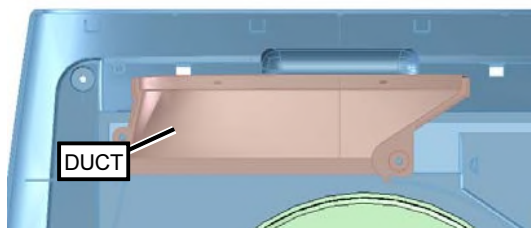


7. Removing TOP PANEL, DUCT and PWB(control unit)

- 1) Remove the two (2) screws

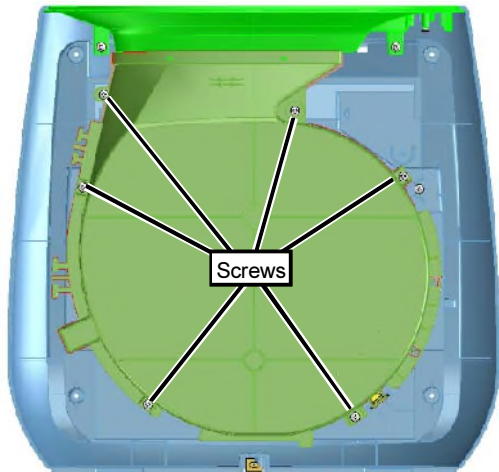


- 2) Remove Top Panel assy' with PWB(control unit) and pick up DUCT.

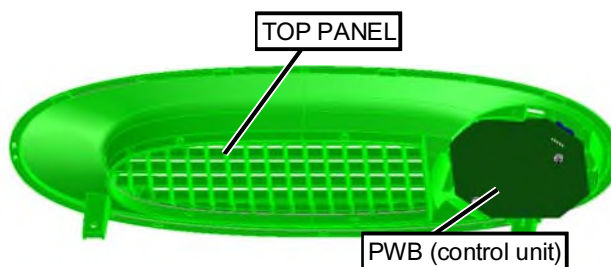


5. Removing Casing

- 1) Remove the six (6) screws fixing Casing.
2) Pick up Casing.

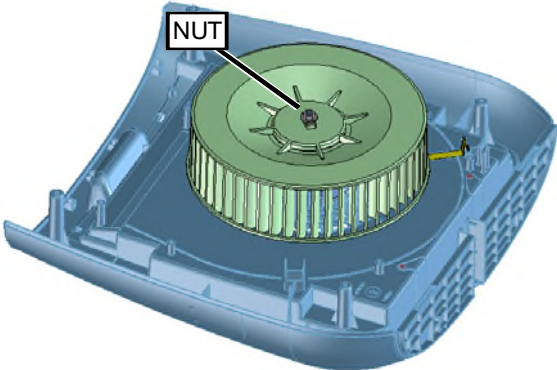


- 3) Remove two (2) screws and take PWB (control unit) out from TOP PANEL.

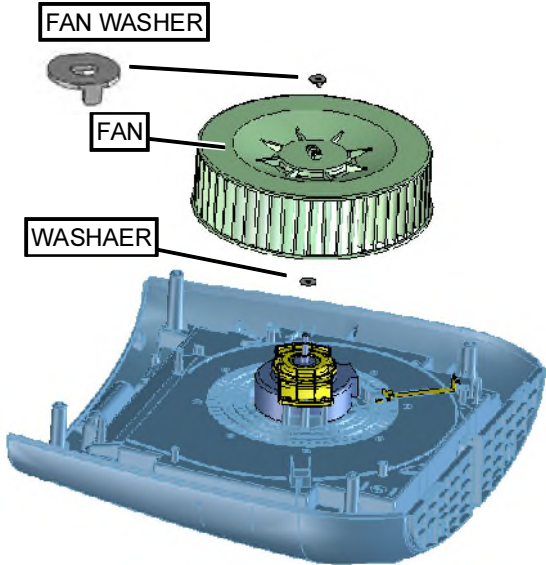


8. Removing Fan

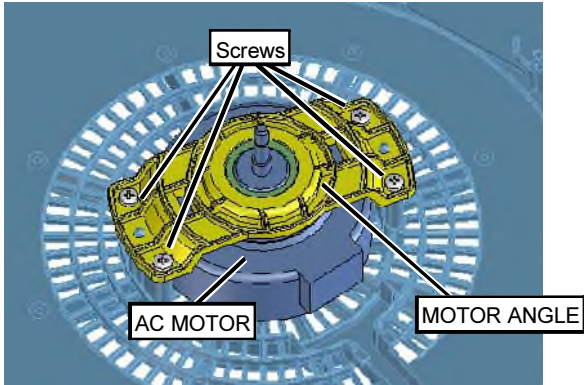
1) Remove the NUT (Left-handed nut).



2) Remove the FAN WASHER, FAN and WASHER.

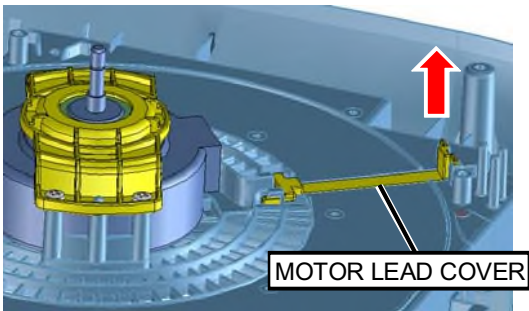


2) Remove four (4) screws holding MOTOR ANGLE and remove MOTOR ANGLE. Now, AC MOTOR is free.



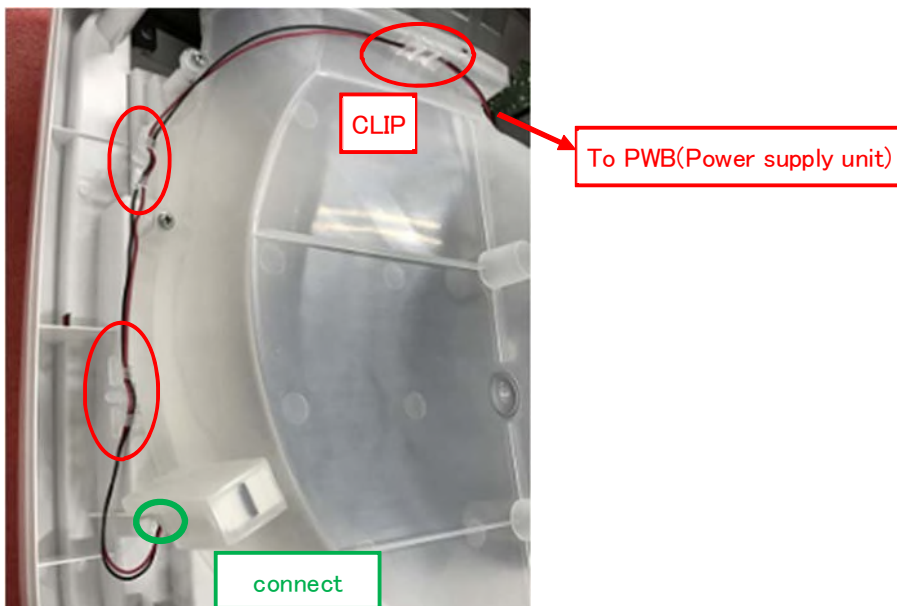
9. Removing AC MOTOR

1) Pick up MOTOR LEAD COVER

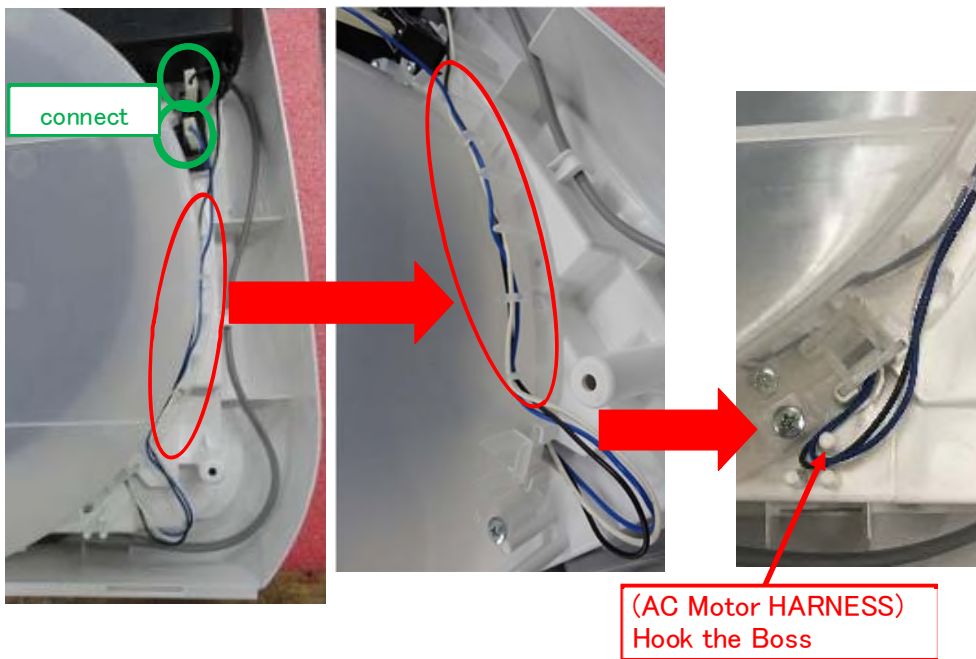


[2] WIRING OF COMPONENTS

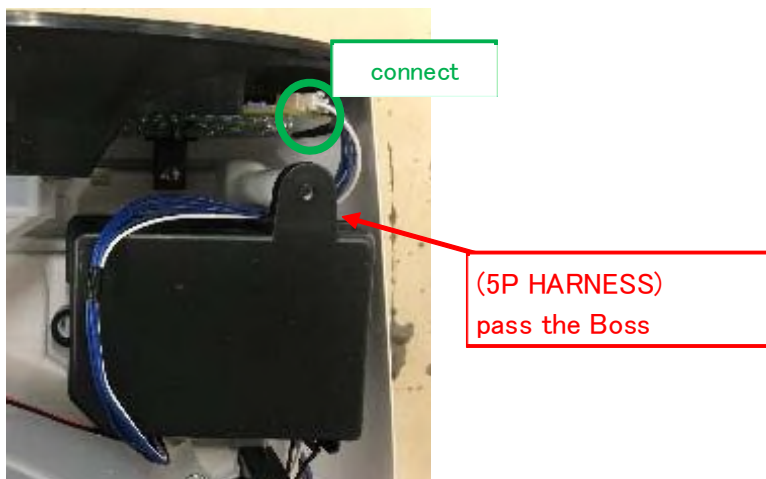
1. PC LEAD WIRE



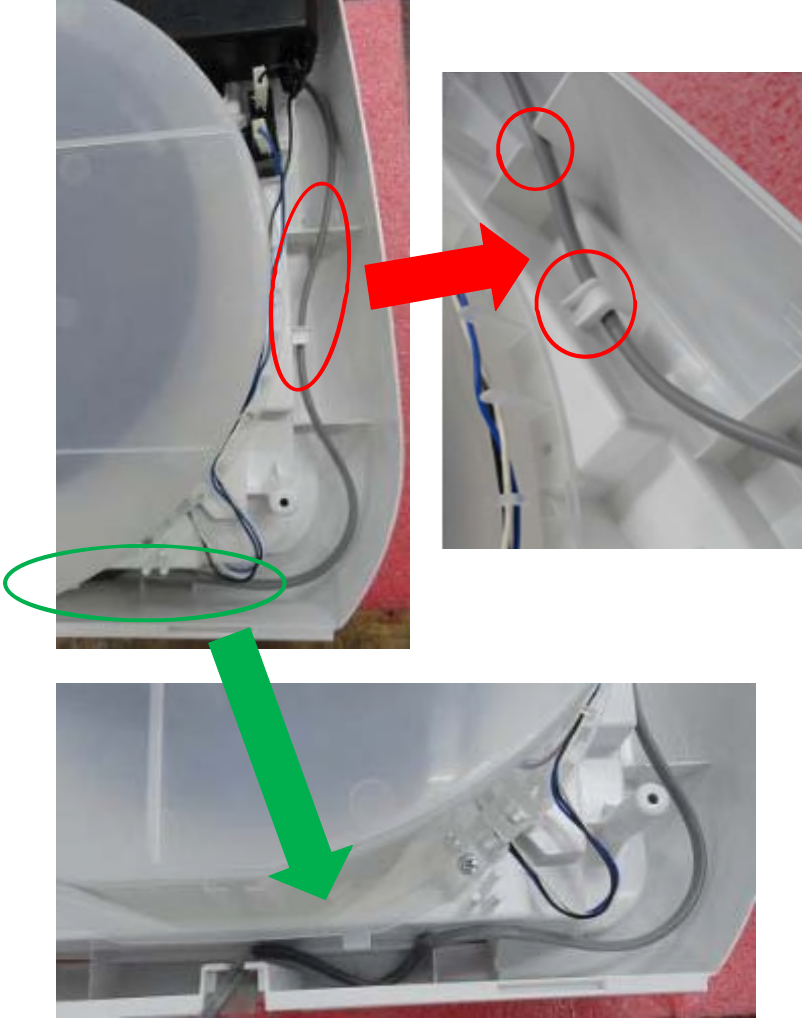
2. AC MOTOR



3. 5P HARNESS



4. AC CORD



5. PWB(Power supply unit)

