SHARP SERVICE MANUAL

AIR PURIFIER

MODELS   **Destination**

KI-N50E-H, KI-N40E-H	:SSC
KI-N50L-W, KI-N40L-W/H	:SEM
KI-N50P-W, KI-N40P-W	:SPC
KI-N50V-W, KI-N40V-W/H	:SVN
KI-N50TA-W, KI-N40TA-W/H	:STCL
KI-N50Y-W, KI-N40Y-W/H	:SEID

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

CONTENTS

IMPORTANT SAFETY INSTRUCTIONS

Always follow <u>basic safety precautions</u> when using electrical appliances, including the following:

WARNING – Always observe the following to reduce the risk of electrical shock, fire, or injury:

- Read all instructions before using the product.
- Use only a 220-240 volt outlet.
- **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure they do not play with the appliance.**
- **If the power cord is damaged, it must be replaced by the manufacturer, its service agent, a Sharp authorized Service Center or similarly qualified persons in order to avoid a hazard. Contact the nearest Service Center for any problems, adjustments, or repairs.**
- **Do not repair or disassemble the product yourself.**
- **Be sure to remove the power plug when refilling the Water Tank, before performing maintenance, when removing and attaching and replacing the filter and when not using for a long time. Failure to do so can cause a short circuit resulting in electrical shock or fire.**
- Do not use the product if the power cord or plug is damaged or if the connection to the wall outlet is loose.

- Periodically remove dust from the plug.
- Do not insert fingers or foreign objects into the Air Inlet or Air Outlet.
- When removing the power plug, always hold the plug and never pull on the cord. Failure to do so can cause a short circuit resulting in electrical shock or fire.
- Be careful not to damage the power cord. When removing the product, do not damage the power cord with the casters. Failure to do so can cause electric shock, heat generation, or fire.

- Do not remove the plug when your hands are wet.
- Do not use this product near gas appliances or fireplaces. When the product is operated with gas appliances in same room, Ventilate a room periodically, otherwise it may cause Carbon monoxide poisoning.
- Do not operate the product in rooms where aerosol insecticides are present. Do not operate the product in rooms where there is oily residue, incense, sparks from lit cigarettes, or chemical fumes in the air.
- Keep the product away from water. Do not operate the product in places where it may get wet, such as a bathroom.
- Do not expose the product to water. Doing so can cause a short circuit or electrical shock.
- Be cautious when cleaning the product. Strong corrosive cleansers can damage the exterior.
- When carrying the product, first remove the Water Tank and Humidifying Tray, and then hold the product by the handles on both sides.
- Do not drink the water in the Humidifying Tray or Water Tank.
- Replace the water in the Water Tank daily with fresh tap water, and regularly clean the Water Tank and Humidifying Tray. When the product is not in use, dispose of the water in the Water Tank and Humidifying Tray. Leaving water in the Water Tank or Humidifying Tray can cause mold, bacteria, and bad odors. In rare cases, such bacteria can be a health hazard.

NOTE – What to do if the product interferes with radio or TV reception

If the air purifier interferes with radio or television reception, try one or more of the following measures:
- Adjust or reposition the receiving antenna.
- Increase the distance between the product and the radio or TV.
- Connect the equipment into an outlet on a circuit different from that of the radio or TV receiver.

- Consult the dealer or a qualified radio or TV technician.

CAUTIONS CONCERNING OPERATION

- Do not block the Air Inlet or Air Outlet.
- Do not place the product near or on hot objects, such as stoves or heaters, or where it may come into contact with steam.
- Always operate the product in an upright position.
- Do not move the product when it is in operation.
- Do not move or change the direction of the product while dragging the casters.
- If the product is on easily damaged flooring, an uneven surface, or thick-piled carpet, lift it up when moving.
- When moving the product by its casters, move it slowly and in a horizontal direction.
- Turn the product off and remove the Water Tank before moving, take care not to catch your fingers.
- Do not operate the product without the filters, the Water Tank, and the Humidifying Tray properly installed.
- Do not wash and reuse the HEPA filter and the Deodorizing filter. Doing so will not improve filter performance and can also cause electric shock or operating malfunctions.
- Clean the exterior with a soft cloth only. Do not use volatile fluids or detergents. The product surface may be damaged or cracked with Benzine paint thinner or polishing powder. In addition, the sensors may malfunction as a result.
- The frequency of descaling maintenance will depend on the hardness of and the impurities in the water that you use; the harder the water the more often descaling will be necessary.
- When refilling the Water Tank, make sure of no water leaking from the Water Tank.
- Be sure to wipe off any excess water on the outside of the Water Tank.
- Do not use hot water (40 ºC or more), chemical agents, aromatic substances, dirty water, or other damaging substances. Doing so can deform the product or cause it to malfunction.
- Use only fresh tap water. Using other water sources risks the growth of molds, fungi, or bacteria.
- Do not shake the Water Tank with holding the carrying handle.
- Do not remove the Humidifying Filter from the Filter Frame except replacing it.
- Avoid spilling water when removing or cleaning the Humidifying Tray.
- Do not remove the Float and the Roller. If the Float or the Roller comes off, refer to Page 7.
- Do not use detergents other than instructions when perform maintenance of the Humidifying Tray and Cover. It may cause deformation, tarnishing, cracking (water leakage).
- Do not scrub the Back Panel hard during its maintenance.

INSTALLATION GUIDELINES

- Avoid locations where the sensors are exposed to direct wind. Doing so can cause the product to malfunction.
- Avoid locations where furniture, fabrics, or other objects can come in contact with the product and interfere with the intake and outtake of air.
- Avoid locations where the product is exposed to condensation or drastic changes in temperature. Appropriate room temperature is between 0 – 35 ºC.
- Place the product on a level and stable surface with sufficient air circulation. When placed on heavy carpet, the product may vibrate slightly. Place the product on a level surface to avoid water leakage from the Water Tank and Humidifying Tray.
- Avoid locations that generate grease or oily smoke. Doing so can cause the product exterior to crack and the sensors to malfunction.
- The dust collecting ability of the product is effective even when the product is as close to 3 cm from the wall, the surrounding walls and floor may get dirty. Please place the product at a distance from the wall. The wall directly behind the Air Outlet may become dirty over time. When using the product for an extended period of time at the same location, periodically clean the walls adjacent to it.

FILTER GUIDELINES

- Follow the instructions in this manual for proper filter care and maintenance.

2

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)

LFn
Sn-Cu-Ni

Indicates lead-free solder of tin, copper and nickel

■ **USING LEAD-FREE SOLDER**

When soldering to repair a lead -freesolder 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 -freesolder and a suitable soldering iron, please contact your nearest SHARP service center or service branch.

■ **SOLDERING WORK**

The melting point of lead -freesolder (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-B557KKKZ	N50EC PS UNIT
DPWB-B262KKKZ1	LX75 FLOAT-K UNIT
DPWB-B263KKKZ1	LX75 POSITION-K UNIT
CPWB-A026JBKZ	S-B01 WF PWB UNIT
DPWB-B591KKKZ	N50E CONT UNIT (only KI-N50E)
DPWB-B590KKKZ	N40E CONT UNIT (only KI-N40E)
DPWB-B589KKKZ	N50L CONT UNIT (only KI-N50L)
DPWB-B585KKKZ	N40L CONT UNIT (only KI-N40L)
DPWB-B593KKKZ	N50P CONT UNIT (only KI-N50P)
DPWB-B592KKKZ	N40P CONT UNIT (only KI-N40P)
DPWB-B595KKKZ	N50V CONT UNIT (only KI-N50V)
DPWB-B594KKKZ	N40V CONT UNIT (only KI-N40V)
DPWB-B597KKKZ	N50TA CONT UNIT (only KI-N50TA)
DPWB-B596KKKZ	N40TA CONT UNIT (only KI-N40TA)
DPWB-B599KKKZ	N50Y CONT UNIT (only KI-N50Y)
DPWB-B598KKKZ	N40Y CONT UNIT (only KI-N40Y)

CHAPTER 1. PRODUCT SPECIFICATIONS

[1] PRODUCT SPECIFICATIONS

SPECIFICATIONS

Model		KI-N50			KI-N40		
Power Supply		220-240 V ~ 50-60 Hz					
Fan Speed Adjustment		MAX	MED	LOW	MAX	MED	LOW
CLEAN AIR	Fan Speed (m^3 / hour)	306	168	60	240	150	60
	Rated Power (W)	51	17	5.5	29	14	5.5
	Noise Level (dBA) [1]	51	40	17	46	38	17
CLEAN AIR & HUMIDIFY	Fan Speed (m^3 / hour)	252	186	66	174	138	60
	Rated Power (W)	32	22	6.7	17	15	6.5
	Noise Level (dBA) [1]	47	43	20	38	35	19
	Humidification (mL / hour) [2]	600	480	200	440	370	190
Standby Power (W)		1.7 (When Wi-Fi adapter is ON.) 1.3 (When Wi-Fi adapter is OFF.)					
Recommended Room Size (m^2) [3]		~ 38			~ 28		
High Density Plasmacluster Ion Recommended Room Size (m^2) [4]		~ 21			~ 17		
Humidifying Tray Capacity (L)		Approx. 2.7					
Sensors		Sensitive Dust / Odor / Light / Temperature / Humidity					
Filter Type		HEPA[5] / Deodorizing / Humidifying					
Cord Length (m)		2.0					
Dimensions (mm)		384 (W) × 230 (D) × 619 (H)					
Weight (kg)		Approx. 8.2					

[1] • Noise level is measured based on the JEM1467 standard of the Japan Electrical Manufactures' Association.

[2] • The amount of humidification changes in accordance with indoor and outdoor temperature and humidity.
The amount of humidification increases as temperatures rises or humidity decreases.
The amount of humidification decreases as temperatures decrease or humidity rises.

• Measurement Conditions: 20 ºC, 30 % humidity (according to JEM1426).

[3] • The recommended room size is appropriate for operating the product of maximum fan speed.

• The recommended room size is an area in which a given amount of dust particles can be removed in 30 minutes (according to JEM1467).

[4] • Room size in which approximately 25000 ions per cubic centimeter can be measured in the center of the room when the product is placed next to a wall, is running at MED mode settings, and is at a height of approximately 1.2 meters from the floor.

[5] • The filter removes more than 99.97% of particles at least 0.3 microns in size (according to JEM1467).

Standby Power
When the product's power plug is inserted in a wall outlet it consumes standby power in order to operate electrical circuits. To conserve energy, unplug the power cord when the product is not in use.

PART NAMES

MAIN BODY
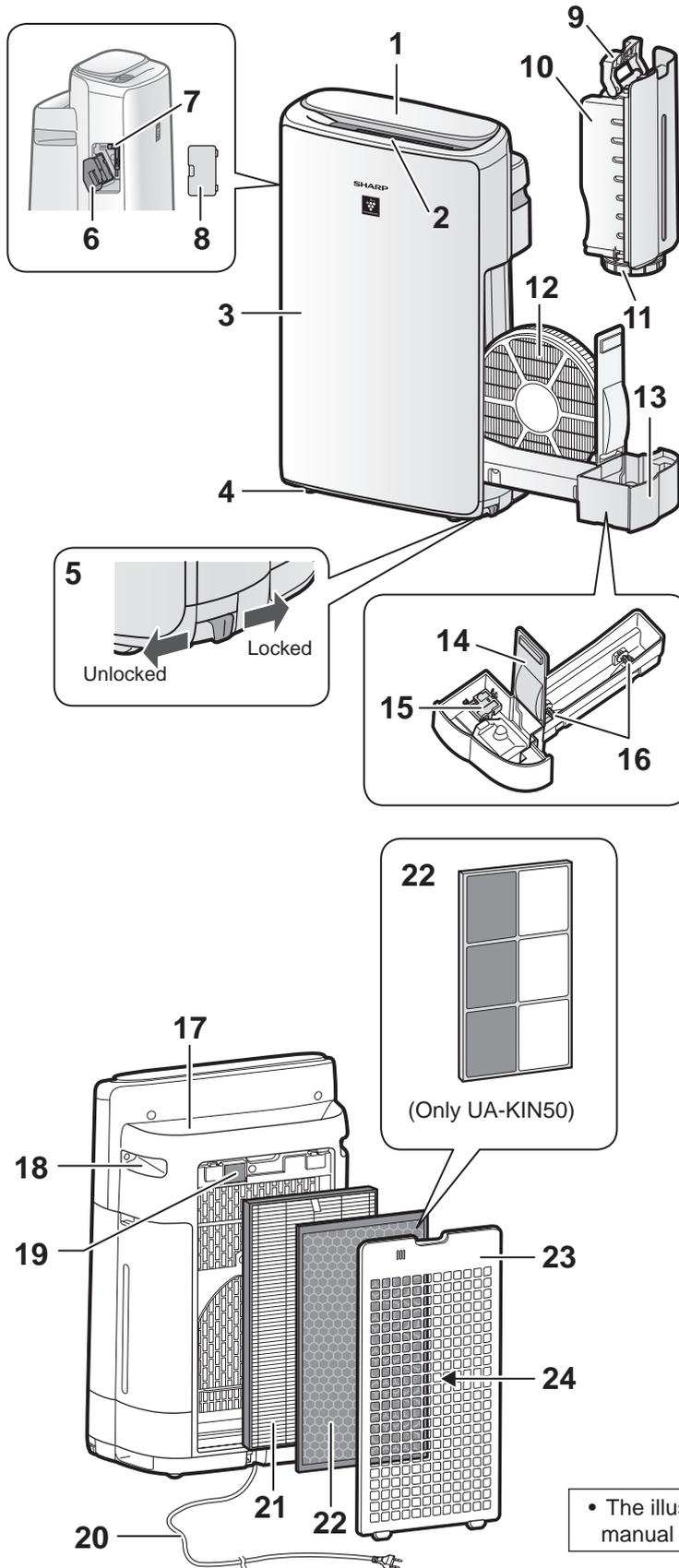
1	**Operation Panel / Display**
2	**Air Outlet** (Front)
3	**Main Body**
4	**Caster** (4 Locations)
5	**Caster Stopper** (Right & Left)
6	**Unit* Holder** (Plasmacluster Ion Generating Unit)
7	**Unit* Cleaning Brush**
8	**Unit* Cover**
9	**Tank Handle**
10	**Water Tank**
11	**Tank Cap**
12	**Humidifying Filter**
13	**Humidifying Tray**
14	**Tray Panel**
15	**Float**
16	**Roller**
17	**Air Outlet** (Back)
18	**Handle** (2 Locations)
19	**Sensor Filter / Sensor** (Internal) Sensitive Dust
20	**Power Cord, Plug** (Shape of plug depends on country.)
21	**HEPA Filter**
22	**Deodorizing Filter**
23	**Back Panel**
24	**Air Inlet**

* The Unit refers to Plasmacluster Ion Generating Unit. (The same as below.)

(Only UA-KIN50)

• The illustration in this instruction manual is KI-N40.

PART NAMES

OPERATION PANEL

12	13	10 *1		7			2
UNIT		⏱		▨ RESET (Press 3 sec.)	○ ☾ ○ ❄ ○ ⟳	○ ✿ ○ ✿ ○ ✿	●

🔑 (Press 3 sec.)

11	9	8	6	5	4	3	1
⏚%℃	((•))	HAZE	◇	✿	AUTO	⏻	∷

*3

KI-N50/40TA — CLEAN ION SHOWER

KI-N50/40Y — ANTI DUST

DISPLAY

14

17	16	15	
≋	⠿	⏚ 2.5	18 *1

21 *2 — 8 8 8 ℃ ☁ ⬆ ⁀ᴵᵒⁿ — 19

% μg/m³ 💧 — 20
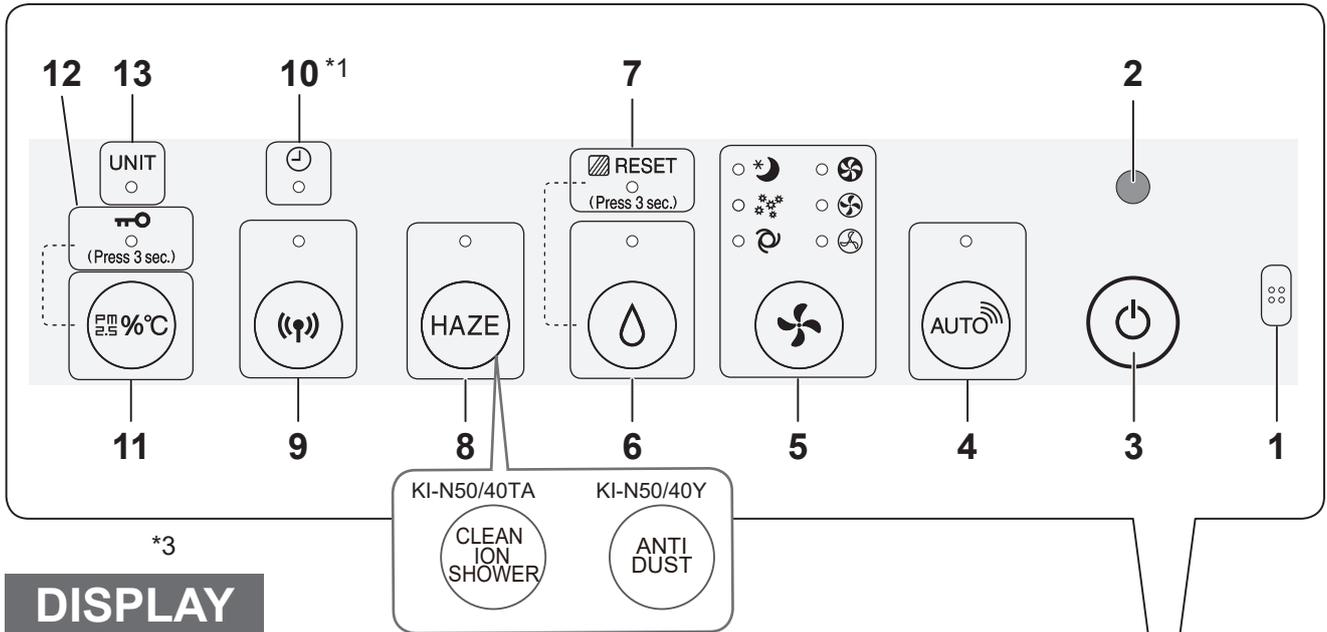
LIGHT SENSOR

When the Light Control is set to 〝Auto〞, Display and Cleanliness Indicator will automatically switch ON or OFF based on room brightness.

NOTE Detection range of Light sensor

Do not install the product in the following places. The Light Sensor may not sense correctly.
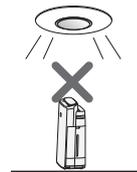
✗ Directly under a light fixture.

✗ In shadow

1	**Sensor** (Internal) Odor / Temperature / Humidity		16	**Dust Indicator** (White) Indicates the Sensitive Dust Sensor detects usual dust.
2	**Light Sensor**		17	**Odor Indicator** (White) Indicates the Odor Sensor detects odors.
3	**Power ON/OFF Button**		18	**Cloud Service Indicator** (White) *1 Illuminates when air purifier is connected to Sharp's cloud service.
4	**SHARP COCORO AIR Button, Lamp** (White)		19	**Plasmacluster Ion Indicator** (Blue)

5	**Mode Button, Lamps** (White)
6	**Humidify ON/OFF Button, Lamp** (White) ---- **Filter Reset Button** (Press 3 sec.) *3
7	**Filter Maintenance Lamp** (Orange)
8	**HAZE Button, Lamp** (White)
9	**Wi-Fi Button, Lamp** (White) Illuminates when air purifier is connected to a router.
10	**Timer Lamp** (White) *1
11	**Switching Display Button** ---- **Child-Lock Button** (Press 3 sec.) *3
12	**Child-Lock Lamp** (White)
13	**Unit Replacement Lamp** (Red)
14	**Cleanliness Indicator** Indicates the air purity of the room in 5 levels with color changes. **Clean** — Blue — Yellow (Flashing) **Impure** — Red (Flashing fast)
15	**PM2.5 Indicator** (White) Indicates the Sensitive Dust Sensor detects microscopic dust.

20

Humidifying Indicator

White: Humidify ON

OFF: Humidify OFF

Red (Flashing)**:** the product needs water

21

Display *2

• **Temperature**
Temperature $0^{\circ}C$ to $50^{\circ}C$ is displayed.

$-1^{\circ}C$ or less $\;Lo\;{}^{\circ}C \leftrightarrow 25\;{}^{\circ}C \leftrightarrow Hi\;{}^{\circ}C\;$ $51^{\circ}C$ or more

• **Humidity**
Humidity 25% to 75% is displayed.

24% or less $\;Lo\;\% \leftrightarrow 55\;\% \leftrightarrow Hi\;\%\;$ 76% or more

• **PM2.5 Concentration** *4
PM2.5 10 $\mu g/m^3$ (micrograms per cubic meter air) to 499 $\mu g/m^3$ is displayed.

9 $\mu g/m^3$ or less $\;Lo \leftrightarrow 34 \leftrightarrow Hi\;$ 500 $\mu g/m^3$ or more

*1: The lamps of No.10 and 18 light up only when using the App.
*2: The displayed numbers are approximate.
*3: Press and hold 3 seconds or longer.
*4: Particulate matter, particles with diameter of size 2.5 micrometers or less.

NOTE **How to install the Float and the Rollers**

Float

3. Insert the tab on the other side of the float into the hole.

1. Insert the Float under this tab.

2. Insert the tab of the float into the hole.

Roller

Click

Click
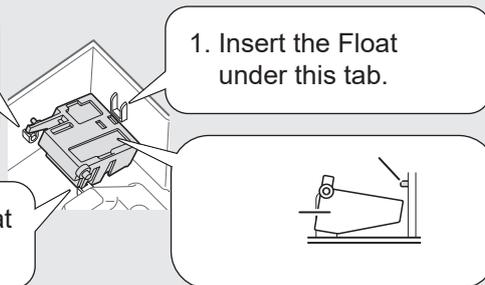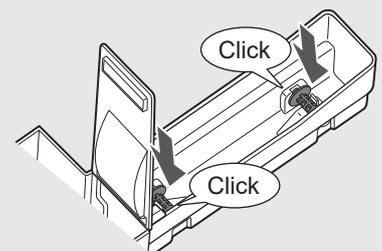
PREPARATION

Always be sure to remove the power plug from the wall outlet.

FILTER INSTALLATION

1. **Remove the Back Panel.**
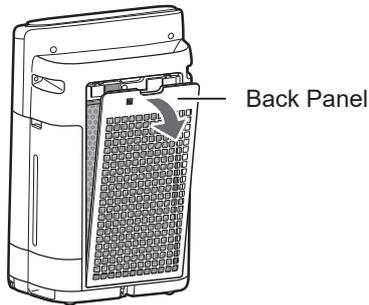
Back Panel

2. **Remove the plastic bag from the each filter.**

HEPA Filter   Deodorizing Filter   (Only KI-N50SA)
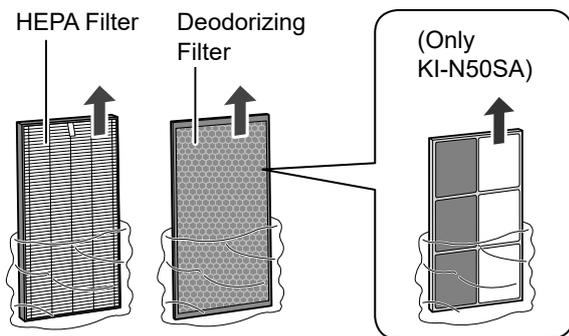
3. **Install the filters in the correct order as shown.**

HEPA Filter

(INSIDE)奥 ⬆ ⬇ 手前(OUTSIDE)

Tag

Deodorizing Filter
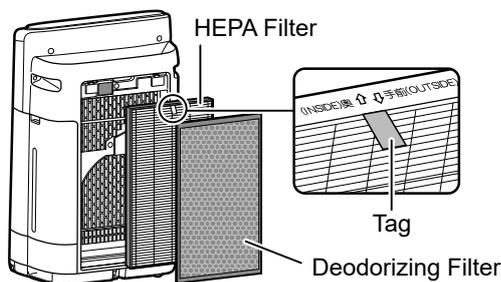
4. **Install the Back Panel.**

Click

Click
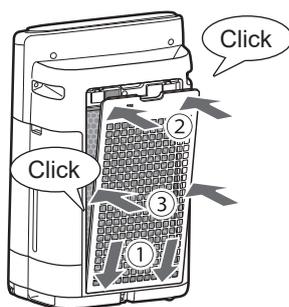
NOTE

• When replacing the filter, making a memo of the start of use date is recommended.

REFILLING THE WATER TANK

1. **Remove the Water Tank.**

① ②

Tank Handle
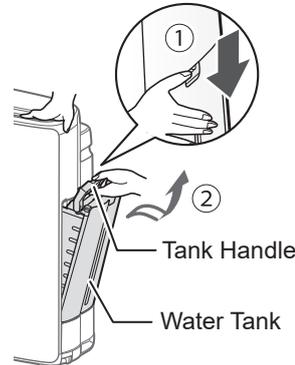
Water Tank

2. **Fill the Water Tank with the tap water.**

Tank Cap

満水 FULL
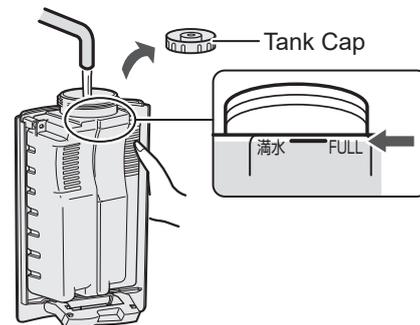
3. **To prevent leaks, securely tighten the Tank Cap.**
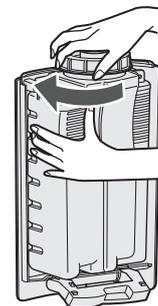
4. **Install the Water Tank.**

②

Click

①
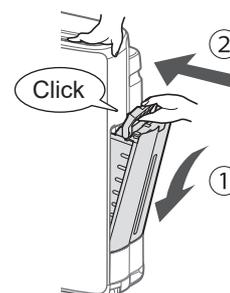
CHAPTER 2. PRODUCT OVERVIEW

[1] GETTING THE MOST OUT OF THE AIR PURIFIER

1. HOW THE AIR PURIFIER WORKS

The fan inside the air purifier draws air from the room into the unit through the air intake. The air passes through the filters inside the unit (Deodorizing filter and HEPA filter) and then is blown back out into the room through the air outlet. This cycle repeats continuously. One passage of air through the HEPA filter removes 99.97% of dust and other particles of size 0.3μm (standalone dust removal efficiency of dust (HEPA) filter).

As air repeatedly passes through the Deodorizing filter, and odor components are gradually adsorbed by the filter and removed from the air.

(Odor components are also adsorbed by the HEPA filter.)

2. UNDERSTANDING THE PRODUCT
2.1. ODOR

Some odor components that adhere to the filters will leave the filters and pass out through the air outlet as an odor. Depending on the environment of use, the performance of the filters may deteriorate after several months. Early replacement of filters is recommended once you begin to notice an unpleasant odor.

2.2. About humidifying

The humidifying method is "Evaporation type".
The inhaled air is passed through the Humidifying filter as it is and it humidifies it.
Therefore, the humidifying ability changes by the inhaled temperature of air and the influence of humidity.
The humidifying ability might decrease when the room temperature is low and when humidity is high.
The humidifying ability is an amount of humidifying when driving by 20℃ in room temperature and 30% in relative humidity.
Because water has evaporated to the humidifying driving at the normal temperature, steam is not seen.
When it uses for the first time, and water doesn't soak into the humidifying filter, it takes time to obtain an enough humidification ability.
(If the humidifying filter is wet before it uses it, it becomes early.)

3. USEFUL INFORMATION
3.1. Odor SENSOR

DETECTS	SOMETIMES DETECTS	DOES NOT DETECT
• Tabaco and incense odours • Cosmetics, alcohol, etc. • Sprays	• Air currents due to opening and closing a door, sudden changes temperature	• House dust (dust, dead mites/ticks, mold spores, pollen)

3.2. DUST SENSOR
The dust sensor can detect dust and particles several μm in size.

DETECTS	DOES NOT DETECT
• House dust (dust, dead mites/ticks, mold spores, pollen) • Tobacco smoke (particles)	• Alcohol • Gases • Bacteria, viruses

About filters
3.3. HEPA filter & Deodorizing filter

Because the air purifier is a machine that gathers dust and an odor component from a whole room,
the filter comes to give off an odor by itself in several months depending on the environment of use.
In such case you may replace the Deodorizing filter and the HEPA filter.

3.4. Humidifying Filter

The life of the humidifying filter changes depending on the driving time and the water quality used.
In maintenance, the standard once a month. Please maintain it as shown in the manual when the balloon air smells, the humidifying ability decreases or how of the water of the tank for the decrease has decreased.
Please exchange the humidifying filter even if it is within in ten years when becoming it to be the following even if you maintain it as shown in the manual.
• The scale and the smell cannot be taken.
• Discoloration like the black and yellow, etc. is awful.
• Red brown and a white hardening adhered to all aspects of the humidifying filter.
• The damage and the transformation are awful.
In addition, in order to extend the life of the humidifying filter, humidification is not necessary, throw away the water of the humidifying tray and the tank.

[2] POINTS TO KEEP IN MIND WHEN USING THE AIR PURIFIER

1. INSTALLATION
Place the air purifier on a stable, level surface to reduce unit vibration and noise.
– (The unit may vibrate if placed on a carpet or rug.)
– (The unit may damage or dent the floor depending on the floor material.)
Place the unit about 30cm away from the wall in order to ensure airflow
because it blow from diagonally behind and circulate whole room efficiently.
Please keep away from the wall (about 30cm or more) in order to prevent shutting inlet
because the unit take air from behind.
– (The unit may make the wall dirty depending on the environment of use.)

2. IMPORTANT SAFETY INSTRUCTIONS
To prevent machine failure and accidents (fire, electrical shock, and injury), follow these safety instructions:
• Do not use in place of a ventilation fan or range hood.
• Do not insert objects or your fingers into the air intake, air outlet, or filter case.
This is extremely dangerous as there are high-voltage components and a rotating fan inside the unit.
• Do not use in a location with excessive moisture.
• Do not use over or near heaters.
• Do not allow flammable substances to enter the air intake.
• Do not block the air intake or air outlet.
• Do not knock the unit over or allow it to fall.
• If used in a closed room, ventilate the room.
The air purifier does not include a ventilation function or carbon monoxide removal function.

• [When moving the AIR PURIFIER with casters]
After confirming that casters in right and left side are unlock, move slowly only to transverse direction.
When going beyond uneven floor, be sure to empty WATER TANK and TRAY.(To prevent water leak.)

• [When moving the AIR PURIFIER by lifting up]
Be sure to remove WATER TANK and TRAY, and lift up product with the handles.(To prevent water leak.)

3. REPLACING THE FILTERS
USEABLE LIFE OF THE FILTERS

When used in a normal household, the life of the filters is:
• HEPA filter.................Approx. 10 years after the package is opened
• Deodorizing filter....Approx. 10 years after the package is opened
– This is the amount of time until the dust collection and deodorizing capabilities of the filters decrease to one-half of their initial capability when the air purifier draws in the smoke of ten cigarettes a day (based on JEMA 1467 of the Japan Electrical Manufacturers' Association).
The indicated life is a general guideline.
In some environments performance may deteriorate after several months of use.
Early replacement is recommended when an unpleasant odor is noticed.

GUIDELINES FOR REPLACEMENT

The replacement time varies depending on the location where the air purifier is used.
Write down the date on which you began using the filters on the Date label on the machine and use this as a guideline for filter replacement.

IN THE FOLLOWING CIRCUMSTANCES, REPLACEMENT WILL BE NECESSARY MUCH SOONER THAN USUAL:
• If the unit draws in soot or carbon substances.
• If the unit is installed in a coffee shop, mah-jongg parlor, barber shop, beauty salon, or other store or office.

OPTIONAL REPLACEMENT FILTERS
• HEPA filter............................ FZ-D40HFE
• Deodorizing filter.................. FZ-G40DFE (KI-N50 only)
• Deodorizing filter.................. FZ-D40DFE (KI-N40 only)
• Humidifying filter FZ-J1XMFE

OPERATION

START/STOP

START ♪   **STOP** ♪~

⟷
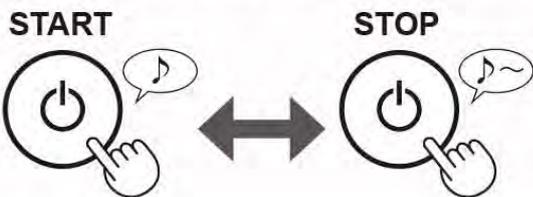
NOTE
- When the product starts operating the operation starts in the previous mode it was operated in.

SHARP COCORO AIR MODE

AUTO ♪

When the product is connected to Sharp Cloud

Sharp Cloud will analyze and set the optimal operation for your room based on the information retrieved from sensors on the product and your usage records.

When the product is not connected to Sharp Cloud

The fan speed and the humidification ON / OFF are automatically controlled depending on the six detection. (PM2.5 / Usual dust / Odor / Temperature / Humidity / Light)

NOTE
- If you press the Humidify ON/OFF Button, the operation mode will change to ○ (AUTO).

HAZE MODE (except TA or Y model)

Operates at HIGH fan speed for 60 minutes and then alternates between Low and High level for 20 minutes each.

HAZE ♪

10 minutes: Max High fan level
50 minutes: High fan level
20 minutes: Low fan level
20 minutes: High fan level

NOTE
- The Plasmacluster Ion can not be turned "OFF".

CLEAN ION SHOWER MODE (TA model)

The unit releases Plasmacluster ions with strong airflow and collects dusts while decreasing static electricity for 10 minutes. After that, the DUST sensor sensitivity is automatically increased and quickly detects impurities and clean the air powerfully for 50 minutes.

CLEAN ION SHOWER ♪

NOTE
- When the operation finishes after 60 minutes, the unit will return to the prior operation mode. It is able to change the other mode during this mode.
- The Plasmacluster Ion can not be turned "OFF".

ANTI DUST MODE (Y model)

The unit releases Plasmacluster ions with strong airflow and collects dusts while decreasing static electricity for 10 minutes. After that, the DUST sensor sensitivity is automatically increased and quickly detects impurities and clean the air powerfully for 50 minutes.

ANTI DUST ♪

NOTE
- When the operation finishes after 60 minutes, the unit will return to the prior operation mode. It is able to change the other mode during this mode.
- The Plasmacluster Ion can not be turned "OFF".

SELECT AIR VOLUME AND MODE

♪♪ AUTO
♪ POLLEN
♪ SLEEP
♪ LOW
♪ MED
♪ MAX
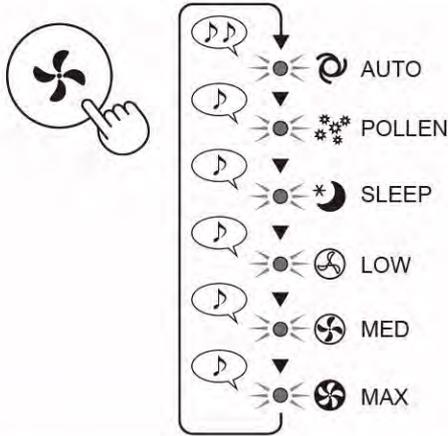
AUTO:

The fan speed is automatically switched depending on the amount of impurities in the air.
You can select humidification ON / OFF.

POLLEN:

The Sensitive Dust Sensor sensitivity is automatically increased and the Sensitive Dust Sensor quickly detects impurities such as dust and pollen and cleans the air powerfully.

SLEEP:

The product will operate quietly, and the fan speed will automatically be switched depending on the amount of impurities in the air and room brightness. When the Light Control is set to "Auto", the Display and Cleanliness Indicator will automatically go off.

HUMIDIFICATION SETTING

ON   **OFF**
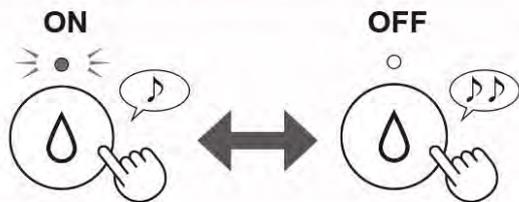
NOTE

• When operating with Humidification ON in the modes in the table below, the product automatically controls humidity by sensing temperature and humidity. (Except MAX / MED / LOW mode.)

Temperature (T)	Humidity	
	ALL MODE*	SLEEP MODE
T < 18°C	65%	65%
18°C ≦ T < 24°C	60%	65%
24°C ≦ T < 28°C	55%	60%
28°C ≦ T	45%	50%

* Except MAX / MED / LOW / SLEEP

SWITCH DISPLAY

♪♪ 55 % Humidity

♪ 25 ℃ Temperature

♪ 34 µg/m³ PM2.5 Concentration
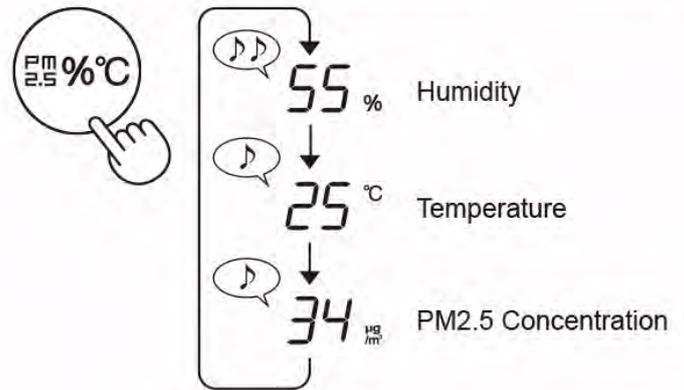
CHILD LOCK

The operation panel will be locked.

(with the product ON or OFF)

ON   **CANCELLATION**

(Press 3 sec.)   (Press 3 sec.)

Press for 3 sec.   Press for 3 sec.
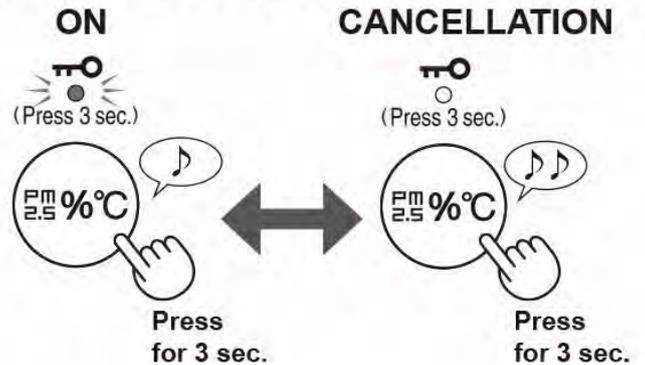
NOTE

• It is possible to turn Wi-Fi off while in Child Lock Mode.

WEEKLY SCHEDULER: APP ONLY

ON TIMER (or OFF TIMER)

You can set a weekly scheduler for the air purifier to start on a specific mode (or to stop operation) on a specific day and time. The Timer Lamp will turn on while there is a schedule set.

HOW TO CHANGE VARIOUS SETTING

• You can change the product functions on page 14.

1. **Turn the product OFF.**

2.

Press for 3 sec.

_F_

Set

_F1_

3. **Select "Function number (F1-F7)" on page 14.**

Go Forward   Go Back

AUTO   or   ○

$F1 \leftrightarrow F2 \leftrightarrow \cdots \leftrightarrow F7$
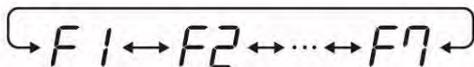
Set

4.

Select "Setting number (01 - 03)" on page 14.

Go Forward   Go Back

AUTO   or   ○

$01 \leftrightarrow 02 \leftrightarrow 03$

Set

5. **Finish the setting.**

Goes off

Function	Setting
F1 **Light Control** You can select the brightness of the Display and Cleanliness Indicator.	**01** **Turn off** When set to "Turn off", the "Dim" light illuminates for 8 seconds after operation starts and then the light turns off. The Humidify Indicator flashes darker only when the product needs water. The Unit Replacement Lamp flashes darker only when the Plasmacluster Ion Generating Unit need to be replaced. **02** **Dim** **03** **Auto** (default) Light automatically switches ON or OFF based on room brightness. • Room is bright: light is ON • Room is dark: light is OFF Even though room is bright, the light will turn off when operating in sleep mode.
F2 **Plasmacluster Ion ON/OFF**	**01** **OFF** **02** **ON** (default)
F3 **Auto restart** If the product is unplugged or if there is a power failure, the product will resume operation with the previous settings after power is restored.	**01** **Cancellation** **02** **ON** (default)
Adjusting sensor sensitivity (F4 - F6) **F4** **Light Sensor** **F5** **Sensitive Dust Sensor** **F6** **Odor Sensor**	**01** **Low** **02** **Standard** (default) **03** **High**
F7 **Sound Indicator Setting** You can set the product to make a beeping sound when the Water Tank is empty.	**01** **Cancellation** (default) **02** **ON**

[4] DATA RESET IN CASE EXCHANGE OF DUST SENSOR

NOTE: This content is not described in the OPERATION MANUAL.

1) Abstract

In order to improve accuracy of dust sensor, the data of dust sensor are memorized in main microcomputer on PWB.

When you exchange dust sensor, you need to reset the data of dust sensor by 2) Operation.

2) Operation

   i) Plugin with pressing the "Switching Display" button and "Power ON/OFF" button.
   ii) A buzzer sounds "Pi", and "00" appears on the digital display.
   iii) After you set ii), press "Mode" button more than 3 seconds, a buzzer sounds and it is initialized.

3) End operation

Press "Power ON/OFF" button, a buzzer sounds and it returns to power off mode in Normal
mode. It can be canceled even if the plug is pulled out.
Changes are retained even if the plug is unplugged.

[5] RESET THE LIFE OF CONSUMABLES

NOTE: This content is not described in the OPERATION MANUAL.

1) Abstract

The life of consumables displayed on "SHARP AIR APP" are reset with operation of APP.
So, when you exchange consumables, you can reset the life of consumables by operation of main unit.
Use this method when you cannot reset from "SHARP AIR APP".

2) Operation

· How to set MODE

Insert the power plug while pressing "Switching Display" and "Power ON/OFF" buttons to sound a buzzer and switch to service mode.

A buzzer sounds "Pi", and "00" appears on the digital display.

· How to reset THE LIFE OF CONSUNABLES

(1) Reset HEPA filter

   After you set MODE,   press "Switching display button", a buzzer sounds and it is initialized.

(2) Reset DEODORIZING FILTER

   After you set MODE,   press "Switching display button" more than 3 seconds, a buzzer sounds and it is initialized.

(3) Reset HUMIDIFYING FILTER

   After you set MODE,   press "Humidifying ON/OFF button" more than 3 seconds, a buzzer sounds and it is initialized.

3) End operation

Press "Power ON/OFF button", a buzzer sounds and it returns to power off mode in Normal mode.
It can be canceled even if the plug is pulled out.
Changes are retained even if the plug is unplugged.

[6] HUMIDITY SENSOR CORRECTION FUNCTION

NOTE: This content is not described in the instruction manual.

1) Insert the power plug while "Switching Display" and "Power" buttons to sound a buzzer and switch to service mode.
The contents that can be changed in the service switch mode are as shown in the table below.

		bit7 007	bit6 006	bit5 005	bit4 004	bit3 003	bit2 002	bit1 001	bit0 000
1byte	7seg 000	(Reserved)	C8 error void	E9 error void	(Unused)	C6 error void	C4 error void	E2 error void	C1 error void
2byte	7seg 001	(Unuesd)	(Unuesd)	(Reserved)	(Reserved)	Event Log data format	(Reserved)	(Reserved)	(Reserved)
3byte	7seg 002	(Reserved)	(Reserved)	(Unused)	(Unused)	(Unuesd)	(Unuesd)	(Reserved)	(Reserved)
4byte	7seg 003	(Unuesd)	(Unuesd)	(Unuesd)	Correction of humidity sensor.-9% ～ +9%				

2) Select Byte (To correct the humidity, select "003") with "SHARP COCORO AIR" or "Humidify ON/OFF" buttons.
- "SHARP COCORO AIR" button : "000"→"001"→"002"→"003"→"000"→・・・
  "Humidify ON/OFF" button : "000"→"003"→"002"→"001"→"000"→・・・
- BIT settings are indicated in binary number in the operation parts.
  You decide by pressing "Mode" button. Proceed to the selection of BIT.

	bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0	
Fan Speed lamp	HAZE/ CIS/ ANTI DUST	Humidity ON/OFF	Sleep	Pollen	MAX	MED	LOW	SHARP COCORO AIR	turn off : 0, turn on : 1

3) Select the BIT to be changed by "SHARP COCORO AIR" or "Humidify ON/OFF" buttons.
- "SHARP COCORO AIR" button : "000"→"001"→"002"→"003"→"004"→"005"→"006"→"007"→"000"→・・・
  "Humidify ON/OFF" button : "000"→"007"→"006"→"005"→"004"→"003"→"002"→"001"→"000"→・・・
- BIT settings are indicated in binary number in the operation parts.
  You decide by pressing "Mode" button. Proceed to the change value of BIT.

4) Change the value of BIT selected by "SHARP COCORO AIR" or "Humidify ON/OFF" buttons.
- "SHARP COCORO AIR" button : "000" and "001" are alternately switched.
  "Humidify ON/OFF" button : "000" and "001" are alternately switched.
- BIT settings are indicated in binary number in the operation parts.
  When "Mode" button is pressed, it decides to the value being displayed, and it returns to byte selection state 2).

<Relations between BITs - Correction of humidity sensor.>

value of BIT					Correction Value	value of BIT					Correction Value
bit4	bit3	bit2	bit1	bit0		bit4	bit3	bit2	bit1	bit0	
0	0	0	0	0	0	1	0	0	0	0	0
0	0	0	0	1	+ 1%	1	0	0	0	1	- 1%
0	0	0	1	0	+ 2%	1	0	0	1	0	- 2%
0	0	0	1	1	+ 3%	1	0	0	1	1	- 3%
0	0	1	0	0	+ 4%	1	0	1	0	0	- 4%
0	0	1	0	1	+ 5%	1	0	1	0	1	- 5%
0	0	1	1	0	+ 6%	1	0	1	1	0	- 6%
0	0	1	1	1	+ 7%	1	0	1	1	1	- 7%
0	1	0	0	0	+ 8%	1	1	0	0	0	- 8%
0	1	0	0	1	+ 9%	1	1	0	0	1	- 9%
0	except above bits				+ 9%	1	except above bits				- 9%

5) This operation [2) ～ 4)] is repeated until byte "000" to byte "003" become values to be corrected.

6) When the "POWER" button is pressed, the buzzer sounds "pee", and the service setting mode is ended.
It can be canceled even if the plug is pulled out.
Changes are retained even if the plug is unplugged.

[7] TAKING OVER THE LIFE OF CONSUMABLES

NOTE: This content is not described in the OPERATION MANUAL.

1) Abstract

The life of consumables displayed on "SHARP AIR APP" are memorized in main microcomputer. So, when you exchange PWB (CONTROL-K UNIT), you need take over the life of consumables.
The life of consumables are also memorized in PCI unit.
After you exchange PWB, you can take over the life of consumables by 2) Operation.

2) Operation

i)   Set to [STEP.1-1] in "CAHPTER.3 EXPLANATION CIRCUITS [2] TEST MODE".
ii) While all LEDs are turned on, press "Mode button" about 3 seconds.
iii) A buzzer sounds "Pee", it succeeded.
If the buzzer sound is "PiPiPi", please check connection of PCI unit.

3) End operation

Please unplug the AC plug from the outlet to cancel.

[8] MEMORY RESET OPERATION

NOTE: This content is not described in the instruction manual.

1) Abstract

What fan mode runs, PCI on/off settings etc. are basically memorized even if plug out.
So, if customers would like to reset settings, it can be reseted by 2) operation.
Reset area is 2 types. (Factory Reset / User Settings Reset)

Factory Reset ・・・
   All memory are reseted.
User Settings Reset ・・・
   Power on/off, Pci on/off, Fan mode, Humidity ON/OFF, Ug/%/℃ display,
   Lamp brightness, Auto restart on/off, Sensor sensitivity.
   House fit mode on/off, Sound Indicator Setting, Cloud sensor sensitivity.

2) Operation

   <Factory Reset>

i)   When power on, press "Power" button more than 8 seconds.
ii) All fan mode lamps, "Filter Reset" lamp and "Humidity ON/OFF" lamp are truned on, and press "Mode" button more than 3 seconds.
iii) A buzzer sounds "Pi", Factory Reset is completed.

   <User Settings Reset>

i)   When power on, press "Power" button more than 8 seconds.
ii) All fan mode lamps, "Filter Reset" lamp and "Humidity ON/OFF" lamp are truned on, and press "Humidity ON/OFF" button more than 3 seconds.

CHAPTER 3. EXPLANATION OF CIRCUITS

[1] CIRCUIT SCHEMATIC
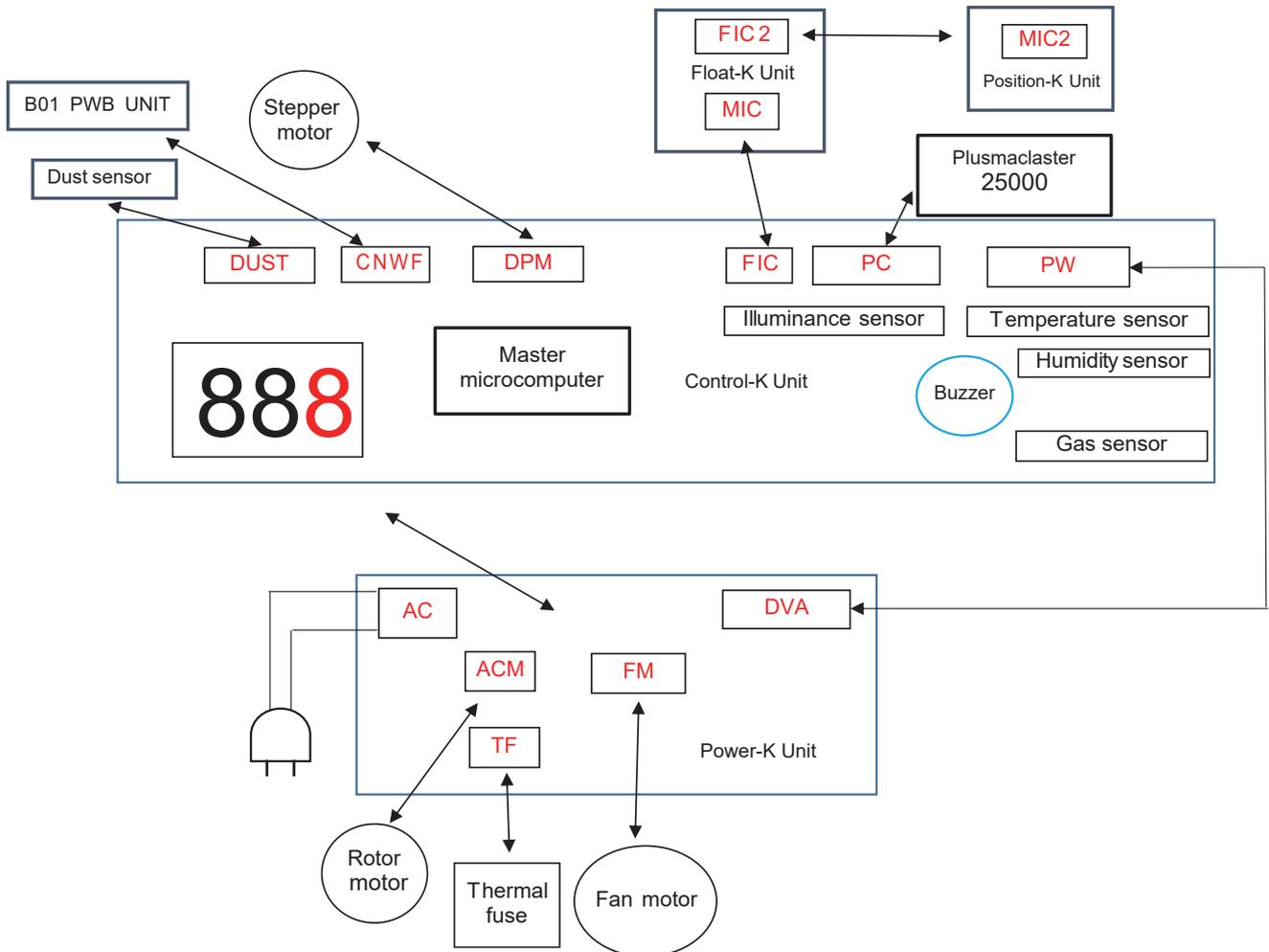
[2] TEST MODE

Electric verification mode

(1) The symbol explanation in the check list.

Output load · · · · · · ●:ON ×:OFF △:don't care

・FM · · · · · · · Output of DC fan motor

・HUM · · · · · · Output of humidity motor

・PCI · · · · · · · Output of PCI

・DMP · · · · · · Output of wind direction motor

Front side   Rear side

Close   Open

DMP
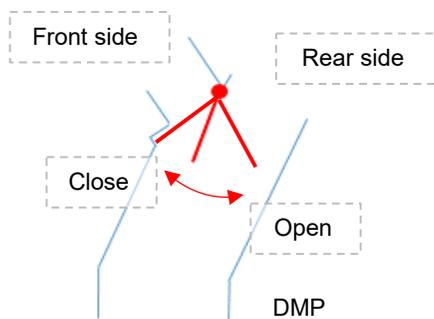
Operation lamp and Switch · · · · · · ●:ON ×:OFF ★:Blinking △:don't care

LED is white unless otherwise noted

LED5 LED4
LED6 LED3   Illuminance sensor
LED7 LED2   Gas sensor

LED17 LED16 LED15   LED14(red)   LED13   LED9(Orange)
LED20
LED11
LED12   LED10   LED8   LED1
LED24
SW7   SW6   SW5   SW4   SW3   SW2   SW1
LED25   Clean monitor (3-color)
LED19
LED23 LED22   LED21(Red/White)   LED18(Blue)
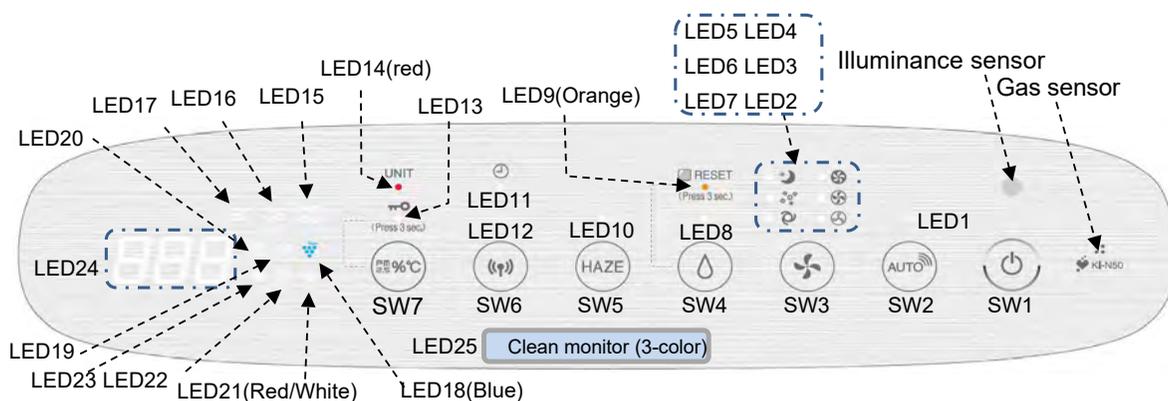
LED · · · · · · · ●:ON ×:OFF △:dont care

Button

No.	Name	Color
LED1	COCORO Air	White
LED2	Low	White
LED3	Med	White
LED4	Max	White
LED5	Sleep	White
LED6	Pollen	White
LED7	Auto	White
LED8	Humidification	White
LED9	Maintenance	Orange
LED10	HAZE/CIS/ANTI DUST(※1)	White
LED11	Timer	White
LED12	WiFi	White
LED13	Child Lock	White
LED14	Unit exchange	Red
LED15	PM2.5	White
LED16	Dust	White
LED17	Odor	White
LED18	PCI lamp	Blue
LED19	Cloud service	White
LED20	℃	White
LED21	Humidity On/Need water	White/Red
LED22	μg/m3	White
LED23	%	White
LED24	Segment	White
LED25	Clean monitor	R/G/B

No.	Name
SW1	Start / Stop
SW2	COCORO Air
SW3	Mode
SW4	Humidification
SW5	HAZE/CIS/ANTI DUST(※1)
SW6	Wi-Fi
SW7	Switch Display

※1 E/L/P/V:HAZE
TA:CIS
Y:ANTI DUST

[STEP.1]　　　Check all lamp is turned on.

AC power on with pushing 「Switch Display(SW7)」button and 「WiFi(SW6)」button, then enter inspection mode with buzzer (sound short time). Press and hold 「Switch Display(SW7)」 to make the buzzer sound (short time).

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)(LED18) (LED14) (LED11) (LED9) (LED23) (LED22)(LED21)
1	FM	PCI	HUM	DMP	
	ON (Max)	OFF	ON	Standard (9 sec) *1	℃ ☁ (LED8) % *3 (LED13) (LED12) *4 (LED10) (LED24) (LED1) (LED5)(LED4) (LED6)(LED3) (Clean monitor)⇒ Grean *2 (LED7)(LED2) (LED25)

*1　DMP stops at the Standard position. About 9 second that DMP stop.
*2　「Clean monitor」 is green.
*3　Indicator lights both red and white.
*4　After pressing 「Switching Display(SW7)」 button 3 seconds, ((♠)) Indicator turns OFF.

[STEP.2]　　　Check code of model, Lamps.

Push 「SHARP COCORO AIR(SW2)」button, sound buzzer (short time), go to STEP.2.
　※ If cannot come STEP.2 with push 「SHARP COCORO AIR(SW2)」button at STEP.1(buzzer sound pi pi pi), PCB's problem.
　　　Indicator turns off : breakdown of Power clock.

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)(LED18) (LED14) (LED11) (LED9) (LED23) (LED22)(LED21)
2	FM	PCI	HUM	DMP	
	ON (Max)	(OFF) ↓ ON *5	ON	OFF *1	*6 Refer to Table.1 × × × × × × × (LED13) (LED12) × (LED10) (LED8) × (LED1) *7 (LED24) (LED5)(LED4) (LED6)(LED3) (Clean monitor)⇒ Red *7 (LED7)(LED2) (LED25)

*5　A few seconds from start STEP.1, PCI output is off.
*6　Check code of model.　　　　　　　　※ Check to display that code and "22" are being shown alternately.
　　Table.1
　　KI-N50E-H　　:1d
　　KI-N40E-H　　:26
　　KI-N50L-W　　:1E
　　KI-N40L-W/H　:27
　　KI-N50P-W　　:1F
　　KI-N40P-W　　:28
　　KI-N50V-W　　:20
　　KI-N40V-W/H　:29
　　KI-N50TA-W　　:21
　　KI-N40TA-W/H　:2A
　　KI-N50Y-W　　:23
　　KI-N40Y-W/H　:2b
*7　「Clean monitor」 is red.　　　　　　　　lamp is red.

[STEP.3]　　　Check control program version and Lamps.

Push 「Mode(SW3)」button, sound buzzer (short time), go to STEP.3.

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)(LED18) (LED14) (LED11) (LED9) (LED23) (LED22)(LED21)
3	FM	PCI	HUM	DMP	
	Don't care.				*8 Refer to Table.2 × × × × × × × (LED13) (LED12) × (LED10) (LED8) × (LED1) (LED24) (LED25) (LED5)(LED4) (LED6)(LED3) (Clean monitor)⇒ Blue *9 (LED7)(LED2)

*8　Check Program version.　　　　　※ Check to display that version and "33" are being shown alternately.
　　Table.2
　　Program version = "04" or higher
*9　「Clean monitor」 is blue.

20

[STEP.4]   Check Lamps and Measure ion density.

Push 「Humidification(SW4)」button, sound buzzer (short time), go to STEP.4.

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)(LED18) (LED23)(LED22)(LED21) (LED14) (LED11) (LED9)
	FM	PCI	HUM	DMP	
4	ON (Max)	ON	ON	OFF	**44** (LED24) (LED8) (LED13) (LED12) (LED10) (LED5) (LED4) ×(LED1) (LED6) (LED3) (LED7) (LED2)
				*1	(Clean monitor)⇒ ×(OFF) *10 (LED25)

*10 「Clean monitor」 is turned off.

[STEP.5]   Check sensors, Fan motor.

Push 「HAZE/CIS/ANTI DUST(SW5)」button, sound buzzer (short time), go to STEP.5.

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)(LED18) (LED23)(LED22)(LED21) (LED14) (LED11) (LED9) *16
	FM	PCI	HUM	DMP	
5	Don't care.				℃ *11 (LED24) ★ △ *17 (LED12) (LED10) (LED8) *15 *13 (LED13) ×(LED1) *14 (LED5) (LED4) (LED6) (LED3) (LED7) (LED2)
					(Clean monitor)⇒ Grean *12 (LED25)

*11 **Check displayed temperature value.**   Check to display that temperature value and "55" are being shown alternately.
   Check the temperature value and atmosphere temperature are not great difference.

*12 「Clean monitor」 is green.
   (During the output value is not statability, 「Clean monitor」 is turned off. At least, 15 seconds need from STEP.1.
   But when re-start from short time blackout, wait 15 seconds (Gas sensor stable time), then check it.

*13 ⊶ lamp is blinking. (Turns off until the dust sensor test is ready.)

*14 **Illuminance sensor check.**   It confirm that "SHARP COCORO AIR" LED turns on when sensor detects "light",
   turns off when sensor detects "dark".

*15 **Check of Float Switch.**   Humidify Indicator is white when float switch is on, it turns red when float switch is off.
   You need to check switch is both on and off.

*16 Don't care.   ❀ lamp is turned off when checking FM. If pass, then turn on.

*17 Don't care.

[STEP.6]   Check sensors, fan motor.

・Gas (ethanol vaporization gas) is blown into Gas sensor.   ※It is invalid when 「Clean monitor」 is not green at STEP.5.
・Give dust to the dust sensor with a handkerchief or the like.   ※ It is invalid when 「⊶」lamp is not blink at STEP.5.

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)(LED18) (LED23)(LED22)(LED21) (LED14) (LED11) (LED9) *20
	FM	PCI	HUM	DMP	
6	Don't care.				℃ *11 (LED24) ● ● *21 (LED12) (LED10) (LED8) *15 *19 (LED13) (LED25) × (LED1) *14 (LED5) (LED4) (LED6) (LED3) (LED7) (LED2)
					(Clean monitor)⇒ Red *18

*18 **Check Gas sensor.**   After blown gas to Gas sensor, 「Clean monitor」 is changed from green to red. Red is PASS.
   ≋ lamp turns on.

*19 **Check Dust sensor.**   It confirm that ⊶ LED changes from flashing to lighting when
   giving dust to the dust sensor with a handherchief or the like.
   And finally ❄ lamp turns on.

*20 Check Fan motor.   Check ❀ lamp is turned on, then PASS.
   (When Fan motor maintains target rotation within 20 rpm for more than 3 seconds, ❀ lamp turns on.)

*21 Lan module circuit check. (Nocheck required in inspection mode for service personnel.)
   It confirm ((•)) lamp turns on. (If it takes 60 seconds from test start, check is NG.)
   If wrong type of wireless module is installed, flashed and 「WiFi(SW6)」button is invalid.

[STEP.7]　　　　Check humidity sensor, position sensor.

Push「WiFi(SW6)」button, sound buzzer (short time), go to STEP.7.
※「WiFi(SW6)」button is invalid until all check are PASS. (Gas, Fan, Float Switch)

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)（LED18） (LED23) (LED22)（LED21） (LED14) (LED11) (LED9) ×☽ ×❀ ×❄ ×❀ (LED8) ×↻ ●❀ ×(LED1)
7	FM	PCI	HUM	DMP	
	ON (Low) *24 *25	ON	ON	OFF ↓ open & close *26	***22** (LED24) % × × ***23** × × × (LED13) (LED12) (LED10) *25 (LED5) (LED4) (LED6) (LED3) (LED7) (LED2) (Clean monitor)⇒ ×(OFF) (LED25)

*22 **Check displayed humidity value.**　　　Check to display that humidity value and ″77″ are being shown alternately.
⇒ Check the humidity value and atmosphere humidity are not great difference.
When the ″Lo″ are lit in 7SEG, it must be reinspected in a proper environment (Table.3).
If the ″Lo″ are lit in 7SEG again, CONTROL UNIT must be replaced.
Table.3

Temperature	Humidity
More than 20℃	More than 30%

*23 **Check PCI lamp. ❀ lamp turns on, then PASS.**
After 3 minutes from start FCT, if not turns ❀, then position switch NG.
(Position sensor's status change OFF to ON, then turns on. If not, buzzer sound until status change.)
If「HAZE/CIS/ANTI DUST(SW5)」button is pushed, then buzzer sound stops.

*24　After the Fan motor's rotation is Low, check no allophones. (allophone of fan rotation, pci discharge, etc)

*25　When「Mode(SW3)」button is pushed each time, check the fan motor speed change (Low→Med→Max→Low→・・・)
and「Mode」lamp change.

*26　When「SHARP COCORO AIR (SW2)」button is pushed, check the internal louver repeat movement of open and close.

*27 **MAC address display.**　　※Guaranteed by Wireless module, it is excluded from inspection items, if you can check.
When SW104 is pushed , display last two figures of a number of MAC address. If push again, return ″77″.
If data can not be acquired, ″--″ is displayed.

*28　WiFi module version check
After ″Wifi button″ is pushed , check digital display ″Humidity(%) and ″Wireless module version″. If push again, return ″77″.
⇒ Check that the wireless module version is ″04″ or more.　If data can not be acquired, it is not possible to proceed to the next step.
If data can not be acquired, ″F0″ is displayed.

[STEP.8]　　　　Check turn on「88」display.

Push「Switching Display (SW7)」button, sound buzzer (short time), go to STEP.8.
※「Switching Display(SW7)」button is invalid until the「Unit change」Indicator turns on at STEP No.7.

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)（LED18） (LED23) (LED22)（LED21） (LED14) (LED11) *29 (LED9) ● ×☽ ×❀ ×❄ ×❀ (LED8) ×↻ ×❀ ×(LED1)
8	FM	PCI	HUM	DMP	
		Don't care.			***30** (LED24) × µg/m³ × × × × (LED13) (LED12) (LED10) (LED5) (LED4) (LED6) (LED3) (Clean monitor)⇒ ×(OFF) (LED25)

*29 **Check「RESET」turns on.**
When「Switching Display (SW7)」button is pushed, initialize memory of user information. (LSI-1)

*30　Check digital display ″88″and PM2.5 density(″Lo″ or ″1〜49″ or ″Hi″) mutually. (Display value = Estimated value / 10)
Check that there is not much difference with the ambient density.

[STEP.9]　　　　How to finish ELECTRIC TEST.

Push「Start/Stop(SW1)」button, sound buzzer (long time = 0.5 second), finish ELECTRIC TEST.

No	Output of loads				Status of Display
	Fan motor	PCI	Humidity motor	Damper	(LED17) (LED16) (LED15) (LED20) (LED19)（LED18） (LED23) (LED22)（LED21） (LED14) (LED11) (LED9) ×☽ ×❀ ×❄ ×❀ (LED8) ×↻ ×❀ ×(LED1)
9	FM	PCI	HUM	DMP	
	OFF	OFF	OFF	standard (9 sec)	× (OFF) (LED24) × × × × × × (LED13) (LED12) (LED10) (LED5) (LED4) (LED6) (LED3) (LED7) (LED2) (Clean monitor)⇒ ×(OFF) (LED25)

・ Check all lamps are turned off.

・ Check fan motor is not rotation, PCI is not discharge.

・ The memory data is not initialized. If you want to initialize the data, see the section on MEMORY RESET OPERATION.

22

[3] ERROR MODE

Error mode is a self-diagnostic function that uses sensors to detect abnormal conditions and failures in the unit and circuits, and executes load operation and error displays based on what is detected.

List of error mode

[888] Lamp	Error mode	Operation	How to cancel
C1	Fan motor rpm error	stop	Power off, power (ON/OFF) Button
E2	Humidification "off" position detection	continue	Power off, power (ON/OFF) Button FloatSW off⇒on
C4 (＊1)	Temperature sensor error	continue	Power off, power (ON/OFF) Button
C6 (＊2)	Communication between microcomputers(dust sensor)	continue	Power off, communication recovery
C8	PCI unit data error	continue	Power off, power (ON/OFF) Button
E9	PCI unit connector disconnected error	continue	Power off, power (ON/OFF) Button

*1: "℃" and "C4" blinks.
*2: "μg" and "C6" blinks.

1. Fan motor rpm error「C1」

(1) Overview
　Error mode that activates when locking of the fan motor or an open connector is detected.
(2) Detection time and condition to occur
　During all modes when unit is running.
　This error mode activates when rotation of the fan motor can not be detected.
(3) Load operation
　All loads are immediately turned off and operation is stopped.
(4) Error display
　"C1" indication flashes in [888] Lamp.
(5) Button operation
　Only power (ON/OFF) button is effective.
(6) Solution
　1) Unplug the AC plug from the outlet and wait for about 1 minute to cancel.
　　However, it becomes same error mode if the cause is not removed.
　2) Check that the connector of the fan motor is inserted, otherwise, replace the fan motor or the circuit board.

2. Humidification "off" position detection error 「E2」

(1) Overview
　Error mode that operates when a humidifying filter motor lock or connector open is detected.
　Same error mode also occurs if humidifying Filter is not installed.
(2) Detection time and conditions to occur
　During all modes when unit is running.
　This error mode activates when there is not the state change of the position detection SW during humidifying motor operating for 4minutes.
(3) Load operation
　The humidifying motor turns off, and the humidifying operation stops. Other operation continues.
(4) Error display
　"E2" indication flashes in [888] Lamp while humidification is "on".
　This error mode is not indicated while humidification is "off" .
　Other indicators are in the same before this error occurred.
(5) Button operation
　All buttons are effective as usual.
(6) Solution
　Power (ON/OFF) button of the main body is pushed.
　Also, unplug the AC plug from the outlet and wait for about 1 minute to cancel.
　It is removed by the change of the operation mode. (Not removed by the change of the fan mode.)
　When the float switch detects a change of "there is no water" to "there is water" during operation, it is automatically canceled.
　However, it becomes same error mode if the cause is not removed.

3. Temperature sensor error 「C4」

(1) Overview
Error mode that activates when a short-circuit or broken wire is detected in the circuit to detect temperature.
Operation of all modes continues and the unit can be operated normally.
(2) Detection time and conditions to occur
During all modes when unit is running.
(3) Load operation
All load outputs continue normal operation (assume the temperature is 20°C).

(4) Error display
"C4" indication flashes in [888] Lamp.(*1)
Other indicators are in the same before this error occurred.
(5) Button operation
All buttons are effective as usual.
(6) Solution
This error mode automatically canceled when A/D input of temperature sensor is in the normal range.
(7) Notes
Humidity sensor error does not occur in this models.
*1: "℃" and "C4" blinks.

4. Communication between microcomputers error 「C6」

(1) Overview
Error mode that activates when the communication between LSI1(MASTER) and LSI2(SLAVE)becomes interrupted.
(2) Conditions to occur
It detects when normal data transmission / reception has been interrupted for 8 seconds or more.
(3) Load operation
All load output is turnd off when communication between microcomputers(operation) error occurred.
In the other cases, continue operation.
(4) Error display
Communication between microcomputers(dust sensor) error C6 flash.(*2)
Other indicators are in the same before this error occurred.
(5) Button operation
All buttons are effective as usual.
(6) Solution
This error mode automatically canceled when the communication between microcomputers is restored.
*2: "μg" and "C6" blinks.

5. Plasmacluster Unit data error 「C8」

(1) Overview
Error mode that activates when there is a problem with Plasmacluster Unit.
① Communication error
When communication error occurs in EEPROM.
② Imitation
When Plasmacluster unit is imitation.
③ Data error
When the unit operation total time data is abnormal.
(2) Detection time and conditions to occur
① Communication error
When writing data to EEPROM and reading data.
② Imitation
When reading data to EEPROM.
③ Data error
When reading data to EEPROM.
When unit is running,
① Communication error
When the EEPROM signal could not be checked three times consecutively.
② Imitation
When the value of the EEPROM address does not match the predetermined value.
③ Data error
When unit operation integration time is abnormal.

(3) Load operation
Plusmacluster unit output is stopped and plusmacluster ion sign is turned off.
Operation is continued. Except for the ion on / off operation, the other operations can be performed as usual.
(4) Error display
"C8" indication flashes in [888] Lamp.
(5) Button operation
All buttons are effective as usual.
(6) Solution
Power (ON/OFF) button of the main body is pushed.
However, it becomes same error mode if the cause is not removed.

6. PCI unit connector disconnected error 「E9」

(1) Overview
Error mode that activates when PCI unit connector disconnection is detected.
(2) Detection time and conditions to occur
During all modes when unit is running.
When detecting "OFF" of unit missing detection input level during operation.
(3) Load operation
Plusmacluster unit output is stopped and plusmacluster ion sign is turned off.
Operation is continued. Except for the ion on / off operation, the other operations can be performed as usual.
(4) Error display
"E9" indication flashes in [888] Lamp.
(5) Button operation
All buttons are effective as usual.
(6) Solution
Power (ON/OFF) button of the main body is pushed. Unplug the AC plug from the outlet.
Reattach plusmacluster unit and remove the cause of abnormality such as contact failure.
However, it becomes same error mode if the cause is not removed.

CHAPTER 4. TROUBLESHOOTING GUIDE

[1] TROUBLESHOOTING

No.	Trouble	Possible cause and symptom	Remedy
1	The unit does not run.	Wiring failure	Check connector insertion; repair or replace
		When rotated by hand, the fan is very heavy (motor failure + blown board current fuse.)	Replace motor and PWB ass'y.
		Blown current fuse [FUSE1] on power supply board K.	Inspect motor and then replace board (rotate fan by hand and if very heavy, replace motor and board).
		Blown current fuse [FUSE1] on power supply board K and damaged varistor [VRS1]	Replace PWB ass'y
		PWB ass'y failure	Replace
		Broken wire in power cord	Replace
2	″C1″ displays it doesn't run.	Motor harness not correctly inserted in board	Insert connector
		Motor failure	Replace
		PWB ass'y failure	Replace
3	″C4″and ″℃"displays.	The PWB unit is defective.	Replace PWB unit (control)
4	″E2″ displays Air & Humidify Mode doesn't run Humidify filter ass'y doesn't rotate or rotate too slowly.	Humidification motor failure	Replace
		Humidification motor ass'y failure (ex. Motor gear failure)	Repair or Replace
		Humidification filter ass'y failure (ex. Absent magnet)	Repair or Replace
		Position PWB installation or humid filter harness has not been correctly inserted in board.	Connector insertion or Replace
		PWB ass'y failure	Replace
5	″C8″ displays.	7P PC harness has not been correctly inserted, or disconnecting.	Connector insertion
		Plasmacluster unit failure	Replace
		PWB ass'y failure	Replace
6	″E9″ displays.	7P PC harness has not been correctly inserted, or disconnecting.	Connector insertion
		Defective plasmacluster unit installation	Repair
		Plasmacluster unit failure	Replace
		PWB ass'y failure	Replace
7	″C6″ and "μg" displays.	Dust sensor harness has not been correctly inserted, or disconnecting.	Connector insertion
		Dust sensor failure	Replace
		PWB ass'y failure (control)	Replace
8	Unit immediately resets. (operation stops)	PWB ass'y failure	Replace
9	No response when button pressed.	Assembly failure	Repair or Replace
		Pasting fault of conductive cushion PWB ass'y failure (operation)	Replace operation PWB Unit

No.	Trouble	Possible cause and symptom	Remedy
10	Abnormal noise is heard.	Defective motor installation	Repair
		Defective fan installation	Repair or Replace
		Motor failure	Replace
		Defective fan shape	Replace
		Foreign object getting inside	Remove foreign object
		Humidification motor ass'y failure	Replace
		Defective Humidification motor ass'y installation	Repair or Replace
		Humidification filter ass'y failure	Repair or Replace
11	Monitor does not display normally.	Unit used in a location such as a kitchen where there is oily smoke or soot.	Clean sensor and or replace part/board.
		Defective wiring	Repair or replace
		Dust sensor failure	Replace dust sensor
		Odor sensor failure	Replace odor sensor
		PWB ass'y failure	Replace PWB ass'y
12	Does not humidify.	Lifetime of humidifying filter	Replace humidifying filter (charge required)
		Tank cap defective	Replace tank cap
		PWB ass'y failure	Replace
13	The water of the tank do not decrease.	Lifetime of humidifying filter	Replace humidifying filter (charge required)
		Tank cap defective	Replace tank cap
14	The water supply indicator light doesn't flash even if water is lost.	Float defective	Replace
		PWB ass'y failure	Replace PWB ass'y (display or float)
15	The water supply indicator light flash even if water is put in.	Float defective	Replace
		PWB ass'y failure	Replace PWB ass'y (display or float)
16	The wind of the air outlet smells.	The odor which is stained in the HEPA filter is discharged.	Replace HEPA filter (charge required)
		The odor which is stained in the Deodorizing filter is discharged.	Replace deodorizing filter (charge required)
		There is a smell even if the humidifying filter is maid maintenance as shown in the manual.	Replace humidifying filter (charge required)

Not a failure

Problem	Not a failure	
	Cause and symptom	Remedy
1 Abnormal noise is heard.	Unit sometimes makes a clicking sound.	This sound is made when plasmacluster ions are generated. Advise people who are bothered by this sound to place the unit farther away. The intensity of the sound varies (sometimes it is almostimperceptible) depending on the humidity in the room. however, the plasmacluster ion effect is the same.
	Unit makes a bubbling sound.	This is the sound of air entering the tank when it is supplying the humidifying tray with water.
2 Air blown out has unpleasant odor.	Unpleasant odor emitted from Humidification filter.	Maintain the Humidifying filter. When cannot be repaired, exchange. (charge required)
	Unpleasant odor emitted from Deodorizing filter.	Maintain the Deodorizing filter. When cannot be repaired, exchange. (charge required)
	Unpleasant odor emitted from HEPA filter.	Maintain the HEPA filter. When cannot be repaired, exchange. (charge required)
3 The water supply indicator light doesn't flash even if water is lost.	Does dirt and the foreign body adhere to the float and the tray and does not the movement of the float worsen.	Maintain the humidifying tray. When cannot be repaired, exchange. The tray is not correctly installed. Tray insertion.
	Humidity is getting to target?	The unit automatically controls humidity by sensing temperature and humidity. (Except MAX / MED / LOW mode.) The indicator light doesn't flash when humidificationdon't need.
4 The water supply indicator light doesn't go off even if water is put in.	Does dirt and the foreign body adhere to the float and the tray and does not the movement of the float worsen?	Maintain the humidifying tray. When cannot be repaired, exchange. The tray is not correctly installed. Tray insertion.
5 Filter indicator light dose not turn off.	After replacing the filters, connect the power cord to an outlet and press the Filter Reset Button.	Advise customer to be sure to press the Humidify ON/OFF button for 3 seconds after making maintenance ofthe filter.
6 The water of the tank does not decrease.	The Humidifying filter is not maintained.	Maintain the Humidifying filter. When cannot be repaired, exchange. (charge required)
	The HEPA filter and Deodorizing filter is not maintained.	Maintain the HEPA filter and Deodorizing filter. When cannot be repaired, exchange. (charge required)
7 Does not humidify.	The Humidifying filter is not maintained.	Maintain the Humidifying filter. When cannot be repaired, exchange. (charge required)
	The HEPA filter and Deodorizing filter is not maintained.	Maintain the HEPA filter and Deodorizing filter. When cannot be repaired, exchange. (charge required)

TROUBLESHOOTING

Before calling for service, please review the Troubleshooting list below, since the problem may not be the product malfunction.

Odor and smoke persists.
• Check the filters. If they appear to be extremely dirty, clean or replace them.

Air discharged from the product has an odor
• Check to see if the filters are extremely dirty.
• Clean or replace the filters.
• Use only fresh tap water. Using other water sources risks the growth of mold, fungi, or bacteria.

The product does not operate when cigarette smoke is in the air.
• Make sure the product is installed in a location in which the sensors can detect cigarette smoke.
• Check to see if the Sensitive Dust Sensor openings are blocked or clogged. If they are blocked or clogged, clean the Sensor Filter or the Back Panel.

Smell from a new product and/or filter.
• Immediately after removing the plastic bag, a slight odor may occur. This odor is not harmful for filter performance or human exposure.

The product makes a clicking or ticking sound.
• The product may make clicking or ticking sounds when it is generating ions.

The Cleanliness Indicator is blue or off even when the air is not clean.
• The air may have been dirty when the product was plugged in. Unplug the product, wait one minute, and then plug the product in again.

The Cleanliness Indicator is red even when the air is clean.
• Dirty or clogged Sensitive Dust Sensor openings interfere with sensor operation. Gently clean the Sensor Filter or the Back Panel.

The Cleanliness Indicator changes color frequently.
• The Cleanliness Indicator automatically changes color when the Sensitive Dust Sensor and Odor Sensor detect impurities. If you are concerned about the change, you can change sensor sensitivity.

Filter Maintenance Lamp is on.
• Whenever after performing maintenance or replacing the Humidifying Filter, connect the power cord to an outlet and then touch the Filter Reset Button for more than 3 seconds.

The Display is turned off.
• When the Light Control is set to "Auto", the light automatically turns off when the room is dark or operating in sleep mode. Moreover, when the Light Control is set to "Turn off", the light is always off.
If you do not want the light to be off, set the Light Control to the "Dim" setting.

The display does not match weather report or another hygrometer or thermometer in the room.
• Outdoor and indoor as well as the home environment (the volume of traffic nearby, number of stories in home, etc.) may cause a reading different than those data.
• There is a difference in the level within the same room.

The Humidify Indicator on the Front Display does not light up when the tank is empty.
• The room has reached the appropriate level of humidity and has stopped humidifying.
• Check the styrofoam float for impurities. Clean the Humidifying Tray. Make sure that the product is on a level surface.

The water level in the tank does not decrease or decreases slowly.
• Check to see if the Humidifying Tray and Water Tank are correctly installed.
• Check the Humidifying Filter. If the filter is extremely dirty, clean or replace it.

ERROR DISPLAY

E2	• Make sure that the Humidifying Filter, HumidifyingTray and Roller are properly installed, and then turn the power to ON again.
E9	• Make sure the Plasmacluster Ion Generating Unit inserted properly Pull out the Plasmacluster Ion Generating Unit and insert it to the end again, and then carry out the operation again.
C1 C4 **C6 C8** **– – –**	• Unplug the product, wait one minute, and then plug the product in again.
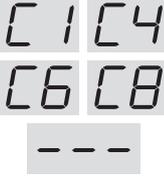
CHAPTER 5. REPLACEMENT OF MAIN PARTS

· During assembly of the unit following service, make sure that all screws are replaced in their original positions.
  The screws have different heads, diameter, and length depending on where the are used. In addition, verify that
  lead wires are not pinched and that connectors are inserted firmly.
· When you have finished assembling the unit , verify that it runs correctly using the buttons on the unit ,
  and make sure that there are no abnormal vibrations or sounds.
NOTE : Handling PWB assembly
  · Be sure to connect each harness correctly to the matching color indicated on the PWB assembly
    (Lock the harness in until you hear a "click" sound)
  · When handling PWB assembly, be sure to wear a grounding band for protection against electrostatic discharge.
    (The LSI (microprocessor), EEPROM, blue LED and 2 color LED are particularly susceptible to electrostatic discharge.)
  · Do not place PWB assembly on the styrofoam, mirror mats, or other material that may build up an electrostatic charge.
CAUTION: Remove the plug from the power outlet before servicing/disassembling the unit (danger of electrical shock).

[1] POINTS TO NOTE WHEN REPLACING PARTS

1.HOW TO REMOVE THE BACK PANEL

1)① Pull down the hooks on the top, and then pull the BACK PANEL forward.
② Remove the BACK PANEL while lifting up to remove the lower hooks (2 places).

BACK PANEL
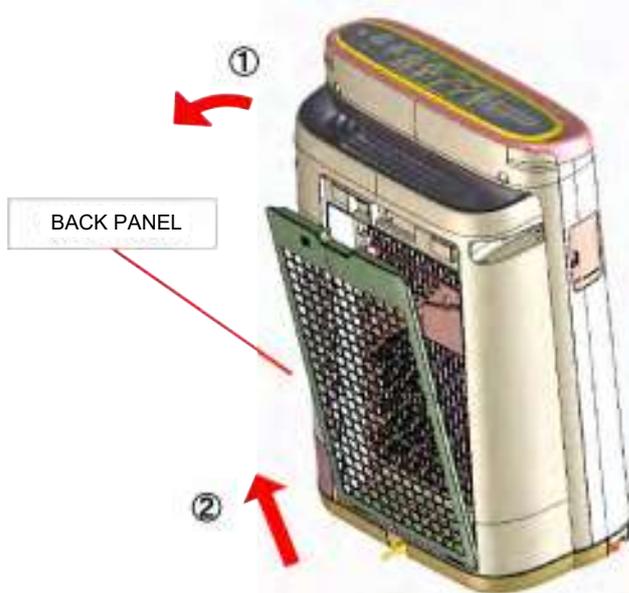
2.HOW TO REMOVE THE WATER TANK ASS'Y AND TANK CAP ASS'Y

1) Push the TANK HANDLE and remove the WATER TANK ASS'Y.
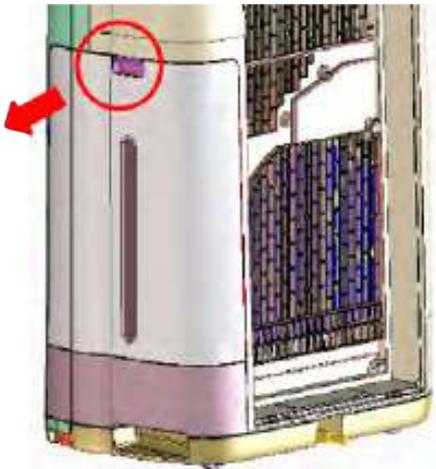
2) Twist and remove the TANK CAP ASS'Y.

TANK CAP ASS'Y

WATER TANK K
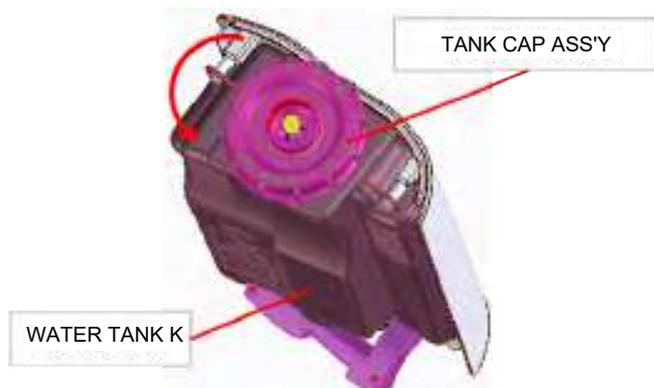
3.HOW TO REMOVE THE HUMID TRAY ASS'Y

1) Pull out the HUMID TRAY ASS'Y from the main unit and remove the TRAY SEPARATOR ASS'Y and the HUMID FILTER ASS'Y.

HUMID FILTER ASS'Y

TRAY SEPARATOR

CUSHION

HUMID TRAY
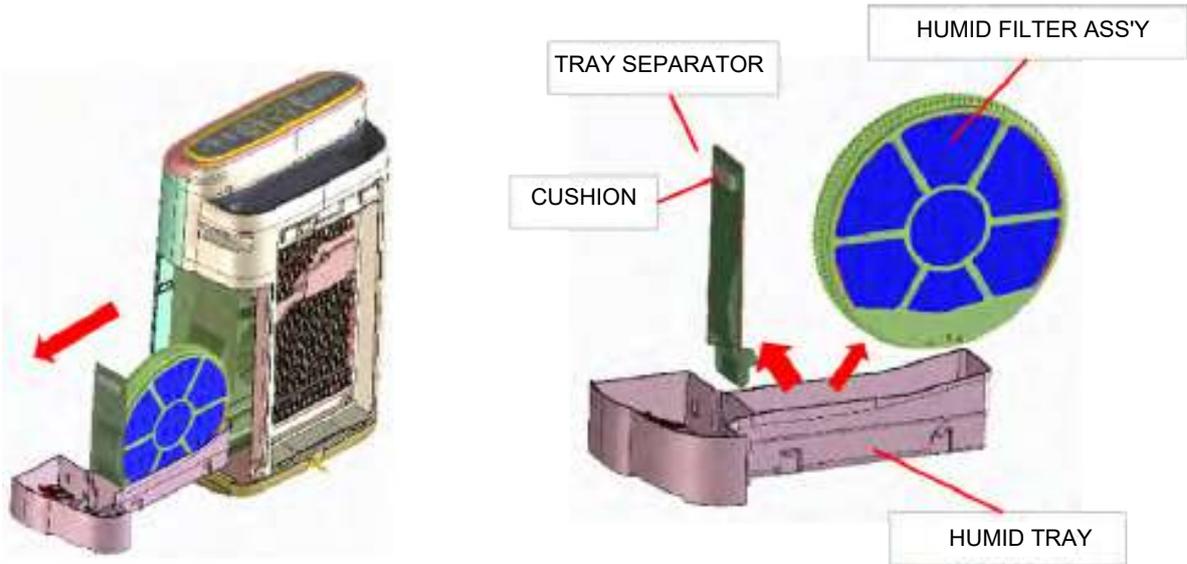
Cautions for assembly
When replacing the TRAY SEPARATOR, paste the CUSHON to it.

2) Exchange of the HUMID FILTER.
Release 6 hooks and remove the HUMID FILTER.

FILTER CASE A

HUMID FILTER

hooks (6 places)

FILTER HOLDER
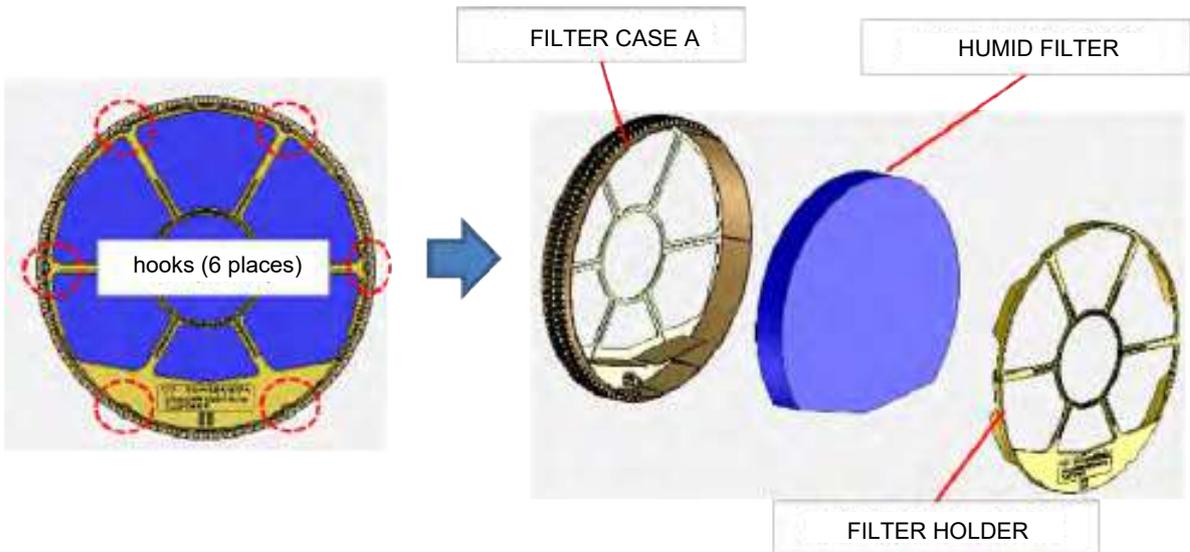
3) Exchange of the MAGNET.
 Release 2 hooks and remove the MAGNET.
 The white side of the MAGNET is on the front side.

hooks (2 places)

White side
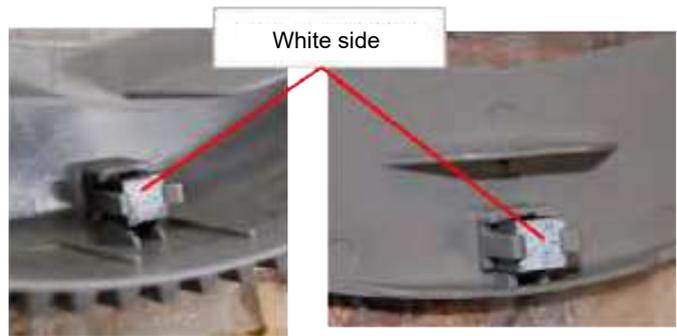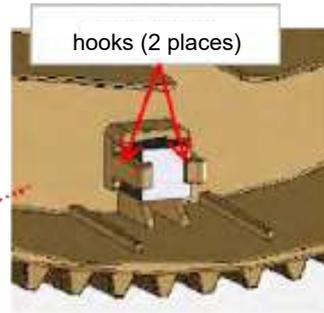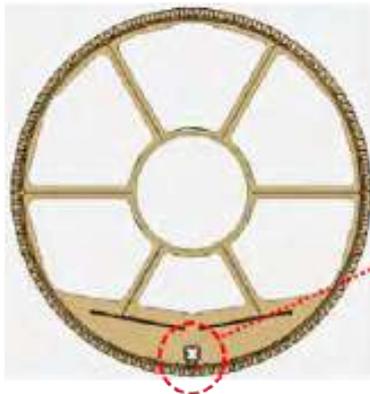
4) Disassemble the HUMID TRAY ASS'Y.
  ①Lift the ROTARY SHAFT and remove it.

ROTARY SHAFT
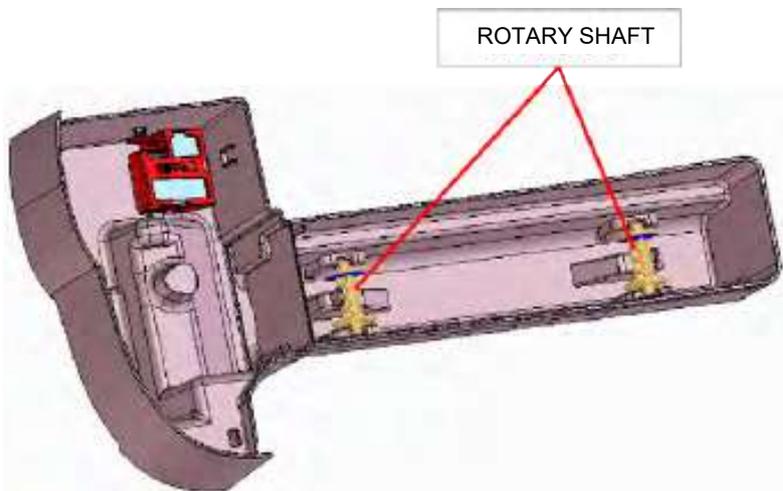
②Push the axis of the FLOAT ASS'Y to the inside and remove it.

HUMID TRAY

FLOAT ASS'Y
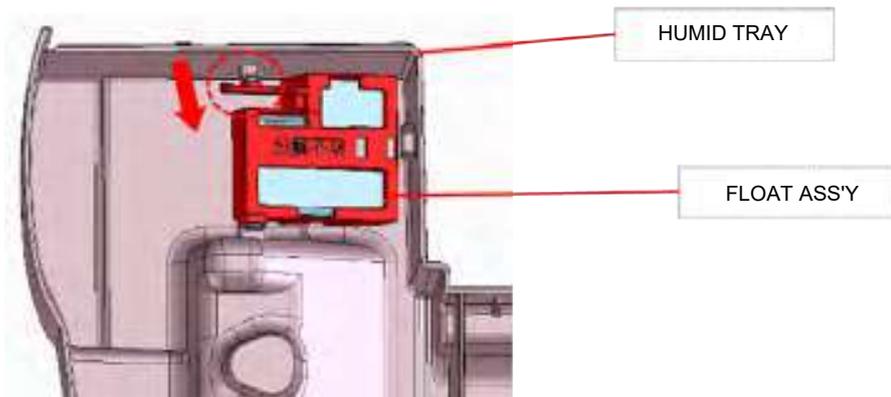
4.HOW TO REMOVE TH PLASMACLUSTER UNIT

1) Remove the UNIT COVER.

UNIT COVER

2) Remove the UNIT HOLDER.

UNIT HOLDER

3) Remove the PLASMACLUSTER UNIT.
①Open the hook of the UNIT HOLDER to the outside.
②Lift the PLASMACLUSTER UNIT.

hook

UNIT HOLDER

PLASMACLUSTER UNIT
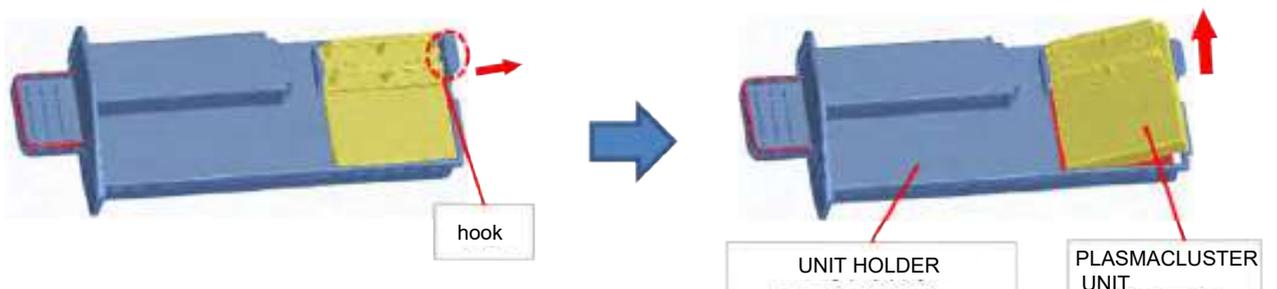
5.HOW TO DISASSEMBLY THE BACK CABINET ASS'Y.

1)After removing 9 screws and releasing 2 upper hooks, remove the BACK CABINET ASS'Y.
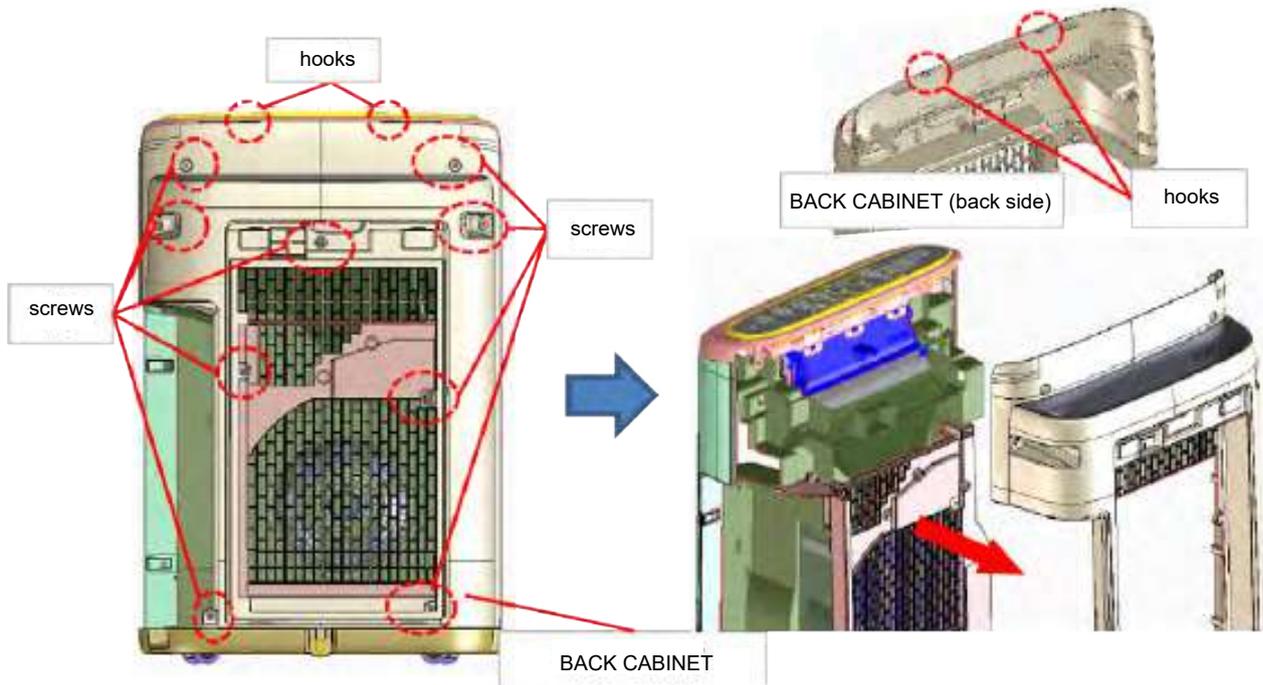
How to release the hooks

Sliding your hand inward between the TOP and BACK CABINET enables you to release the hooks without breaking the hooks.

2) Releasing 3 hooks and remove the OUTLET DUCT.
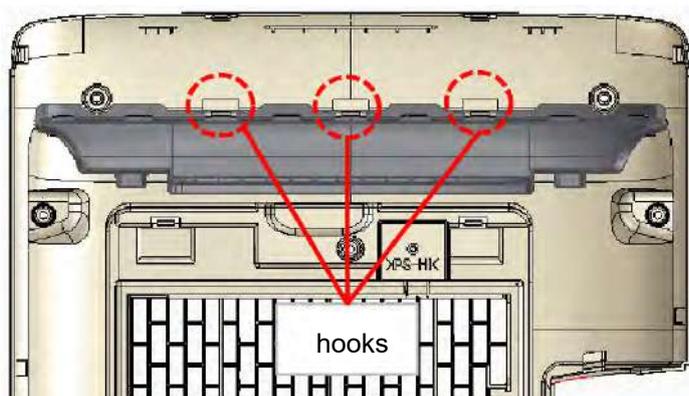
Release 4 hooks by pulling the OUTLET DUCT.
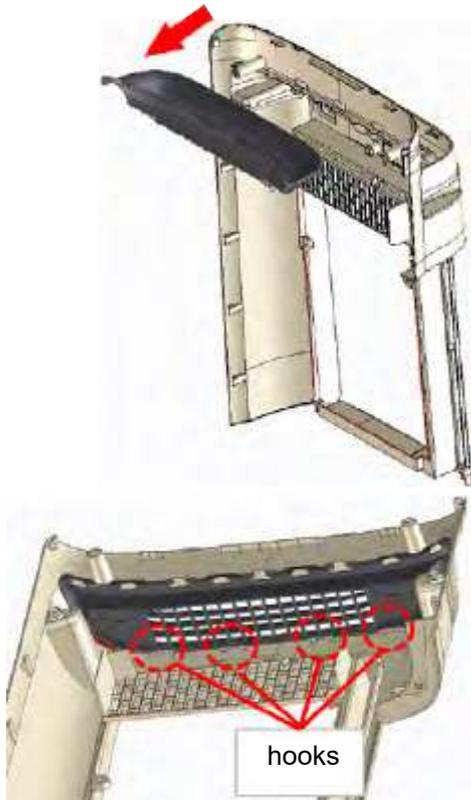
hooks

6. HOW TO DISASSEMBLY THE TOP CABINET ASS'Y

1) Release each connector.
2) Release 5 back hooks (after the middle 3, the left and right 2).
3) Release 3 front hooks and remove the TOP CABINET ASS'Y.

screws

TOP CABINET ASS'Y

hooks

hooks
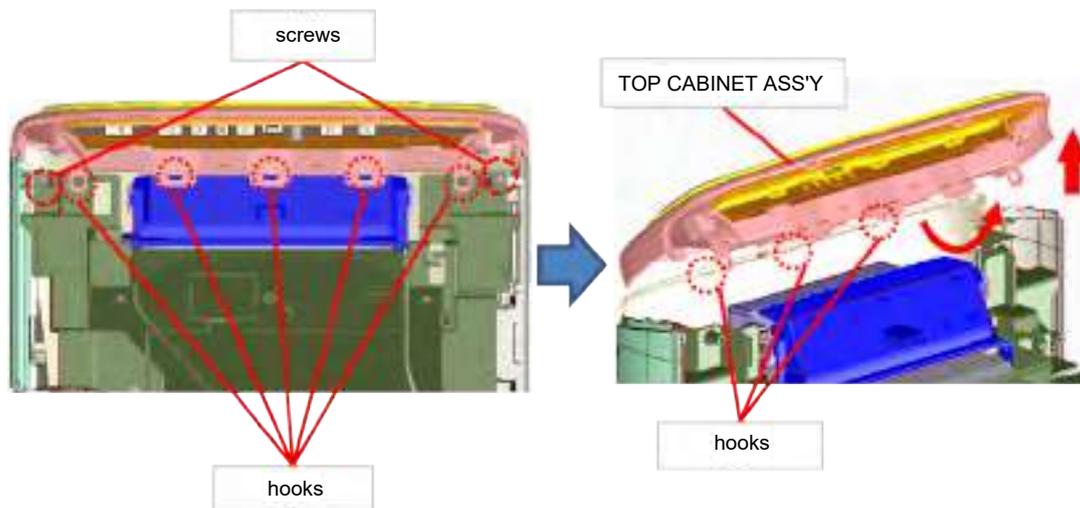
Cautions for assembly

Hang the harness to a hook except for the far left.

hooks
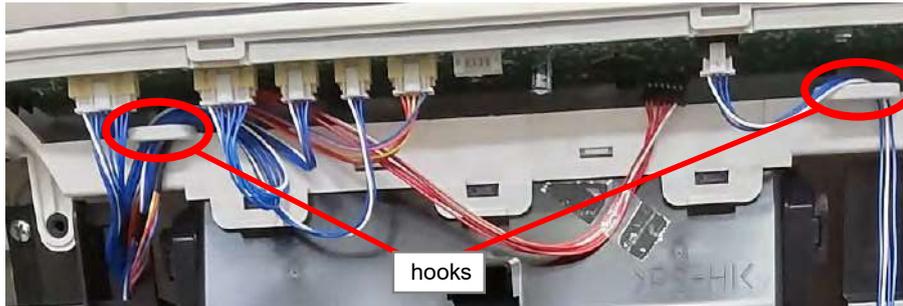
7.HOW TO REMOVE FRONT CABINET ASS'Y

1) Remove 5 screws.

screws

screws
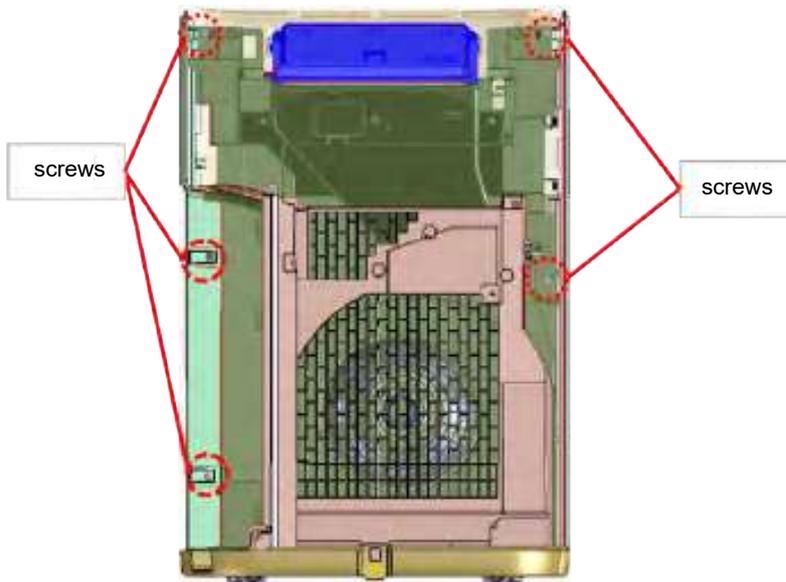
2) Remove FRONT CABINET ASS'Y.

Pull the FRONT CABINET diagonally up while pulling the top of the FRONT CABINET.

FRONT CABINET

FRONT CABINET
（back side）

hooks
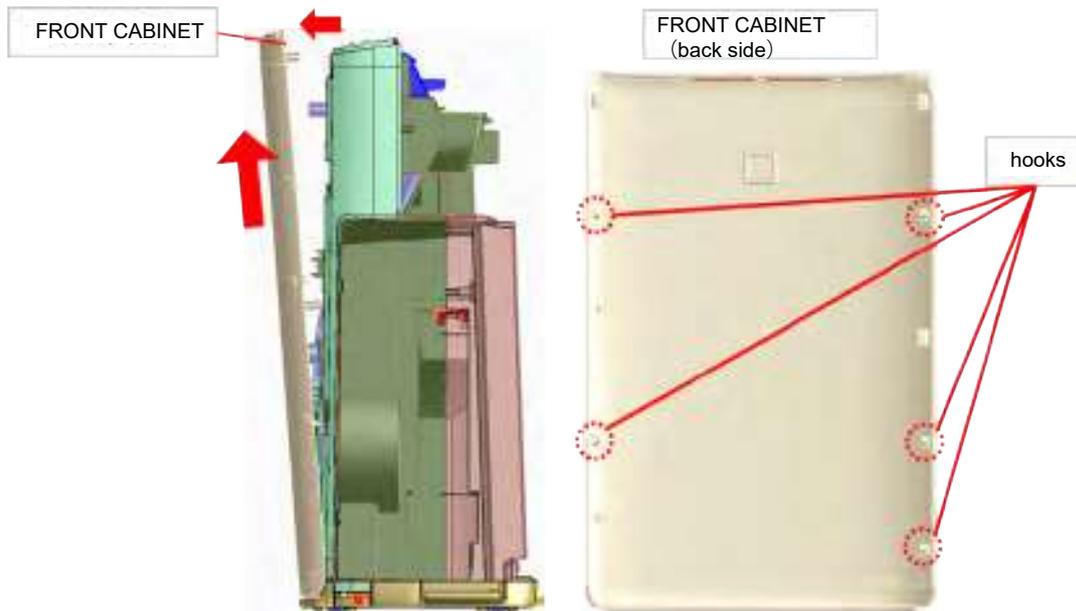
8. HOW TO REMOVE THE SIDE PANEL

1) Release a hook and remove the SIDE PANEL (both L and R).

hook

hook

SIDE PANEL R

SIDE PANEL L
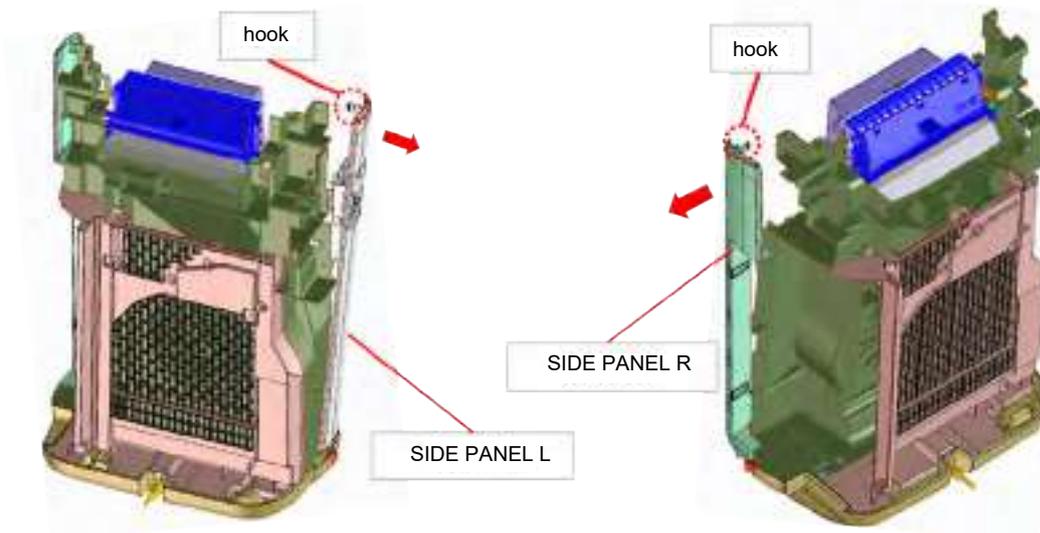
9. HOW TO REMOVE THE N50EC PS UNIT

1) After removing a screw and releasing a hook, remove the PWB UPPER BOX K.

hook
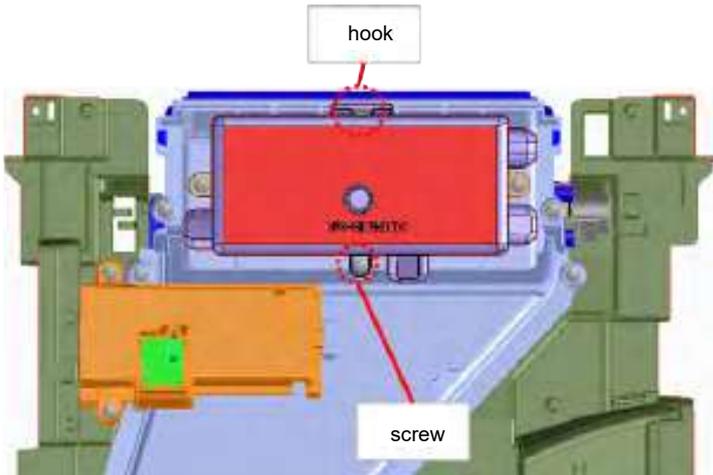
screw

2) Unplug the each connector.

3) Remove 2 screws and the PWB LOWER BOX ASS'Y.
Remove a screw and the N50EC PS UNIT.
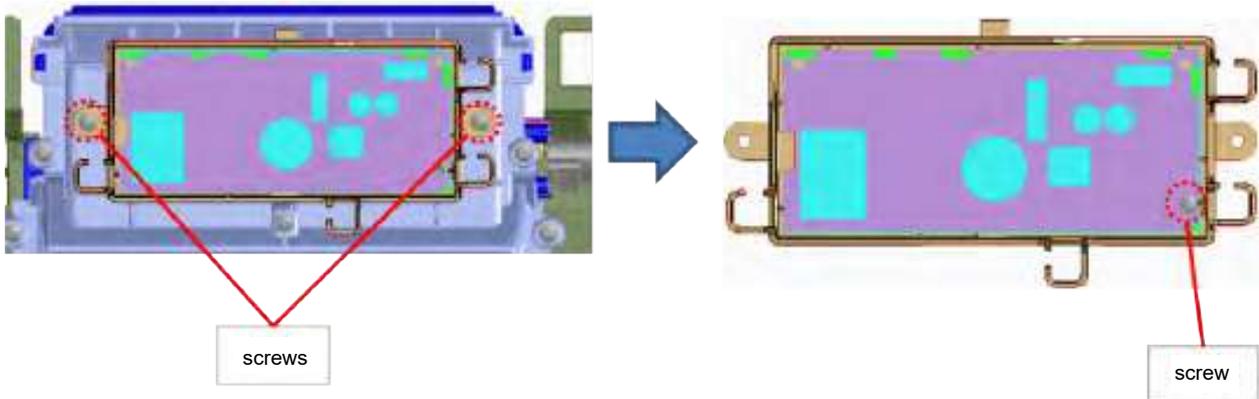
screws

screw

Cautions for assembly
When replacing the PWB LOWER / UPPER BOX, paste the MICA LOWER / UPPER to it.

10.HOW TO REMOVE THE TOP CABINET ASS'Y

1) Remove two screws and the TOP CABINET.

screws

TOP CABINET
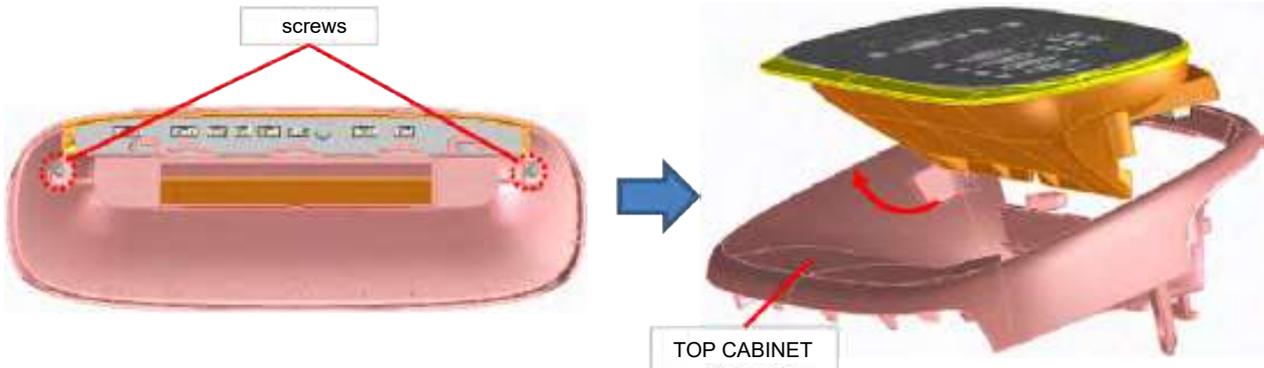
Cautions for assembly

When installing the OPERATION ASS'Y, be careful not to peel off the CUSHION.

When replacing the OPERATION COVER, paste the DAMPER CUSHION to it.

Press the OPERATION ASS'Y a little while entering

DAMPER CUSHION

2) Remove 3 screws.
Remove CONTROL UNIT while opening 2 hooks to the outside.

screws

hooks
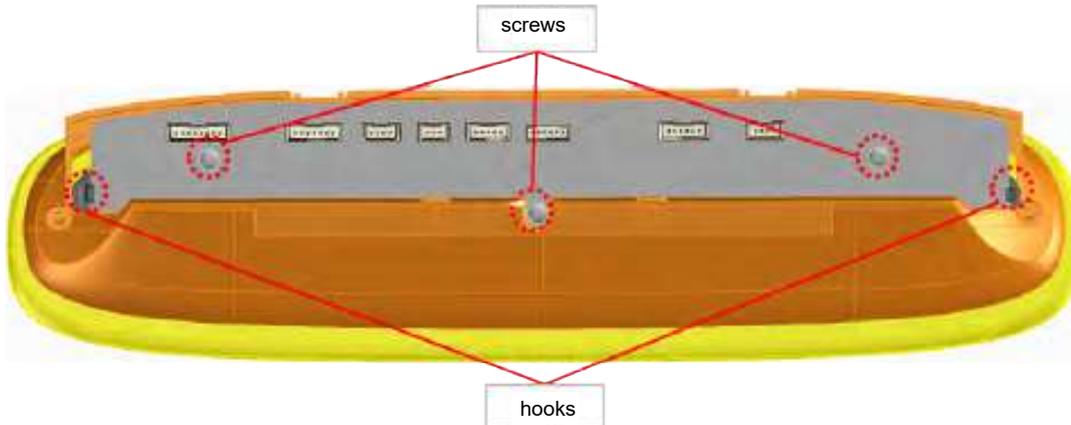
Cautions for assembly
Be careful not to bend the AMBIENT LIGHT SENSOR.

11.HOW TO REMOVE THE OPERATION ASS'Y

1) Peel off the KEY SHEET and remove 2 screws.

KEY SHEET

SHADING CUSHION

OPERATION PANEL

screws
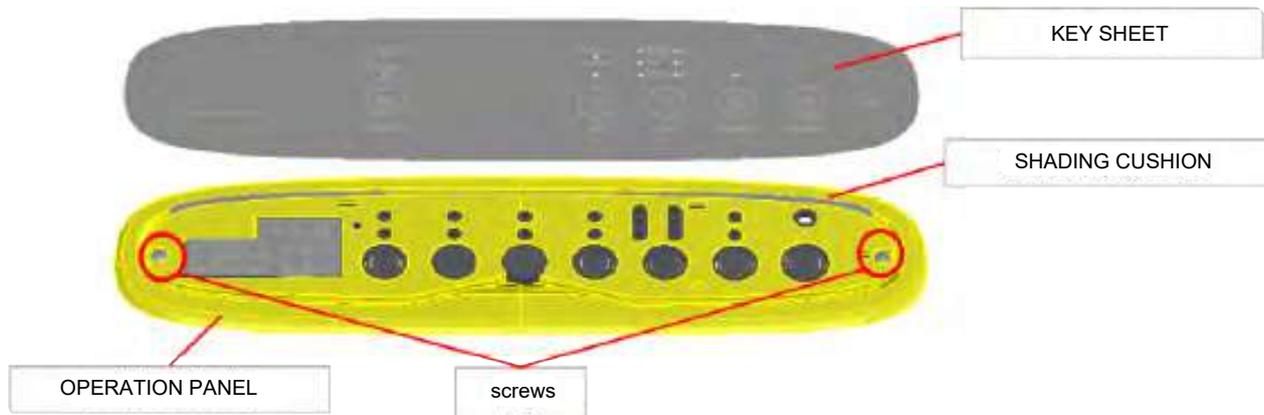
Check that the SHADING CUSHION is in the groove of the OPERATION PANEL.
If the SHADING CUSHION is on the back of the KEY SHEET, Move it to the groove of the OPERATION PANEL.
2)
①Lightly press back side and remove 3 back hooks.
②Pull the OPERATION COVER infront and remove it.

hooks

OPERATION COVER
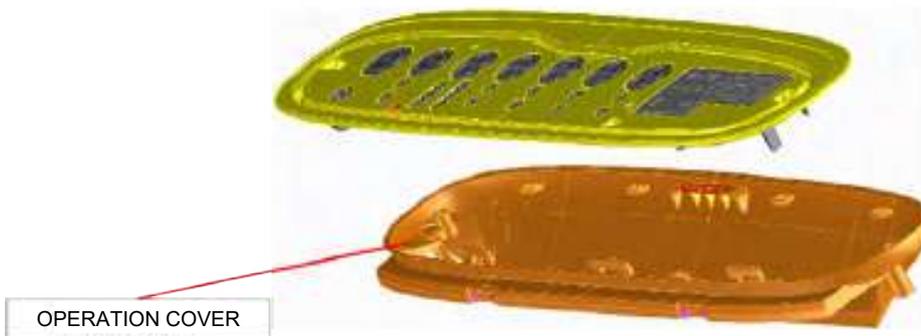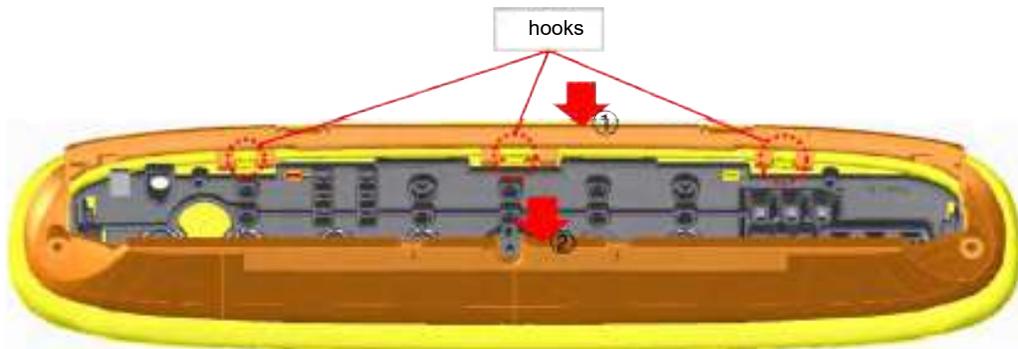
Cautions for assembly
Before installing 3 back hooks, insert 4 front hooks.
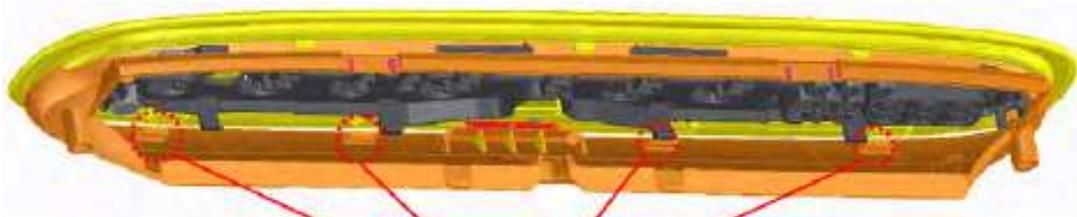
front hooks

3) Remove the PWB ANGLE from the OPERATION PANEL.

OPERATION PANEL

PWB ANGLE

LED SHEET

Cautions for assembly

Note that the PWB ANGLE is different in shape between the propper model and the original model.

12.HOW TO DISASSEMBLY THE BOTTOM PLATE ASS'Y.

1) Remove 4 screws and the BOTTOM PLATE ASS'Y.

screws

screw

(XCTUZ40P14000)

BOTTOM PLATE ASS'Y
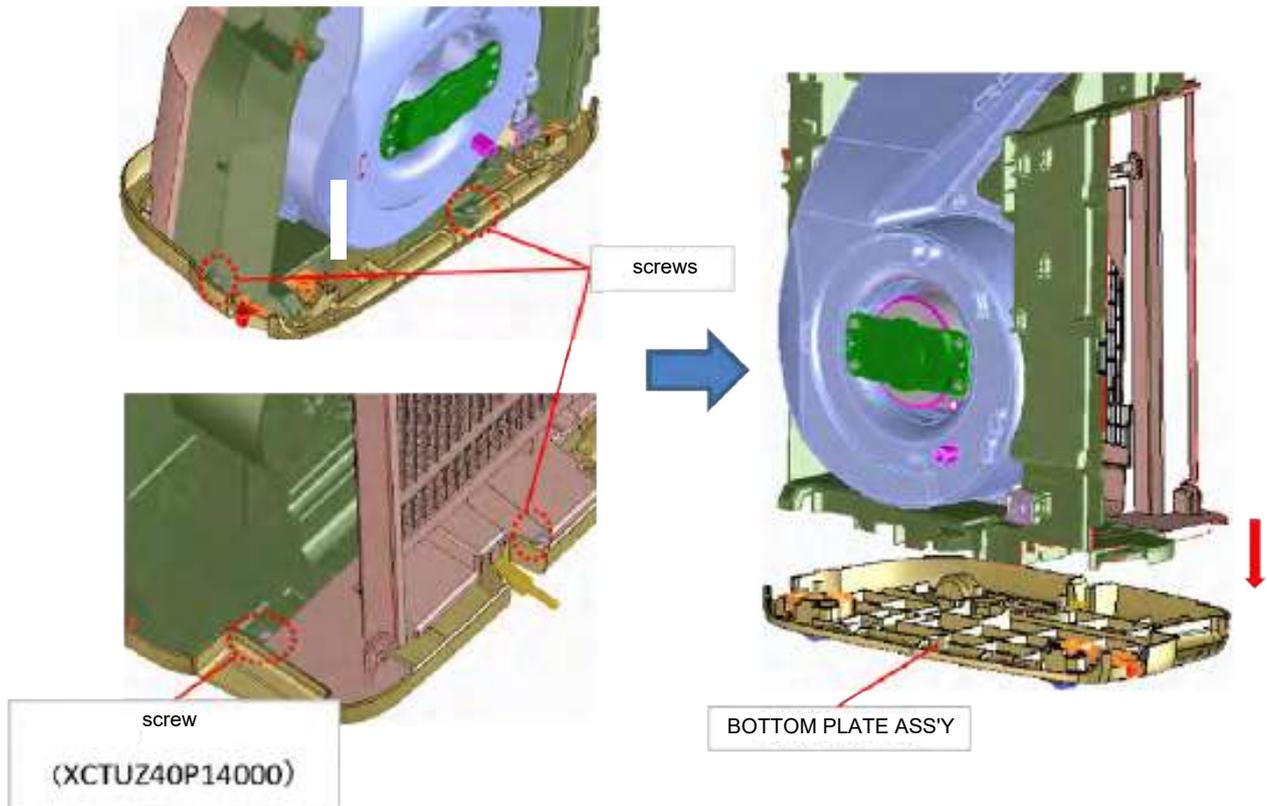
2) Remove the POWER CORD.
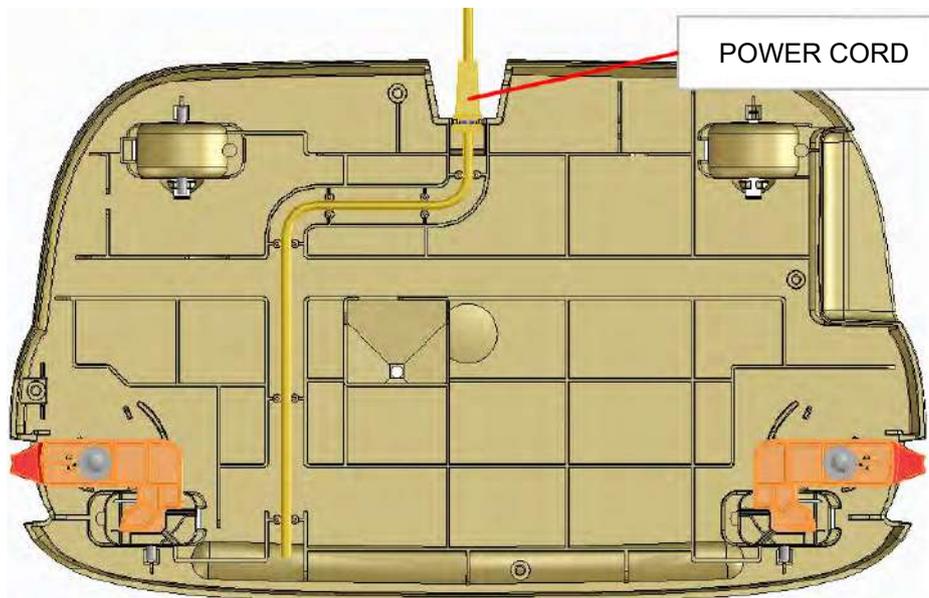
POWER CORD

Cautions for assembly
   When attaching the POWER CORD, clip the bushing cecurely in the slit and crip the cord in the boss.
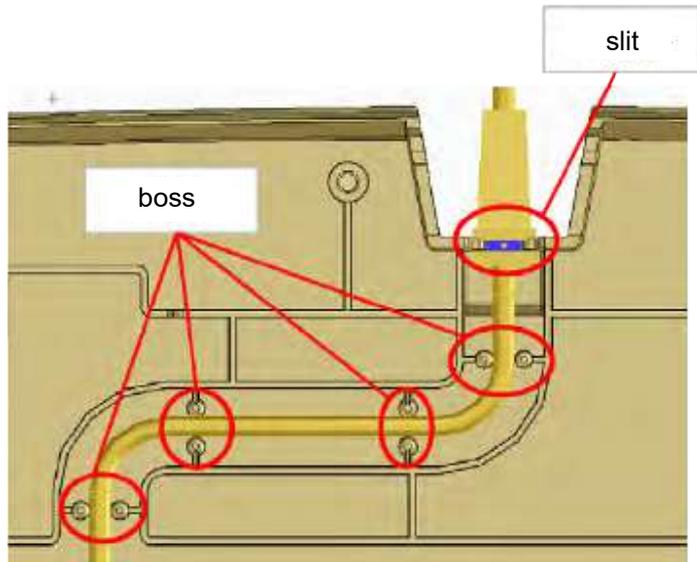
3) Remove the TAPPING SCREW and the CASTER STOPPER L/R.
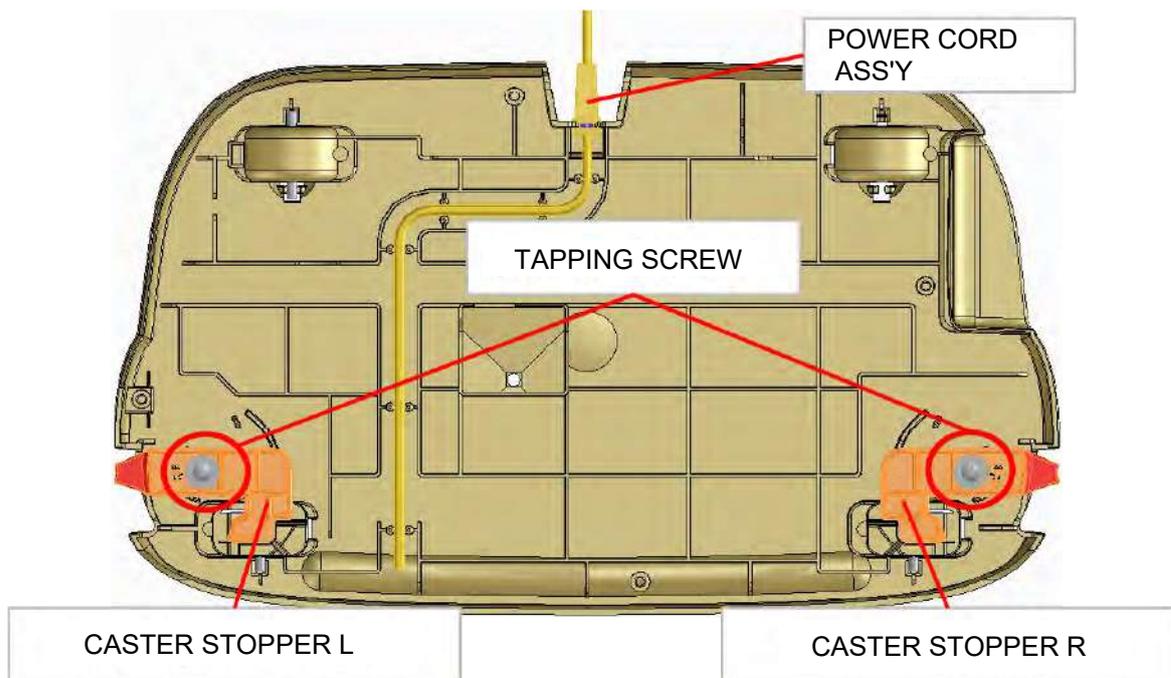
Cautions for assembly

・When replacing the CASTER STOPPER, grease on the tip of it.
・When replacing the CASTER, replace the BOTTOM PLATE too.

13.HOW TO DISASSEMBLY THE INLET GUARD K

1) Remove 4 screws and the INLET GUARD K.

screws

INLET GUARD K
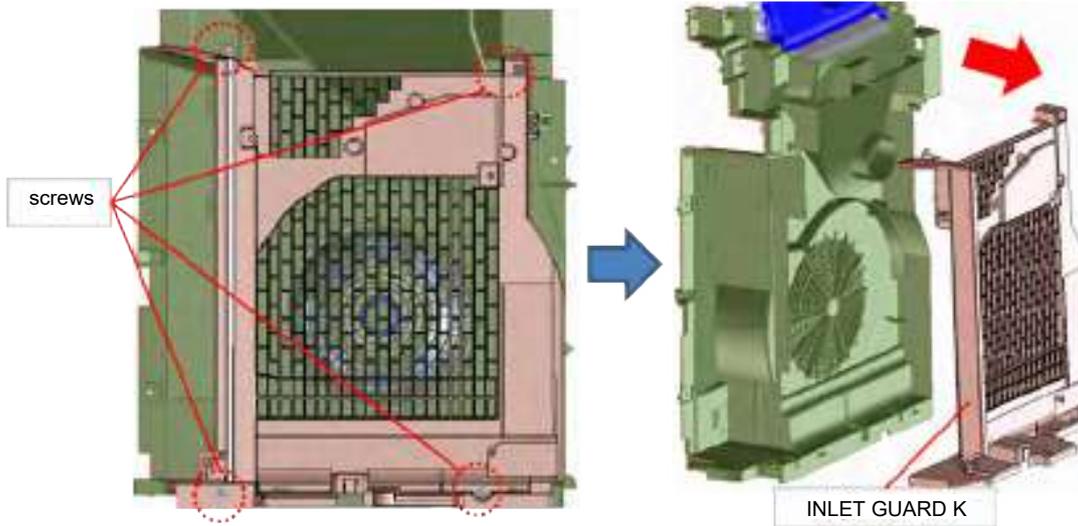
2) Remove 3 screws and the HUMID MOTOR ASS'Y.

screws
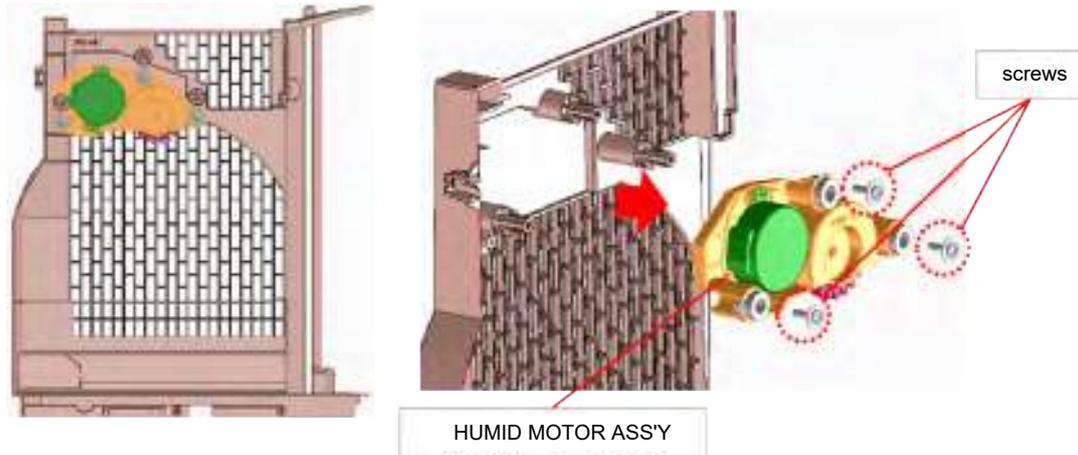
HUMID MOTOR ASS'Y

3) Disassembly the HUMID MOTOR ASS'Y.
①Remove 2 screws and the HUMID MOTOR ASS'Y.

screws

HUMID MOTOR BASE
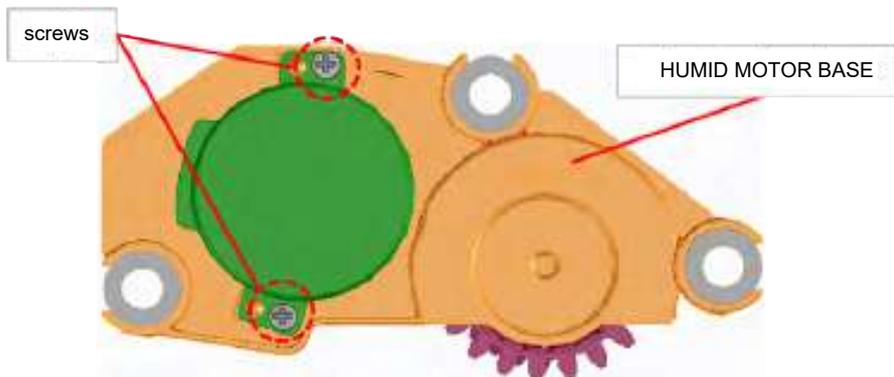
②Remove the BOUSIN GUM, the MOTOR GEAR, the TAPPING SCREW and the ROLLER GEAR.

BOUSIN GUM

MOTOR GEAR

ROLLER GEAR

TAPPING SCREW
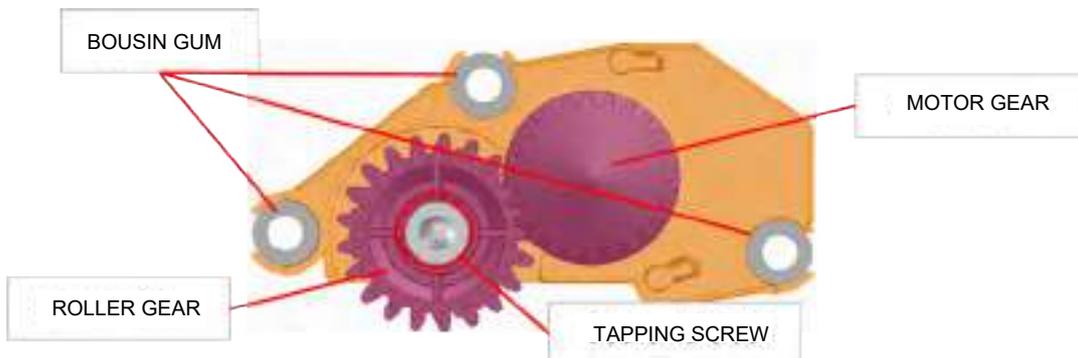
14.HOW TO REMOVE EACH PART AND PWB FROM THE BASE CABINET ASS'Y.

1) Remove the Wi-Fi adapter, FLOAT PWB HOLDER, the LX75 FLOAT-K UNIT and the LX75 POSITION-K UNIT.

Wi-Fi adapter

FLOAT PWB HOLDER

screw

REPLACE Wi-Fi ADAPTER
The S-B01 WF PWB UNIT contains a
Wi-Fi adapter for service.

Wi-Fi adapter for service

This label not use

S-B01 WF PWB UNIT

LX75 FLOAT-K UNIT
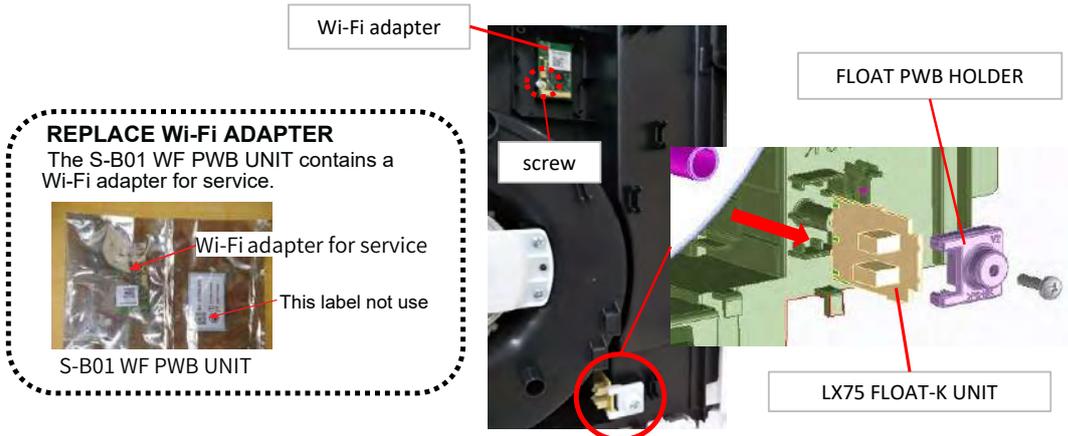
①Replace the Wi-Fi adapter in unit with the Wi-Fi adapter for service.
※Please firm-up the Wi-Fi adapter following T/R No. EHH-627.
※Please search by publish No. EHH-627 at documents search criteria in Service Support System.
You may not be able to search by the model name of the product.

②It's necessary to make the Wi-Fi connecting setting again.
※Please finish the initial connection setting after replaced Wi-Fi adapter, the procedure
 is same as when you just bought the Air purifier.

LX75 POSITION-K UNIT
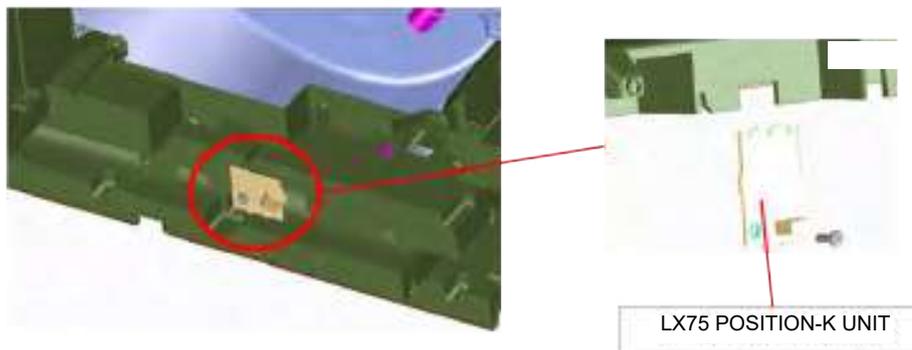
2) Remove DUST SENSOR.

DUST SENSOR
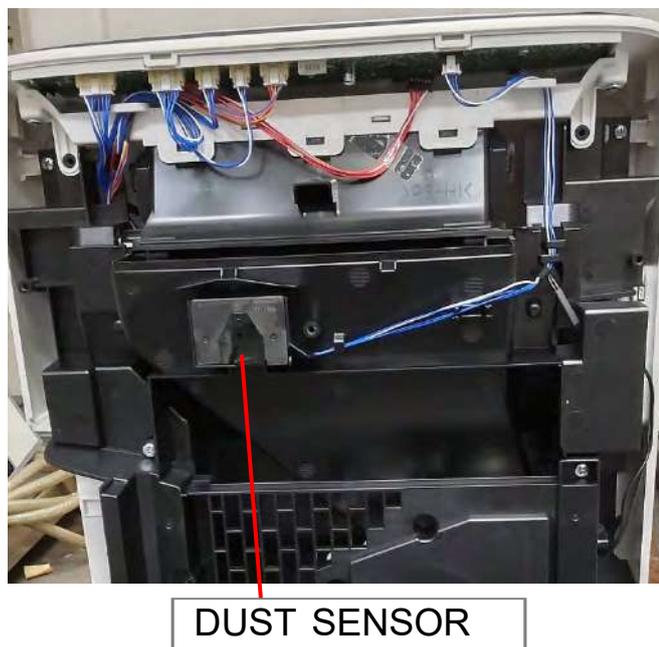
15.HOW TO DISASSEMBLY THE BASE CABINET ASS'Y.

1) Dissasembly the UNIT GUIDE ASS'Y.
   ①Remove 2 screws and the UNIT GUIDE ASS'Y.
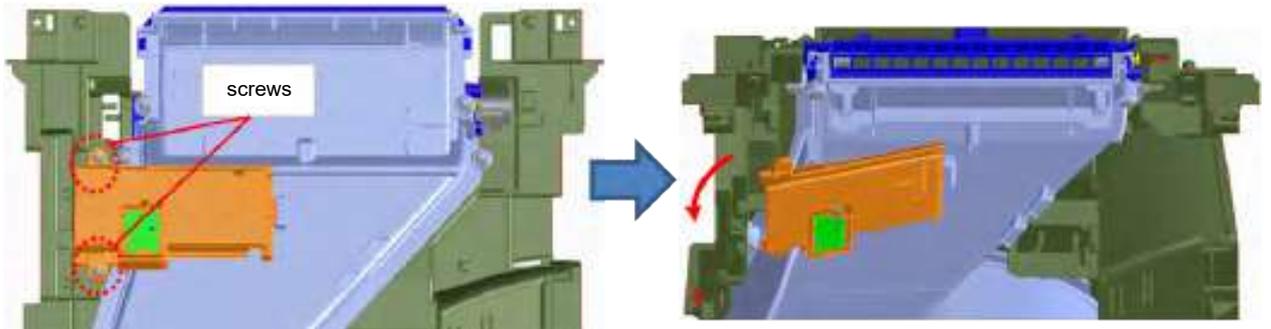
screws

②Remove a screw and the 7P PC HARNESS.

UNIT GUIDE ASS'Y

7P PC HARNESS
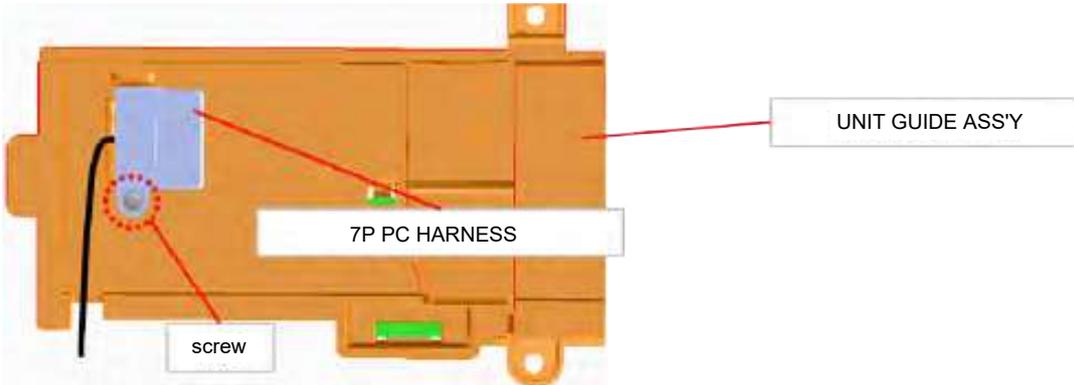
screw

2) Remove 6 screws and the CASING ASS'Y.

BASE CABINET
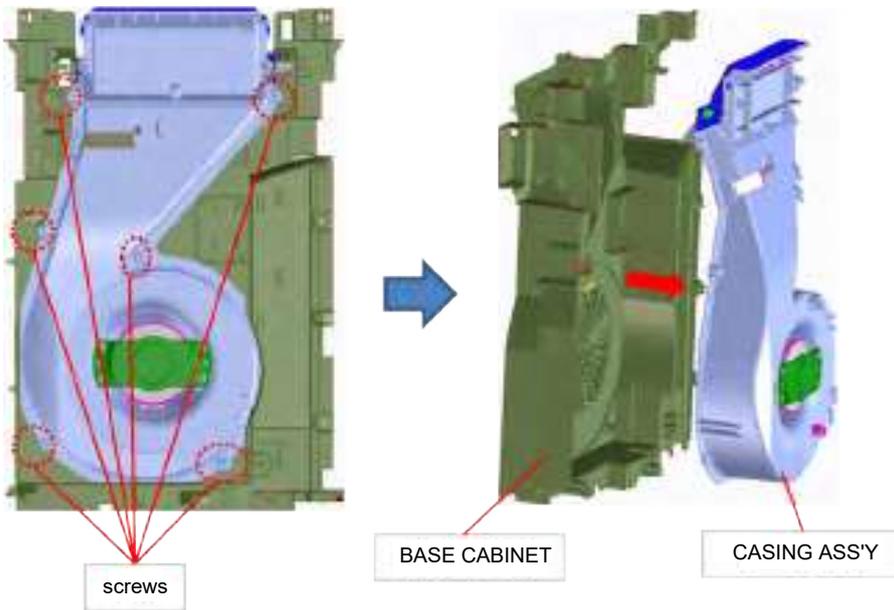
CASING ASS'Y

screws

16. HOW TO DISASSEMBLY THE JOINT ASS'Y

1) Remove the JOINT ASS'Y from the CASING ASS'Y.
①After removing 2 screws and releasing 2 hooks, remove the JOINT ASS'Y.

hooks

JOINT ASS'Y
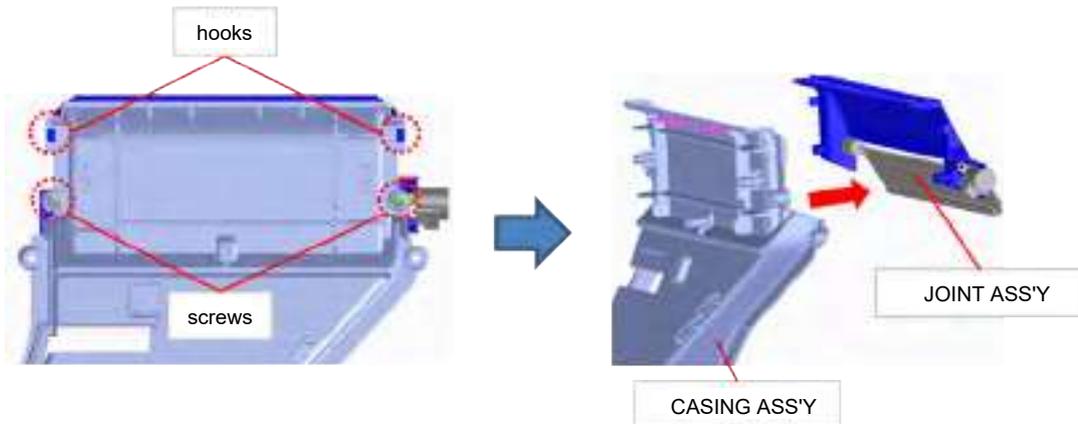
screws

CASING ASS'Y

②Remove 2 screws, the STEPPING MOTOR 20T20 and the MOTOR BUSHING.

STEPPING MOTOR
20T20

MOTOR BUSHING
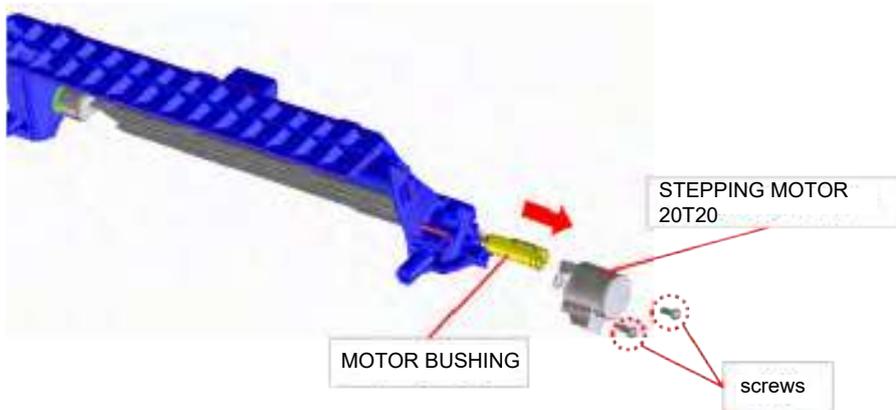
screws

③Remove the DAMPER K and the LOUVER BUSHING from the JOINT ASS'Y.

JOINT

LOUVER BUSHING

DAMPER CUSHION
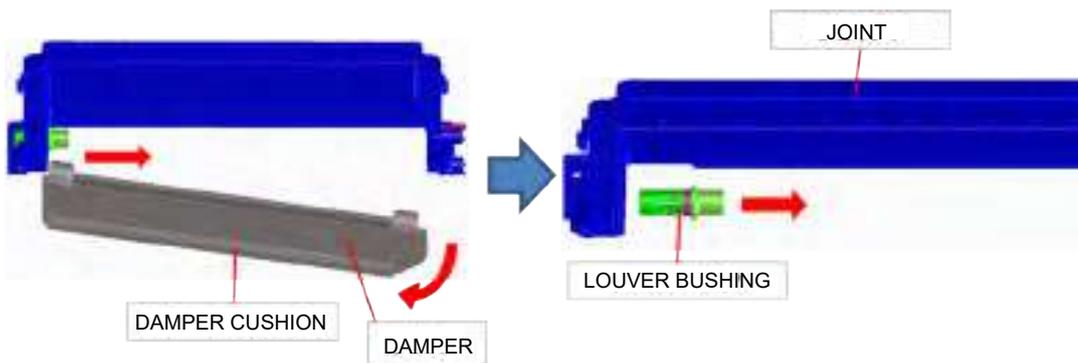
DAMPER

Cautions for assembly

When replacing the DAMPER, paste the DAMPER CUSHION to it.

17.HOW TO DISASSEMBLY THE CASING ASS'Y.

1) Remove the NUT and the FAN.

WASHER

FAN

NUT

2) Remove 4 screws, the MOTOR ANGLE and the MOTOR.

screws

CASING ASS'Y

MOTER

MOTOR ANGLE

Cautions for assembly
Attach FUSE CUSHION and fix TEMP. FUSE ASS'Y on MOTOR ANGLE.

①Attach the cushions.

②Attach the TEMP.FUSE ASS'Y.

TEMP. FUSE ASS'Y

Fit it in the gap between the ribs.

Hang it on a hook.

Install the unit so that the marking of TEMP. FUSE ASS'Y is at the center.

CUSHION
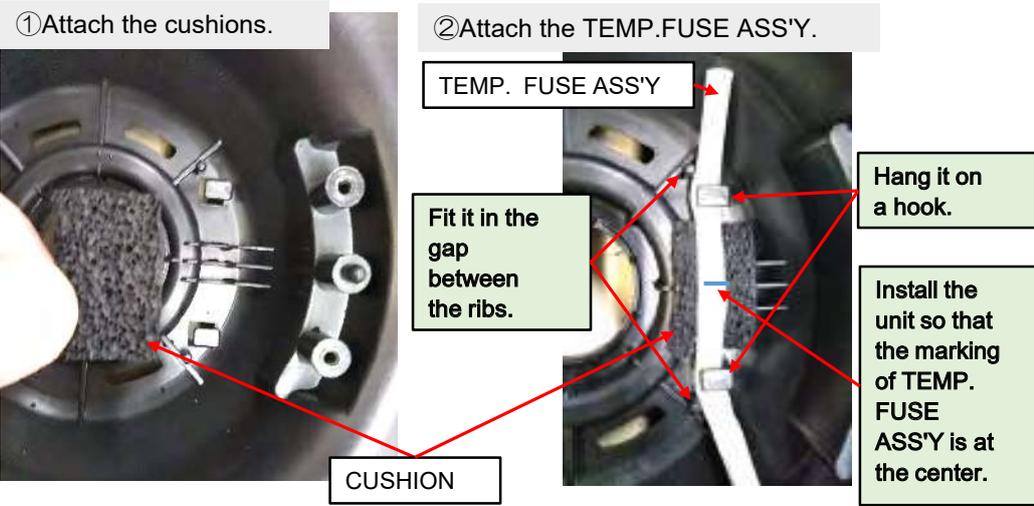
Be careful that the MOTOR and the MOTOR ANGLE is mounted in the correct.

The MOTOR HARNESS should be pulled out of the hole of the CASING ASS'Y .

[2] WIRING OF COMPONENTS

1) Wiring of CONTROL UNIT

POWER HARNESS HOLE IC HARNESS DAMPER HARNESS

7P PC HARNESS WIFI HARNESS DUST HARNESS

back side

POWER HARNESS DAMPER HARNESS

HOLE IC HARNESS DUST HARNESS

7P PC HARNESS WIFI HARNESS

Hang it on a hook.
(7P PC HARNESS)
(HOLE IC HARNESS)
(DAMPER HARNESS)
(WIFI HARNESS)

Hang it on a hook.
(DUST HARNESS)

①Wiring of DUST HARNESS

DUST SENSOR

DUST HARNESS

DUST HARNESS

Take the harness out of the notch.

Hang it on a hook.

Pass between the pins

51
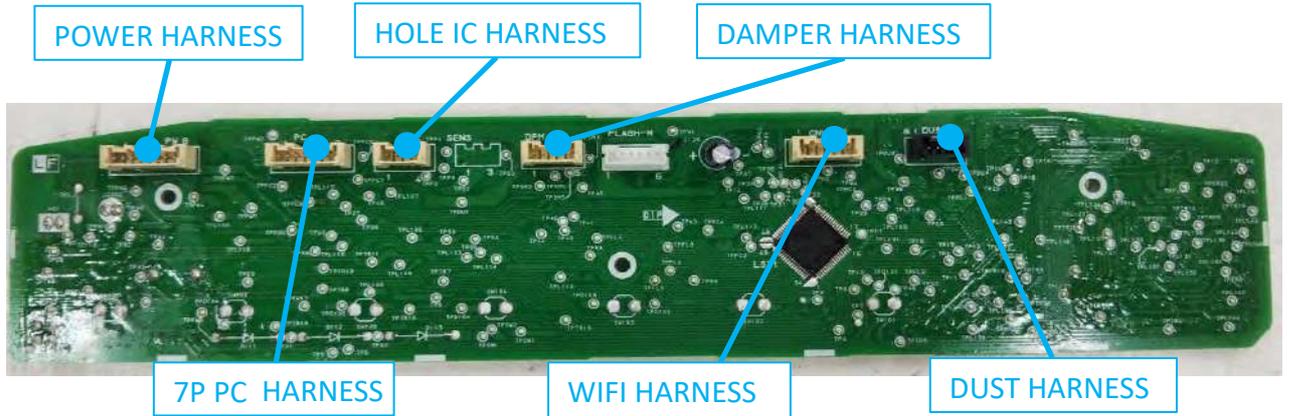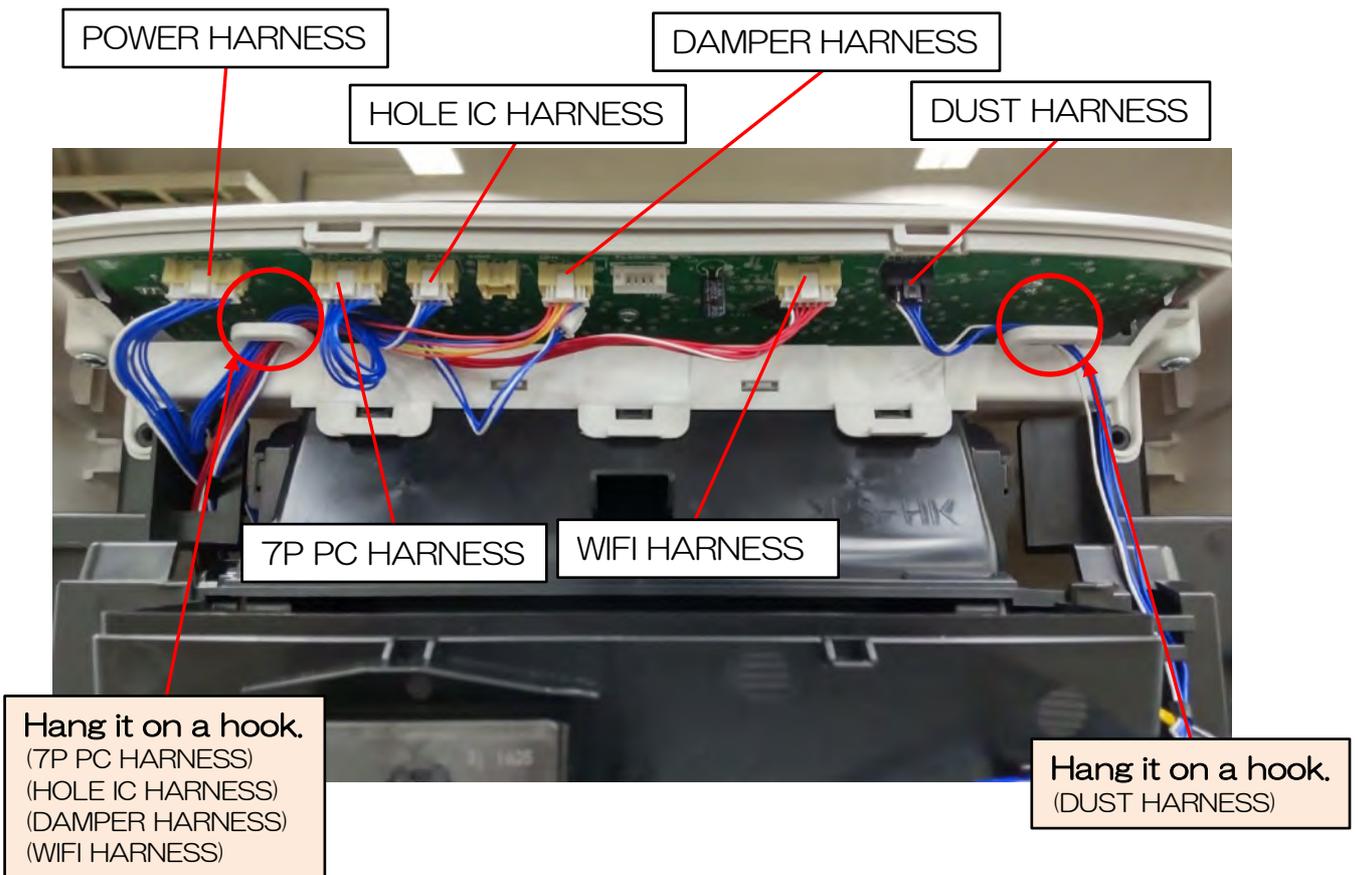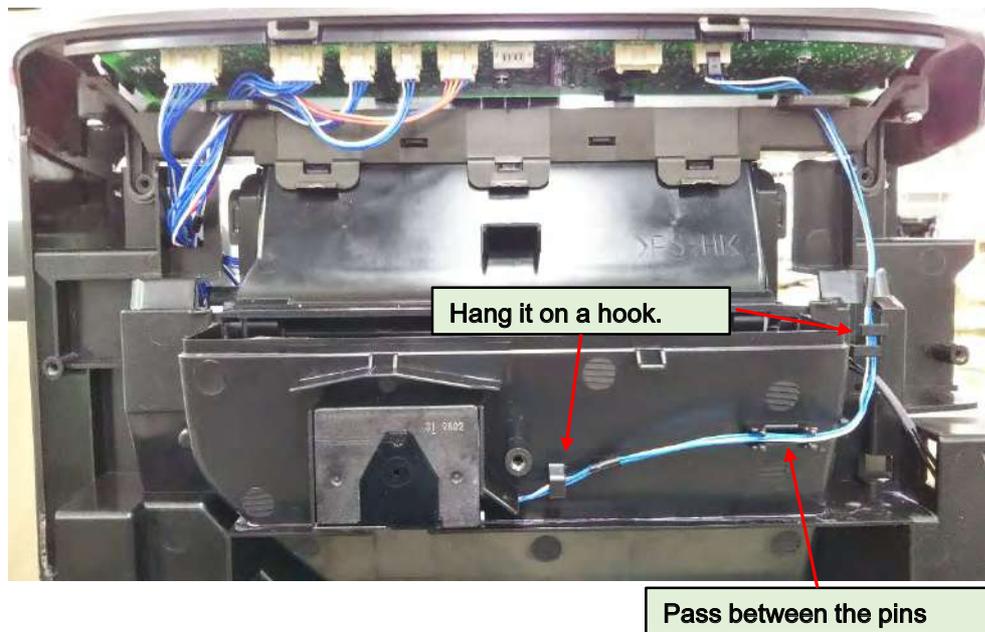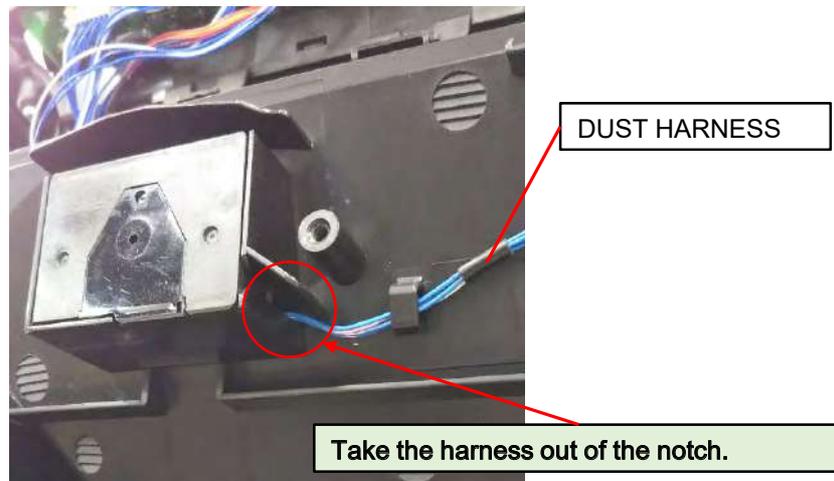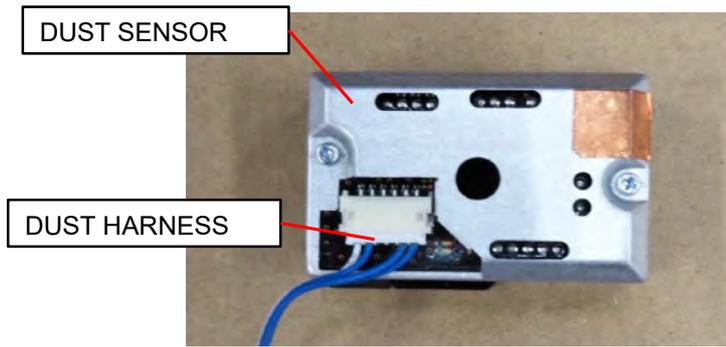
②Wiring of 7P PC HARNESS, WIFI HARNESS, DAMPER HARNESS, HOLE IC HARNESS and POWER HARNESS

PWB LOWER BOX K

Fix the ferrite core to the hook with the WIRE FIXING BAND.

Pass HOLE IC HARNESS between the pins.

Secure with filament tape.

LX75 FLOAT-K UNIT

Hang it on a hook.
(ROTOR HARNESS)

HOLE IC HARNESS

Hang it on a hook.
(HOLE IC HARNESS)

52
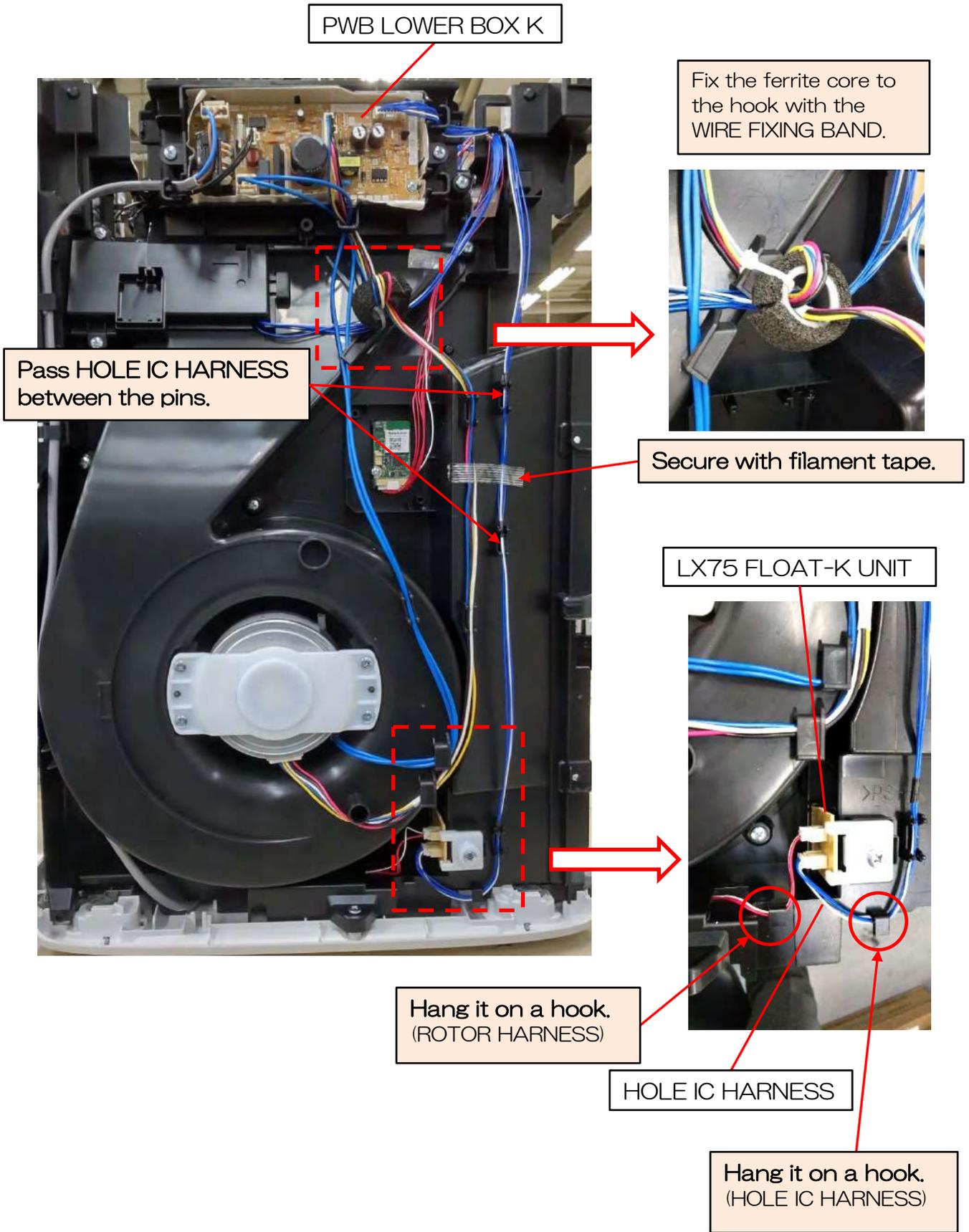
Apply the filament tape just below the white tape and so that
the white tape matches the height of the protrusion of the CASING.

WIFI HARNESS

CAUTION
The WIFI HARNESS should be
threaded through the back of
the MOTOR HARNESS and
not in contact with it.

Wi-Fi
ADAPTER

SHARP

MOTOR HARNESS

HOLE IC HARNESS

2) Wiring of N50EC PS UNIT

PWB LOWER BOX K

POWER HARNESS

POWER CORD

MOTOR HARNESS

Hang it on a hook.
(POWER HARNESS)

TEMP. FUSE ASS'Y

Hang it on a hook.
(POWER CORD)
(HUMID MOTOR HARNESS)

HUMID MOTOR HARNESS

Hang it on a hook.
(TEMP. FUSE ASS'Y)
(MOTOR HARNESS)
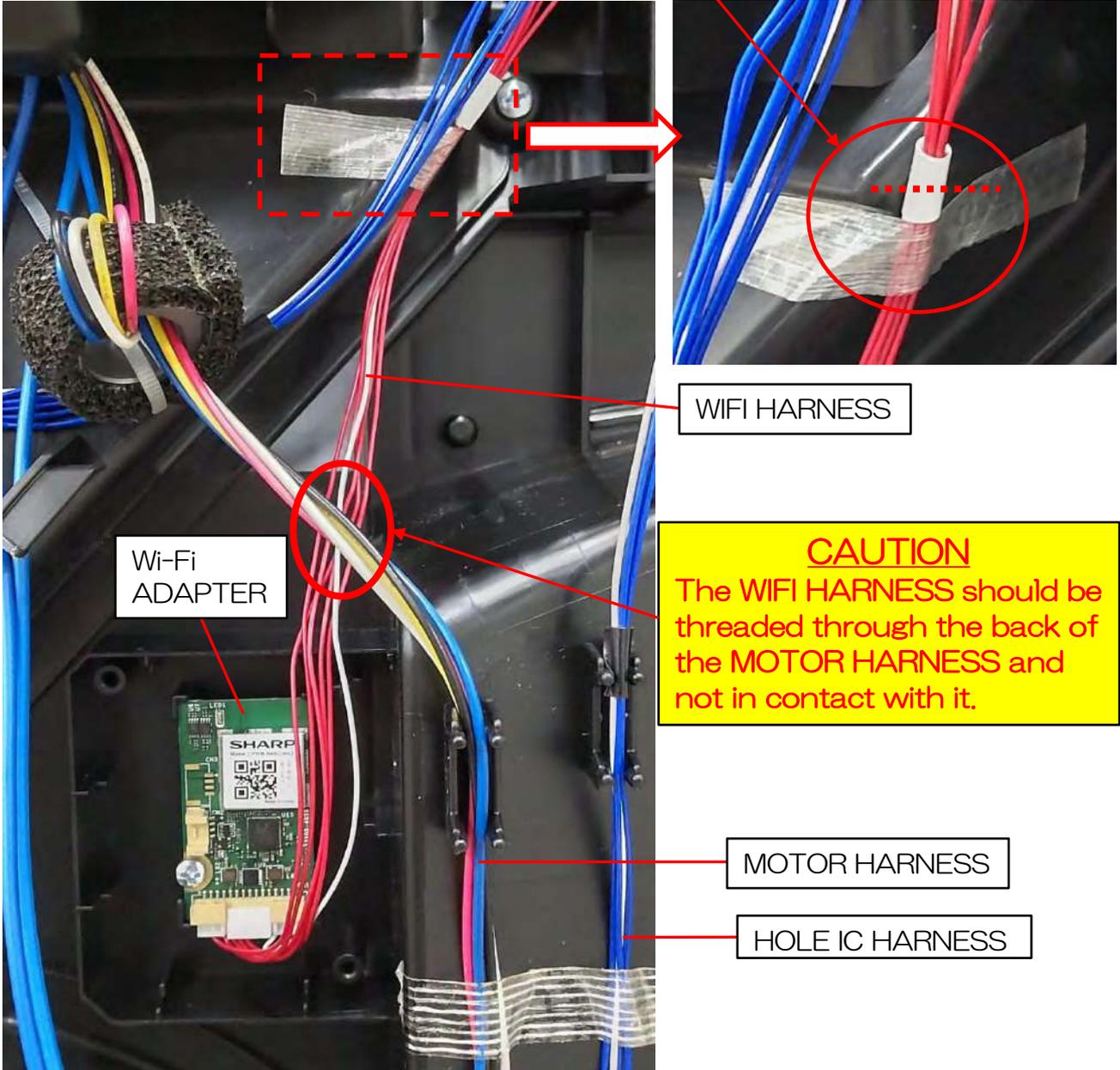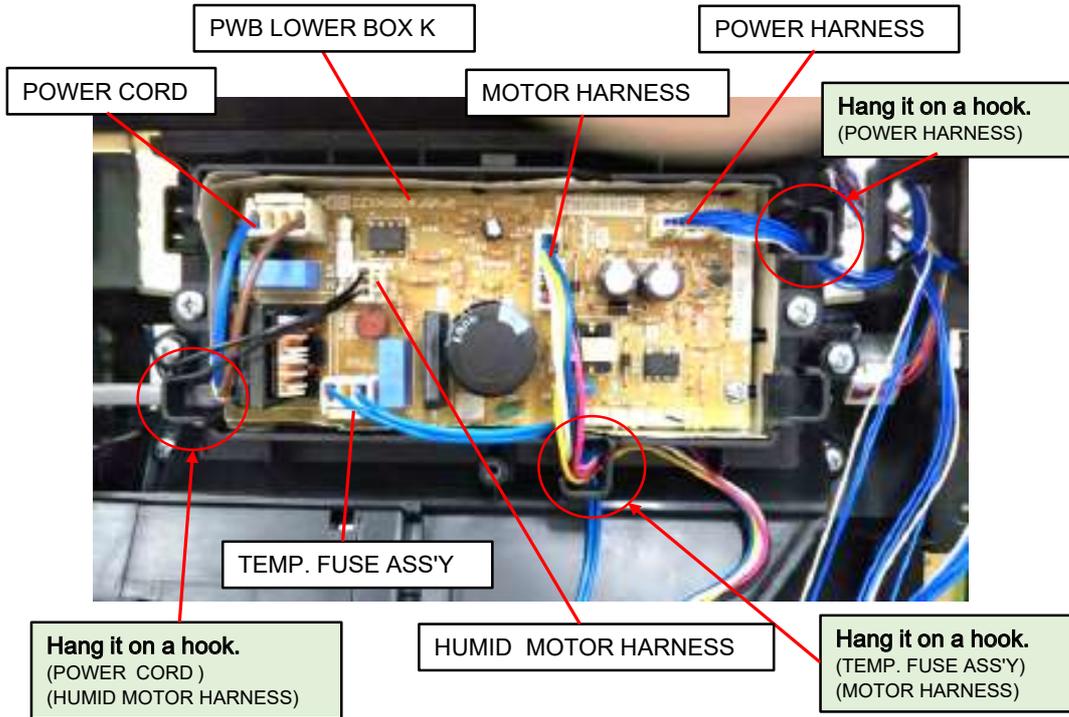
①Wiring of MOTOR's HARNESS, TEMP. FUSE ASS'Y

Pass the lower hook.

Pass MOTOR HARNESS between the pins.

Pass TEMP. FUSE ASS'Y between the pins .

Secure with filament tape.

Pass the upper hook.

Pass the lower hook.
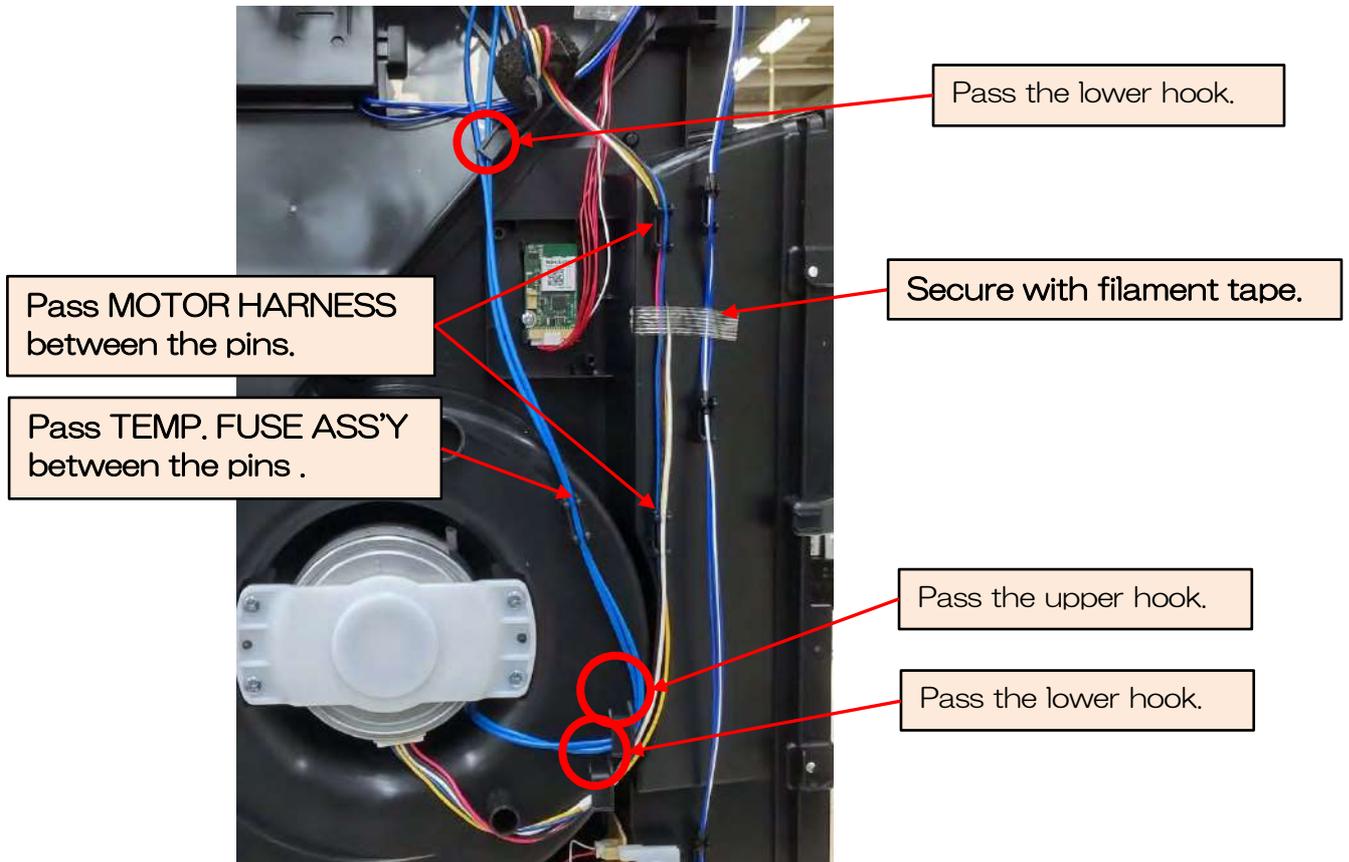
②Wiring of HUMID MOTOR's HARNESS

right side

Pass through a hole to the front side.

Pass through a hole.

HUMID MOTOR's HARNESS

Pass through a slit.

Pass through a hook.

③Wiring of POWER CORD

Fit it in the gap between the ribs.

Hang it on a hook.

Fit it in the gap between the ribs.
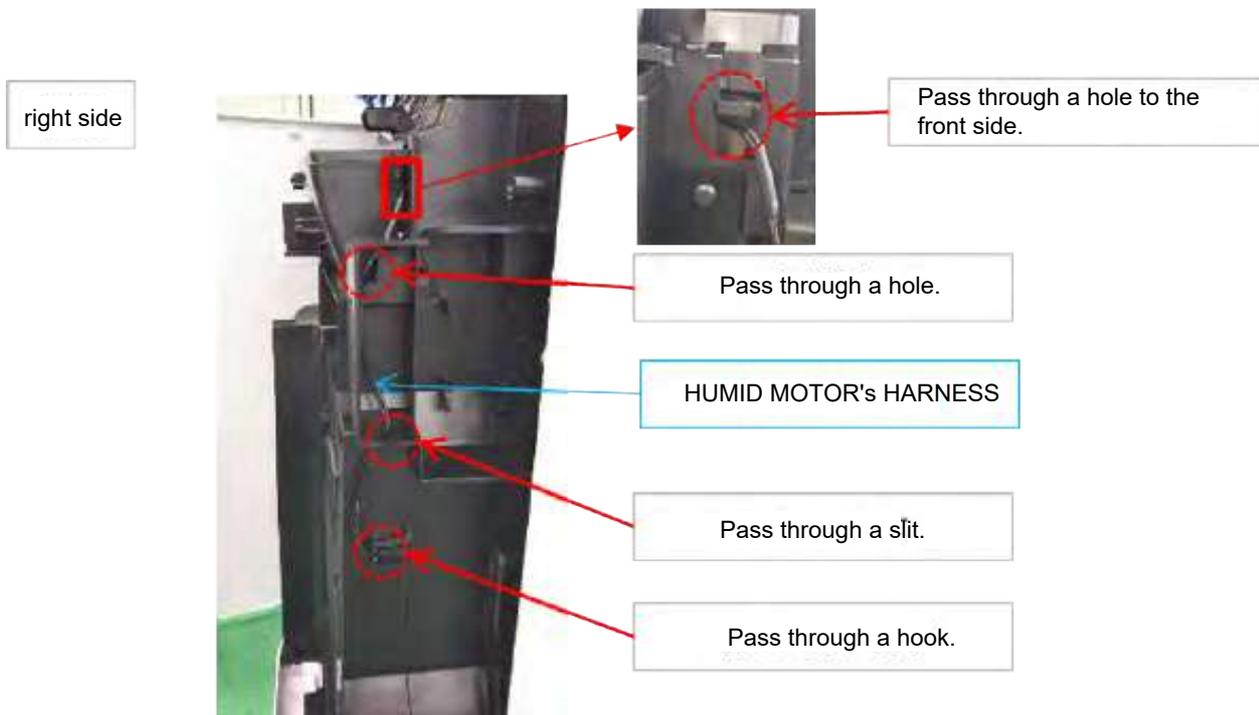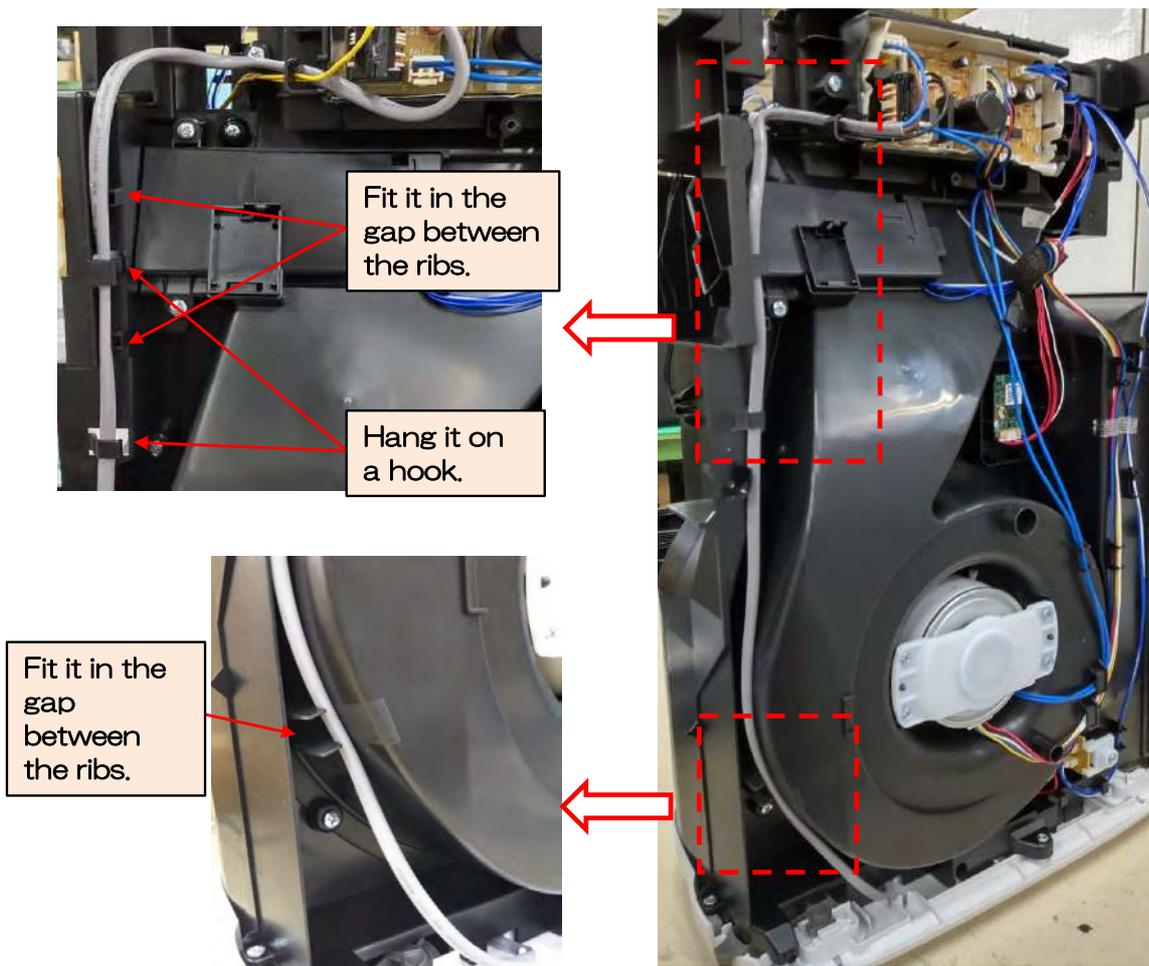
★ Attention
・Always check the test mode when repairing.
Also, be sure to complete the test mode.

CHAPTER 6. Wi-Fi CONNECT GUIDE

CONTENTS

TRADEMARKS

- "Wi-Fi®" is a registered trademark of Wi-Fi Alliance®.
- "Android" is the trademark of Google Inc.
- "iPhone", "iPod touch", "iPad" are the registered trademarks or trademarks of Apple Inc.
- The other company names, corporate names, product names mentioned in the handling instructions are trademarks and registered trademarks of each company.

SAFETY PRECAUTIONS

WARNING

In case of remote operation from outside, you may not be able to check air purifier current condition or the area around it and the situation concerning anyone possibly staying there, so please adequately confirm safety before use.

- Make sure the electric plug is fully inserted into a power socket, and there is no dust on the plug or in the socket hole. (It may cause heat, combustion, fire, etc., due to poor contact or contact failure)
- Make sure beforehand that although there are some wind changes, no negative impact will occur to the environment inside the room. (such as.. whether there is anything flying easily in the wind)
Because the wind may cause something to fall down, resulting in fires, wounds, defacement of household belongings.

CAUTION FOR USE

- Agreement with "Terms of Service" is needed to use application.
- Application will be periodically revised because of version upgrade.
- Screens and illustrations in this book are for explanation, there are some differences to the real product.
- In case of bad connection, it is expected that smartphone is unavailable to control or the operation is not reflected to the smartphone.
- Locking smartphone display is recommended to avoid wrong operation.
- Although the application is free, communications expenses for download of dedicated application and operation with smartphone or tablet are customer's obligation.

CAUTION FOR Wi-Fi LAN

Caution for usage about electrical wave

- In case of the usage at the following place, the operation cannot be guaranteed : Near Bluetooth® wireless communications device using the same frequency(2.4GHz) as this product or specified low power wireless device. Also in the place like magnetic field of the device such as microwave oven, or the place with static electricity or the place radio disturbance is occurred, it may not be available temporarily due to weak electrical wave.
- Wireless connection and performance cannot be guaranteed for all routers or housing environment. At the following places, it is likely electrical wave cannot reach or is disconnected: Inside of the building made with concrete, reinforcing steel or metal / near the obstruction / near the wireless communications device applying the same frequency.
- Wi-Fi of this product corresponds to channel 1~13. It's not available to communicate with the routers set up to other channels.

Caution for personal information (related to Security)

- Using Wi-Fi device has the possibility of interception as long as using electrical wave regardless of secret code setting.
- Wi-Fi has the advantage of free LAN connection in the service area because of the communication between this product and the router applying electrical wave. On the other side, intercept of communication or unfair intrusion are likely to occur because electrical wave reaches everywhere in the certain area through the obstructions (e.g. walls).
- Do not connect to the device or network without application to authority.
- The Wi-Fi function of this product should be initialized in case of disposal or handover to a third person.
- The Wi-Fi function of the unit should be initialized in case of handover from a third person to avoid illegal access of outsider.

PART NAMES / SPECIFICATIONS

OPERATION PANEL

KI-N50/40TA

CLEAN ION SHOWER

KI-N50/40Y

ANTI DUST

*3
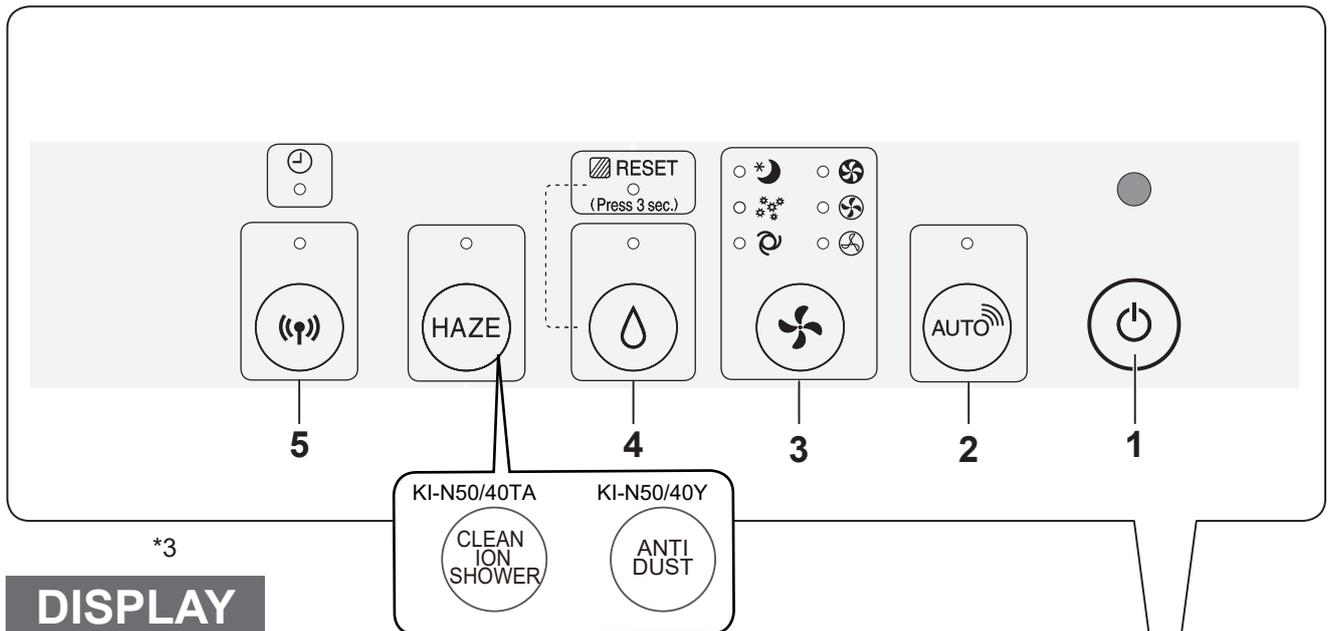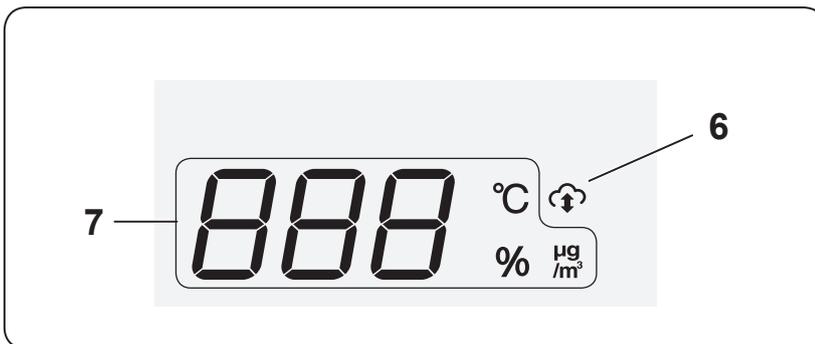
DISPLAY

1. **Power ON/OFF Button**
2. **SHARP COCORO AIR Button**
3. **Mode Button**
4. **Humidify ON/OFF Button**
5. **Wi-Fi Button**
6. **Cloud Service Indicator**
   It illuminates when air purifier is connected to SHARP's cloud service.
7. **Display**

FLOW OF INITIAL SETTINGS

BEFORE YOU BEGIN

• By connecting your air purifier with your smart device, you can enjoy greater convenience.

Ensure your smart device is connected to a 2.4 GHz Wi-Fi Network.

Wi-Fi Protected Setup (WPS) Access Point (Router)
• The recommended encryption method is WPA2 (AES).

Ensure your smart device meets minimum software requirements (as of October 2022) :
• Smartphones / tablets of Android 8 or later
• iPhones, iPod touch, iPads of iOS 12 or later

Product Wi-Fi specifications
• Wireless LAN: IEEE802.11b/g/n
• Frequency range: 2.4GHz frequency band

INITIAL SET UP

NOTE
• When pairing the smart device to the air purifier, please ensure they are both connected to the same router.

① DOWNLOAD & SIGN UP

1. **Install the designated App in your smart device.**

   • Available to download from the Apple Store or Google Play.

   https://cboard.cloudlabs.sharp.co.jp/smartapp_asean/download/air/

2. **Connect your smart device to the router and launch the App. Follow instructions on the App.**

   i. **Review the "Terms of Service".**
   ii. **Sign in using your Sharp account (SHARP ID).**
       • If you do not have a SHARP ID, please register to create a SHARP ID.
   iii. **Enter a name for your smart device.**

② CONNECTION OF THE AIR PURIFIER AND A ROUTER

NOTE
• If you have stealth settings or MAC filtering settings on the router, please cancel them.
• The product network ID is displayed as "AP-SHARP-XX" (where XX is a 2-digit number below the product MAC address).

1. **Tap " ☰ " at the upper left part of the "Home" screen, and select "Register Device" ⇨ "Connection with a router".**
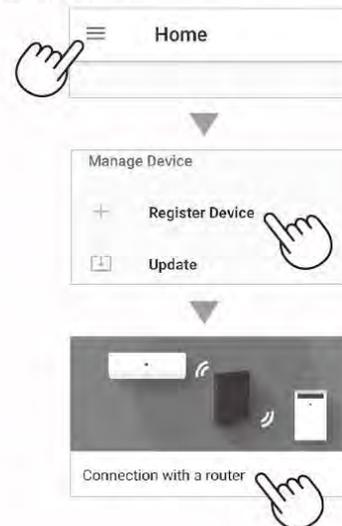
2. Follow instructions on the App.

• If the Wi-Fi Lamp lights up after the notification sound, the connection is successfully completed.

Light up

Tap "REGISTER".

ON.
Then, please register to the application.
Please confirm the support site for any inquiries.

Confirm support site
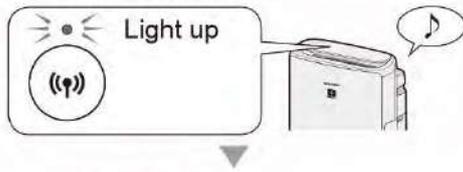
REGISTER

---
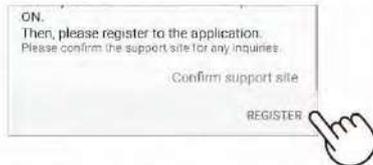
③ CONNECTION BETWEEN THE AIR PURIFIER AND A SMART DEVICE

1. Tap "Register" for the air purifier you would like to register.

← Register Device ⟳

Please tap the Register button for the device you would like to register.

* Once the device is registered, you will be able to operate the device from this terminal. It is recommended to enable the screen lock feature in order to prevent another person from operating this terminal.

Unregistered device
Air Purifier (MODEL NAME)   Register

• If you do not see the screen above, tap "☰" at the "Home" screen, and select "Register Device" ⇨ "Already connected with a router".

Already connected with a router

2. Follow instructions on the App.

• If the Wi-Fi Lamp lights up after the notification sound, the connection is successfully completed.

Light up
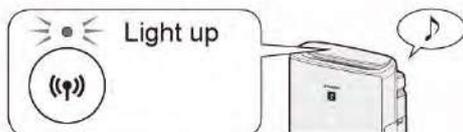
The INITIAL SET UP is completed.

How to set Wi-Fi ON / OFF after completing the INITIAL SET UP

If you would like to turn the Wi-Fi OFF:

Press for 3 sec.
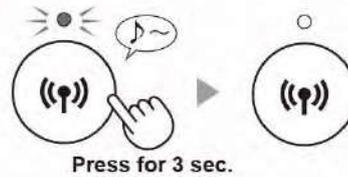
NOTE

• Turning the Wi-Fi off will result in not being able to control the air purifier with the designated App.

If you would like to turn the Wi-Fi ON again:

(How to restore the Wi-Fi connection to the original network.)

Press for 3 sec.

The Wi-Fi Lamp will flash after you press the Wi-Fi Button. And within about 3 minutes, you will hear four short beeps. Some time after this beep sounds, the Wi-Fi Lamp lights up and the Wi-Fi connection will be restored to the original network. The designated App can now be used again to control the Air Purifier.

NOTE

• Wi-Fi ON / OFF can also be set from "$A1$: Wi-Fi adapter ON/OFF". (Page 61)
In this case, Wi-Fi connection with the router will be automatically restored.

• Reconnection to the Wireless Router may take a few minutes to complete, after turning Wi-Fi on again.

HOW TO CHANGE VARIOUS SETTINGS

• You can change the Wi-Fi functions on page 60 - 62.

1. Turn the product OFF.

2.

F

Press for 3 sec.

Change "F" to "A".

F ⟷ *A*

Product setting / Wi-Fi setting

Set

A1
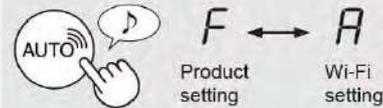
3. Select "Function number (A1-A8)" on page 60 - 62.

Go Forward   or   Go Back

A1 ⟷ *A2* ⟷ ... ⟷ *A8*
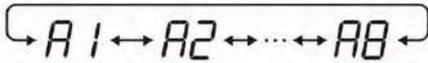
Set

4. Refer to page 60 - 62 for the details of each function.

5. Finish the setting.

Goes off

Function	Setting
A1 **Wi-Fi adapter** **ON/OFF**	**1.** Select "*A1*" by following Steps 1 - 3 on page 14. **2.** Press "SHARP COCORO AIR" Button to select Setting "*01*" or "*02*". *01* Wi-Fi OFF *02* Wi-Fi ON **3.** Complete **NOTE** • When Setting number ("*01*" or "*02*") is changed, the square rotates on the display until the setting is completed. When setting is completed, "*A2*" is displayed.

Function	Setting
A2 **Wi-Fi connection with a router (with the WPS Button)**	1. Select " *A2* " by following Steps 1 - 3 on page 14. 2. After " *bP* " is displayed, press the WPS (Wi-Fi Protected Setup) Button of the router. Once connected, the receiver level will be displayed. A connection error is occuring if " *bE* " is displayed. Please confirm that the router is operating correctly and try again. 3. Complete
A4 **Initialization of Wi-Fi function**	1. Select " *A4* " by following Steps 1 - 3 on page 14. 2. After " *AE* " is displayed press "Mode" Button. An error is occurring if " *dE* " is displayed. Please try again. 3. Complete NOTE • Please delete the device registration from the App when initializing the air purifier which is already connected to the Wi-Fi.
A6 **Confirmation of MAC address**	1. Select " *A6* " by following Steps 1 - 3 on page 14. 2. Press "SHARP COCORO AIR" Button to display MAC address. For example: In case MAC address is "12:34:56:AB:CD:EF". 3. Complete
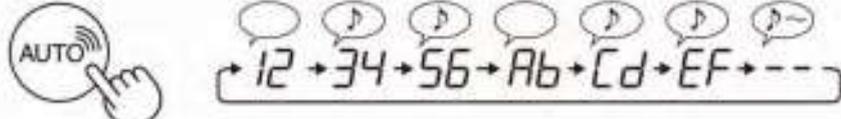
Function	Setting
A7 Display Wi-Fi network status	1. Select " **A7** " by following Steps 1 - 3 on page 14. 2. After displaying " _ _ " for a few seconds, the network status of the Wi-Fi adapter will be displayed. | **C0**	Connection is stable
A0	Wi-Fi adapter is off ⇨ Please turn on Wi-Fi adapter.
bU	Router is not registered ⇨ Please perform the Wi-Fi connection with the router.
CU	Link settings with the App is not performed ⇨ Please perform the link settings with the smart device.
AE	Wi-Fi adapter network error ⇨ Please turn off Wi-Fi adapter and turn on again after a while.
bE	Network error between the air purifier and the router ⇨ Please confirm the network status of the router.
CE	Network service error ⇨ Please turn off the air purifier and confirm the internet status, then try again. | 3. Complete
A8 Wi-Fi connection with a router (without the WPS Button) - AP (Access Point) mode -	1. Select " **A8** " by following the Steps 1 - 3 on page 14. 2. Perform Wi-Fi connection of the air purifier and the router based on the App screen. Refer to the App for further operations. Blink **bP** (Blink) ▶ **b0 b1 b2 b3** (Light up) weak ◄──► strong Display while setting the connection between the product and the router. Once connected, the receiver level will be displayed. A connection error is occuring if " **bE** " is displayed. Please confirm the router and try again.
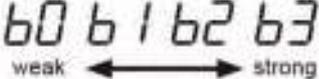
TROUBLESHOOTING

Please check the following details, before enquiring or requesting for repairs.

Problem	Items to check
Wi-Fi connection of the air purifier and the router cannot be performed.	• Check the specifications of the router in use. • Adjust the router and antenna direction, move the router and antenna closer, and so on. After that, reswitch to turn on the router and perform the initial settings again.
The connection between the air purifier and your smartphone cannot be established.	• Are the air purifier and your smartphone connecting to the same router? ⇨ Connect the air purifier and your smartphone to the same router. If you still can't connect, try connecting your smartphone to the 2.4GHz band of the router. • Is the total number of smartphones being in use exceeding the maximum number for registration on one air purifier? ⇨ The maximum number of smartphones that can be registered on one air purifier is 10. • Is the total number of products (air conditioners, air purifiers, etc.) to be registered with one smartphone exceeding the maximum designated number? ⇨ The maximum number of products to be registered with one smartphone is 30.
Remote operation from a smartphone cannot be performed.	• Is the Wi-Fi Lamp of the air purifier on? ⇨ If the Wi-Fi Lamp is off, please perform "A1: Wi-Fi adapter ON/OFF" to turn on the product Wi-Fi. (Page 61). • Have the connection between the air purifier and your smartphone been completed? ⇨Set up the connection between the air purifier and your smartphone. (Page 60)
When changing the router	• It is necessary to reconnect the air purifier to the router. 1. Hold down the Plasmacluster Ion Spot Button for 3 seconds to stop the Wi-Fi function. 2. Perform "Flow of initial settings : ② Connection of the air purifier and a router".(Page 59)
When changing the smartphone	1. Delete the registration of the old smartphone from designated App. 2. Use the new smartphone to perform "Flow of initial settings : ① Installation of the App, and ③ Connection between the air purifier and a smartphone". (Page 60)
When going to dispose or hand over the air purifier	• Perform the following steps, to prevent leak of personal information. 1. Delete the registration of the air purifier from designated App. 2. Perform "A4: Initialization of Wi-Fi function". (Page 62)
In case of being handed over from a third party	• To prevent unauthorized access from a third party, perform "A4: Initialization of Wi-Fi function". (Page 62)
Blink slowly	• It is one of the following status. A. The Wi-Fi connection of the air purifier and a router is in setup. B. The connection of the air purifier and a smartphone is in setup. C. The software for the Wi-Fi function in the air purifier is being updated.
Blink fast	• Network error. Please confirm the Wi-Fi network status from "A7: Display Wi-Fi network status". (Page 63)
Goes off	• The air purifier cannot connect to the router. Check the following. A. Is the power plug correctly connected? B. Has the Wi-Fi function been stopped? Confirm the Wi-Fi network status from "A7: Display Wi-Fi network status". (Page 63)
One of A2 to A6 cannot be selected in the Wi-Fi setting mode. (Page 62 - 63)	• In the following cases, one of "A2" to "A6" may not be selectable. A. The Wi-Fi adapter is off. B. The connection between the product and the router has not been completed. C. The connection between the product and the smartphone has not been ⇨ completed. The Wi-Fi network status can be checked from "A7: Display Wi-Fi network status". (Page 63)

CHAPTER 7. FAULT DIAGNOSIS OF Wi-Fi FUNCTION

The problems of Wi-Fi function can be analyzed by status of Wi-Fi Lamp. In the case Wi-Fi Lamp is blinking or turned off, analyze according to Table.1.

CLOUD SERVICE Indicator
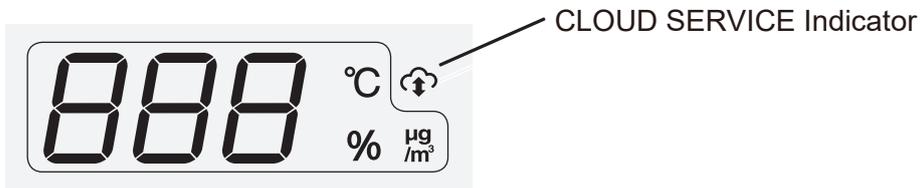
Other problems, for example, fault which appears in the process of Wi-Fi configuration, analyze according to Table.2.

If the fault cannot be solved by Table.1 or Table.2, run "Wi-Fi configuration mode A4:Initialization of Wi-Fi function" and "Delete Device Registration" from smartphone App, if the link setting with Air purifier and smartphone has been finished. In this case, users become they cannot access their personal data, such as power consumption log.

In the following cases, it is necessary to replace Wi-Fi adapter (HW-B01_GL).

*Initialize of Wi-Fi adapter cannot be done

*The problem not be solved after Wi-Fi adapter initialized

Table.1 Status of Wi-Fi indicator

Status	Solutions
Wi-Fi Lamp blinks rapidly (Twice per 1s)	Communication error somewhere in the pass between air purifier and cloud server. Refer the flow diagram "Wi-Fi Lamp is blinking or turned off". When "A7" is : *"AE": communication error between Wi-Fi adapter and air purifier *"bE": communication error between Wi-Fi adapter and Wi-Fi router *"CE": communication error between Wi-Fi adapter and SHARP cloud Server (e.x. Internet connection trouble, Server down)
Wi-Fi Lamp is turned off	Analyze according to the flow diagram "Wi-Fi Lamp is blinking or turned off". Air purifier is not connected to Wi-Fi router. Wi-Fi adapter is turned off.
Wi-Fi Lamp blinks slowly (Once per 1s)	Wi-Fi adapter is in progress of some processing. Please wait until the status of Wi-Fi Lamp is changed for a few minutes.

Table.2　Wi-Fi configuration fault, or others

Case	Solutions
Fault in connection with Wi-Fi router	Refer flow diagram "Fault in connection with Wi-Fi router".
Fault in Link configuration between smartphone and air purifier	Refer flow diagram "Fault in Link configuration between smartphone and air purifier" Run "Wi-Fi configuration mode A4: Initialization of Wi-Fi function" if the air purifier is second hand.
Fault in control from smartphone App (In condition condition of Wi-Fi Lamp ON)	Check the Link configuration between smartphone and air purifier has been finished.
Other problems	Refer to "Trouble Shooting"

1. In the case fault in connection with Wi-Fi router.

```
        ┌─────────────────────────┐
        │ Fault in connection with │
        │ Wi-Fi router.            │
        └─────────────────────────┘
                    │
                    ▼
        ╱─────────────────────╲        No    ┌──────────────────────────────────────┐
       ╱  Is router corresponding ╲─────────▶│ Prepare tahe router corresponding to  │
       ╲  to "IEEE802.11.b/g/n" ?  ╱         │ "IEEE802.11.b/g/n", and do connection │
        ╲─────────────────────╱              │ setting again.                         │
                    │ Yes                     └──────────────────────────────────────┘
                    ▼
        ╱─────────────────────╲        No    ┌──────────────────────────────────────┐
       ╱  Is router corresponding ╲─────────▶│ Prepare the router for which push      │
       ╲  to "Push botton type" ?  ╱         │ botton connection is possible, and do  │
        ╲─────────────────────╱              │ connection setting again.              │
                    │ Yes                     └──────────────────────────────────────┘
                    ▼
        ╱─────────────────────╲        No    ┌──────────────────────────────────────┐
       ╱  Is cryptosystem of       ╲─────────▶│ If the encryption scheme can be        │
       ╲  security in router other  ╱         │ changed to WPA or WPA2, change the it,  │
        ╲  than WEP ?             ╱           │ and do connection setting again.       │
         ╲──────────────────────╱            └──────────────────────────────────────┘
                    │ Yes
                    ▼
        ╱─────────────────────╲        Yes   ┌──────────────────────────────────────┐
       ╱  Is "stealth setting" or  ╲─────────▶│ Cancel "Stealth setting" and "MAC      │
       ╲  "MAC address filtering"   ╱         │ address filtering", and do connection  │
        ╲  set to router ?         ╱          │ setting again.                         │
         ╲──────────────────────╱            └──────────────────────────────────────┘
                    │ No
                    ▼
        ╱─────────────────────╲        No    ┌──────────────────────────────────────┐
       ╱  Can the other device      ╲─────────▶│ Check the Wi-Fi function of router is  │
       ╲  (such as PC) that are      ╱        │ valid.                                 │
        ╲  wirelessly connected to   ╱         └──────────────────────────────────────┘
         ╲  the same router connect ╱
          ╲  to the internet ?     ╱
           ╲──────────────────────╱
                    │ Yes
                    ▼
        ┌─────────────────────────────────┐
        │ ・Make the distance between router│
        │ and air purifier closer, and do  │
        │ connection setting again.        │
        │ ・If the connection is successful,│
        │ Return the router and the air     │
        │ purifier to their original        │
        │ location. Check with the flow of  │
        │ " In the case Wi-Fi Lamp is       │
        │ blinking or turned off ", if Wi-Fi│
        │ Lamp flashes.                     │
        └─────────────────────────────────┘
```

2. In the case fault in Link configuration with smartphone.

```
┌─────────────────────────────┐
│  Fault in Link configuration between  │
└─────────────────────────────┘
              │
              ▼
        ◇ Are smartphone and air ◇ ──No──▶ ┌─────────────────────────────────┐
        ◇ purifier connected to the same ◇   │ Connect to the same router, and do Link configration │
        ◇ router ?                        ◇   │ again.                          │
              │                               └─────────────────────────────────┘
             Yes
              ▼
        ◇ Does the smartphone(the tablet) ◇ ──No──▶ ┌─────────────────────────────────────┐
        ◇ satisfy the conditions described in ◇      │ Prepare the smartphone or the tablet that satisfy the │
        ◇ "Required environment" ?          ◇        │ conditions described in "Required environment", and │
              │                                       │ do Link configuration again.        │
             Yes                                      └─────────────────────────────────────┘
              ▼
        ◇ Was the air purifier transferred from ◇ ──Yes──▶ ┌─────────────────────────────────────┐
        ◇ a third person ?                      ◇          │ Do "Wi-Fi configuration mode A4: Initialization of │
              │                                            │ Wi-Fi function" with the air purifier, and do Link │
             No                                            │ configuration again.                │
              ▼                                            └─────────────────────────────────────┘
        ◇ Is there less than 5 smartphones ◇ ──No──────────────────┐
        ◇ registered to the air purifier ? ◇                        │
              │                                                     ▼
             Yes                               ┌─────────────────────────────────────┐
              ▼                                │ It exceeds the number of smartphones that can │
        ◇ Is there less than 10 devices (such as ◇   │ be registered in one air purifier.Check the support │
        ◇ air purifiers and air conditioners) ◇ ──No──▶ │ page and respond.                   │
        ◇ registered on smartphones ?        ◇      └─────────────────────────────────────┘
              │                                     ┌─────────────────────────────────────┐
             Yes                                    │ It exceeds the number of device that can be │
              ▼                                     │ registered in one smartphone.Check the support │
┌─────────────────────────────────────┐            │ page and respond.                   │
│ Turn on the power of router again, and do Link │   └─────────────────────────────────────┘
│ configuration again after the router startup is │
│ completed.                          │
└─────────────────────────────────────┘
```

3. In the case Wi-Fi Lamp is blinking or turned off

```
┌─────────────────────────────────┐
│ Wi-Fi Lamp is blinking or turned off │
└─────────────────────────────────┘
```

Wi-Fi Lamp is turned off. ──Yes──> Did you do Wi-Fi connection with the router ? ──No──> Do Wi-Fi connection with the router.

No (down) / Yes (down)

Check the power ON / OFF status of Wi-Fi adapter with Wi-Fi configuration mode A1.

Is the power of Wi-Fi adapter turned on ? ──No──> Do ON in the power of Wi-Fi adapter with Wi-Fi configuration mode A1.

Yes

If waiting for more than 10 minutes and there is no change, turn on the power of the air purifier again, and do the initial setting of the Wi-Fi function again.

Wi-Fi Lamp continues flashing rapidly (2 times per second). ──Yes──> Check the communication status with Wi-Fi configuration mode A7.

No

While the Wi-Fi Lamp is flashing slowly (one time per second), the Wi-Fi adapter is in process, so wait a few minutes until the process is completed and diagnose again.

The communication status is displayed as "AE". ──Yes──> Turn on the power of the Wi-Fi adapter again.

No

The communication status is displayed as "bE". ──Yes──> ・Check the power of router is turn on.
・Adjust the directions of router and antenna.
・If change the place of router is possible, close the distance.
・If it still does not work, turn on the power of router again, and turn on the power of air purifier again after the router startup is completed.

No

The communication status is displayed as "CE". ──Yes──> ・Check the internet use of the other devices such as PC and smartphone that are connected to the same router are possible.
・Check that the cloud server is not under maintenance. In the case under maintenance, turn on the power of the Wi-Fi adapter again after checking the end of maintenance.

No

Turn on the power of the router again, and turn on the power of the air purifier again after the router startup is completed.