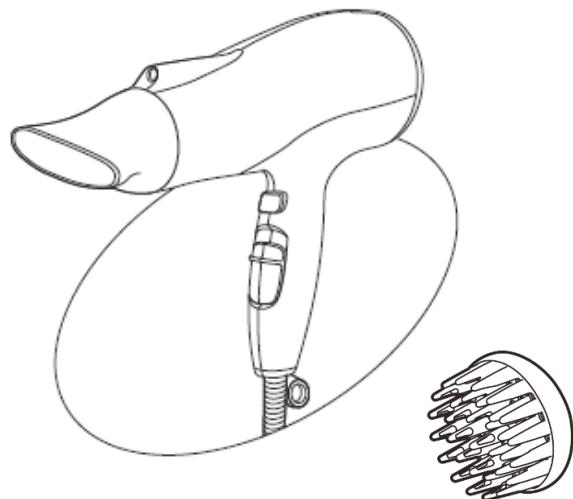


# Service Manual



(Household) Hair Dryer

Model No. EH-NE84

Asia

Middle

## ⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

## IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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# Panasonic

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# 1. Warning

## Caution:

- Pb free solder has a higher melting point than standard solder; Typical the melting point is 50 - 70°F (30 - 40°C) higher.
- Please use soldering iron with temperature control and adjust it to 750 ±20°F (400 ± 10 °C).
- In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F / 600°C).

# 2. Specifications

Power source	AC 220-240 V , 50~60 Hz
Power consumption (" II - Hot ")	AC 220 V, 50~60 Hz, 2100 W AC 230 V, 50~60 Hz, 2300 W AC 240 V, 50~60 Hz, 2500 W
Air volume without nozzle	1.9 m <sup>3</sup> /min
Air temperature without nozzle (" II - Hot ")	90 K (in case of room temperature 30°C)
Dimensions	(W) 90mm x (D) 220mm. x (H) 270mm.
Cord length	Code L / 605 / 615 / 655 / 685 = 1.7 m
Weight	Approx. =560g. (without power cord and nozzle)
Supplied accessory	Set nozzle and diffuser nozzle

### 3. TROUBLESHOOTING GUIDE

Refer to WIRING CONNECTION DIAGRAM.

#### < TROUBLE >

Main body is not operated

#### < CHECK >

<CHECK POWER CORD>  
Check the conductivity of power cord

OK

#### < REMEDY >

Replace the MOTOR HEATER ASSEMBLY

<CHECK MAIN SWITCH>  
Check the conductivity between the terminal 1 and 4 by setting the MAIN SWITCH to Position 1 (Figure 1)

NG

Replace the MAIN SWITCH

OK

Replace the MOTOR HEATER ASSEMBLY

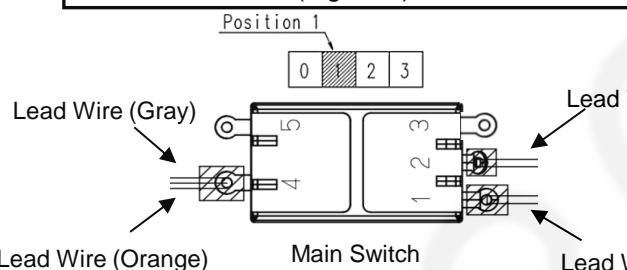


Figure 1

#### For EH-NE82 and 84 only

Advance heat protection mode is not operated or not operated follow spec (Figure 2)

\*Air keep switching between hot and cold

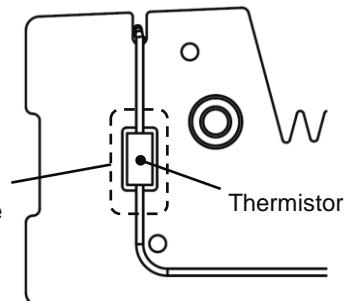
<CHECK THERMISTOR>  
Check the position of thermistor (Figure 3)

NG

Adjust the position of thermistor follow control point

OK

**Control point**  
Thermistor must be placed at the center of hole



\*Check interval time after operate on this mode for 30 sec

Figure 2

<CHECK TEMPERATURE SWITCH>  
Check the conductivity between the terminal 1 and 4 by setting the TEMPERATURE SWITCH to Position 1 (Figure 4)

NG

Replace the TEMPERATURE SWITCH

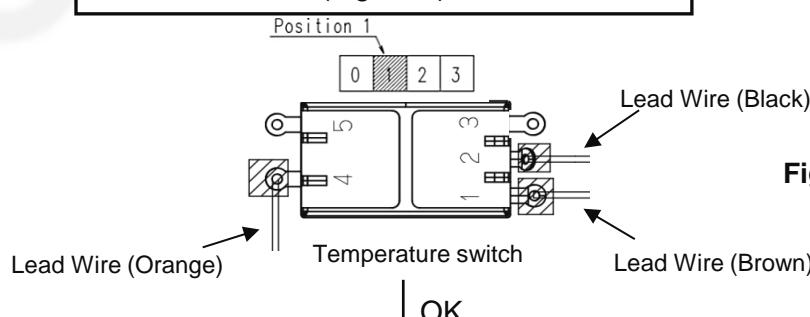


Figure 4

Replace PRINTED CIRCUIT ASSEMBLY

OK

Replace MOTOR HEATER ASSEMBLY

### 3. TROUBLESHOOTING GUIDE

Refer to WIRING CONNECTION DIAGRAM.

#### < TROUBLE >

#### < CHECK >

#### < REMEDY >

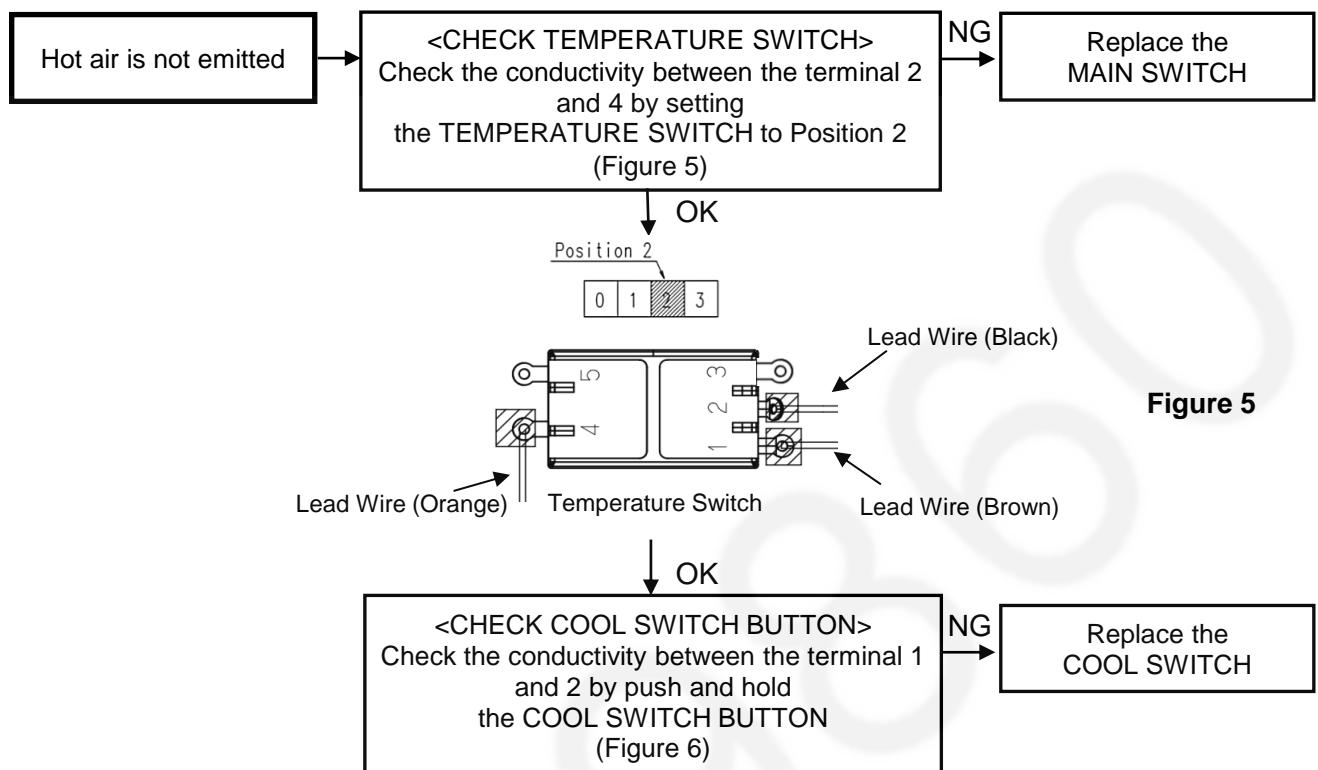


Figure 5

For EH-NE81-84

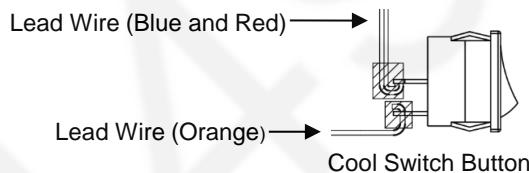


Figure 6

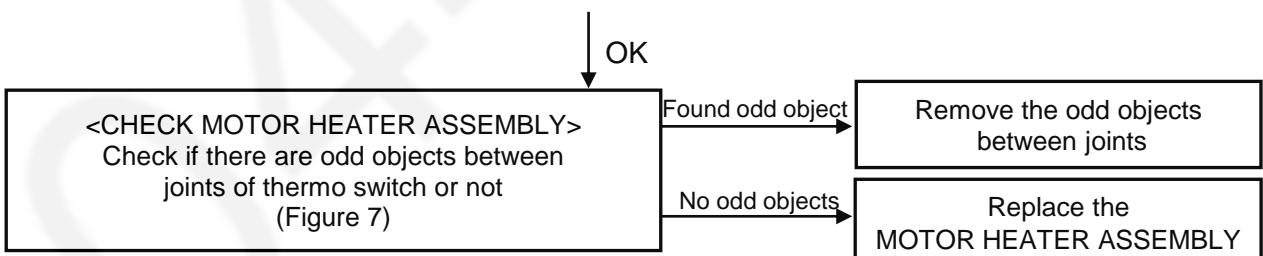
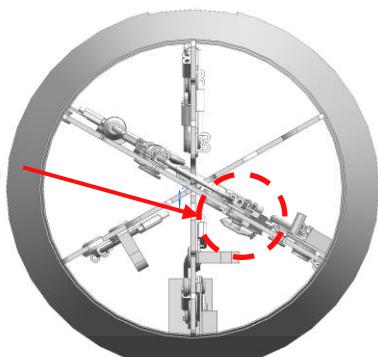
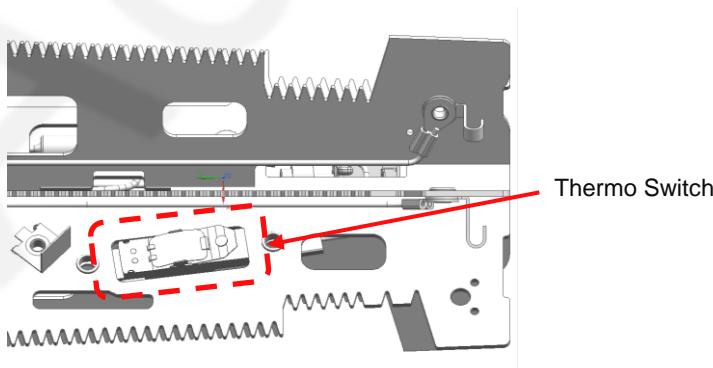


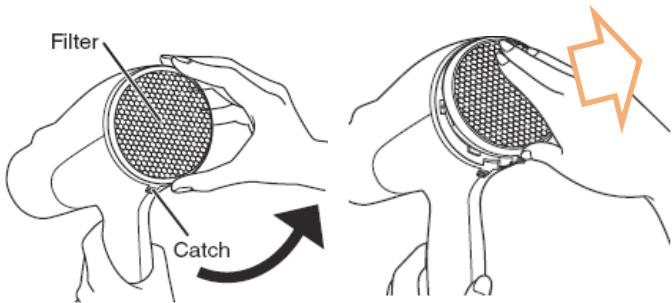
Figure 7



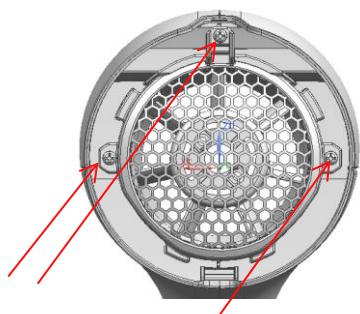
## 4. Disassembly and Assembly Instructions

### 4.1. Disassembly Instructions

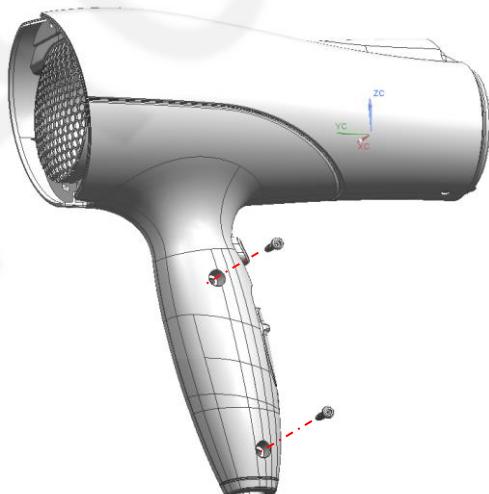
#### 1. Remove the FILTER FRAME ASSEMBLY



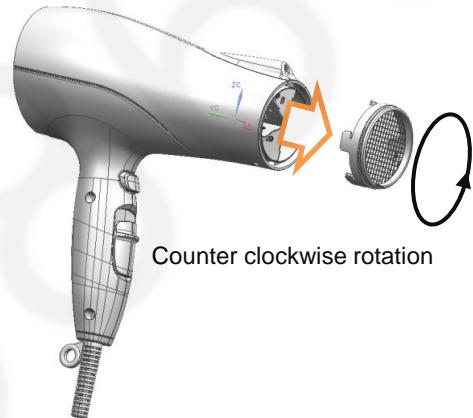
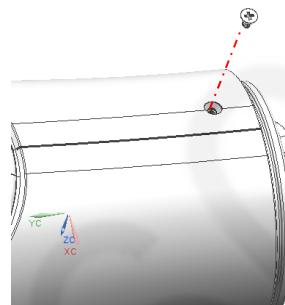
#### 2. Remove 3 TAPPING SCREWS by a cross slot screw driver, then Remove AIR INLET RING.



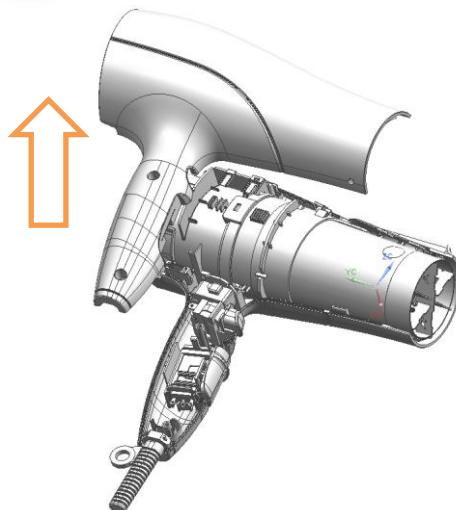
#### 3. Remove 2 TAPPING SCREWS at HOUSING A by flat-blade screwdriver and 2 TORX SCREWS at HANDLE by Driver then remove HANDLE AB.



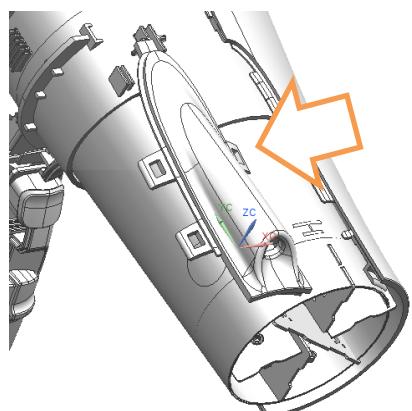
#### 4. Remove TAPPING SCREWS by a cross slot screw driver. Then take out AIR OUTLET RING and AIR OUTLET GRILL by rotating follow the direction below.



#### 5. Take off HOUSING AB follow the figure below.



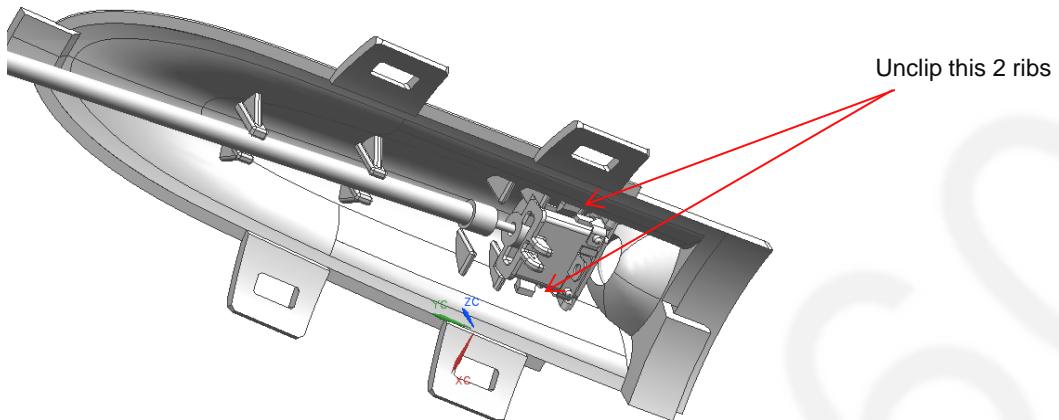
#### 6. Remove DISCHARGE COVER



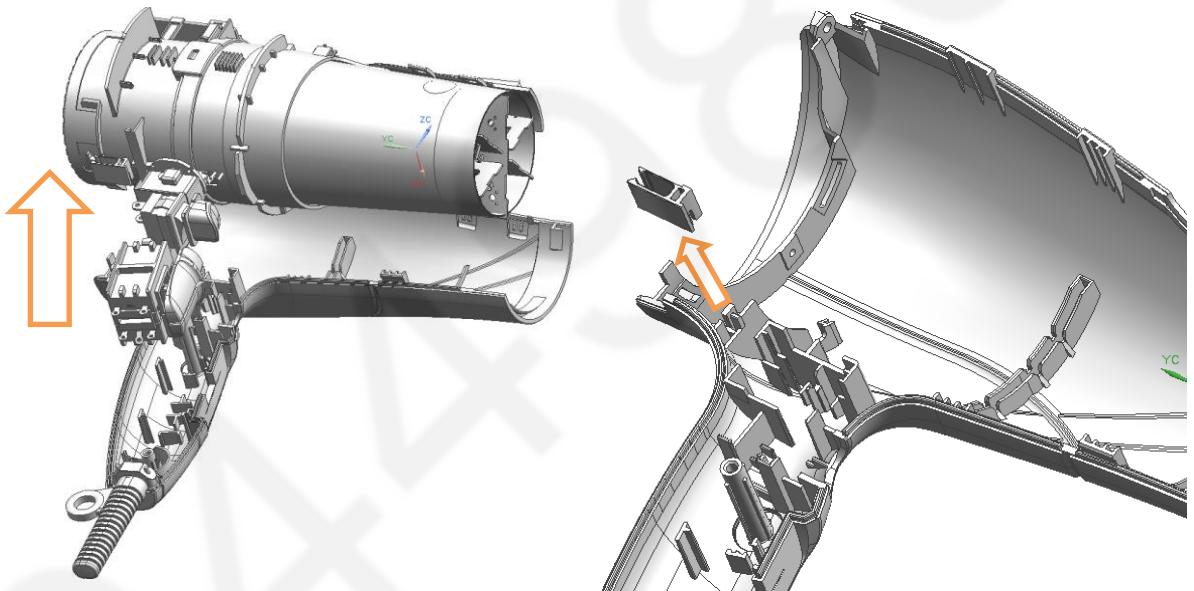
## 4. Disassembly and Assembly Instructions

### 4.1. Disassembly Instructions

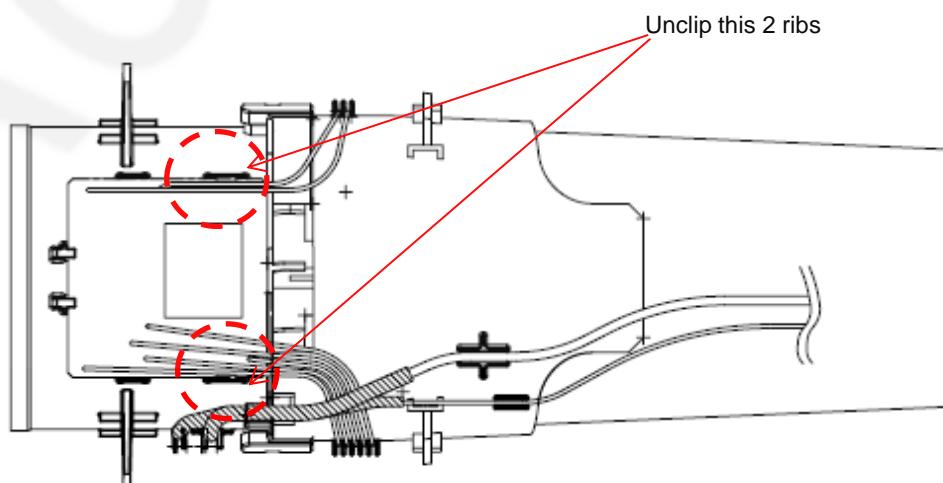
7. Remove Ion Holder from DISCHARGE COVER as figure below.



8. Take off MOTOR HEATER ASSEMBLY, and PLATE SPRING from HOUSING B.

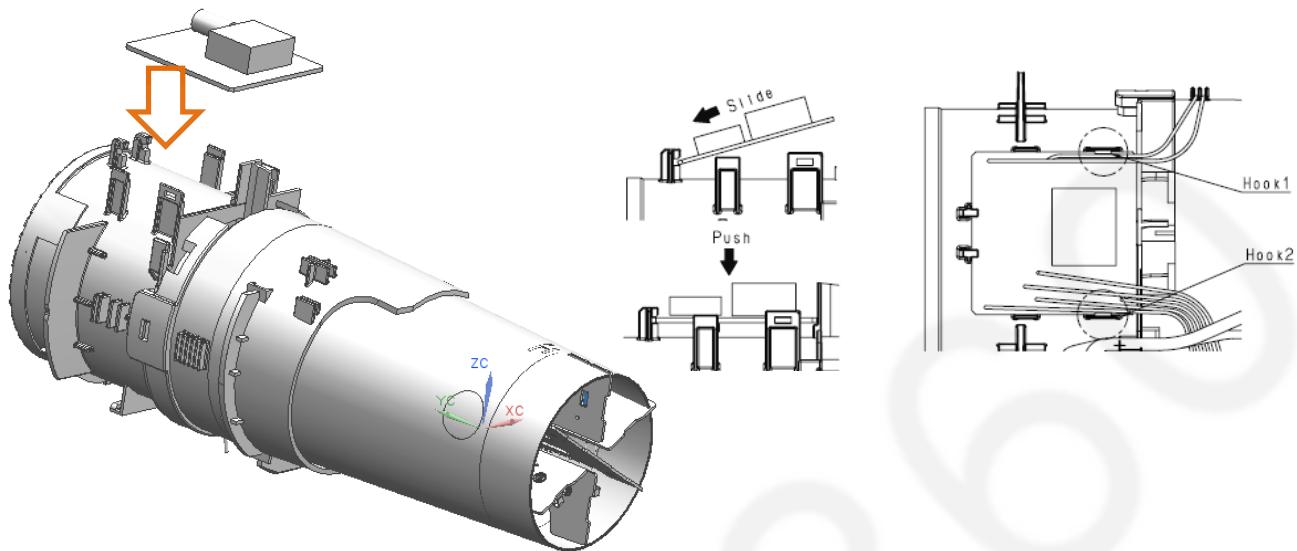


9. Remove PRINTED CIRCUIT ASSEMBLY from MOTOR HEATER ASSEMBLY as figure below

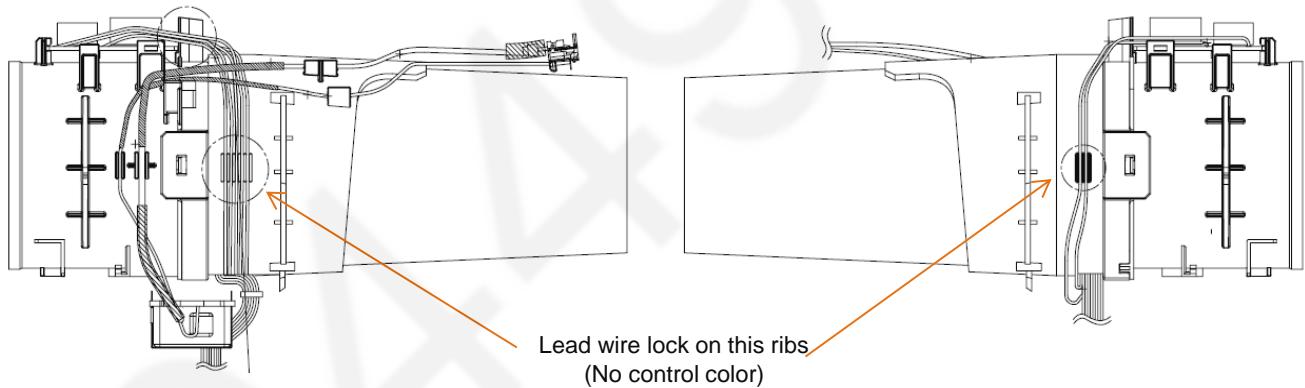


## 4.2 Assembly Instructions

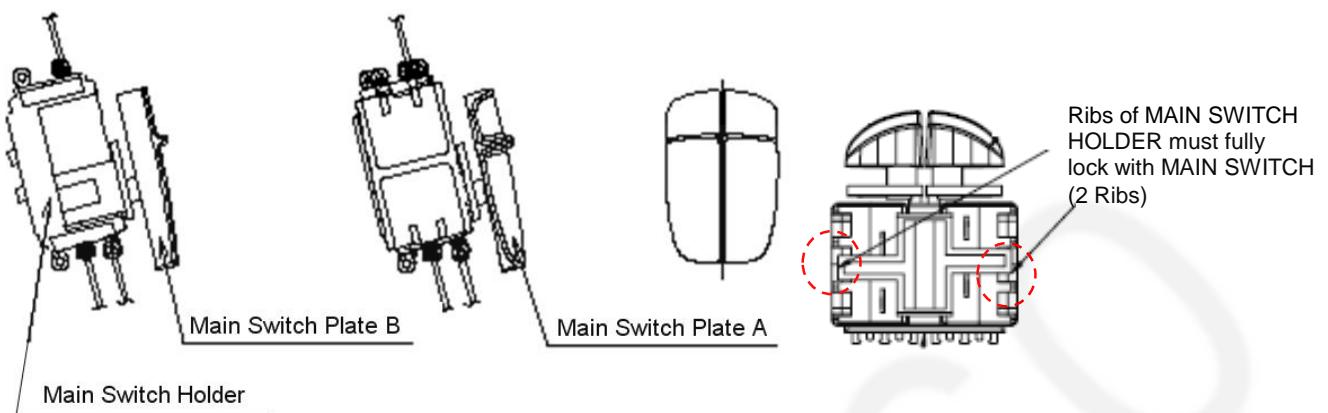
1. Install PRINTED CIRCUIT ASSEMBLY into MOTOR HEATER ASSEMBLY as figure below.



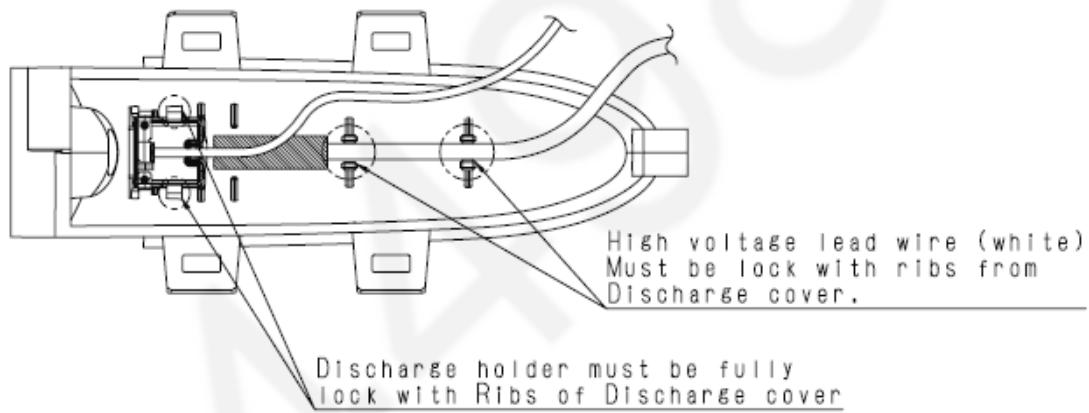
Lead wire for PCB must be lock with ribs of MOTOR HEATER ASSEMBLY as below.



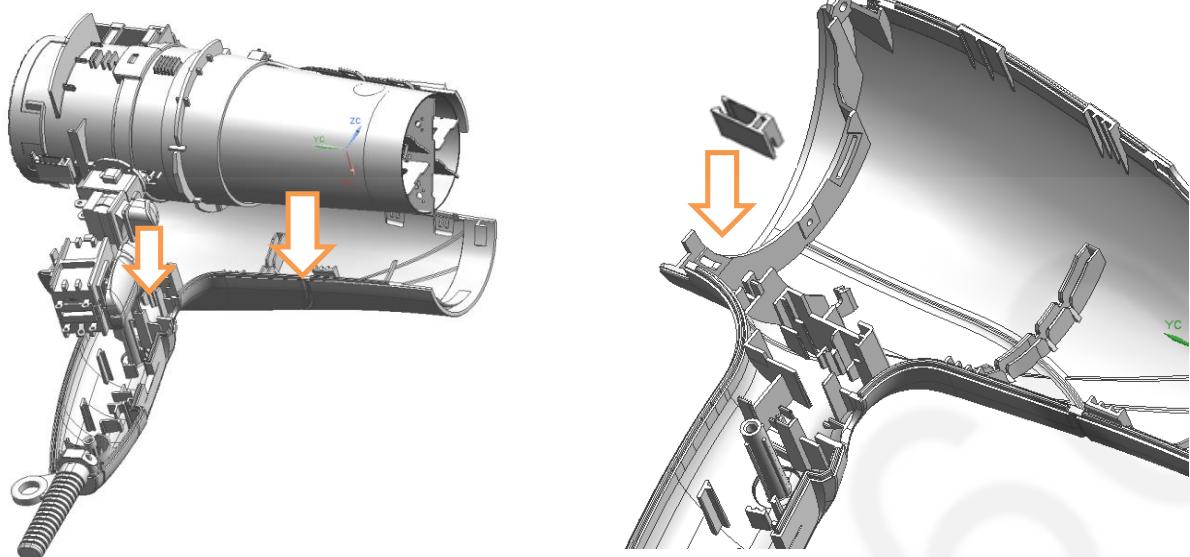
2. Install MAIN SWITCH PLATE AB and MAIN SWITCH HOLDER.



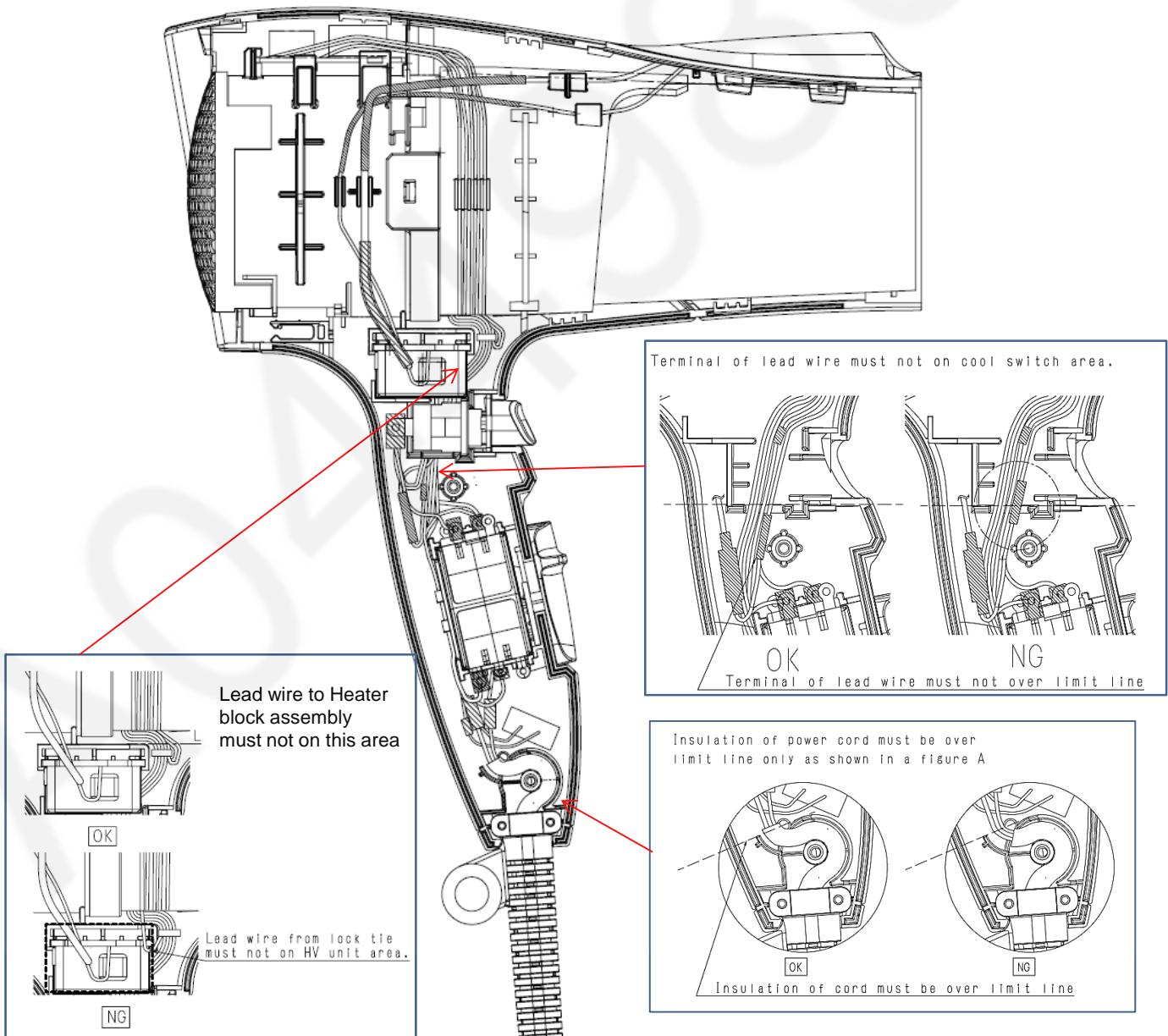
3. Install Ion discharge in to DISCHARGE COVER.



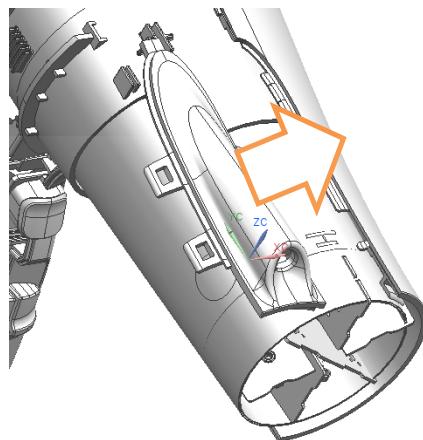
4. Assemble MOTOR HEATER ASSEMBLY, COOL SWITCH PLATE and PLATE SRPING into HOUSING B.



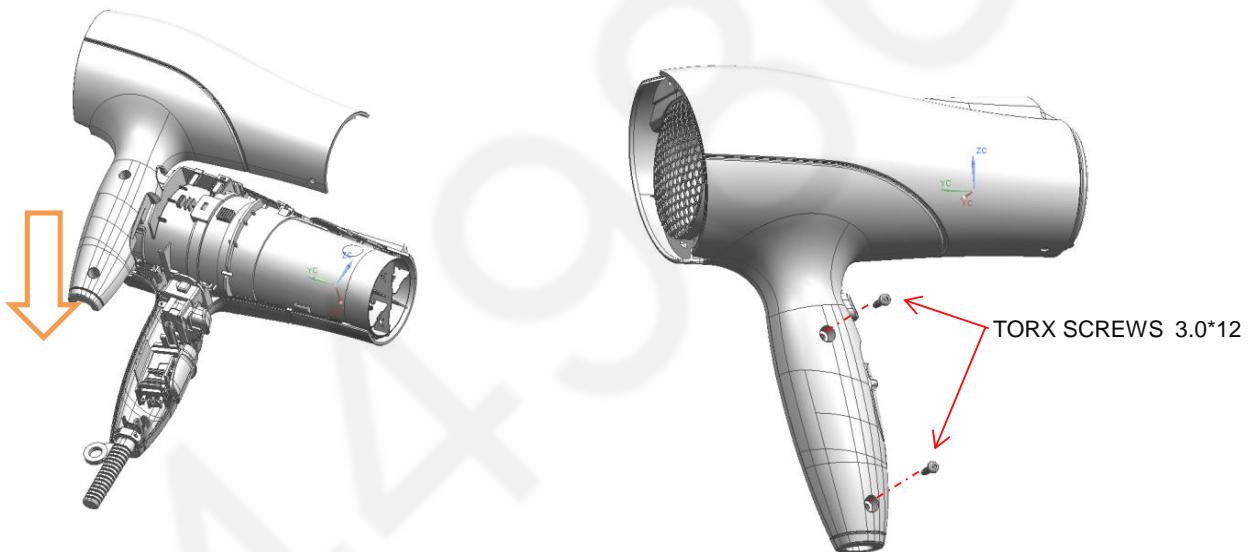
Position of component must be as below



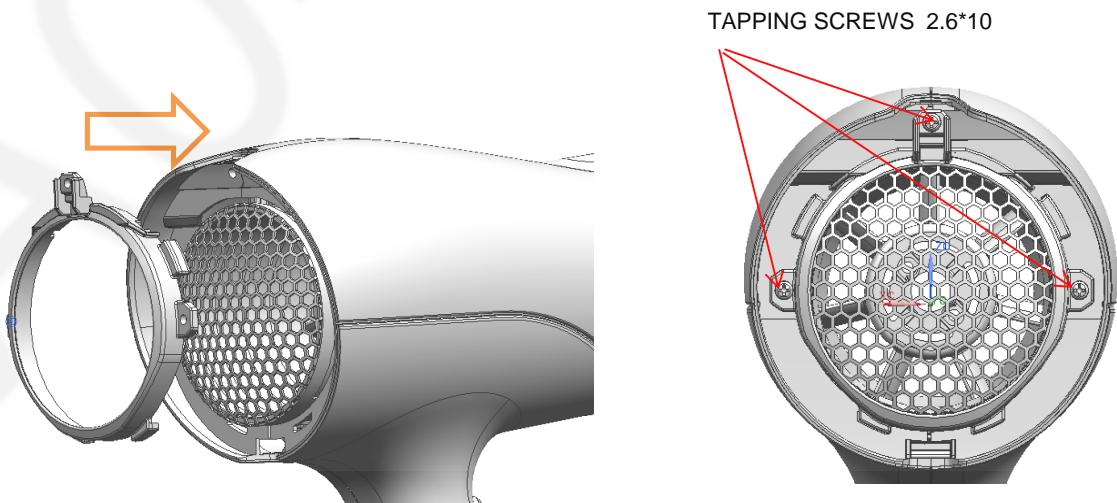
5. Assemble DISCHARGE COVER / DESIGN COVER into HOUSING B.



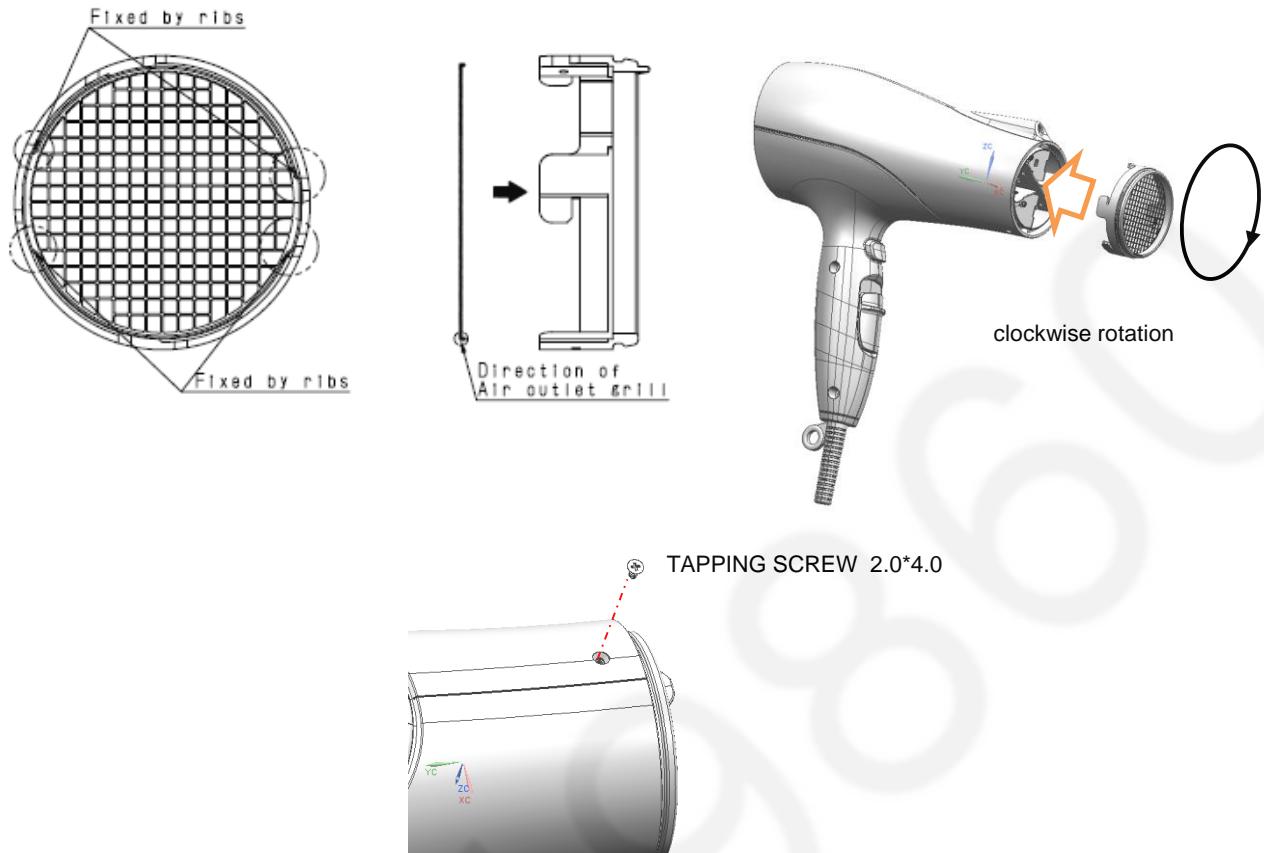
6. Assemble HOUSING A, then tightening 2 TORX SCREWS.



7. Assemble AIR INLET RING and 3 TAPPING SCREWS.



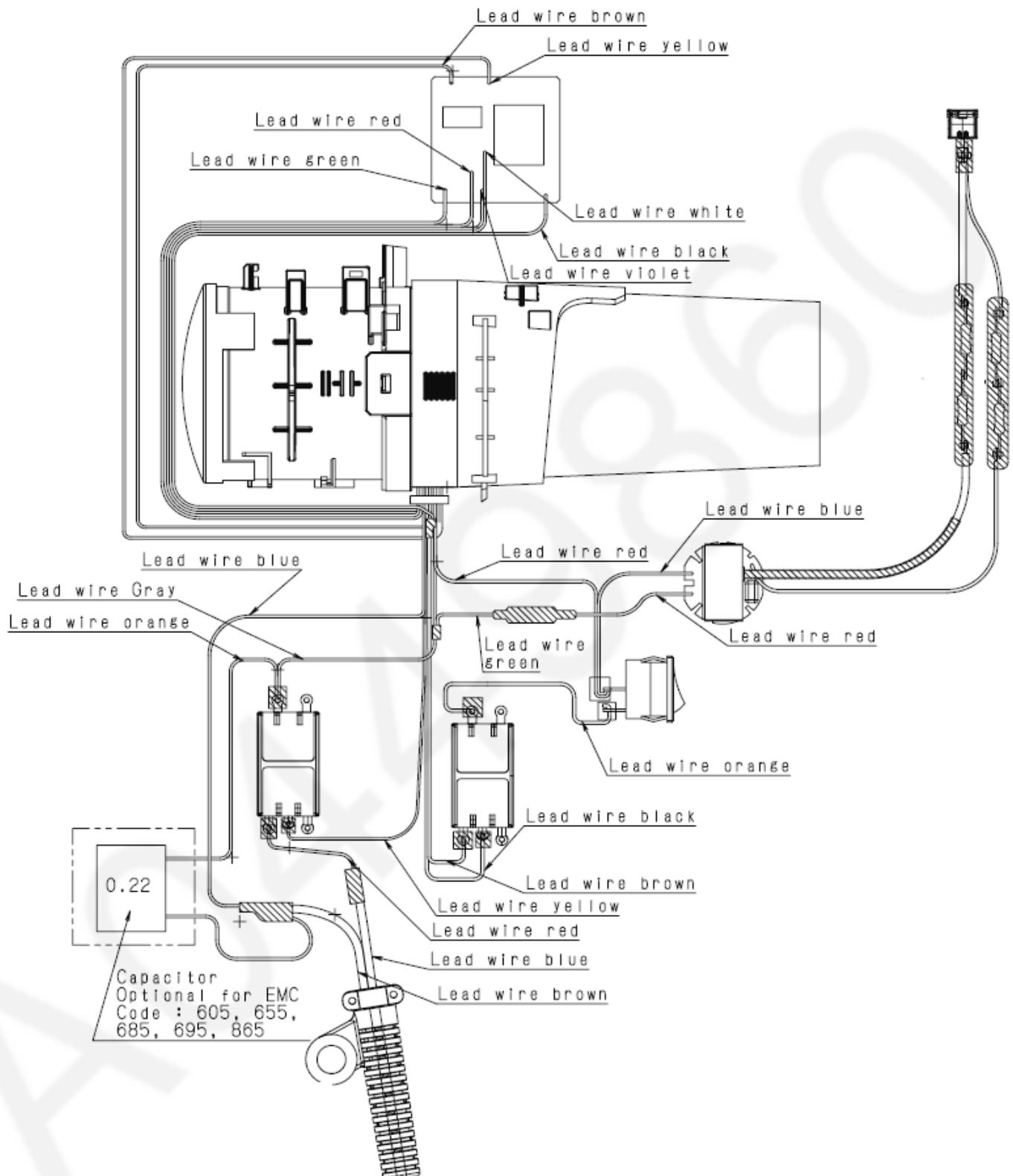
8. Install a AIR OUTLET GRILL into AIR OUTLET RING. Then install in to MAIN BODY with TAPPING SCREW.



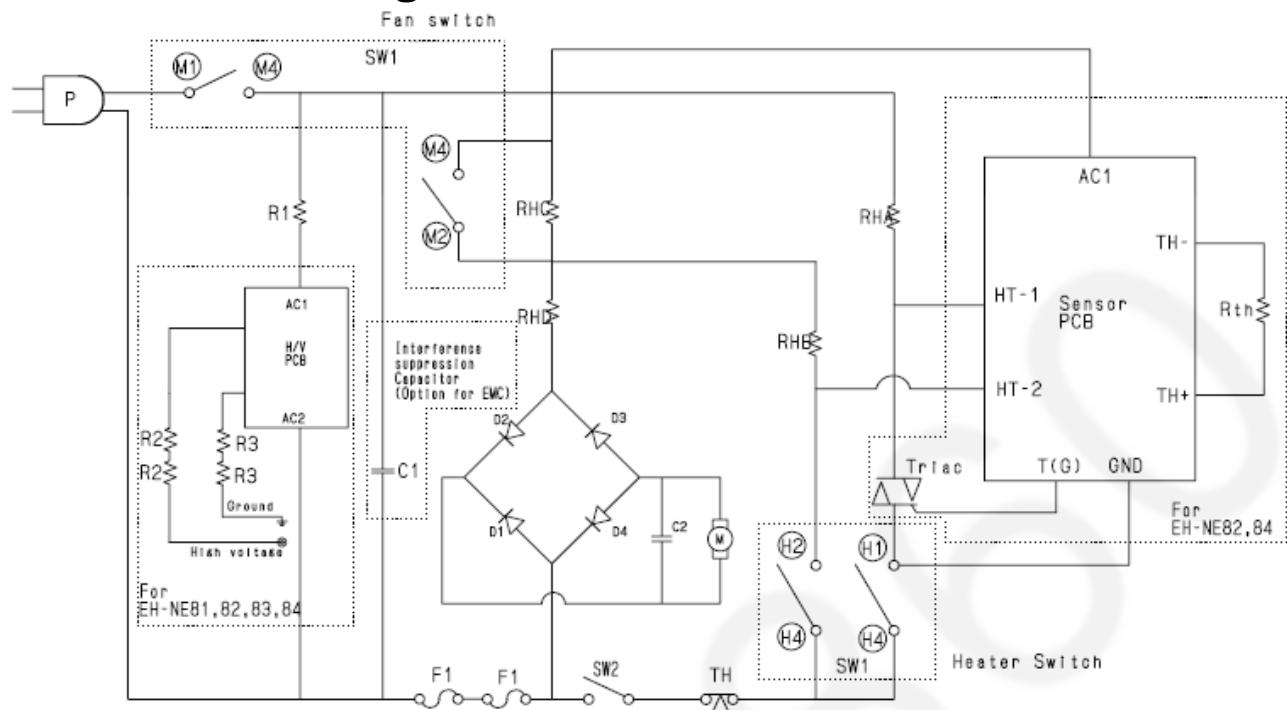
9. Install a FILTER FRAME ASSEMBLY.



## 5. Wiring Connection Diagram



## 6. Schematic Diagram



Main Sw.	1-4	2-4	3-5
O	X	X	X
I	O	X	X
II	O	O	X

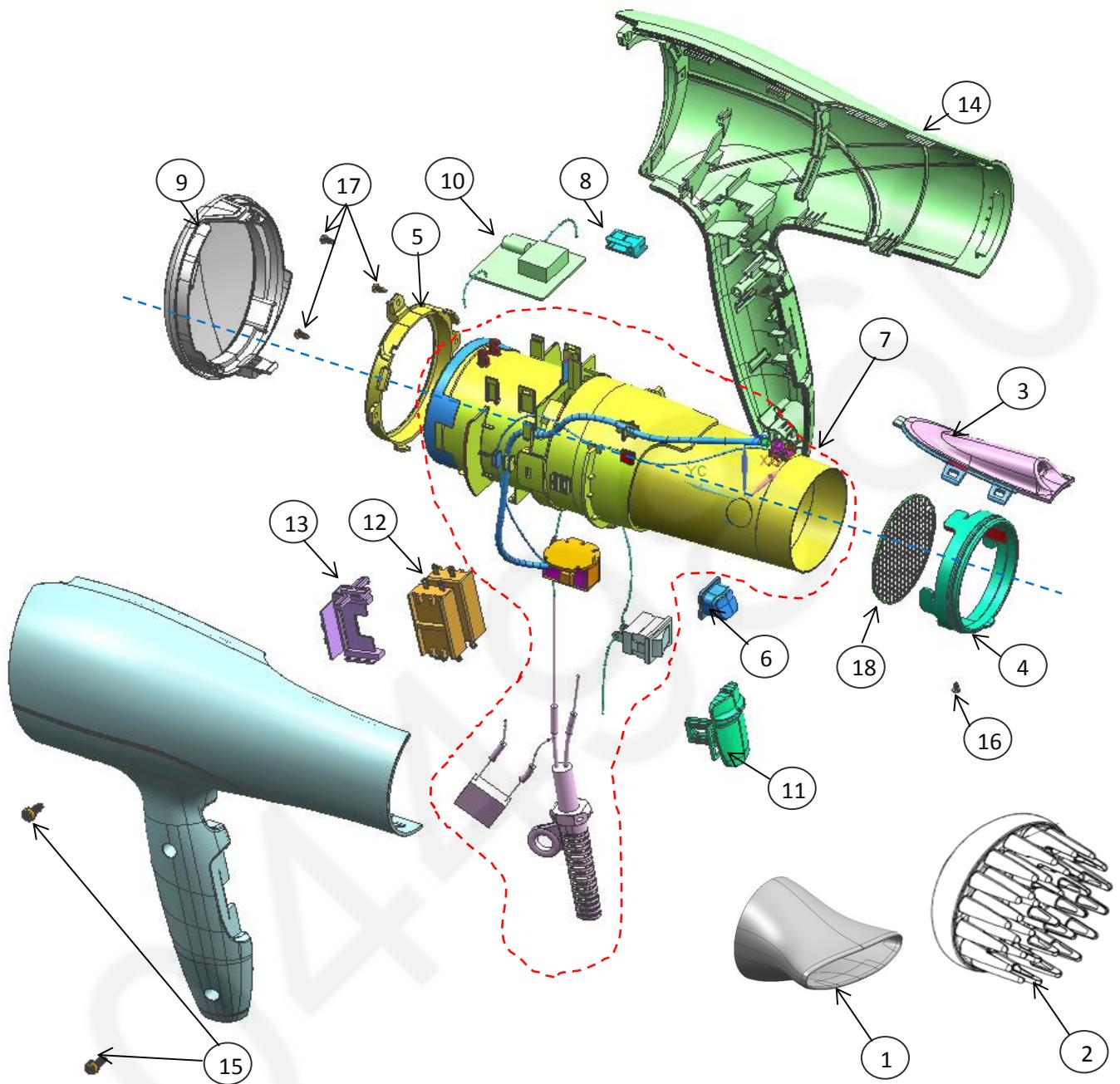
Temp Sw.	1-4	2-4	3-5
Cool mode	X	X	X
Healthy mode (EH-NE81, 83, N2500)	O	X	X
Sensor mode (EH-NE82, 84)	O	O	X
Hot mode	O	O	X

Cool Sw.	11-12
Off	O
On	X

Symbol	Part name	Specification
RHA, RHB	Resistance Wire A, B	FCHW1, 11.5 Ω/m
RHC	Resistance Wire C	FCHW1, 7.13 Ω/m
RHD	Resistance Wire D	NCHW2, 21.29 Ω/m
TH	Thermo Switch	80 ± 5 °C
F1	Temperature Fuse	15 A, 250 V, 142 °C
M	Motor	26 VDC
SW2	Cool Switch	250 V, 10 A
C1	Interference Suppression Capacitor	0.22 μF, 275 VAC
C2	Capacitor Across Motor	0.10 μF, 100 VDC
R1	Fixed Resistance (R1)	27 kΩ, 2W
R2	Fixed Resistance (R2)	3.3 MΩ, 1/2W
R3	Fixed Resistance (R3)	1.0 MΩ, 1/2W
P	Power Cord	
HV PCB	Hi-Voltage Circuit PCB	
Sensor PCB	Sensor Printed Circuit Board	
D1 - D4	Diode (Rectifier)	400 V, 2A
SW1	Main Switch	250VAC, 15A

## 7. EXPLODED VIEW & REPLACEMENT PARTS LIST

### 7.1. Exploded View for : EH-NE84



All parts are supplied from PMFTH-AP through PLAP

## 7.2 Parts List for EH-NE84

Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
	1	EHNE84SNZBW	SET NOZZLE (BLACK)	1	
	2	EHNE84DFABW	DIFFUSER ASSEMBLY	1	
	3	EHNE84DCBW	DISCHARGE COVER (BLACK)	1	
	4	EHNE84AORBW	AIR OUTLET RING (BLACK)	1	
	5	EHNE84AIRBW	AIR INLET RING (BLACK)	1	
	6	EHNE84CSBNW	COOL SWITCH BUTTON (COPPER GOLD)	1	
	7	EHNE84MHB2W	MOTOR HEATER ASSEMBLY	1	B2-PLUG,FOR -K615,SET LOCKING TIE
	7	EHNE84MHS3W	MOTOR HEATER ASSEMBLY	1	S3-PLUG,FOR -K685,SET LOCKING TIE
	8	EHNE84PSPW	PLATE SPRING	1	
	9	EHNE84FTFBW	FILTER FRAME ASSEMBLY	1	
	10	EHNE84PCBW	PRINTED CIRCUIT ASSEMBLY	1	
	11	EHNE84MSPBW	MAIN SWITCH PLATE AB (BLACK)	1	
	12	EHNE84MSW	MAIN SWITCH	1	2pcs/PACK,SET TUBE L:10mm.*6 pcs.
	13	EHNE84MSHTW	MAIN SWITCH HOLDER (NATURAL)	1	
	14	EHNE84HS615W	HOUSING AB ASSEMBLY	1	FOR -K615
	14	EHNE84HS685W	HOUSING AB ASSEMBLY	1	FOR -K685
	15	EHNE84T3012W	TORX SCREW 3.0*12	2	*1
	16	EHNE84T2004W	TAPPING SCREW 2.0*4 (BLACK)	1	
	17	EHNE84T2610W	TAPPING SCREW 2.6*10 (BLACK)	3	*1
	18	EHNE84AOGW	AIR OUTLET GRILL	1	
-	EHNE84S03W	OPERATING INSTRUCTIONS	1	FOR -K615	
-	EHNE8468503W	OPERATING INSTRUCTIONS WITH STICKER F	1	FOR -K685	
-	EHNE84S615KW	INDIVIDUAL PACKAGE	1	FOR -K615	
-	EHNE84S685KW	INDIVIDUAL PACKAGE	1	FOR -K685	
-	EHNE84S09W	FILLER FOR PACKAGE	1		
-	EHNE84S55W	POUCH FOAM	1		

Remarks : \*1 Individual Available