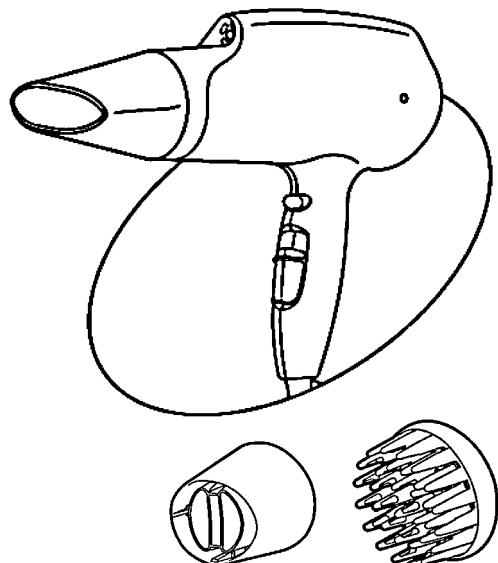


# Service Manual

(Household) Hair Dryer

Model No. EH-NA65

Asia



## ⚠ 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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# 1 Warning

## Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher. Please use a soldering iron with temperature control and adjust it to  $750 \pm 20^{\circ}\text{F}$  ( $400 \pm 10^{\circ}\text{C}$ ). 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	Approx. "3-Hot" 220V 1700 W 230V 1850 W 240V 2000 W
Air volume with nozzle	1.40 m <sup>3</sup> /min
Air flow temperature (3-Hot)	110 K (in case of room temperature 30°C)
Dimensions	(W) 90 x (D) 210 x (H) 310 mm
Cord length	Code 615 / 665 / 685 / 695 = 1.7 m
Weight	Approx. 547 g

Supplied accessories	Set Nozzle, Speed Dry Nozzle , Diffuser Nozzle
----------------------	--

### 3 Troubleshooting Guide

Refer to Wiring Connection Diagram.

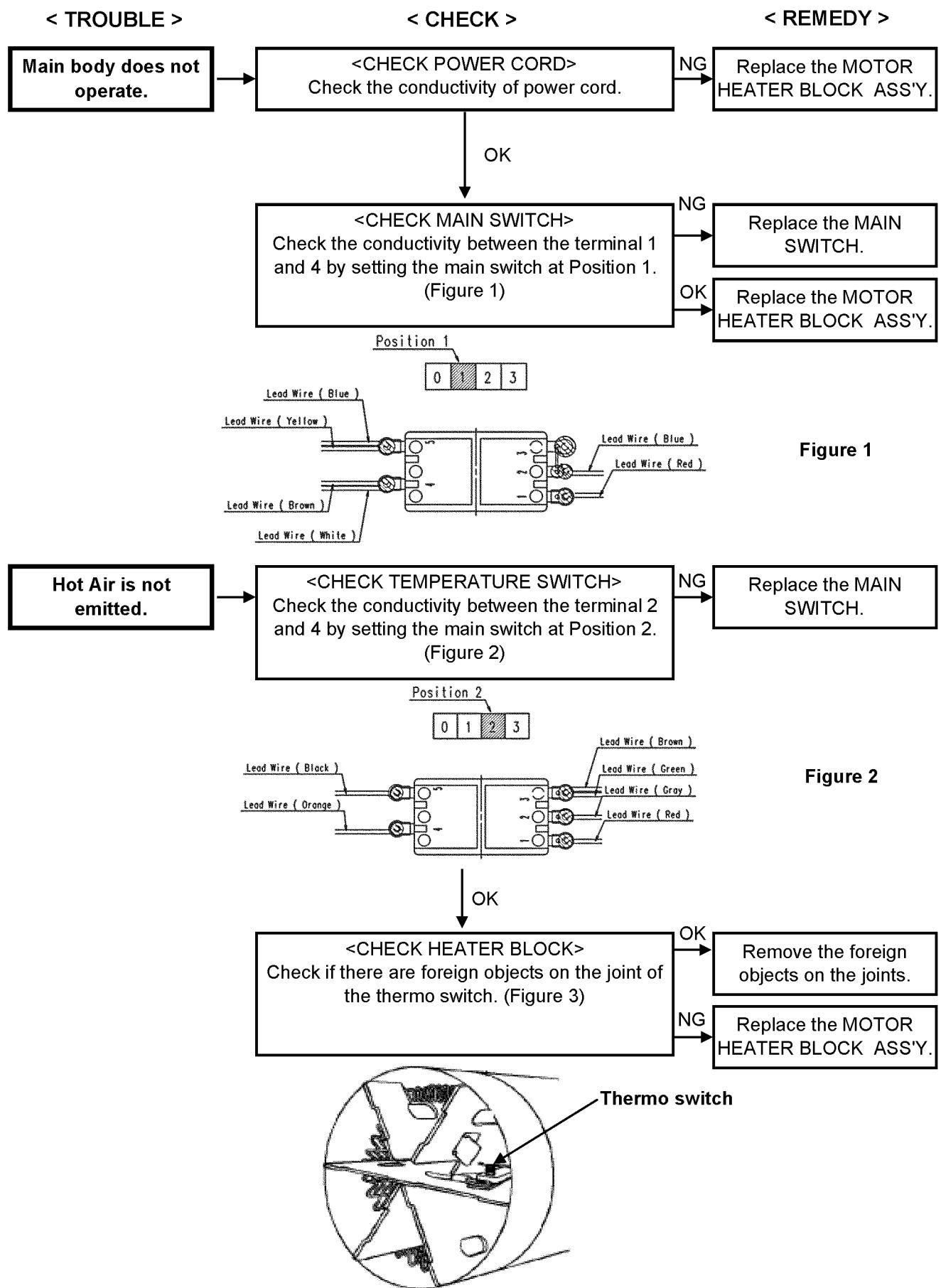


Figure 1

Figure 2

< TROUBLE >

LED lights up  
or Nano ion is not emitted.

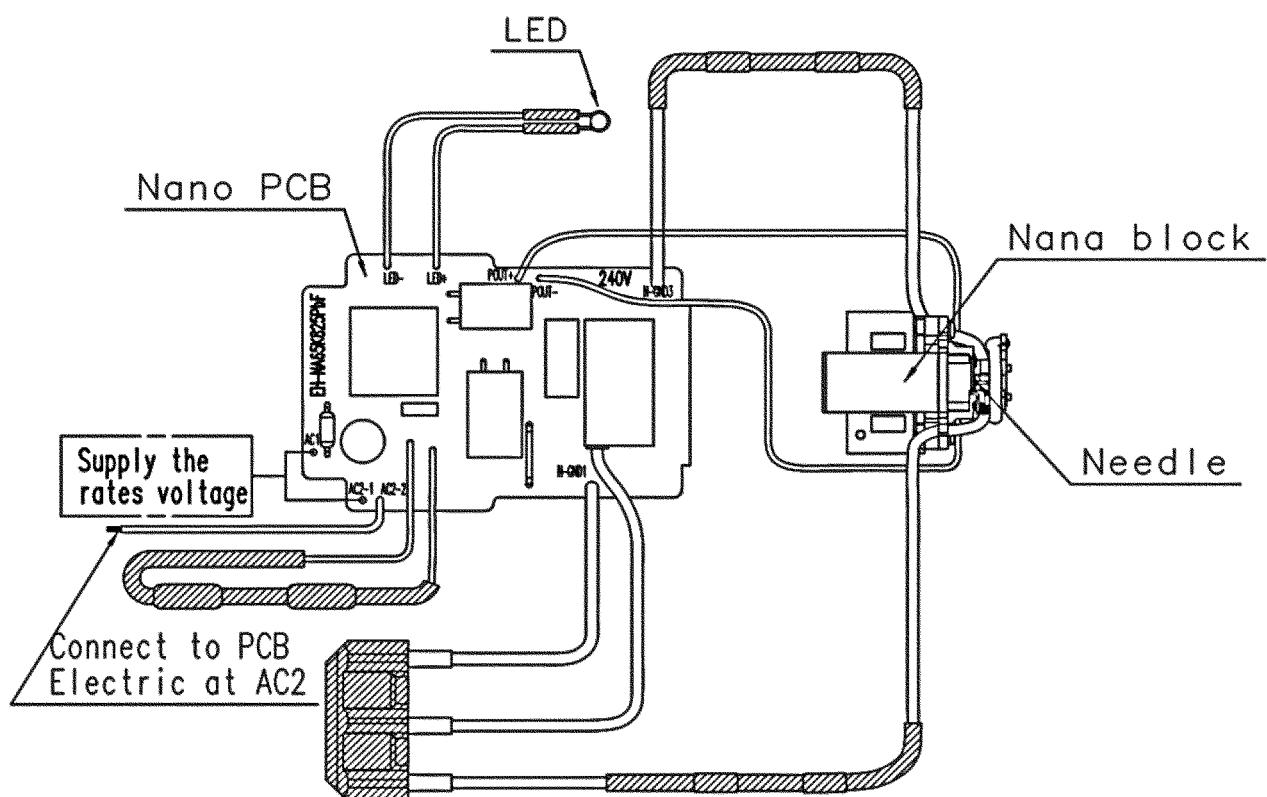
< CHECK >

<CHECK NANO PCB TERMINAL>

Check the Blue/Orange ray on tips of the Nano block needles with rated voltage supplied on Nano PCB terminal and Check Blue ray from LED. (Figure 4)

< REMEDY >

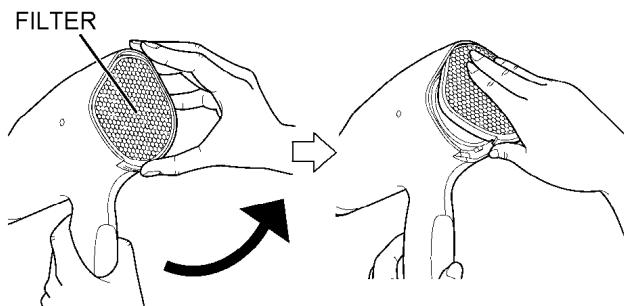
NG  
Replace the Nano Circuit board assembly.



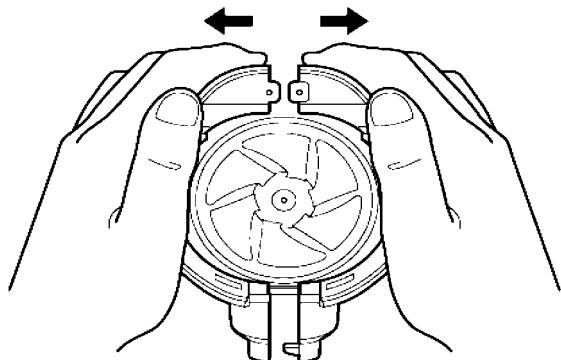
## 4 Disassembly and Assembly Instructions

### 4.1. Disassembly Instructions

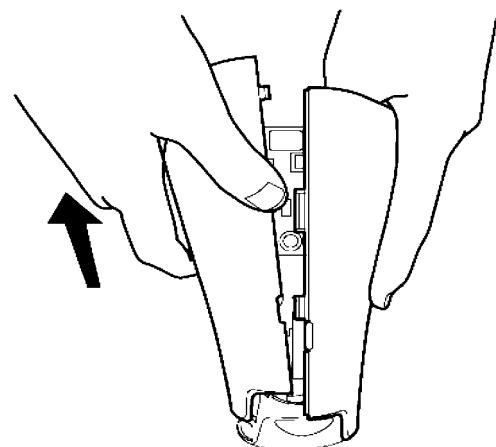
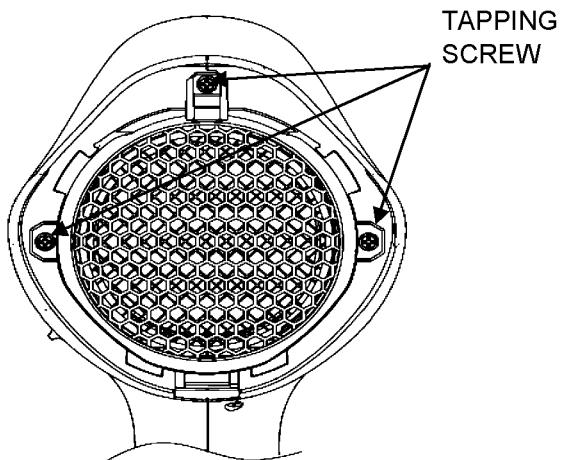
1. Remove the FILTER FRAME BLOCK ASS'Y.



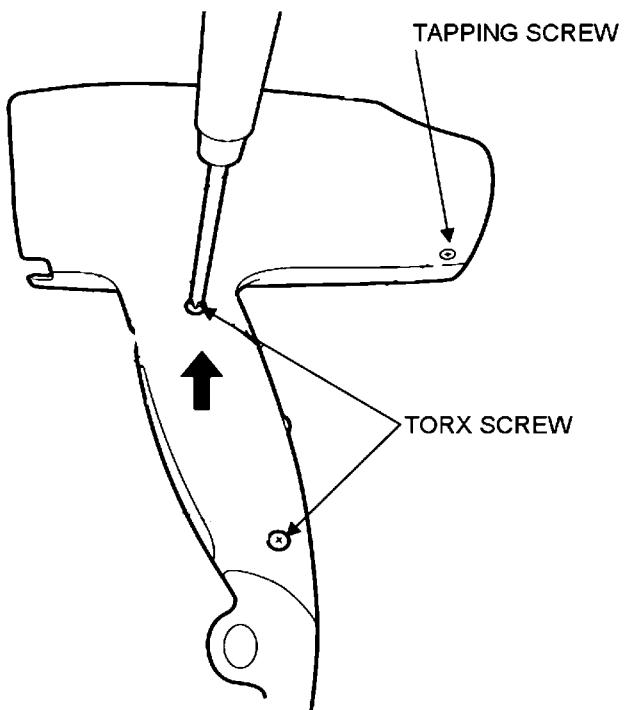
4. Take off HOUSING AB method as below.



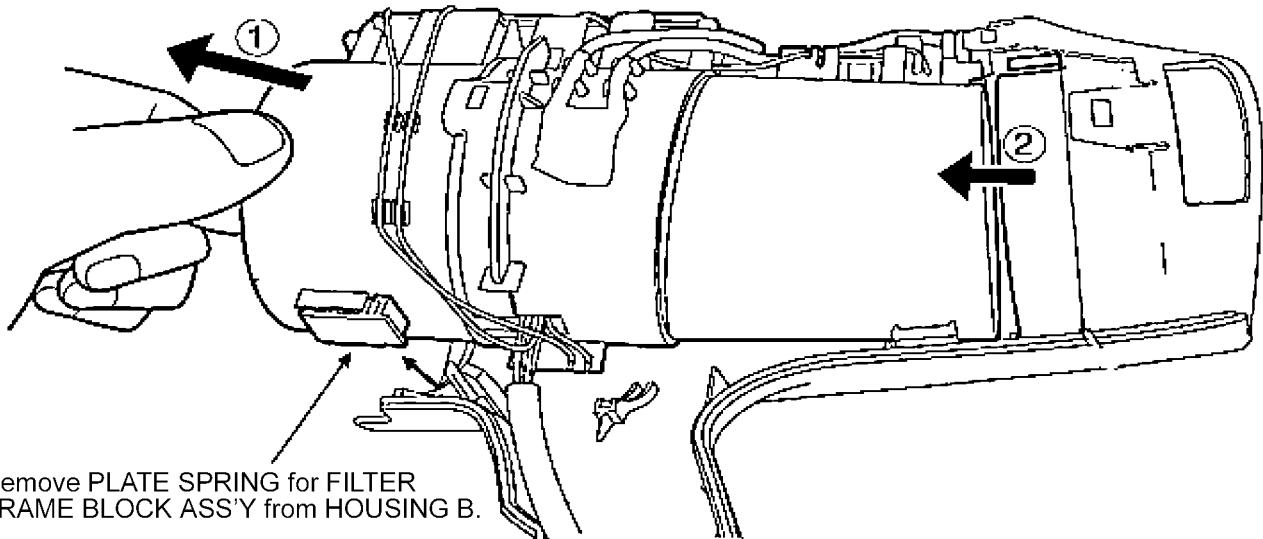
2. Remove three TAPPING SCREWS by a cross slot screw driver, then remove AIR INLET RING.



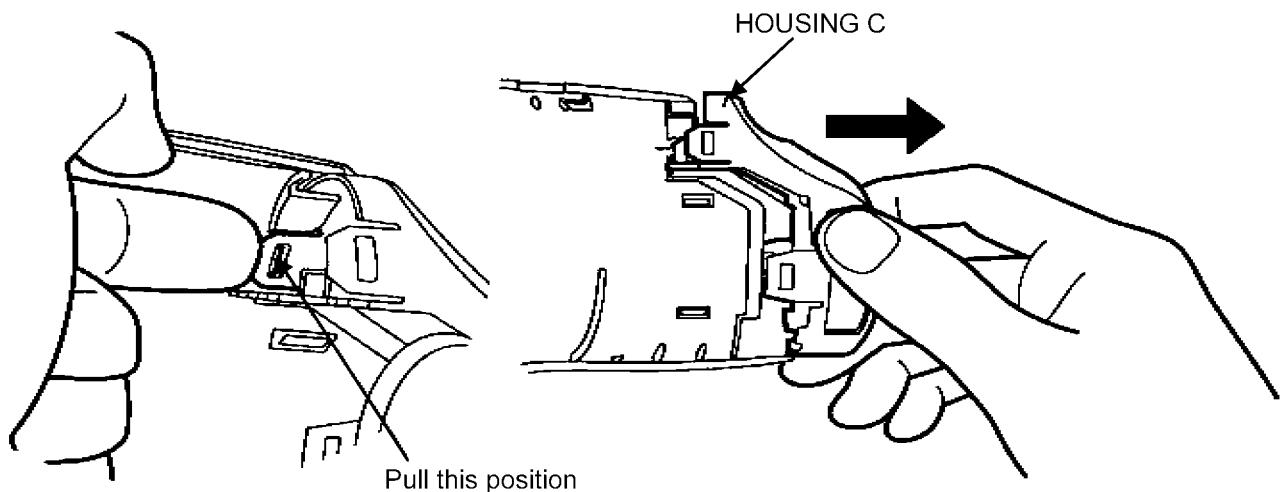
3. Remove TAPPING SCREW at HOUSING C by flat-blade screwdriver and two TORX SCREWS at HOUSING A by driver then remove HOUSING A.



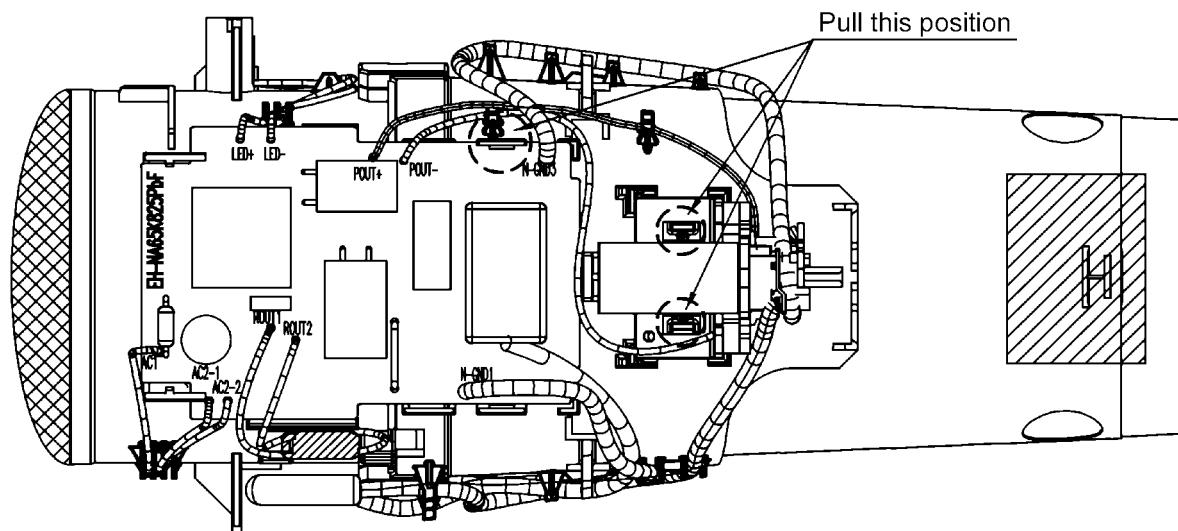
5. Remove MOTOR HEATER BLOCK ASS'Y and PLATE SPRING for FILTER FRAME BLOCK ASS'Y from AIR OUTLET RING, then remove AIR OUTLET RING as below.



6. Remove HOUSING C as below.

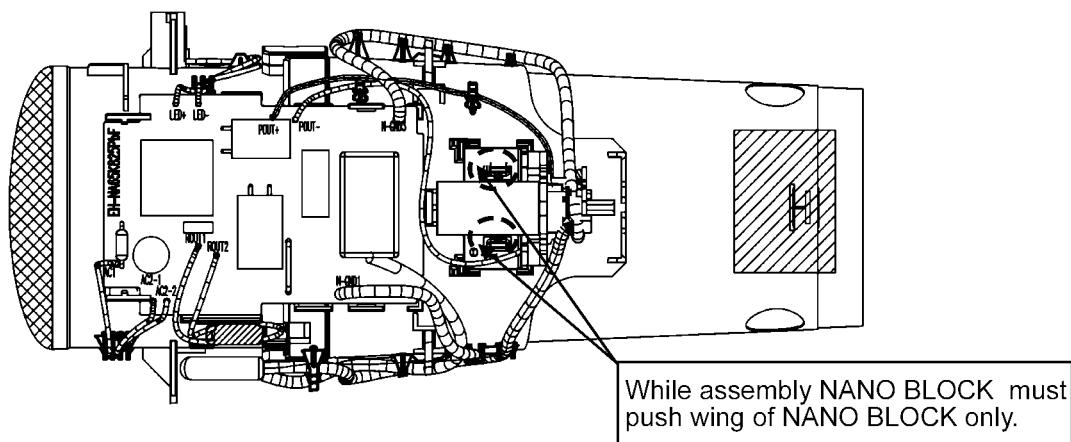
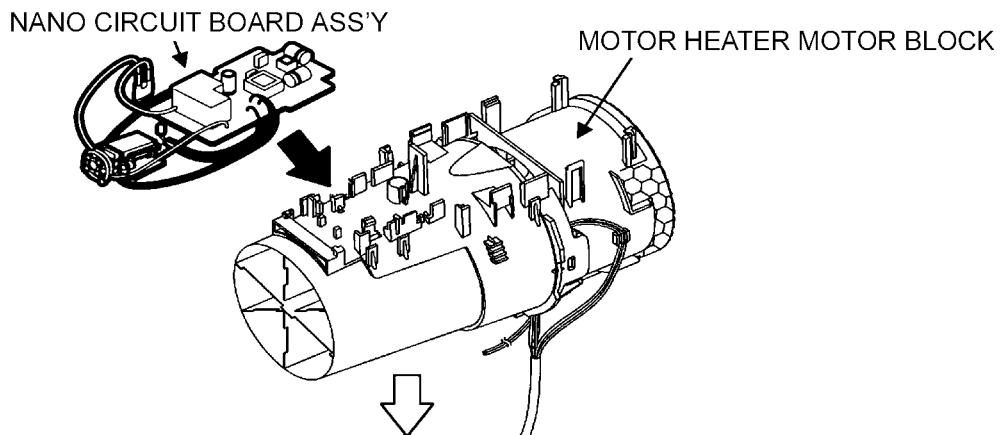


7. Remove NANO CIRCUIT BOARD ASS'Y from MOTOR HEATER BLOCK ASS'Y as below.



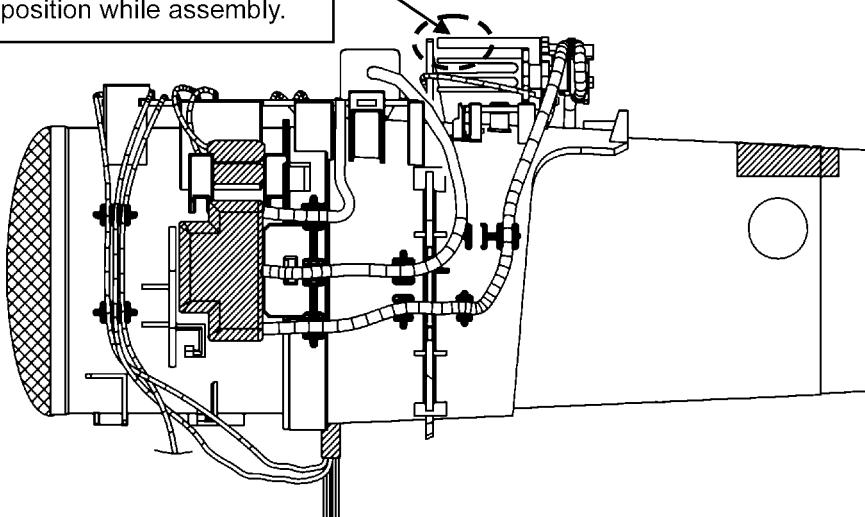
## 4.2. Assembly Instructions

1. Install NANO CIRCUIT BOARD ASS'Y into MOTOR HEATER MOTOR BLOCK as below drawing.

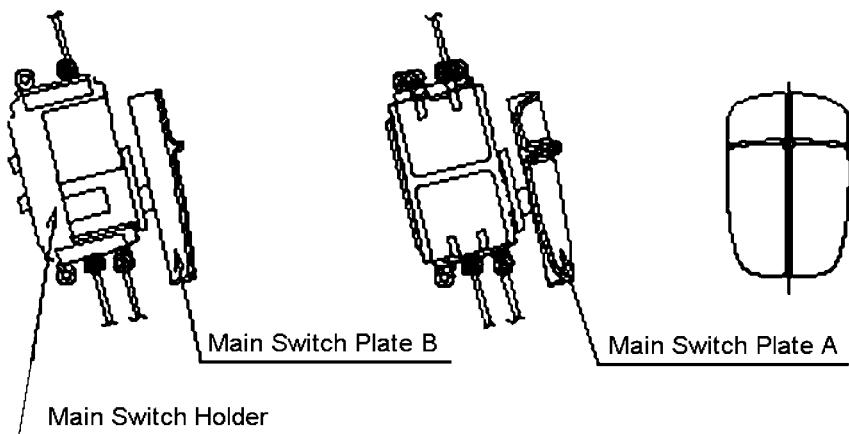


No push Nano Block at this position while assembly.

While assembly NANO BLOCK must push wing of NANO BLOCK only.

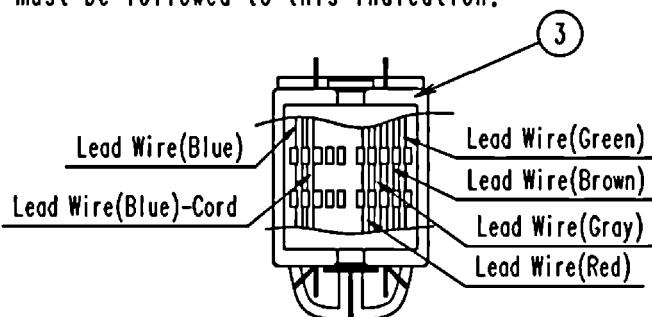


2. Install MAIN SWITCH PLATE A , B and MAIN SWITCH HOLDER.

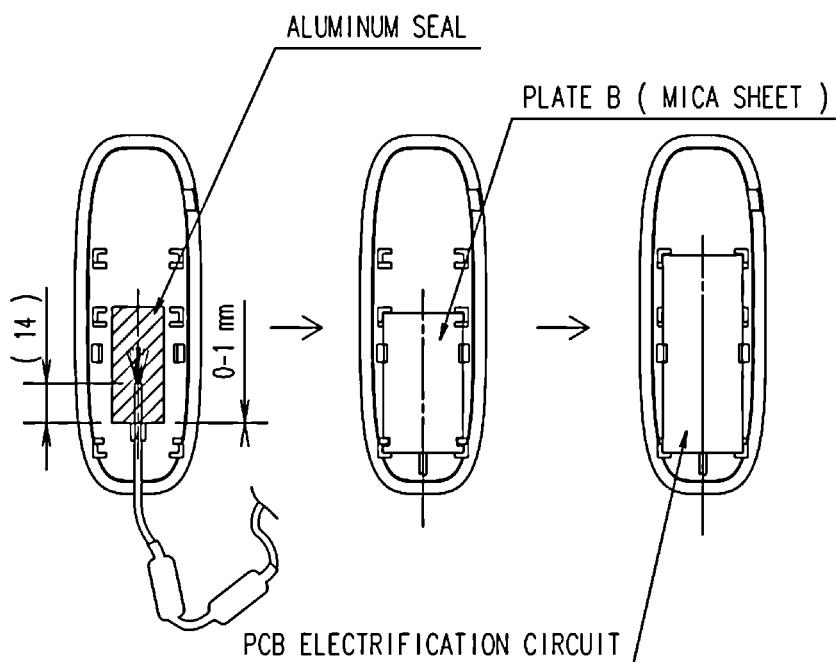


**Control points**

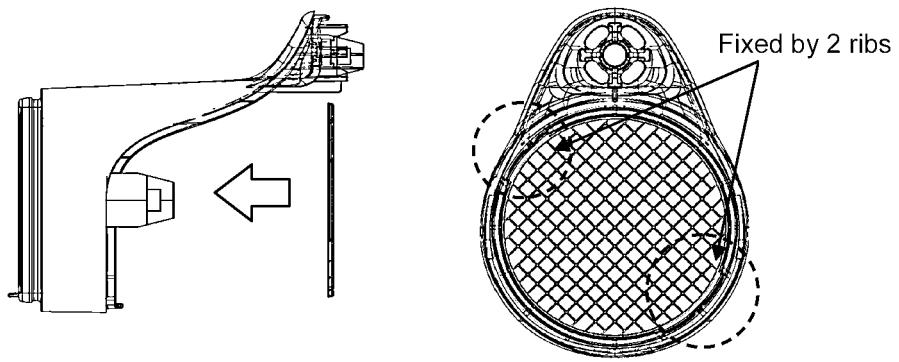
Lead Wire Arrangement on Heater Holder  
must be followed to this indication.



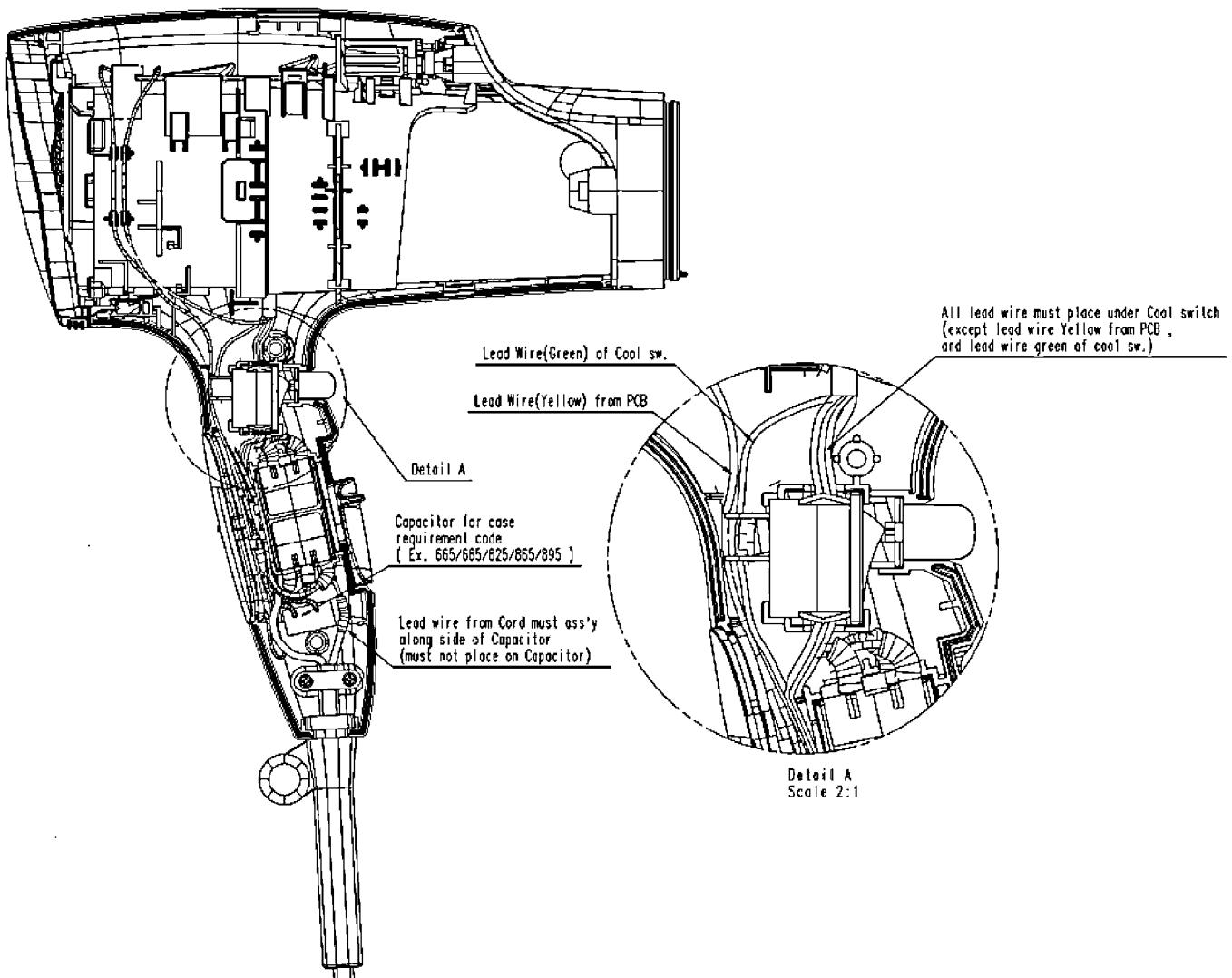
3. Install ION CHARGE BOARD ASS"Y to ELECTRIFICATION PANEL.



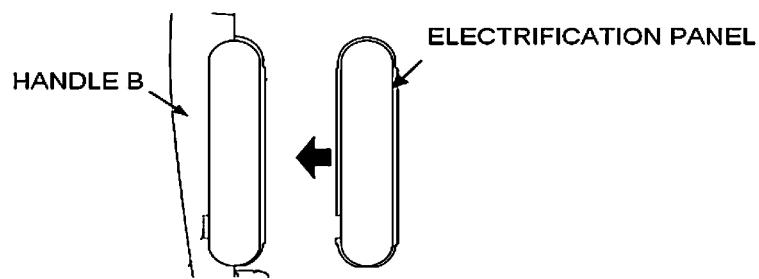
4. Install Air outlet grill into Air outlet ring.



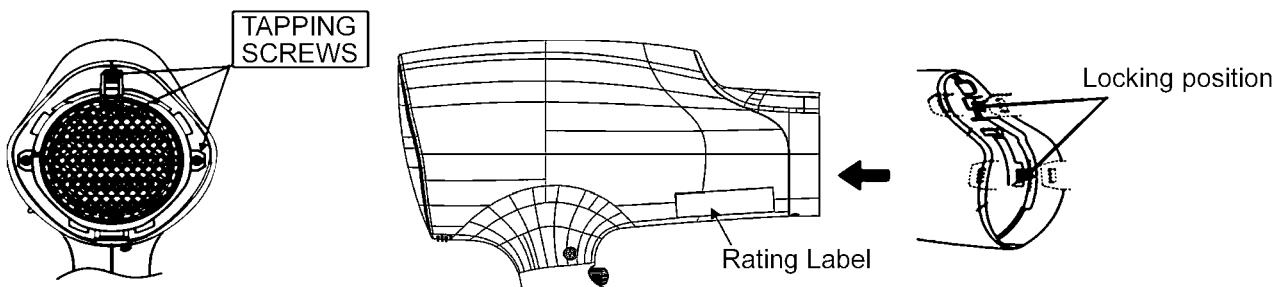
5. Install a MOTOR HEATER BLOCK ASS'Y, an AIR INLET RING, a LED COVER into HOUSING B.



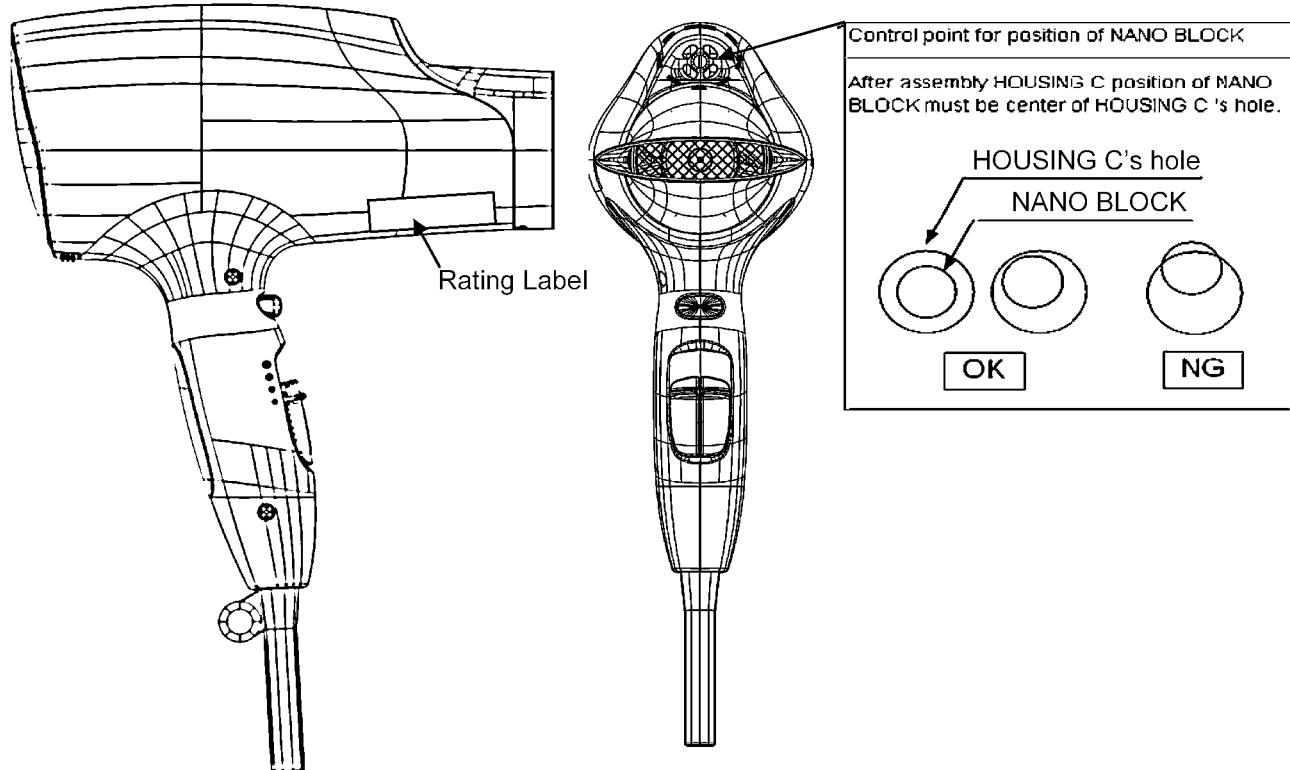
6. Install ELECTRIFICATION PANEL at HANDLE B.



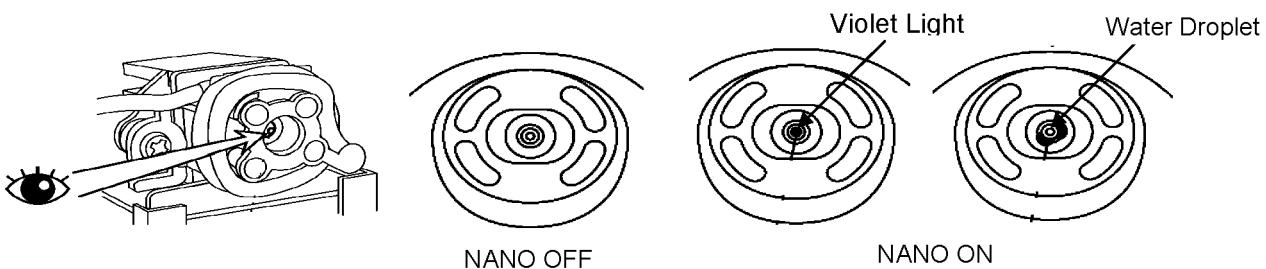
7. Install AIR INLET RING and set three TAPPING SCREWS (2.6\*10) as drawing, Install HOUSING C in HOUSING AB, then assemble HOUSING A and B and install FILTER FRAME LOCK ASS'Y in back side.



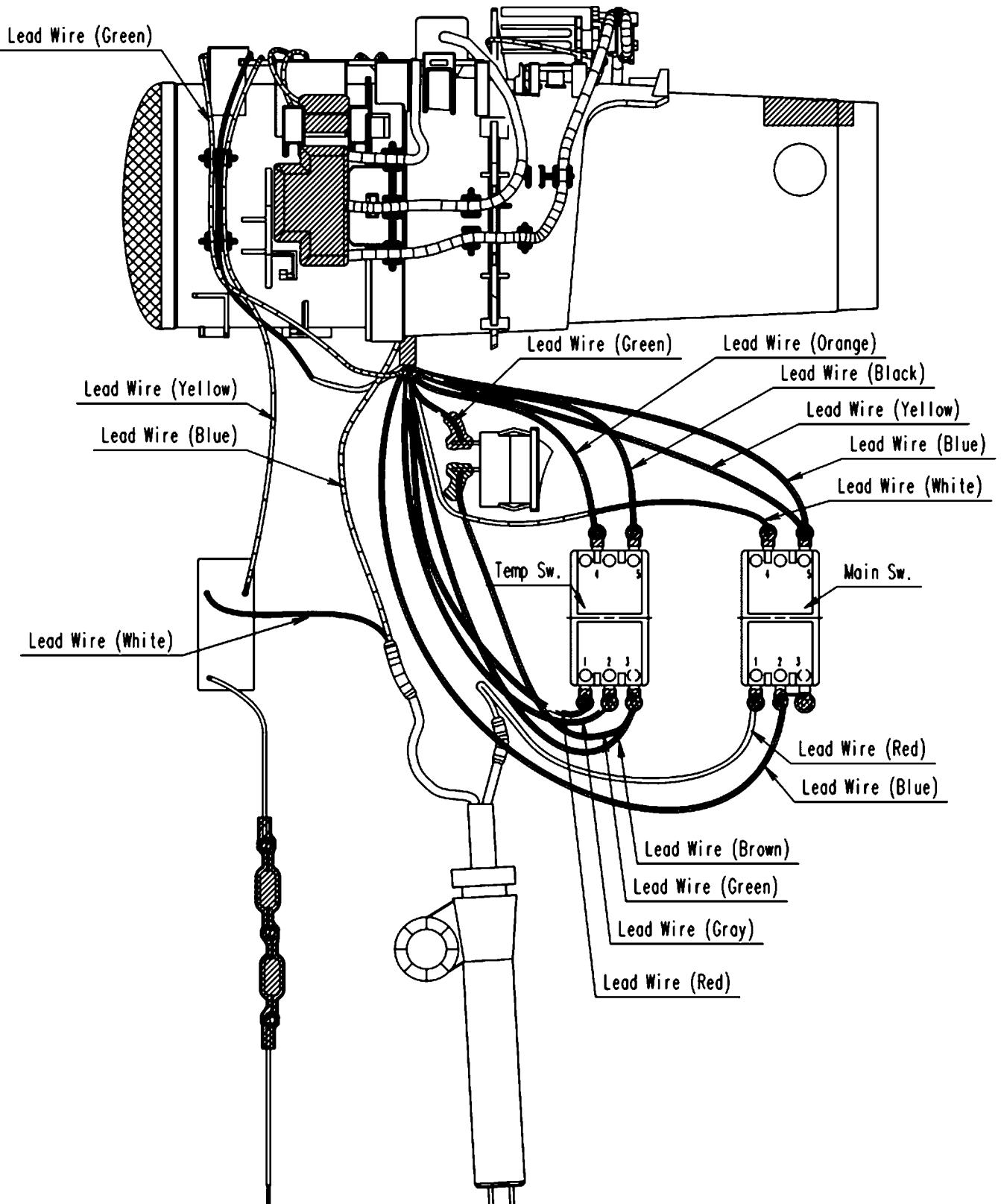
8. Set two TORX SCREWS (3.0\*12) at HOUSING A and fasten TAPPING SCREW (2.0\*4) at HOUSING C.



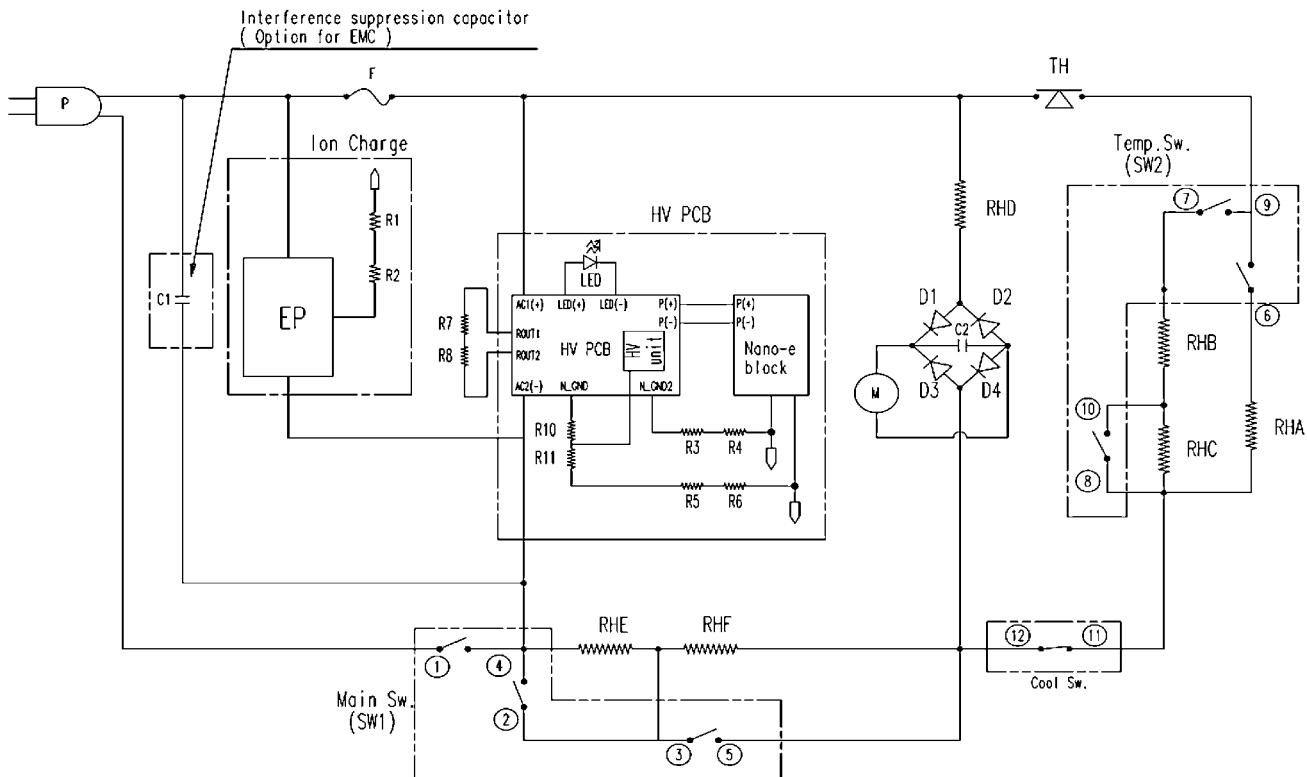
9. After assembly Mainbody and Nano effect must be Normal operate.



## 5 Wiring Connection Diagram



## 6 Schematic Diagram



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

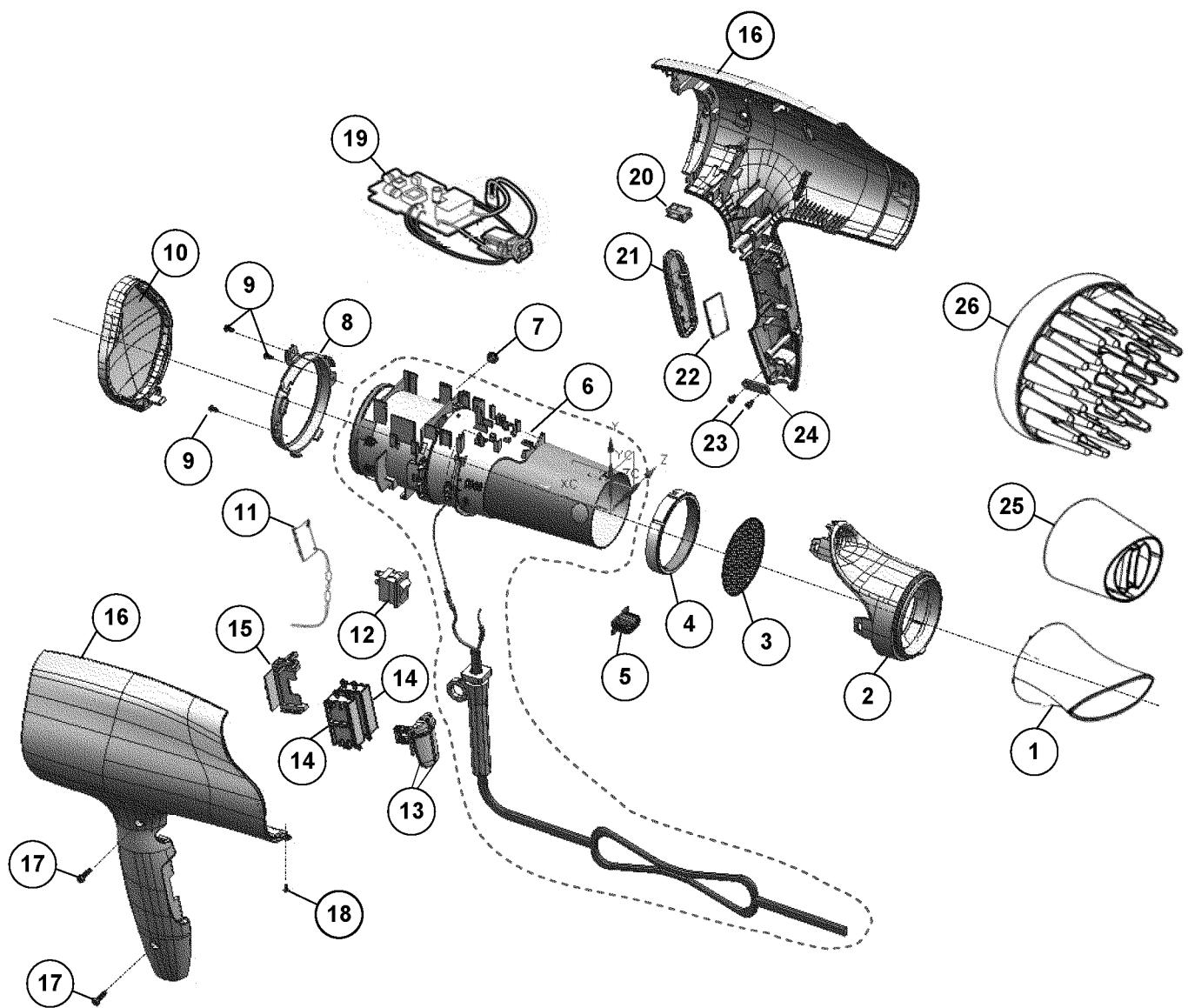
Temp Sw.	6-9	7-9	8-10
Cool	X	X	X
Mild	O	X	X
Warm	O	O	X
Hot	O	O	O

Cool Sw.	11-12
Off	O
On	X

Symbol	Part name	Specification	
		Code : 665 / 685	Code : 615 / 695
C1	CAPACITOR	0.22 $\mu$ F, 275V	NOT USE
C2	CAPACITOR (FOR MOTOR)	0.1 $\mu$ F, 50VDC	
D1, D2, D3, D4	DIODE (BRIDGE)	400V, 2A	
F	TEMPERATURE FUSE	142°C, 250V, 15A	
M	MOTOR	RS365PD-1988 ( DC 24V )	
Main Sw.	MAIN SWITCH	AC 250V/15A	
Temp Sw.	TEMPERATURE SWITCH	AC 250V/15A	
Cool Sw.	COOL SWITCH	AC 250V/7.5A, 125V/15A	
TH	THERMO SWITCH	110 $\pm$ 5 °C	
RHA	HEATER COIL A	79.1 $\pm$ 2.4 $\Omega$	
RHB	HEATER COIL B	68.4 $\pm$ 2.0 $\Omega$	
RHC	HEATER COIL C	68.4 $\pm$ 2.0 $\Omega$	
RHD	HEATER COIL D	131.0 $\pm$ 3.9 $\Omega$	
RHE	HEATER COIL E	26.7 $\pm$ 0.8 $\Omega$	
RHF	HEATER COIL F	5.4 $\pm$ 0.3 $\Omega$	
R1, R2	FIXRESISTOR RESISTOR A	3.3 M $\Omega$ , 1/2W	
R3, R4, R5, R6	FIXRESISTOR RESISTOR B	1 M $\Omega$ , 1/2W	
R7, R8	FIXRESISTOR RESISTOR F	3.8 k $\Omega$ , 2W	
R10	RESISTOR FOR DROPPING A	500 $\Omega$ , 1W	
R11		33 M $\Omega$ , 1W	

## 7 Exploded View and Replacement Parts List

### 7.1. Exploded View



All parts are supplied from PMFTH-AP through PLAP

## 7.2. Replacement Parts List

Safety	Ref. No.	Part No.	Part Name & Description	Quan- tity	Remarks
	1	EHNA65SNZRW	SET NOZZLE	1	
	2	EHNA65HSCRW	HOUSING C	1	
	3	EHNA65AOGW	AIR OUTLET GRILL	1	
	4	EHNA65AORW	AIR OUTLET RING	1	
	5	EHNA65CSBBW	COOL SWITCH PUSH BUTTON	1	
	6	EHNA65MH61BW	MOTOR HEATER BLOCK	1	(B2-PLUG, FOR -K615), (INCLUDE 10 INSULATION TUBES)
	6	EHNA65MH68BW	MOTOR HEATER BLOCK	1	(S3-PLUG, FOR -K665/-K685), (INCLUDE 10 INSULATION TUBES)
	6	EHNA65MH69BW	MOTOR HEATER BLOCK	1	(S3-PLUG, FOR -K695), (INCLUDE 10 INSULATION TUBES)
	7	EHNA65LEDCW	LED COVER	1	
	8	EHNA65AIRBW	AIR INLET RING	1	
	9	EHNA65T2610W	TAPPING SCREW 2.6*10	3	*1
	10	EHNA65FTFBW	FILTER FRAME BLOCK ASS'Y	1	
	11	EHNA65ICCW	ION CHARGE CIRCUIT BOARD	1	
	12	EHNA65CSW	COOL SWITCH	1	(INCLUDE 2 INSULATION TUBES)
	13	EHNA65MSPBW	MAIN SWITCH PLATE AB	1	
	14	EHNA65MSW	MAIN SWITCH	1	(2PCS/PACK, INCLUDE 8 INSULATION TUBES)
	15	EHNA65MSHTW	MAIN SWITCH HOLDER	1	
	16	EHNA65HSBW	HOUSING AB	1	(OTHERS, 220V-240V)
	16	EHNA65HS66BW	HOUSING AB	1	(FOR -K665 : SAUDI ARABIA, 220V ONLY VERSION)
	16	EHNA65HS69BW	HOUSING AB	1	(FOR -K695 : KUWAIT / QATAR, 240V ONLY VERSION)
	17	EHNA65T0312W	TORX SCREW 3.0*12	2	*1
	18	EHNA65T2004W	TAPPING SCREW 2.0*4	1	
	19	EHNA65NNCW	NANO CIRCUIT BOARD ASSEMBLY	1	
	20	EHNA65PSPW	PLATE SPRING	1	
	21	EHNA65EIPBW	ELECTIFICATIN PANEL	1	(INCLUDE ALUMINIUM SEAL)
	22	EHNA65PBW	PLATE B	1	
	23	EHNA65T3080W	TAPPING SCREW 3.0*8	2	*1
	24	EHNA65PCRHW	POWER CORD RETAINER	1	
	25	EHNA65DN2RW	QUICK DRY NOZZLE	1	
	26	EHNA65DFRW	DIFFUSER	1	
-	EHNA65S03W	OPERATING INSTRUCTIONS	1		
-	EHNA65S615KW	INDIVIDUAL PACKAGE	1	(FOR EH-NA65-K615)	
-	EHNA65S665KW	INDIVIDUAL PACKAGE	1	(FOR EH-NA65-K665)	
-	EHNA65S685KW	INDIVIDUAL PACKAGE	1	(FOR EH-NA65-K685)	
-	EHNA65S695KW	INDIVIDUAL PACKAGE	1	(FOR EH-NA65-K695)	
-	EHNA65S05W	LOWER PAD	1		

Remarks : \*1 Individual Available