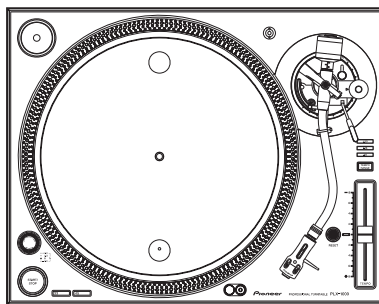


# Pioneer

## Service Manual



PLX-1000

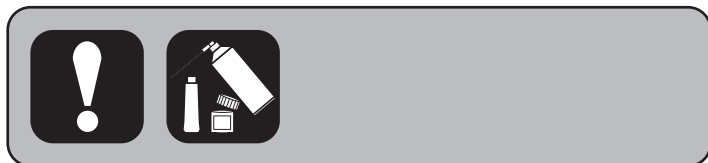
ORDER NO.  
**RRV4511**

TURNTABLE

# PLX-1000

**THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).**

Model	Type	Power Requirement	Remarks
PLX-1000	LPSYXE8	AC 110 V to 120 V or 220 V to 240 V	
PLX-1000	FUXECB	AC 110 V to 120 V or 220 V to 240 V	



**PIONEER CORPORATION** 1-1, Shin-ogura, Saiwai-ku, Kawasaki-shi, Kanagawa 212-0031, Japan  
**PIONEER ELECTRONICS (USA) INC.** P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.  
**PIONEER EUROPE NV** Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium  
**PIONEER ELECTRONICS ASIACENTRE PTE. LTD.** 253 Alexandra Road, #04-01, Singapore 159936

# SAFETY INFORMATION



This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

## WARNING

This product may contain a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65

(FOR USA MODEL ONLY)

## 1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

### LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120 V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

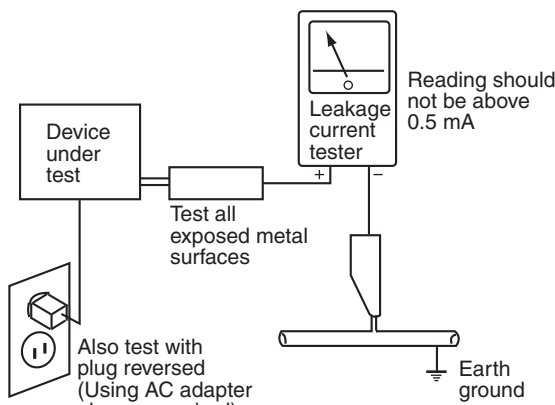
## 2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.



AC Leakage Test

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A  
B  
C  
D  
E  
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# 1. SERVICE PRECAUTIONS

## 1.1 NOTES ON SOLDERING

- A • For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.  
Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.
- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40 °C. Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373 °C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

Do NOT use a soldering iron whose tip temperature cannot be controlled.

- B Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:

- Parts numbers of lead-free solder:
  - GYP1006 1.0 in dia.
  - GYP1007 0.6 in dia.
  - GYP1008 0.3 in dia.

C

## 1.2 NOTES ON SERVICING

For final-check playback after repair, a commercially available record and a cartridge are required. The details, see "3.2 JIGS LIST".

E

F

5 6 7 8

# 2. SPECIFICATIONS

Power requirements.....AC 110 V to 120 V or 220 V to 240 V, 50 Hz/60 Hz  
 Power consumption ..... 9 W  
 Main unit weight..... 13.1 kg (28.9 lb)  
 Max. dimensions..... 453 mm (W) × 159 mm (H) × 353 mm (D)  
 (17.8 in. (W) × 6.3 in. (H) × 13.9 in. (D))  
 Tolerable operating temperature..... +5 °C to +35 °C (+41 °F to +95 °F)  
 Tolerable operating humidity..... 5 % to 85 % (no condensation)

**Turntable part**

Drive method ..... Servo type direct drive  
 Motor ..... 3-phase brushless DC motor  
 Braking system ..... Electronic brake  
 Rotation speed ..... 33 1/3 rpm, 45 rpm  
 Rotation speed adjustment range..... ±8 %, ±16 %, ±50 %  
 Wow and flutter..... 0.1 % or less WRMS (JIS WTD)  
 S/N ratio..... 70 dB (DIN-B)  
 Turntable..... Aluminum die-casting Diameter: 332 mm  
 Starting torque..... 4.5 kg·cm or more  
 Start time ..... 0.3 seconds (at 33 1/3 rpm)

**Tone arm part**

Arm type ..... Universal type S-shape tone arm,  
 gimbal-supported type bearing structure, static balance type  
 Effective length ..... 230 mm  
 Overhang ..... 15 mm  
 Tracking error..... Within 2° 32'  
 Arm height adjustment range ..... 6 mm  
 Stylus pressure variable range ..... 0 g to 4.0 g (1 scale 0.1 g)  
 Proper cartridge weight ..... 3.5 g to 13 g (single cartridge)  
 When shell weight is used ..... 3.5 g to 6.5 g  
 When only balance weight is used ..... 6.0 g to 10 g  
 When sub weight is used..... 9.5 g to 13 g

— The specifications and design of this product are subject to change without notice.

**Accessories**

- Turntable (702-PNTT-075)
- Turntable sheet (705-DJ1900-078)
- Slip mat (612-PNTT-095)
- Slip sheet (505-PNTT-248)
- Dust cover (705-PLX1000-1583)
- Adapter for EP record (200-PNTT-211A)
- Balance weight (702-PNTT-076)
- Sub weight (200-PNTT-693)
- Headshell (703-PNTT-1411)
- Shell Weight (200-ST100-268)
- Power Cord (LPSYXE8: 409-HDJ7100-055D-HA) (FUXECB: 409-HDJ7100-054D-HA)
- Audio Cable (408-PLX-140)
- Ground Wire (406-PLX-1288)
- Operating instructions (LPSYXE8: 502-PX1000B-3366) (FUXECB: 502-PX1000A-3365)

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PLX-1000

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# 3. BASIC ITEMS FOR SERVICE

## 3.1 CHECK POINTS AFTER SERVICING

### A Items to be checked after servicing

To keep the product quality after servicing, confirm recommended check points shown below.

No.	Procedures	Check points
1	Confirm whether the customer complain has been solved.	The customer complain must not be reappeared. Audio and operations must be normal.
2	Check whether the unit can be turned ON or OFF.	The indicators on the unit must light when the unit is turned ON.
3	Check playback operations.	The turntable must turn or stop properly when the START/STOP button is pressed. When the RESET button is pressed, the RESET indicator must light in yellow-green and the rotation speed must return to the specified speed. The tone arm must move properly when the lifter lever is moved up or down.
4	Check the pitch adjustment.	Press the RESET button during playback (the RESET indicator goes dark) and check whether the pitch can be adjusted, using the TEMPO slider and TEMPO RANGE button.
5	Check the PHONO OUT signals.	Play a record back and check that the audio output from the PHONO OUT terminals is normal. (For checking, use a pre-main amplifier or a DJ mixer provided with the PHONO input terminals.)
6	Check the appearance of the product.	No scratches or dirt on its appearance after receiving it for service.

See the table below for the items to be checked regarding audio.

Item to be checked regarding audio	
Distortion	Volume too high
Noise	Volume fluctuating
Volume too low	Sound interrupted

## 3.2 JIGS LIST

### D Jigs List

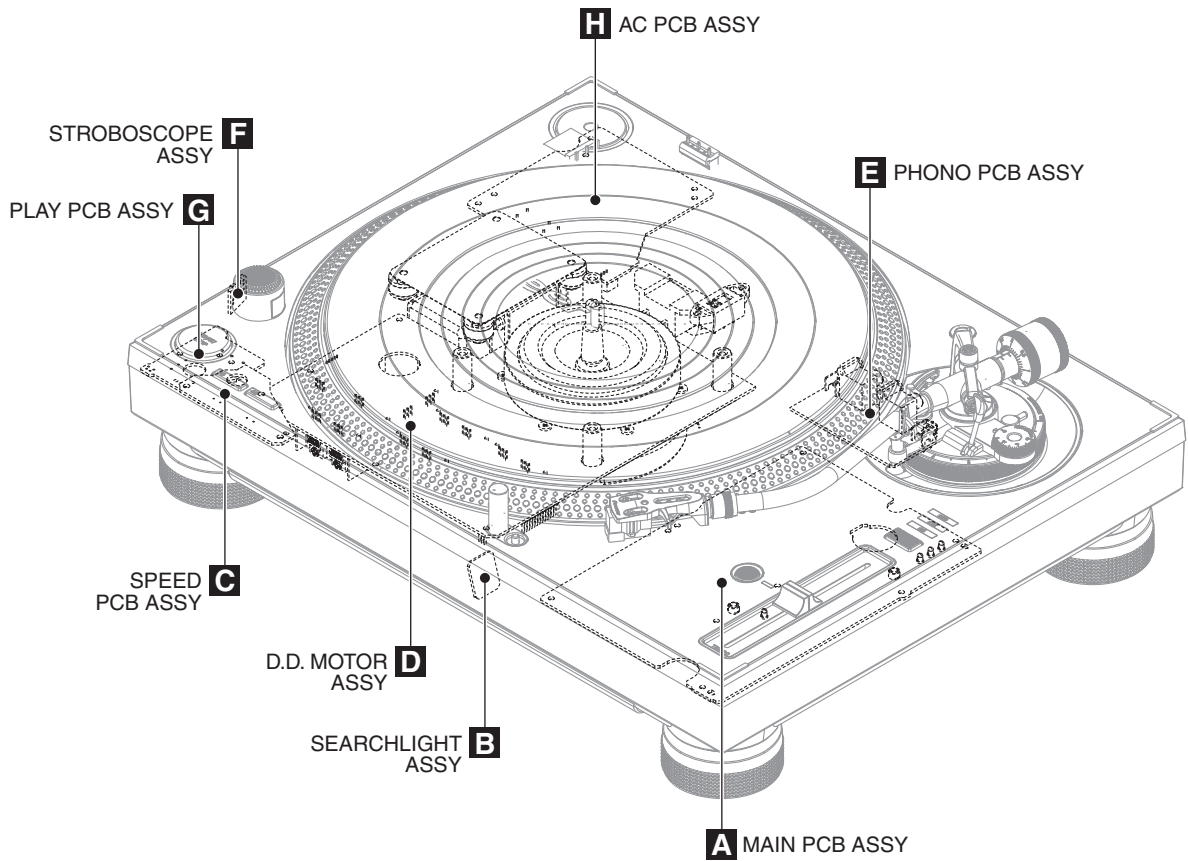
Jig Name	Part No.	Purpose of use / Remarks
Cartridge	(Marketed product) Recommended product: M44-7 manufactured by SHURE	For checking playback operations and the audio output from the PHONO OUT terminals
LP record or EP record	(Marketed product)	For checking playback operations and the audio output from the PHONO OUT terminals
Spacer	Dust cover (GGP1243)	Registered the Dust cover (705-PLX1000-1583) as a jig for services. You have to procure four pieces of cushion to be placed at the four corners of the dust cover where the turntable is to contact on your own, in order to prevent the top panel of this unit from being damaged.
	or ..... Four cylindrical wood offcuts, etc., of 40 mm dia. x 80 mm in length or longer	To be placed at the four corners of the unit when diagnoses are to be performed with the unit upside down

### Lubricants and Glues List



Name	Part No.	Remarks
Adhesive	GYL1001	Refer to "9.2 EXTERIOR SECTION".

### 3.3 PCB LOCATIONS



NOTES: ● Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.  
 ● The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.  
 Therefore, when replacing, be sure to use parts of identical designation.

Mark No.	Description	Part No.
<b>LIST OF ASSEMBLIES</b>		
	1..MAIN PCB ASSY	704-PLX-A787
	1..SPEED PCB ASSY	704-PLX-A790
	1..PHONO PCB ASSY	704-PLX-A791
	1..D.D. MOTOR ASSY	704-PLX-A800
	1..SEARCHLIGHT ASSY	704-PLX-A802
	1..STROBOSCOPE ASSY	704-PLX-A803
⚠	1..AC&PLAY PCB ASSY	704-PLX-A863
NSP	2..AC PCB ASSY	.....
NSP	2..PLAY PCB ASSY	.....

# 4. BLOCK DIAGRAM

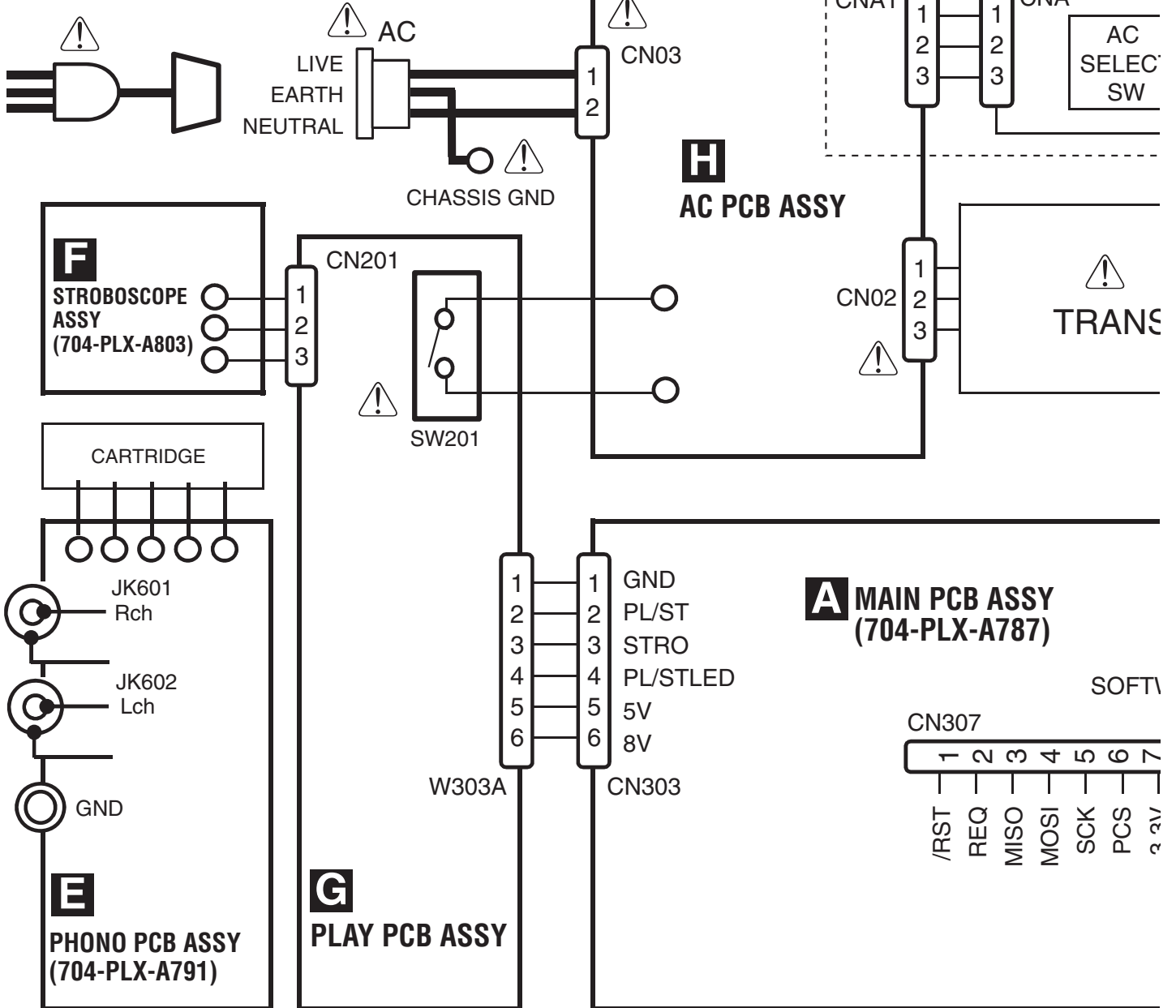
## 4.1 OVERALL WIRING DIAGRAM

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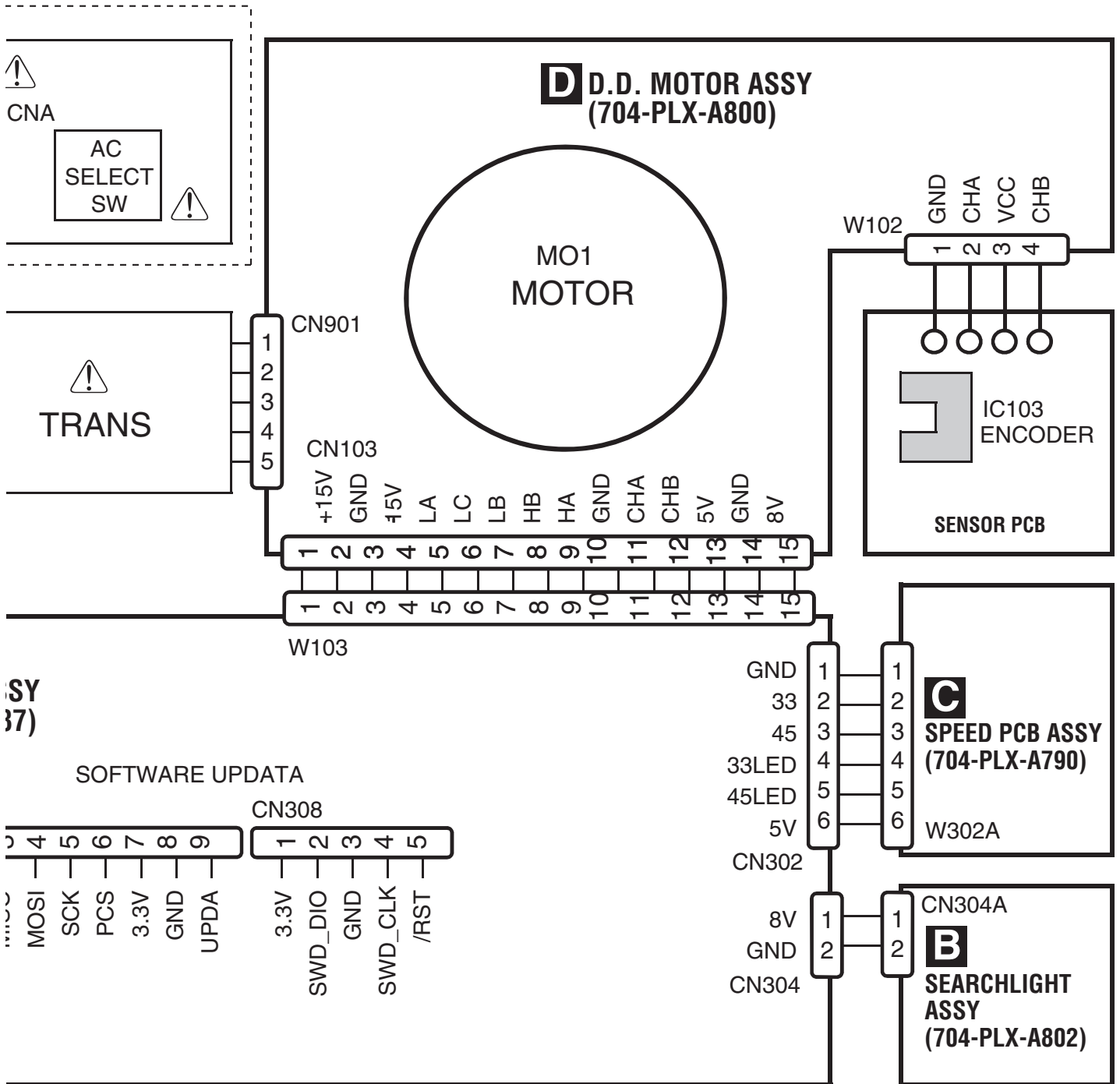
**!** AC&PLAY PCB ASSY  
(LPSYXE8, FUXECB: 704-PLX-A863)  
(JXE: 704-PLX-A864)

AC PCB ASSY  
PLAY PCB ASSY

Except  
Japan model



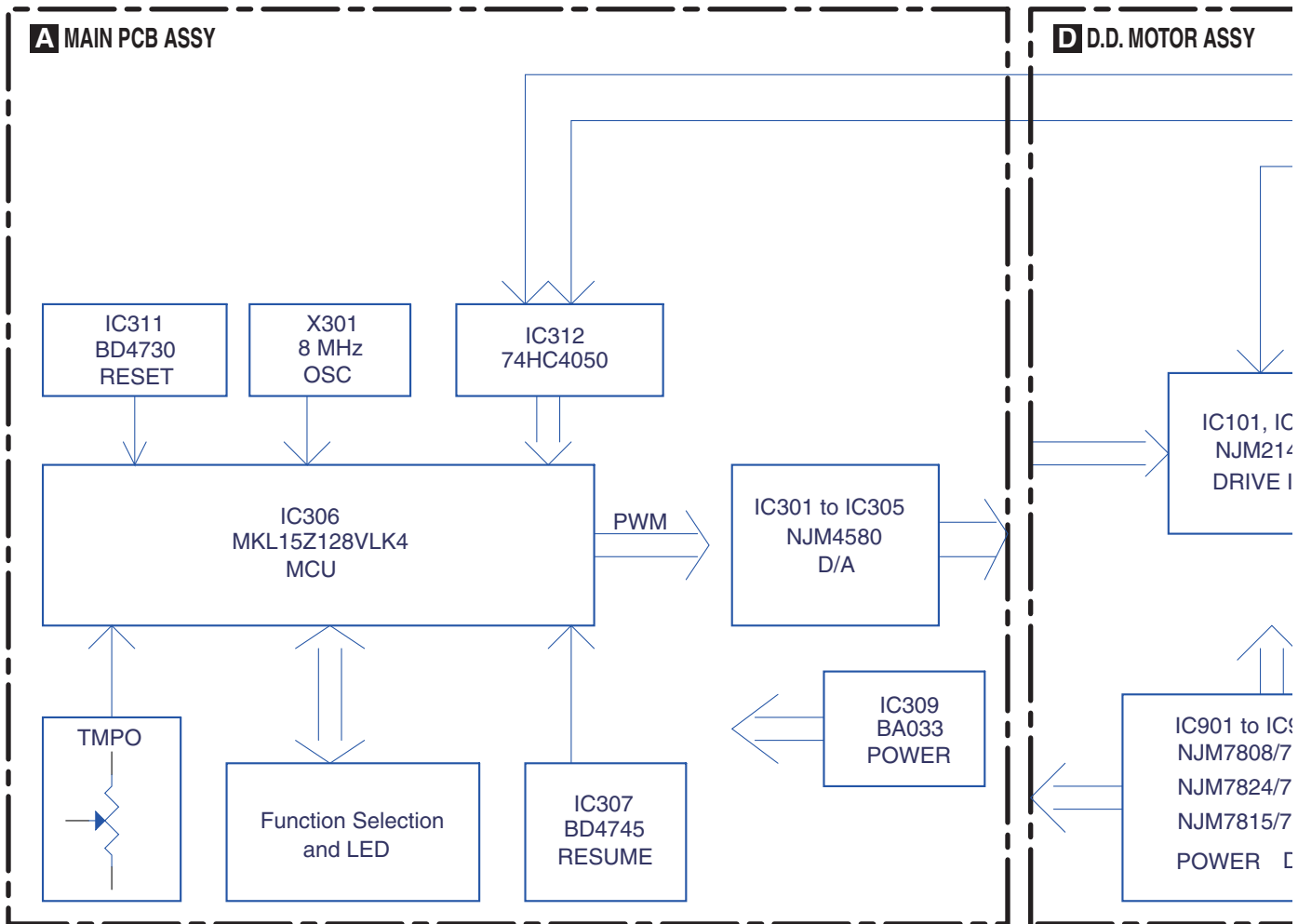
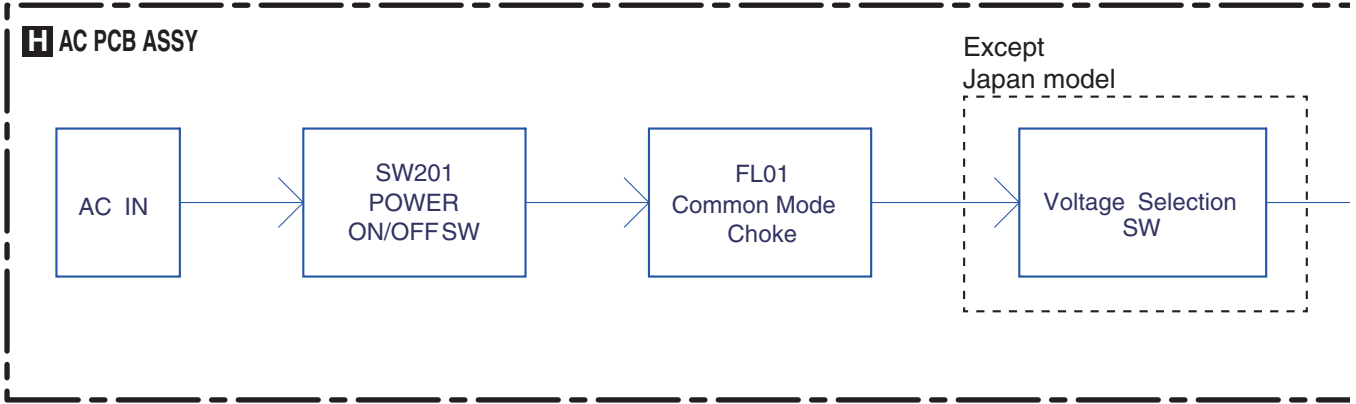


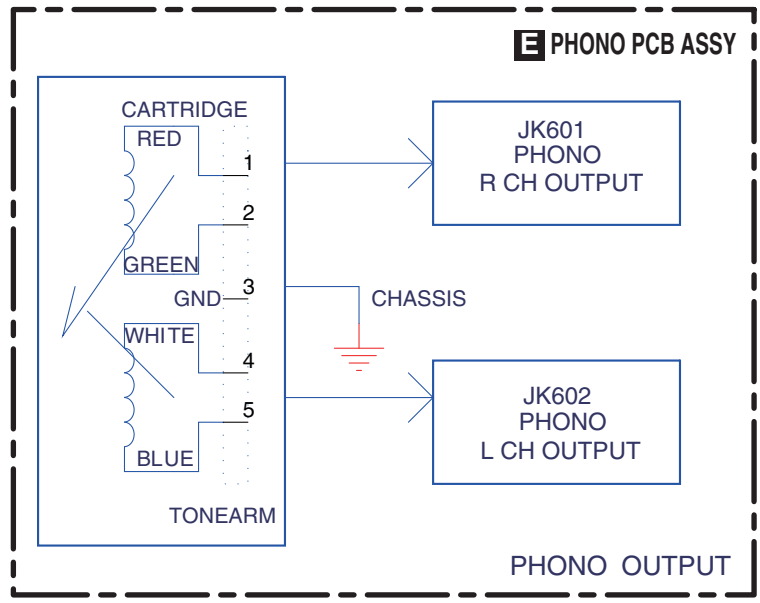
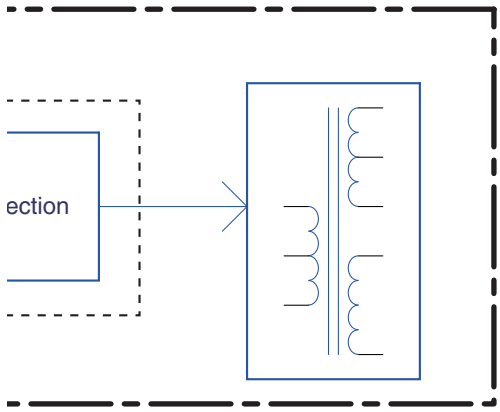


- 部品を発注する場合は、必ず「分解図と部品表」または「電気部品表」を参照してください。
- △印の部品は、安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。

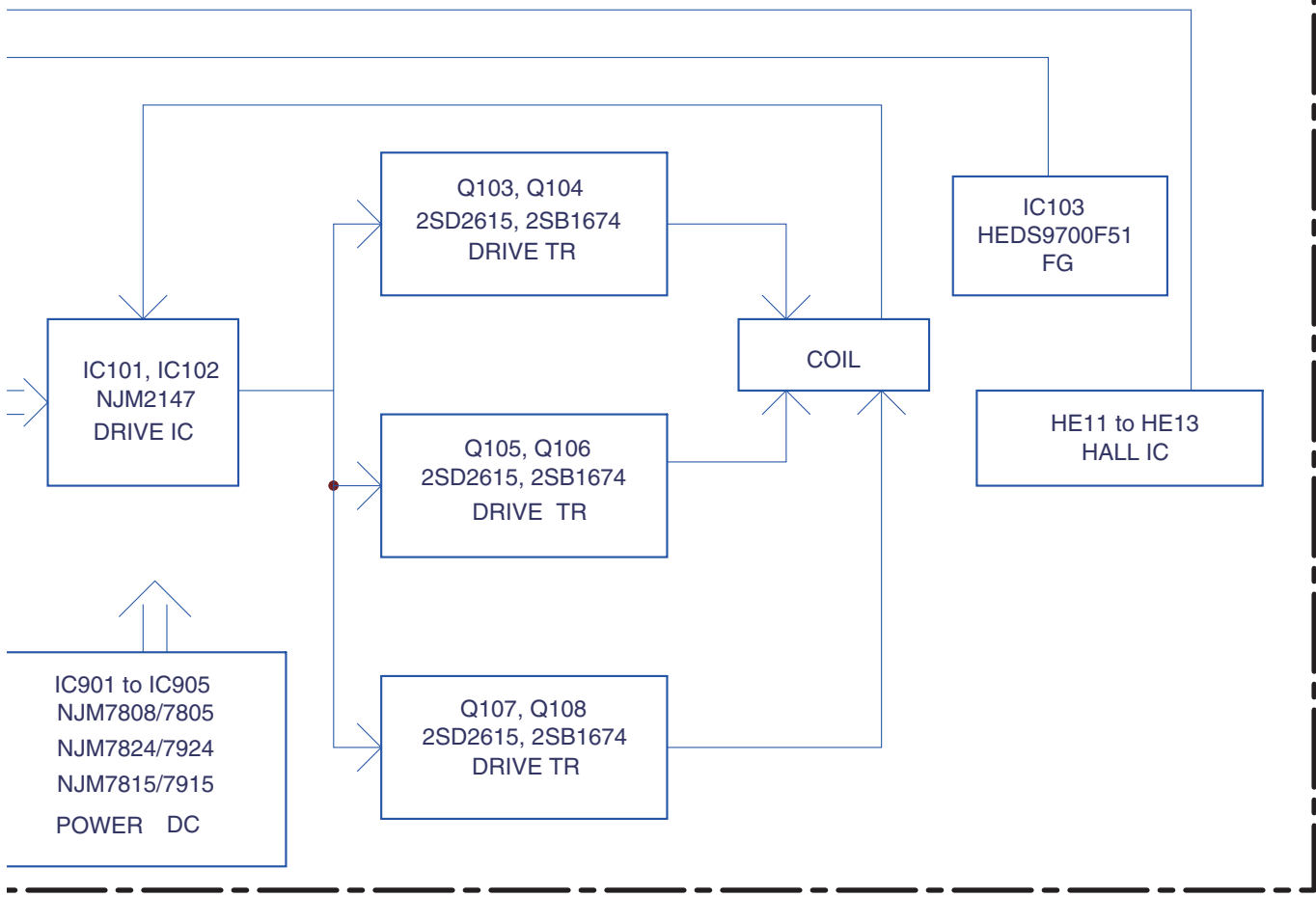
- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".
- The △ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

## 4.2 AUDIO SYSTEM BLOCK DIAGRAM





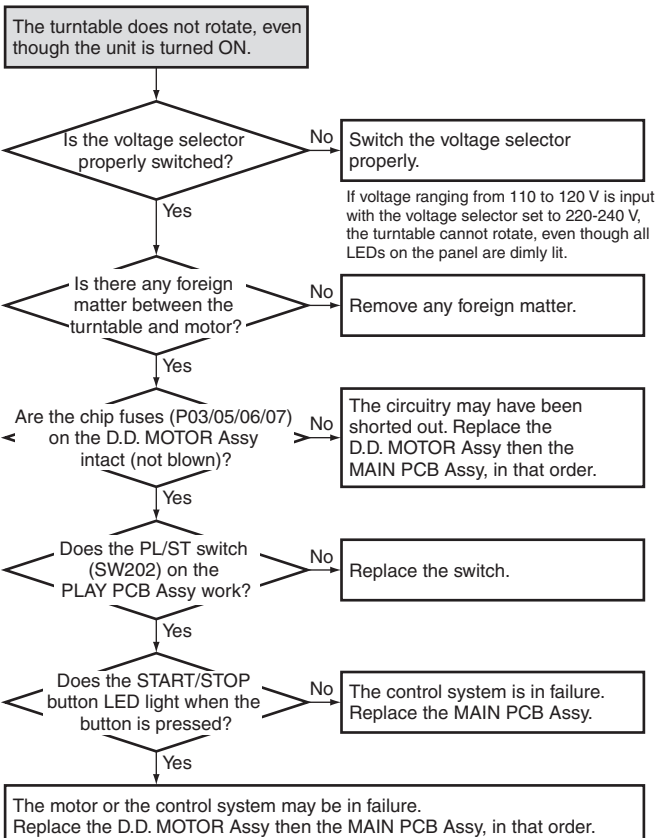
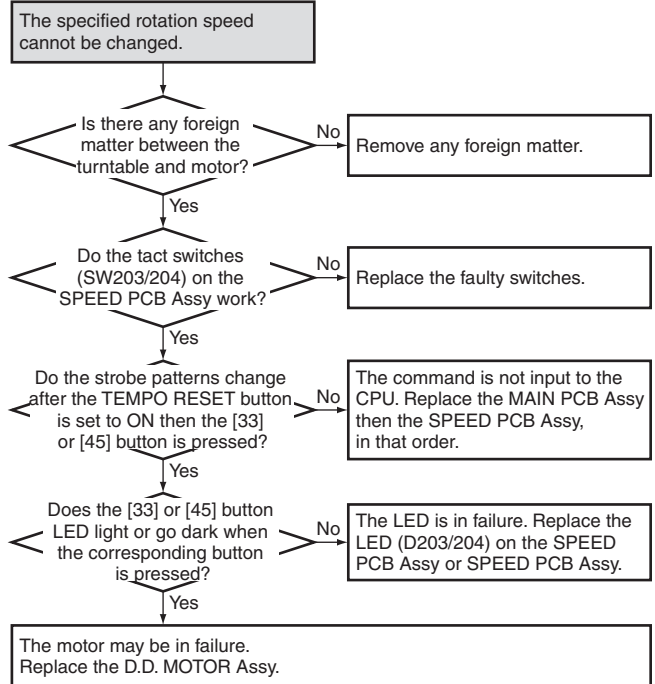
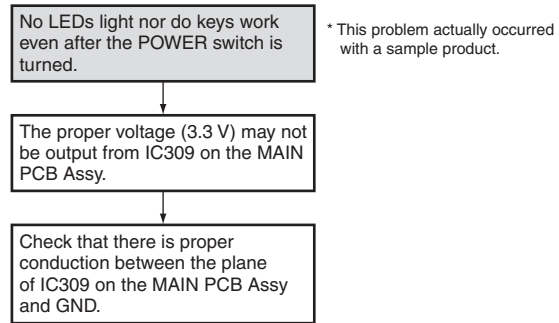
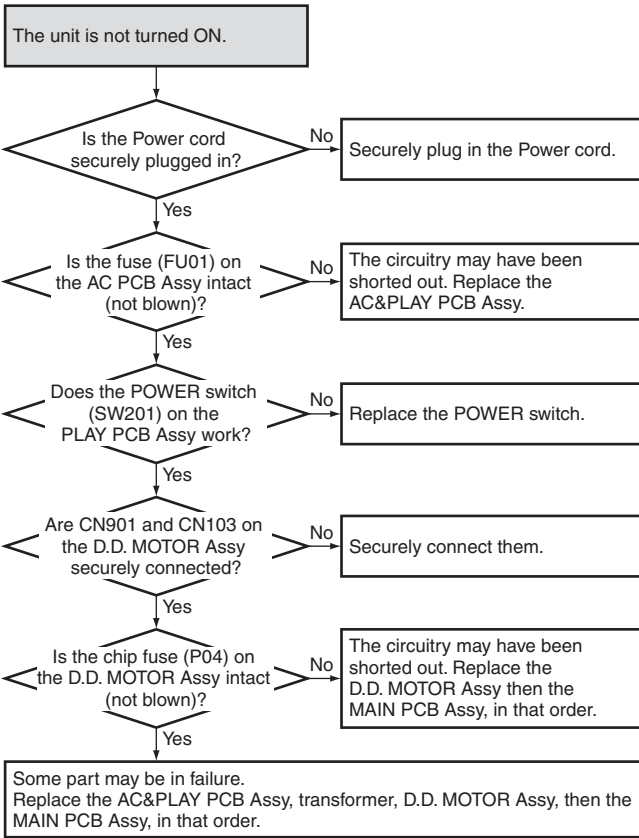
**MOTOR ASSY**



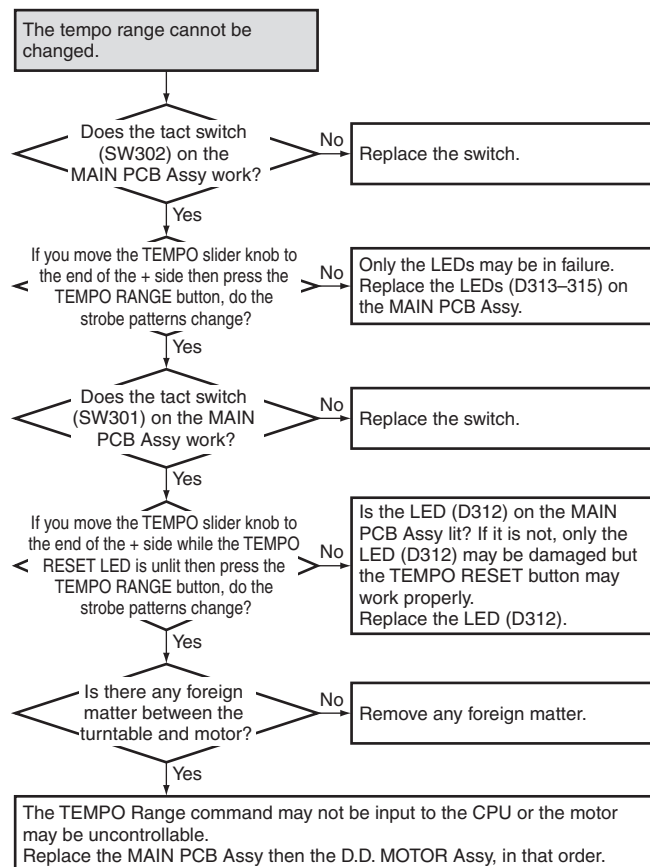
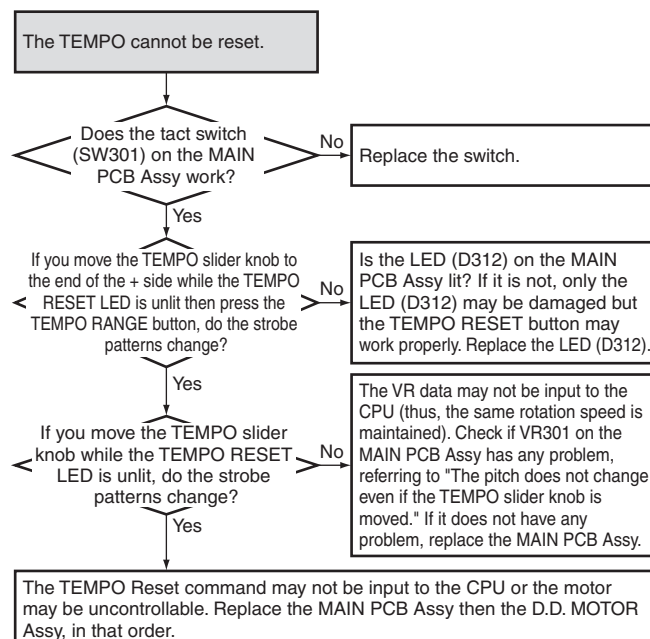
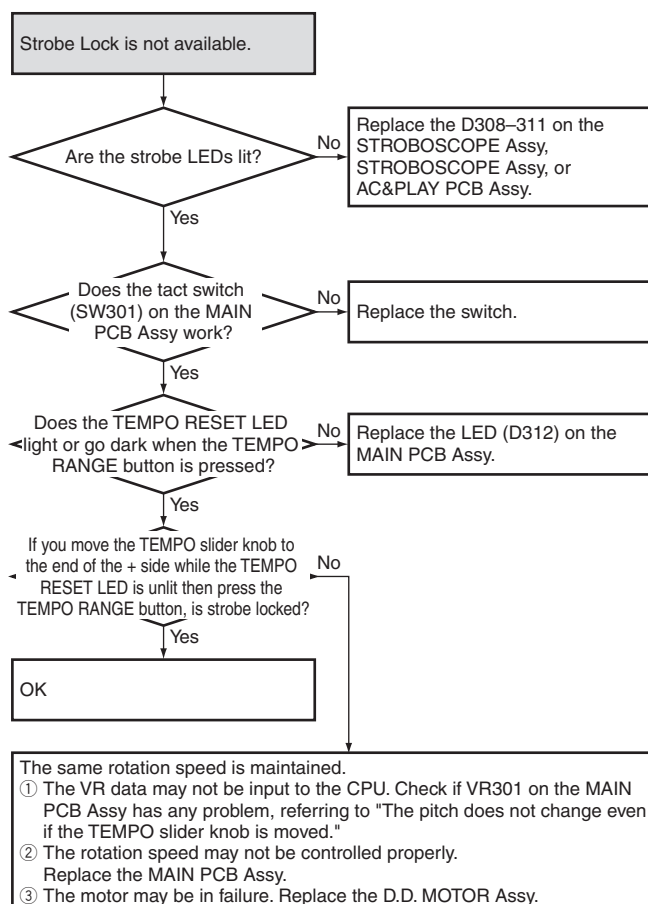
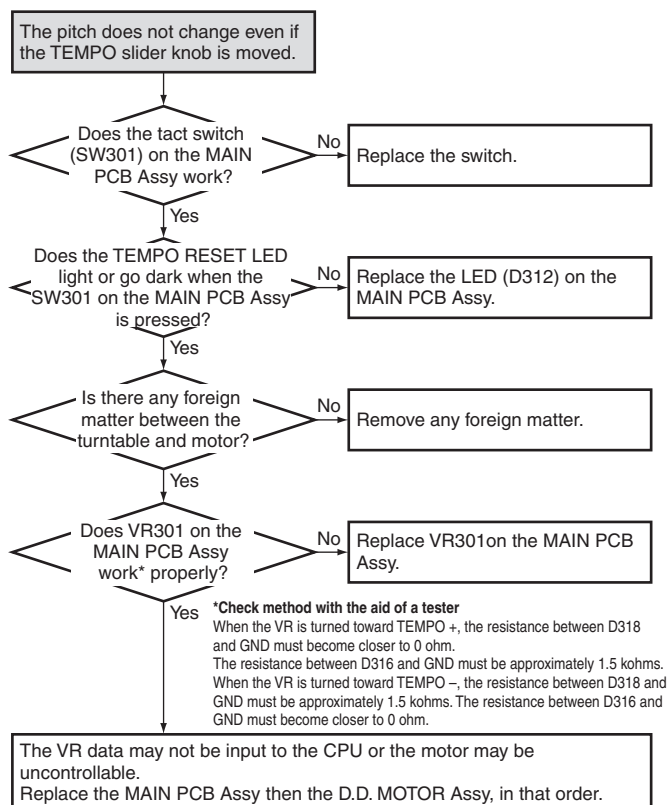
# 5. DIAGNOSIS

## 5.1 TROUBLESHOOTING

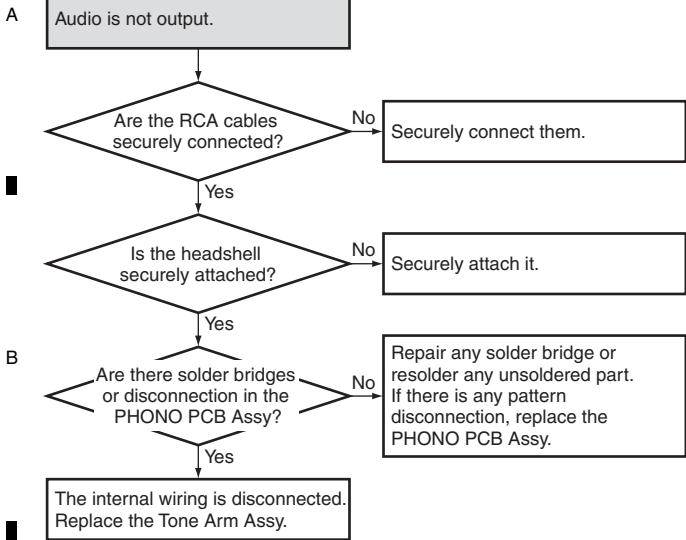
### [1] Abnormality regarding startup



## [2] Abnormality regarding the operating elements and LEDs



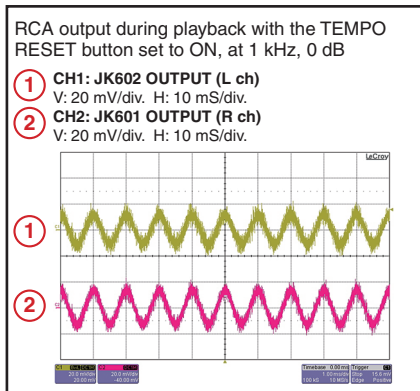
### [3] Abnormality regarding audio



C

### Waveforms

D



E

## 6. SERVICE MODE

F There is no information to be shown in this chapter.

# 7. DISASSEMBLY

## Note:

Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

## Notes on performing diagnosis with the unit turned upside down (on how to secure the tone arm, etc.):

Be sure to secure the tone arm with the hook for the tone arm before turning the unit upside down.

Remove the items that can fall, such as the turntable and turntable sheet, from the unit beforehand.

Be sure to use the spacers or a dust cover (GGP1243) dedicated for repair use (NOT the customer's own dust cover) before turning the unit upside down.

## Disassembly for each Assemblies

### [1] MAIN, AC, PLAY, SPEED PCB Assemblies

#### [1-1] Exterior Section

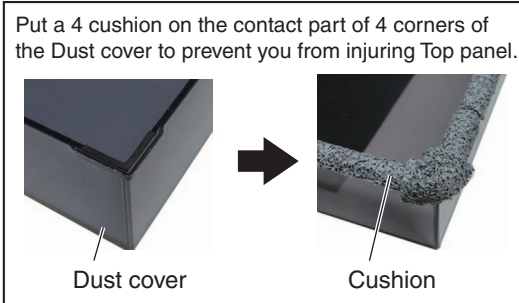
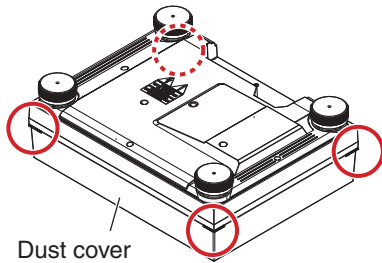
(1) Remove the SPEED button.

(2) Turn the unit upside down.

#### Note:

Before turning the unit upside down, be sure to place the spacers or dust cover so that no load is applied to the tone arm, etc.

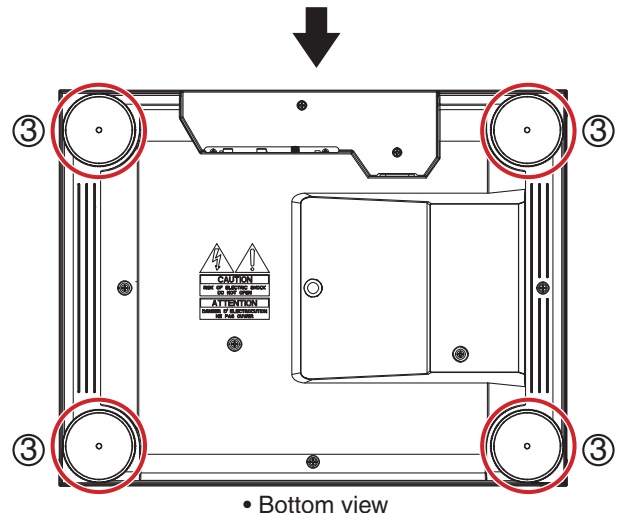
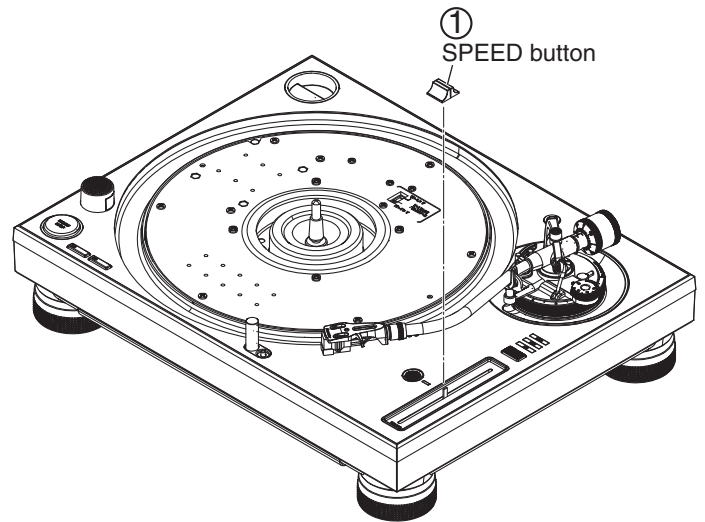
As the dust cover is not so strong, be careful not to apply a heavy load.



(3) Remove the 4 Foot Assys.

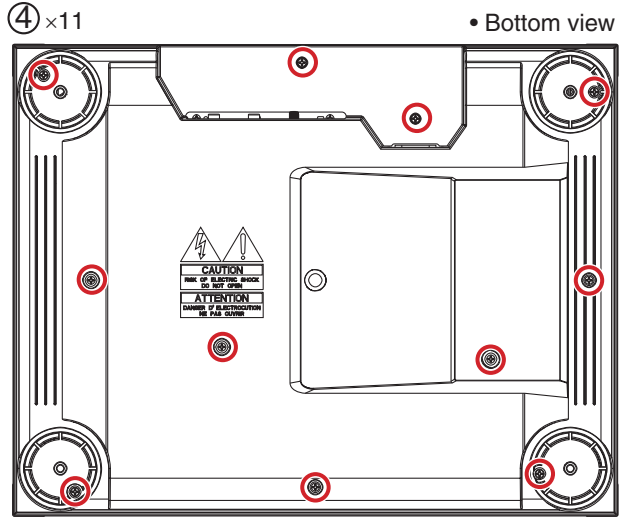
#### Note:

The Foot Assy is a screw-in foot.



• Bottom view

- A (4) Remove the bottom section by removing the 11 screws.  
(602-BTB0311-765B)

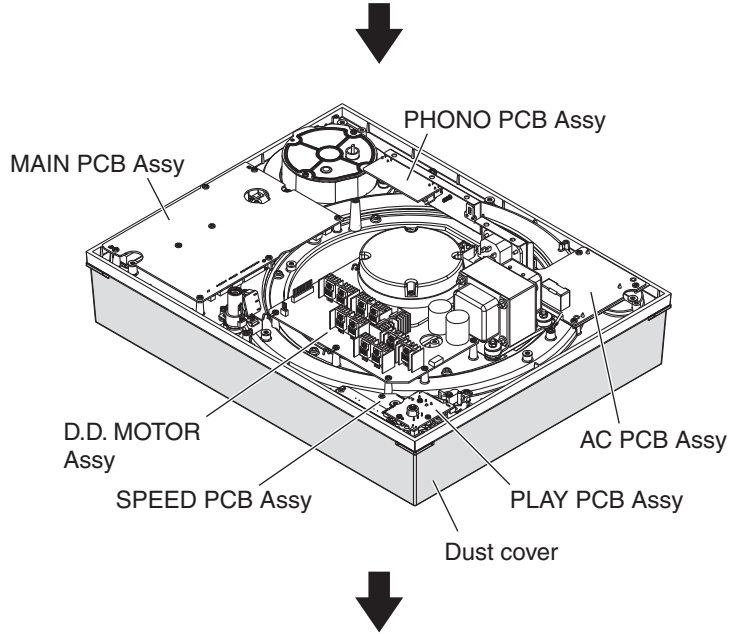


↓

Diagnosis

B

C

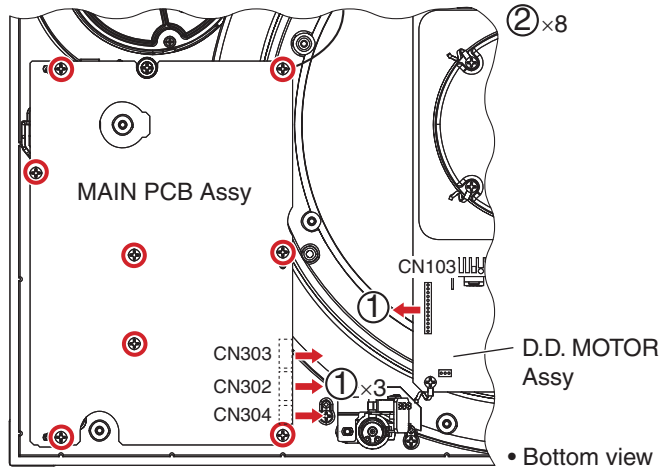


D

**[1-2] MAIN PCB Assy**

- (1) Disconnect the 4 connectors.  
(CN103, 302 to 304)
- (2) Remove the MAIN PCB Assy by removing the 8 screws.  
(602-DM3000-270)

E

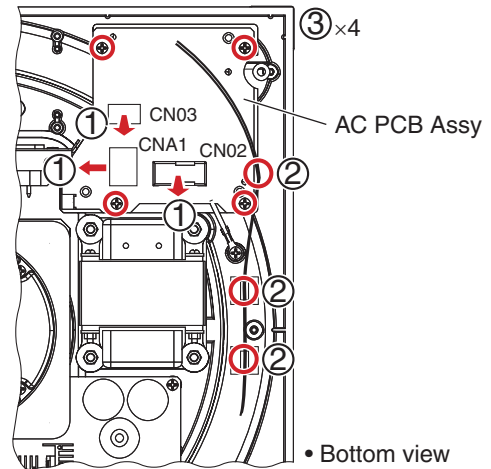


F



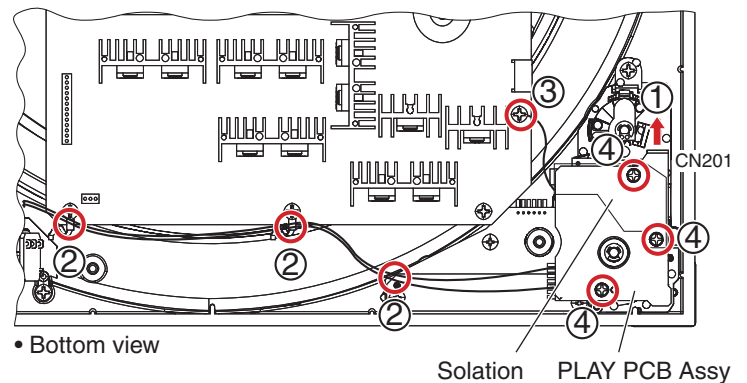
### [1-3] AC PCB Assy

- (1) Disconnect the 3 connectors.  
(CN02, 03, A1)
- (2) Cut the 3 cable ties.
- (3) Remove the AC PCB Assy by removing the 4 screws.  
(602-DM3000-270)

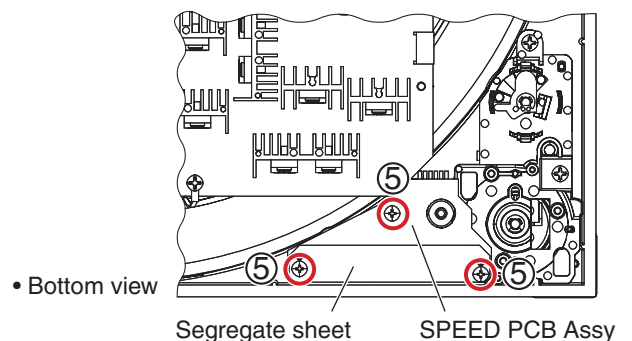


### [1-4] PLAY and SPEED PCB Assemblies

- (1) Disconnect the 1 connector.  
(CN201)
- (2) Release the 3 jumper wire styling.
- (3) Remove the 1 screw.  
(602-DM3000-270)
- (4) Remove the PLAY PCB Assy with Solation  
by removing the 3 screws.  
(602-MK8-604)

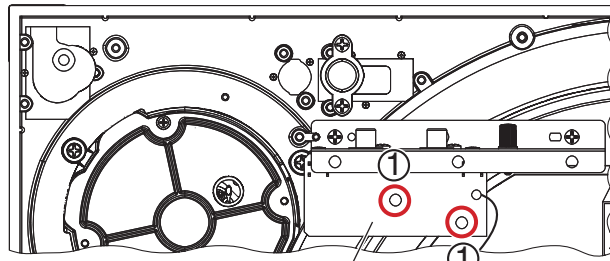


- (5) Remove the SPEED PCB Assy with Segregate sheet by removing the 3 screws.  
(602-BTS308-724B)



### A [2] PHONO PCB Assy

(1) Remove the Segregate sheet by removing the 2 Canoe clips.



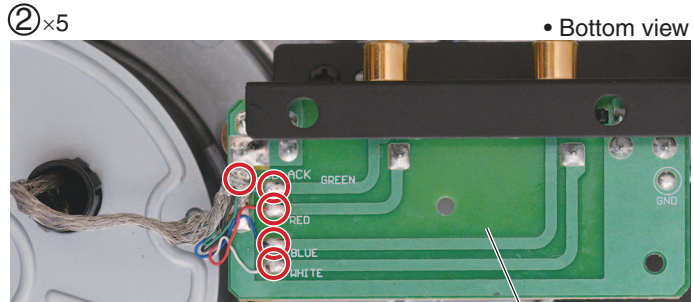
• Bottom view Segregate sheet



(2) Remove 5 places of solders.

**Note:**

Be sure to swiftly remove solder, paying attention not to let the removed solder fall onto the wires for the tone arm.

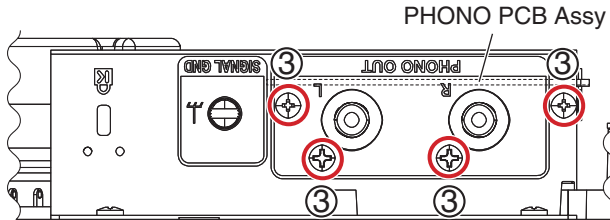


• Bottom view

PHONO PCB Assy



(3) Remove the PHONO PCB Assy by removing the 4 screws. (602-DJ5500-452, 602-ISO308-735B)



PHONO PCB Assy

• Bottom / Rear view



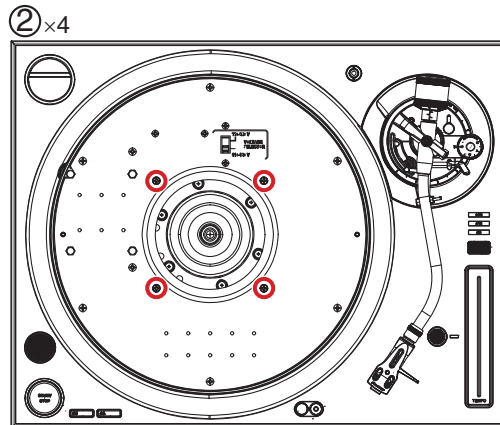
### [3] D.D. MOTOR Assy

(1) Turn the unit upside down.

(2) Remove the 4 screws.

(602-ST150-432)

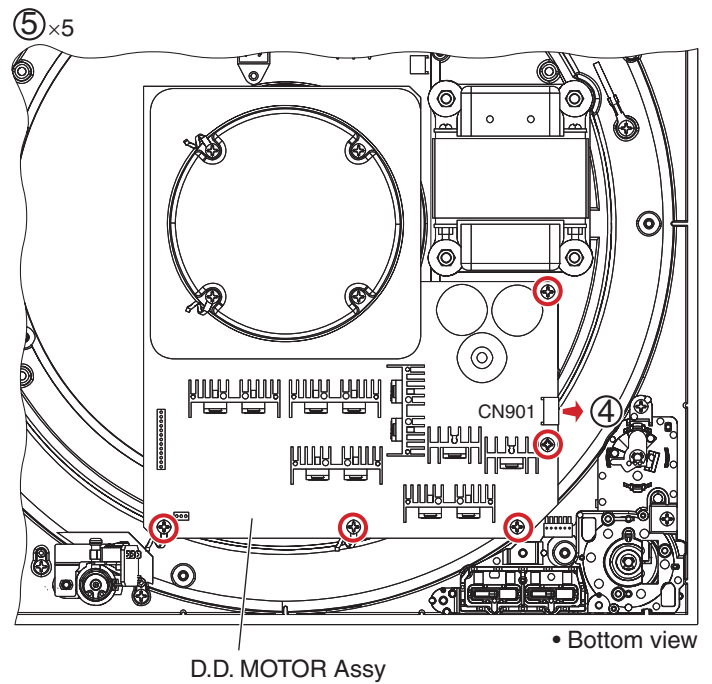
(3) Turn the unit upside down.



②×4



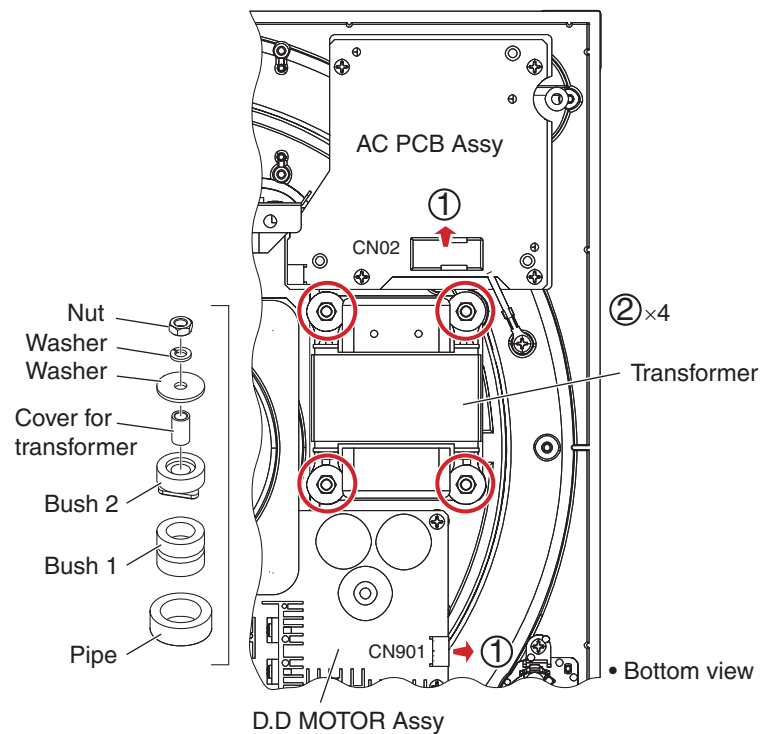
- (4) Disconnect the 1 connector.  
(CN901)
- (5) Remove the D.D. MOTOR Assy by removing  
the 5 screws.  
(602-DM3000-270)



## Disassembly / Assembly for Transformer

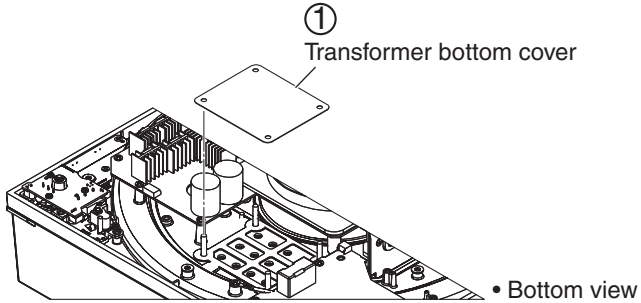
### [1] Disassembly

- (1) Disconnect the 2 connectors.  
(CN02, 901)
  - (2) Remove the transformer by removing the  
4 nuts, 4 washers, 4 washers,  
4 Cover for transformers, 4 Bushes 1,  
4 Bushes 2 and 4 Pipes.
- (Nut: 601-F200-001)  
(Washer: 606-DJ3000-102)  
(Washer: 606-ST150-157)

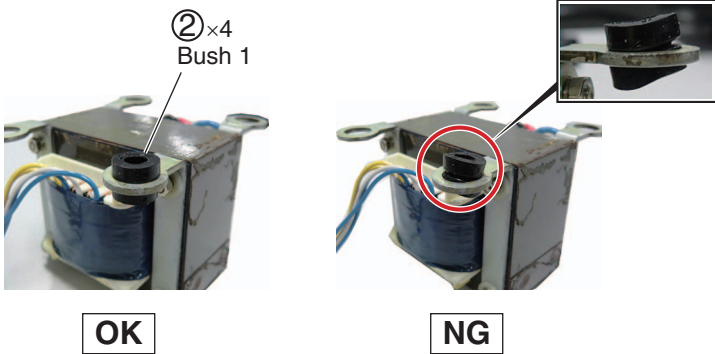


### A [2] Disassembly

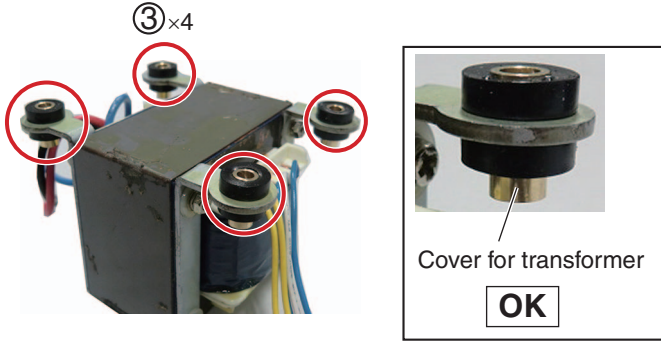
(1) Attach the Transformer bottom cover.



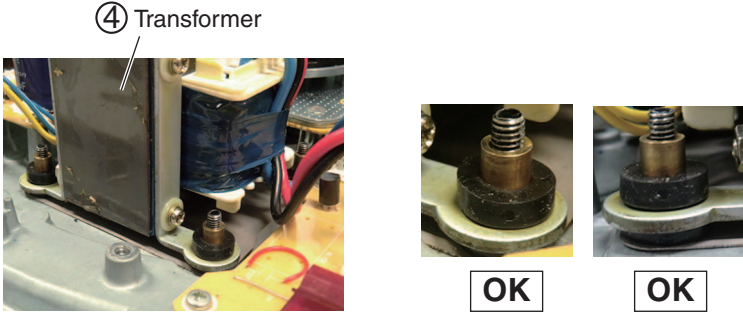
B (2) Attach the 4 Bushes 1 to transformer.



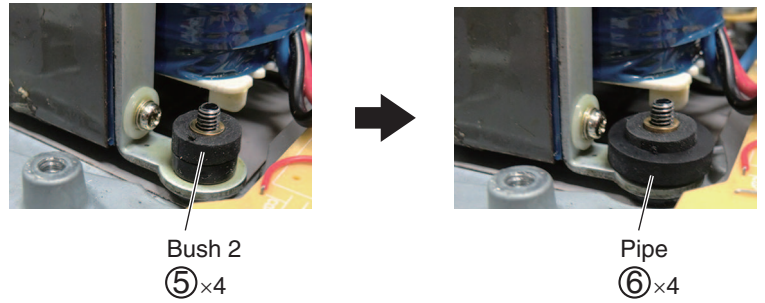
C (3) Pass the 4 Cover for transformer in Bush 1.



D (4) Attach the transformer to chassis.



- (5) Attach the 4 Bushes 2.
- (6) Attach the 4 Pipes outside of Bush.



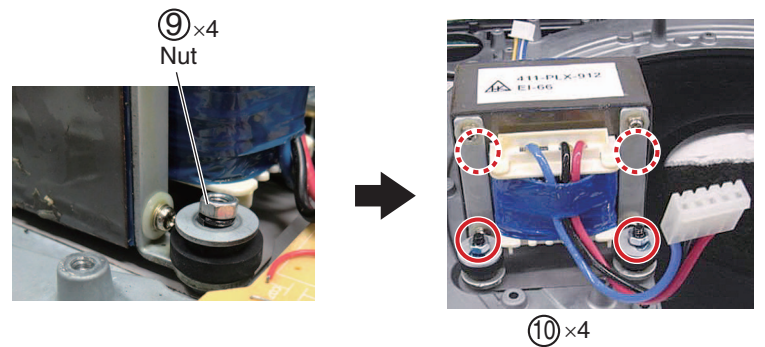
- (7) Attach the 4 washers. (606-ST150-157)
- (8) Attach the 4 washers. (606-DJ3000-102)



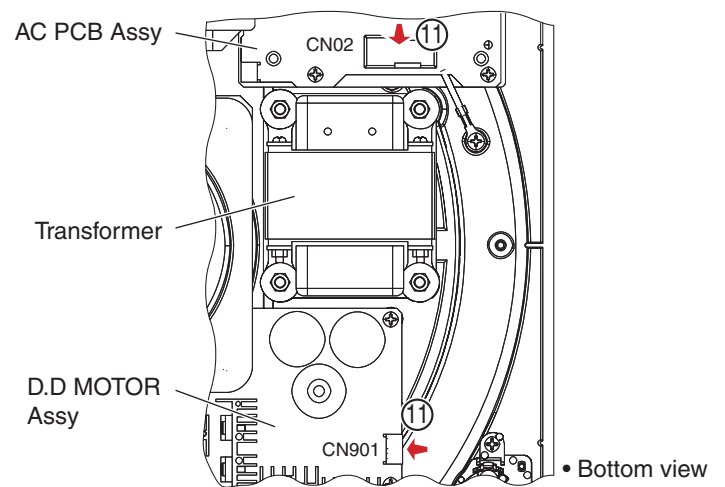
- (9) Attach the 4 nuts. (601-F200-001)

**Note:**  
After screw fastening, confirm that a rubber part of Bush is twisted or crooked.

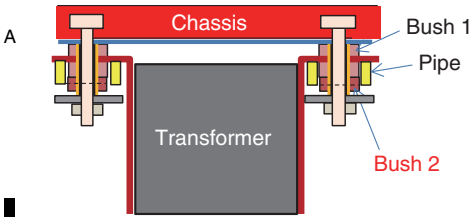
- (10) Secure a nut and a washer in bond.



- (11) Connect the 2 connectors. (CN02, 901)

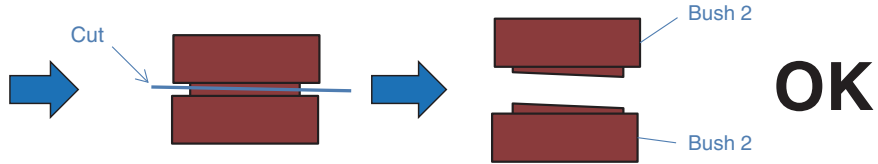
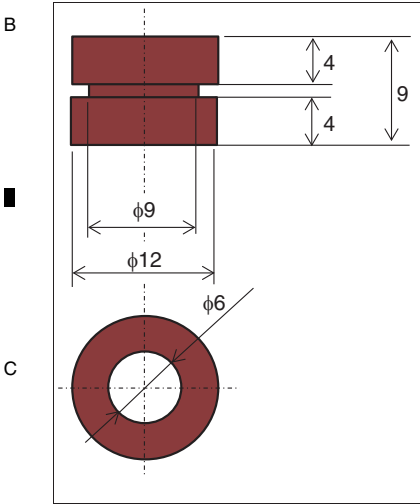


### ■ Cutting of Bush 2

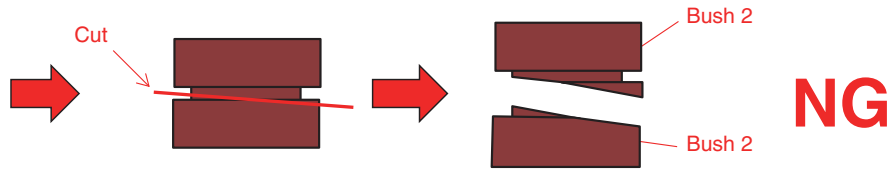


Bush 2 must be cut into two parts before use, as shown in the figures below.

#### Molded shape

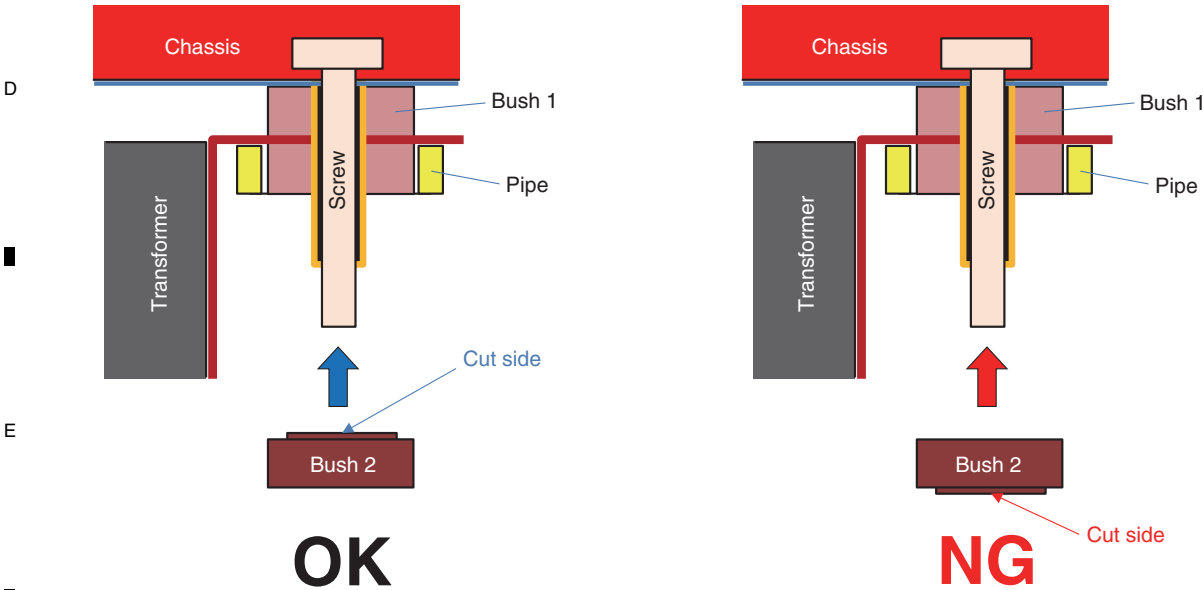


**Note:** Cut Bush 2 within the 9-mm-diameter section, as shown in the figures above.



**Note:** If you accidentally cut part of the 12-mm-diameter section of Bush 2, as shown in the figures above, never use such a bushing.

**Note on attachment:** When attaching Bush 2, face the cut surface toward Bush 1.



## 8. EACH SETTING AND ADJUSTMENT

F There is no information to be shown in this chapter.

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PLX-1000

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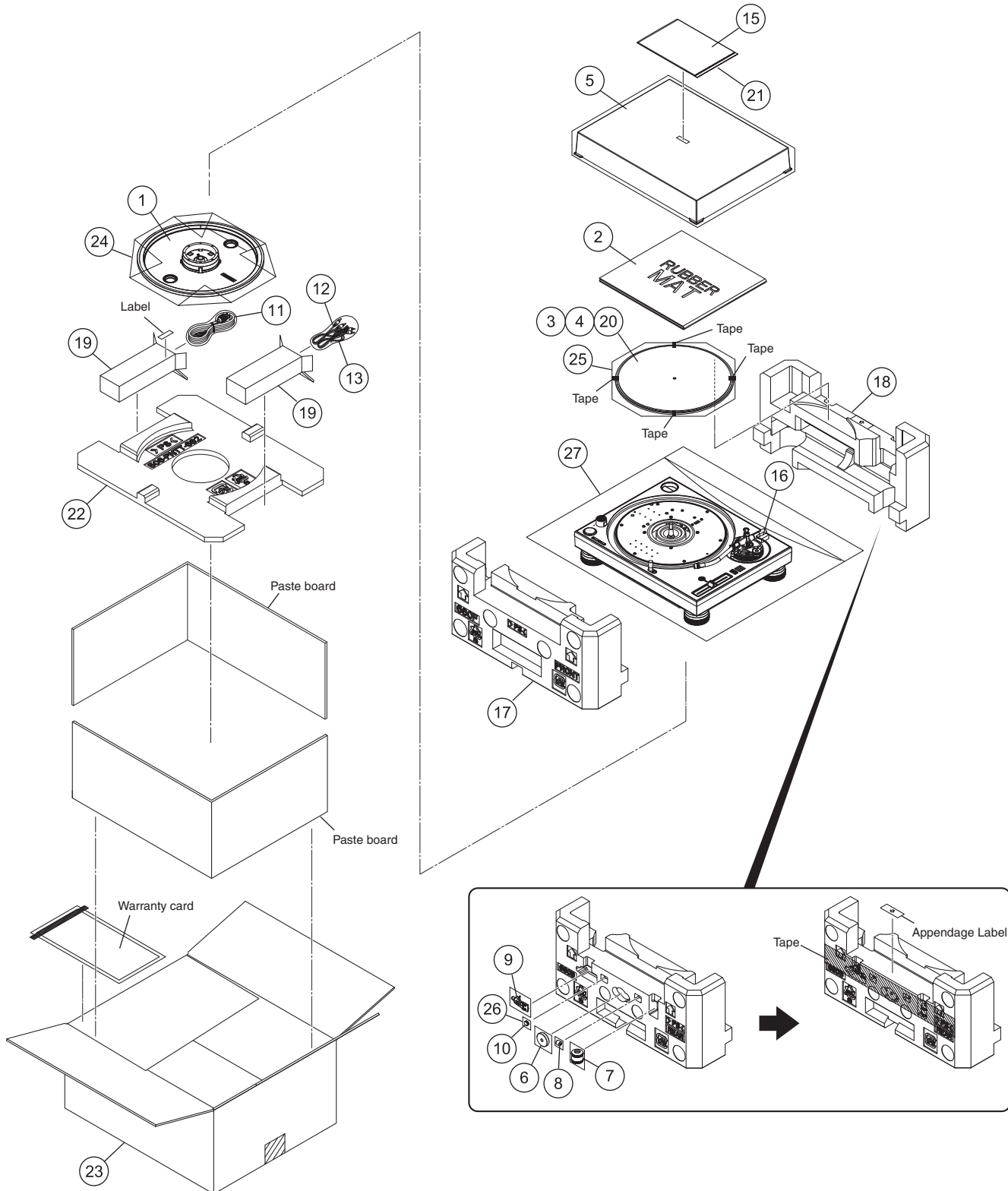
■

# 9. EXPLODED VIEWS AND PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

- The  $\triangle$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screws adjacent to  $\nabla$  mark on product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions, apply as you think it appropriate.)

## 9.1 PACKING SECTION





**(1) PACKING SECTION PARTS LIST**

<b>Mark No.</b>	<b>Description</b>	<b>Part No.</b>
1	Turntable	702-PNTT-075
2	Turntable Sheet	705-DJ1900-078
3	Slip Mat	612-PNTT-095
4	Slip Sheet	505-PNTT-248
5	Dust Cover	705-PLX1000-1583
6	Adapter for EP Record	200-PNTT-211A
7	Balance Weight	702-PNTT-076
8	Sub Weight	200-PNTT-693
9	Headshell	703-PNTT-1411
10	Shell Weight	200-ST100-268
⚠	11 Power Cord	See Contrast table (2)
	12 Audio Cable (L=150)	408-PLX-140
	13 Ground Wire (L=150)	406-PLX-1288
	14 •••••	
	15 Operating Instructions	See Contrast table (2)
	16 Cushion for Tone Arm	612-ST150-159
	17 Polyfoam F	506-PNTT-660F
	18 Polyfoam B	506-PNTT-660B
	19 Box	507-PNTT-3470
	20 Spacer	507-PNTT-3467
	21 PE Bag	505-DJM250-014
	22 Polyfoam	506-PNTT-662
	23 Gift Box	See Contrast table (2)
	24 Polybag for Turntable	505-DJ2500H-001
	25 Bag	505-PNTT-247
	26 Polybag (PE, 35*50 mm)	505-S15-117
	27 Soft Bag	509-PNTT-332

**(2) CONTRAST TABLE**

PLX-1000/LPSYXE8 and FUXECB are constructed the same except for the following:

<b>Mark</b>	<b>No.</b>	<b>Symbol and Description</b>	<b>PLX-1000 /LPSYXE8</b>	<b>PLX-1000 /FUXECB</b>
⚠	11	Power Cord	409-HDJ7100-055D-HA	409-HDJ7100-054D-HA
	15	Operating Instructions (En)	502-PX1000B-3366	Not used
	15	Operating Instructions (Zhtw)	Not used	502-PX1000A-3365
	23	Gift Box	507-PNTTB-3469	507-PNTT-3469

# 9.2 EXTERIOR SECTION

1

2

3

4

A

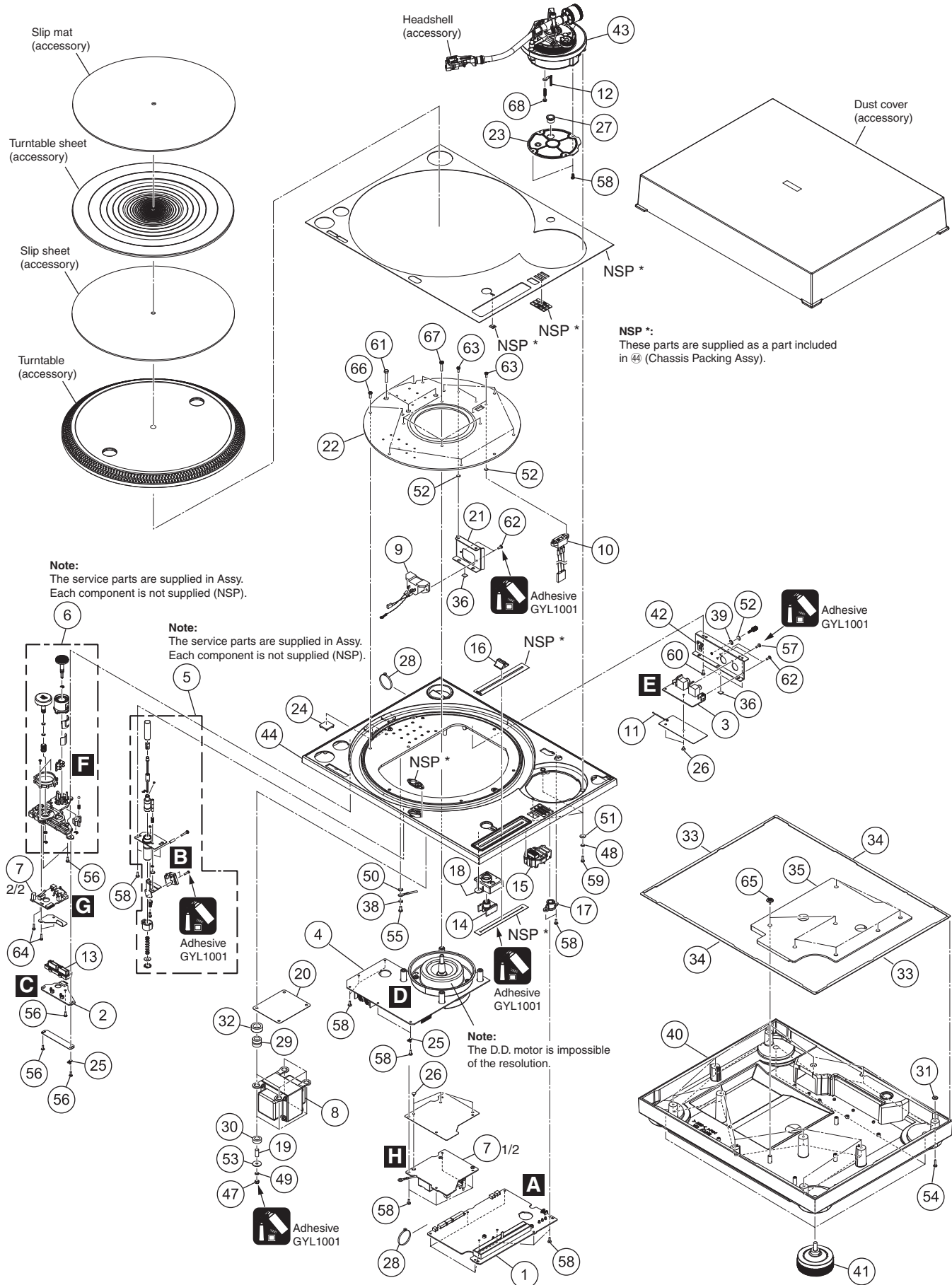
B

C

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1

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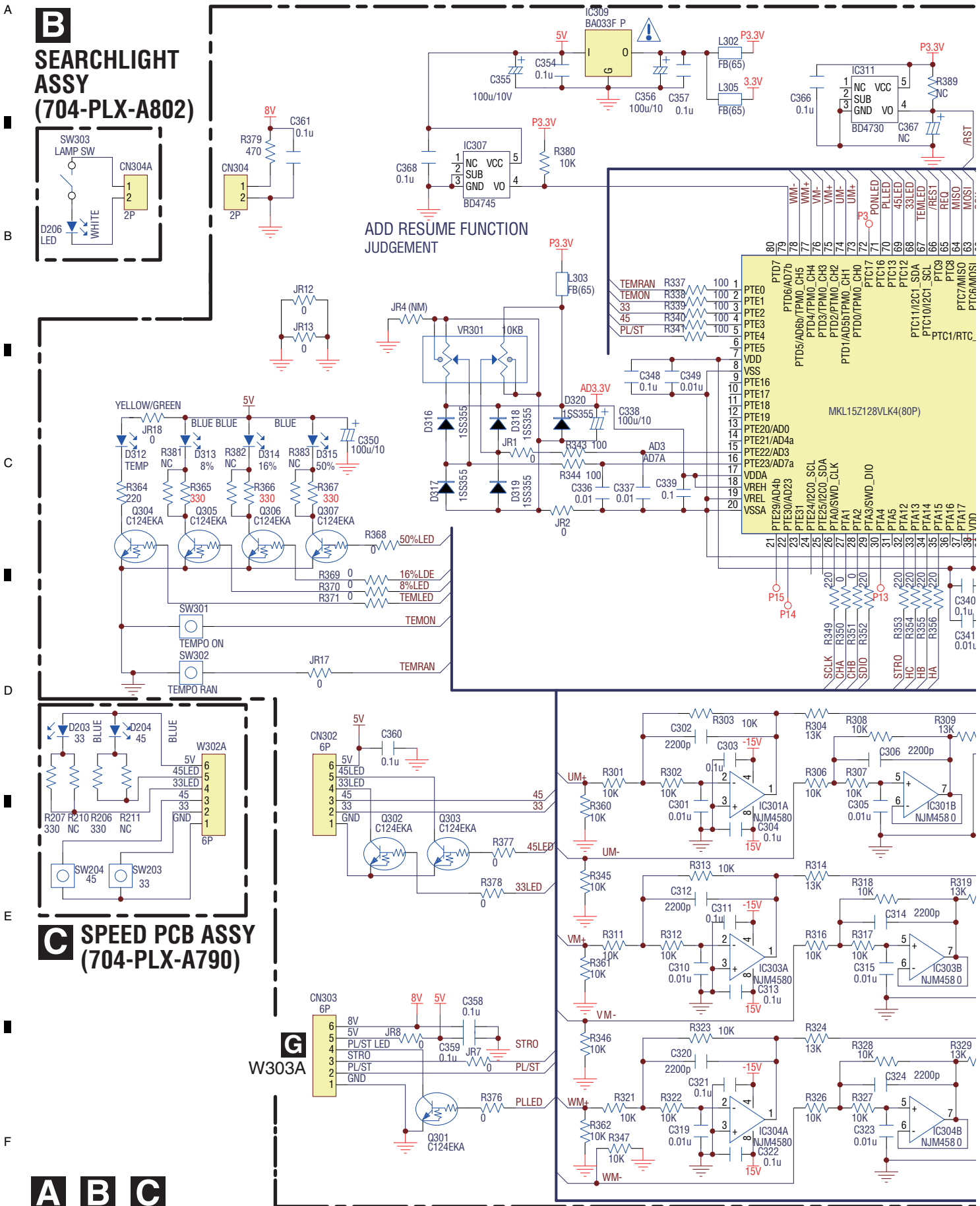
4

## EXTERIOR SECTION PARTS LIST

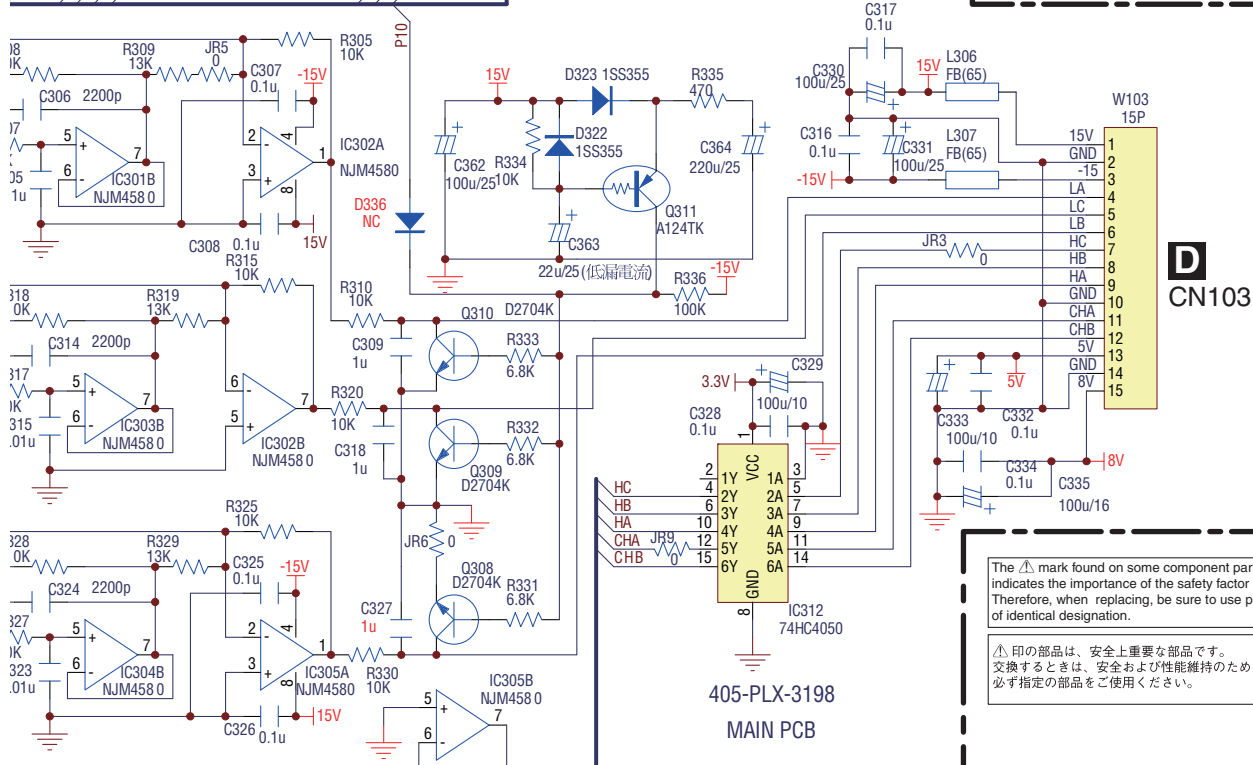
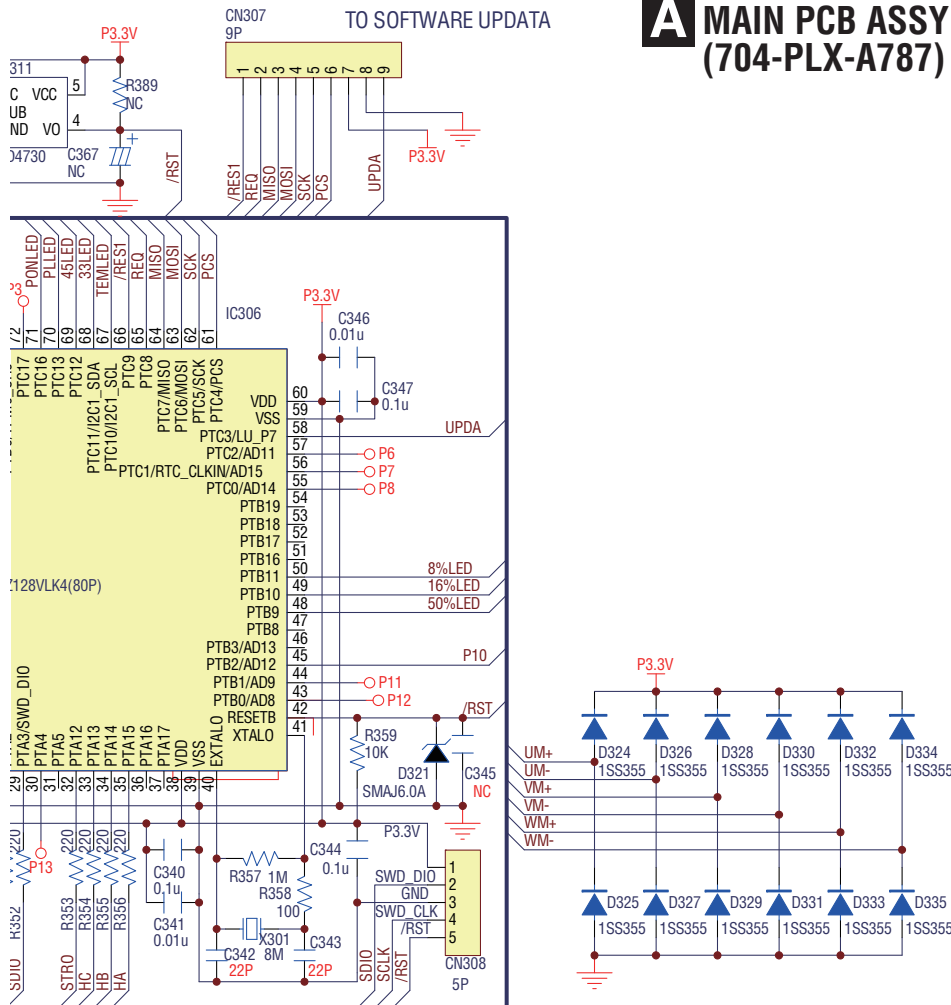
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>		
1	MAIN PCB Assy	704-PLX-A787	46	•••••			
2	SPEED PCB Assy	704-PLX-A790	47	Nut (4 mm, P=0.7 ISO)	601-F200-001	A	
3	PHONO PCB Assy	704-PLX-A791	48	Washer (5.5*3*0.7 mm)	606-B300-039		
4	D.D. MOTOR Assy	704-PLX-A800	49	Washer Spring (7*4*1T)	606-DJ3000-102		
5	SEARCHLIGHT Assy	704-PLX-A802	50	Washer 4.36*8.26*0.9	606-NCDS700-123-HA		
	6	STROBOSCOPE Assy	704-PLX-A803	51	Washer (10.5*3.2*1.6T)	606-PNTT-271	
⚠	7	AC&PLAY PCB Assy	704-PLX-A863	52	Washer (8*3.2*1T, NI)	606-Q2221-122-HA	
⚠	8	Transformer	411-PLX-912	53	Washer (16*4.1*1.2T)	606-ST150-157	
⚠	9	AC Socket Assy	704-PLX-A795	54	Screw (SAE1018, BTB, 3*)	602-BTB0311-765B	
⚠	10	Voltage SW Assy	704-PLX-A796	55	Screw (4*8)	602-BTB408-751C	
	11	1P Ground Wire (L=110)	406-HV3500K-415A	56	Screw (BTS, 3*8)	602-BTS308-724B-HA	B
	12	Shield Wire Assy	407-1410FR-097	57	Screw (TTP, 3*8, ZB)	602-DJ5500-452	
	13	33/45 Knob	100-PNTT-3093	58	Screw (TTB DIA3*8)	602-DM3000-270	
	14	TEMPO Reset Button	100-PNTT-3094	59	Screw (TTB, 3*L10)	602-HP1010K-174	
	15	TEMPO Range Button	100-PNTT-3095	60	Screw (3*L8)	602-HP1010K-175-HA	
	16	SPEED Button	100-PNTT-3096	61	Screw (M4*26, Black)	602-ISOM4026-752B	
	17	Shell Stand	100-PNTT-3100	62	Screw	602-ISO308-735B	
	18	Button Base	100-PNTT-3113	63	Screw (3*8)	602-XM610-526-HA	
	19	Cover for Transformer	200-PNTT-737	64	Screw	602-MK8-604	
	20	Transformer Bottom Cover	300-PNTT-2126	65	Screw (M3*7 TTP)	602-SL24F-096	C
	21	Fixed Plate	300-PNTT-2134	66	Screw (TTB 4*10)	602-XM610-517	
	22	Fixed Plate	300-PNTT-2135	67	Screw (M4*18, Spring W)	602-ST150-432	
	23	Tone Arm Base	300-PNTT-2139	68	Screw (TTB, 3*25)	602-ST150-439	
	24	Adhesive Mount	504-HDJ7000-032				
	25	Locking Cable Clip	504-HV3500K-033				
	26	Canoe Clip (MB-1, White)	504-PLX-301				
	27	Protected Ring (SB-10)	504-PLX-307				
	28	Cable Tie	504-S100-004-HA				
	29	Bush 1	604-BUSH1-653				D
	30	Bush 2	604-BUSH2-654				
	31	Rubber for Bottom Base	604-DJ5500-262				
	32	Pipe	604-PIPE-650				
	33	Side Rubber	604-PNTT-638				
	34	Long Rubber	604-PNTT-639				
	35	Rubber	604-PNTT-648				
	36	Rear Rubber	604-PNTT-649				
	37	•••••					
	38	Spring (7*4.3*1T)	606-STR830-141				E
	39	Tooth Washer	606-TST4-240				
	40	Bottom Base Assy	701-PNTT-5359				
	41	Foot Assy	701-PNTT-5415				
	42	Back Board Assy	703-PNTT-1408				
	43	Tone Arm Assy	704-PNTT-B013				
	44	Chassis Packing Assy	705-PNTT-1586				
	45	•••••					F

# 10. SCHEMATIC DIAGRAM

## 10.1 MAIN PCB, SEARCHLIGHT and SPEED PCB ASSYS



# A MAIN PCB ASSY (704-PLX-A787)



The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

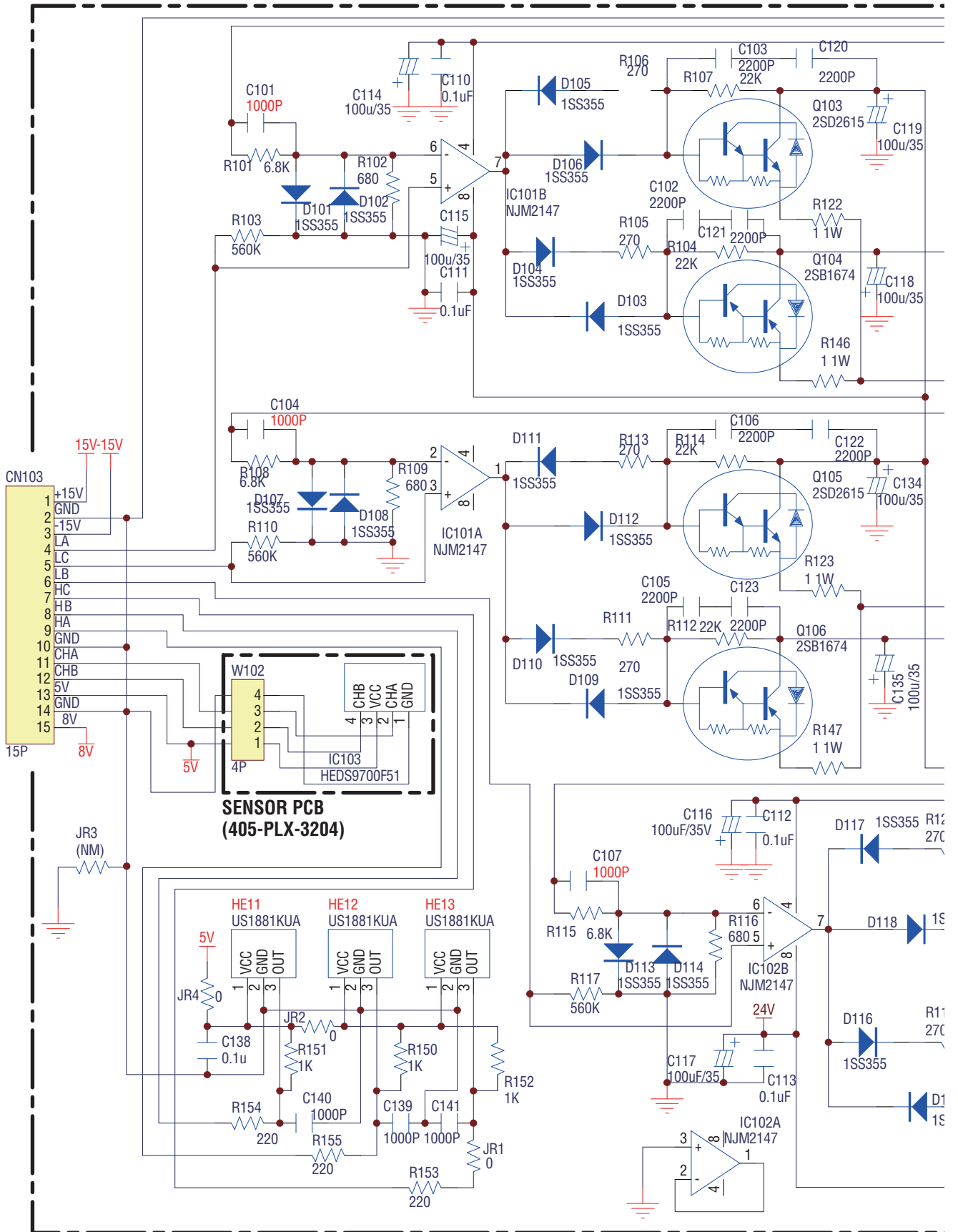
$\Delta$ 印の部品は、安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。

405-PLX-3198  
MAIN PCB



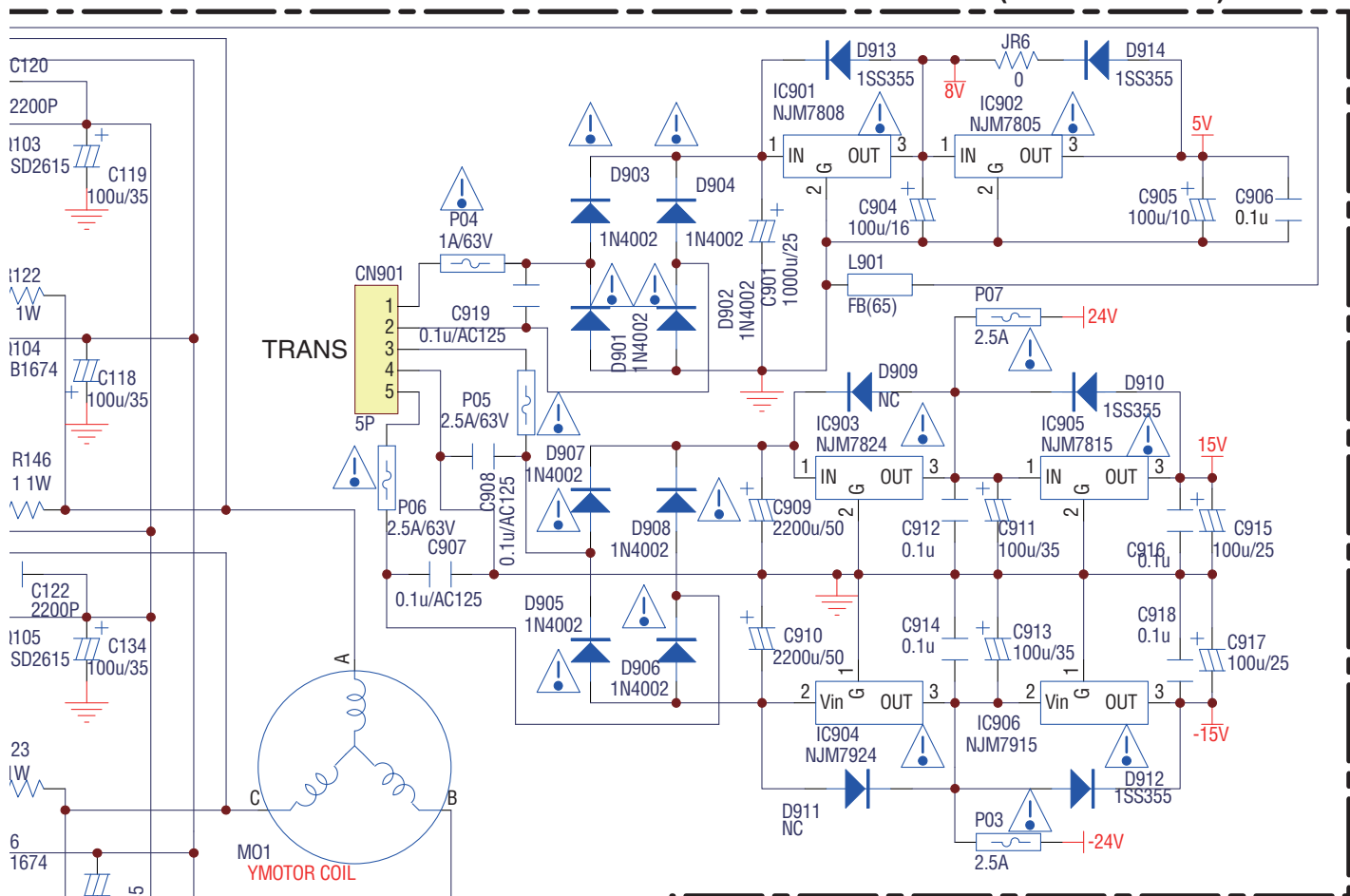
# 10.2 D.D. MOTOR ASSY, SENSOR PCB and PHONO PCB ASSY

A  
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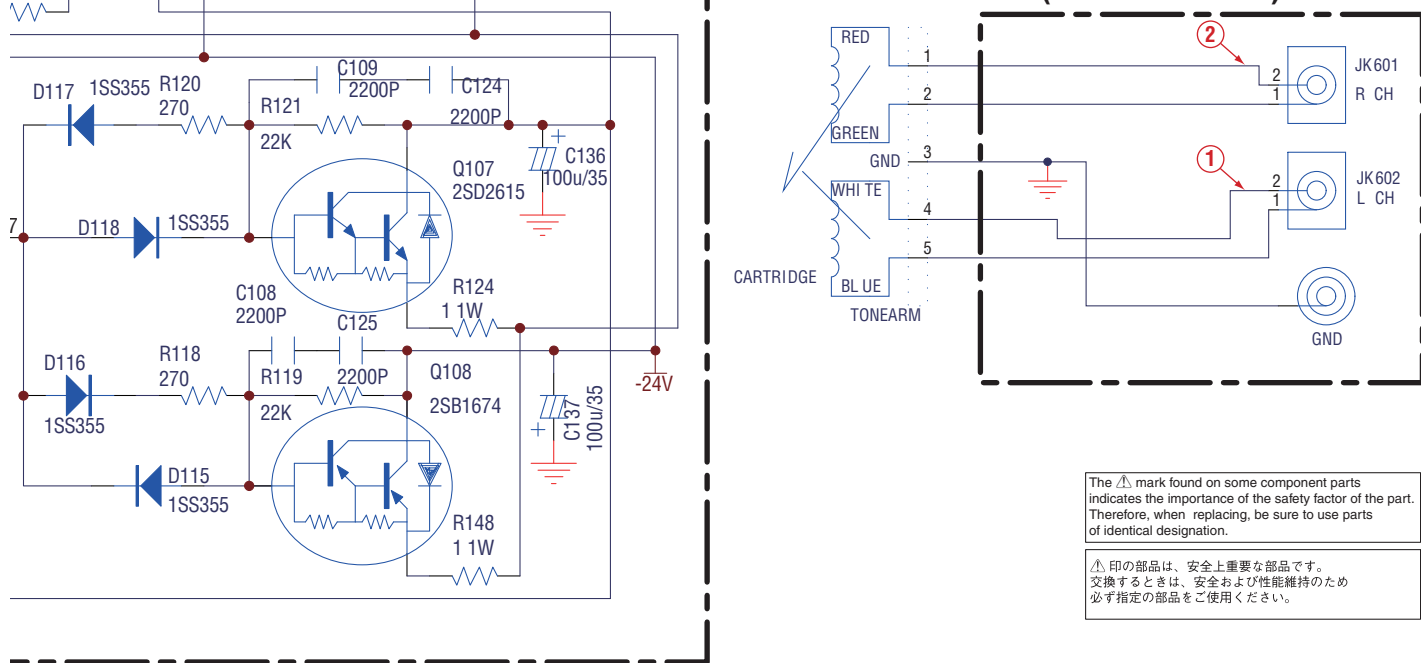


**D**

# D.D. MOTOR ASSY (704-PLX-A800)



# E PHONO PCB ASSY (704-PLX-A791)



The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

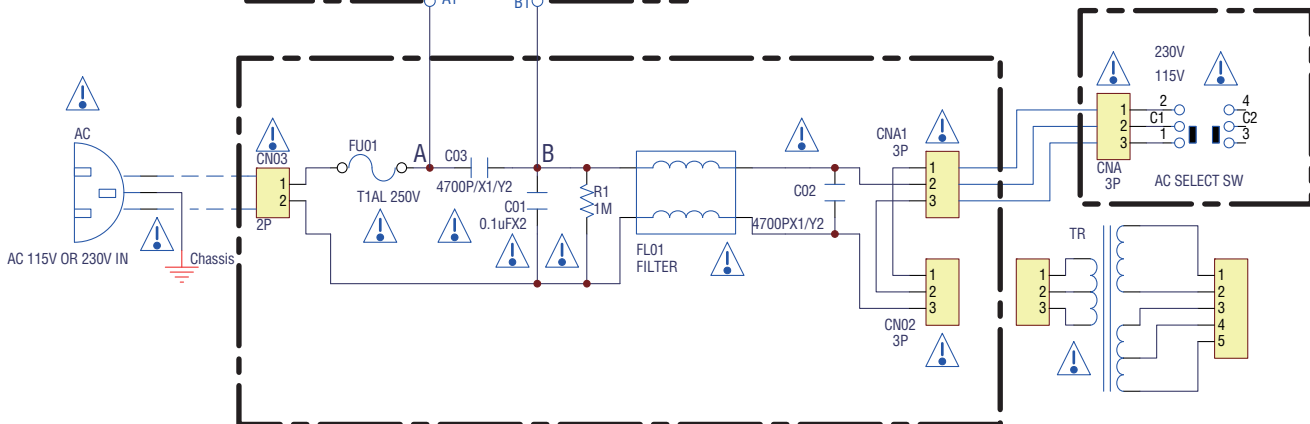
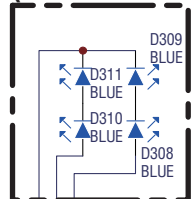
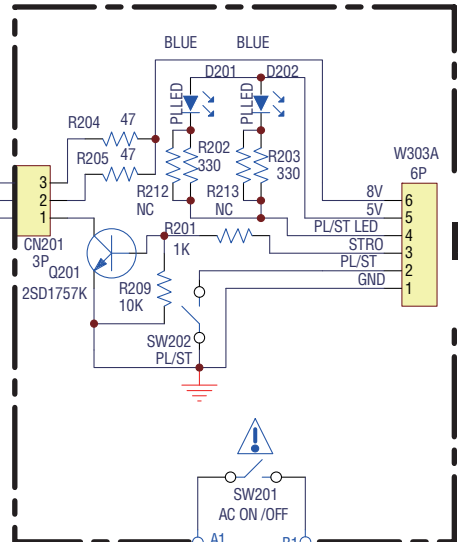
$\Delta$ 印の部品は、安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。



# 10.3 STROBOSCOPE, PLAY PCB and AC PCB ASSYS

## F STROBOSCOPE ASSY (704-PLX-A803)

## G PLAY PCB ASSY



## H AC PCB ASSY

• NOTE FOR FUSE REPLACEMENT

**CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE WITH SAME TYPE AND RATINGS OF FUSE.**

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

⚠印の部品は、安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。



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PLX-1000

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# 11. PCB CONNECTION DIAGRAM

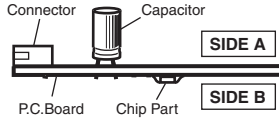
## 11.1 MAIN PCB, SEARCHLIGHT and SPEED PCB ASSYS

### A SIDE A

#### NOTE FOR PCB DIAGRAMS :

1. The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

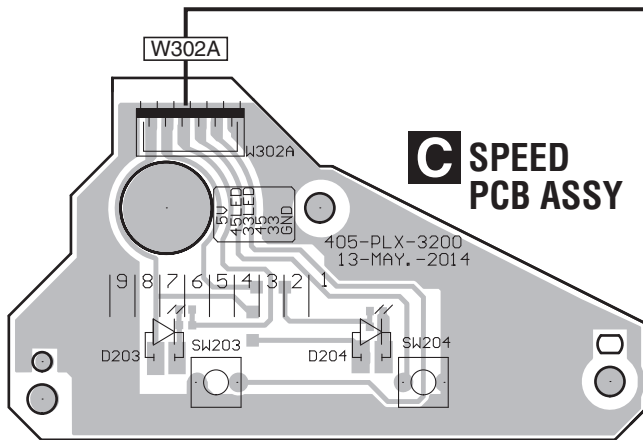
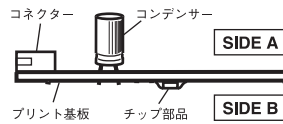
2. View point of PCB diagrams.



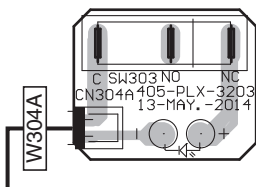
#### PCB 図に対する注意

1. この PCB 図にマウントしている部品は複数の仕向地の部品を含んでいます。各仕向地の情報は、回路図で確認するようにしてください。

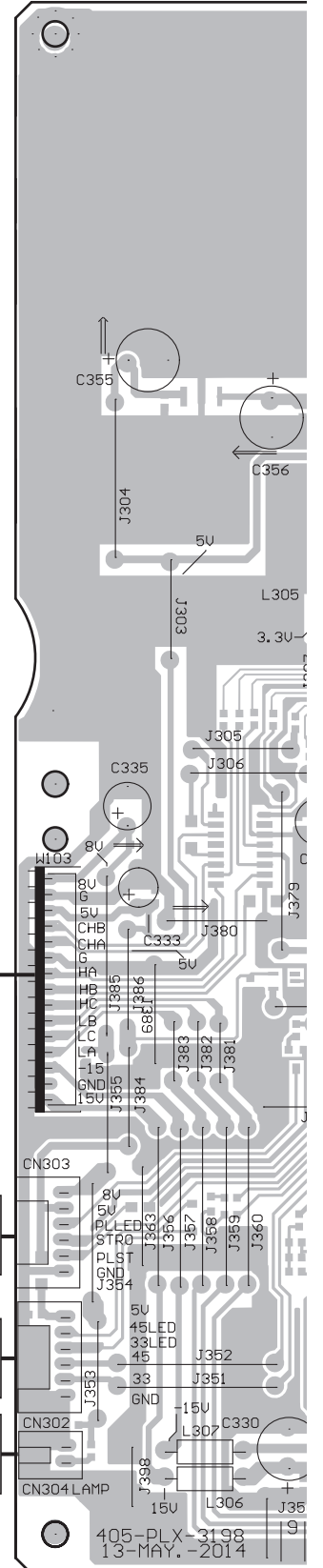
2. PCB 図の見かた。



### B SEARCHLIGHT ASSY



### A MAIN PCB ASSY

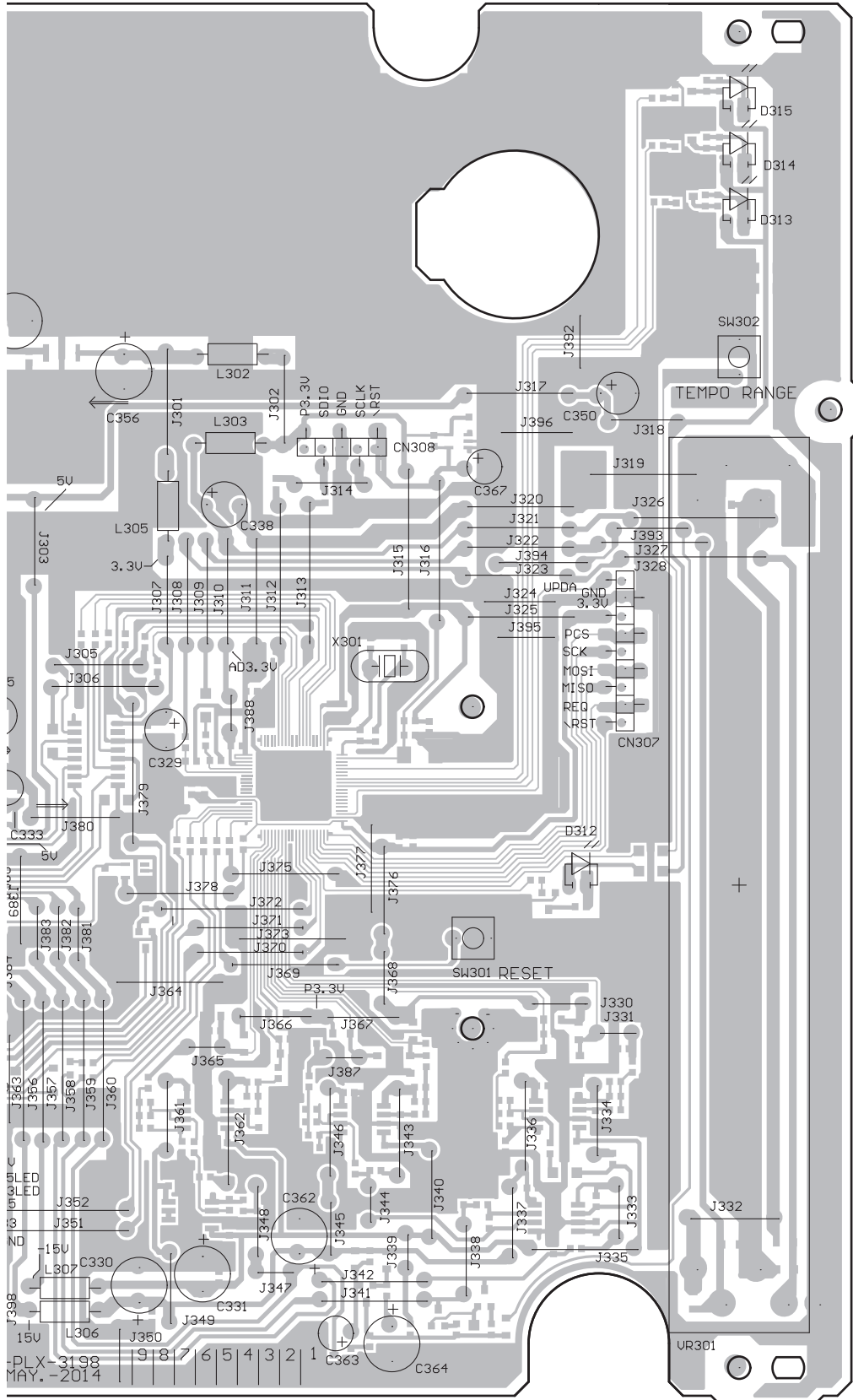


### A B C

**SIDE A**

A

# PCB ASSY



B

C

D

E

F



**SIDE B**

A

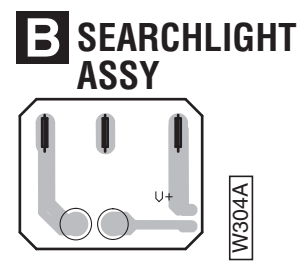
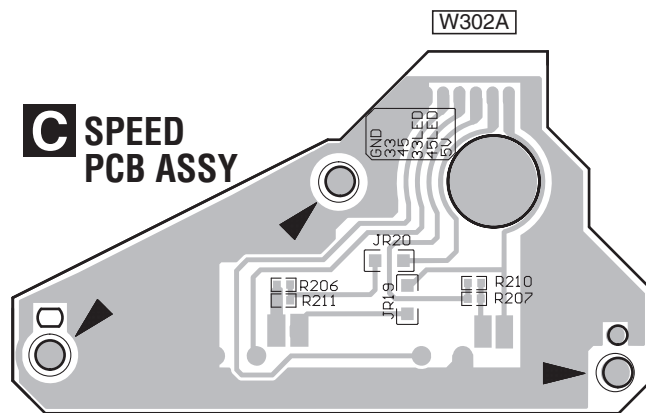
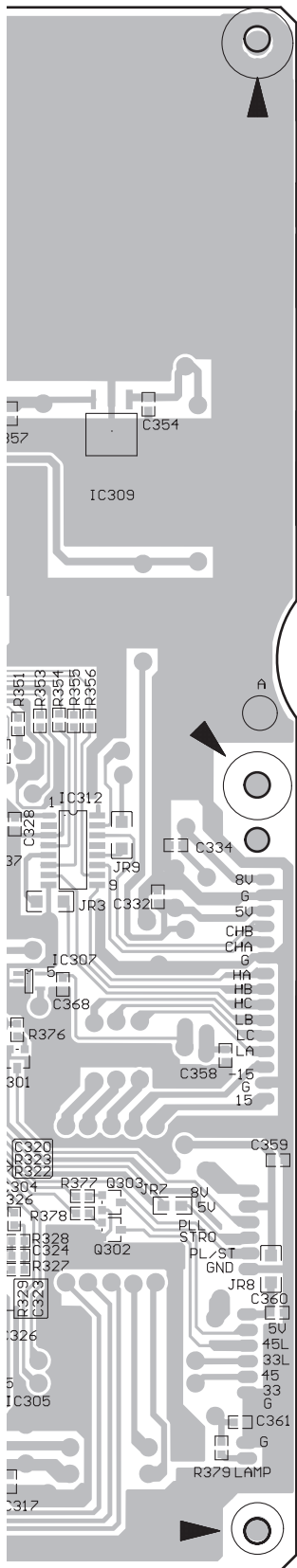
B

C

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E

F



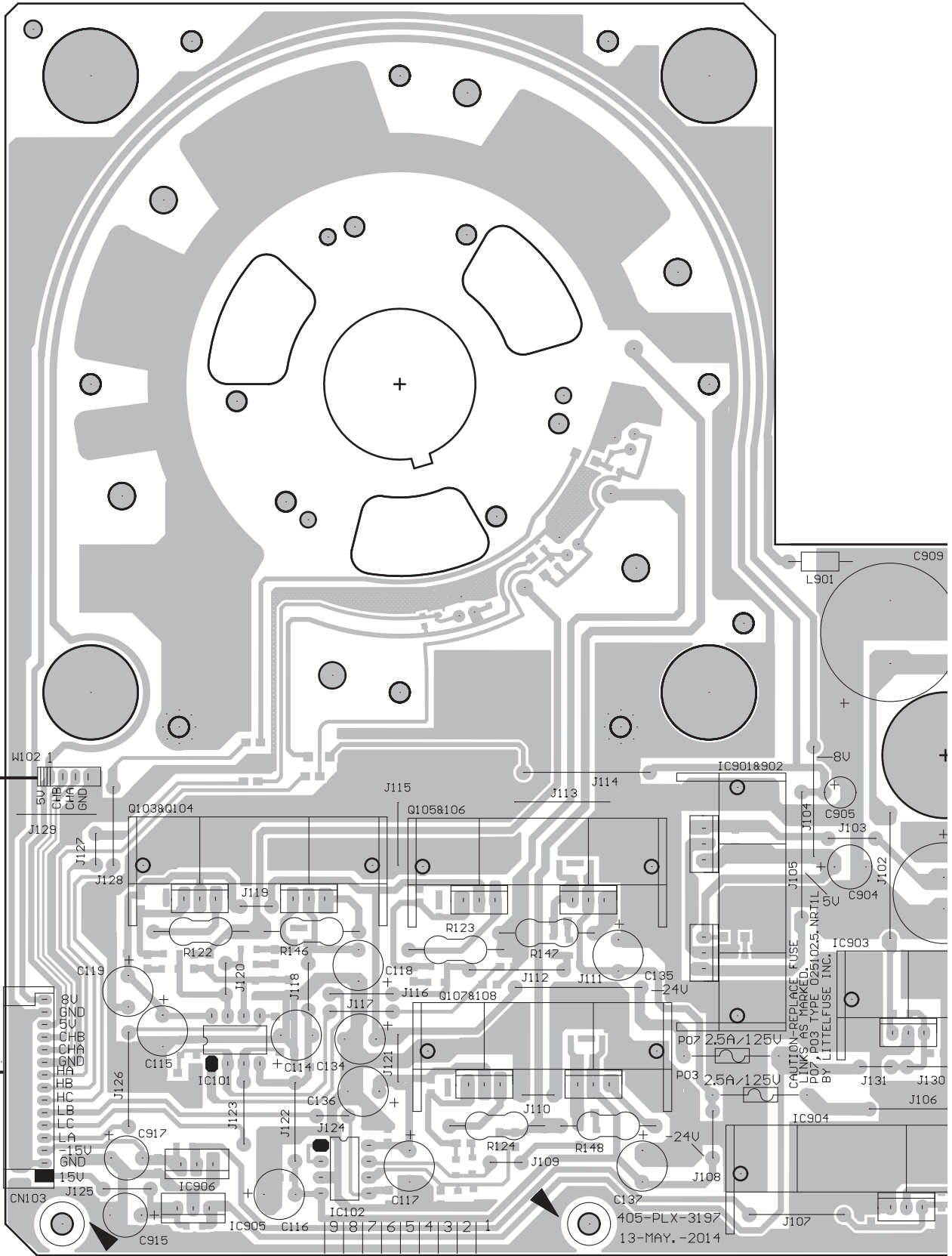
**A B C**

# 11.2 D.D. MOTOR ASSY, SENSOR PCB and PHONO PCB ASSY

**SIDE A**

**D** D.D. MOTOR ASSY

**SENSOR PCB**



CAUTION-REPLACE FUSE LINKS AS MARKED. P07, P03 TYPE 025102.5, NRTL BY LITTELFUSE INC.

A  
B  
C  
D  
E  
F

1 2 3 4

1 2 3 4

**D**

Q103	Q104	Q105	Q106	IC901	
IC906	IC101	Q107	Q108	IC902	IC903
IC905	IC102				IC904

**SIDE A**

A

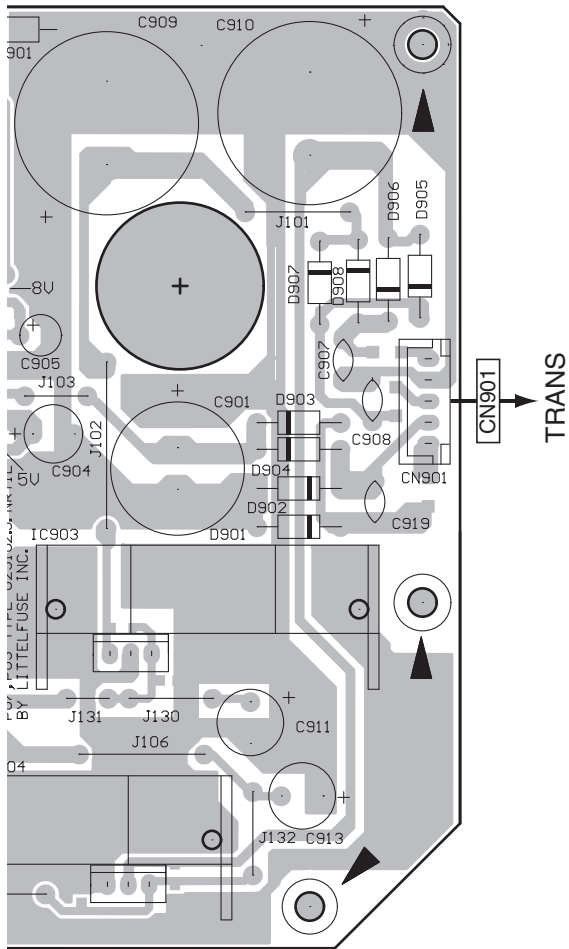
B

C

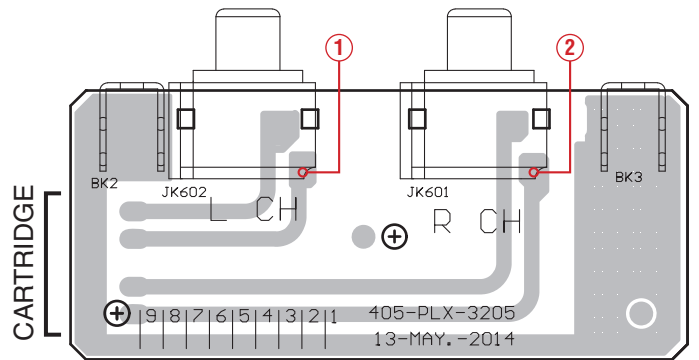
D

E

F



**E PHONO PCB ASSY**



IC903  
IC904

PLX-1000

**DE**

**SIDE B**

A

B

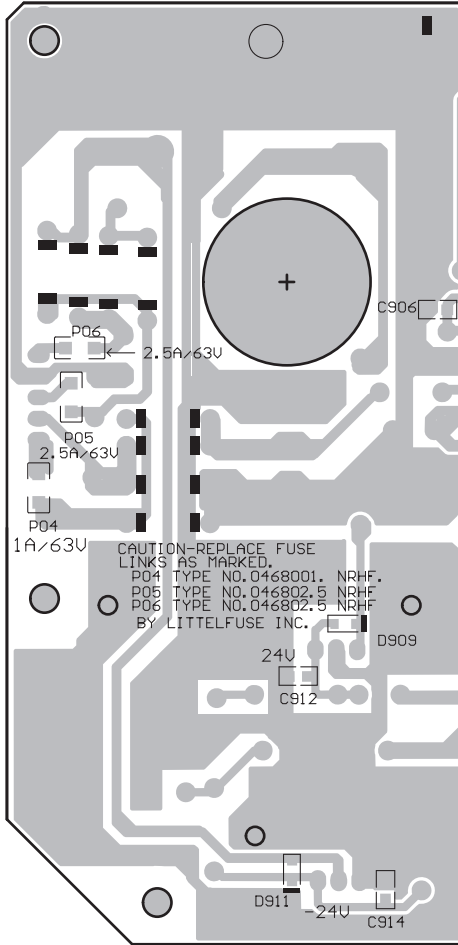
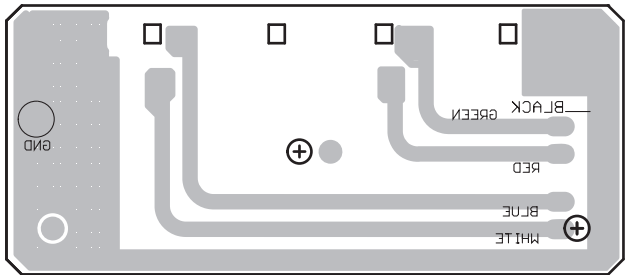
C

D

E

F

**PHONO PCB ASSY**

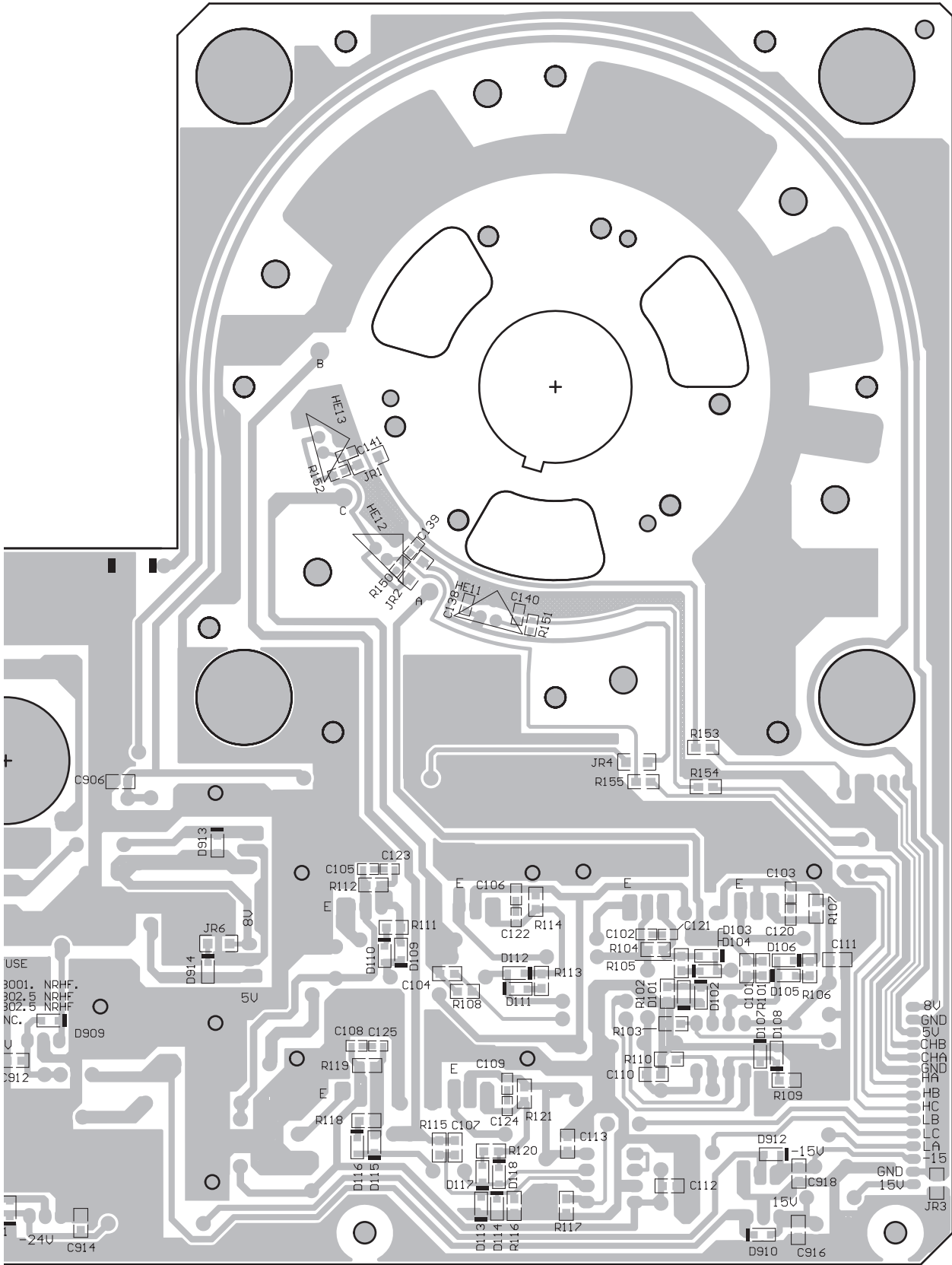


**D E**



# D D.D. MOTOR ASSY

SIDE B



SENSOR PCB

CW102

CN103

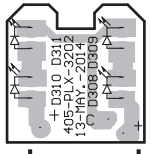
PLX-1000

D

# 11.3 STROBOSCOPE, PLAY PCB and AC PCB ASSYS

SIDE A

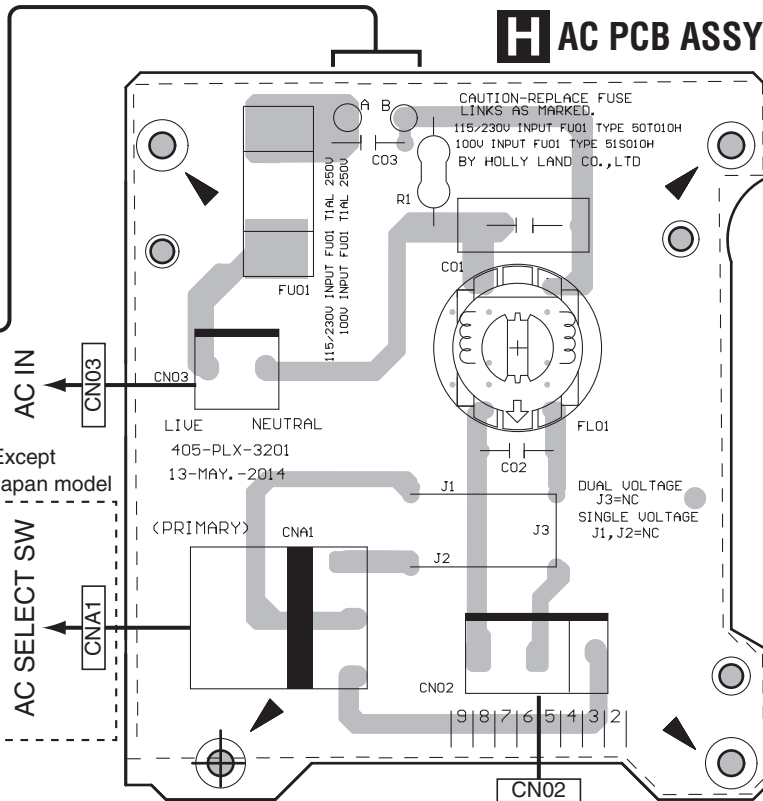
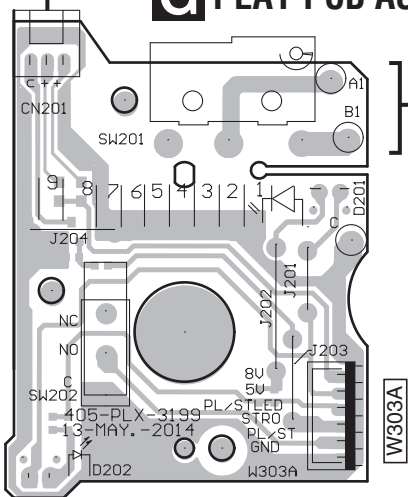
SIDE A



**F** STROBOSCOPE ASSY

CN201

**G** PLAY PCB ASSY

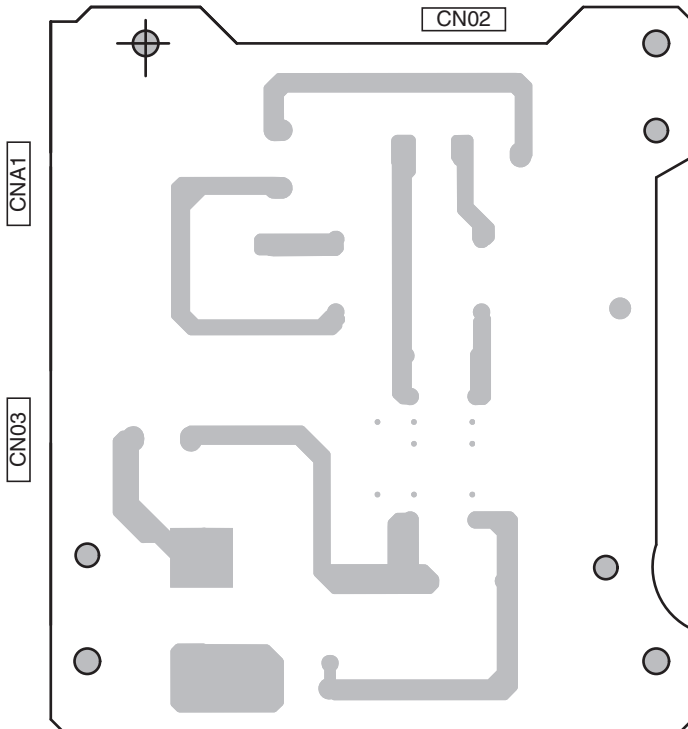
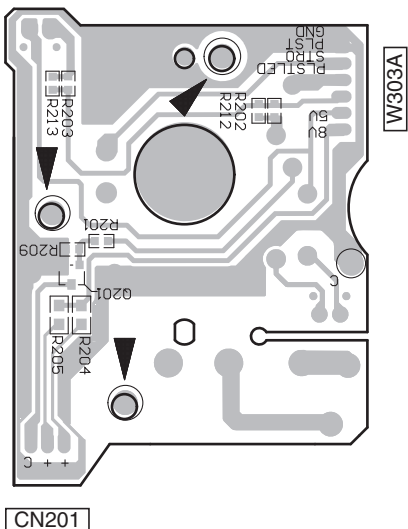


TRANS

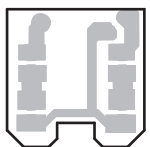
SIDE B

SIDE B

**G** PLAY PCB ASSY



**H** AC PCB ASSY



**F** STROBOSCOPE ASSY

**F G H**

# 12. PCB PARTS LIST

NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
------	-----	-------------	----------	------	-----	-------------	----------

## LIST OF ASSEMBLIES

	1..MAIN PCB ASSY	704-PLX-A787
	1..SPEED PCB ASSY	704-PLX-A790
	1..PHONO PCB ASSY	704-PLX-A791
	1..D.D. MOTOR ASSY	704-PLX-A800
	1..SEARCHLIGHT ASSY	704-PLX-A802
	1..STROBOSCOPE ASSY	704-PLX-A803
$\Delta$	1..AC PCB ASSY	704-PLX-A863
NSP	2..AC PCB ASSY	.....
NSP	2..PLAY PCB ASSY	.....

Mark	No.	Description	Part No.
------	-----	-------------	----------

## A MAIN PCB ASSY

### SEMICONDUCTORS

	IC 306 CONTROL IC ASS'Y	704-PLX-A788
$\Delta$	IC 309 IC	417-CTB200-500
	IC 307 IC	417-HDJ2000-503
	IC 312 IC	417-IQ2UM-970A
	IC 311 IC	417-200USB-931
	IC 301-305 IC	417-ST150-599
	Q 308-310 TRANSISTOR	416-3000-378
	Q 311 CHIP TRANSISTOR	416-HDJ9700-210
	Q 301-307 TRANSISTOR	416-CDN88-044
	D 321 TVS DIODE	414-UDJ200-284
	D 316-320,322-335 SWITCHING DIODE	414-CD1000-075A
	D 313-315 LED(BLUE)	410-CDI600-357T
	D 312 LED(YELLOW/GREEN)	410-6K2-435

### MISCELLANEOUS

	L 901 BEAD CORE	415-HV3500K-090
	X 301 CRYSTAL (8 MHz)	427-SUB-149
	SW 301,302 TACT SW	403-DDJLE-419
	CN 307 9P 2.54 CONNECTOR	404-T2-1707
	CN 308 5P 2.54 CONNECTOR	404-T2-1705
	W 103 15P 2.0 CONNECTOR WI	404-PLX-3856
	CN 303 6P 2.0 SOCKET	404-MX100-3368
	CN 304 2P SOCKET	404-DJ3000-847A
	CN 302 6P SOCKET	404-90V1-101

### RESISTORS

	VR 301 SLIDE VR	418-PLX-722
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### CAPACITORS

	C 363 ELEC. CAPACITOR	413-200USB-1119
	C 330,331,362 ELEC. CAPACITOR	413-SPPW3-238-HA
	C 335 ELEC.CAPACITOR	413-HT801K-193
	C 301,305,310,315,319,323 CHIP CAPACITOR	413-DCM280-889
	C 336,337,341,346,349 CHIP CAPACITOR	413-DCM280-889
	C138 CHIP CAPACITOR	413-DCM280-773
	C 364 ELEC. CAPACITOR	413-CDU103-1199
	C 329,338,350 ELEC.CAPACITOR	413-HMA2200-5017

## B SEARCHLIGHT ASSY

There is no service parts.

## C SPEED PCB ASSY

### SEMICONDUCTORS

	D 203,204 LED(BLUE)	410-CDI600-357T
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### MISCELLANEOUS

	SW 203,204 TACT SW	403-DDJLE-419
	W 302A 6P 2.0 CONNECTOR WIR	404-PLX-3858

## D D.D. MOTOR ASSY

### SEMICONDUCTORS

$\Delta$	IC 901 IC (NJM7808FA)	417-HTV8023KA-5006
$\Delta$	IC 906 IC(NJM7915FA)	417-RCC955A-291
$\Delta$	IC 902 IC(NJM7805FA,TO-220F)	417-KC730-123
	IC 103 IC(HEDS-9700#F51)	417-PS2-504
$\Delta$	IC 905 IC(NJM7815FA,TO-220F)	417-DV330-216
$\Delta$	IC 904 IC(NJM7924FA,3PIN)	417-DJ5500-581
$\Delta$	IC 903 IC(NJM7824FA,TO-220F)	417-DJ2500-268
	IC 101,102 IC(NJM2147D,DIP8)	417-DJ5500-579
	HE 11-13 IC(US1881KUA,TO-92)	417-DJ5500-580
	Q 107 TRANSISTOR(2SD2615,T)	416-DJ5500-389
	Q 108 TRANSISTOR(2SB1674FU)	416-DJ5500-388
	D 101-118,910,912-914 SWITCHING DIODE	414-CD1000-075A
$\Delta$	D 901-908 DIODE	414-DV300-5014-HA

### MISCELLANEOUS

$\Delta$	P 05,06 CHIP FUSE	422-MC6000-110
	CN 901 5P SOCKET(CKM2501-WV)	404-HV3500K-622A
$\Delta$	P 04 CHIP FUSE(1A,63V,120)	422-3BPM-070
$\Delta$	P 03,07 FUSE(1A/125V,TAPING)	422-1300-051
	IC 903 LEFT,IC904 RIGHT,IC901 HEAT SINK	425-PNTT-180
	IC905,Q107 HEAT SINK	425-PNTT-180
	CN 103 15P SOCKET(S15B-PH-K)	404-PRO3-523
	L 901 BEAD CORE	415-HV3500K-090

### RESISTORS

	R 122-124 METAL OXIDE FILM RES	412-DJ5500-661
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### CAPACITORS

	C 114-119,134-137,911,913 ELEC. CAPACITOR	413-HMD5000-356
	C 915,917 ELEC. CAPACITOR	413-HS100-180-HA
	C 907,908,919 METAL POLYESTER C	413-DJ3500-884
	C 904 ELEC. CAPACITOR	413-PXE90-109-HA
	C 901 ELEC. CAPACITOR(1000)	413-DJ1900-111
	C 909,910 ELEC. CAPACITOR(2200)	413-RP8-1292
	C 138 CHIP CAPACITOR	413-DCM280-773
	C 905 ELEC. CAPACITOR	413-3113-046-HA

## E PHONO PCB ASSY

Mark	No.	Description	Part No.
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**MISCELLANEOUS**

	BK 2,3	FIXED PLATE	300-4500-2010A
A	JK 601	1P RCA JACK(T7543-AA)	420-PLX-396
	JK 602	1P RCA JACK(T7543-AA)	420-PLX-397

**F STROBOSCOPE ASSY****SEMICONDUCTORS**

	D 308-311	LED(BLUE)	410-CDI600-357T
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**G PLAY PCB ASSY****SEMICONDUCTORS**

B	Q 201	CHIP TRANSISTOR	416-MC6000-374
	D 201,202	LED(BLUE)	410-CDI600-357

**MISCELLANEOUS**

	D 201,202	LED SUPPORT(LEG3-10F)	504-PLX-306
	SW 202	TACT SW	403-DJ3500-134A
	SW 201	POWER SW	403-PLX-454
	CN 201	3P SOCKET	404-HMD5000-784A-HA
	C	GROUND WIRE FOR MECH	406-CDMIX1-518

	W 303A	6P CONNECTOR WIRE	404-PLX-3860
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**H AC PCB ASSY****MISCELLANEOUS**

	FL 01	FILTER((ASC-1603F-G)	415-5500-387
	FU 01	FUSE CLIPS(FS-001)	420-KT350A-004
	FU 01	FUSE	422-HDJ7100-022
	CN 03	2P SOCKET(CKM3961WV-	404-BEAT6-1597A
	CN 02	5N3P 3.96 SOCKET(CKM	404-DJ5000-1764

	0	CABLE TIE	504-S100-004-HA
	CN A1	5N3P 3.96 SOCKET	404-PLX-3875

**RESISTORS**

	R 1	UL RESISTOR(1M OHM,1	412-PLX-1696
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**CAPACITORS**

	C 02,03	AC SAFETY CAPACITOR	413-1431-104
	C 01	MEX CAPACITOR	413-PROTT1-432