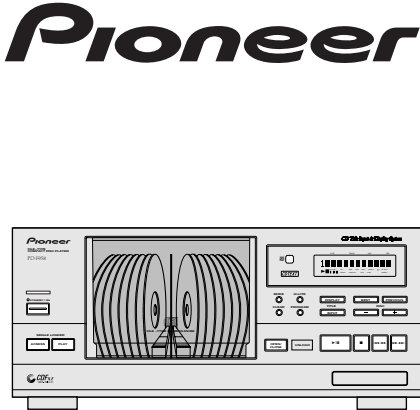


# Service Manual



ORDER NO.  
RRV2085

## FILE-TYPE COMPACT DISC PLAYER

# PD-F958

# PD-F908

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

| Type    | Model   |         | Power Requirement | Remarks |
|---------|---------|---------|-------------------|---------|
|         | PD-F958 | PD-F908 |                   |         |
| KUXQ    | –       | O       | AC120V            |         |
| KCXQ    | –       | O       | AC120V            |         |
| KUXQ/CA | O       | –       | AC120V            |         |

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# 1. 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 contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

## NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

## REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

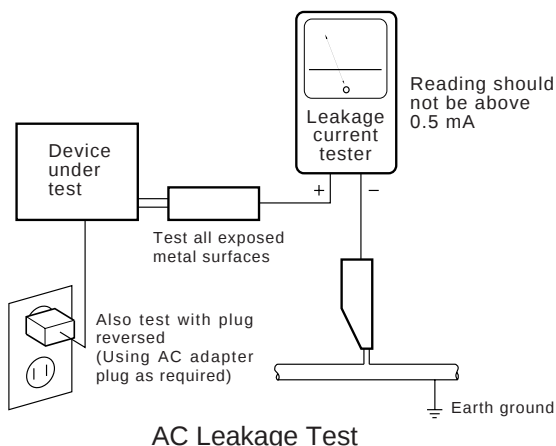
## (FOR USA MODEL ONLY)

### 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 120V 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.

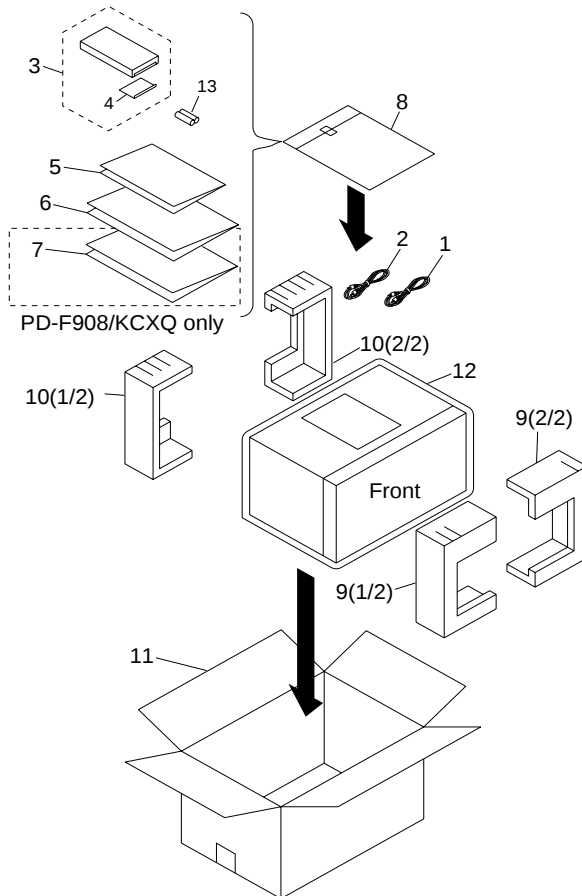
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

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.

## 2. EXPLODED VIEWS AND 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.  
 ● Screw adjacent to  $\nabla$  mark on the product are used for disassembly.

### 2.1 PACKING



#### (1) PARTS LIST

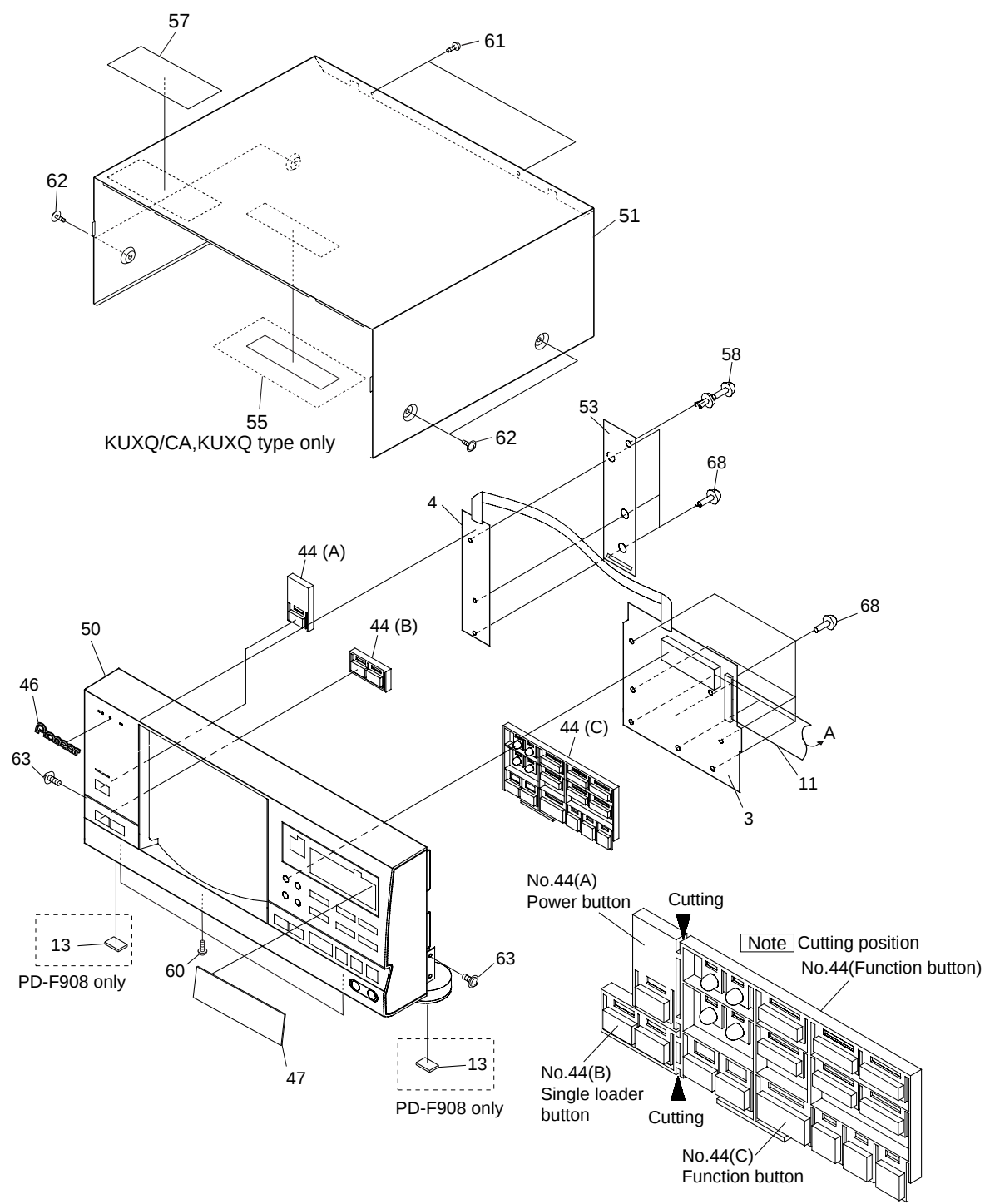
| Mark | No. | Description                      | Part No.               |
|------|-----|----------------------------------|------------------------|
|      | 1   | Control Cable (L=1.0m)           | PDE1247                |
|      | 2   | Output Cable (L=1.0m)            | PDE1248                |
|      | 3   | Remote Control Unit              | See Contrast table (2) |
|      | 4   | Battery Cover                    | PZN1105                |
| NSP  | 5   | Warranty Card                    | See Contrast table (2) |
|      | 6   | Operating Instructions (English) | See Contrast table (2) |
|      | 7   | Operating Instructions (French)) | See Contrast table (2) |
|      | 8   | Polyethylene Bag                 | Z21 - 038              |
|      | 9   | Styrol Protector F               | PHA1333                |
|      | 10  | Styrol Protector R               | PHA1334                |
|      | 11  | Packing Case                     | See Contrast table (2) |
|      | 12  | Mirror Mat                       | PHF1001                |
| NSP  | 13  | Battery (R6P, AA)                | VEM 1010               |

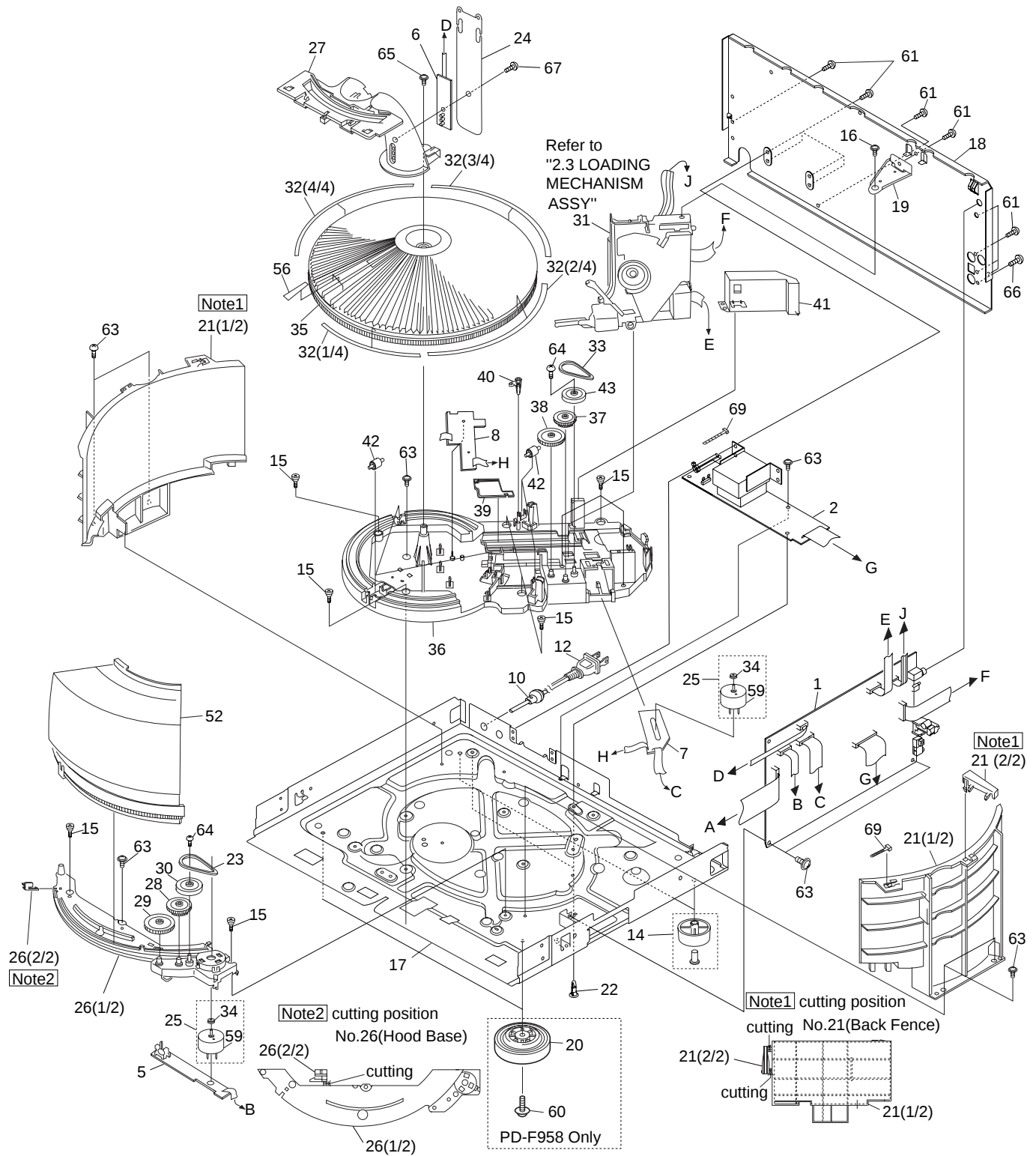
#### (2) CONTRAST TABLE

PD-F908/KUXQ,KCXQ and PD-F958/KUXQ/CA have the same construction except for the following:

| Mark | No. | Symbol & Description             | Part No.              |                       |                       | Remarks |
|------|-----|----------------------------------|-----------------------|-----------------------|-----------------------|---------|
|      |     |                                  | PD-F958/<br>KUXQ/CA   | PD-F908/<br>KUXQ      | PD-F908/<br>KCXQ      |         |
| NSP  | 3   | Remote Control Unit              | PWW1148<br>(CU-PD101) | PWW1147<br>(CU-PD100) | PWW1147<br>(CU-PD100) |         |
|      | 5   | Warranty Card                    | ARY7023               | ARY7023               | ARY7024               |         |
|      | 6   | Operating Instructions (English) | PRB1278               | PRB1277               | PRB1277               |         |
|      | 7   | Operating Instructions (French)  | Not used              | Not used              | PRD1034               |         |
|      | 11  | Packing Case                     | PHG2337               | PHG2334               | PHG2335               |         |

2.2 EXTERIOR





(1) EXTERIOR PARTS LIST

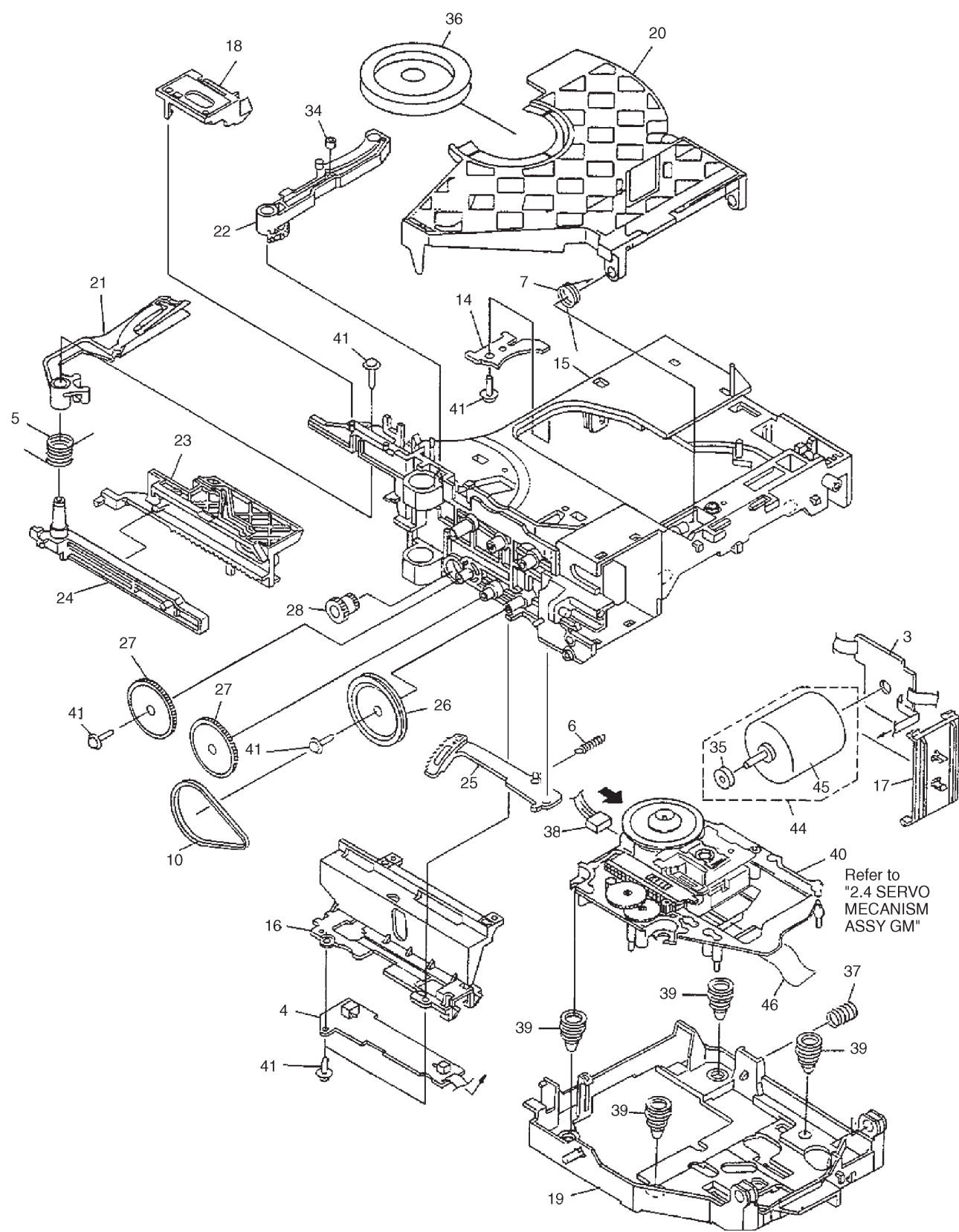
| Mark | No. | Description             | Part No.              | Mark | No. | Description     | Part No.               |
|------|-----|-------------------------|-----------------------|------|-----|-----------------|------------------------|
|      | 1   | Main Board Assy         | See Contrast table(2) |      | 36  | Mecha Base      | PNW2639                |
|      | 2   | Power Board Assy        | See Contrast table(2) |      | 37  | Gear            | PNW2906                |
|      | 3   | Display Board Assy      | See Contrast table(2) |      | 38  | Gear            | PNW2642                |
| NSP  | 4   | Switch Board Assy       | See Contrast table(2) |      | 39  | Slider          | PNW2643                |
| NSP  | 5   | Door Board Assy         | See Contrast table(2) |      | 40  | Lock Lever      | PNW2644                |
| NSP  | 6   | Center LED Board Assy   | See Contrast table(2) |      | 41  | Mecha Stopper   | PNW2646                |
| NSP  | 7   | Select Motor Board Assy | PWZ3324               |      | 42  | Roller          | PNW2647                |
| NSP  | 8   | Sensor Board Assy       | PWZ3327               |      | 43  | Gear Pulley     | VNL1662                |
|      | 9   | .....                   |                       |      | 44  | Function Button | See Contrast table(2)  |
|      | 10  | Cord Stopper            | CM - 22C              |      | 45  | .....           |                        |
|      | 11  | F.F.C/30V               | See Contrast table(2) |      | 46  | Name Plate      | PAM1776                |
|      | 12  | AC Power Cord           | PDG1064               |      | 47  | Display Window  | See Contrast table(2)  |
|      | 13  | Rubber Sheet            | See Contrast table(2) |      | 48  | .....           |                        |
|      | 14  | Foot Assy               | REC1263               |      | 49  | .....           |                        |
|      | 15  | Screw C                 | PBA1106               |      | 50  | Operation Panel | See Contrast table(2)  |
|      | 16  | Screw                   | PBA1108               |      | 51  | Bonnet Case     | PYY1191                |
| NSP  | 17  | Under Base              | PNA2255               |      | 52  | Hood            | PNW2865                |
|      | 18  | Rear Base               | See Contrast table(2) |      | 53  | Side Cover      | PNM1322                |
|      | 19  | Stopper Angle           | PNB1559               |      | 54  | .....           |                        |
|      | 20  | Insulator               | See Contrast table(2) |      | 55  | 65 Label        | See Contrast table (2) |
|      | 21  | Back Fence              | PNW2671               |      | 56  | Label           | PRW1520                |
|      | 22  | Locking Card Spacer     | VEC1596               |      | 57  | Label           | PRW1523                |
|      | 23  | Belt                    | PEB1288               |      | 58  | Rivet           | RBM-003                |
|      | 24  | Cover                   | PNM1294               |      | 59  | Slider Motor    | VXM1033                |
|      | 25  | Motor Assy              | PEA1333               |      | 60  | Screw           | IBZ30P080FZK           |
|      | 26  | Hood Base               | PNW2633               |      | 61  | Screw           | BBZ30P080FZK           |
|      | 27  | Center Pole             | PNW2634               |      | 62  | Screw           | FBT40P080FZK           |
|      | 28  | Gear (Middle)           | PNW2906               |      | 63  | Screw           | IBZ30P060FMC           |
|      | 29  | Gear (Twin)             | PNW2642               |      | 64  | Screw           | IPZ20P080FMC           |
|      | 30  | Gear Pulley             | VNL1662               |      | 65  | Screw           | IPZ30P080FCU           |
|      | 31  | Loading Mechanism Assy  | PXA1589               |      | 66  | Screw           | PMZ30P060FZK           |
|      | 32  | Rack Label              | PAM1783               |      | 67  | Screw           | PPZ30P050FMC           |
|      | 33  | Belt                    | PEB1288               |      | 68  | Screw           | PPZ30P100FMC           |
|      | 34  | Motor Pulley            | PNW1634               |      | 69  | Binder          | ZCA-SKB90BK            |
|      | 35  | Disc Rack               | PNW2845               |      |     |                 |                        |

**(2) CONTRAST TABLE**

PD-F908/KUXQ,KCXQ and PD-F958/KUXQ/CA have the same construction except for the following:

| Mark       | No. | Symbol & Description  | Part No.               |                        |                        | Remarks |
|------------|-----|-----------------------|------------------------|------------------------|------------------------|---------|
|            |     |                       | PD-F958/<br>KUXQ/CA    | PD-F908/<br>KUXQ       | PD-F908/<br>KCXQ       |         |
| NSP<br>NSP | 1   | Main Board Assy       | PWZ3895                | PWZ3876                | PWZ3876                |         |
|            | 2   | Power Board Assy      | PWZ3900                | PWZ3879                | PWZ3879                |         |
|            | 3   | Display Board Assy    | PWZ3904                | PWZ3882                | PWZ3882                |         |
|            | 4   | Switch Board Assy     | PWZ3907                | PWZ3885                | PWZ3885                |         |
|            | 5   | Door Board Assy       | PWZ3913                | PWZ3890                | PWZ3890                |         |
| NSP        | 6   | Center LED Board Assy | PWZ3915                | PWZ3892                | PWZ3892                |         |
|            | 11  | F.F.C/30V             | PDD1186<br>(40P F.F.C) | PDD1167<br>(32P F.F.C) | PDD1167<br>(32P F.F.C) |         |
|            | 13  | Rubber Sheet          | Not Used               | AEB1111                | AEB1111                |         |
|            | 18  | Rear Base             | PNA2452                | PNA2450                | PNA2450                |         |
|            | 20  | Insulator             | PNW2766                | Not Used               | Not Used               |         |
|            | 44  | Function Button       | PAC1908                | PAC1905                | PAC1905                |         |
|            | 47  | Display Window        | PAM1772                | PAM1774                | PAM1774                |         |
|            | 50  | Operation panel       | PNW2869                | PNW2867                | PNW2867                |         |
|            | 55  | 65 Label              | ORW1069                | ORW1069                | Not used               |         |

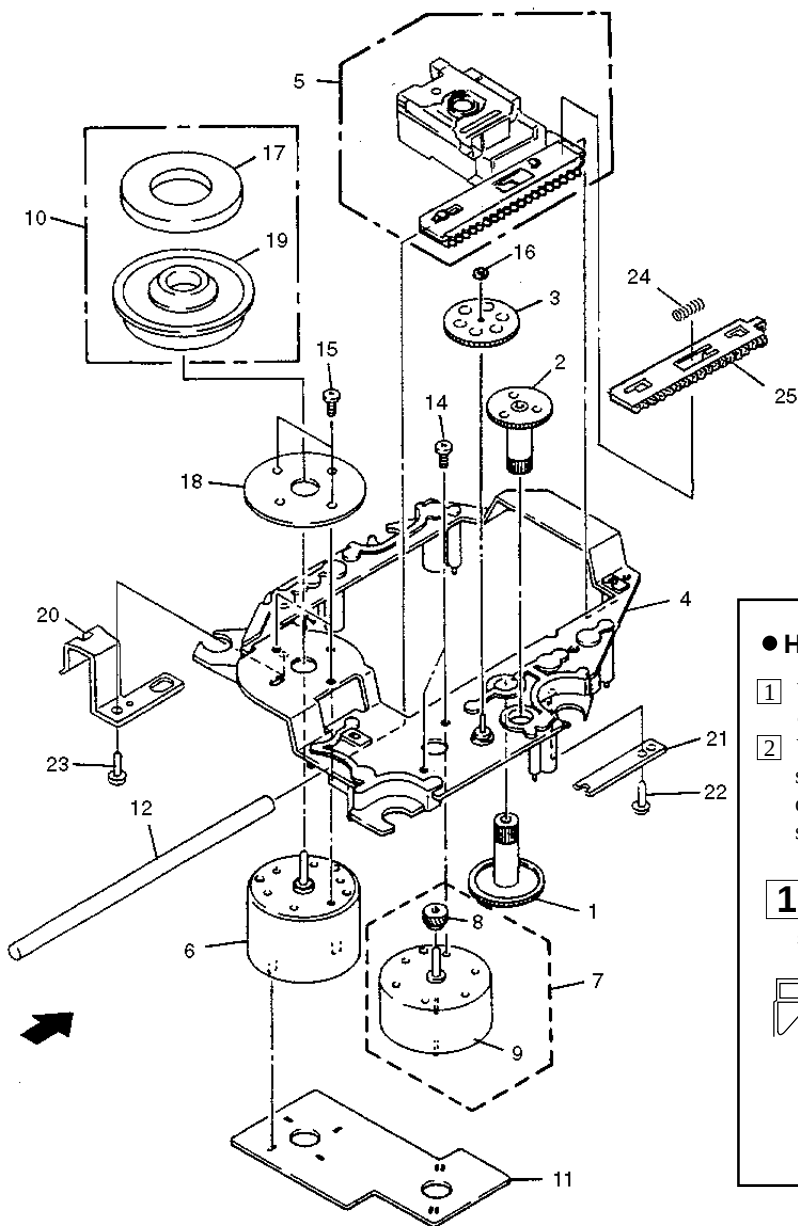
2.3 LOADING MECHANISM ASSY



## ■ LOADING MECHANISM ASSY PARTS LIST

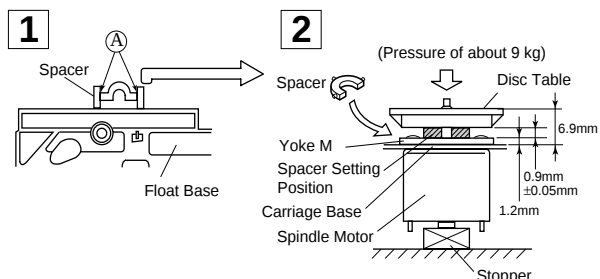
| Mark | No. | Description              | Part No.     |
|------|-----|--------------------------|--------------|
|      | 1   | .....                    |              |
|      | 2   | .....                    |              |
| NSP  | 3   | Loading Motor Board Assy | PWZ3337      |
| NSP  | 4   | Load SW Board Assy       | PWZ3334      |
|      | 5   | Arm A Spring2            | ABH7124      |
|      | 6   | Gear Plate Spring        | ABH7051      |
|      | 7   | Clamp Spring             | ABH7107      |
|      | 8   | .....                    |              |
|      | 9   | .....                    |              |
|      | 10  | Loading Belt             | AEB7029      |
|      | 11  | .....                    |              |
|      | 12  | .....                    |              |
|      | 13  | .....                    |              |
| NSP  | 14  | Servo Stopper S          | ANB7047      |
|      | 15  | Loading Base             | ANW7086      |
|      | 16  | Cam Cover                | ANW7052      |
|      | 17  | Motor Holder             | ANW7053      |
|      | 18  | Sensor Holder            | ANW7119      |
|      | 19  | Float Base 96            | PNW2700      |
|      | 20  | Clamper Holder           | ANW7117      |
|      | 21  | Arm A2                   | ANW7128      |
|      | 22  | Arm (B)                  | ANW7058      |
|      | 23  | Drive Plate              | ANW7059      |
|      | 24  | Arm Plate                | ANW7060      |
|      | 25  | Gear Plate               | ANW7111      |
|      | 26  | Gear Pulley (B)          | ANW7062      |
|      | 27  | Gear A                   | ANW7063      |
|      | 28  | Drive Gear               | ANW7064      |
|      | 29  | .....                    |              |
|      | 30  | .....                    |              |
|      | 31  | .....                    |              |
|      | 32  | .....                    |              |
|      | 33  | .....                    |              |
|      | 34  | Roller B                 | ANW7075      |
|      | 35  | Motor Pulley             | PNW1634      |
|      | 36  | Clamper                  | PNW2743      |
|      | 37  | Float Spring             | ABH7049      |
|      | 38  | Connector Assy (4P)      | RDE1043      |
|      | 39  | Float Rubber             | AEB7028      |
| NSP  | 40  | Servo Mechanism Assy GM  | PXA1591      |
|      | 41  | Screw                    | IPZ20P080FMC |
|      | 42  | .....                    |              |
|      | 43  | .....                    |              |
|      | 44  | Motor Assy               | AEA7006      |
|      | 45  | Loading Motor            | VXM1034      |
|      | 46  | 16P FFC/30V              | PDD1180      |
|      |     | Froil (for Service)      | GYA1001      |
|      |     | Ha Narl (for Service)    | GEM1016      |

## 2.4 SERVO MECHANISM ASSY GM



### ● How to Install the Disc Table

- 1 Use nipper or other tool to cut the three sections marked **A** in figure 1. Then remove the spacer
- 2 While supporting the spindle motor shaft with the stopper, put spacer on top of the yoke M, and stick the disc table on top (takes about 9kg pressure). Detach the spacer.



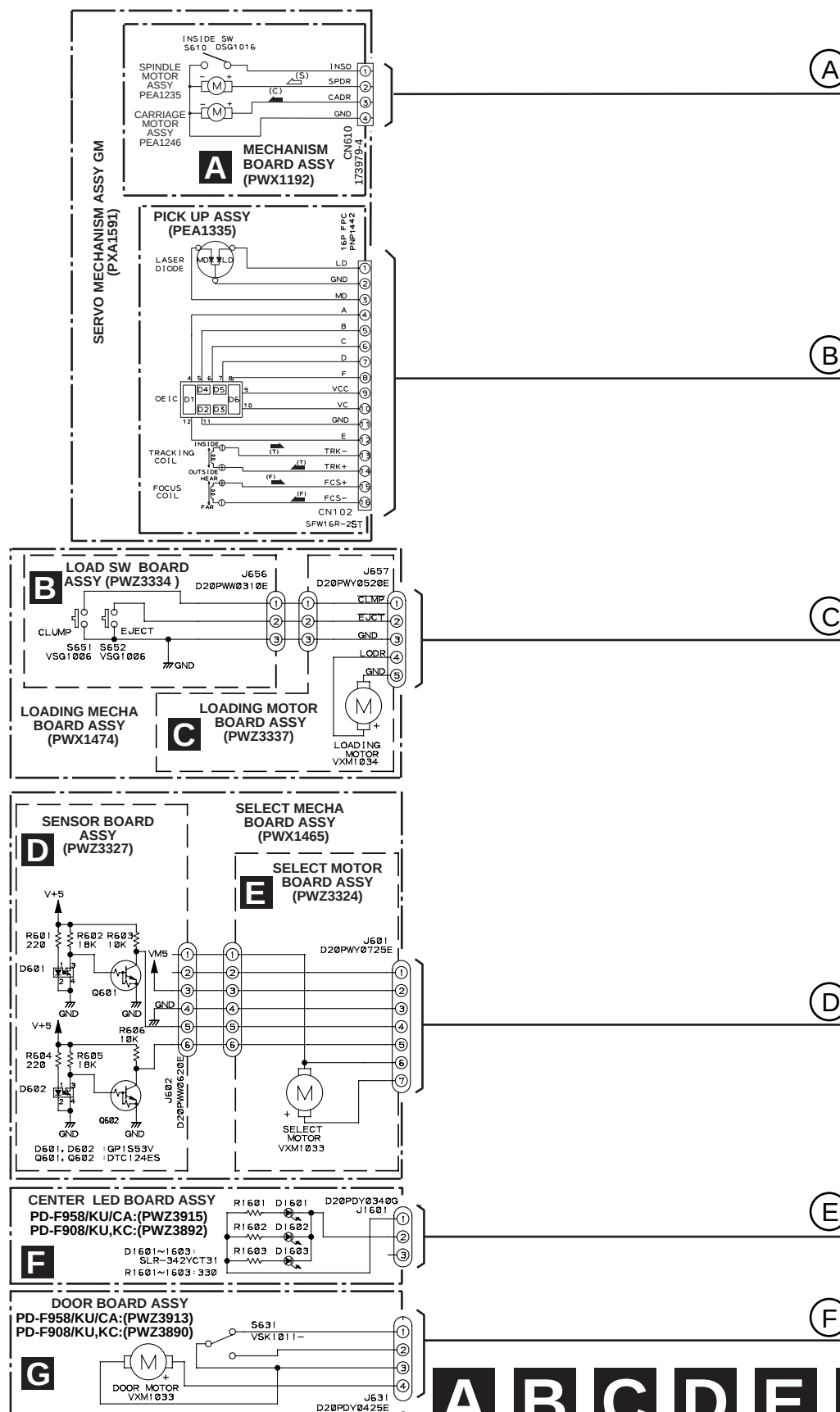
## ■ SERVO MECHANISM ASSY GM PARTS LIST

| Mark No. | Description               | Part No. | Mark No. | Description    | Part No.     |
|----------|---------------------------|----------|----------|----------------|--------------|
| 1        | Gear 1                    | PNW2052  | 13       | .....          |              |
| 2        | Gear 2                    | PNW2053  | 14       | Screw          | JFZ17P025FZK |
| 3        | Gear 3                    | PNW2054  | 15       | Screw          | JFZ20P040FMC |
| 4        | Carriage Base             | PNW2699  | 16       | Washer         | WT12D032D025 |
| 5        | Pickup Assy - S           | PEA1335  | 17       | Clamp Magnet   | PMF1014      |
| 6        | D.C. Motor Assy (SPINDLE) | PEA1235  | 18       | Yoke M         | PNB1312      |
| 7        | Carriage DC Motor Assy    | PEA1246  | NSP 19   | Disc Table     | PNW2410      |
| 8        | Pinion Gear               | PNW2055  | NSP 20   | Float Angle    | ANB7020      |
| 9        | Carriage DC Motor/0.3W    | PXM1027  |          |                |              |
| 10       | Disc Table Assy           | PEA1314  | 21       | Gear Stopper   | PNB1303      |
| 11       | Mechanism Board Assy      | PWX1192  | 22       | Screw          | BPZ20P060FMC |
| 12       | Guide Bar                 | PLA1094  | 23       | Screw          | BPZ26P100FMC |
|          |                           |          | 24       | PU Rack Spring | ABH7077      |
|          |                           |          | 25       | Rack Holder    | PNW2056      |

### 3. SCHEMATIC DIAGRAM

Note: When ordering service parts, be sure to refer to "EXPLODED VIEW AND PARTS LIST" or "PCB PARTS LIST".

#### 3.1 MECHANISM BOARD ASSY, SENSOR BOARD ASSY, LOAD SW BOARD ASSY, SELECT MOTOR BOARD ASSY, LOADING MOTOR BOARD ASSY, CENTER LED BOARD ASSY, DOOR BOARD ASSY and PICKUP ASSY



A

B

C

D

# PD-F958, PD-F908

## 3.2 MAIN BOARD ASSY and POWER BOARD ASSY (FOR PD-F958)

A

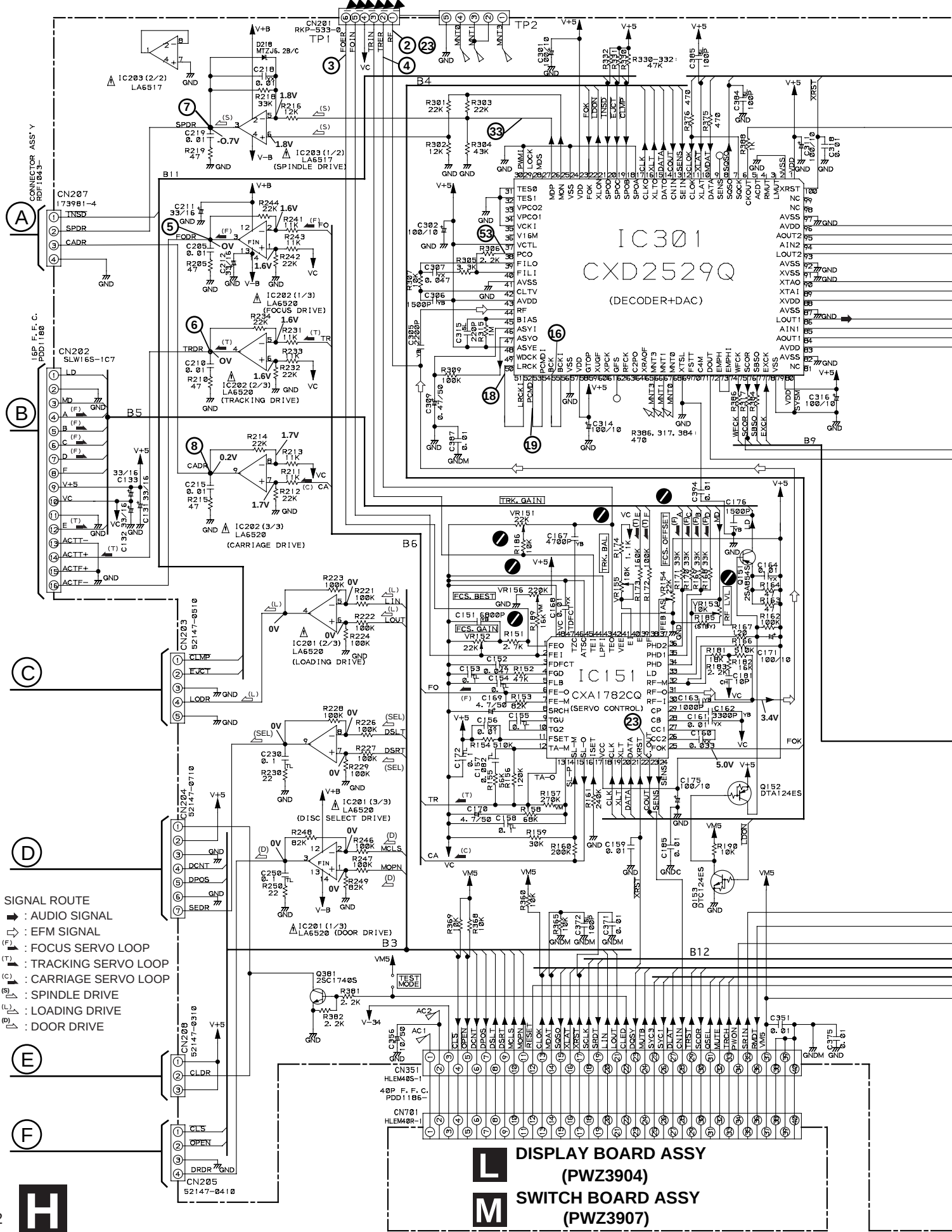
B

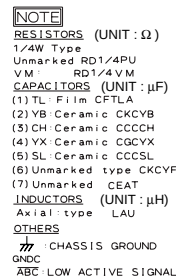
C

D

E

F





PD-F958, PD-F908

3.3 MAIN BOARD ASSY and POWER BOARD ASSY (FOR PD-F908)

A

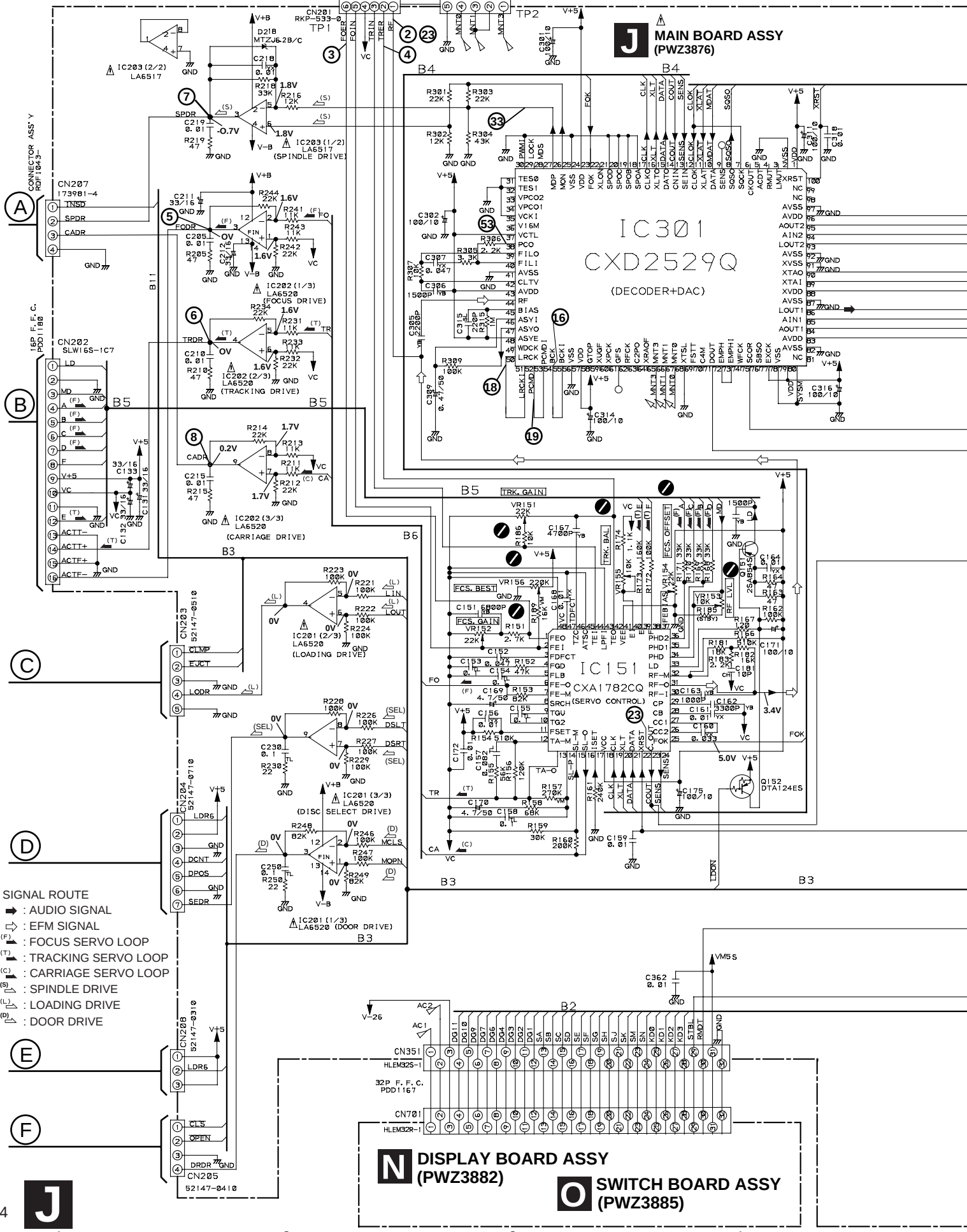
B

C

D

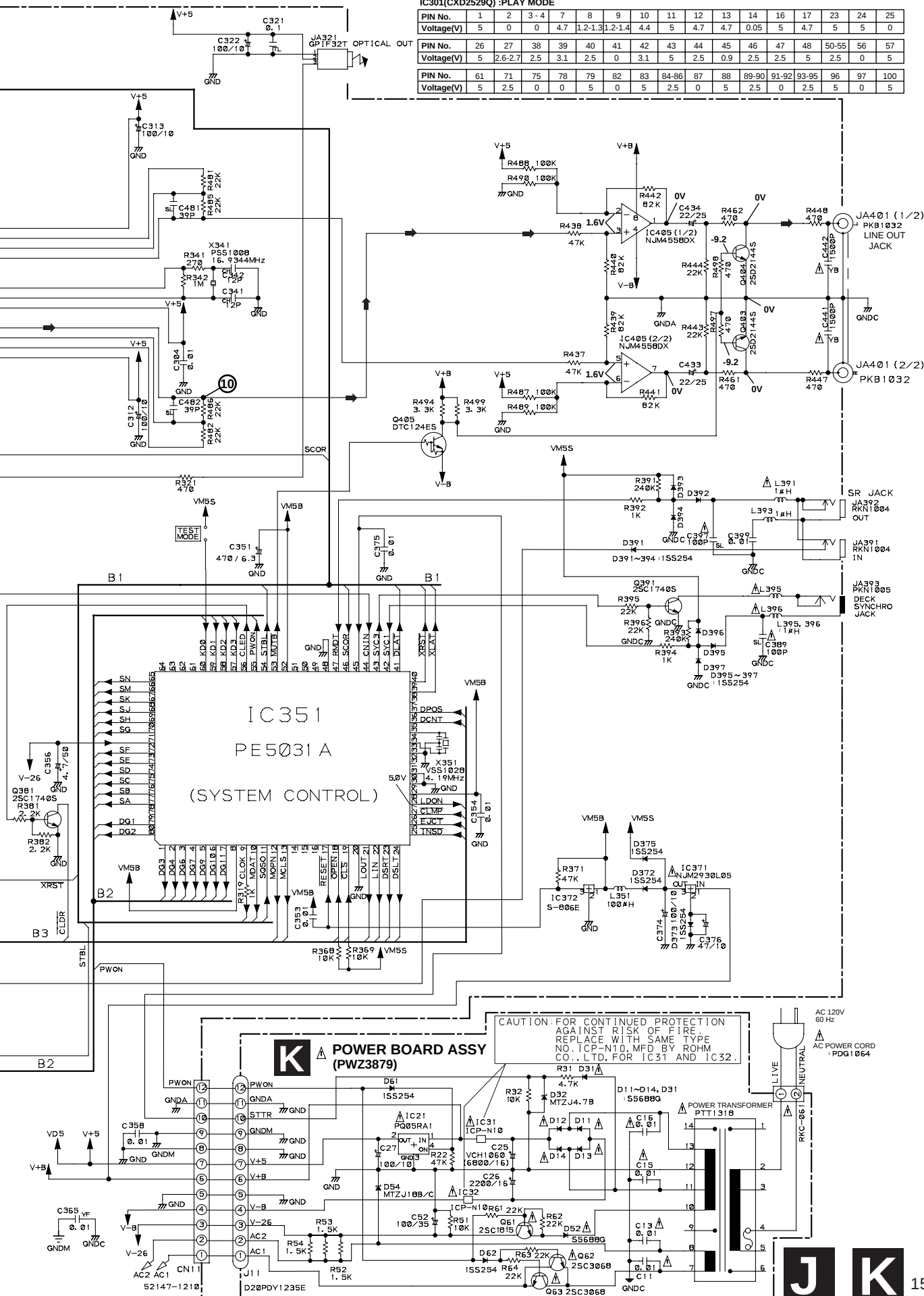
E

F



## IC301(CXD2529Q) :PLAY MODE

| PIN No.    | 1  | 2       | 3-4 | 7   | 8       | 9       | 10  | 11    | 12  | 13  | 14    | 16    | 17    | 23    | 24 | 25  |
|------------|----|---------|-----|-----|---------|---------|-----|-------|-----|-----|-------|-------|-------|-------|----|-----|
| Voltage(V) | 5  | 0       | 0   | 4.7 | 1.2-1.3 | 1.2-1.4 | 4.4 | 5     | 4.7 | 4.7 | 0.05  | 5     | 4.7   | 5     | 5  | 0   |
| PIN No.    | 26 | 27      | 38  | 39  | 40      | 41      | 42  | 43    | 44  | 45  | 46    | 47    | 48    | 50-55 | 56 | 57  |
| Voltage(V) | 5  | 2.6-2.7 | 2.5 | 3.1 | 2.5     | 0       | 3.1 | 5     | 2.5 | 0.9 | 2.5   | 2.5   | 5     | 2.5   | 0  | 5   |
| PIN No.    | 61 | 71      | 75  | 78  | 79      | 82      | 83  | 84-86 | 87  | 88  | 89-90 | 91-92 | 93-95 | 96    | 97 | 100 |
| Voltage(V) | 5  | 2.5     | 0   | 0   | 5       | 0       | 5   | 2.5   | 0   | 5   | 2.5   | 0     | 2.5   | 5     | 0  | 5   |

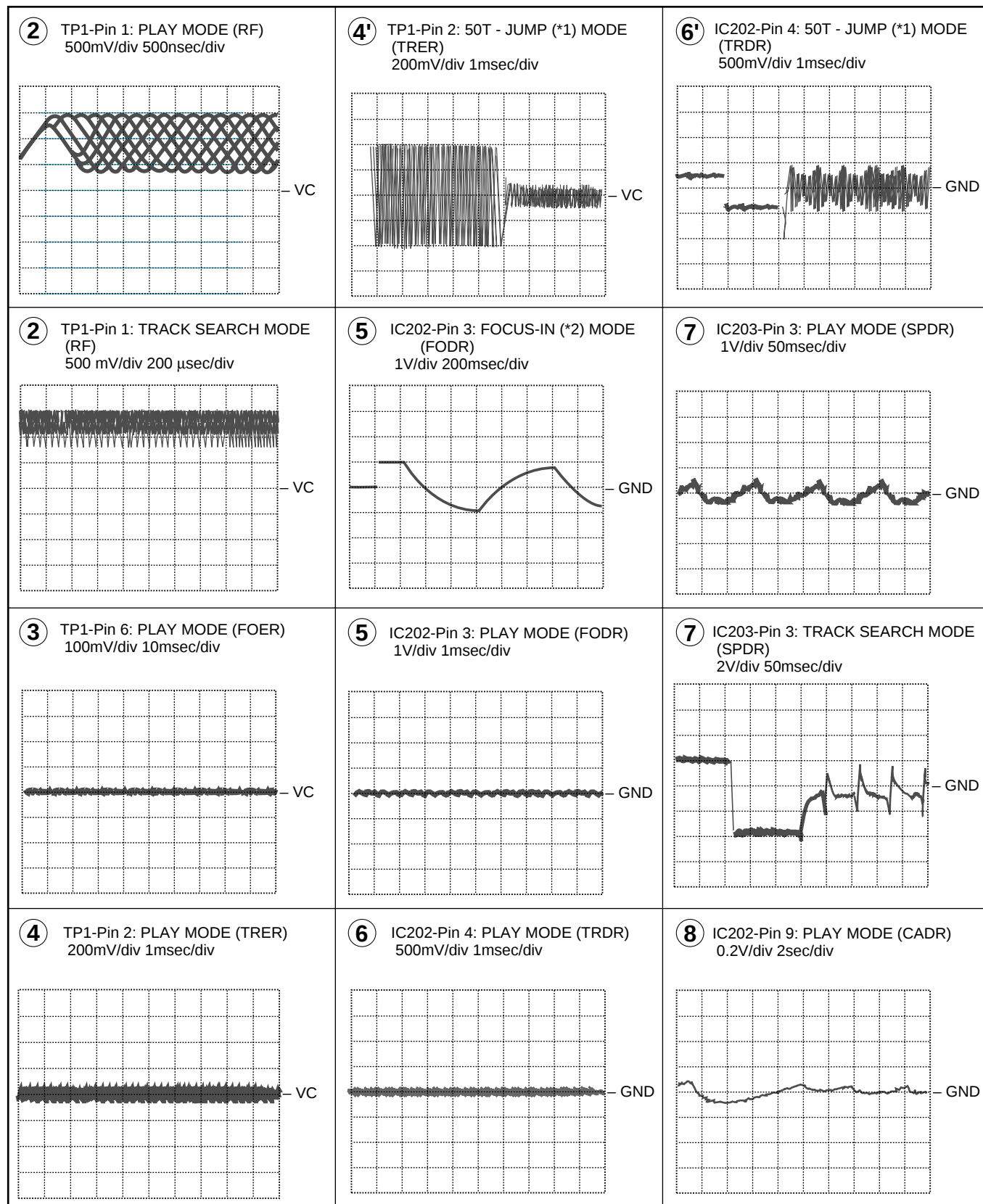


# Waveforms ( H , J )

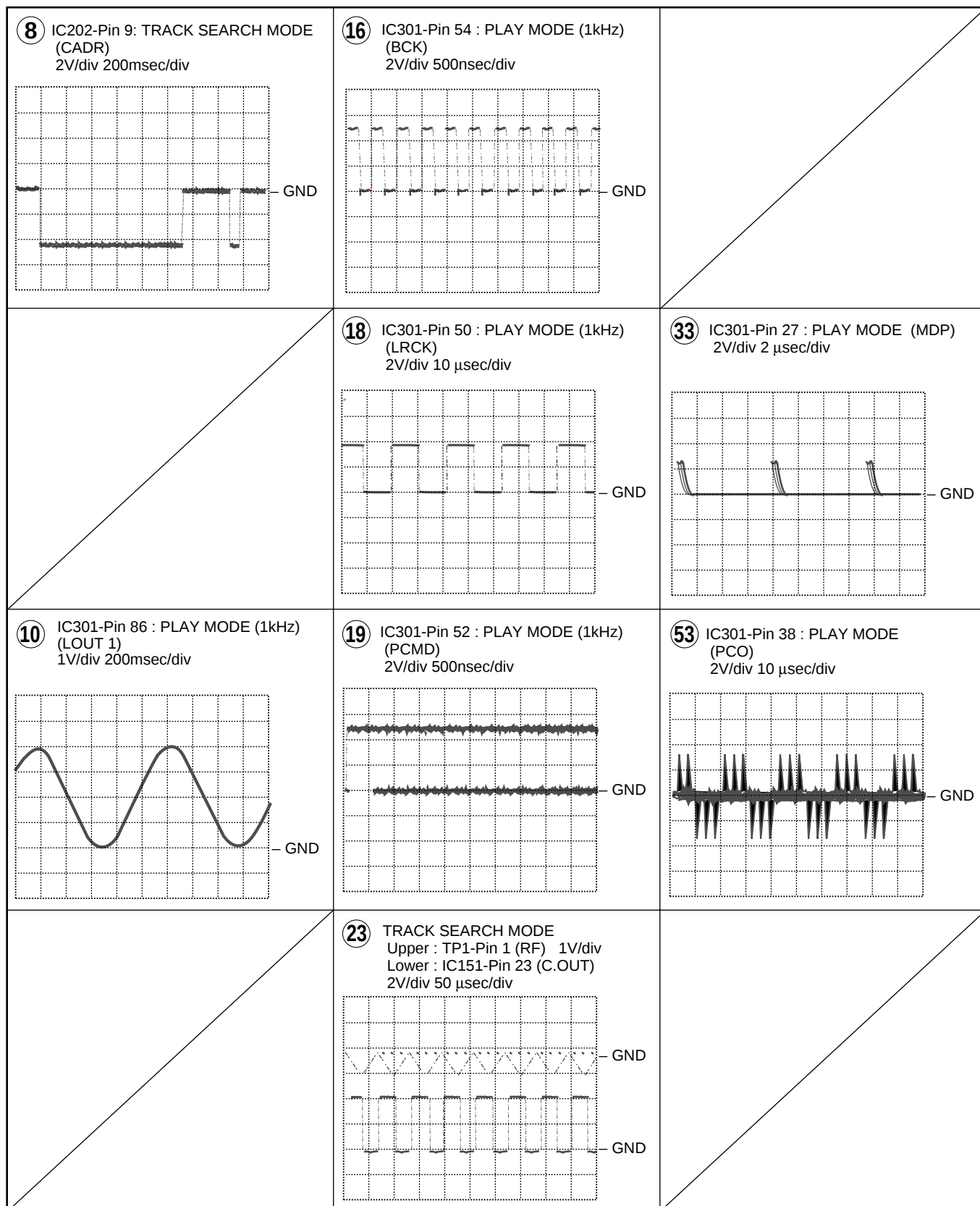
Note: The encircled numbers denote measuring point in the schematic diagram.

\*1 50T-JUMP: After switching to the pause mode, press the manual search key.

\*2 FOCUS-IN: Press the play key without loading a disc.



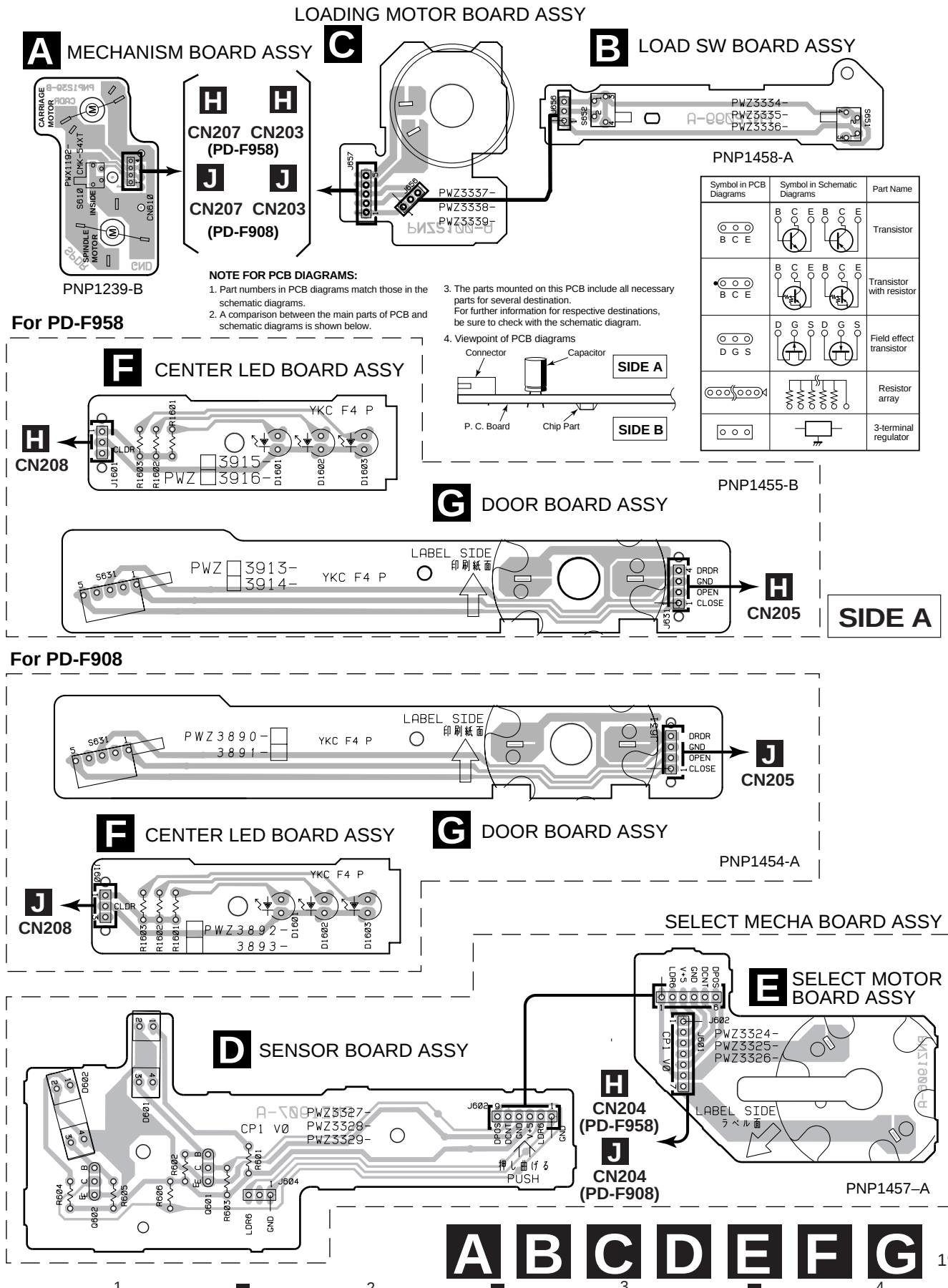
## Waveforms





## 4. PCB CONNECTION DIAGRAM

### 4.1 MECHANISM BOARD ASSY, SENSOR BOARD ASSY, LOAD SW BOARD ASSY, SELECT MOTOR BOARD ASSY, LOADING MOTOR BOARD ASSY, CENTER LED BOARD ASSY and DOOR BOARD ASSY



# PD-F958, PD-F908

## 4.2 MAIN BOARD ASSY (FOR PD-F958)



MAIN BOARD ASSY

To PICKUP ASSY

SIDE A

A  
CN610

J11

C  
J657

E  
J601

F  
J1601

G  
J631

L  
CN701

VR152 VR156 VR151 VR155 VR154  
IC151 Q152 Q151 Q452 Q405 Q406 Q454 IC405 Q451 IC406 Q453 Q403  
IC401  
IC202 IC203 Q321  
Q153 IC301  
Q381 IC201 IC372  
Q391 Q404 Q454 IC406 Q453 Q403

PNP1455-B

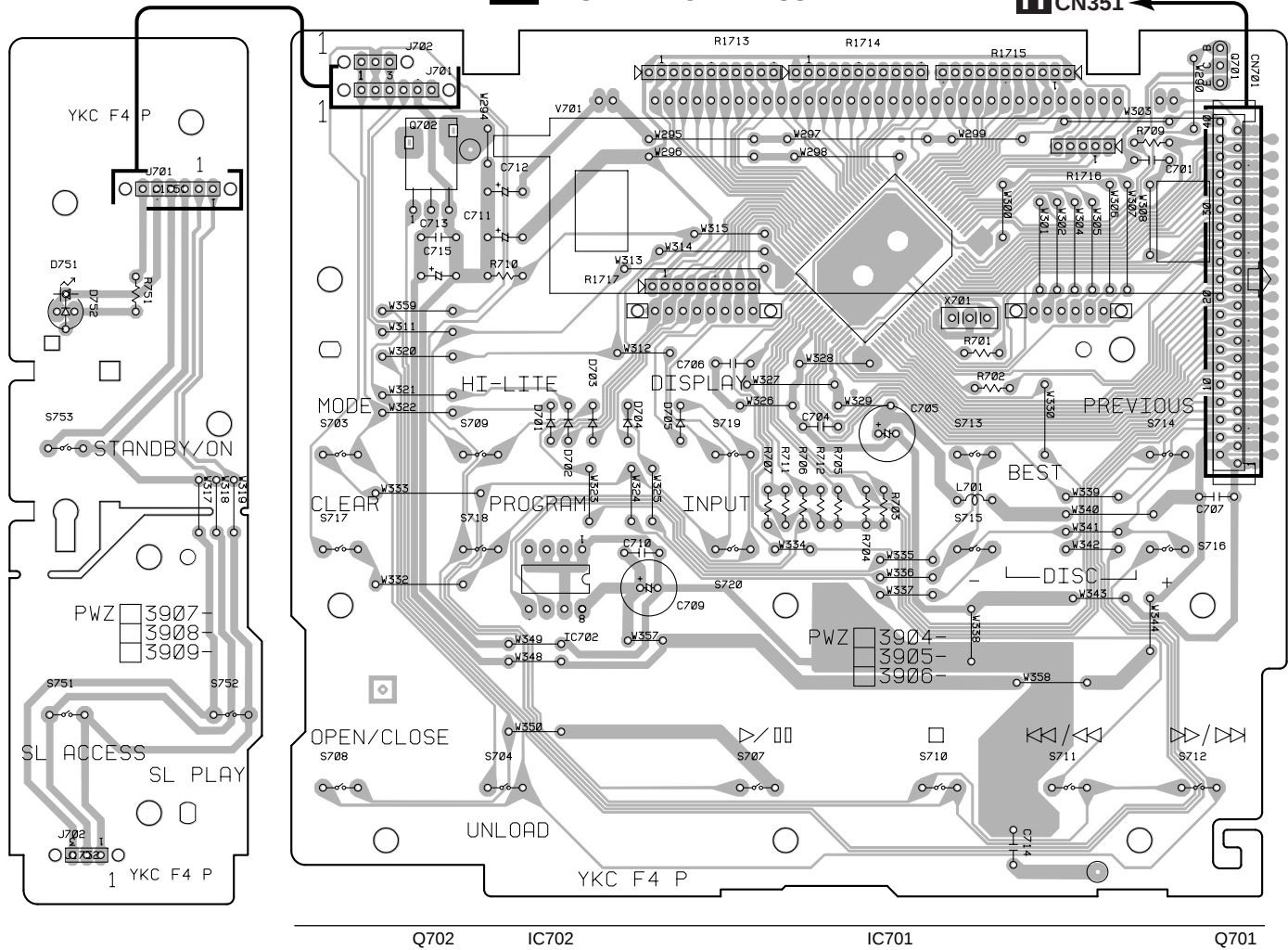
### 4.3 DISPLAY BOARD ASSY, SWITCH BOARD ASSY and POWER BOARD ASSY (FOR PD-F958)

SIDE A

**M** SWITCH BOARD ASSY

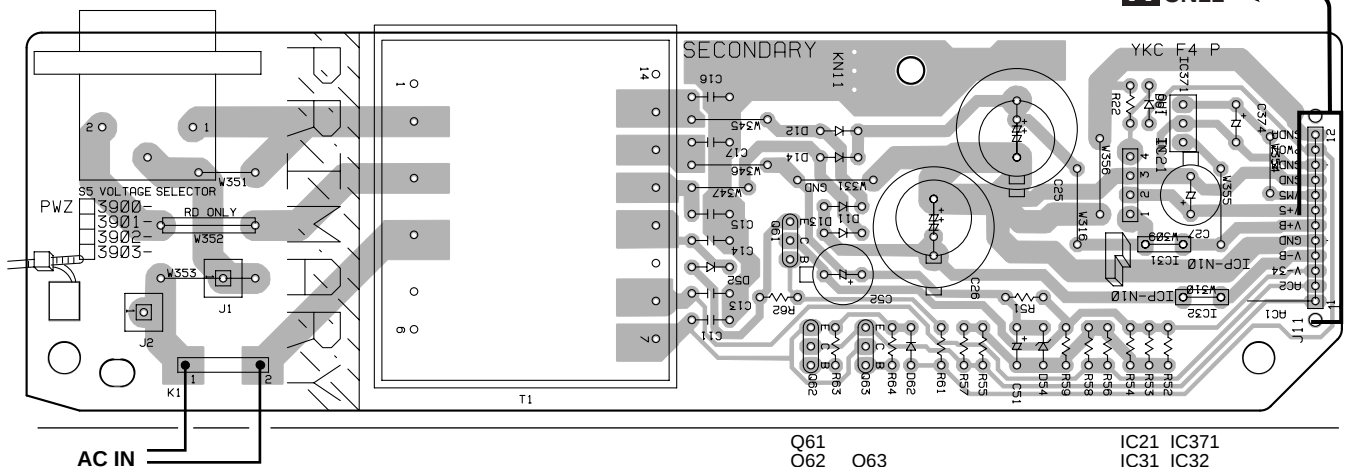
**L** DISPLAY BOARD ASSY

**H** CN351



**I** POWER BOARD ASSY

**H** CN11



PNP1455-B

PD-F958, PD-F908

4.4 MAIN BOARD ASSY(FOR PD-F908)

SIDE A

MAIN BOARD ASSY

To PICKUP ASSY

A

A  
CN610

K  
J11

B

C  
J657

C

E  
J601

F  
J1601

D

G  
J631

N  
CN701

Q391  
Q151  
Q152  
Q454  
Q404  
IC151  
Q452  
Q405  
IC405  
Q451  
VR153  
VR152  
VR156  
VR151  
VR155  
VR154  
IC371  
IC401  
IC202  
IC203  
Q341  
IC201  
IC301  
Q322  
Q372  
Q381  
IC351  
Q372

PNP1454-A

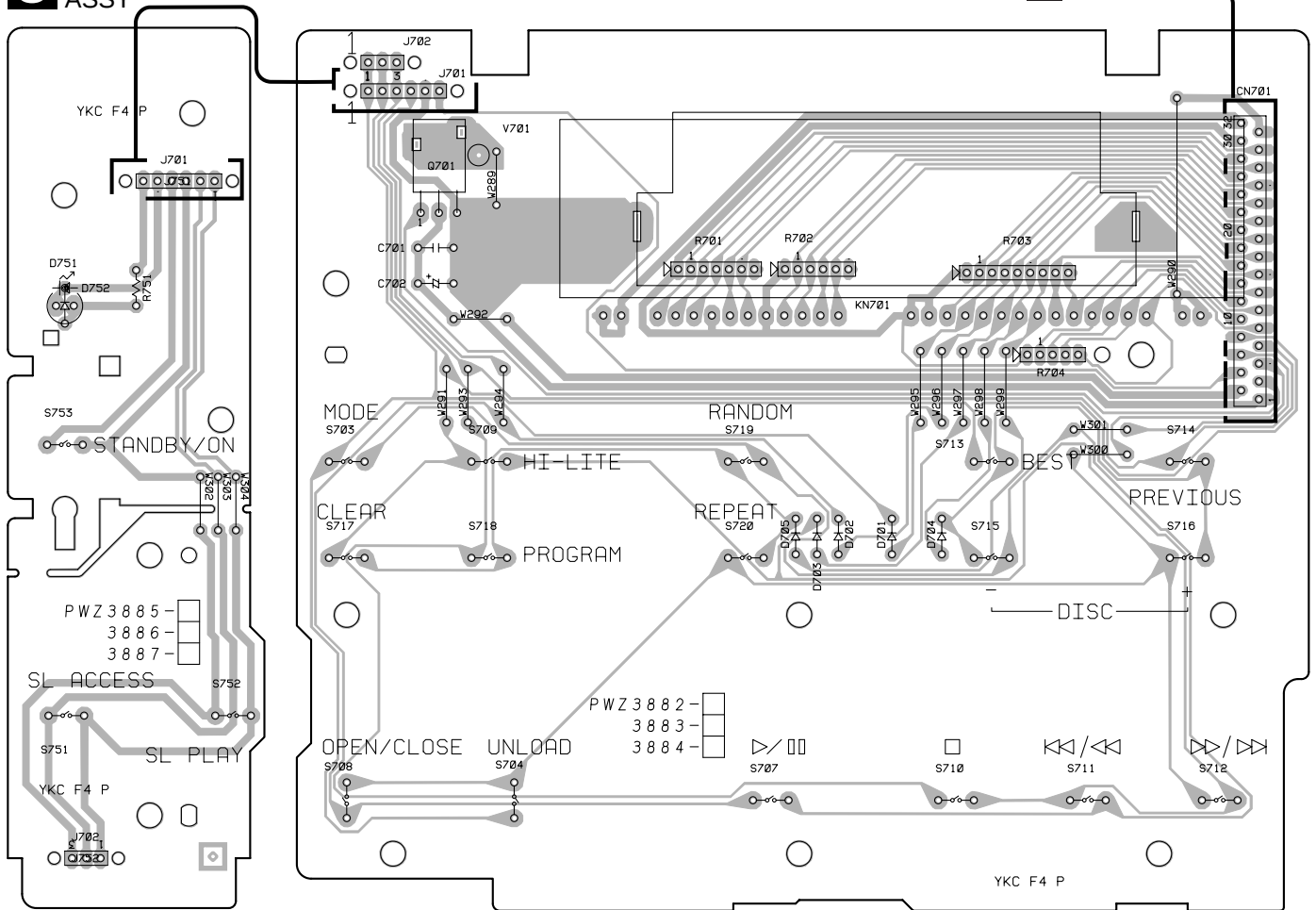
# 4.5 DISPLAY BOARD ASSY, SWITCH BOARD ASSY and POWER BOARD ASSY (FOR PD-F908)

SIDE A

**O** SWITCH BOARD ASSY

**N** DISPLAY BOARD ASSY

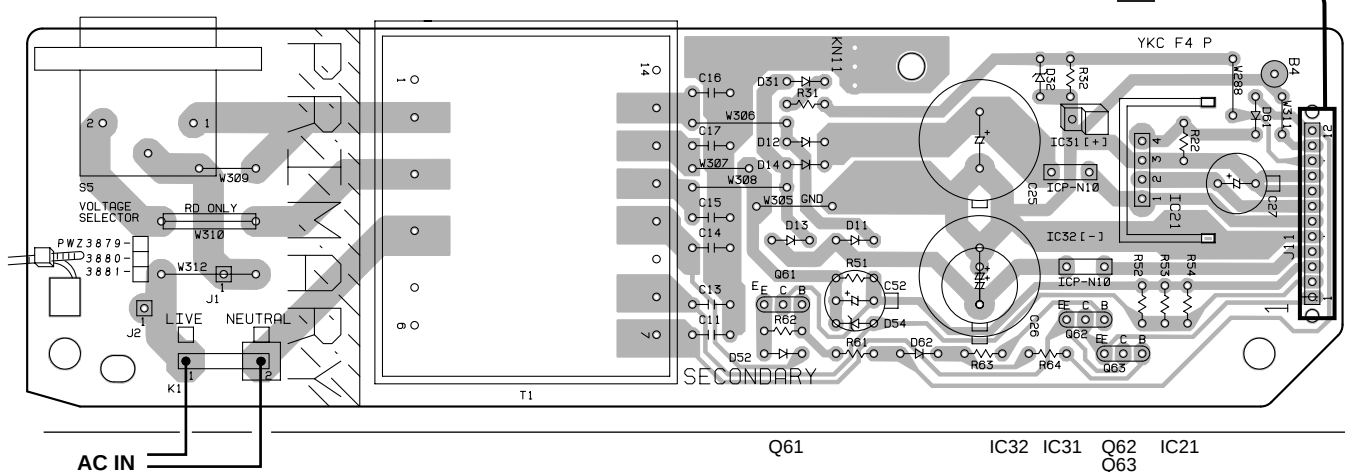
**J** CN351



Q711

**K** POWER BOARD ASSY

**J** CN11



AC IN

Q61

IC32 IC31 Q62 IC21  
Q63

PNP1454-A

## 5. PCB 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.
  - When ordering resistors, first convert resistance values into code form as shown in the following examples.
- Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by  $J = 5\%$ , and  $K = 10\%$ ).
- 560  $\Omega \rightarrow 56 \times 10^1 \rightarrow 561$  ..... RD1/4PU  $\begin{matrix} 5 & 6 & 1 \end{matrix}$  J
- 47k  $\Omega \rightarrow 47 \times 10^3 \rightarrow 473$  ..... RD1/4PU  $\begin{matrix} 4 & 7 & 3 \end{matrix}$  J
- 0.5  $\Omega \rightarrow R50$  ..... RN2H  $\begin{matrix} R & 5 & 0 \end{matrix}$  K
- 1  $\Omega \rightarrow 1R0$  ..... RS1P  $\begin{matrix} 1 & R & 0 \end{matrix}$  K
- Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
- 5.62k  $\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$  ..... RN1/4PC  $\begin{matrix} 5 & 6 & 2 & 1 \end{matrix}$  F

### ■ LIST OF WHOLE PCB ASSEMBLIES

| Mark        | Symbol and Description     | Part No.          |                |                | Remarks |
|-------------|----------------------------|-------------------|----------------|----------------|---------|
|             |                            | PD-F958/<br>KU/CA | PD-F908/<br>KU | PD-F908/<br>KC |         |
| NSP         | MOTHER BOARD ASSY          | PWM2269           | PWM2266        | PWM2266        |         |
| $\triangle$ | └ MAIN BOARD ASSY          | PWZ3895           | PWZ3876        | PWZ3876        |         |
| $\triangle$ | └ POWER BOARD ASSY         | PWZ3900           | PWZ3879        | PWZ3879        |         |
|             | └ DISPLAY BOARD ASSY       | PWZ3904           | PWZ3882        | PWZ3882        |         |
| NSP         | └ SWITCH BOARD ASSY        | PWZ3907           | PWZ3885        | PWZ3885        |         |
| NSP         | └ DOOR BOARD ASSY          | PWZ3913           | PWZ3890        | PWZ3890        |         |
| NSP         | └ CENTER LED ASSY          | PWZ3915           | PWZ3892        | PWZ3892        |         |
| NSP         | SELECT MECHA BOARD ASSY    | PWX1465           | PWX1465        | PWX1465        |         |
| NSP         | └ SELECT MOTOR BOARD ASSY  | PWZ3324           | PWZ3324        | PWZ3324        |         |
| NSP         | └ SENSOR BOARD ASSY        | PWZ3327           | PWZ3327        | PWZ3327        |         |
| NSP         | LOADING MECHANISM ASSY     | PXA1589           | PXA1589        | PXA1589        |         |
| NSP         | └ LOADING MECHA BOARD ASSY | PWX1474           | PWX1474        | PWX1474        |         |
| NSP         | └ LOAD SW BOARD ASSY       | PWZ3334           | PWZ3334        | PWZ3334        |         |
| NSP         | └ LOADING MOTOR BOARD ASSY | PWZ3337           | PWZ3337        | PWZ3337        |         |
| NSP         | SERVO MECHANISM ASSY GM    | PXA1591           | PXA1591        | PXA1591        |         |
|             | └ MECHANISM BOARD ASSY     | PWX1192           | PWX1192        | PWX1192        |         |

### ■ CONTRAST OF PCB ASSEMBLIES

#### SWITCH BOARD Assy

Although PWZ3907 and PWZ3885 are different in part number, they consist of the same components.

#### DOOR BOARD Assy

Although PWZ3913 and PWZ3890 are different in part number, they consist of the same components.

#### CENTER LED BOARD Assy

Although PWZ3915 and PWZ3892 are different in part number, they consist of the same components.

## ■ PARTS LIST FOR PD-F958/KU/CA

Mark No. Description Part No.



### MAIN BOARD ASSY (PWZ3895)

#### SEMICONDUCTORS

|   |                                  |           |
|---|----------------------------------|-----------|
|   | IC151                            | CXA1782CQ |
|   | IC301                            | CXD2529Q  |
| ⚠ | IC203                            | LA6517    |
| ⚠ | IC201, IC202                     | LA6520    |
|   | IC302                            | LC89170M  |
|   | IC372                            | S-806E    |
|   | IC405                            | NJM4558DX |
|   | Q151                             | 2SA854S   |
|   | Q381, Q391                       | 2SC1740S  |
|   | Q403, Q404                       | 2SD2144S  |
|   | Q152, Q406                       | DTA124ES  |
|   | Q153, Q321, Q405                 | DTC124ES  |
|   | D1301– D1309, D1312– D1314, D321 | 1SS254    |
|   | D341, D391– D397                 | 1SS254    |
|   | D218                             | MTZJ6.2B  |

#### COILS AND FILTERS

|                  |         |
|------------------|---------|
| L391, L395, L396 | LAU1R0J |
|------------------|---------|

#### CAPACITORS

|                              |             |
|------------------------------|-------------|
| C181                         | CCCCH100D50 |
| C341, C342                   | CCCCH120J50 |
| C372, C373, C384, C385, C397 | CCCSL101J50 |
| C315                         | CCCSL221J50 |
| C481, C482                   | CCCSL390J50 |
| C356                         | CEAT100M50  |
| C171, C175, C301, C302       | CEAT101M10  |
| C311– C314, C316, C322, C380 | CEAT101M10  |
| C433, C434                   | CEAT220M25  |
| C131– C133, C211, C212       | CEAT330M16  |
| C169, C170                   | CEAT4R7M50  |
| C309                         | CEATR47M50  |
| C153– C155, C158, C172, C230 | CFTLA104J50 |
| C250, C321                   | CFTLA104J50 |
| C157                         | CFTLA823J50 |
| C156, C161, C164, C168, C218 | CGCYX103K25 |
| C160                         | CGCYX333K25 |
| C152, C307                   | CGCYX473K25 |
| C163                         | CKCYB102K50 |
| C176, C306, C441, C442       | CKCYB152K50 |
| C305                         | CKCYB222K50 |
| C162                         | CKCYB332K50 |
| C167                         | CKCYB472K50 |
| C151                         | CKCYB682K50 |
| C159, C185, C205, C210, C215 | CKCYF103Z50 |
| C219, C304, C318, C323, C351 | CKCYF103Z50 |
| C355, C371, C375             | CKCYF103Z50 |
| C381, C382, C387, C394, C398 | CKCYF103Z50 |

#### RESISTORS

|                             |             |
|-----------------------------|-------------|
| R189                        | RD1/4VM163J |
| R157                        | RD1/4VM274J |
| VR153, VR155 (10k Ω)        | VCP1156     |
| VR151, VR152, VR154 (22k Ω) | VCP1158     |
| VR156 (220k Ω)              | VCP1164     |

Mark No. Description Part No.

Other Resistors

RD1/4PU□□□J

#### OTHERS

|              |                        |            |
|--------------|------------------------|------------|
| CN207        | MT 4P CONNECTOR        | 173981-4   |
| CN208        | 3P JUMPER CONNECTOR    | 52147-0310 |
| CN205        | 4P JUMPER CONNECTOR    | 52147-0410 |
| CN203        | 5P JUMPER CONNECTOR    | 52147-0510 |
| CN204        | 7P JUMPER CONNECTOR    | 52147-0710 |
| CN11         | 12P JUMPER CONNECTOR   | 52147-1210 |
| JA394        | I/O INTERFACE JACK     | DKN1035    |
| JA321        | OPTICAL LINK OUT       | GP1F32T    |
| CN351        | FFC CONNECTOR 40P      | HLEM40S-1  |
| JA401        | 2P JACK                | PKB1032    |
| JA393        | JACK                   | PKN1005    |
| X341         | X TAL.RES.(16.9344MHz) | PSS1008    |
| JA391, JA392 | JACK                   | RKN1004    |
| CN201        | CONNECTOR 6P           | RKP-533    |
| CN202        | FFC CONNECTOR          | SLW16S-1C7 |

SCREW PLATE

VNE1948

## I POWER BOARD ASSY (PWZ3900)

#### SEMICONDUCTORS

|   |               |            |
|---|---------------|------------|
| ⚠ | IC31, IC32    | ICP-N10    |
| ⚠ | IC37          | NJM2930L05 |
| ⚠ | IC21          | PQ05RA1    |
| ⚠ | Q61           | 2SC1815    |
| ⚠ | Q62, Q63      | 2SC3068    |
|   | D54           | MTZJ24B    |
| ⚠ | D11– D14, D52 | S5688G     |
|   | D61, D62      | 1SS254     |

#### CAPACITORS

|                    |             |
|--------------------|-------------|
| C27, C374          | CEAT101M10  |
| C52                | CEAT101M35  |
| C26                | CEAT222M16  |
| C11, C13, C15, C16 | CKCYF103Z50 |
| C25 (6800 μF/16V)  | VCH1060     |

#### RESISTORS

|               |             |
|---------------|-------------|
| All Resistors | RD1/4PU□□□J |
|---------------|-------------|

#### OTHERS

|     |                   |             |
|-----|-------------------|-------------|
|     | 12P CABLE HOLDER  | 51048-1200  |
| J11 | JUMPER WIRE       | D20PDY1235E |
| ⚠   | POWER TRANSFORMER | PTT1342     |
| ⚠   | TERMINAL          | RKC-061     |

## L DISPLAY BOARD ASSY (PWZ3904)

#### SEMICONDUCTORS

|            |            |
|------------|------------|
| IC701      | PE5032A    |
| IC702      | S-24C16ADP |
| Q701       | DTC124ES   |
| D701– D705 | 1SS254     |

#### COILS AND FILTERS

|      |                |         |
|------|----------------|---------|
| L701 | AXIAL INDUCTOR | LAU101J |
|------|----------------|---------|

## PD-F958, PD-F908

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

### SWITCHES

S703, S704, S707– S720

VSG1009

### CAPACITORS

C712

CEAT100M50

C705, C709

CEAT101M6R3

C711

CEAT4R7M50

C708, C713

CKCYF103Z50

C701, C704, C706, C707

CKPUYY103M16

### RESISTORS

All Resistors

RD1/4PU□□□J

### OTHERS

6P CABLE HOLDER

51048-0600

8P CABLE HOLDER

51048-0800

CN701 FFC CONNECTOR 40P

HLEM40R-1

V701 FL INDICATOR TUBE

PEL1095

X701 CERAMIC RES.(4.19MHz)

VSS1028

J701 JUMPER WIRE 6P

D20PDD0635E

REMOTE RECEIVER UNIT

GP1U27X

## M SWITCH BOARD ASSY

### SWITCHES AND RELAYS

S751– S753

VSG1009

### OTHER

6P CABLE HOLDER

51048-0600

## G DOOR BOARD ASSY

### OTHERS

4P CABLE HOLDER

51048-0400

REAF SWITCH

VSK1011

JUMPER WIRE

D20PDY0425E

## F CENTER LED BOARD ASSY

### SEMICONDUCTORS

D1601– D1603

SLR-342YCT31

### RESISTORS

All Resistors

RD1/4PU□□□J

### OTHERS

3P CABLE HOLDER

51048-0300

J1601 JUMPER WIRE

D20PDY0340G

## E SELECT MOTOR BOARD ASSY

### OTHER

J601 JUMPER WIRE

D20PWY0725E

## D SENSOR BOARD ASSY

### SEMICONDUCTORS

Q601, Q602

DTC124ES

D601, D602

GP1S53V

### RESISTORS

All Resistors

RD1/4PU□□□J

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

### OTHER

J602 JUMPER WIRE

D20PWW0620E

## B LOAD SW BOARD ASSY

### SWITCHES AND RELAYS

S651, S652

VSG1006

### OTHER

J656 3P JUMPER WIRE

D20PWW0310E

## C LOADING MOTOR BOARD ASSY

### OTHER

J657 5P JUMPER WIRE

D20PWY0520E

## A MECHANISM BOARD ASSY

### SWITCHE

S610

DSG1016

### OTHER

CN610 MT 4P CONNECTOR

173979-4

## ■ PARTS LIST FOR PD-F908/KU/KC

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

|          |                                 |  |  |
|----------|---------------------------------|--|--|
| <b>J</b> | <b>MAIN BOARD ASSY(PWZ3876)</b> |  |  |
|----------|---------------------------------|--|--|

## SEMICONDUCTORS

|   |              |            |
|---|--------------|------------|
|   | IC151        | CXA1782CQ  |
|   | IC301        | CXD2529Q   |
| ⚠ | IC203        | LA6517     |
| ⚠ | IC201, IC202 | LA6520     |
| ⚠ | IC371        | NJM2930L05 |

|  |            |           |
|--|------------|-----------|
|  | IC405      | NJM4558DX |
|  | IC372      | S-806E    |
|  | IC351      | PE5031A   |
|  | Q151       | 2SA854S   |
|  | Q381, Q391 | 2SC1740S  |

|  |                              |          |
|--|------------------------------|----------|
|  | Q403, Q404                   | 2SD2144S |
|  | Q152,                        | DTA124ES |
|  | Q405                         | DTC124ES |
|  | D372, D373, D375, D391– D397 | 1SS254   |
|  | D218                         | MTZJ6.2B |

## COILS AND FILTERS

|  |                        |         |
|--|------------------------|---------|
|  | L391, L395, L396, L393 | LAU1R0J |
|  | L351 AXIAL INDUCTOR    | LAU101J |

## CAPACITORS

|  |            |             |
|--|------------|-------------|
|  | C181       | CCCCH100D50 |
|  | C341, C342 | CCCCH120J50 |
|  | C389, C397 | CCCSL101J50 |
|  | C315       | CCCSL221J50 |
|  | C481, C482 | CCCSL390J50 |

|  |                              |            |
|--|------------------------------|------------|
|  | C171, C175, C301, C302       | CEAS101M10 |
|  | C311– C314, C316, C322, C374 | CEAS101M10 |
|  | C73                          | CEAS101M10 |
|  | C371                         | CEAS1R0M50 |
|  | C433, C434                   | CEAS220M25 |

|  |                        |             |
|--|------------------------|-------------|
|  | C131– C133, C211, C212 | CEAS330M16  |
|  | C376                   | CEAS470M10  |
|  | C351                   | CEAS471M6R3 |
|  | C169, C170, C356       | CEAS4R7M50  |
|  | C309                   | CEASR47M50  |

|  |                              |             |
|--|------------------------------|-------------|
|  | C153 – C155, C158, C230      | CFTXA104J50 |
|  | C250, C321                   | CFTXA104J50 |
|  | C157                         | CFTXA823J50 |
|  | C156, C161, C164, C168, C218 | CGCYX103K25 |
|  | C160                         | CGCYX333K25 |

|  |                        |             |
|--|------------------------|-------------|
|  | C152, C307             | CGCYX473K25 |
|  | C163                   | CKCYB102K50 |
|  | C176, C306, C441, C442 | CKCYB152K50 |
|  | C305                   | CKCYB222K50 |
|  | C162                   | CKCYB332K50 |

|  |                              |             |
|--|------------------------------|-------------|
|  | C167                         | CKCYB472K50 |
|  | C151                         | CKCYB682K50 |
|  | C159, C172, C205, C210, C215 | CKCYF103Z50 |
|  | C219, C304, C318, C353       | CKCYF103Z50 |
|  | C354, C358, C362, C365, C366 | CKCYF103Z50 |

|  |            |             |
|--|------------|-------------|
|  | C375, C399 | CKCYF103Z50 |
|--|------------|-------------|

## RESISTORS

|  |                             |             |
|--|-----------------------------|-------------|
|  | R189                        | RD1/4VM163J |
|  | R157                        | RD1/4VM274J |
|  | VR153, VR155 (10k Ω)        | VCP1156     |
|  | VR151, VR152, VR154 (22k Ω) | VCP1158     |

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

|  |                 |             |
|--|-----------------|-------------|
|  | VR156 (220k Ω)  | VCP1164     |
|  | Other Resistors | RD1/4PU□□□J |

## OTHERS

|  |       |                     |            |
|--|-------|---------------------|------------|
|  | CN207 | MT 4P CONNECTOR     | 173981-4   |
|  | CN208 | 3P JUMPER CONNECTOR | 52147-0310 |
|  | CN205 | 4P JUMPER CONNECTOR | 52147-0410 |
|  | CN203 | 5P JUMPER CONNECTOR | 52147-0510 |
|  | CN204 | 7P JUMPER CONNECTOR | 52147-0710 |

|  |       |                      |            |
|--|-------|----------------------|------------|
|  | CN11  | 12P JUMPER CONNECTOR | 52147-1210 |
|  | JA321 | OPTICAL LINK OUT     | GP1F32T    |
|  | CN351 | FFC CONNECTOR 32P    | HLEM32S-1  |
|  | JA401 | 2P JACK              | PKB1032    |
|  | JA393 | JACK                 | PKN1005    |

|  |              |                        |            |
|--|--------------|------------------------|------------|
|  | X341         | X TAL.RES.(16.9344MHz) | PSS1008    |
|  | JA391, JA392 | JACK                   | RKN1004    |
|  | CN201        | CONNECTOR 6P           | RKP-533    |
|  | CN202        | FFC CONNECTOR          | SLW16S-1C7 |
|  |              | SCREW PLATE            | VNE1948    |
|  | X351         | CERAMIC RES.(4.19MHz)  | VSS1028    |

|          |                                   |
|----------|-----------------------------------|
| <b>K</b> | <b>POWER BOARD ASSY (PWZ3879)</b> |
|----------|-----------------------------------|

## SEMICONDUCTORS

|   |            |           |
|---|------------|-----------|
| ⚠ | IC31, IC32 | ICP-N10T  |
| ⚠ | IC21       | PQ05RA1   |
| ⚠ | Q61        | 2SC1815   |
| ⚠ | Q62, Q63   | 2SC3068   |
| ⚠ | D54        | MTZJ18B/C |

|   |                    |          |
|---|--------------------|----------|
| ⚠ | D11– D14, D31, D52 | S5688G   |
|   | D61, D62           | 1SS254   |
|   | D32                | MTZJ4.7B |

## CAPACITORS

|  |                    |             |
|--|--------------------|-------------|
|  | C27                | CEAS101M10  |
|  | C52                | CEAS101M35  |
|  | C26                | CEAS222M16  |
|  | C11, C13, C15, C16 | CKCYF103Z50 |
|  | C25 (6800 μF/16V)  | VCH1060     |

## RESISTORS

|  |               |             |
|--|---------------|-------------|
|  | All Resistors | RD1/4PU□□□J |
|--|---------------|-------------|

## OTHERS

|   |     |                   |             |
|---|-----|-------------------|-------------|
|   | J11 | JUMPER WIRE       | D20PDY1235E |
| ⚠ |     | POWER TRANSFORMER | PTT1318     |
| ⚠ |     | TERMINAL          | RKC-061     |

|          |                                     |
|----------|-------------------------------------|
| <b>N</b> | <b>DISPLAY BOARD ASSY (PWZ3882)</b> |
|----------|-------------------------------------|

## SEMICONDUCTORS

|  |            |        |
|--|------------|--------|
|  | D701– D705 | 1SS254 |
|--|------------|--------|

## CAPACITOR

|  |      |             |
|--|------|-------------|
|  | C701 | CKCYF103Z50 |
|--|------|-------------|

## SWITCHES

|  |                        |         |
|--|------------------------|---------|
|  | S703, S704, S707– S720 | VSG1009 |
|--|------------------------|---------|

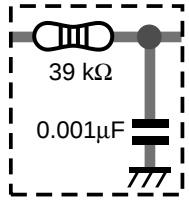
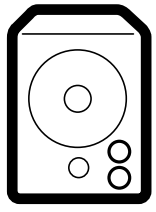
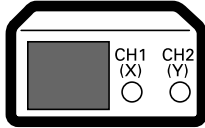
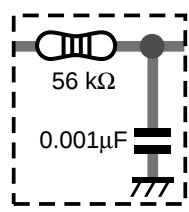
## OTHERS

|  |       |                      |             |
|--|-------|----------------------|-------------|
|  | CN701 | FFC CONNECTOR 32P    | HLEM32R-1   |
|  | V701  | FL INDICATOR TUBE    | PEL1089     |
|  | J701  | JUMPER WIRE          | D20PDD0635E |
|  |       | REMOTE RECEIVER UNIT | GP1U27X     |
|  |       | 6P CABLE HOLDER      | 51048-0600  |

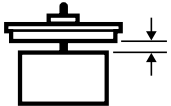
6. ADJUSTMENT

6.1 PREPARATIONS

6.1.1 Jigs and Measuring Instruments

|                                                                                                               |                                                                                                                                            |                                                                                                                  |                                                                                                                                    |                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <br>CD TEST DISC<br>(YEDS-7) | <br>⊖ screwdriver<br>(small)                              | <br>⊕ screwdriver<br>(medium)   | <br>⊕ screwdriver<br>(large)                     | <br>Low pass filter ①<br>(39 kΩ + 0.001μF) |
| <br>⊖ Precise<br>screwdriver | <br>Ball point hexagon wrench<br>(size: 1.5mm)<br>GGK1002 | <br>Low-frequency<br>oscillator | <br>Dual-trace<br>oscilloscope<br>(10 : 1 probe) | <br>Low pass filter ②<br>(56 kΩ + 0.001μF) |

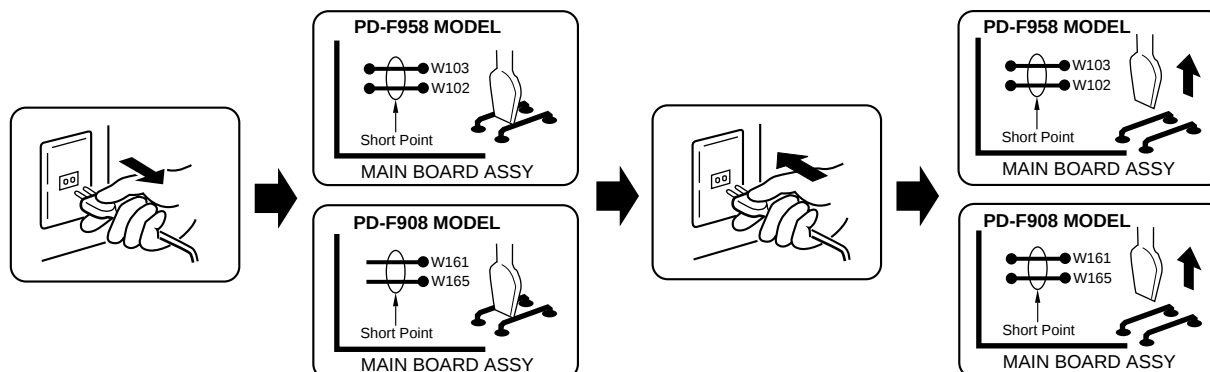
6.1.2 Necessary Adjustment Points

| When                        | Adjustment points                                                                                 |
|-----------------------------|---------------------------------------------------------------------------------------------------|
| Exchange<br>PICKUP          | 1.2.3.4.5.6.7.<br>8.9.10.11.12 → Page 30 - 35                                                     |
| Exchange<br>MAIN BOARD ASSY | 1.3.5.6.7.8.<br>9.10.11.12 → Page 30 - 35                                                         |
| Exchange<br>SERVO MECH ASSY | 1.2.3.4.5.6.7.<br>8.9.10.11.12 → Page 30 - 35                                                     |
| Exchange<br>SPINDLE MOTOR   |  ADJ → Page 10 |

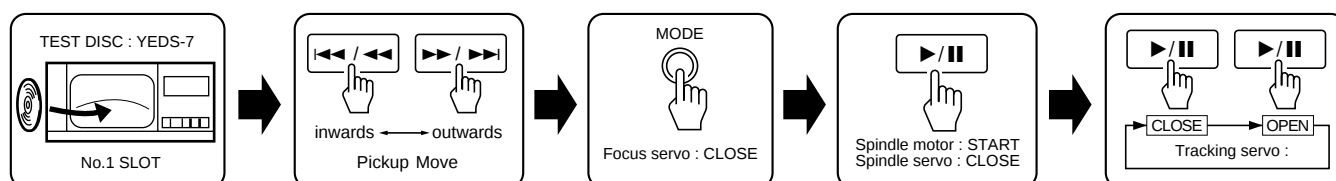
## 6.2 ADJUSTMENT

### 6.2.1 How to Start/Cancel Test Mode

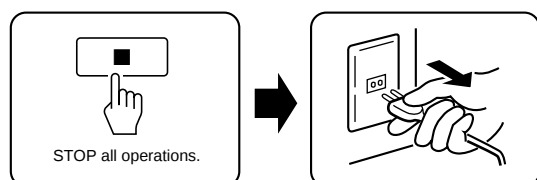
#### TEST MODE : ON



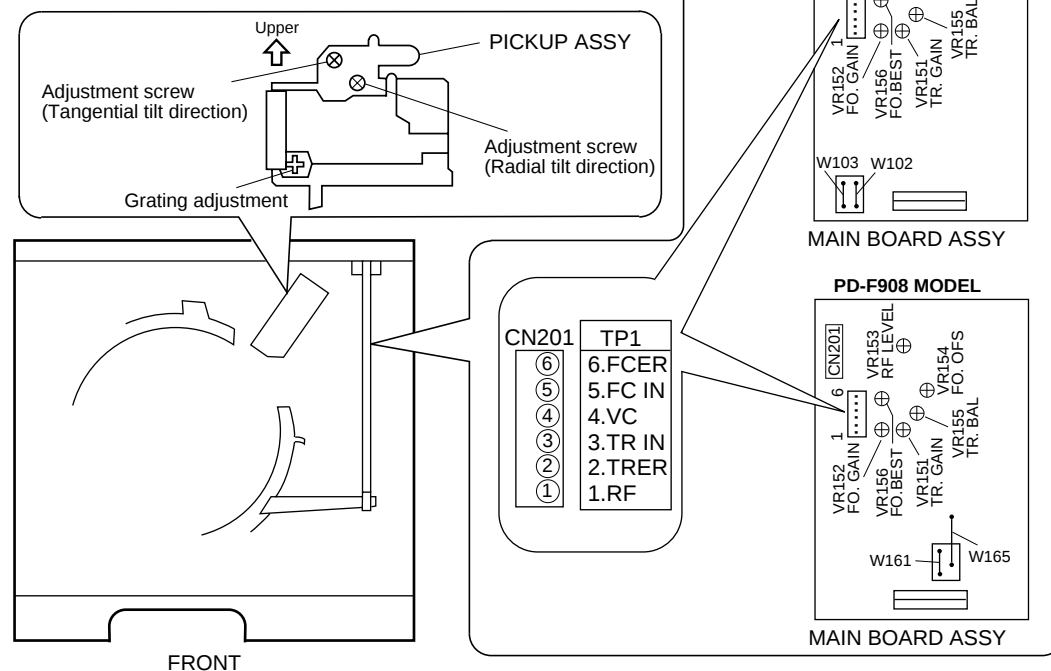
#### TEST MODE : PLAY



#### TEST MODE : STOP → CANCEL

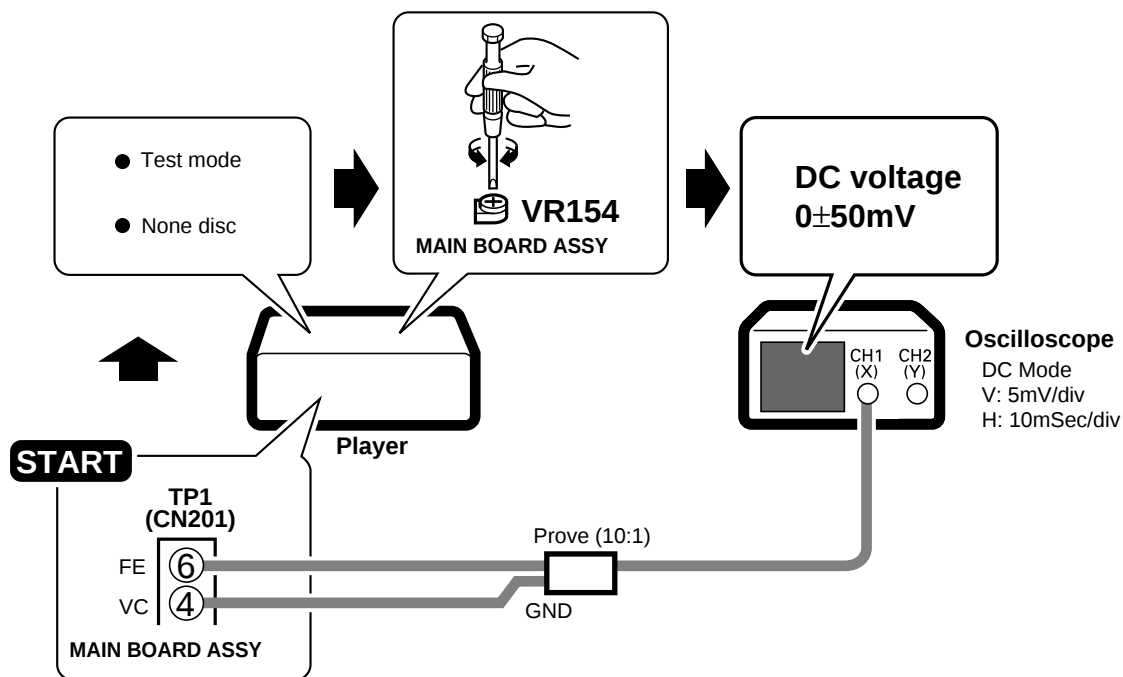


### 6.2.2 Adjustment Location

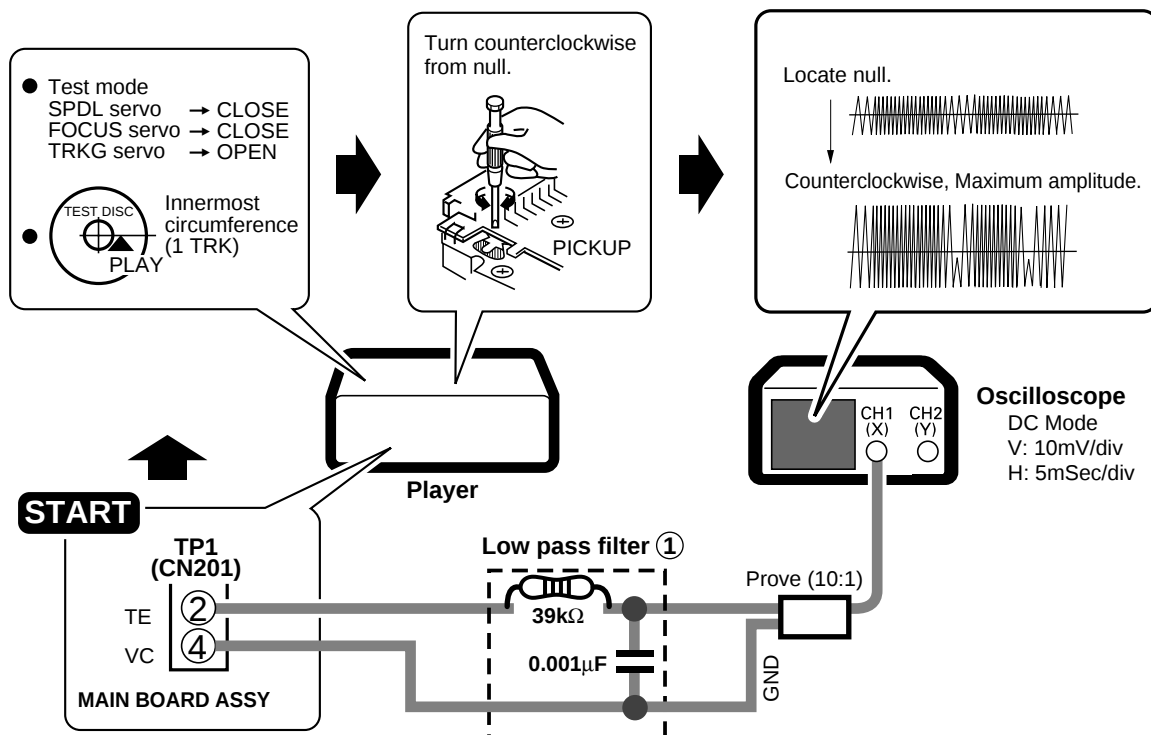


## 6.2.3 Check and Adjustment

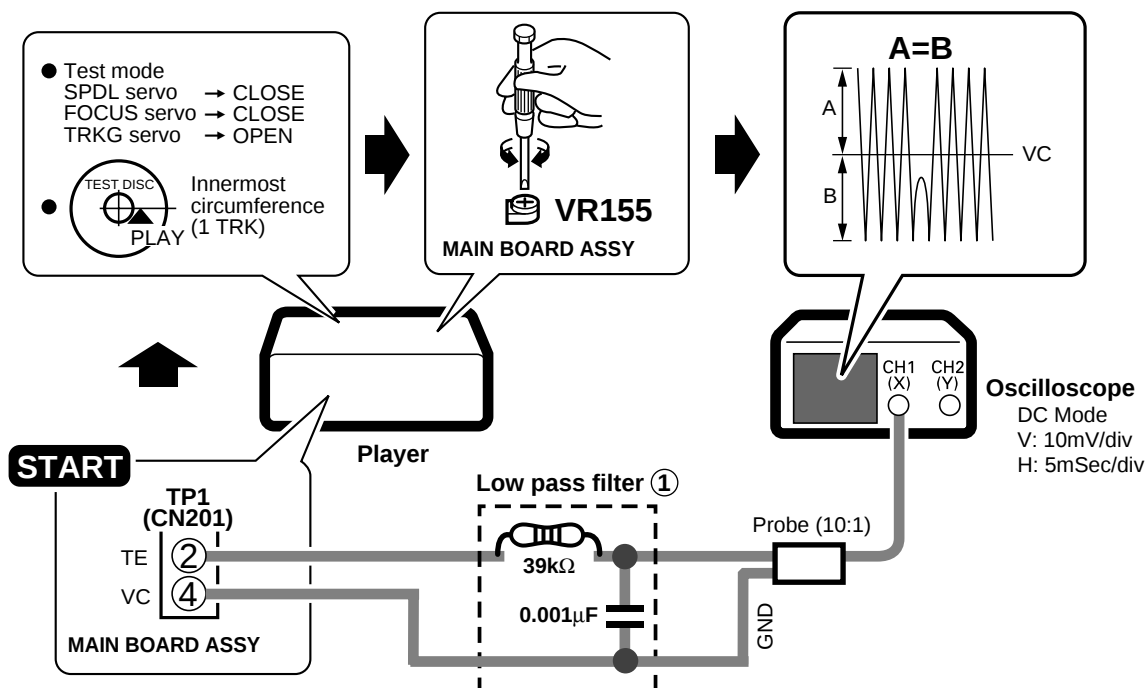
### 1. Focus Offset Adjustment



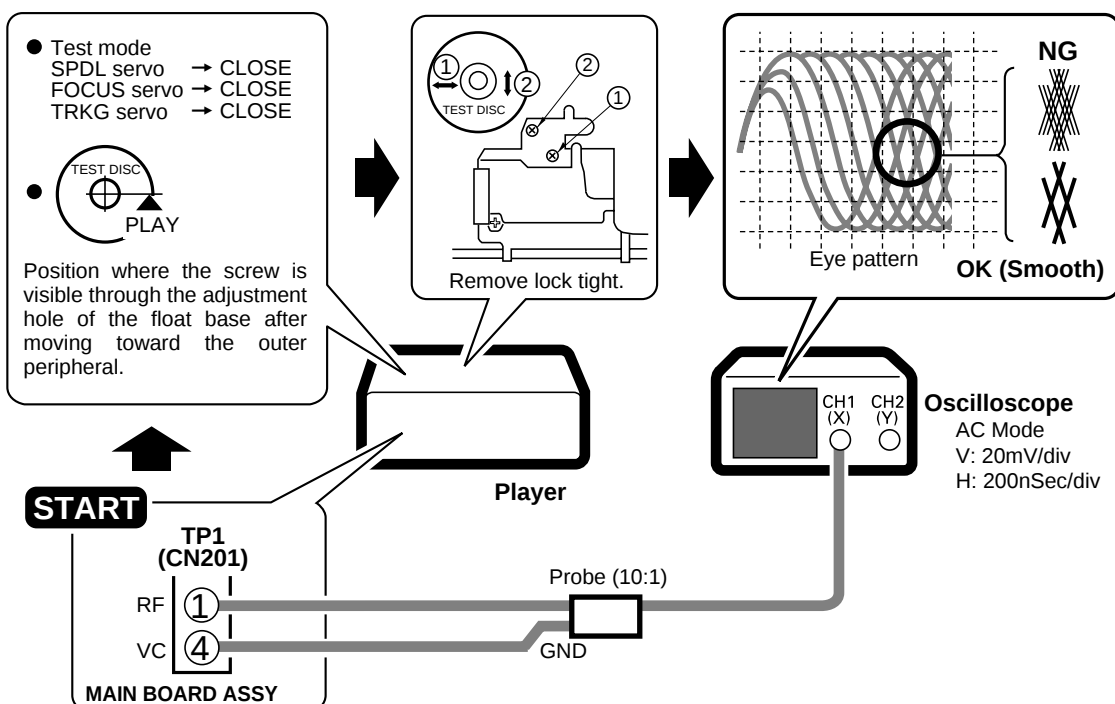
### 2. Grating Adjustment



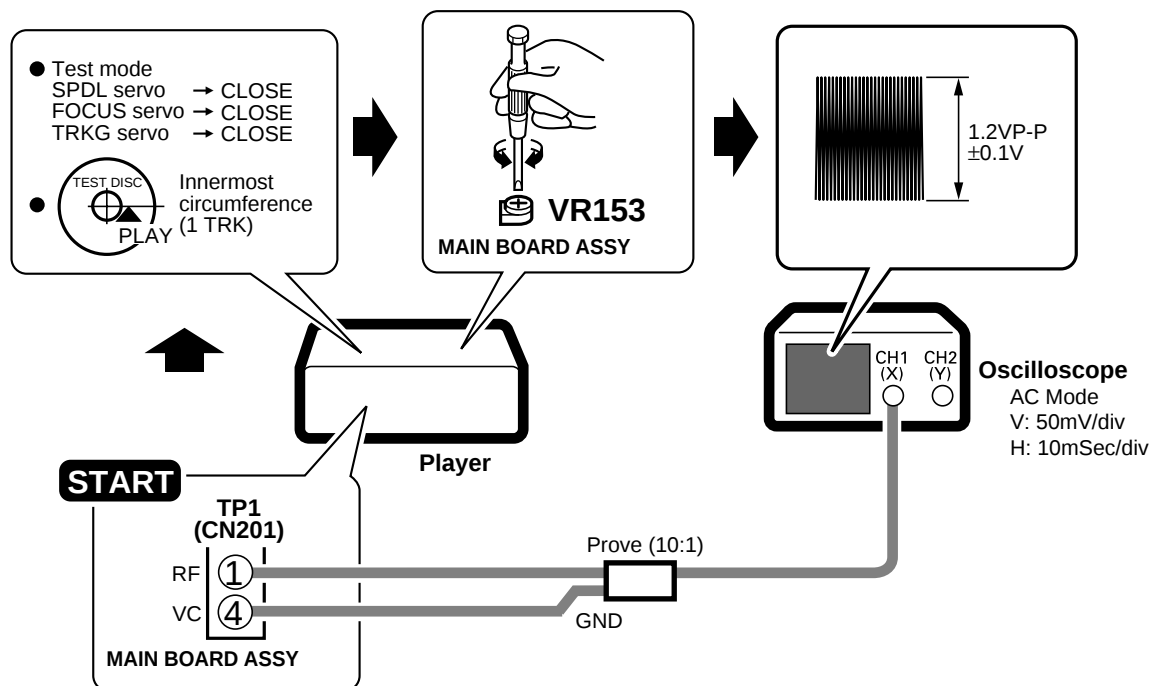
### 3. Tracking Error Balance Adjustment



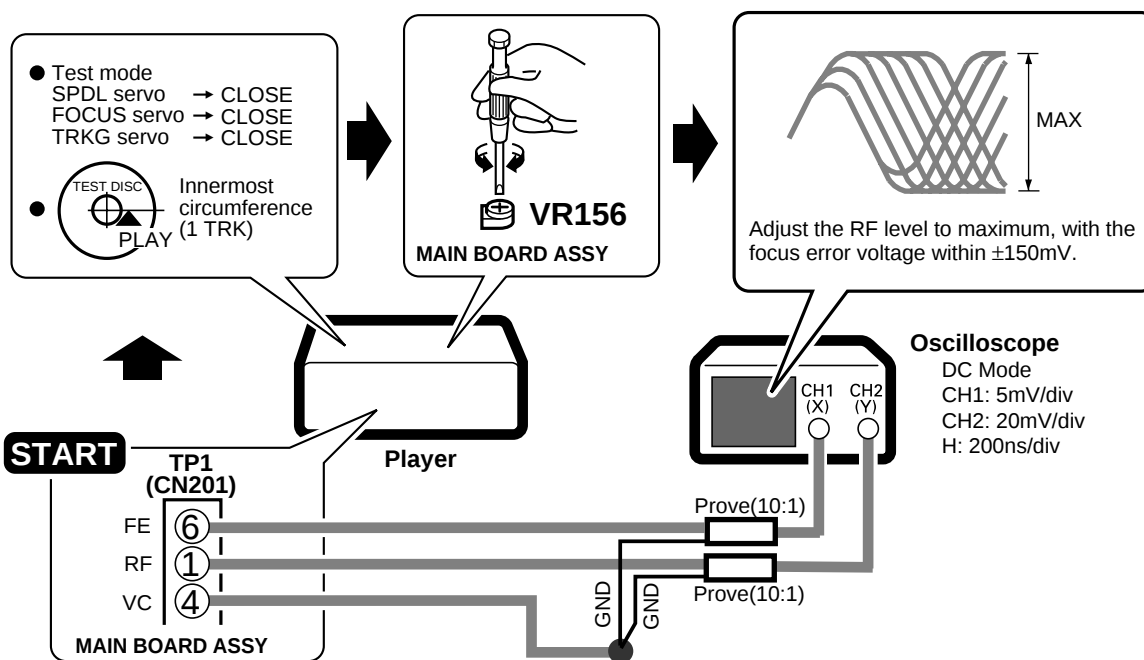
### 4. Pickup ①Radial/ ②Tangential Direction Tilt Adjustment



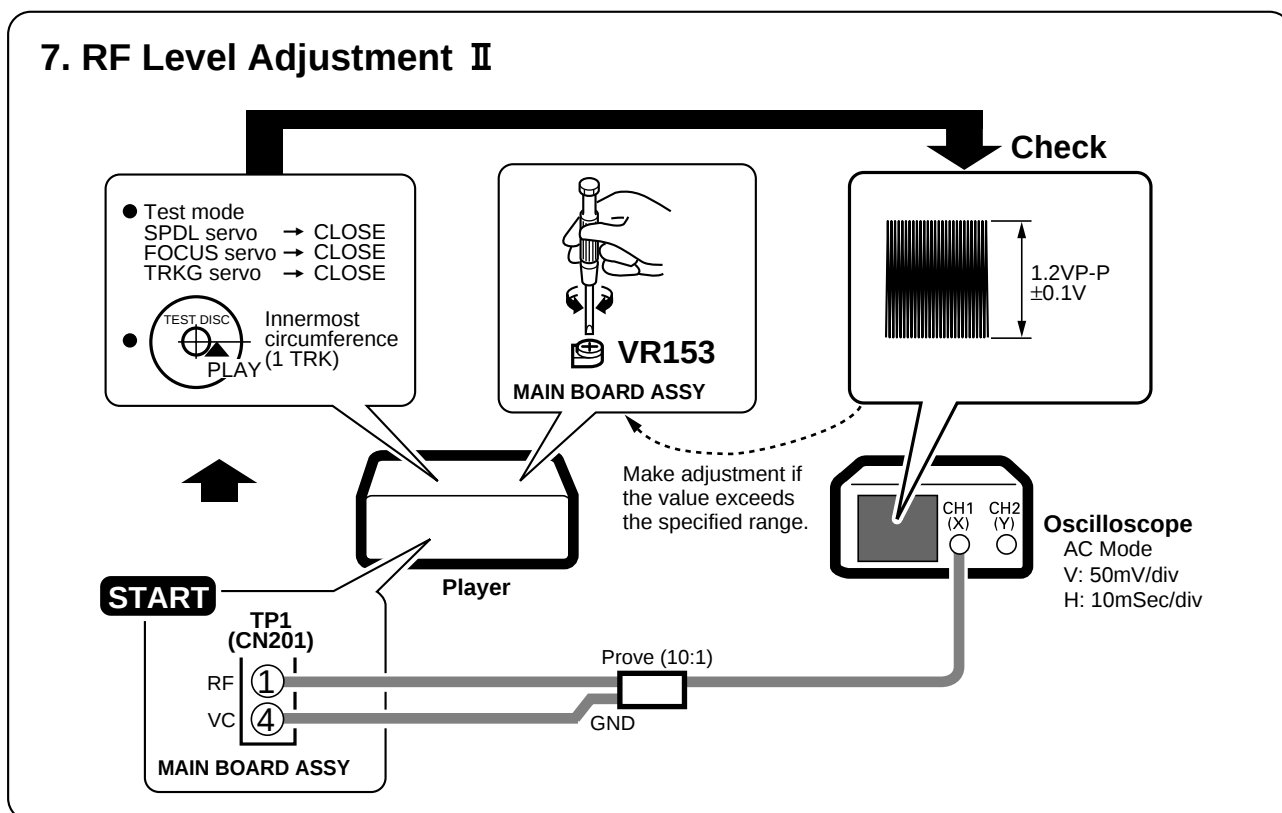
## 5. RF Level Adjustment I



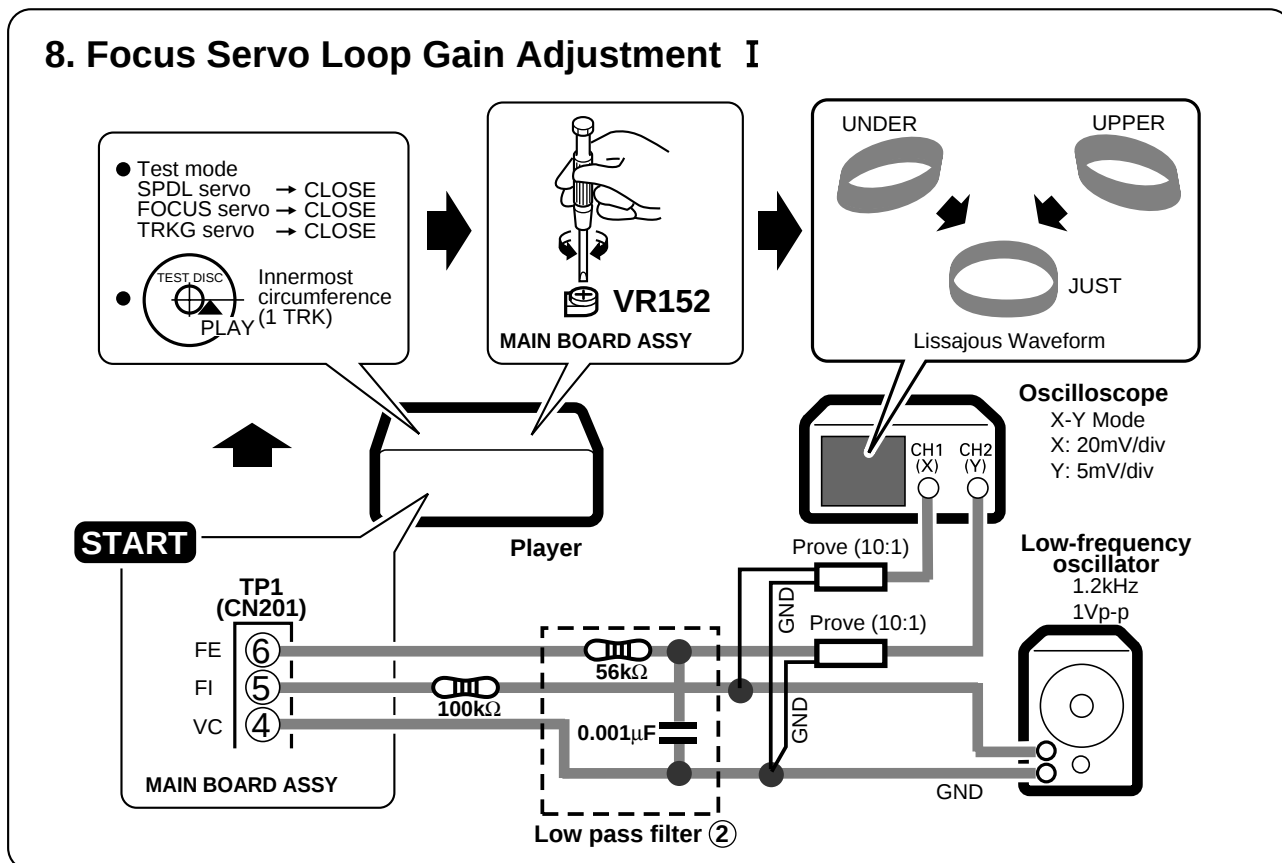
## 6. Focus Best Adjustment I



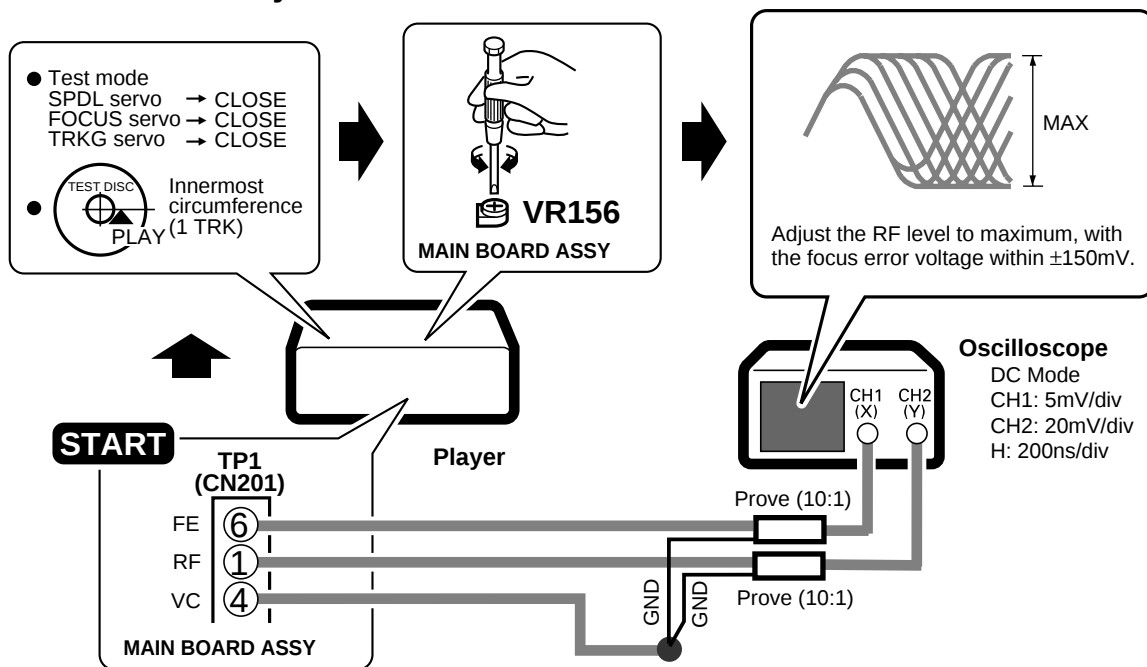
## 7. RF Level Adjustment II



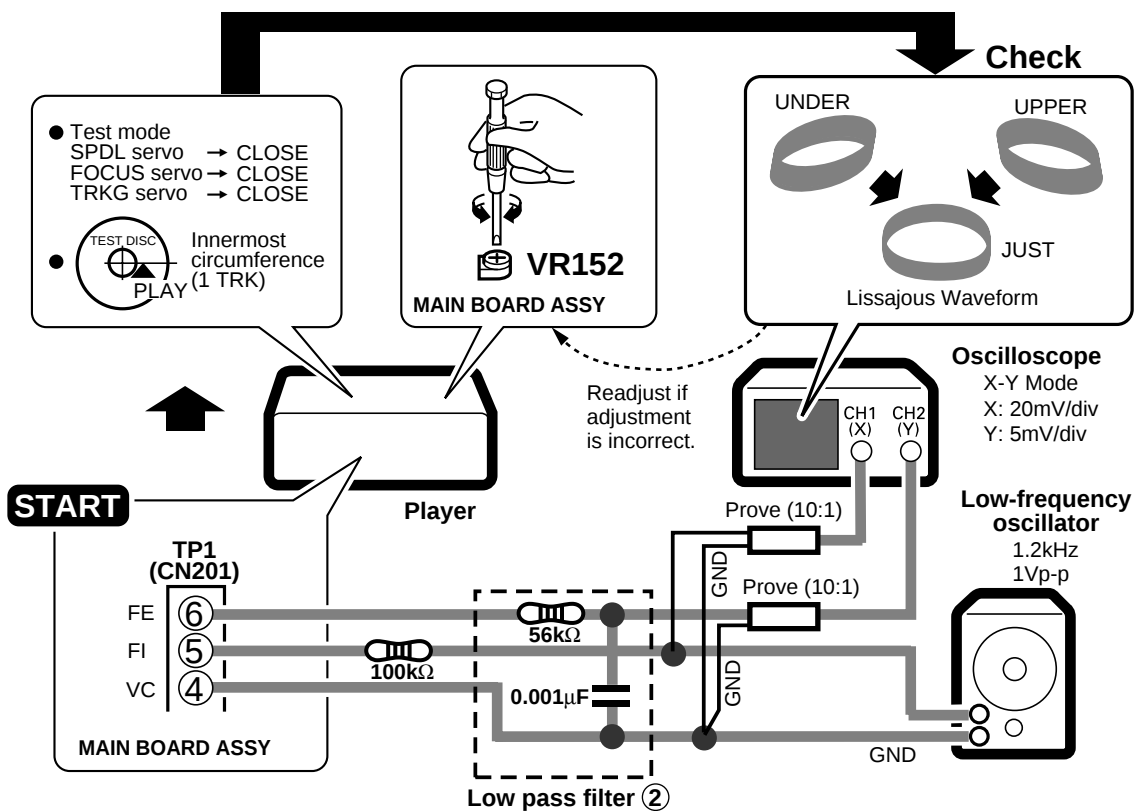
## 8. Focus Servo Loop Gain Adjustment I



## 9. Focus Best Adjustment II

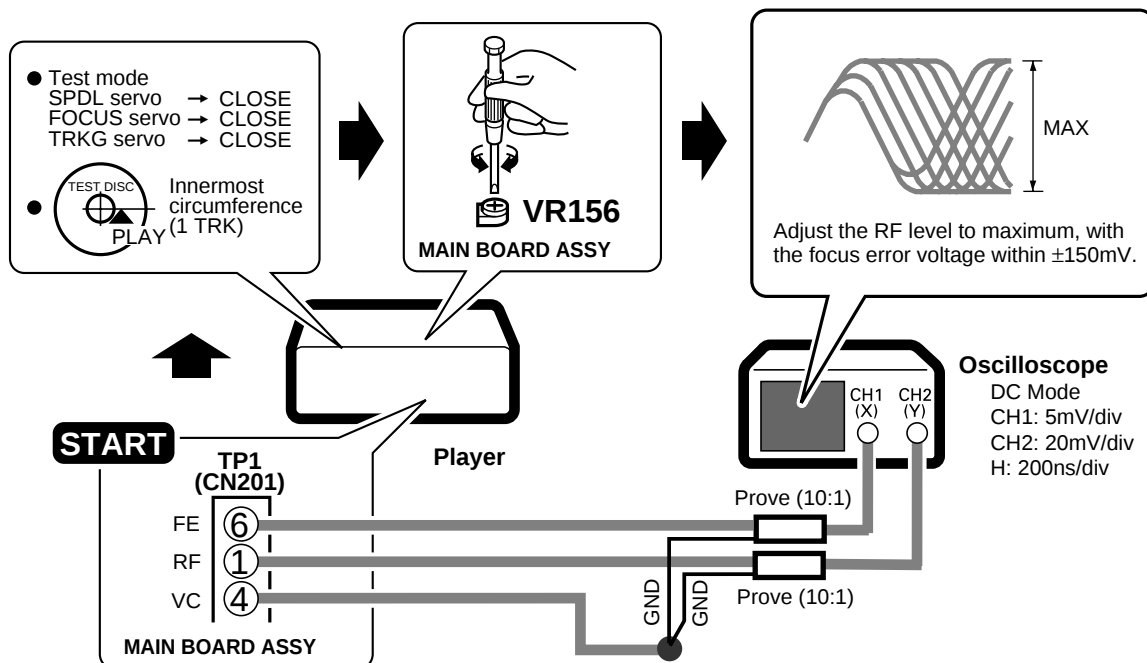


## 10. Focus Servo Loop Gain Adjustment II

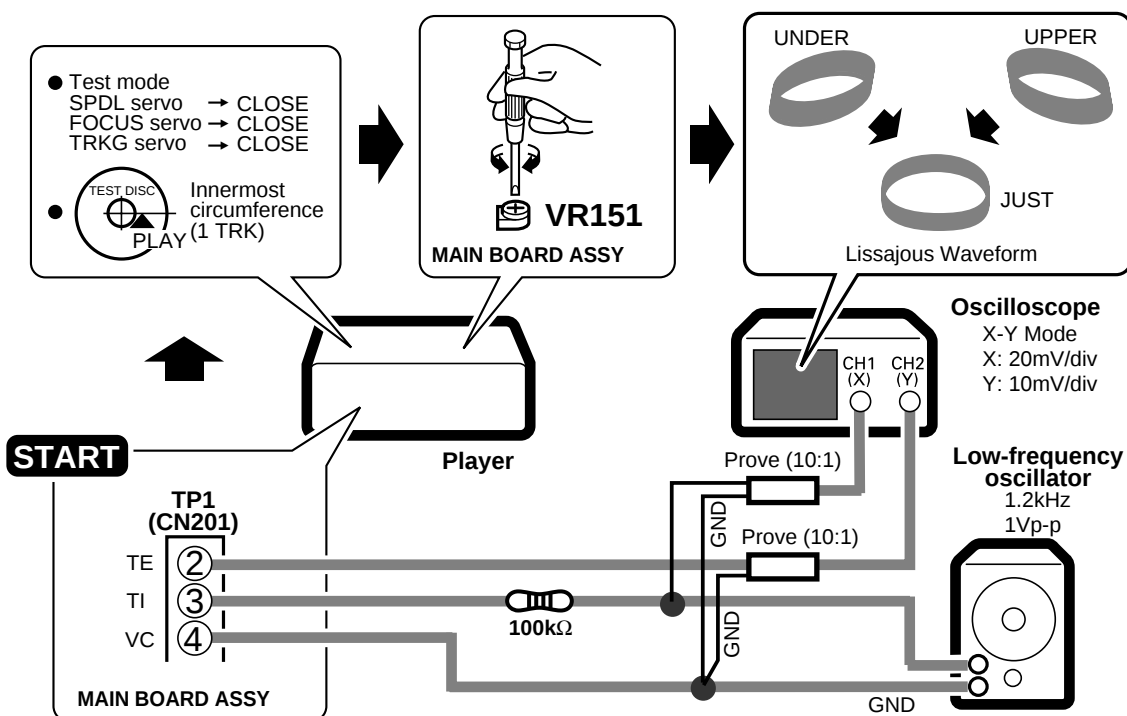


## 11. Focus Best Adjustment III

Adjust this point only if adjustment was made in item 10.



## 12. Tracking Servo Loop Gain Adjustment



## 7. GENERAL INFORMATION

### 7.1 PARTS

#### 7.1.1 IC

#### ■ PE5032A (IC701:DISPLAY BOARD ASSY)

#### ● SYSTEM CONTROL MICRO COMPUTER

#### ● Pin Function

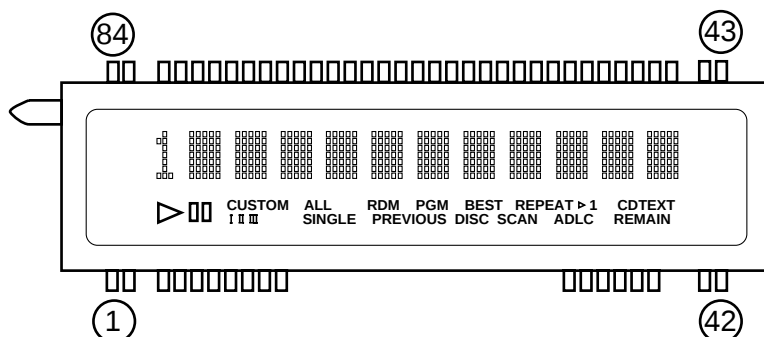
- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

| No. | Pin Name | I/O | Function                                                                                     | No. | Pin Name | I/O  | Function                   |
|-----|----------|-----|----------------------------------------------------------------------------------------------|-----|----------|------|----------------------------|
| 1   | VDD      | +5V | +5V                                                                                          | 47  | PW ON    | O    | Standby - led /osce.       |
| 2   | CLS      | I   | Hood open/close SW input.                                                                    | 48  | KD3      | I    | Key data input.            |
| 3   | OPEN     | I   | Open (CLS:H ,OPEN:L),Close (CLS :L,OPEN:H)                                                   | 49  | KD2      | I    |                            |
| 4   | DCNT     | I   | Disc count pulse input.                                                                      | 50  | KD1      | I    |                            |
| 5   | DPOS     | I   | Disc position detection pulse input.                                                         | 51  | KD0      | I    |                            |
| 6   | DSLT     | O   | Selector output. Count up(DSRT:L,DSLT:H)<br>Count down(DSRT:H,DSLT:L)<br>Stop(DSRT:L,DSLT:L) | 52  | S36      | O    | FL driving segment output. |
| 7   | DSRT     | O   |                                                                                              | 53  | S35      | O    |                            |
| 8   | MCLS     | O   |                                                                                              | 54  | S34      | O    |                            |
| 9   | MOPN     | O   | Hood motor output. Open(MOPN:H,MCLS:L)<br>Close(MOPN:L,MCLS:H)<br>Stop(MOPN:L,MCLS:L)        | 55  | S33      | O    |                            |
| 10  | RESET    | I   | CPU Reset.(L: RESET )                                                                        | 56  | S32      | O    |                            |
| 11  | X2       | –   | Crystal connection for system clock oscillation :4.19MHz.                                    | 57  | S31      | O    |                            |
| 12  | X1       | –   |                                                                                              | 58  | S30      | O    |                            |
| 13  | IC       | GND | GND                                                                                          | 59  | S29      | O    |                            |
| 14  | XT2      | –   | NC (OPEN)                                                                                    | 60  | S28      | O    |                            |
| 15  | GND      | I   | GND                                                                                          | 61  | S27      | O    |                            |
| 16  | VDD      | +5V | +5V                                                                                          | 62  | S26      | O    |                            |
| 17  | CLOCK    | O   | Serial clock.                                                                                | 63  | S25      | O    |                            |
| 18  | MDAT     | O   | LSI control data.                                                                            | 64  | S24      | O    |                            |
| 19  | SQSO     | I   | Serial input.(Q data/fcok/gfs/sens/clmp/eject/insd )                                         | 65  | S23      | O    |                            |
| 20  | XLAT     | O   | LSI control data latch pulse output.                                                         | 66  | S22      | O    |                            |
| 21  | XRST     | O   | Reset input fof each LSI.                                                                    | 67  | S21      | O    |                            |
| 22  | SCLK     | O   | CD TEXT timing data clock output.                                                            | 68  | S20      | O    |                            |
| 23  | STBL     | O   | L: output.                                                                                   | 69  | S19      | O    |                            |
| 24  | SRDT     | I   | CD TEXT data input.                                                                          | 70  | S18      | O    |                            |
| 25  | AVSS     | –   | GND                                                                                          | 71  | S17      | O    |                            |
| 26  | LIN      | O   | Lauding motor output. IN(LIN:H,LOUT:L)<br>OUT(LIN:L,LOUT:H)<br>Stop(LIN:L,LOUT:L)            | 72  | S16      | O    |                            |
| 27  | LOUT     | O   |                                                                                              | 73  | S15      | O    |                            |
| 28  | CLED     | I/O | Center LED control (ON:H , OFF:input)                                                        | 74  | S14      | O    |                            |
| 29  | DQSY     | I   | CD TEXT data input.                                                                          | 75  | S13      | O    |                            |
| 30  | MUTB     | O   | Muting output (L:MUTE)                                                                       | 76  | S12      | O    |                            |
| 31  | SYC3     | O   | Synchronous output.                                                                          | 77  | S11      | O    |                            |
| 32  | SYC1     | I   | Synchronous input.                                                                           | 78  | S10      | O    |                            |
| 33  | DLAT     | O   | DAC control data latch pulse output.                                                         | 79  | VLOAD    | -34V | -34V                       |
| 34  | AVDD     | +5V | +5V                                                                                          | 80  | S9       | O    | FL driving segment output. |
| 35  | AVREF    | GND | GND                                                                                          | 81  | S8       | O    |                            |
| 36  | CNIN     | I   | C.OUT input.                                                                                 | 82  | S7       | O    |                            |
| 37  | TRST     | O   | CD TEXT decooder reset output. (L: reset)                                                    | 83  | S6       | O    |                            |
| 38  | SCOR     | I   | Subcode sync SO+S1 input.                                                                    | 84  | S5       | O    |                            |
| 39  | SR IN    | I   | Remote control data input.                                                                   | 85  | S4       | O    |                            |
| 40  | VSS      | GND | GND                                                                                          | 86  | S3       | O    |                            |
| 41  | QSEL     | O   | Signal output for Q DATA expansion                                                           | 87  | S2       | O    |                            |
| 42  | MUTE     | O   | Muting output for expansion. (MUTE:H)                                                        | 88  | S1       | O    |                            |
| 43  | TRCH     | O   | Data serial output for expansion.                                                            | 89  | G12      | O    |                            |
| 44  | SCL      | O   | EEPROM clock output                                                                          | 90  | G11      | O    |                            |
| 45  | SDA      | I/O | EEPROM data IN/OUTPUT                                                                        | 91  | G10      | O    |                            |
| 46  | VDD      | +5V | +5V                                                                                          | 92  | G9       | O    |                            |
|     |          |     |                                                                                              | 93  | G8       | O    |                            |
|     |          |     |                                                                                              | 94  | G7       | O    |                            |
|     |          |     |                                                                                              | 95  | G6       | O    |                            |
|     |          |     |                                                                                              | 96  | G5       | O    |                            |
|     |          |     |                                                                                              | 97  | G4       | O    |                            |
|     |          |     |                                                                                              | 98  | G3       | O    |                            |
|     |          |     |                                                                                              | 99  | G2       | O    |                            |
|     |          |     |                                                                                              | 100 | G1       | O    |                            |

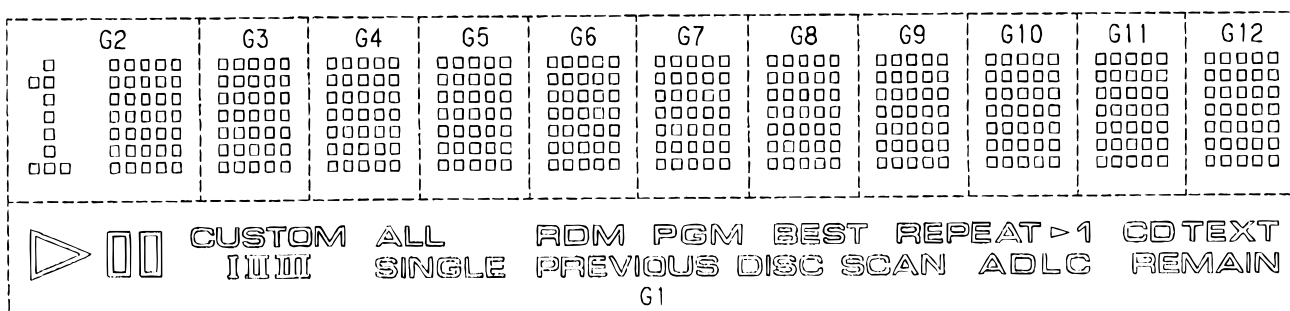
## 7.1.2 DISPLAY

### ■ PEL1095 (V701: DISPLAY BOARD ASSY) : FOR PD-F958

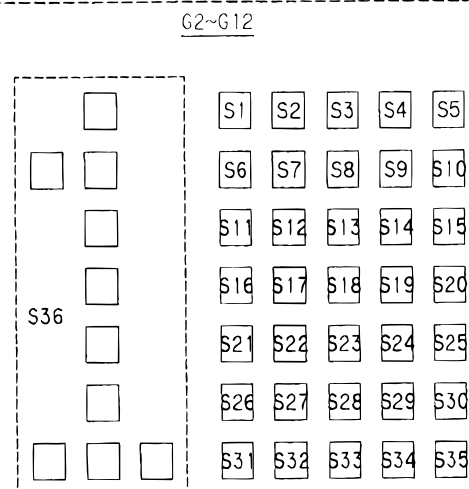
#### ● Pin Assignment



#### ● Anode Grid Assignment



|     | G1       |     | G1     |
|-----|----------|-----|--------|
| S17 |          | S27 | SINGLE |
| S18 |          | S28 | BEST   |
| S19 |          | S29 | REMAIN |
| S20 |          | S30 | I      |
| S21 |          | S31 | REPEAT |
| S22 | CDTEXT   | S32 | PGM    |
| S23 | ADLC     | S33 | RDM    |
| S24 | SCAN     | S34 | ALL    |
| S25 | DISC     | S35 | CUSTOM |
| S26 | PREVIOUS |     |        |



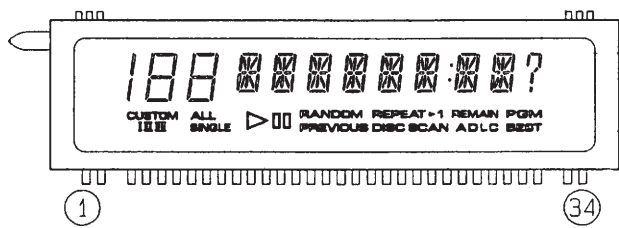
#### ● Pin Connection

| Pin No.    | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18 | 19 | 20  | 21  |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|-----|
| Assignment | NL  | NL  | NP  | NP  | S29 | S30 | S31 | S32 | S33 | S34 | S35 | S36 | NP  | NP  | NP  | NP  | NP  | NP | NP | NP  | NP  |
| Pin No.    | 22  | 23  | 24  | 25  | 26  | 27  | 28  | 29  | 30  | 31  | 32  | 33  | 34  | 35  | 36  | 37  | 38  | 39 | 40 | 41  | 42  |
| Assignment | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | G1  | G2  | G3  | G4  | G5  | G6  | NP  | NP | NP | NL  | NL  |
| Pin No.    | 43  | 44  | 45  | 46  | 47  | 48  | 49  | 50  | 51  | 52  | 53  | 54  | 55  | 56  | 57  | 58  | 59  | 60 | 61 | 62  | 63  |
| Assignment | F2  | F2  | NP  | NP  | G7  | G8  | G9  | G10 | G11 | G12 | S1  | S2  | S3  | S4  | S5  | S6  | S7  | S8 | S9 | S10 | S11 |
| Pin No.    | 64  | 65  | 66  | 67  | 68  | 69  | 70  | 71  | 72  | 73  | 74  | 75  | 76  | 77  | 78  | 79  | 80  | 81 | 82 | 83  | 84  |
| Assignment | S12 | S13 | S14 | S15 | S16 | S17 | S18 | S19 | S20 | S21 | S22 | S23 | S24 | S25 | S26 | S27 | S28 | NP | NP | F1  | F1  |

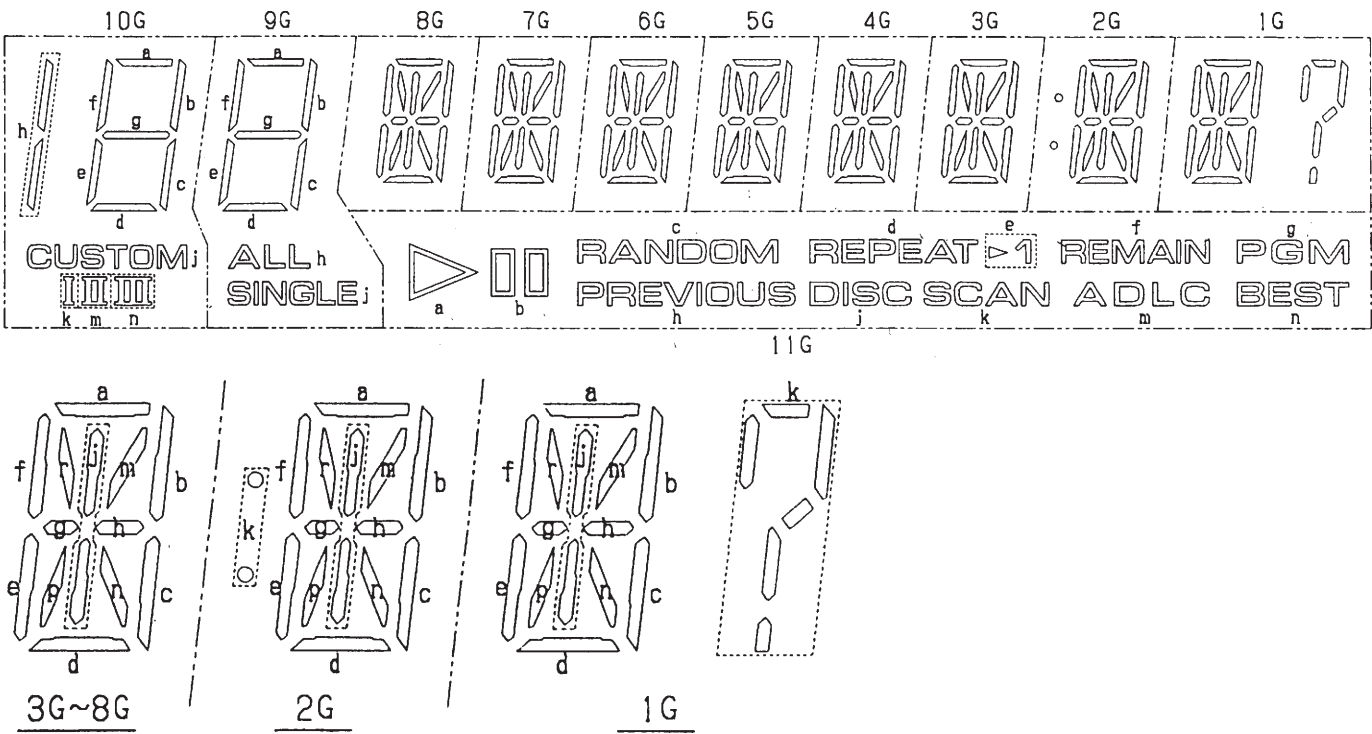
F1,F2:Filament G1~G12:Grid S1~S36:Anode NP:No Pin NL:No Lead

■ PEL1089 (V701: DISPLAY BOARD ASSY) : FOR PD-F908

● Pin Assignment



● Anode Grid Assignment



● Pin Connection

|            |   |   |    |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|---|---|----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Pin No.    | 1 | 2 | 3  | 4   | 5   | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| Connection | F | F | NP | 11G | 10G | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G | NL | NL | NL | p  | r  | a  |

|            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Pin No.    | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 |
| Connection | b  | c  | d  | e  | f  | g  | h  | j  | k  | m  | n  | NP | F  | F  |

F:Filament 1G~11G:Grid a~h, j, k, m, n, p, r:Anode NP:No Pin NL:No Lead

## 7.2 DIAGNOSIS

### 7.2.1 ERROR CODE DISPLAY

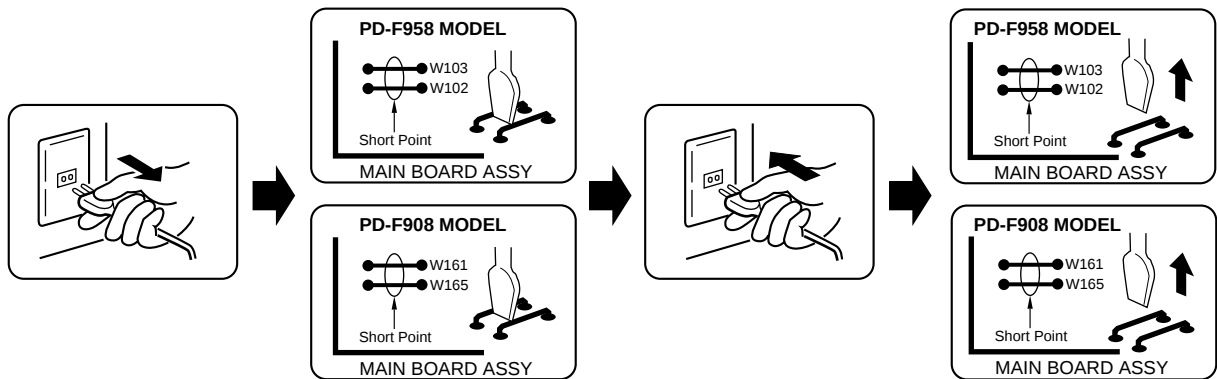
If a failure occurs in the Loading mechanism, the error symbol is automatically displayed on the fluorescent display screen of the front panel.

### 7.2.2 ERROR HISTORY and DISPLAY

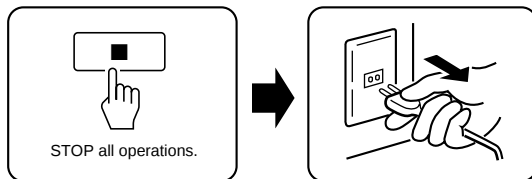
#### Error history display in test mode

The previously generated errors (NG processing) can be confirmed in the test mode. Since the has a backup function, the error history is memorized even if the power is turned off. (Memory holding time : About two days)

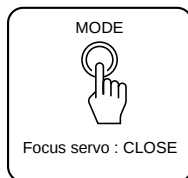
#### TEST MODE: ON



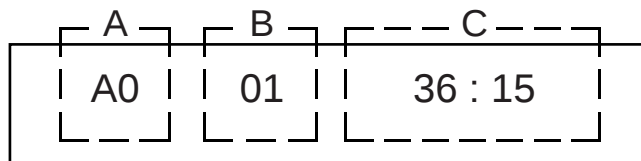
#### TEST MODE: STOP CANCEL



■ Press the "BEST" button of the keys on the main body.



An error appears on the fluorescent indicator display by the above operation.



|                      |                             |
|----------------------|-----------------------------|
| A: Disc No.          | : Error code                |
| B: Track No.         | : Error sequence            |
| C: Minute:second No. | : Error generation mode     |
|                      | (Only 10's digit is valid.) |

The previously generated 16 error codes (maximum) can be memorized. These error codes are displayed one at a time in the ascending order by pressing the "BEST" button again.

*Note : A product performs fail safe operation when an error occurs. At that time, an error code is memorized by the fail safe operation after the error is eliminated.*

## 7.2.3 ERROR HISTORY DISPLAY

### (1) Disc No. A : Detail of error code at portion

<Note> The user display appears only when the normal operation cannot be returned even if the fail safe operation is executed after each error occurs.

| User | display | Description                                                                                                                                                                                                                                                                                                                                                                                                 |
|------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| None | A0      | <ul style="list-style-type: none"> <li>A disc couldn't be detected for playback after loading because;               <ul style="list-style-type: none"> <li>No disc existed.</li> <li>A disc was turned upside down.</li> <li>A disc was dirty.</li> <li>A disc was loaded incompletely.</li> </ul> </li> <li>The focus got out of place during playback due to the crack and stain on the disc.</li> </ul> |
| None | A1      | <ul style="list-style-type: none"> <li>The servo mechanism couldn't move to the desired tune position within a fixed time during selection of a tune from playback or during playback.</li> </ul>                                                                                                                                                                                                           |
| U1   | A3      | <ul style="list-style-type: none"> <li>A disc couldn't be loaded within a fixed time. (A disc couldn't be carried from the rack block.)</li> </ul>                                                                                                                                                                                                                                                          |
|      | A4      | <ul style="list-style-type: none"> <li>A disc couldn't be unloaded within a fixed time. (A disc couldn't be returned to the rack block.)</li> </ul>                                                                                                                                                                                                                                                         |
| U2   | A2      | <ul style="list-style-type: none"> <li>The LOADING mechanism couldn't move to the desired disc position within a fixed time during selection of a disc from playback or during playback start from stop.</li> </ul>                                                                                                                                                                                         |
|      | A5      | <ul style="list-style-type: none"> <li>The LOADING mechanism couldn't be forcibly returned to the home position (left position when viewed from the front) within a fixed time after it is initialized or becomes NG.</li> </ul>                                                                                                                                                                            |
| None | A6      | <ul style="list-style-type: none"> <li>A disc couldn't be normally rotated for playback after loading because;               <ul style="list-style-type: none"> <li>A disc was turned upside down.</li> <li>A disc was dirty</li> <li>A disc was loaded incompletely.</li> </ul> </li> <li>A disc couldn't be normally rotated during playback due to the crack and stain on the disc.</li> </ul>           |

| User | display | Description                                                                                                                                                                                                                                                                                                                                                                             |
|------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| None | A7      | <ul style="list-style-type: none"> <li>Mechanism position just before the LOADING mechanism shifts to the disc selection operation when the DCNT pin is low. (The DCNT pin is usually high when the LOADING mechanism is in the stop state. The mechanism position is thus judged to have been shifted for some reason. The shifted mechanism position may cause a failure.)</li> </ul> |
| None | A8      | <ul style="list-style-type: none"> <li>Discrepancy has occurred between the detected disc position and the current disc position during movement of the loading mechanism. (The system may incorrectly counted the waveforms of the DCNT and DPOS terminals. If counting is incorrect, the position of the disc No. displayed does not match the disc position counted.)</li> </ul>     |
| None | A9      | <ul style="list-style-type: none"> <li>Mechanism position during disc loading when the DCNT pin is low. (The DCNT pin is usually high when the LOADING mechanism is in the stop state. The mechanism position is thus judged to have been shifted for some reason. The shifted mechanism position may cause a failure.)</li> </ul>                                                      |
| None | AA      | <ul style="list-style-type: none"> <li>The pickup block cannot return to the innermost circumference when the playback is Completed or another disc is shifted.</li> </ul>                                                                                                                                                                                                              |

#### Hood section

| User | display | Description                                                                                                              |
|------|---------|--------------------------------------------------------------------------------------------------------------------------|
| U3   | P0      | The hood did not open within the specified time. The switch of the hood was malfunctioning.                              |
|      | P1      | The hood did not close within the specified time. The switch of the hood was malfunctioning.                             |
|      | P2      | The hood was attempted to be opened with force when it was completely closed. The switch of the hood was malfunctioning. |

### (2) Track No. B : Error sequence in portion

The display of 1 to 16 appears. The low number indicates the recently generated error. The error whose number is "1" was generated most recently.

### (3) Minute : Second No. C : Detail of error generation mode in portion

Indicates the internal mode in which the displayed error is generated. The upper digit in "minute : second" has the meaning.

| Digit of minute |                          | Digit of second |                                                                  |
|-----------------|--------------------------|-----------------|------------------------------------------------------------------|
| Display         | Contents                 | Display         | Contents                                                         |
| 0 *             | Spindle stop operation   | 0 *             | During closing of the hood and when the hood is completely close |
| 1 *             | Disc return operation    |                 |                                                                  |
| 2 *             | Disc selection operation |                 |                                                                  |
| 3 *             | Setup operation          | 1 *             | During opening of the hood and when the hood is completely open  |
| 4 *             | CD-R setup operation     |                 |                                                                  |
| 5 *             | TOC read                 |                 |                                                                  |
| 6 *             | Track search operation   |                 |                                                                  |
| 7 *             | Play                     |                 |                                                                  |
| 8 *             | Pause                    |                 |                                                                  |
| 9 *             | Manual search            |                 |                                                                  |

## 7.2.4 DISASSEMBLY

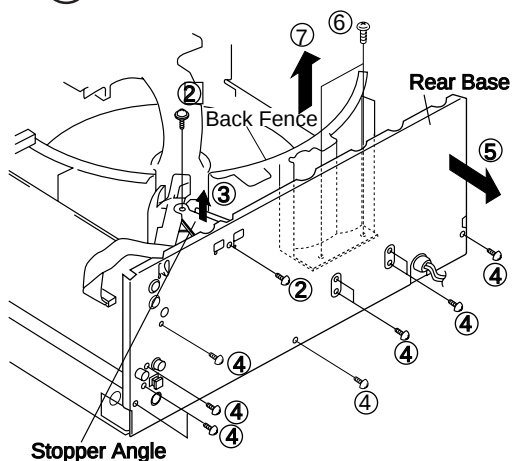
### ■ REMOVING THE LOADING MECHANISM ASSY

① Remove the Bonnet.

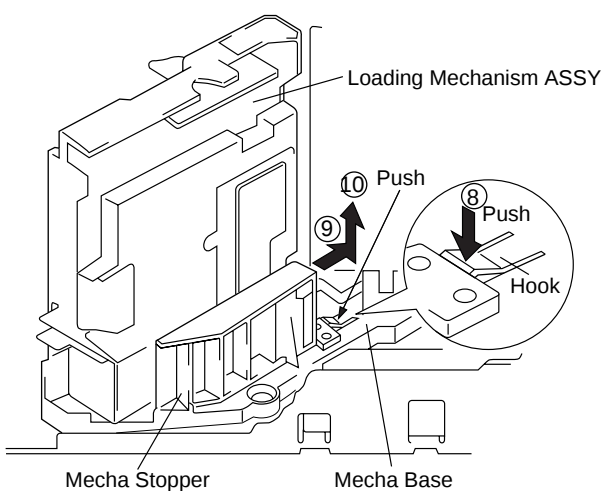
② – ③ Remove the Screws and Stopper Angle.

④ – ⑤ Remove the Screws and Rear Base.

⑥ – ⑦ Remove the Screws and Back Fence.

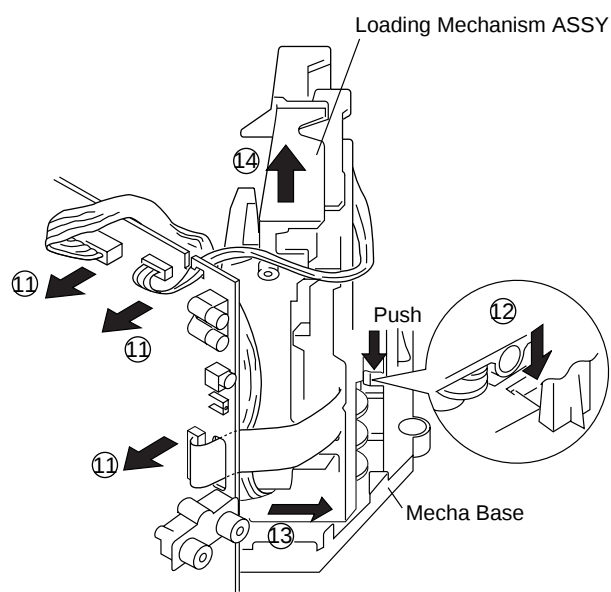


⑧ – ⑩ While holding down the hook of the Mecha Base, slide the Mechanism Stopper toward the right to pull up and remove the Mecha Stopper.



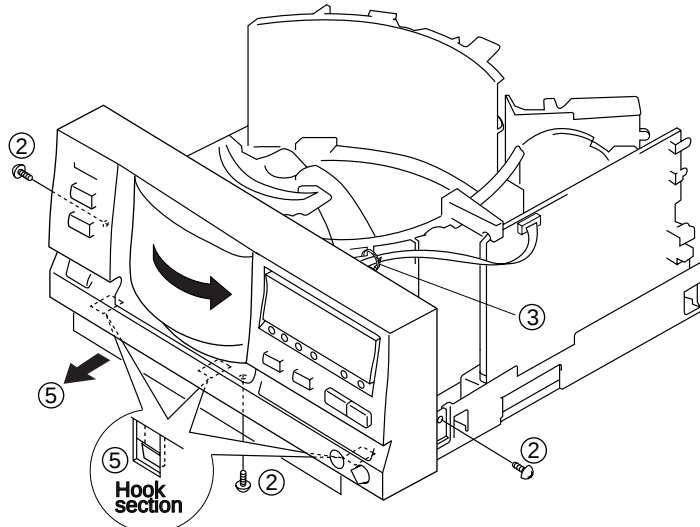
⑪ Remove the each wire.

⑫ – ⑭ While holding down the hook of the Mecha Base, slide the Loading Mechanism Assy to pull up and remove the Loading Mechanism Assy.



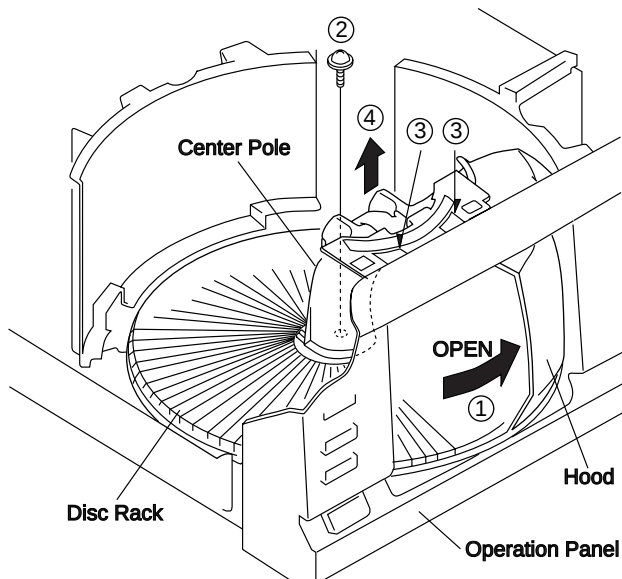
## ■ REMOVING THE OPERATION PANEL

- ① Remove the Bonnet.
- ② Remove the Screws.
- ③ Cut the Binder securing the wire material.
- ④ Remove the Center Pole. (Refer to the “REMOVING THE DISC RACK”)
- ⑤ Shift the Front Panel slightly toward you while paying attention to the back side hooks on the Chassis.



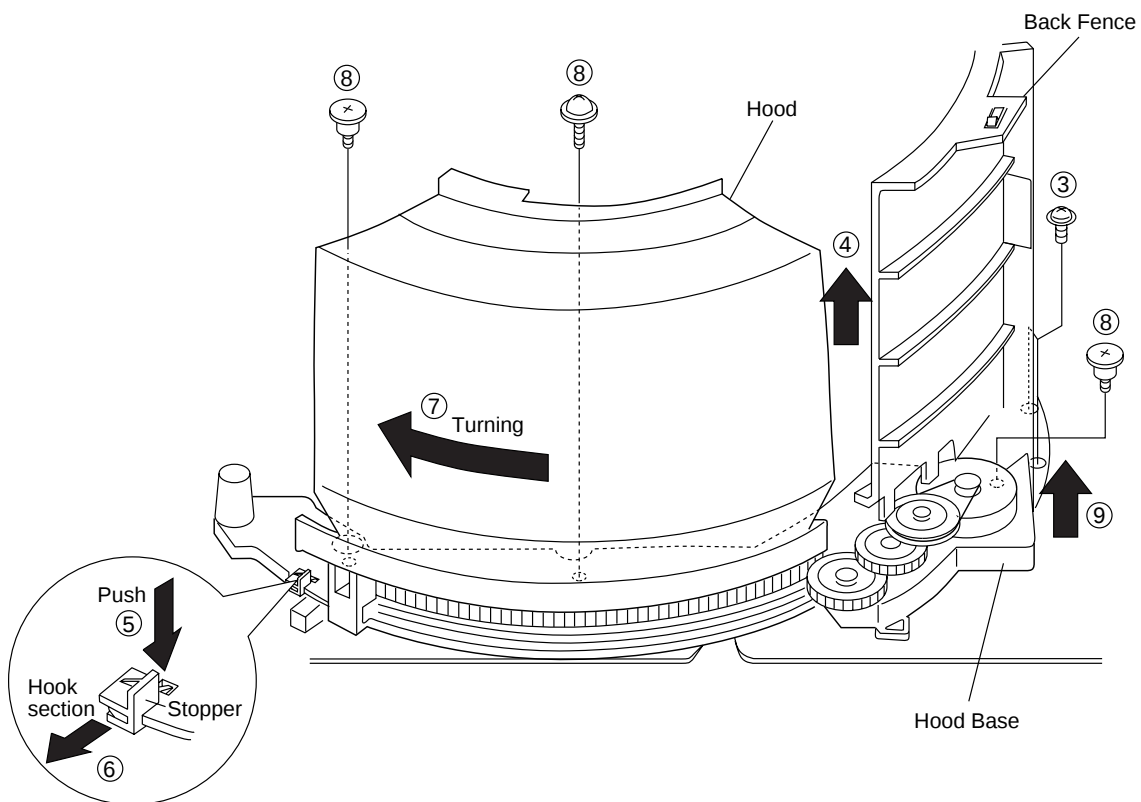
## ■ REMOVING THE DISC RACK

- ① Open the Hood.
- ② Remove the Screws.
- ③ - ④ Press the 2 hooks to remove the Center Pole from the Operation Panel.

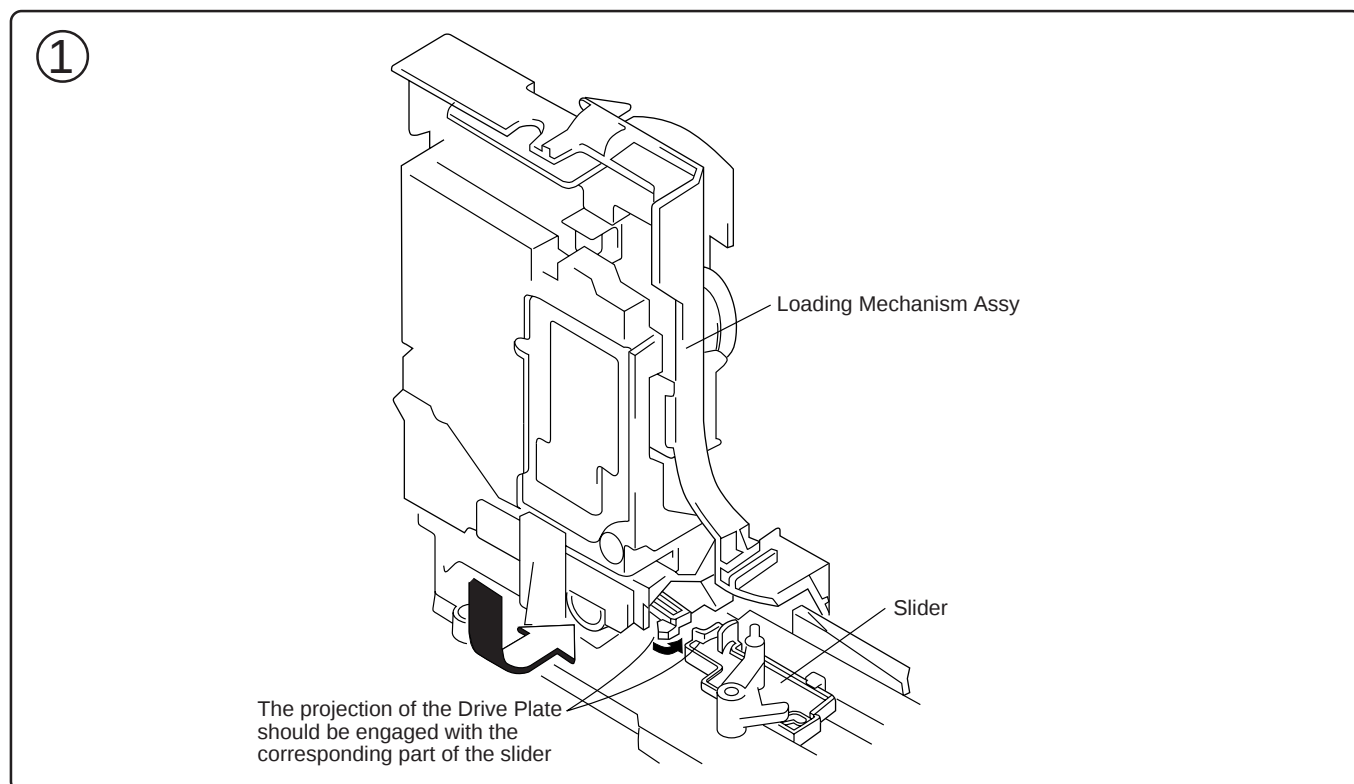


## ■ REMOVE THE HOOD and HOOD BASE

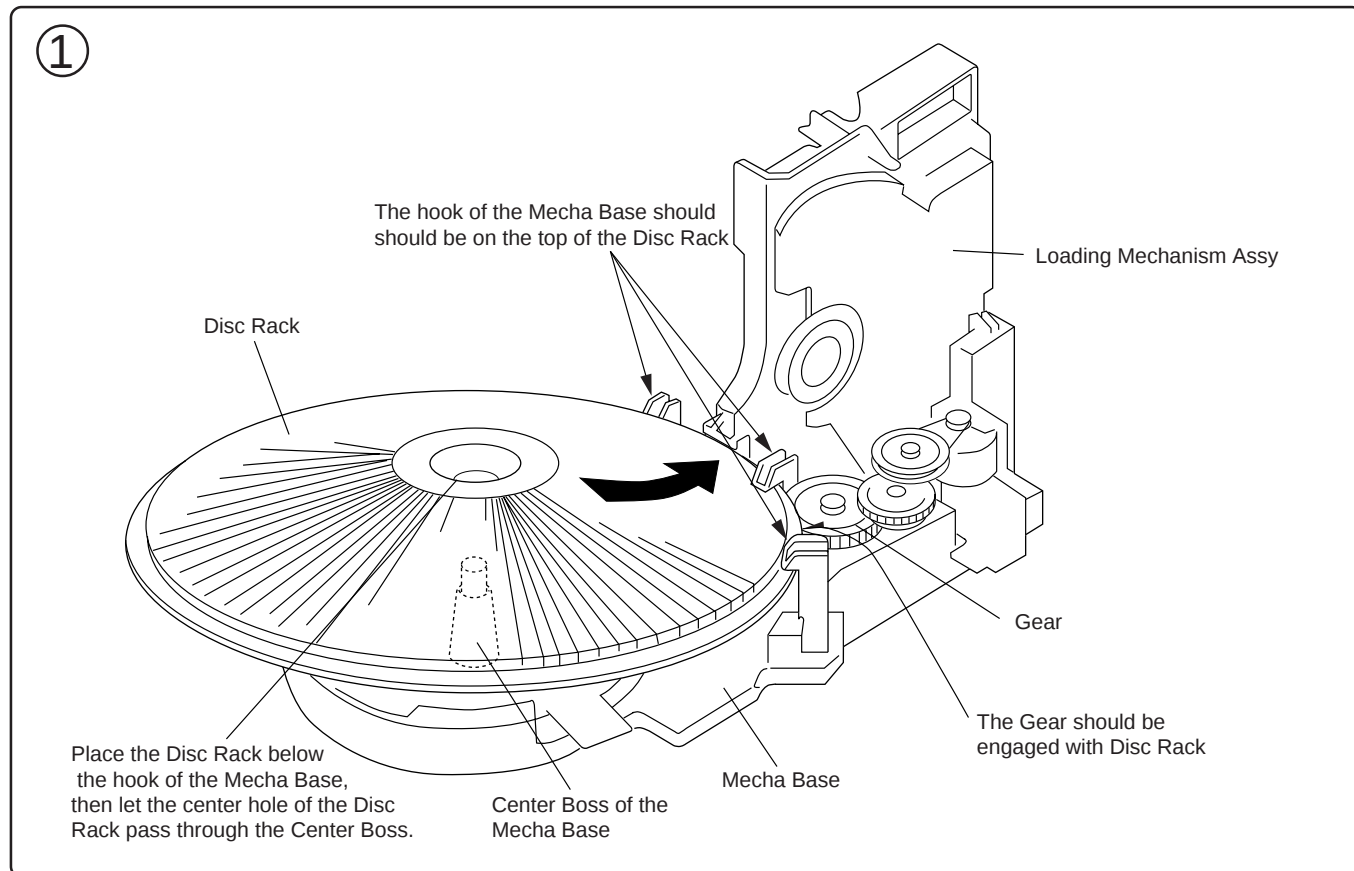
- ① Remove the Bonnet.
- ② Remove the Operation Panel. (Refer to the “REMOVING THE OPERATION PANEL”)
- ③ Remove the Screws.
- ④ Remove the Back Fence.
- ⑤ - ⑦ Press the hook of the Stopper of the Hood Base to remove the Stopper. Slide the Hood toward the left to remove the Hood.
- ⑧ Remove the Screws.
- ⑨ Remove the Hood Base.



## ■ INSTALLING THE LOADING MECHANISM ASSY

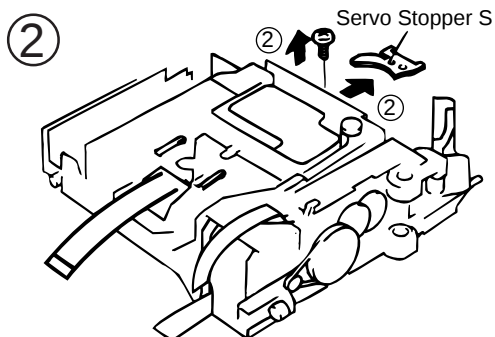
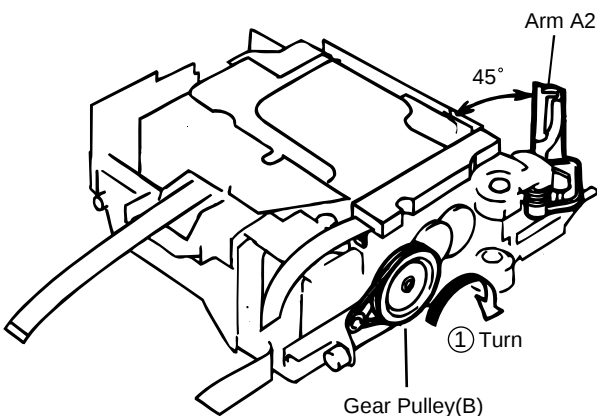


## ■ INSTALLING THE DISC RACK

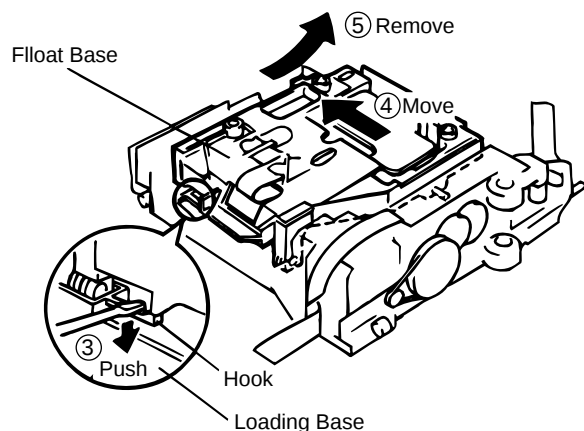


## REMOVING THE SERVO MECHANISM ASSY GM

- ① Turn gear pulley (B) and position Arm A2 as shown below.

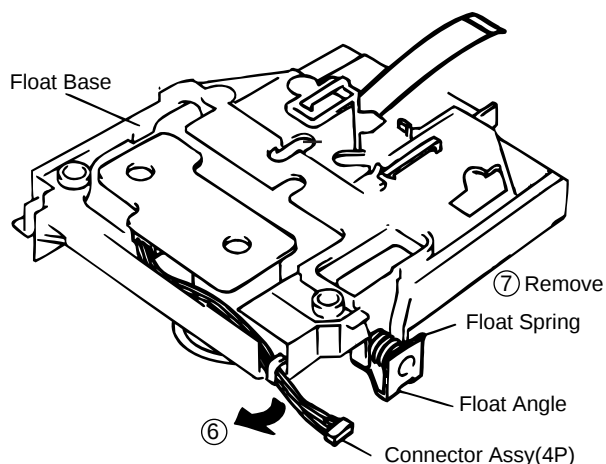


- ③ – ⑤ Slide the float base in the direction of the arrow ④ while pressing down on the loading base hook, and, lifting it gently, pull it out in the direction of the arrow ⑤.

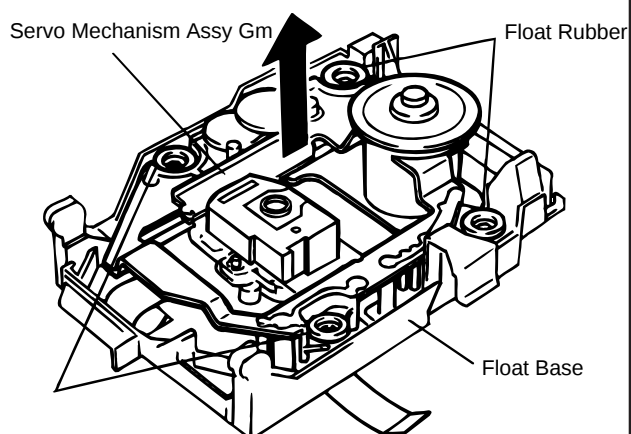


- ⑥ Remove the connector ASSY (4P) from the float base.

- ⑦ Remove the float spring. (To install this part, line up the float angle side of the Servo Mechanism ASSY GM first, and press down on the float base side.)



- ⑧ Remove the float rubber from the Servo Mechanism ASSY GM. At this time the float rubber should remain on the float base side. (To install it on the float base when it has been removed, push it into place with a thin cylindrical object.)

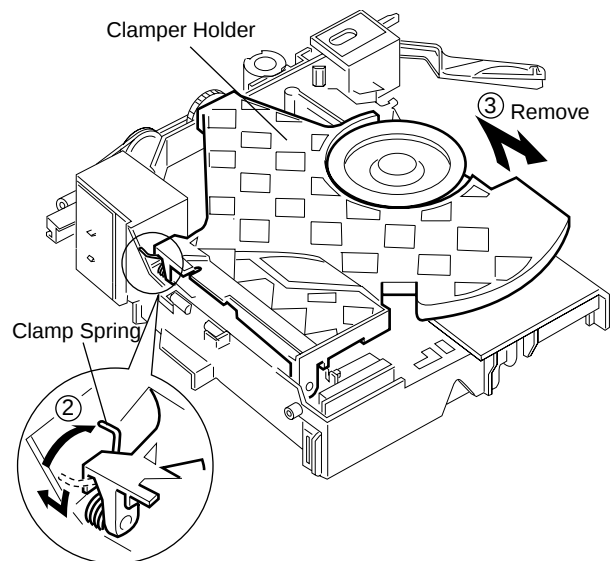


## REMOVING THE ARM A2

- ① Remove the float base together with the Servo Mechanism ASSY GM. (Refer to Steps ①-⑤ for “REMOVING THE Servo Mechanism ASSY GM”.)

② - ③

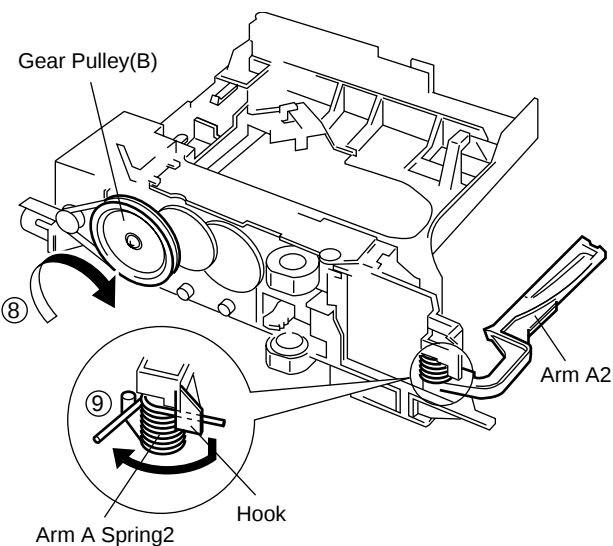
Remove the clamp spring and remove the clamber holder.



- ⑧ Turn gear pulley (B) and position Arm A2 as shown below.

- ⑨ Remove the Arm A spring2 from its hook.

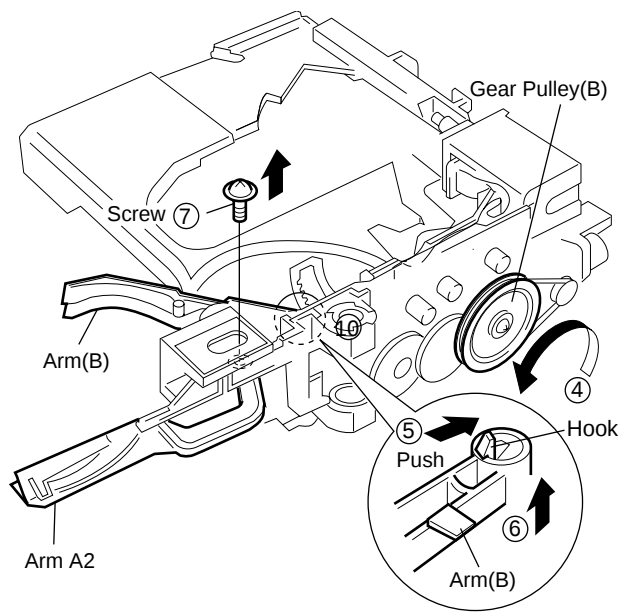
*Note: Do not hold the tip (blade) of arm (A) during operation.*



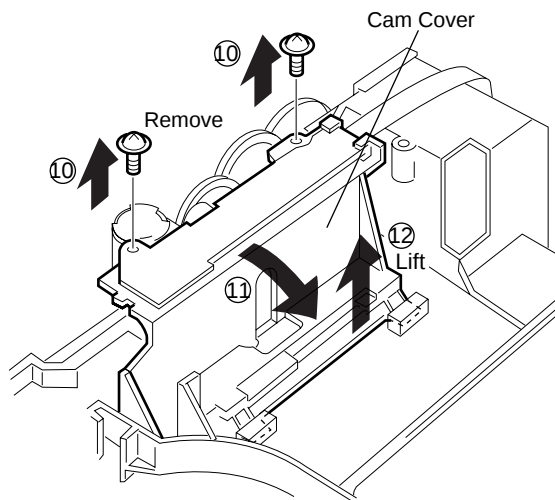
- ④ Turn gear pulley (B) and position Arm A2 as shown below.

- ⑤ ⑥ Remove Arm (B) while pressing the hook in the direction of the arrow.

- ⑦ Remove screw 7.



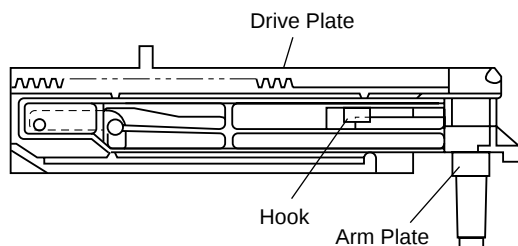
⑩ - ⑫



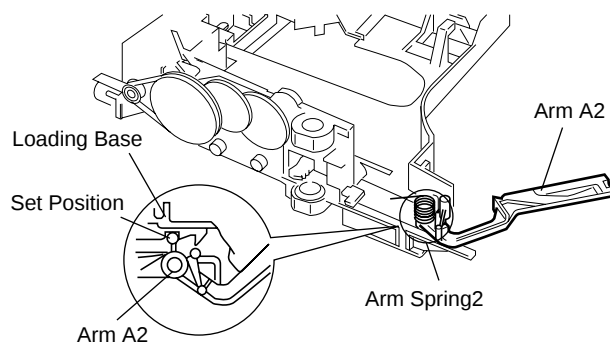
- ⑬ Remove drive plate, Arm plate, Arm A spring2 and Arm (A). (Refer to Steps 3-4 on page 47.)

■ **FOR REASSEMBLY, REVERSE THE DISASSEMBLY PROCEDURE, and IN ADDITION CARRY OUT THE FOLLOWING ITEMS.**

- ① Assemble the arm plate as shown below, watching out for the drive plate hook.

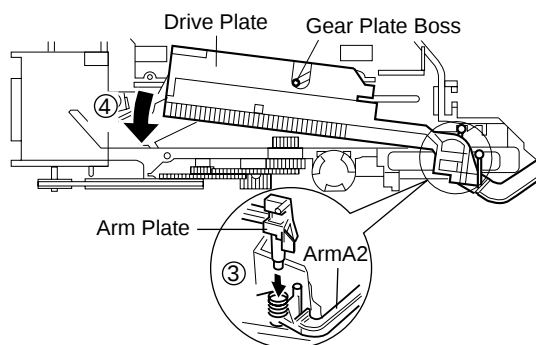


- ② Place Arm A2 and the Arm A spring2 on the loading base, being careful to keep them in the position shown below.

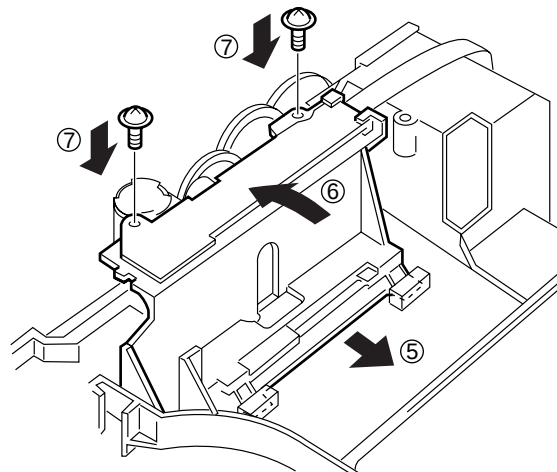


- ③ Set the drive plate and arm plate, which were assembled in Step ①, on the Arm A2 side as shown below. At this time be careful to keep Arm A2 in the position described in Step . ②

- ④ Insert the gear plate boss into the drive plate groove and pull it toward you.



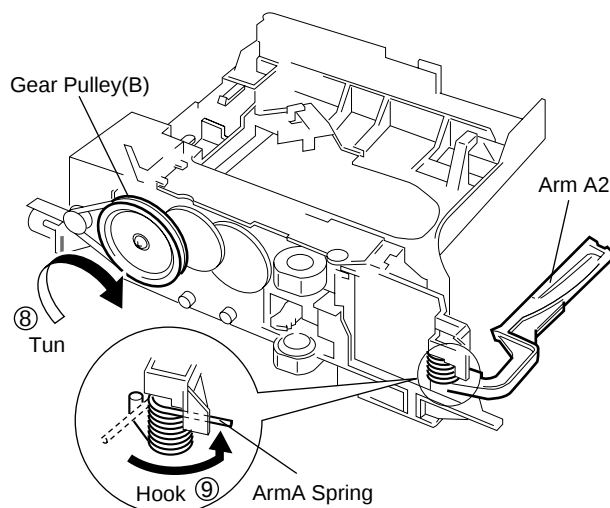
- ⑤ – ⑦

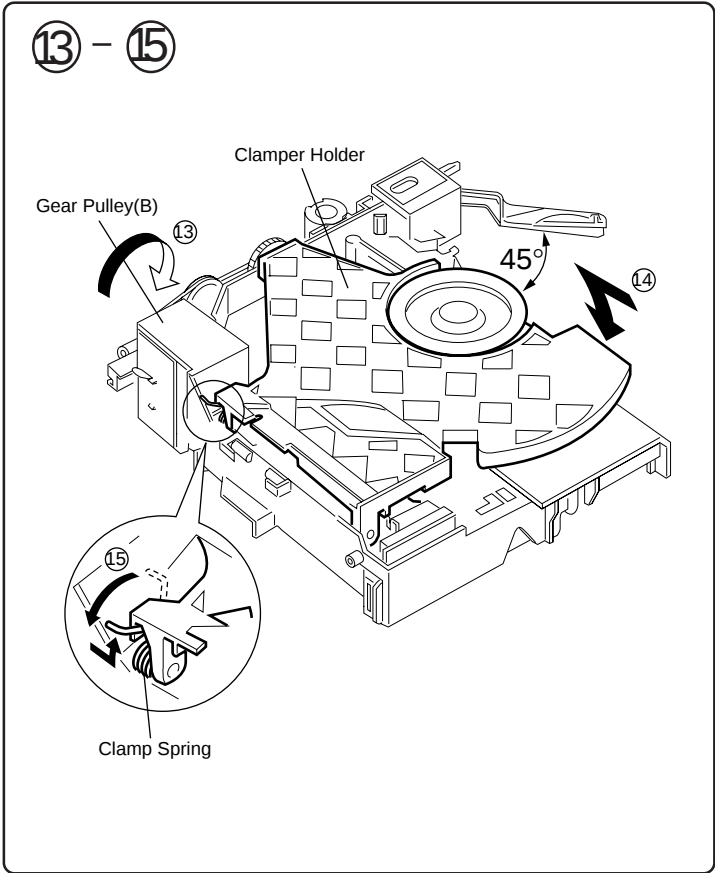
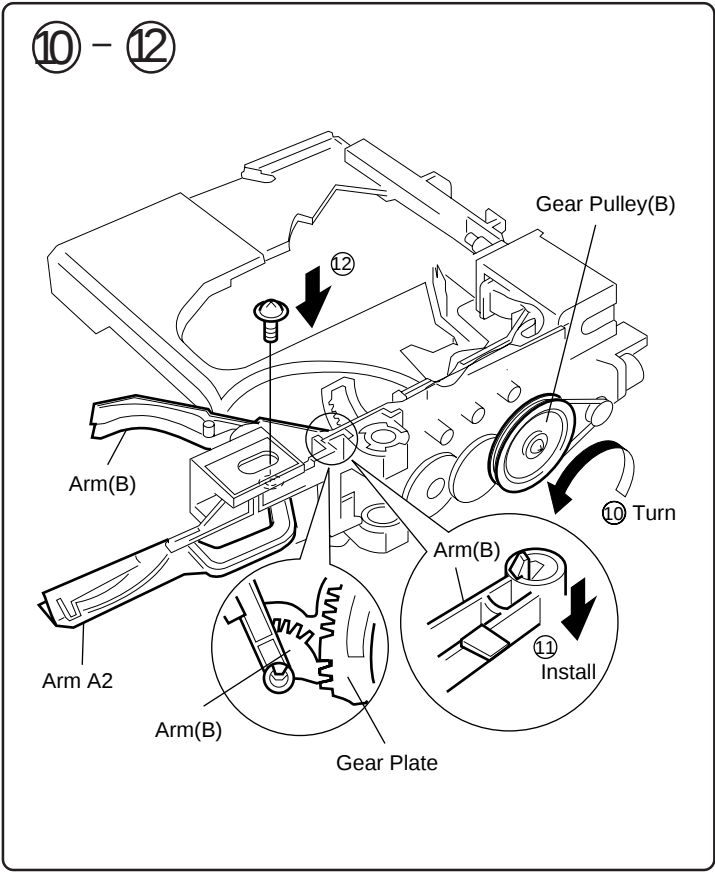


- ⑧ Turn gear pulley (B) and position Arm A2 as shown below.

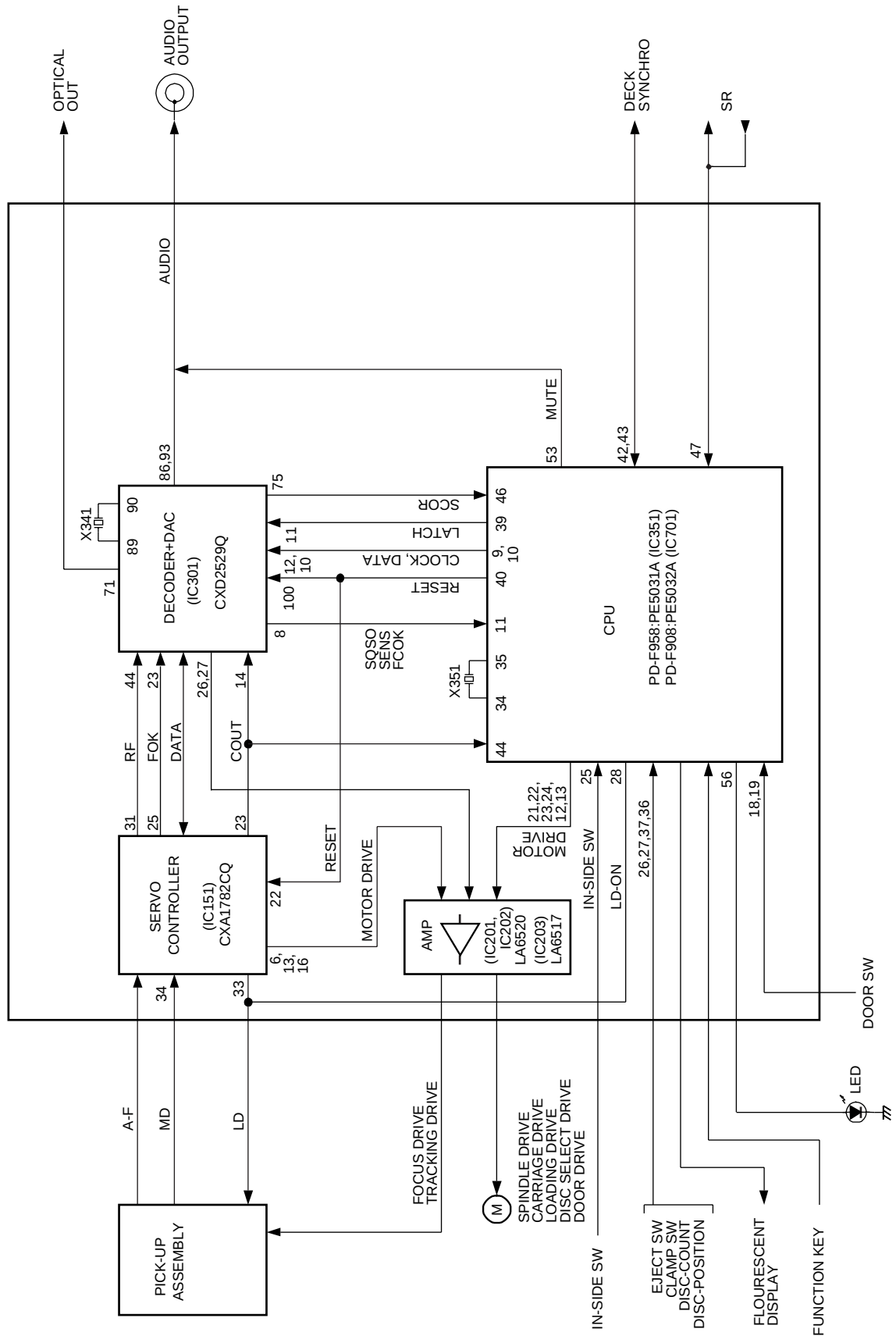
- ⑨

*Note : Do not hold the tip (blade) of arm A2 during operation.*



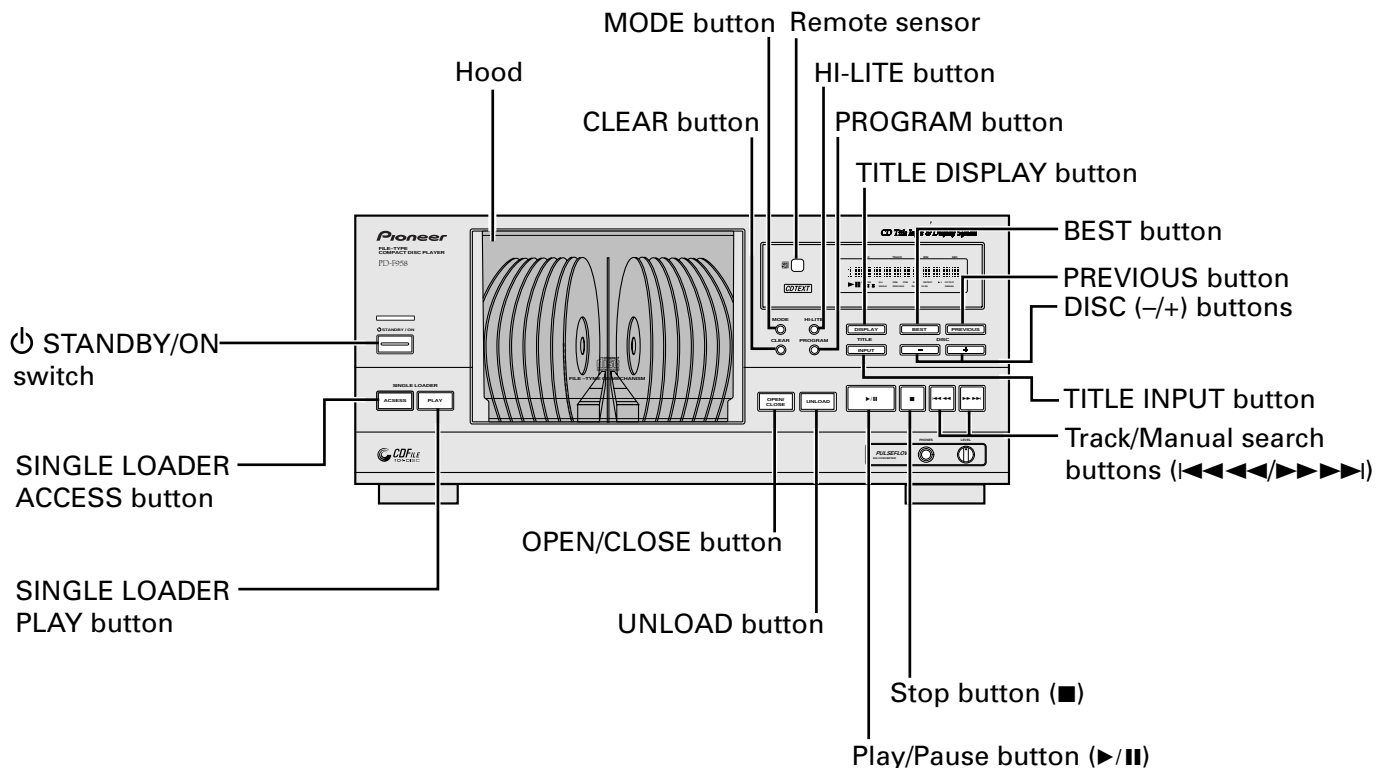


## 7.3 BLOCK DIAGRAM

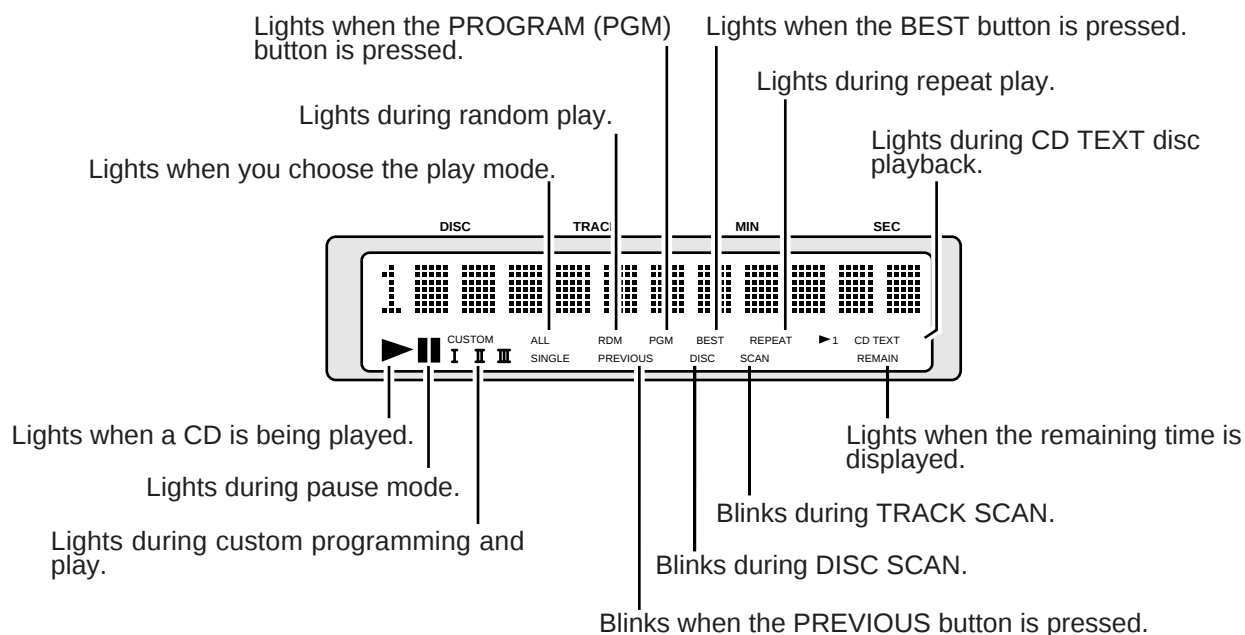


## 8. PANEL FACILITIES AND SPECIFICATIONS

### FRONT PANEL



### DISPLAY



## SPECIFICATION

### 1. General

Type ..... Compact disc digital audio system  
Power requirements

U.S. and Canadian models ..... AC 120V, 60 Hz

U.K. and European models ..... AC 220-230V, 50/60 Hz

Power consumption

U.S. and Canadian models ..... 12W

U.K. and European models ..... 14W

Power consumption in standby mode ..... 3W

Operating temperature ..... +5°C - +35°C  
(+41°F - +95°F)

Weight ( without package ) ..... 6.5 kg (14 lb 3 oz.)

External dimensions ..... 420(W) X 402(D) X 193(H) mm  
16-9/16(W) X 15-13/16(D) X 7-10/16(H) in.

### 2. Audio section

Frequency response ..... 2 Hz - 20 kHz

S/N ratio ..... 98 dB or more (EIAJ)

Dynamic range ..... 96 dB or more (EIAJ)

Channel separation ..... 96 dB or more (EIAJ)

Harmonic distortion ..... 0.003 % or less (EIAJ)

Level difference between channels ..... 1.0 dB or less (EIAJ)

Output voltage ..... 2 Vrms (EIAJ)

Wow and flutter ..... less than  $\pm 0.001$  % (W.PEAK)  
( below measurable level ) (EIAJ)

Channels ..... 2-channel ( stereo )

### 3. Output terminal

Audio line output

Control input jack (Except for U.K. model)

Control output jack (Except for European and U.K. models)

CD-DECK SYNCHRO jack

Optical digital output jack

I/O interface (Except for U.K. and F908 models)

Head phone jack with volume control

(Except for U.S. and Canadian models)

### 4. Accessories

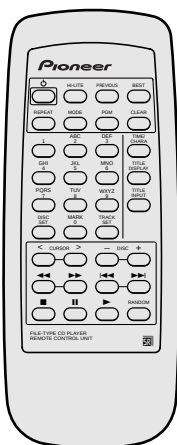
- Remote control unit ..... 1
- Size AA/R6P dry cell batteries ..... 2
- Output cable ..... 1
- Control cable (Except for European and U.K. models) ..... 1
- CD liner notes file (Except for U.S. and Canadian models) ..... 1
- Index label sheet (Except for U.S. and Canadian models) ..... 1
- Operating instructions ..... 1

#### Note.

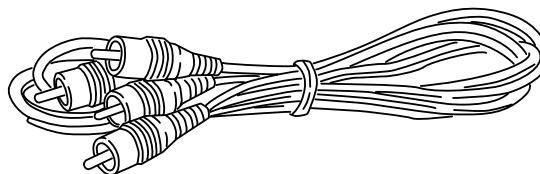
*Specifications and design subject to possible modification without notice, due to improvements.*

## ACCESSORIES

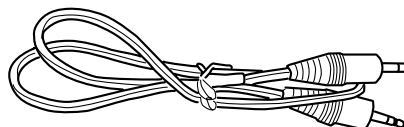
Remote control unit  
(PWW1148 : CU-PD101)



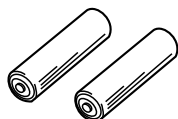
Output cable  
( PDE1248 : L=1.0m )



Control cable  
( PDE1247 : L=1.0m )



Size AA/R6P dry cell  
batteries ( VEM1010 )



**Pioneer**

# ***Service Manual***

ORDER NO.  
**RRV2106**

**FILE-TYPE COMPACT DISC PLAYER**

# **PD-F958**

- Refer to the service manual RRV2085 for PD-F958/KUXQ/CA.

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

| Type | Model   | Power Requirement | Remarks |
|------|---------|-------------------|---------|
|      | PD-F958 |                   |         |
| MYXQ | O       | AC220-230V        |         |
| MVXQ | O       | AC220-230V        |         |

## **CONTENTS**

|                                          |    |
|------------------------------------------|----|
| 1. SAFETY INFORMATION .....              | 2  |
| 2. CONTRAST OF MISCELLANEOUS PARTS ..... | 3  |
| 3. SCHEMATIC DIAGRAM .....               | 8  |
| 4. PCB CONNECTION DIAGRAM .....          | 11 |

1. 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.

IMPORTANT

THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.

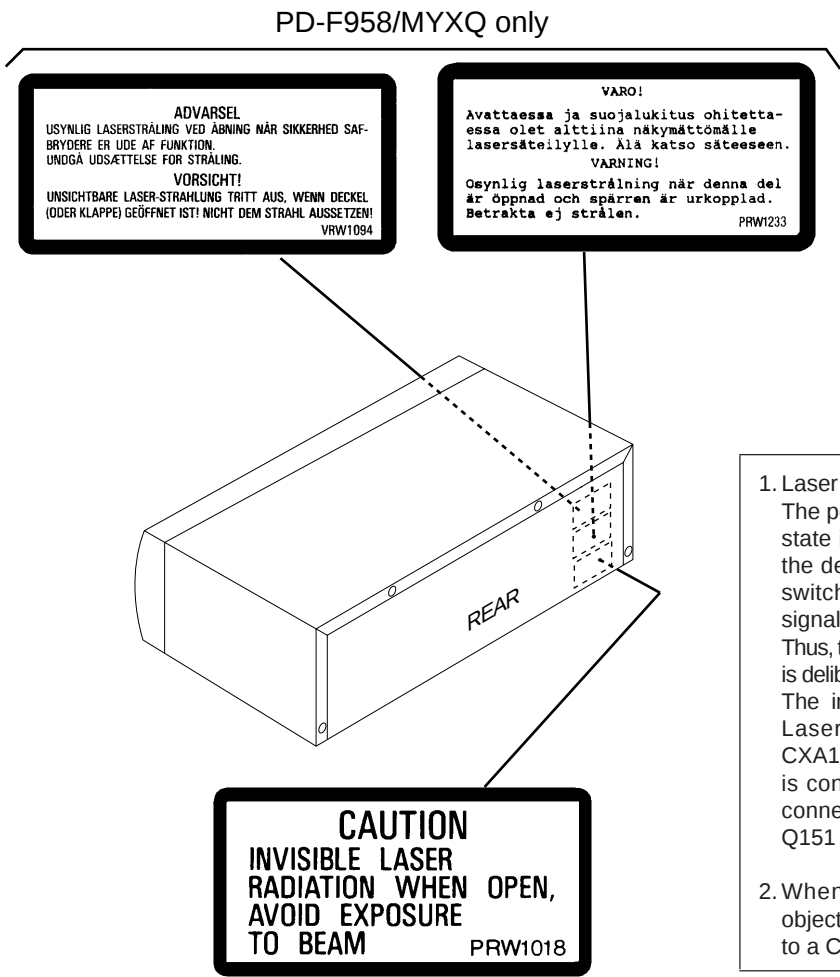
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 7 mw

WAVELENGTH: 780 – 785 nm

LABEL CHECK for (PD-F958/MYXQ and PD-F958/MVXQ types)



Additional Laser Caution

1. Laser Interlock Mechanism

The position of the switch (S651) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S651) is not on CLMP terminal side (CLMP signal is OFF or high level). Thus, the interlock will no longer function if the switch (S651) is deliberately set to CLMP terminal side. (low level)

The interlock also does not function in the test mode \*. Laser diode oscillation will continue, if pin 33 of CXA1782CQ (IC151) on the MOTHER BOARD ASSY is connected to GND, or pin 22 of IC301 (LDON) is connected to low level (ON), or else the terminals of Q151 are shorted to each other (fault condition).

2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

\* : Refer to page 29. on the service manual RRV2085.

PD-F958/MVXQ only

## 2. CONTRAST OF MISCELLANEOUS PARTS

- 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.
  - Reference Nos. indicate the pages and Nos. in the service manual for the base model.
  - When ordering resistors, first convert resistance values into code form as shown in the following examples.
- Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by  $J = 5\%$ , and  $K = 10\%$ ).
- 560  $\Omega \rightarrow 56 \times 10^1 \rightarrow 561$  ..... RD1/4PU  $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix} J$   
 47k  $\Omega \rightarrow 47 \times 10^3 \rightarrow 473$  ..... RD1/4PU  $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix} J$   
 0.5  $\Omega \rightarrow R50$  ..... RN2H  $\begin{bmatrix} R & 5 & 0 \end{bmatrix} K$   
 1  $\Omega \rightarrow 1R0$  ..... RS1P  $\begin{bmatrix} 1 & R & 0 \end{bmatrix} K$
- Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
- 5.62k  $\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$  ..... RN1/4PC  $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix} F$

### ■ CONTRAST OF PD-F958/KUXQ/CA, MYXQ and MVXQ

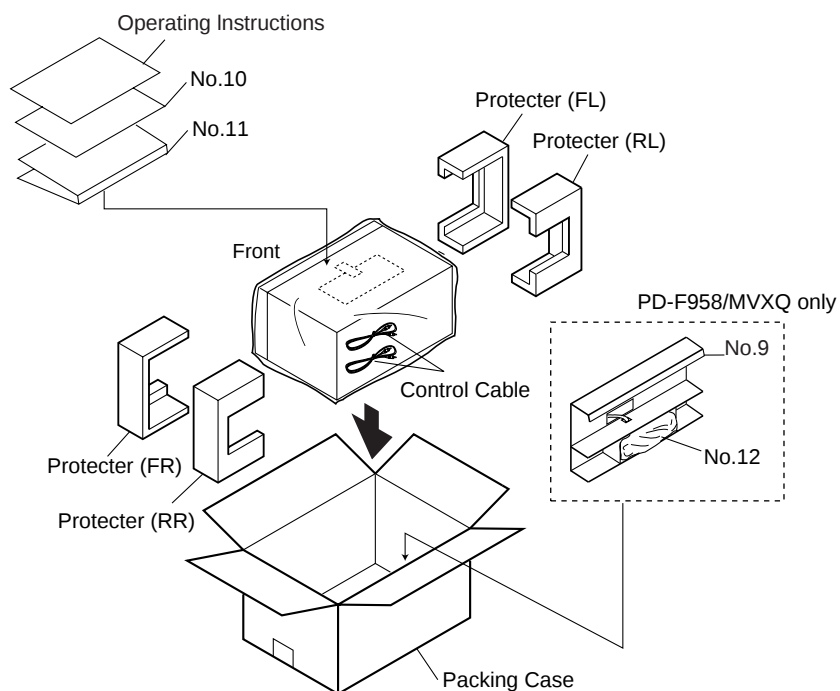
PD-F958/ MYXQ, MVXQ and KUXQ/CA are constructed the same except for the following:

| Ref. No. | Mark        | Symbol and Description                                                                 | Part No.     |           |           | Remarks |
|----------|-------------|----------------------------------------------------------------------------------------|--------------|-----------|-----------|---------|
|          |             |                                                                                        | KUXQ/CA type | MYXQ type | MVXQ type |         |
|          |             | <b>EXTERIOR</b>                                                                        |              |           |           |         |
| P6-1     | $\triangle$ | MAIN BOARD ASSY                                                                        | PWZ3895      | PWZ3896   | PWZ3897   | No.1    |
| P6-2     | $\triangle$ | POWER BOARD ASSY                                                                       | PWZ3900      | PWZ3901   | PWZ3901   |         |
| P6-3     |             | DISPLAY BOARD ASSY                                                                     | PWZ3904      | PWZ3905   | PWZ3905   |         |
| P6-4     | NSP         | SWITCH BOARD ASSY                                                                      | PWZ3907      | PWZ3908   | PWZ3908   |         |
|          | NSP         | HEADPHONE BOARD ASSY                                                                   | Not used     | PWZ3910   | PWZ3910   |         |
| P6-10    | $\triangle$ | Cord Stopper                                                                           | CM-22C       | CM-22B    | CM-22B    | No.2    |
| P6-12    | $\triangle$ | AC Power Cord                                                                          | PDG1064      | PDG1003   | PDG1055   |         |
|          | $\triangle$ | Fuse(T5A) (For AC power cord)                                                          | Not used     | Not used  | PEK1003   |         |
| P6-14    |             | Foot Assy                                                                              | REC1263      | Not used  | Not used  |         |
| P6-18    |             | Rear Base                                                                              | PNA2452      | PNA2453   | PNA2454   |         |
| P6-47    |             | Display Window                                                                         | PAM1772      | PAM1773   | PAM1773   | No.3    |
| P6-50    |             | Operation Panel                                                                        | PNW2869      | PNW2870   | PNW2870   |         |
|          |             | Headphone Knob                                                                         | Not used     | PAC1707   | PAC1707   | No.4    |
|          |             | LED Lens                                                                               | Not used     | PNW2019   | PNW2019   | No.4    |
| P6-55    |             | 65 Label                                                                               | ORW1069      | Not used  | Not used  |         |
|          |             | Caution Label (HE)                                                                     | Not used     | PRW1233   | Not used  | No.5    |
|          |             | Caution Label                                                                          | Not used     | VRW1094   | Not used  | No.6    |
|          |             | Caution Label                                                                          | Not used     | Not used  | PRW1018   | No.7    |
|          | NSP         | Sheet                                                                                  | Not used     | PEC1038   | PEC1038   | No.8    |
|          |             | <b>PACKING</b>                                                                         |              |           |           |         |
| P3-5     | NSP         | Warranty Card                                                                          | ARY7023      | ARY7022   | ARY7022   | No.9    |
| P3-7     |             | Operating Instructions<br>(French/German/Italian/<br>Dutch/Swedish/Spanish/Portuguese) | Not used     | PRD1036   | Not used  |         |
| P3-11    |             | Packing Case                                                                           | PHG2337      | PHG2338   | PHG2339   |         |
|          |             | Rear Spacer                                                                            | Not used     | Not used  | PHC1090   |         |
|          |             | Index Label 100                                                                        | Not used     | PRW1406   | PRW1406   |         |
|          |             | Jacket File                                                                            | Not used     | PHN1049   | PHN1049   | No.11   |
|          |             | Polyethylene Bag (115X270X0.03)                                                        | Not used     | Not used  | Z21-013   | No.12   |

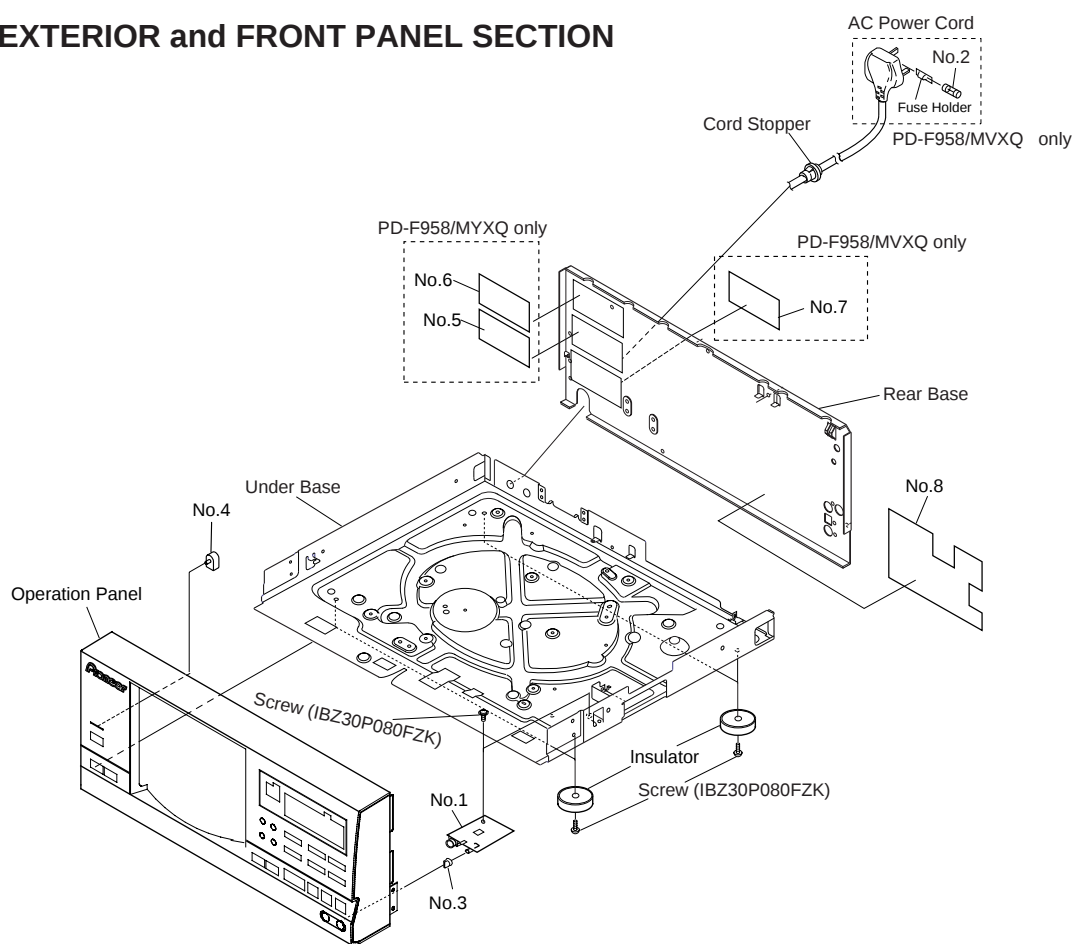
Note : • The numbers in the remarks column correspond to the numbers on the exploded diagram, Refer to "EXPLODED VIEWS".

## ■ EXPLODED VIEWS

### ● PACKING SECTION



### ● EXTERIOR and FRONT PANEL SECTION



## ■ CONTRAST OF PCB ASSEMBLIES

### ■ MAIN BOARD ASSY

PWZ3896, PWZ3897 and PWZ3895 are constructed the same except for the following:

| Mark | Symbol and Description                                                          | Part No.                                                          |                                                                         |                                                                      | Remarks |
|------|---------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------|---------|
|      |                                                                                 | PWZ3895                                                           | PWZ3896                                                                 | PWZ3897                                                              |         |
|      | C81, C367, C461, C475, C477<br>C4276, C4287<br>C175<br>C185, C323<br>C341, C342 | Not used<br>Not used<br>CEAT101M10<br>CKCYF103Z50<br>CCCCH120J50  | CKCYF103Z50<br>CKCYF103Z50<br>CEAT471M6R3<br>Not used<br>Not used       | CKCYF103Z50<br>CKCYF103Z50<br>CEAT471M6R3<br>Not used<br>Not used    |         |
|      | C365, C395, C413– C416, C4277<br>C388, C389<br>C397<br>C401<br>C403             | Not used<br>Not used<br>CCCSL101J50<br>Not used<br>Not used       | CFTLA104J50<br>CCCSL101J50<br>CCCSL101J50<br>CEAT471M6R3<br>CCCCH120J50 | CFTLA104J50<br>CCCSL101J50<br>Not used<br>CEAT471M6R3<br>CCCCH120J50 |         |
|      | C404<br>C429, C430, C435– C438<br>C431, C432<br>C481, C482<br>CN401             | Not used<br>Not used<br>Not used<br>CCCSL390J50<br>Not used       | CCCCH220J50<br>CCCSL390J50<br>CEAT330M16<br>Not used<br>52147-0310      | CCCCH220J50<br>CCCSL390J50<br>CEAT330M16<br>Not used<br>52147-0310   |         |
|      | D391– D394<br>D1301– D1309, D1312– D1314<br>IC401<br>IC406<br>JA391             | 1SS254<br>1SS254<br>Not used<br>Not used<br>RKN1004               | 1SS254<br>1SS254<br>PD2026B<br>BA15218<br>RKN1004                       | Not used<br>Not used<br>PD2026B<br>BA15218<br>Not used               |         |
|      | JA392<br>JA394<br>L151, L152, L307, L351<br>L309<br>L391                        | RKN1004<br>DKN1035<br>Not used<br>Not used<br>LAU1R0J             | Not used<br>DKN1035<br>RTF1167<br>RTF1167<br>LAUR22J                    | Not used<br>Not used<br>RTF1167<br>Not used<br>Not used              |         |
|      | L395, L396<br>R310– R312, R411– R413<br>R341<br>R342<br>R375                    | LAU1R0J<br>Not used<br>RD1/4PU271J<br>RD1/4PU105J<br>RD1/4PU471J  | LAUR22J<br>RD1/4PU241J<br>Not used<br>Not used<br>RD1/4PU241J           | LAUR22J<br>RD1/4PU241J<br>Not used<br>Not used<br>RD1/4PU241J        |         |
|      | R391<br>R392<br>R401, R472, R473<br>R405– R410<br>R427– R430                    | RD1/4PU244J<br>RD1/4PU102J<br>Not used<br>Not used<br>Not used    | RD1/4PU244J<br>RD1/4PU102J<br>RD1/4PU102J<br>RD1/4PU471J<br>RD1/4PU223J | Not used<br>Not used<br>RD1/4PU102J<br>RD1/4PU471J<br>RD1/4PU223J    |         |
|      | R435, R436<br>R437, R438<br>R439– R442<br>R470, R471<br>R481, R482, R485, R486  | Not used<br>RD1/4PU473J<br>RD1/4PU823J<br>Not used<br>RD1/4PU223J | RD1/4PU163J<br>RD1/4PU163J<br>RD1/4PU433J<br>RD1/4PU470J<br>Not used    | RD1/4PU163J<br>RD1/4PU163J<br>RD1/4PU433J<br>RD1/4PU470J<br>Not used |         |
|      | R487– R490<br>R1301– R1305, R1307<br>X341<br>X401                               | RD1/4PU104J<br>RD1/4PU471J<br>PSS1008<br>Not used                 | Not used<br>RD1/4PU471J<br>Not used<br>PSS1008                          | Not used<br>Not used<br>Not used<br>PSS1008                          |         |

Note : Refer to "3.SCHEMATIC DIAGRAM".

## I POWER BOARD ASSY

PWZ3901 and PWZ3900 are constructed the same except for the following:

| Mark        | Symbol and Description                                            | Part No.                        |                                    | Remarks |
|-------------|-------------------------------------------------------------------|---------------------------------|------------------------------------|---------|
|             |                                                                   | PWZ3900                         | PWZ3901                            |         |
| ⚠<br>⚠<br>⚠ | C17<br>Power Transformer(AC120V)<br>Power Transformer(AC220-230V) | Not used<br>PTT1342<br>Not used | CKCYF103Z50<br>Not used<br>PTT1343 |         |

Note : Refer to "3.SCHEMATIC DIAGRAM".

## M DISPLAY BOARD ASSY

PWZ3905 and PWZ3904 are constructed the same except for the following:

| Mark | Symbol and Description | Part No.             |                         | Remarks |
|------|------------------------|----------------------|-------------------------|---------|
|      |                        | PWZ3904              | PWZ3905                 |         |
| NSP  | C714<br>J703           | Not used<br>Not used | CKCYF103Z50<br>DE010WE0 |         |

Note : Refer to "3.SCHEMATIC DIAGRAM".

## L SWITCH BOARD ASSY

PWZ3908 and PWZ3907 are constructed the same except for the following:

| Mark | Symbol and Description | Part No.             |                        | Remarks |
|------|------------------------|----------------------|------------------------|---------|
|      |                        | PWZ3907              | PWZ3908                |         |
|      | D751<br>R751           | Not used<br>Not used | PCX1019<br>RD1/4PU471J |         |

Note : Refer to "3.SCHEMATIC DIAGRAM".

## ● PCB PARTS LIST

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

### **P** HADPHONE BOARD ASSY (PWZ3910)

#### COILS AND FILTERS

|   |                                   |         |
|---|-----------------------------------|---------|
| △ | L501, L504, L505 (AXIAL INDUCTOR) | LAUR22J |
|---|-----------------------------------|---------|

#### CAPACITORS

|   |            |             |
|---|------------|-------------|
| △ | C503, C504 | CKCYF473Z50 |
|---|------------|-------------|

#### RESISTORS

|  |                |         |
|--|----------------|---------|
|  | VR501 (0.5kΩB) | PCS1003 |
|--|----------------|---------|

#### OTHERS

|       |                 |             |
|-------|-----------------|-------------|
| JA501 | HADPHONE JACK   | RKN1002     |
|       | 3P Cable Holder | 51048-0300  |
| J501  | 2mm JUMPER WIRE | D20PDY0315E |





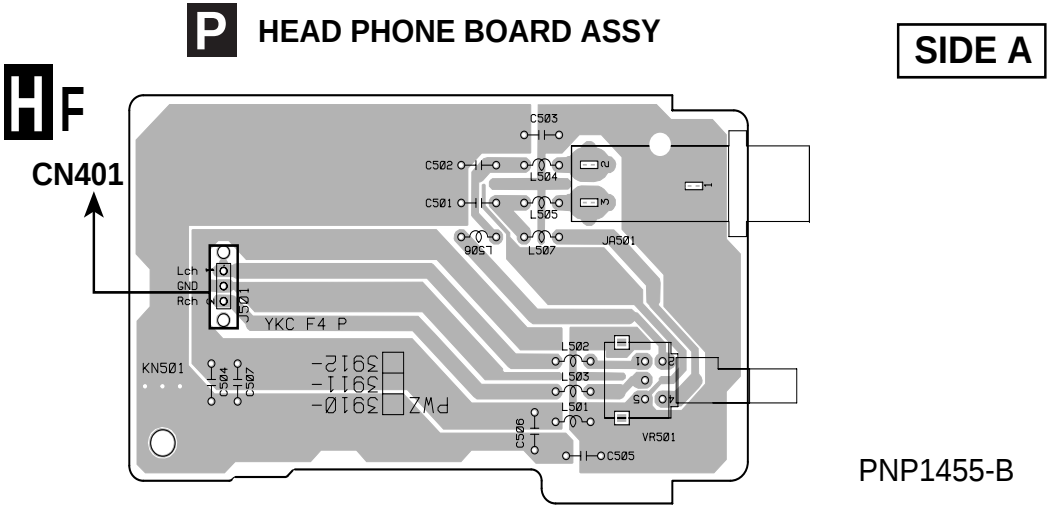
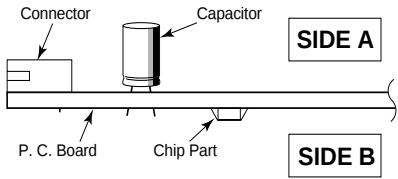


4. PCB CONNECTION DIAGRAM

**NOTE FOR PCB DIAGRAMS:**  
1. Part numbers in PCB diagrams match those in the schematic diagrams.  
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

| Symbol in PCB Diagrams | Symbol in Schematic Diagrams | Part Name                |
|------------------------|------------------------------|--------------------------|
|                        |                              | Transistor               |
|                        |                              | Transistor with resistor |
|                        |                              | Field effect transistor  |
|                        |                              | Resistor array           |
|                        |                              | 3-terminal regulator     |

3. The parts mounted on this PCB include all necessary parts for several destination.  
For further information for respective destinations, be sure to check with the schematic diagram.  
4. Viewpoint of PCB diagrams



PNP1455-B