

D-555/Z555

SERVICE MANUAL



*US Model
Canadian Model*

D - 555

*AEP Model
UK Model
E Model*

D - Z555

Discman

Model Name Using Similar Mechanism	D - 250
CD Mechanism Name	CDM - 555

SPECIFICATIONS

CD section

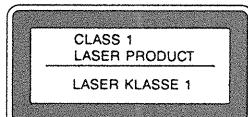
System	Compact disc digital audio system
Laser diode properties	Material: GaAlAs Wavelength: 780 nm Emission duration: Continuous Laser output: Less than 44.6 µW
	This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.
Error correction	Sony Super Strategy Cross Interleave Reed Solomon Code
D-A conversion	16-bit linear, 8fS digital filter
Frequency response	20 - 20,000 Hz ±1 dB*
Signal-to-noise ratio	More than 90 dB
Wow and flutter	Below measurable limit*
Outputs (at 9 V input level)	Line output (stereo minijack) Output level 0.7 V rms at 50 kilohms Load impedance over 10 kilohms Optical digital output (optical output connector) Output level: -21 - -15 dBm Wavelength: 630 - 690 nm at peak level Headphones (stereo minijack) 9 mW + 9 mW at 32 ohms

* Measured by EIAJ CP-307

CAUTION

The use of optical instruments with this product will increase eye hazard.

For the Customers in the United Kingdom and European Countries



This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the bottom exterior.

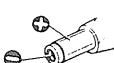
General

Power requirements	Supplied rechargeable battery pack (BP-2EX) or BP-100 (optional) DC IN 9 V jack accepts: Supplied AC power adaptor for use on 120V AC, 60 Hz Sony CPM-200P car mount plate (optional) or Sony DCC-120A car battery cord (optional) for use on 12 V car battery
Power consumption	3.2 W DC
Dimension	Approx. 127.6 x 33 x 145 mm (5 x 15/16 x 511/16 inches) (w/h/d) not incl. inclined part (depth), projecting parts and controls
Weight	Approx. 130 x 33.8 x 145.5 mm (51/8 x 13/16 x 511/16 inches) (w/h/d) incl. projecting parts and controls
Supplied accessories	Approx. 520g (1.2lb) not incl. rechargeable battery Approx. 600g (1.5lb) incl. rechargeable battery (BP-2EX) AC power adaptor (1) Rechargeable battery pack (1) Carrying case (1) Connecting cord (1) (stereo miniplug - two phono plugs)

Design and specifications subject to change without notice.

Notes on AC power adaptor

- Disconnect the AC power adaptor when the unit will not be used.
- Use only the supplied AC power adaptor or the recommended car battery cord manufactured by Sony. Polarity of the plugs of other manufacturers may be different.



Polarity of the Sony plug

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

COMPACT DISC COMPACT PLAYER

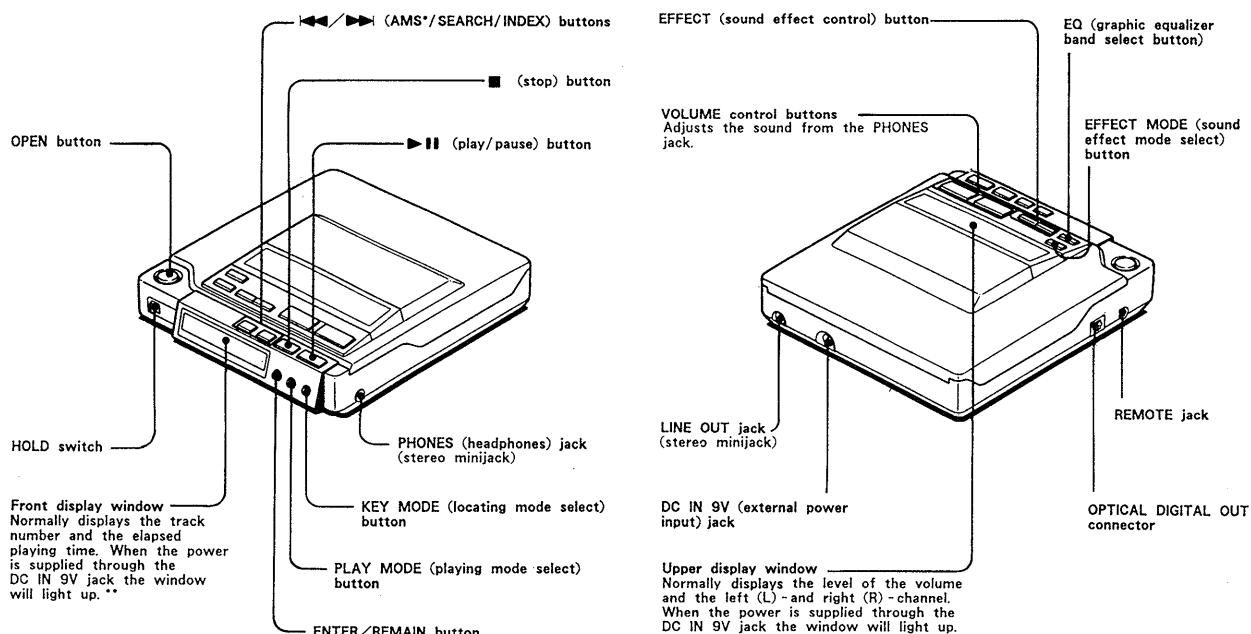
SONY®

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SECTION 1 GENERAL

Location and Function of Controls



SECTION 2

SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

Flexible Circuit Board Repairing

1. Keep the temperature of the soldering iron at $270^{\circ} \pm 10^{\circ}\text{C}$ during repairing.
2. Do not touch the soldering iron more than 4 seconds or 3 times on the same conductor of the circuit board.
3. Do not apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Before Replacing the Optical Block

Please be sure to check thoroughly the parameters as per the "Optical Block Checking Procedures" (Part No.: 9-960-027-11) issued separately before replacing the optical block.

Note and specifications required to check are given below.

- FOK output: IC501 (9) pin
When checking FOK, remove the lead wire to disc motor and unsolder and open IC801 (24) pin.
- S carve P-to-P value: 2.95 Vp-p
- Adjusted part for focus gain adjustment: RV505
- RF signal P-to-P value: 0.75 – 1.4 Vp-p
- Traverse signal P-to-P value: 1.8 Vp-p
- The grating holder can not repair.
- Adjusted part for tracking gain adjustment: RV501

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe, from more than 30 cm away from the objective lens.

Laser Diode Check Procedure

The laser diode on this set will not emit unless the top panel is closed and S901 (leaf SW type) is turned on. The laser diode will always emit even if focus search is not performed in service mode.

The laser diode is checked using the current value which flows to the laser diode inside the UPF.

Procedure 1 (service mode or normal operation)

Check the laser diode emission with the eye.

1. Open upper panel.
2. S901 on as Fig. 1.
(In service mode, this operation is not necessary.)
3. Press the $\blacktriangleright \text{II}$ key.
(In service mode, this operation is not necessary.)
4. Observe the objective lens and confirm that the laser diode is emitting light. At this time, the laser diode goes on about 10 seconds due to focus serach. If it does not, APC circuit or UPF is defective.

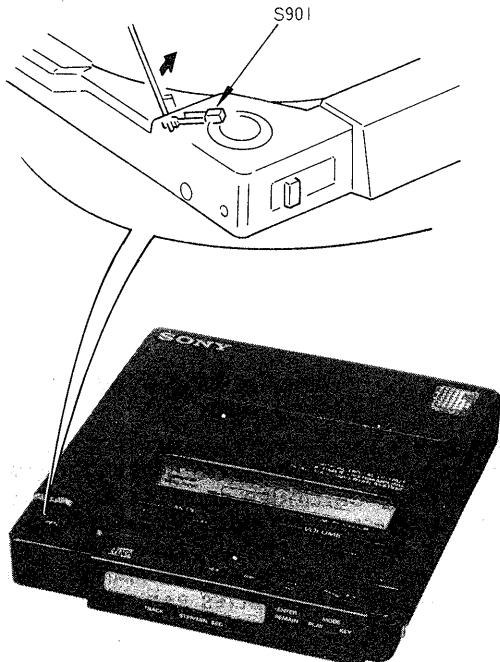
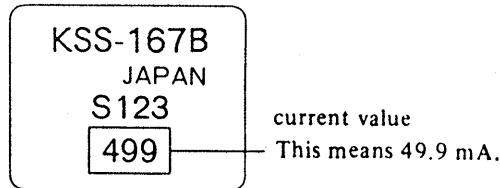


Fig. 1 Turning S901 on

Procedure 2 (service mode or normal operation)

Check by the current with flows in the laser diode.

1. Close the top panel.
2. Remove the main board and read the current value on the label affixed to the UPF.
(Label on UPF)



The current value varies with the set.

3. Connect a VOM as shown in Fig. 2.
 4. Press the $\blacktriangleright \text{II}$ key.
 5. Calculate the current by the VOM reading.
 $VOM\ reading(V) \div 10 = current(A)$
ex. VOM reading = 0.49 V
 $0.49 \div 10 = 0.049(A) = 49(mA)$
 6. Confirm that the ammeter reading is within the range given below.
value on label $+5\%$ mA (25°C)
variation relative to temperature:
0.4 mA/°C
(Current increases when temperature rises and decreases when it drops.)
- If the value is more than the range given, APC circuit has been defective or the laser diode has deteriorated. If it is less, APC circuit or UPF is defective.

—servo board—

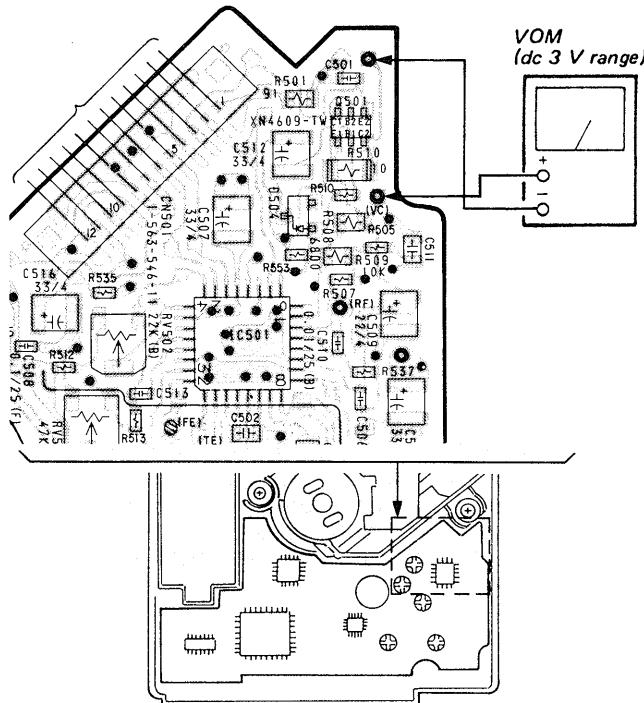


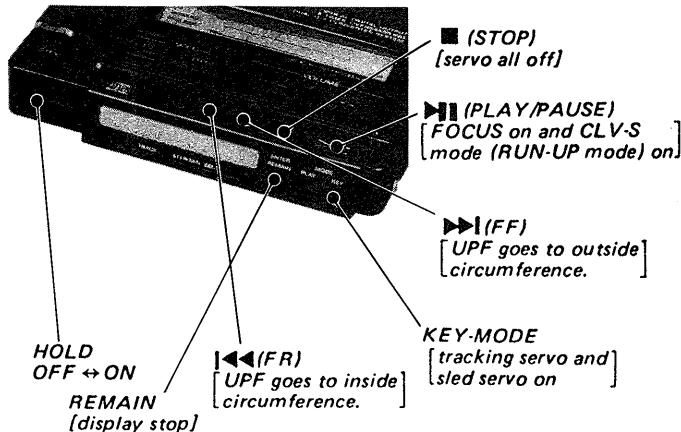
Fig. 2 VOM Connection

SERVICE MODE (service program)

This set has built-in service program in the micro-computer as usual sets.

The operation method of service program is explained below.

[]: Main operation in service mode
for details, refer to step 2.



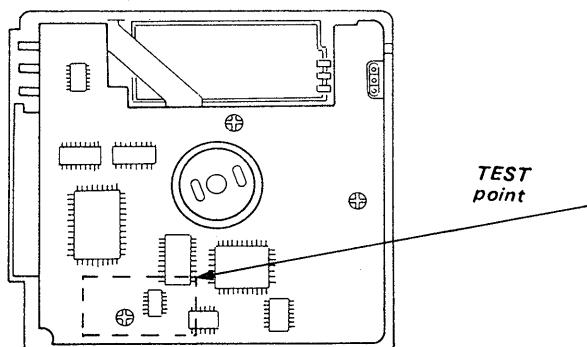
Be sure to set HOLD switch OFF.
If not key inputs can not be operated.

Fig. 3 Key Positions

Step 1 (Service Mode setting method)

1. Turn the HOLD switch OFF with the external power supply not plugged in (no power applied to set) and press the ▶▶ key.
2. Solder jumper TEST point.
(IC801 pin ⑨ (BAT-E) pin is grounded.)
3. Plug in external power supply.
This puts the set into service mode.

— main board —

**Step 2 (Service Mode operation)**

1. When service mode is set, the display will change 6 times, and those 6 changes will be repeated over and over.

With this the LCD display should be present in service mode. Even if LCD does not display, other operations will be performed.

2. When ▶▶ or ▶◀ key is pressed, the UPF moves to the inside or outside circumference. Tracking servo and sled servo go off when this is done, so press KEY-MODE to turn on the tracking servo if necessary.
3. When REMAIN is pressed, the display stops. When REMAIN is released, the display continues to change. This allows check of each segment.
4. When ▶▶ key is pressed, CLV-S (pull-in mode) starts while performing focus search. When there is no disc installed, focus search is repeated several times while disc motor is rotating.
5. When KEY-MODE is pressed, tracking servo, sled servo and CLV-A (servo during PLAY) go ON.
6. When 4 and 5 are performed, the disc begins to play. At this time, the top panel should be closed and S901 are to be ON.
7. All servo (focus, tracking, sled and spindle) go off when ■ key is pressed. But disc motor continues rotating for a while by inertia.

Step 3 (Service Mode release)

1. First be sure to unplug the external power supply, then remove the TEST point solder jumper.
2. The set will now operate normally.

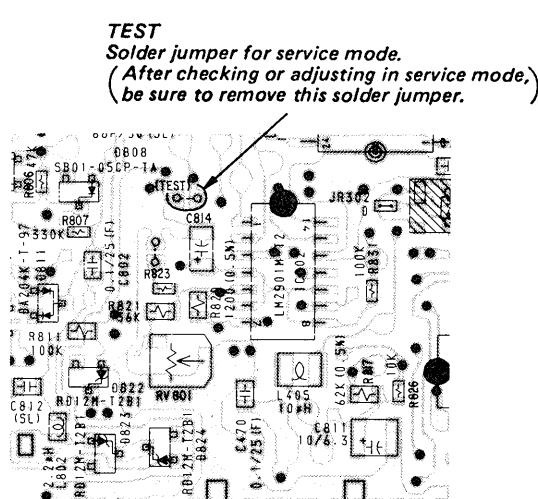


Fig. 4 TEST Point Position

SECTION 3

ELECTRICAL ADJUSTMENTS

Notes on Adjustment

1. Perform adjustments except for RECHARGEABLE VOLTAGE ADJUSTMENT and BATTERY DISPLAY ADJUSTMENT in service mode. Be sure to release service mode after completing adjustment.
- (Refer to "Service Mode (service program)" on page 5.)

2. Perform adjustments in the order given.
3. Use YEDS-18 disc (part No.: 3-702-101-01) unless otherwise indicated.
4. Power supply voltage: DC 9 V
HOLD switch: OFF

PREPARATION

Put the set into service mode (see page 5) and perform the following checks. Repair if there are any abnormalities.

• Sled Motor Check

1. Press the OPEN button and open the top panel.
2. Press the **►►**, **◀◀** keys and make sure that the UPF moves smoothly, without catching, from the inmost → outmost → inmost circumference.

►►: UPF moves outward
◀◀: UPF moves inward

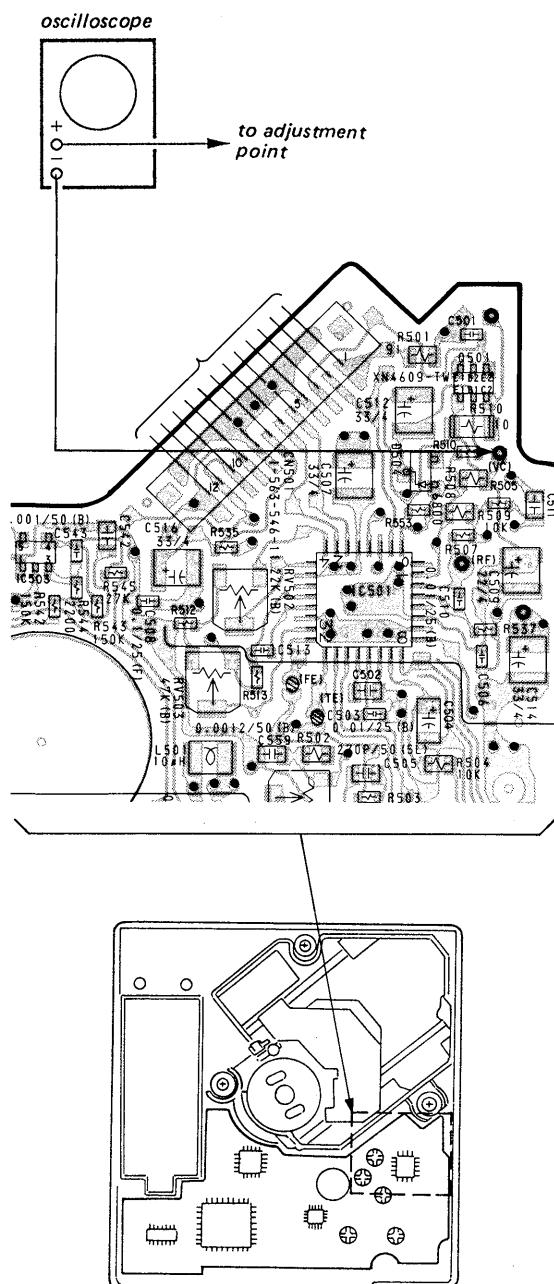
• Focus Search Check

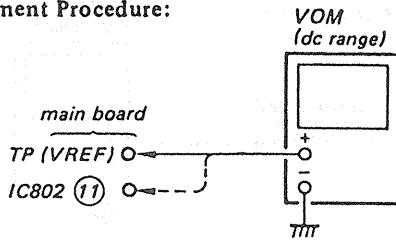
1. Press the OPEN button and open the top panel.
2. Press the **►■■** key. (Focus search is performed continuously.)
3. Observe the UPF objective lens and check that it moves smoothly up and down with no catching or noises.
4. Press the **■** key.

Check that focus search operation stops. If it does not stop, press the **■** key again longer than before. But disc motor continues rotating for a while by inertia.

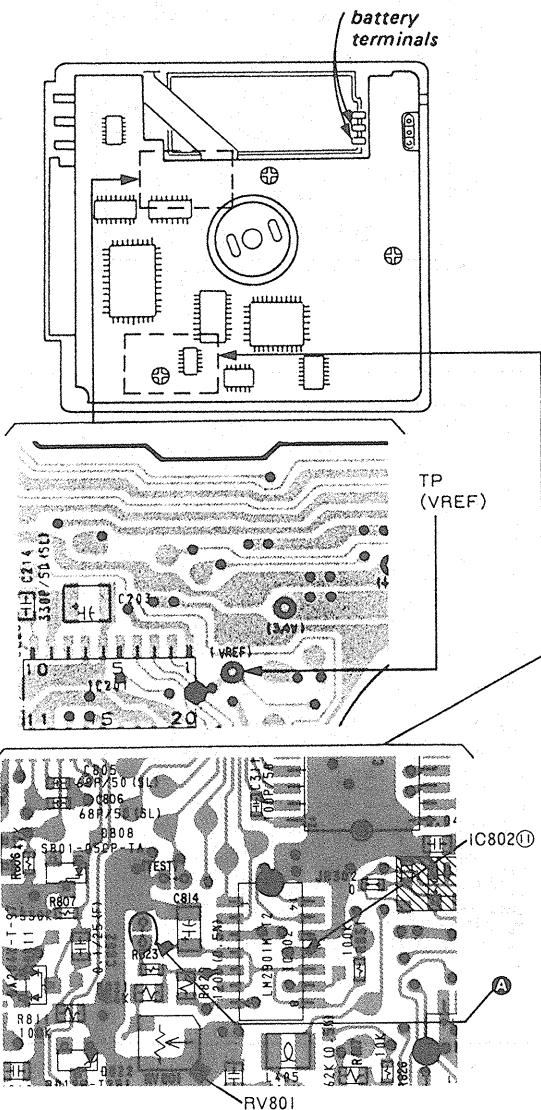
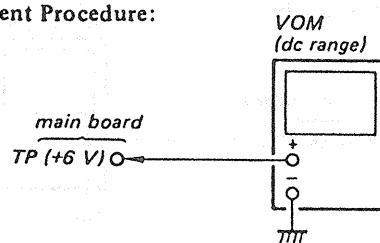
VC (1/2 Vcc) Connecting Point
FOCUS BIAS ADJUSTMENT
TRACKING BALANCE ADJUSTMENT

When the adjustments above are performed, connect the **(—)** side of oscilloscope to the point below.

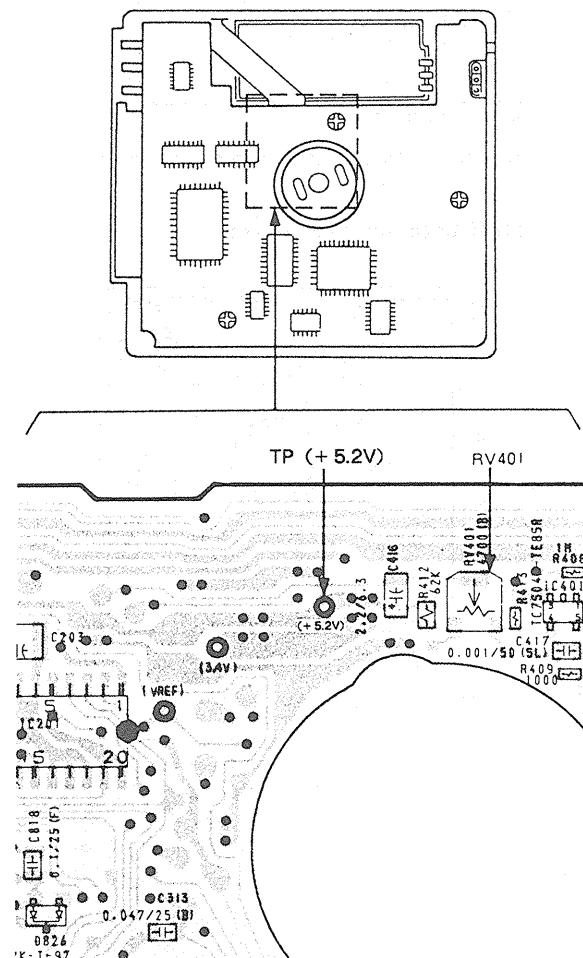


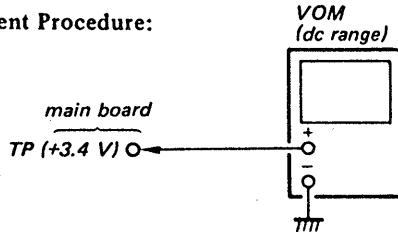
Battery Display Adjustment**Adjustment Procedure:**

1. Apply dc +3.5 V to terminals for built in battery (BP-2).
2. Insert the disc (YEDS-18) and put the set into play mode.
3. Adjust RV801 so that main board IC802 (11) voltage and TP (VREF) voltage are equal.
4. If IC802 (11) voltage is higher than TP (VREF) voltage when turning the RV801 fully counter-clockwise, short the jumper point (A) as shown below and adjust RV801.

Adjustment Location: main board**+ 5.2 V Adjustment****Adjustment Procedure:**

1. Put the set into service mode (see page 5).
2. Connect the VOM to main board TP (+ 5.2 V).
3. Adjust RV401 for $+5.2 \pm 0.1$ V reading on the VOM.
4. After adjustment, release service mode (see page 5).

Adjustment Location: main board

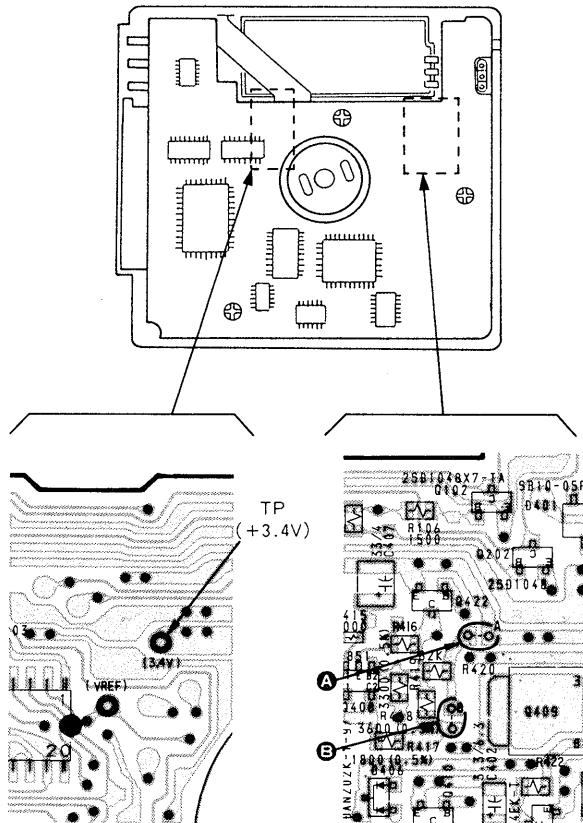
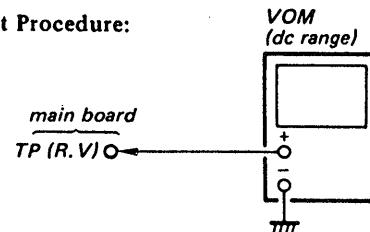
+3.4 V Adjustment**Adjustment Procedure:**

1. Put the set into service mode (see page 5).
2. Connect the VOM to main board test point TP (+3.4 V).
3. Adjust the pattern connecting (A or B) to obtain 3.5 to 3.7 V reading on the VOM.

pattern connection		VOM reading
A	B	down ↔ up
O	X	
X	X	
X	O	
O	O	

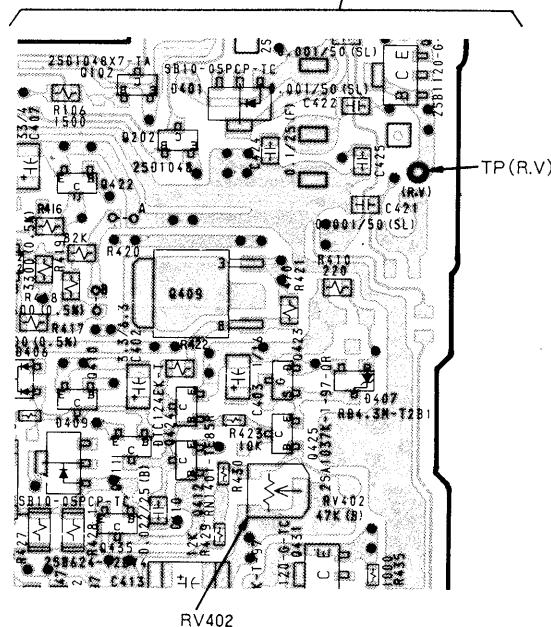
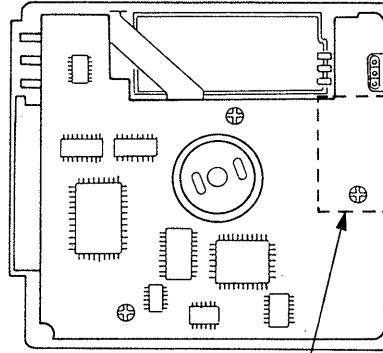
O: short X: open

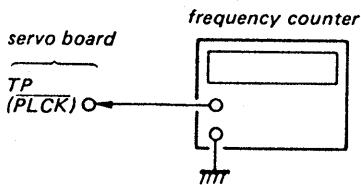
4. After adjustment, release service mode (see page 5).

Adjustment Location: main board**Rechargeable Voltage Adjustment****Adjustment Procedure:**

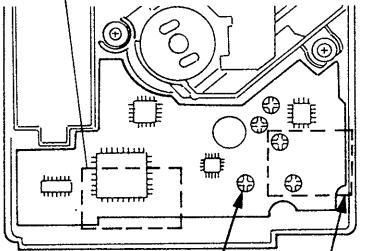
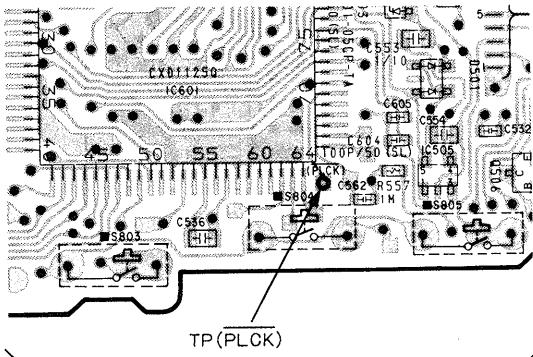
1. Connect the VOM to main board test point TP (R.V).
2. Apply DC 9 V with required dc power supply from external power jack CN401.
3. Adjust RV402 for 7.05 – 7.5 V reading on the VOM.

Note: Measure after the VOM reading becomes stable.

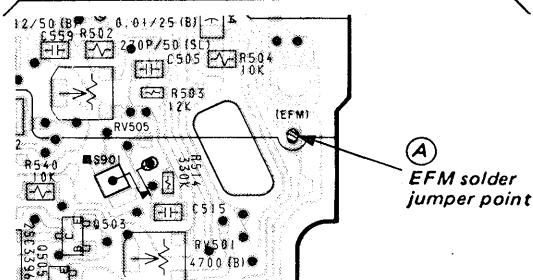
Adjustment Location: main board

PLL Free Run Frequency Check and Adjustment**Check/Adjustment Procedure:**

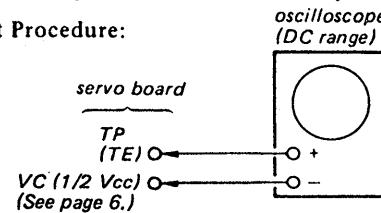
1. Disconnect the jumper point **(A)** (EFM) in the diagram below.
2. Connect a frequency counter to servo board test point TP (PLCK).
3. Put the set into service mode (see page 5).
4. Check that the frequency counter reading is 4.310 ± 0.01 MHz. If not, adjust RV504 so that it is 4.310 ± 0.01 MHz.
5. After adjustment, release service mode (see page 5).
6. Short the jumper point shorted in step 1.

Check/Adjustment Location: servo board

(A) EFM solder jumper point
Disconnect for checking and adjustment. Short after checking and adjustment.

**Tracking Balance Adjustment****Conditions:**

The set should be placed either horizontally.

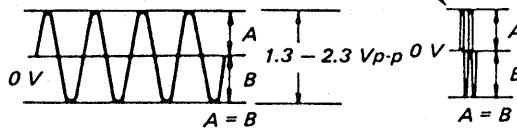
Adjustment Procedure:

1. Connect the oscilloscope to servo board TP (TE).
2. Put the set into service mode (see page 5).
3. Press the **►►** and **◀◀** keys to move the UPF to the center.
4. Insert the disc (YEDS-18) and close the top panel.
5. Press the **►►** key.

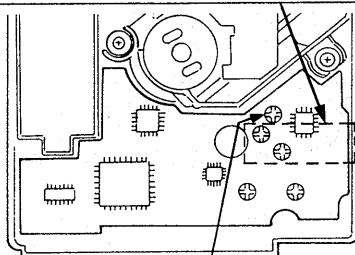
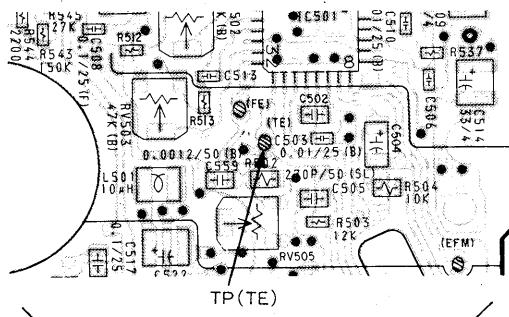
(It will go from focus search to focus on, and CLV pull-in mode state. Tracking and sled are OFF.)

6. Adjust RV502 so that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0 V.

Note: Take sweep time as long as possible to obtain best waveform.

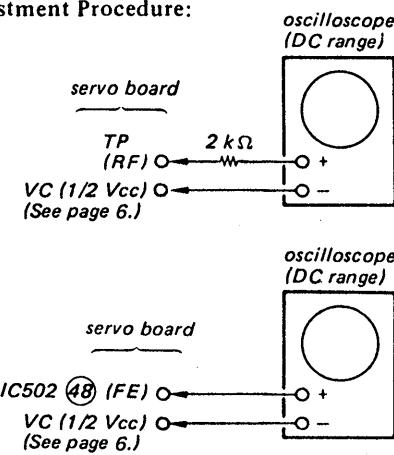


7. Unplug the external power supply to stop spindle motor from rotating.
8. After adjustment, release service mode (see page 5).

Adjustment Location: servo board

Focus Bias Adjustment**Conditions:**

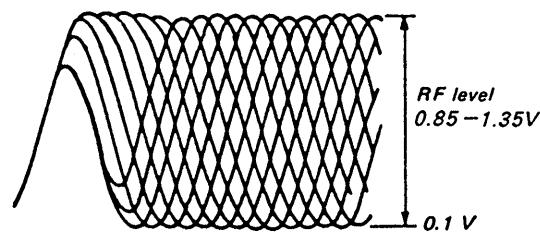
The set should be placed either horizontally.

Adjustment Procedure:

1. Put the set into service mode (see page 5).
2. Connect the oscilloscope to servo board test point TP (RF).
3. Press the \blacktriangleright and \blacktriangleleft keys to move the UPF to the center. (Move the UPF to the music area on the disc to enable easy visibility of the eye pattern).
4. Insert the disc (YEDS-18) and close the top panel.
5. Press the $\blacktriangleright \blacksquare$ key.
(It will go from focus search to focus on, and CLV pull-in mode state. Tracking and sled are OFF.)
6. Press the KEY-MODE button. (Tracking and sled go ON.)
7. Adjust RV503 so that the oscilloscope waveform eye pattern is good. A good eye pattern means that the diamond shape (\diamond) in the center of the waveform can be clearly distinguished.

• RF Signal Reference Waveform (eye pattern)

VOLT/DIV: 200 mV
TIME/DIV: 500 nS



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

8. Push the ■ (STOP) button spindle motor from rotating and remove the disc.

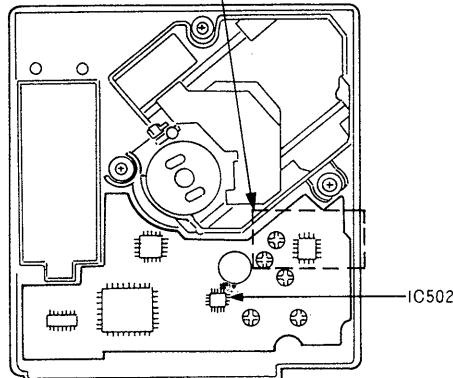
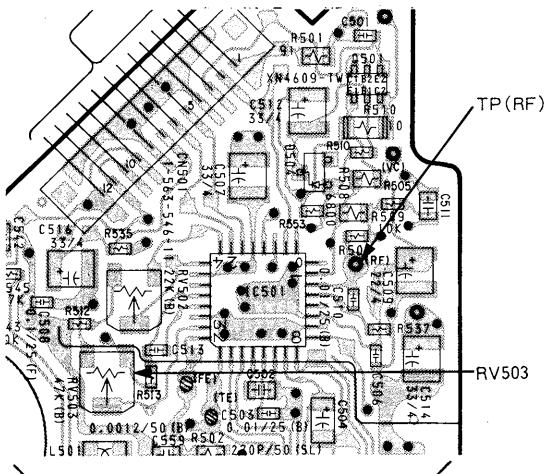
9. Remove the disc and connect the oscilloscope to main board IC502 (48) (FE).

10. Adjust RV503 again referring to the table followed.

oscilloscope reading	adjustment
more than + 70mV	Not adjust again.
+ 70mV to 0 mV	Adjust RV503 again for + 70mV reading on oscilloscope.
0mV to -20 mV	Adjust RV503 again for -20 mV reading on oscilloscope.
less than -20 mV	Not adjust again.

11. After adjustment, release service mode (see page 5).

Adjustment Location: servo board



Focus/Tracking Gain Adjustment

A frequency response analyzer or CD jig is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform from this adjustment.

Focus/tracking gain determines the pick-up followup (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate. However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is high, the noise when the 2-axis device operates increases.
- When gain is low, it is more susceptible to mechanical shock and skipping occurs more easily.

This adjustment is to be performed when replacing the following parts:

- optical pick-up block
- RV505 (focus gain VR)
- RV501 (tracking gain VR)

Be careful not to move RV505 (focus gain volume) and RV501 (tracking gain volume) ordinarily.

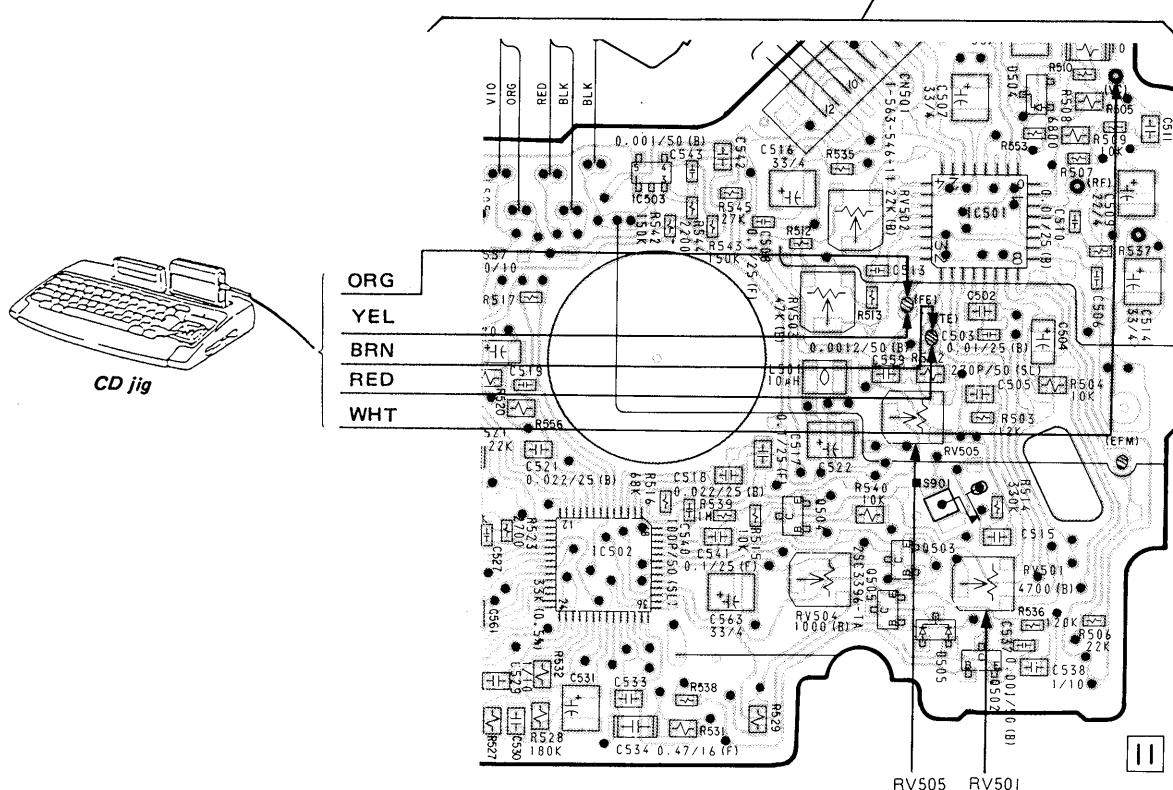
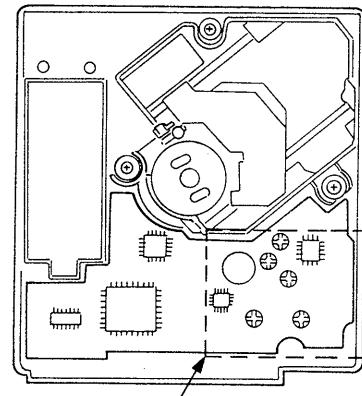
On this set, it is very difficult to simplify this adjustment. For those sets on which symptoms such as "occasional skipping" are hard to discover, or it is hard to tell if the set has been repaired, use the CD jig and perform this adjustment. Refer to the diagram below for connection of the CD jig. The adjustment procedure is described in the separate CD Jig Instruction Manual.

CD Jig Connecting Procedure:

Remove the solder jumpers at the TE and FE locations and connect the DC jig.

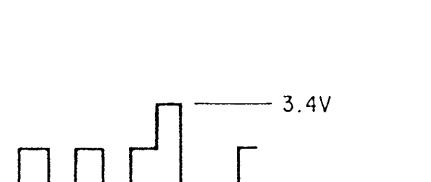
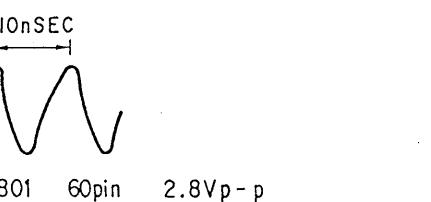
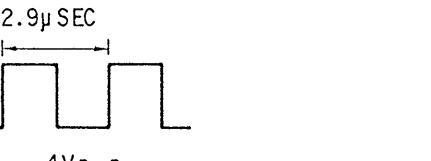
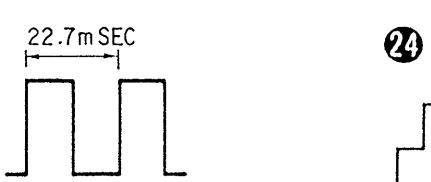
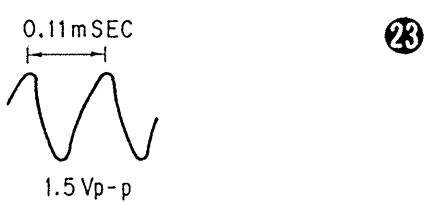
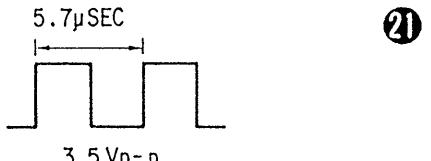
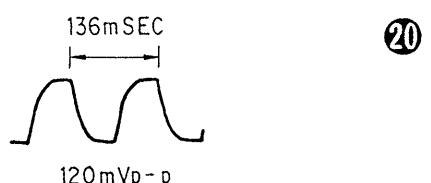
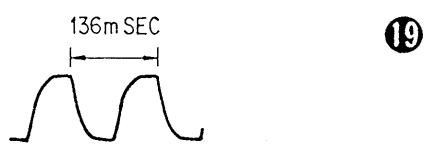
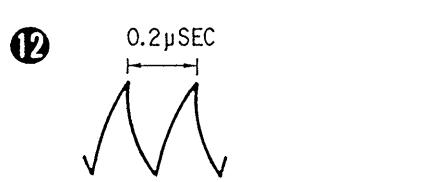
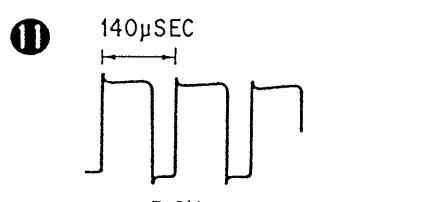
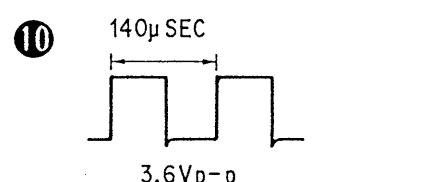
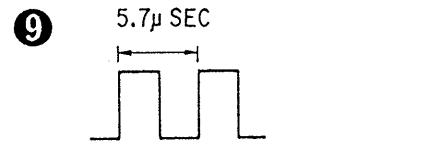
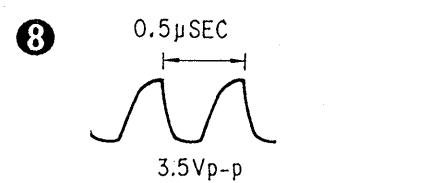
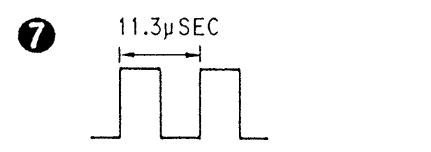
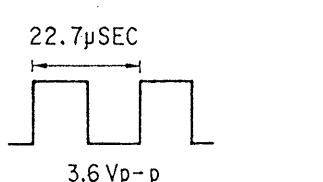
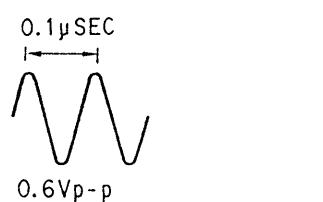
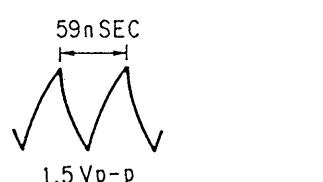
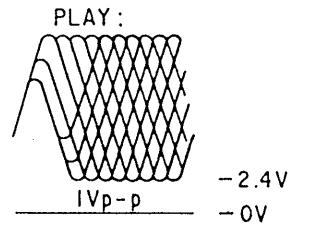
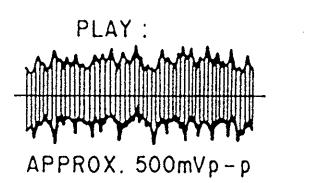
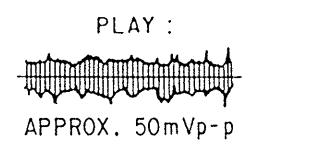
(Connect the points on both TE and FE located on the side of IC501 to the output to the CD jig, and points located on the side of volumes to the input from the CD jig.)

— servo board —

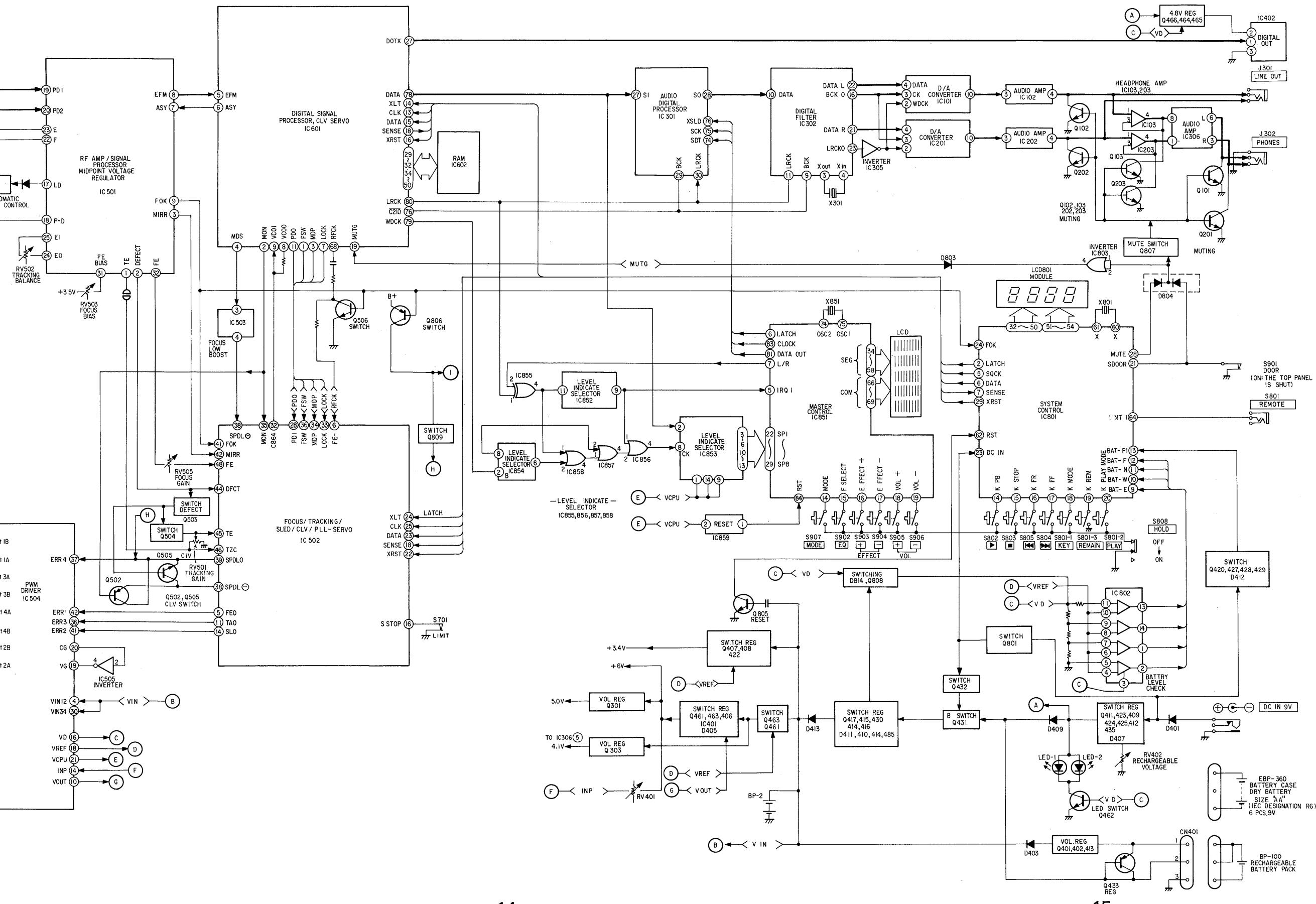


SECTION 4 DIAGRAMS

4-1. WAVEFORMS



4-2. BLOCK DIAGRAM

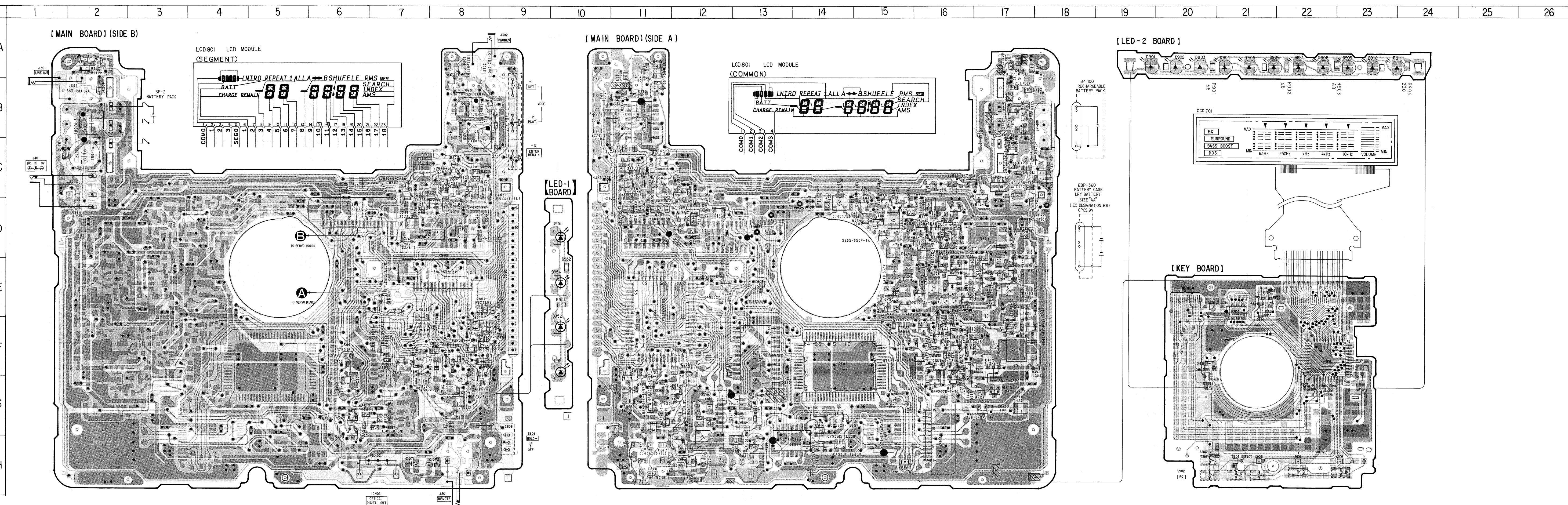


• Semiconductor Lead Layouts

Ref. No.	Location	Ref. No.	Location
D301	A-8	IC802	G-13
D302	A-2	IC803	F-9
D303	A-2	IC851	F-22
D304	B-8	IC852	H-5
D305	H-16	IC853	F-21
D401	C-17	IC854	H-14
D403	B-17	IC855	H-15
D405	D-15	IC856	G-14
D406	E-16	IC857	H-14
D407	E-18	IC858	H-14
D409	E-16	IC859	G-21
D410	F-16	Q101	B-9
D411	G-16	Q102	C-17
D412	F-16	Q103	D-8
D413	G-17	Q201	B-8
D414	F-18	Q202	D-17
D415	G-17	Q203	C-8
D450	E-15	Q301	D-12
D485	F-16	Q303	C-7
DB01	F-8	Q401	C-18
DB03	F-8	Q402	B-17
DB04	F-8	Q403	F-16
DB05	G-11	Q404	D-15
DB07	G-11	Q406	D-15
DB08	G-12	Q407	D-16
DB09	F-7	Q408	D-18
DB10	F-7	Q409	D-17
DB11	G-12	Q410	E-16
DB13	G-11	Q411	E-17
DB14	G-6	Q412	E-17
DB22	H-12	Q413	C-18
DB23	H-12	Q414	G-16
DB24	H-12	Q415	G-17
DB25	G-11	Q416	F-17
DB26	E-13	Q417	F-17
D901	A-20	Q418	F-17
D902	A-20	Q420	F-15
D903	A-20	Q421	F-16
D904	A-21	Q422	D-16
D905	A-21	Q423	E-17
D906	A-22	Q424	F-17
D907	A-22	Q425	E-17
D908	A-22	Q427	F-16
D909	A-23	Q428	F-16
D910	A-23	Q429	F-16
D911	A-24	Q430	F-16
D951	G-10	Q431	F-17
D952	F-10	Q432	F-17
D954	E-10	Q433	C-18
D955	D-10	Q435	E-17
IC101	D-11	Q461	D-15
IC102	C-11	Q462	G-17
IC103	D-9	Q463	D-16
IC201	D-12	Q464	E-16
IC202	D-12	Q465	E-16
IC203	D-8	Q801	F-7
IC301	F-14	Q804	G-8
IC302	F-13	Q805	G-11
IC305	E-7	Q806	G-9
IC306	B-11	Q807	E-9
IC401	C-15	Q808	H-6
IC402	H-7	Q809	G-8
IC801	F-11		

Note:

- : Through hole.
- : Pattern on the side which is seen.
- ▨ : Pattern of the rear side.



4-4. SCHEMATIC DIAGRAM — MAIN SECTION —

• See page 12 for waveforms.

• See page 31 for IC block diagram.

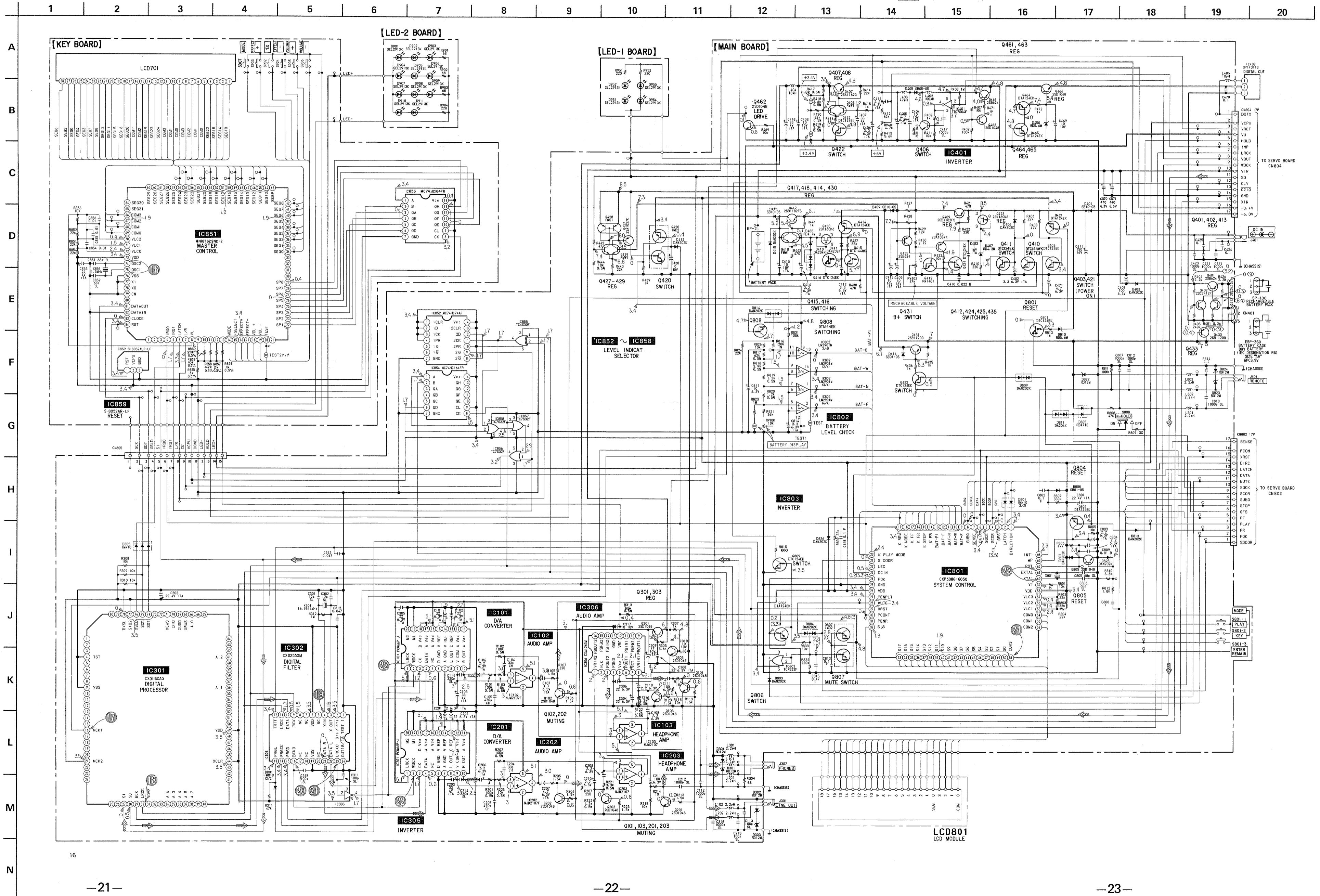
Note:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- % : indicates tolerance.

Note: The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

- Power voltage is dc 9V and fed with regulated dc power supply from external power voltage jack.
- no mark: stop
< : play
> : values when a power supply of 9V dc supplied from the battery terminal.
- Voltages are taken with a VOM (Input impedance 10M Ω).
- Circled numbers refer to waveforms.
- Signal path.

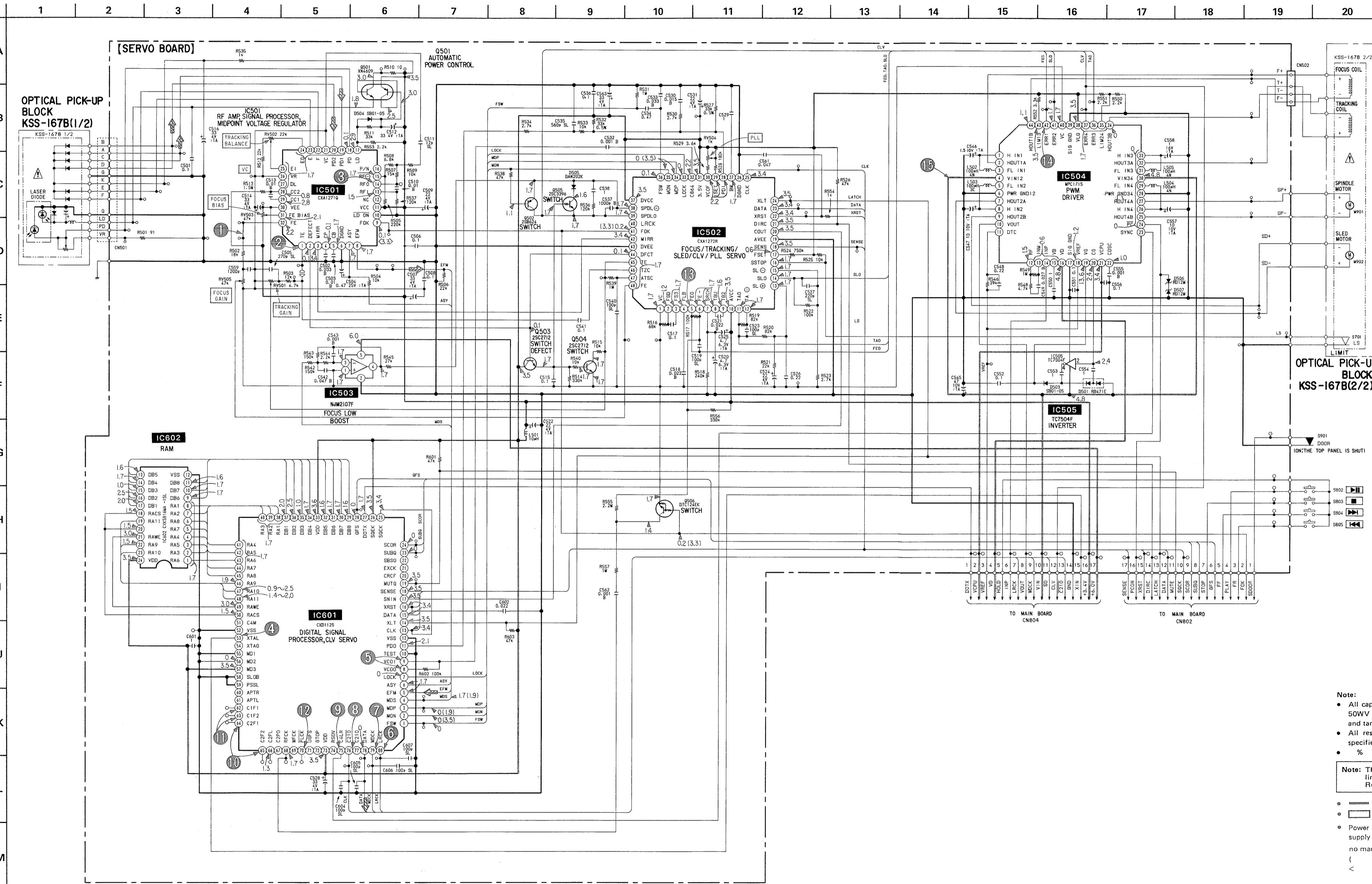
- Adjustment for repair.

4-5. SCHEMATIC DIAGRAM — SERVO SECTION —

• See page 12 for waveforms.

• See page 31 for IC block diagram.



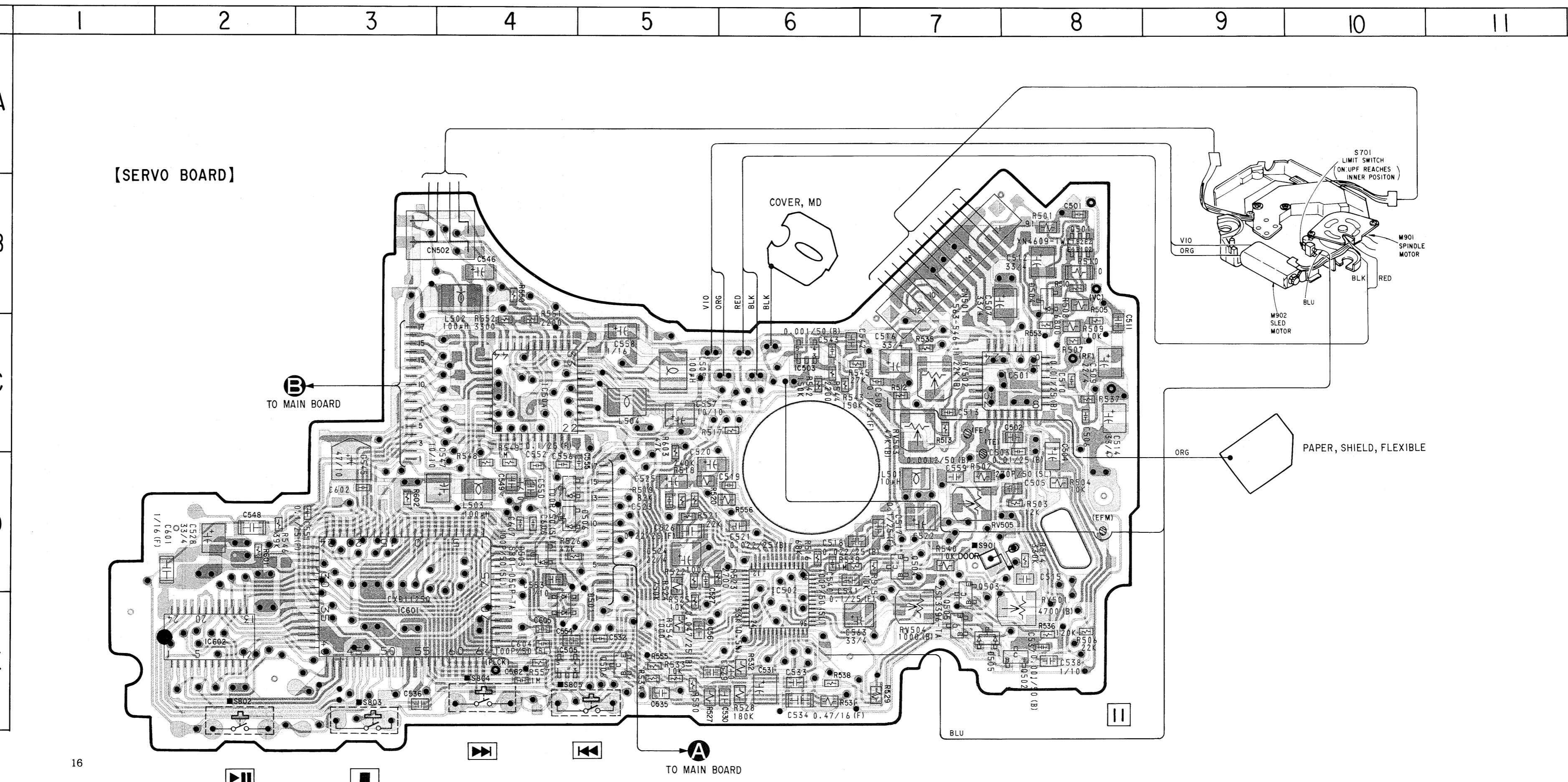
- Note:
 • All capacitors are in μF unless otherwise noted. pF : μF 50W or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 • % : indicates tolerance.

Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

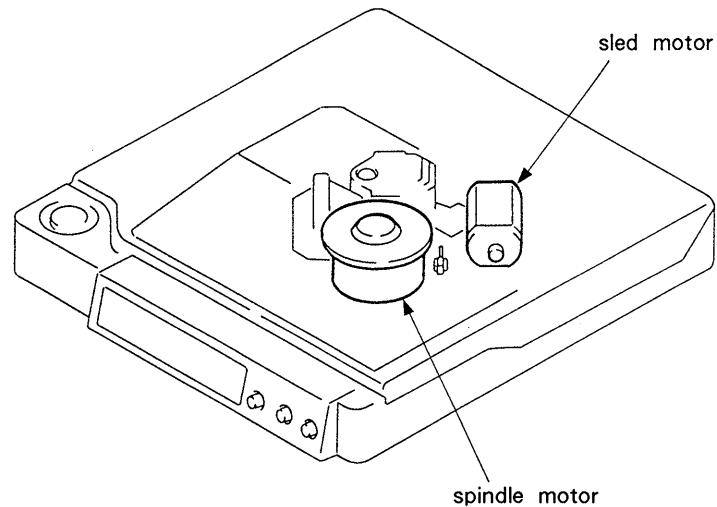
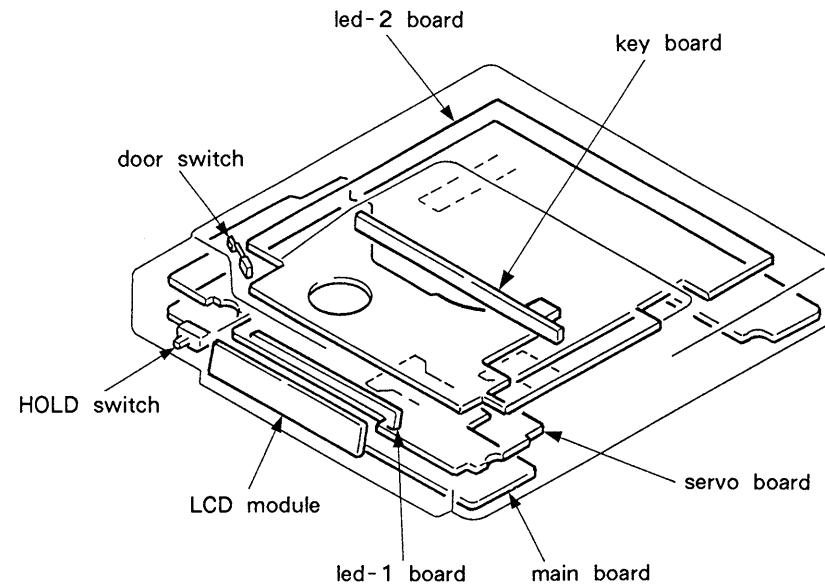
- : B+ Line
- : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from external power voltage jack.
 no mark: stop
 (): play
 < >: values when a power supply of 9V dc supplied from the battery terminal.
- Voltages are taken with a VOM (Input impedance 10M Ω).
- Circled numbers refer to waveforms.
- Signal path.
- : CD

4-6. PRINTED WIRING BOARD — SERVO SECTION —

• See page 30 for Semiconductor Lead Layouts.



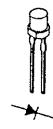
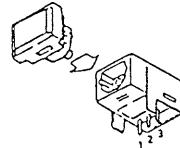
- CIRCUIT BOARD LOCATION



- Semiconductor Lead Layouts

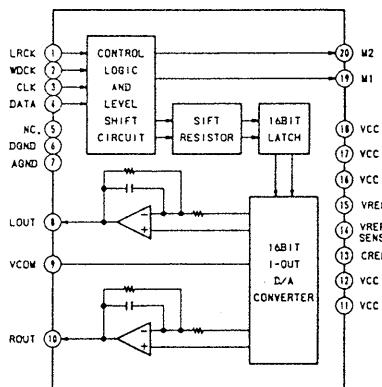
GP1F31T

SEL2913K-D

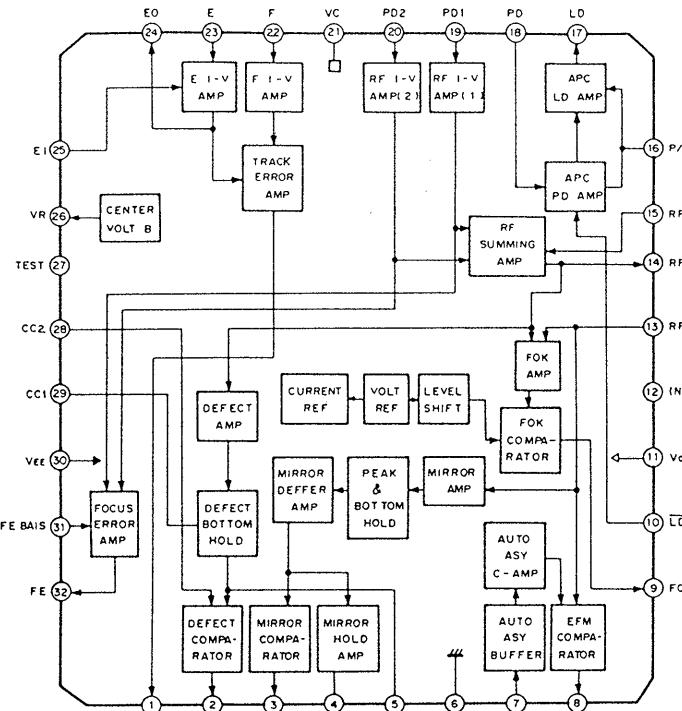


4-7. IC BLOCK DIAGRAM

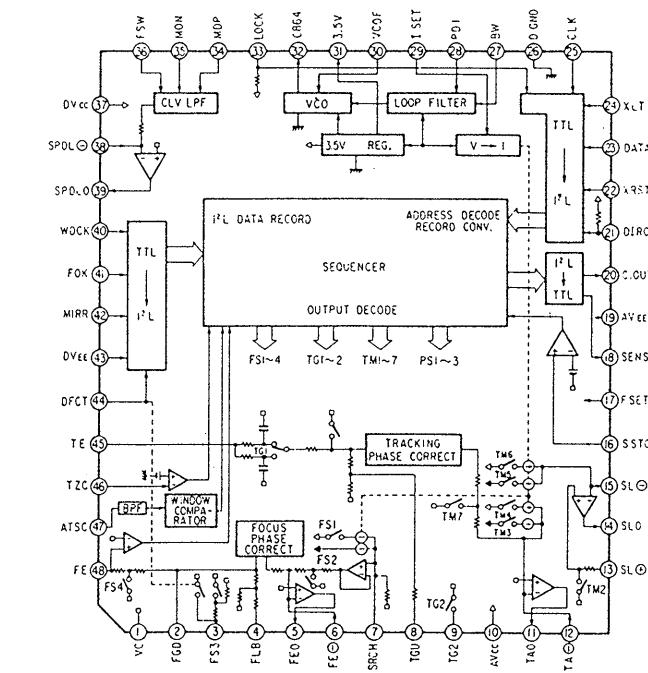
IC101, 201
PCM-66PJ



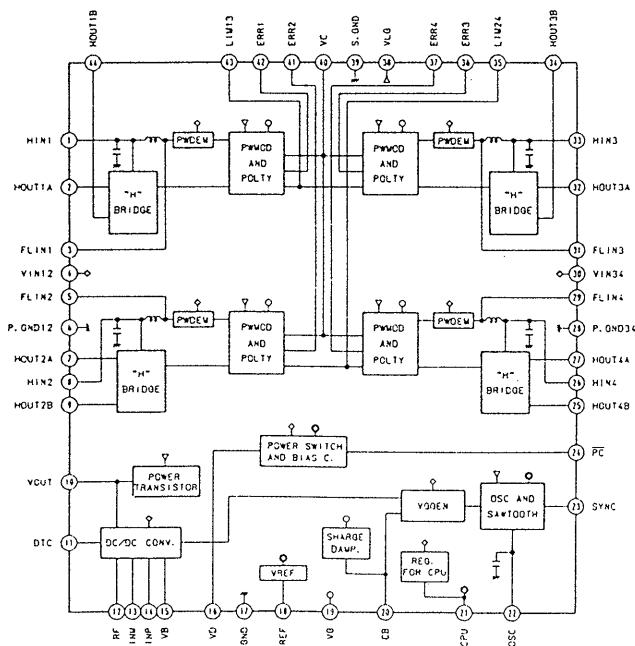
IC501
CXA1271Q



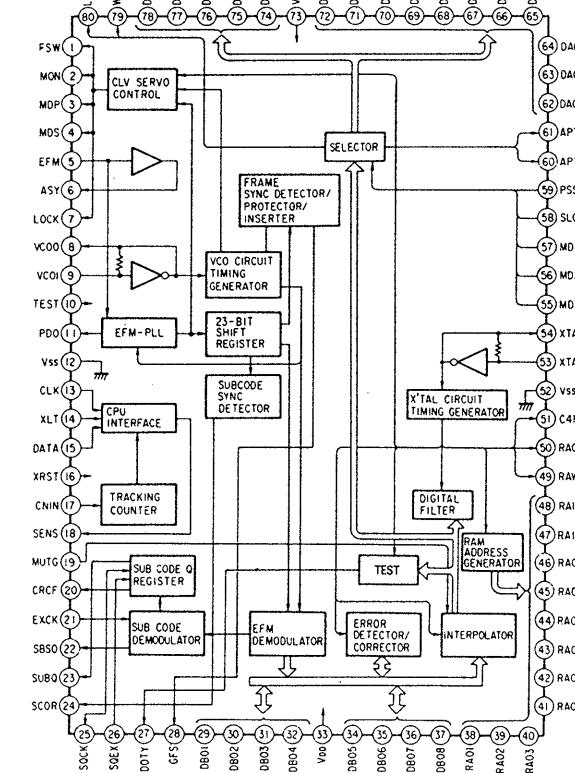
IC502
CXA1272R



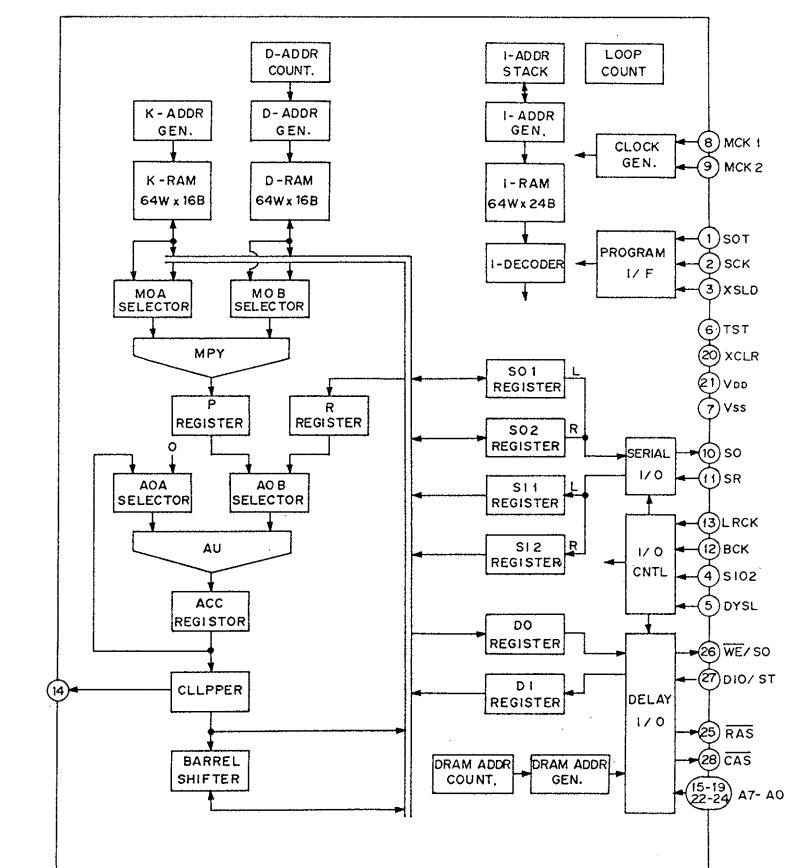
IC504
MPC1715



IC601
CXD1125Q



IC301
CXD1160AQ



SECTION 5

EXPLODED VIEWS

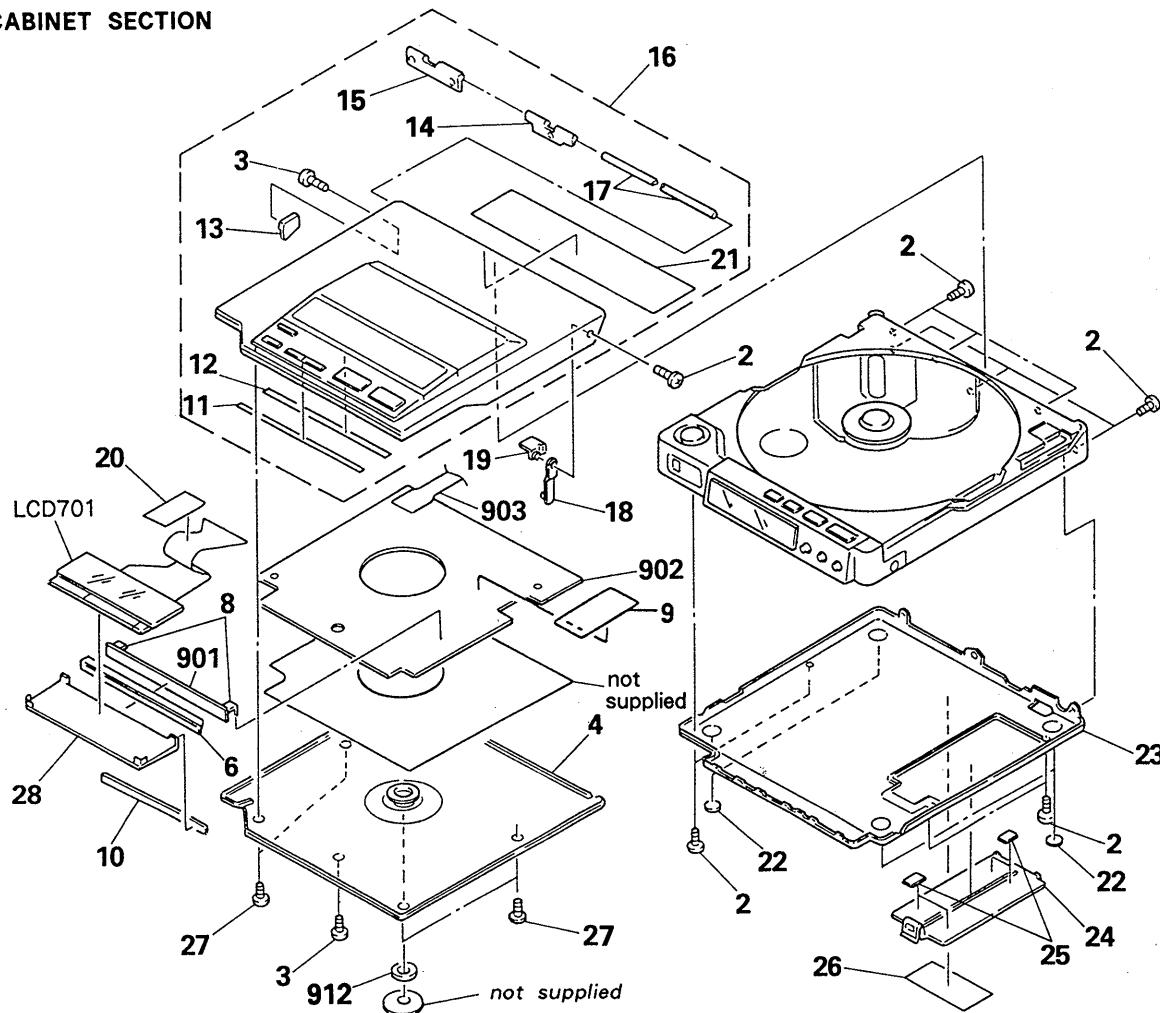
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:**
(RED) ... KNOB, BALANCE (WHITE)
↑ ↑
Cabinet's Color Parts' Color

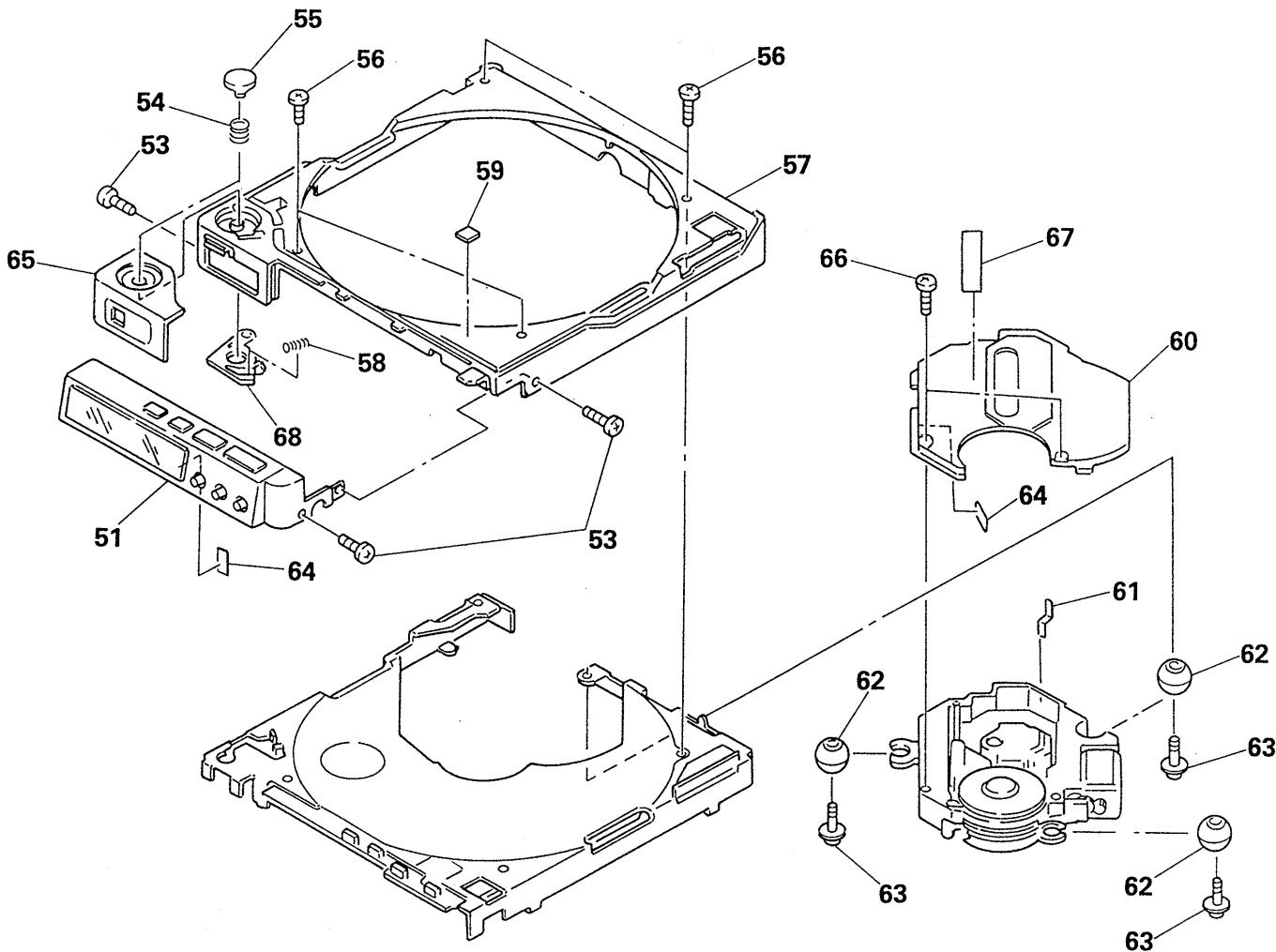
The components identified by mark or dotted line with mark are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. CABINET SECTION

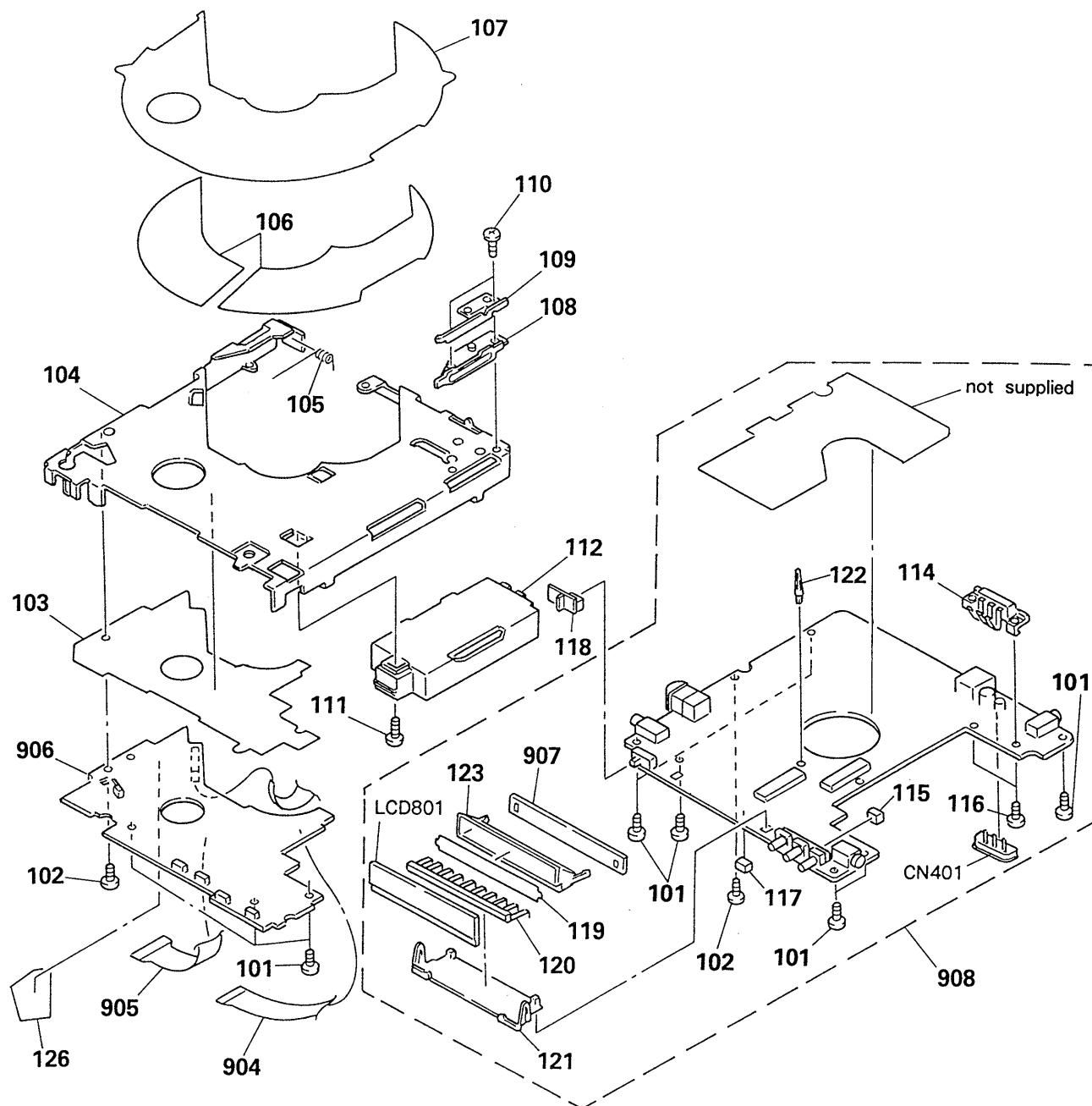
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
2	3-703-816-72	SCREW (M1.4X3.0), SPECIAL HEAD		19	X-4917-704-1	BRACKET ASSY, SWITCHING PLATE	
3	3-895-823-41	SCREW (B1.4X4), TAPPING		20	*4-926-115-01	CUSHION (P)	
4	A-3043-251-A	COVER (LID) ASSY		21	*4-932-714-01	SHEET (UPPER LID), INSULATING	
6	*4-926-163-01	HOLDER (T-LED)		22	4-912-641-01	FOOT, RUBBER	
8	4-926-167-01	TERMINAL BOARD (LED)		23	X-4921-243-1	PANEL ASSY, BOTTOM	
9	*4-932-718-01	SPACER (LCD FLEXIBLE)		24	4-926-185-01	LID, BATTERY CASE	
10	*4-932-707-01	SHEET (DIFFUSION T)		25	3-831-441-XX	CUSHION	
11	4-926-172-01	SHEET (F), ADHESIVE		26	*4-926-188-01	(US,Canadian).....LABEL, MODEL NUMBER	
12	4-932-794-01	SHEET (M), ADHESIVE			*4-932-712-01	(AEP,FRENCH,UK,E)...LABEL, MODEL NUMBER	
13	4-920-272-01	RETAINER, SPRING, SWITCHING		27	3-703-816-02	SCREW (M1.4X2.0), SPECIAL HEAD	
14	4-924-143-01	HINGE (RIGHT)		28	X-4921-249-1	PLATE (T) ASSY, LIGHT GUIDE	
15	4-924-142-01	HINGE (LEFT)		901	*1-631-515-11	PC BOARD, LED-2	
16	A-3043-250-A	PLATE ASSY, TRANSPARENT		902	*1-631-516-12	PC BOARD, KEY	
17	4-924-144-01	SHAFT, FULCRUM		903	1-632-626-11	PC BOARD, KEY FLEXIBLE	
18	X-4921-216-1	PLATE (B) ASSY, SWITCHING		912	1-452-473-11	MAGNET	
					LCD701	1-808-771-11	DISPLAY PANEL, LIQUID CRYSTAL

5-2. CHASSIS SECTION (1)



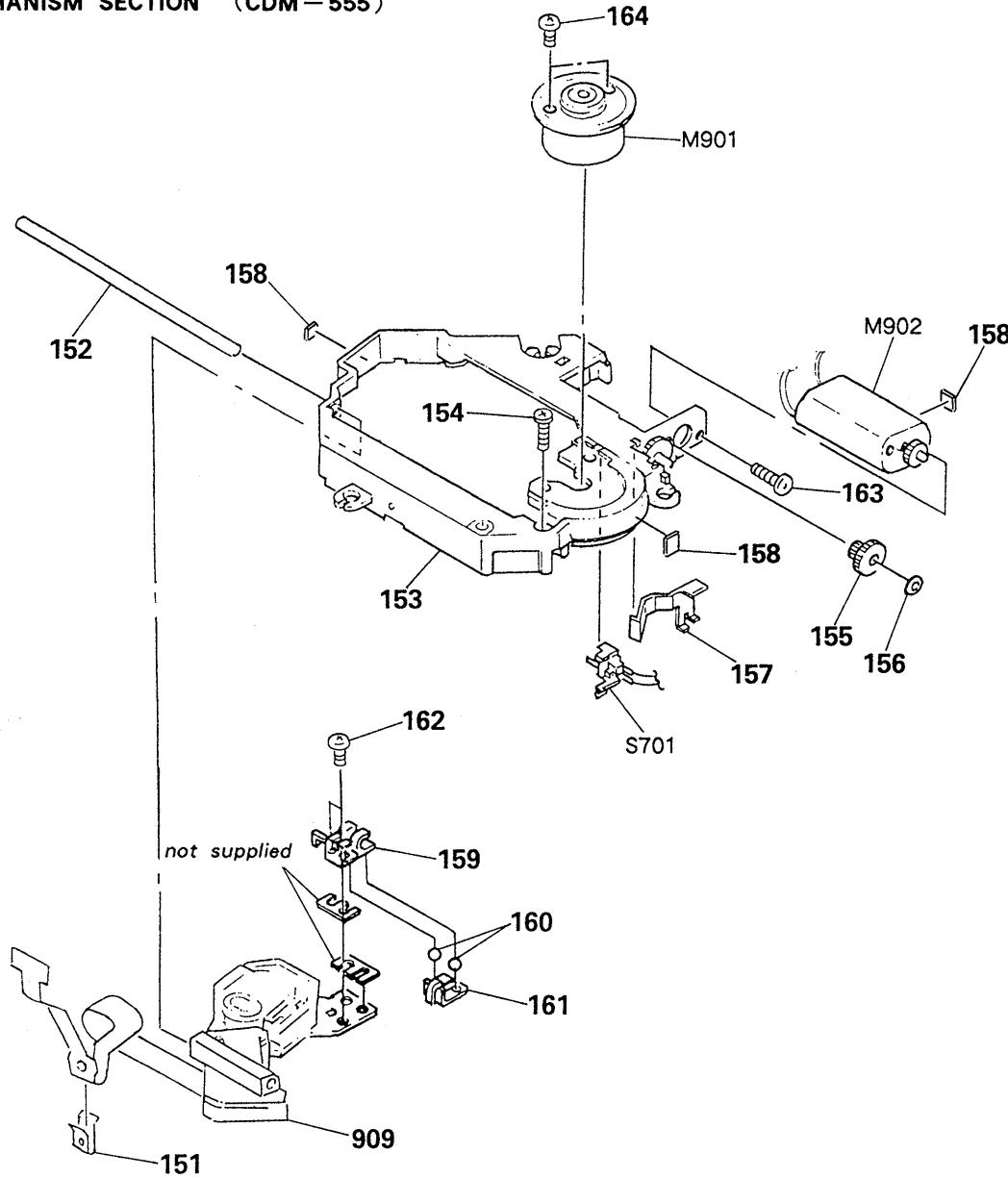
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	X-4921-245-1	PANEL (M) ASSY, FRONT		61	3-831-441-XX	CUSHION	
53	3-703-816-72	SCREW (M1.4X3.0), SPECIAL HEAD		62	X-4917-723-1	DAMPER	
54	4-917-727-01	SPRING, COMPRESSION		63	4-920-209-01	SCREW (INSULATOR), STEP	
55	4-924-130-31	BUTTON, OPEN		64	9-911-838-XX	CUSHION	
56	3-703-816-22	SCREW (M1.4X5.0), SPECIAL HEAD		65	4-926-165-01	PANEL (AL), FRONT	
57	4-926-177-01	CABINET		66	3-895-823-11	SCREW (B1.4X3), TAPPING	
58	4-924-140-01	SPRING, COMPRESSION		67	4-908-711-01	LABEL, CAUTION, LENS	
59	*4-932-708-11	CUSHION (UPPER LID)		68	4-926-161-01	LEVER, LOCK	
60	4-926-141-01	COVER, MD					

5-3. CHASSIS SECTION (2)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
101	3-703-816-41	SCREW (M1.4X2.5), SPECIAL HEAD		117	9-911-841-XX	CUSHION (B)	
102	3-335-797-21	SCREW (M1.4X3), TOOTHED LOCK		118	4-926-166-01	KNOB (HOLD)	
103	4-926-169-01	SHEET (S), INSULATING		119	4-926-191-01	SHEET (DIFFUSION)	
104	*X-4921-246-1	CHASSIS SUB ASSY		120	*4-932-721-01	SPACER (LCD TERMINAL)	
105	4-930-113-01	SPRING (SWITCHING), TORSION		121	*4-926-186-01	HOLDER (F-LCD)	
106	4-926-175-01	SHEET, ADHESIVE, CHASSIS COVER		122	*4-926-168-01	SPACER (PC)	
107	4-924-138-11	COVER, CHASSIS		123	*4-926-180-01	PLATE (F), LIGHT GUIDE	
108	4-932-711-01	PLATE, SLIDE, SWITCHING PLATE		126	*4-932-720-01	PAPER, SHIELD, FLEXIBLE	
109	*4-917-753-01	SPRING		904	1-631-518-11	PC BOARD, FLEXIBLE	
110	3-703-816-02	SCREW (M1.4X2.0), SPECIAL HEAD		905	1-631-517-11	PC BOARD, FLEXIBLE	
111	3-703-816-72	SCREW (M1.4X3.0), SPECIAL HEAD		906	A-3015-778-A	PC BOARD ASSY, SERVO	
112	4-926-181-01	CASE, BATTERY		907	*1-631-514-11	PC BOARD, LED-1	
114	4-930-131-01	TERMINAL, BATTERY		908	A-3015-777-A	PC BOARD ASSY, MAIN	
115	9-911-840-XX	RUBBER (B)		CN401	1-535-608-21	TERMINAL, BATTERY	
116	7-627-853-67	PRECISION SCREW +P 2X6 TYPE 3		LCD801	1-808-770-11	DISPLAY PANEL, LIQUID CRYSTAL	

5-4. MECHANISM SECTION (CDM - 555)



Note:
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
151	4-917-622-01	RETAINER, FLEXIBLE		160	7-671-111-11	STEEL, BOUL 1.5MM	
152	4-917-611-01	SHAFT (A)		161	4-921-296-01	SPRING	
153	X-4930-108-1	CHASSIS ASSY, MD		162	7-627-552-38	SCREW, PRECISION +P 1.7X3	
154	4-921-299-01	SCREW (1.7X8), SPECIAL		163	7-627-553-38	SCREW, PRECISION +P 2X3	
155	4-921-292-01	GEAR (B)		164	7-627-552-08	SCREW, PRECISION +P 1.7X2.5	
156	3-315-384-11	WASHER, STOPPER		909	\triangle 8-848-141-11	DEVICE, OPTICAL KSS-167B (RP)	
157	4-921-290-01	SPRING		M901	A-3133-384-A	MOTOR ASSY, CLV	
158	*3-880-474-11	CUSHION, 15X5X0.3		M902	A-3133-334-A	MOTOR SUB ASSY, FEED	
159	4-921-294-01	RACK (A)		S701	1-571-099-11	SWITCH (LIMIT)	

ACCESSORY & PACKING MATERIAL

1-463-691-11 (US,Canadian)...ADAPTOR, AC (AC-930A)
 1-463-700-11 (UK).....ADAPTOR, AC (AC-930A)
 1-463-702-11 (E).....ADAPTOR, AC (AC-950W)
 1-463-705-11 (AEP,FRENCH)...ADAPTOR, AC (AC-930AEP)
 1-463-968-11 (US).....ADAPTOR, AC (AC-940)
 1-526-565-00 (E).....AC PLUG ADAPTOR

 1-528-297-11 (US,Canadian,UK,E)...BATTERY PACK (BP-2EX)
 1-528-297-21 (AEP,FRENCH).....BATTERY PACK (BP-2EX)

 1-555-658-21 CORD, CONNECTION
 1-575-145-11 CORD, CONNECTION

 3-750-539-11 (Canadian,AEP,FRENCH,UK,E)...MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH,PORTUGUESE)
 3-750-539-21 (US).....MANUAL, INSTRUCTION (ENGLISH)
 3-750-539-41 (AEP).....MANUAL, INSTRUCTION (GERMAN,ITALIAN,DUTCH,SWEDISH)

 4-920-407-01 (US,Canadian,E)...BAG, PROTECTION
 4-926-173-01 CASE, CARRYING

 *4-926-192-01 CUSHION (UPPER)
 4-926-193-01 (US,Canadian,E)...CUSHION (LOWER)
 *4-932-701-01 (AEP,FRENCH,UK)...CUSHION (LOWER)

 *4-926-194-01 (US,Canadian)...INDIVIDUAL CARTON
 *4-926-199-01 (E).....INDIVIDUAL CARTON
 *4-932-702-01 (AEP).....INDIVIDUAL CARTON
 *4-932-704-01 (FRENCH,UK)....INDIVIDUAL CARTON