CFD-V10

SERVICE MANUAL

Australian Model
E Model
Tourist Model

Model Name Using Similar Mechanism	CD Section	NEW
	Tape Section	NEW
Optical Pick-up Type		KSM-213CAM/C1NP
Tape Transport Mechanism Type		MF-V10-117

SPECIFICATIONS

CD player section

System
Compact disc digital audio system
Laser diode properties
Material: GaAlAs
Wave length: 780 nm
Emission duration: Continuous
Laser output: Less than 44.6 μW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)
Spindle speed
200 r/min (rpm) to 500 r/min (rpm) (CLV)
Number of channels
2
Frequency response
20 - 20,000 Hz +1/-2 dB
Wow and flutter
Below measurable limit

Radio section

Frequency range
FM :
87.6 – 107 MHz (Korean, Saudi Arabia Model)
76 – 108 MHz (Tourist Model)
87.6 – 108 MHz (Australian, E, Singapore Model)
AM :
531 – 1,602 kHz (Korean, Singapore, Saudi Arabia Model)
530 – 1,629 kHz (Tourist Model)
530 – 1,605 kHz (Australian Model)
530 – 1,710 kHz (E Model)

Aerials
FM: Telescopic aerial
AM: Built-in ferrite bar aerial

Cassette-corder section

Recording system
4-track 2 channel stereo
Fast winding time
Approx. 120 s (sec.) with Sony cassette C-60
Frequency response
TYPE I (normal): 70 - 10,000 Hz

General

Speaker
Full range: 10 cm dia., 2.8 ohms, cone type (2)
Outputs
Headphones jack (stereo minijack)
For 16 - 68 ohms impedance headphones (excluding US model)
Power output (excluding US model)
2 W + 2 W (at 2.8 ohms, 10 % harmonic distortion)
Power requirements
Korean Model :
220V AC, 60Hz
E Model :
120V AC, 60Hz
Australian, Singapore Model :
230V AC, 50Hz
Saudi Arabia, Tourist model:
110 – 120V, 220 – 240V AC, Selectable 50/60 Hz
9 V DC, 6 size D (R20) batteries
Power consumption
EXCEPT Korean model : AC 20 W
Korean model : AC 15 W

Battery life
For CD radio cassette-corder:

FM recording	
Sony R20P: approx. 13.5 h	
Sony alkaline LR20: approx. 20 h	
Tape playback	
Sony R20P: approx. 7.5 h	
Sony alkaline LR20: approx. 15 h	
CD playback	
Sony R20P: approx. 2.5 h	
Sony alkaline LR20: approx. 7 h	

Dimensions
Approx. 425 x 160 x 246 mm (w/h/d) (16 ¾ x 6 ⅜ x 9 ¾ inches) (incl. projecting parts)
Mass
Approx. 4 kg (8 lb. 13 oz) (incl. batteries)
Supplied accessory
AC power cord (1)

Design and specifications are subject to change without notice.

CD RADIO CASSETTE -CORDER

MICROFILM

SONY®

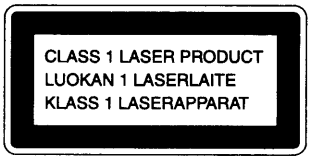
TABLE OF CONTENTS

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.

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

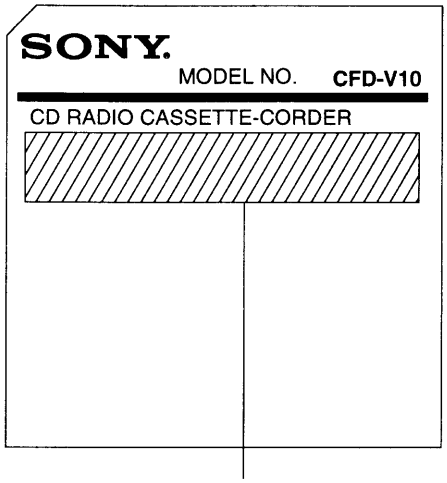
Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.



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

MODEL IDENTIFICATION

– Model Number Label –



E model : AC 120V ~60Hz
Australian, Singapore model : AC230V ~50Hz
Korean model : AC220V ~60Hz
Saudi Arabia, Tourist model : AC110–120V, 220–240V Selectable ~50/60Hz

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

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.
The flexible board is easily damaged and should be handled with care.

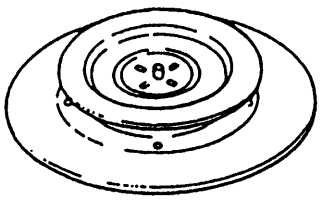
NOTES ON LASER DIODE EMISSION CHECK

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 more than 30 cm away from the objective lens.

CHUCK PLATE JIG ON REPAIRING

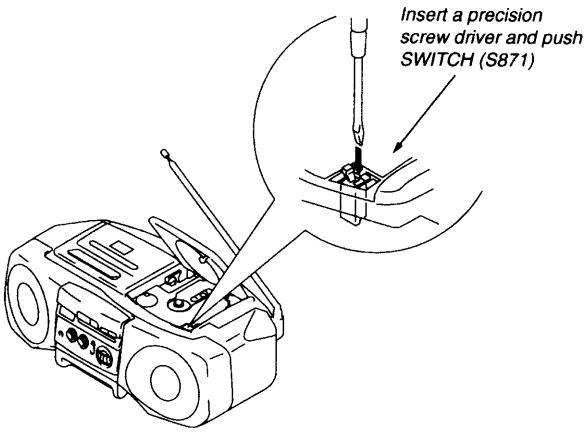
On repairing CD section, playing a disc without the CD lid, use Chuck Plate Jig.

- Code number of Chuck Plate Jig : X-4918-255-1



LASER DIODE AND FOCUS SEARCH OPERATION CHECK

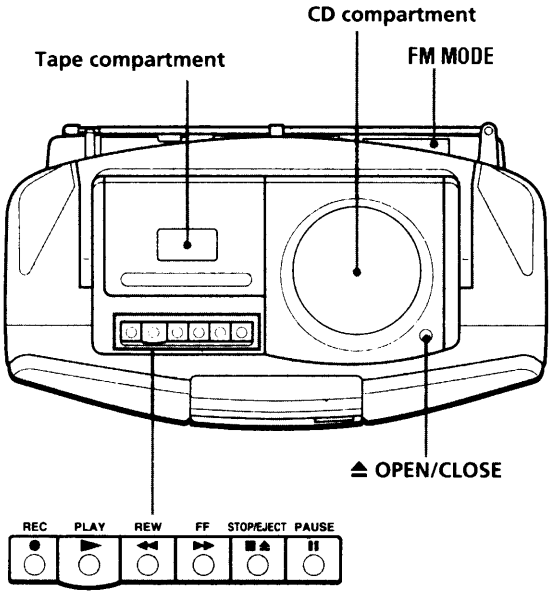
1. Press CD open knob.
2. Open the lid for CD.
3. Push on SWITCH (S871) as following figure.
4. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus search.

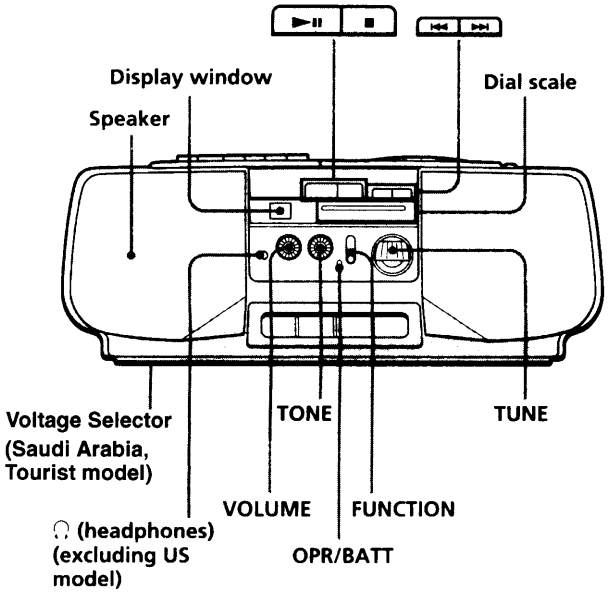


SECTION 2
GENERAL

This section is extracted from instruction manual.

LOCATION OF CONTROLS





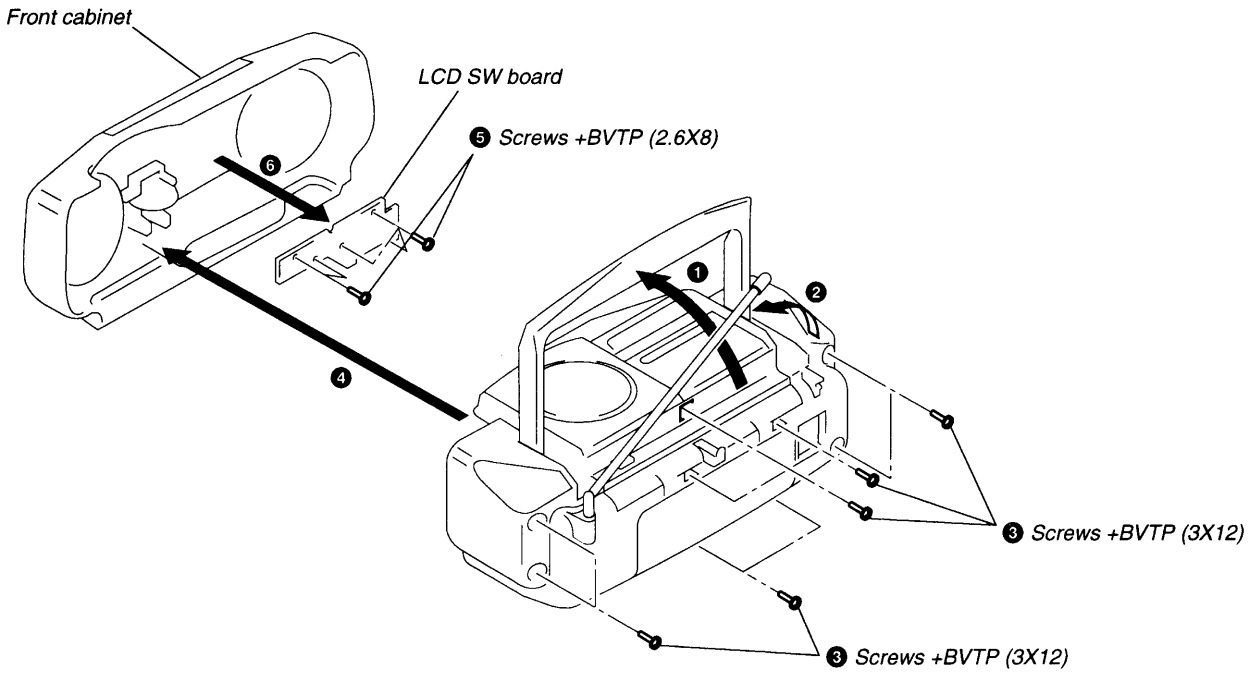
SECTION 3
DISASSEMBLY

● The equipment can be removed using the following procedure.

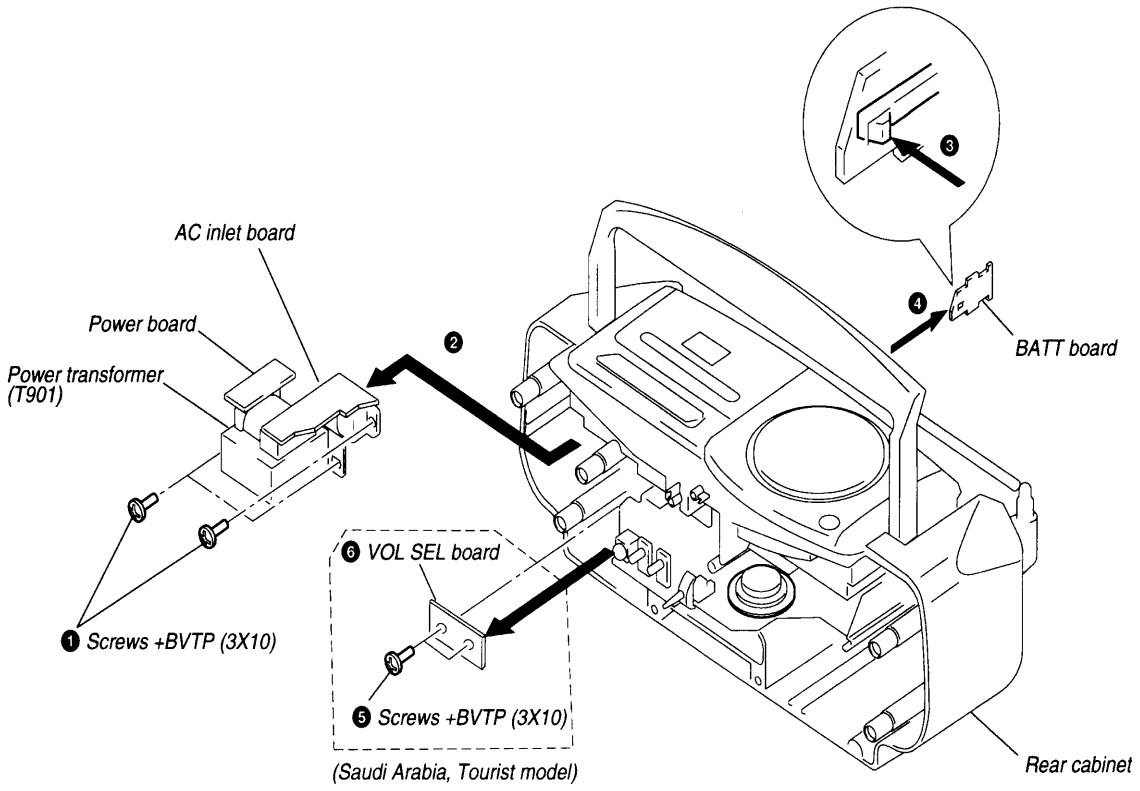
Set → Front cabinet → LCD SW board
Front cabinet → AC inlet board, Power board → BATT board → VOL SEL board (Saudi Arabia, Tourist Model)
Front cabinet → Upper cabinet → Optical pick-up section → Main board, CD Motor board
Upper cabinet → Mechanism deck → REC SW board

Note : Follow the disassembly procedure in the numerical order given.

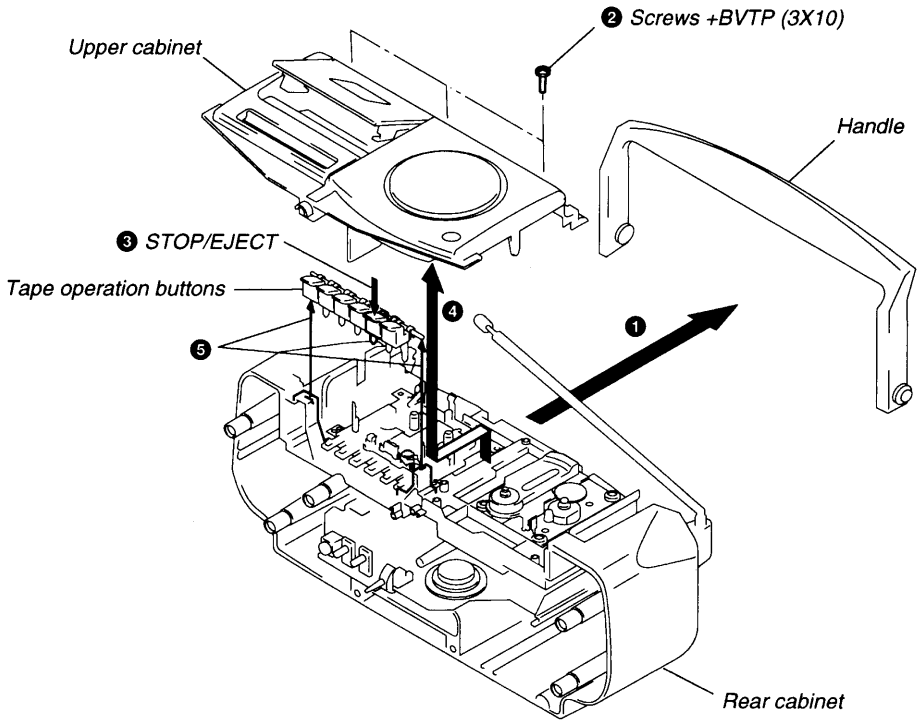
3-1. FRONT CABINET, LCD SW BOARD REMOVAL



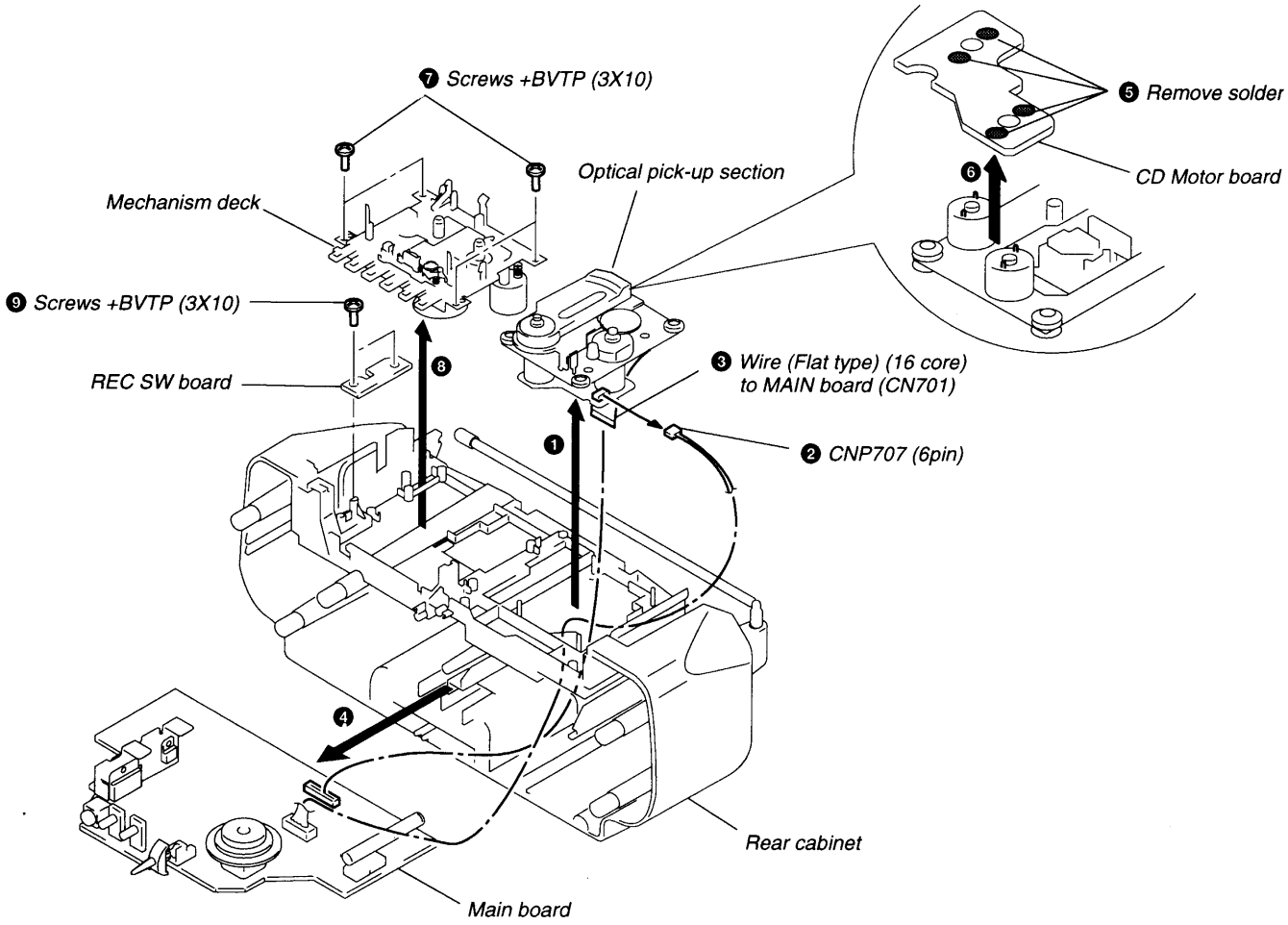
3-2. POWER BOARD, AC INLET BOARD, BATT BOARD, VOL SEL BOARD (SAUDI ARABIA, TOURIST MODEL) REMOVAL



3-3. UPPER CABINET REMOVAL



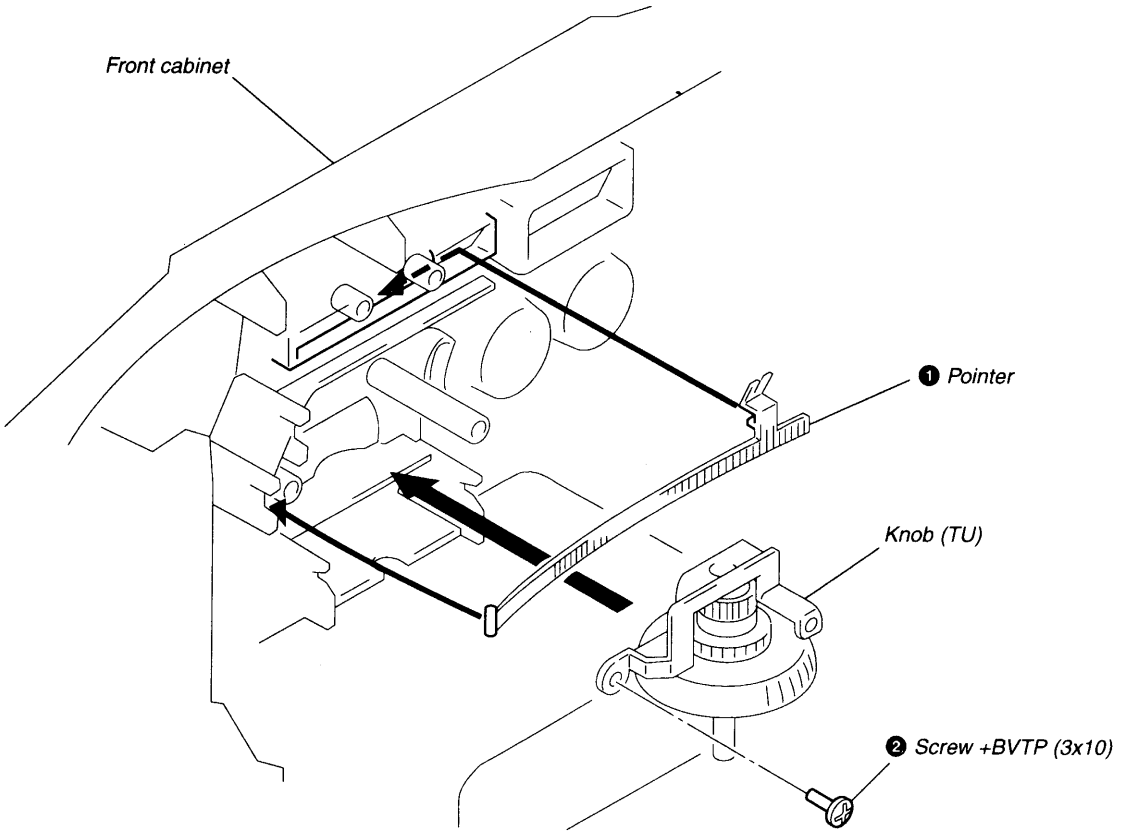
3-4. OPTICAL PICK-UP SECTION, MECHANISM DECK, MAIN BOARD, CD MOTOR BOARD, REC SW BOARD REMOVAL



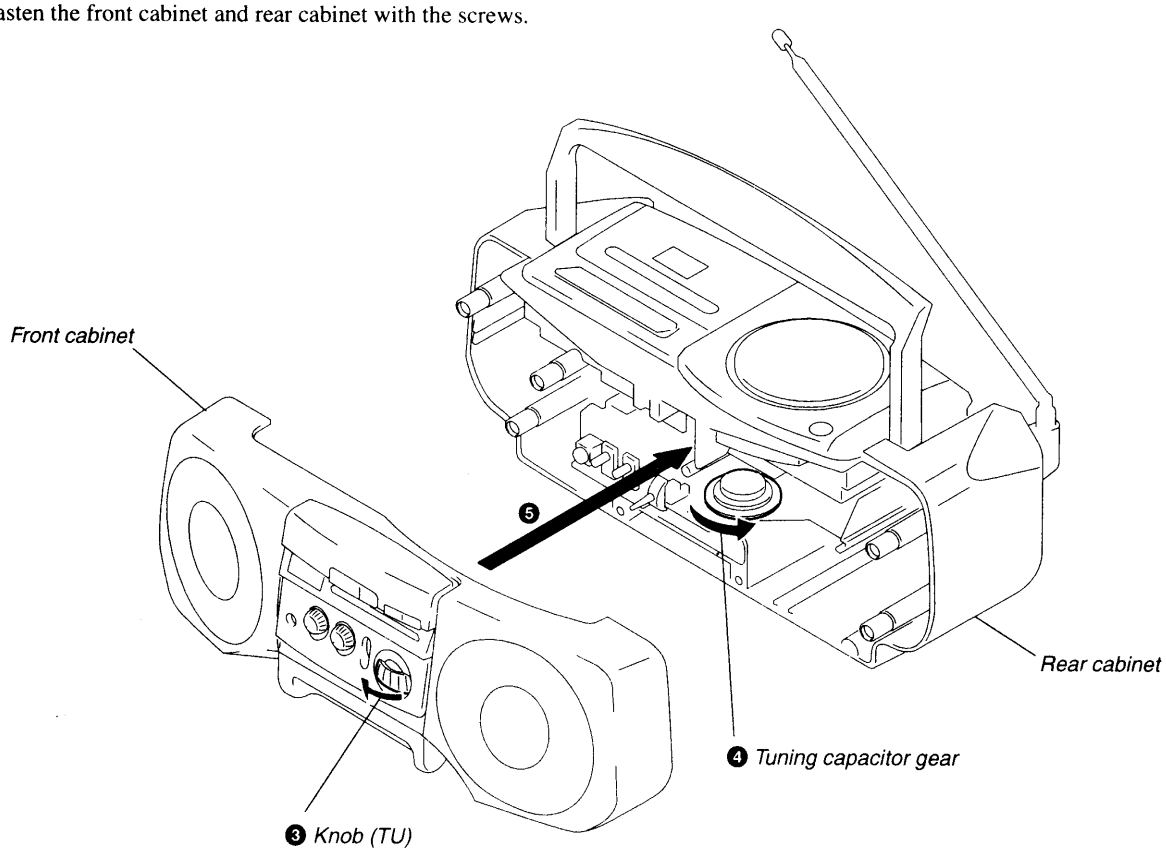
SECTION 4
DIAL POINTER INSTALLATION

Note : Follow the installation procedure in the numerical order given.

① Align the pointer with the groove of front cabinet and insert it as shown in the illustration.
② Align knob (TU) with front cabinet and fasten the screw.



③ Turn the knob (TU) fully in the direction of the allow as shown in the illustration.
④ Turn the tuning capacitor gear fully in the direction of the allow as shown in the illustration.
⑤ Fasten the front cabinet and rear cabinet with the screws.



SECTION 5
ADJUSTMENTS

5-1. MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
   record/playback head, erase head, capstan, pinch roller, rubber belts
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque Meter	Meter Reading
Forward	CQ-102C	30 – 70 g•cm (0.42 – 0.97 oz•inch)
Forward Back Tension	CQ-102C	1.5 – 5.5 g•cm (0.020 – 0.076 oz•inch)
Fast Forward	CQ-201B	more than 60 g•cm (more than 0.84 oz•inch)
Rewind	CQ-201B	more than 60 g•cm (more than 0.84 oz•inch)

Tape Tension Measurement

Torque Meter	Meter Reading
CQ-403A	more than 100g (more than 3.53 oz)

5-2. ELECTRICAL ADJUSTMENTS

TAPE RECORDER SECTION

Standard Output Level

Output terminal	HP OUT
load impedance	32Ω
output signal level	0.25V (–10dB)

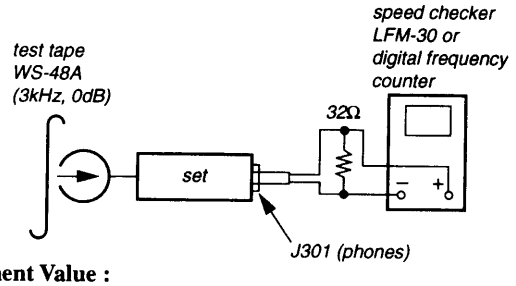
Test Tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	Tape Speed Adjustment

Tape Speed Adjustment

Procedure :

Mode : Playback

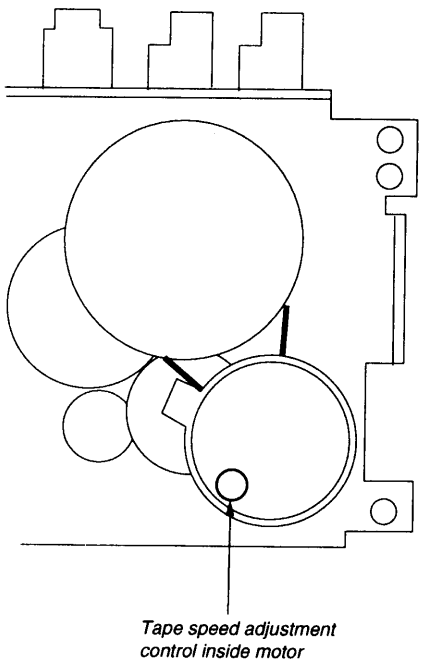


Adjustment Value :

Speed checker	Digital frequency counter
–1 to +1%	2,970 – 3,030Hz

Frequency difference between the beginning and the end of the tape should be within 1.5% (45Hz).

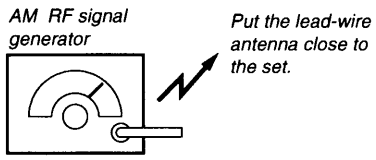
Adjustment Location :



TUNER SECTION

AM Section

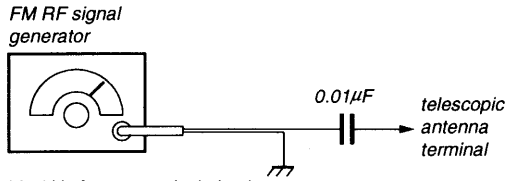
Function switch : AM
Volume : MIN



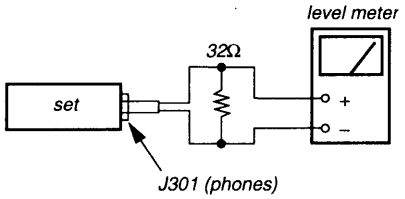
30% amplitude modulation by 400Hz signal.
Output level : as low as possible

FM Section

Function switch : FM
Volume : MIN



22.5kHz frequency deviation by 400Hz signal.
Output level : as low as possible



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

no mark : E, Singapore, Korean Model
< > : Australian Model
[ ] : Tourist Model
( ) : Saudi Arabia Model

AM IF ALIGNMENT				
Adjust for a maximum reading on level meter.				
T2	455kHz	< 455kHz >	[455kHz]	(455kHz)

AM FREQUENCY COVERAGE ADJUSTMENT				
Adjust for a maximum reading on level meter.				
L4	520kHz	< 520kHz >	[520kHz]	(516kHz)
CT4	1,680kHz	< 1,680kHz >	[1,680kHz]	(1,630kHz)

AM TRACKING ADJUSTMENT				
Adjust for a maximum reading on level meter.				
L3	600kHz	< 620kHz >	[600kHz]	(600kHz)
CT3	1,400kHz	< 1,400kHz >	[1,400kHz]	(1,400kHz)

FM IF ALIGNMENT				
Adjust for a maximum reading on level meter.				
T1	10.7MHz	< 10.7MHz >	[10.7MHz]	(10.7MHz)

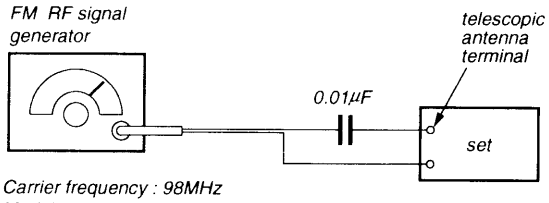
FM FREQUENCY COVERAGE ADJUSTMENT				
Adjust for a maximum reading on level meter.				
L2	87MHz	< 86.5MHz >	[75MHz]	(87.35MHz)
CT2	108.3MHz	< 109.5MHz >	[109.5MHz]	(107.8MHz)

FM TRACKING ADJUSTMENT				
Adjust for a maximum reading on level meter.				
L1	87MHz	< 86.5MHz >	[75MHz]	(87.35MHz)
CT1	108.3MHz	< 109.5MHz >	[109.5MHz]	(107.8MHz)

Adjustment Location : Main board (See page 13)

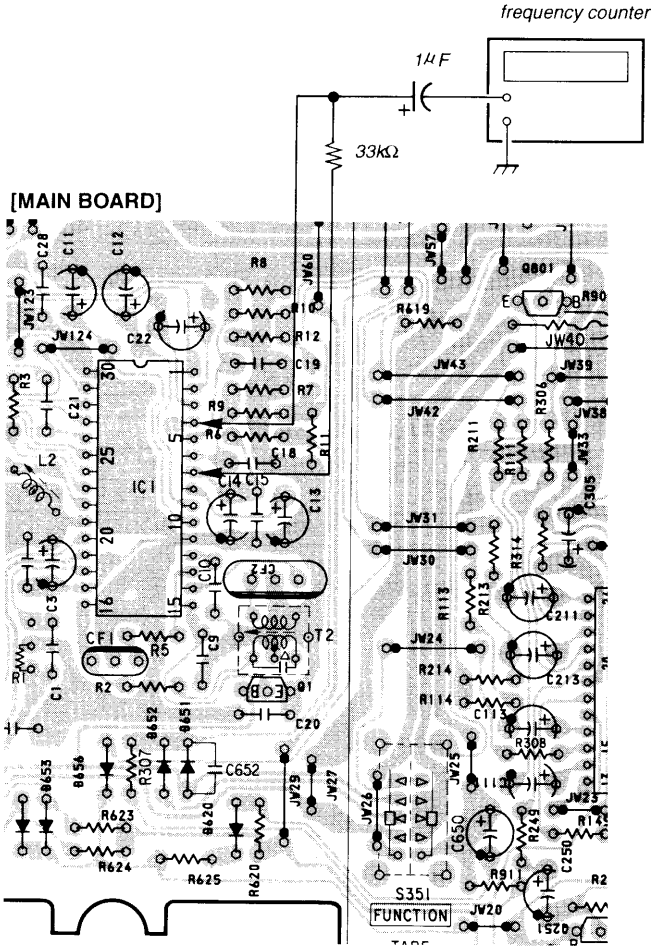
VCO Adjustment

Procedure :



Carrier frequency : 98MHz
Modulation : No modulation
Output level : 1.38mV (–55dB)

1. Connect the frequency counter to ④ and ⑦ pin of IC 1 as shown the figure below.
2. Turn the set to 98MHz.
3. Adjust RV1 for 76kHz±500Hz reading frequency counter.



CD SECTION

Note on Adjustment

1. Perform adjustment in test mode.
   After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18. Part No. 3-702-101-01) only when so indicated.

Before adjustment

Put the set into test mode and perform the following checks.
Repair if there are any problems.

- Sled Motor Check

1. Press ▶II button, then press OFF button.
2. Press ▶▶I, I◀◀ buttons and confirm that the Optical pick-up moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises. (Cancellation of BTL mute)
   ▶▶I : Optical pick-up moves to the outer circumference
   I◀◀ : Optical pick-up moves to the inner circumference

- Focus Search Check

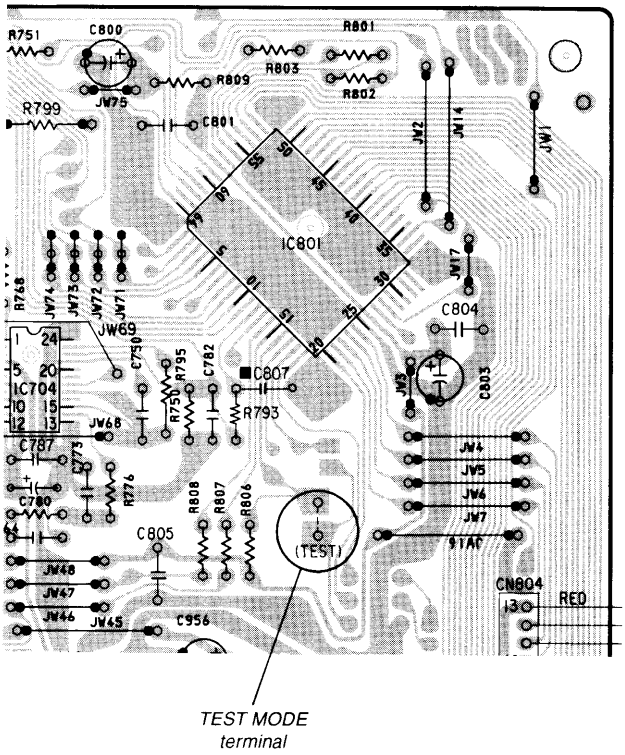
1. Press ▶II button. (Focus search operation is performed continuously.)
2. Look at the Optical pick-up objective lens and confirm that it moves up and down smoothly, with no catching or abnormal noises.
3. Press ■ button.
   Confirm that focus search operation stops. If it does not , press ■ button again longer.

Note : When the malfunction is occurred by mis-passing other buttons, turn off the power and check again from making the test mode.

How to put the Set into Test Mod

1. Short-circuit following portion (IC801 ⑯ pin) on the MAIN board.
2. Turn the POWER ON.
3. Open the short-circuit to release test mode.

[MAIN BOARD]

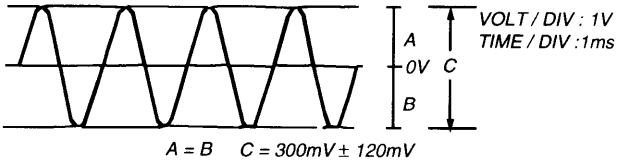


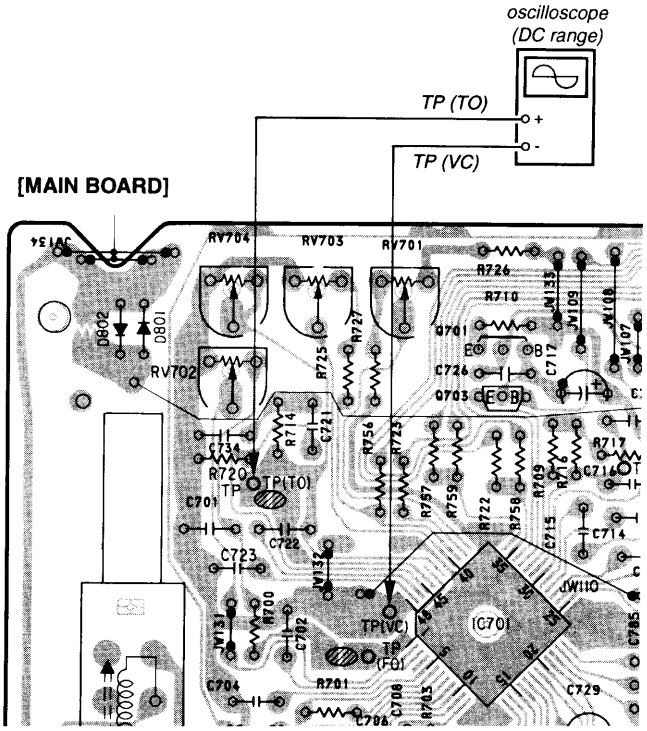
E-F Balance Adjustment

This adjustment is to be done when the optical pick-up block is replaced.

Procedure :

1. Connect the oscilloscope to test point TP (VC) and TP (TO) on MAIN board.
2. Put the set into test mode.
3. optical pick-up setting to the center by ▶▶I or I◀◀ button pushing.
4. Insert disc (YEDS-18) and press ▶II button.
5. Adjust RV703 so that the oscilloscope traveres waveform is symmetrical, as shown in the figure below.
6. Release test mode after adjustment is completed.





Adjustment Location : Main board (See page 13)

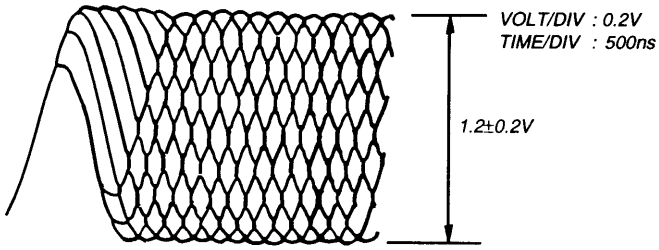
Focus Bias Adjustment

This adjustment is to be done when the optical pick-up block is replaced.

Procedure :

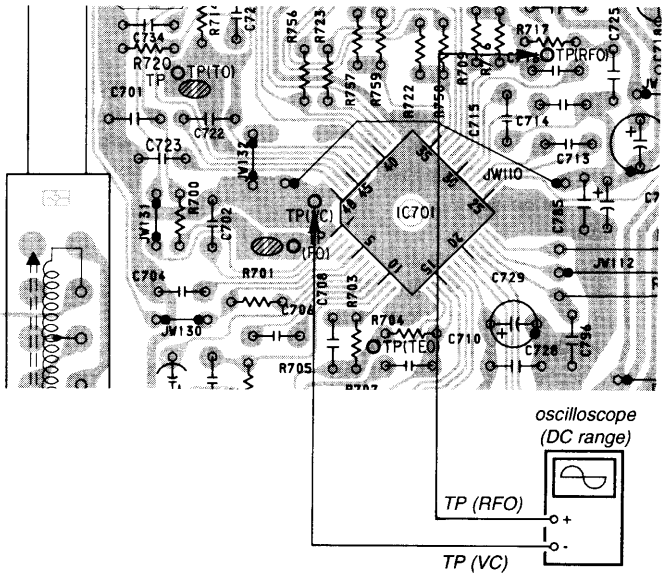
1. Connect the oscilloscope to test point TP (VC) and TP (RFO) on MAIN board.
2. Put the set into test mode.
3. Optical pick-up setting to the center by ▶▶I or I◀◀ button pushing.
4. Insert disc (YEDS-18) and press ▶II button.
5. Press the ▶II button. (Tracking servo ON)
6. Adjust RV701 so that the oscilloscope waveform is as shown in the figure below (eye pattern).
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.
7. Release test mode after adjustment is completed.

● RF signal reference waveform (eye pattern)



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

[MAIN BOARD]



Adjustment Location : Main board (See page 13)

Focus/Tracking Gain Adjustment

A frequency responce analyzer 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 this adjustment.
Focus/tracking gain determines the pick-up follow-up (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 raised, the noise when the 2-axis device operates increases.
- When gain is lowered, mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms \ Gain	Focus	Tracking
● The time until music starts becomes longer for STOP → ▶II button or automatic selection. (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP →▶II button or automatic selection. (⏮, ⏭ buttons pressed.)	–	low
● Sound is interrupted during PLAY. Or time counter display stops progressing.	–	low
● More noise during 2-axis device operation.	high	high

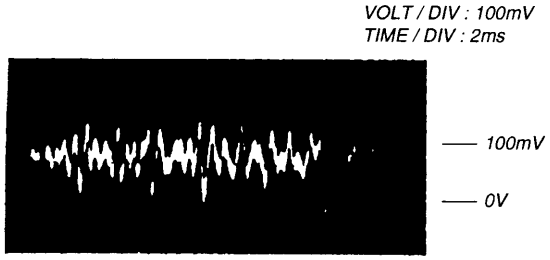
The following is a simple adjustment method.

– Primary Adjustment –

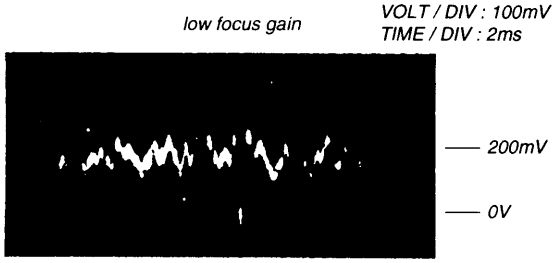
Note : Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.If the positions after the primary adjustment are only a little different, return the controls to the original position.

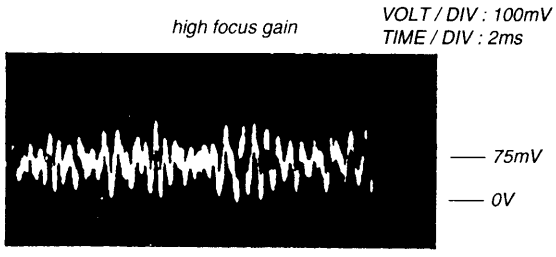
Procedure :

1. Keep the set horizontal.
   If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.
2. Insert disc (YEDS-18) and press ▶II button.
3. Connect oscilloscope to TP(FO) and TP (VC) on MAIN board.
4. Adjustment RV702 on MAIN board so that the waveform is as shown in the figure below. (Focus gain adjustment)



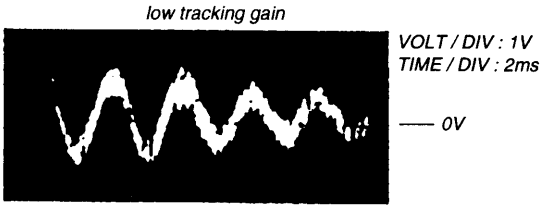
● Incorrect Examples (DC level changes more than on adjusted waveform)

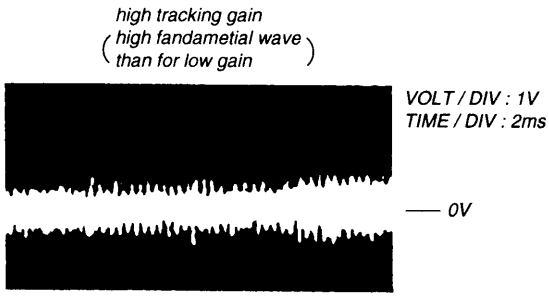


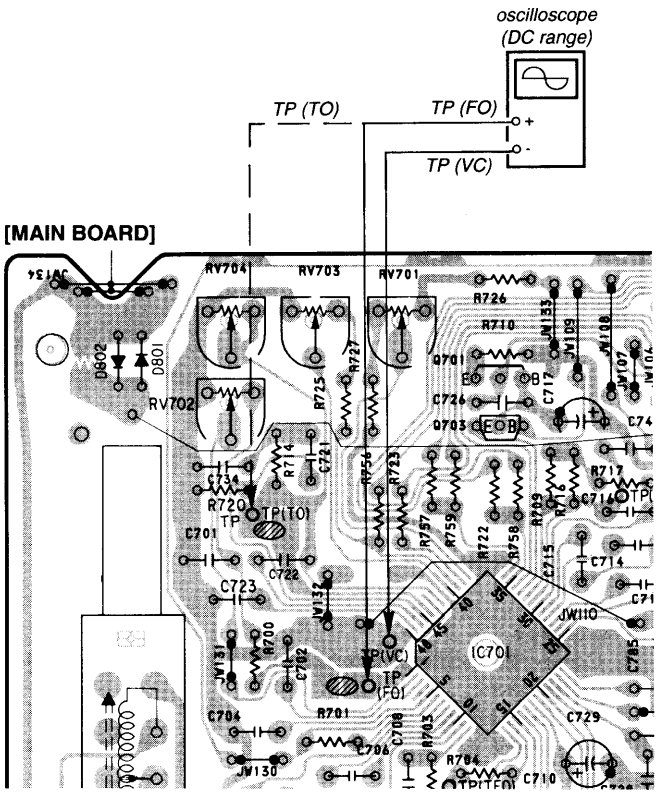


5. Connect oscilloscope to TP(TO) and TP(VC) on MAIN board.
6. Adjust RV704 on MAIN board so that the waveform is as shown in the figure below. (Tracking gain adjustment)

● Incorrect Examples (fundamential wave appears)

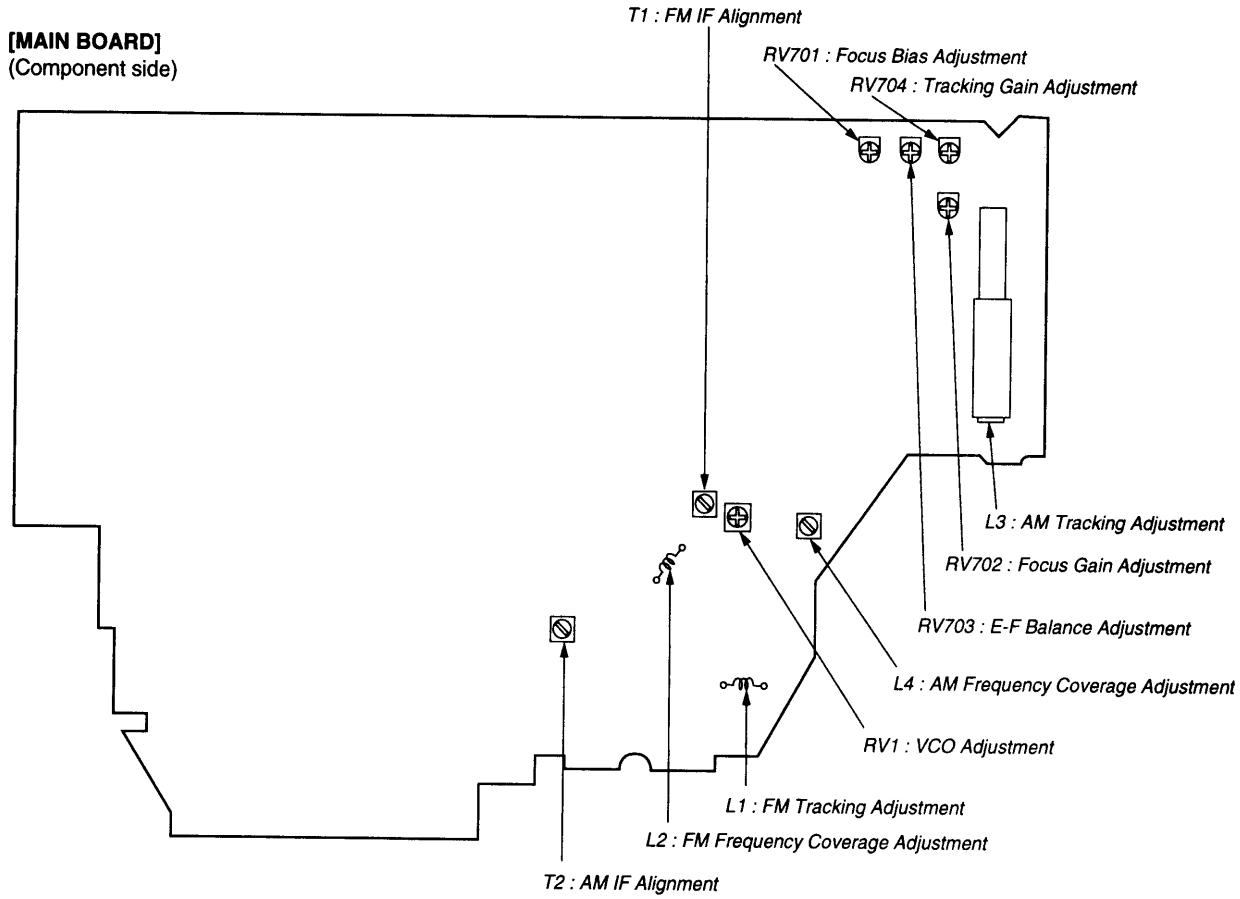


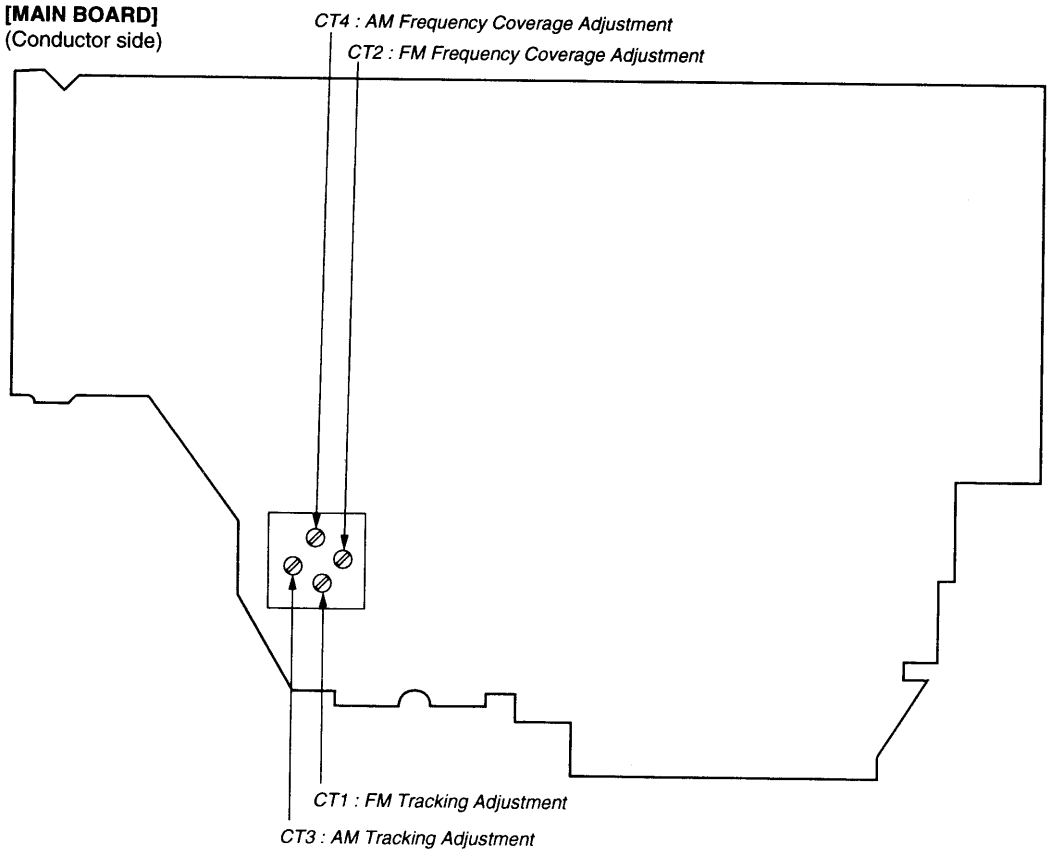




Adjustment Location : Main board (See page 13)

Adjustment Location : MAIN board (Component side)





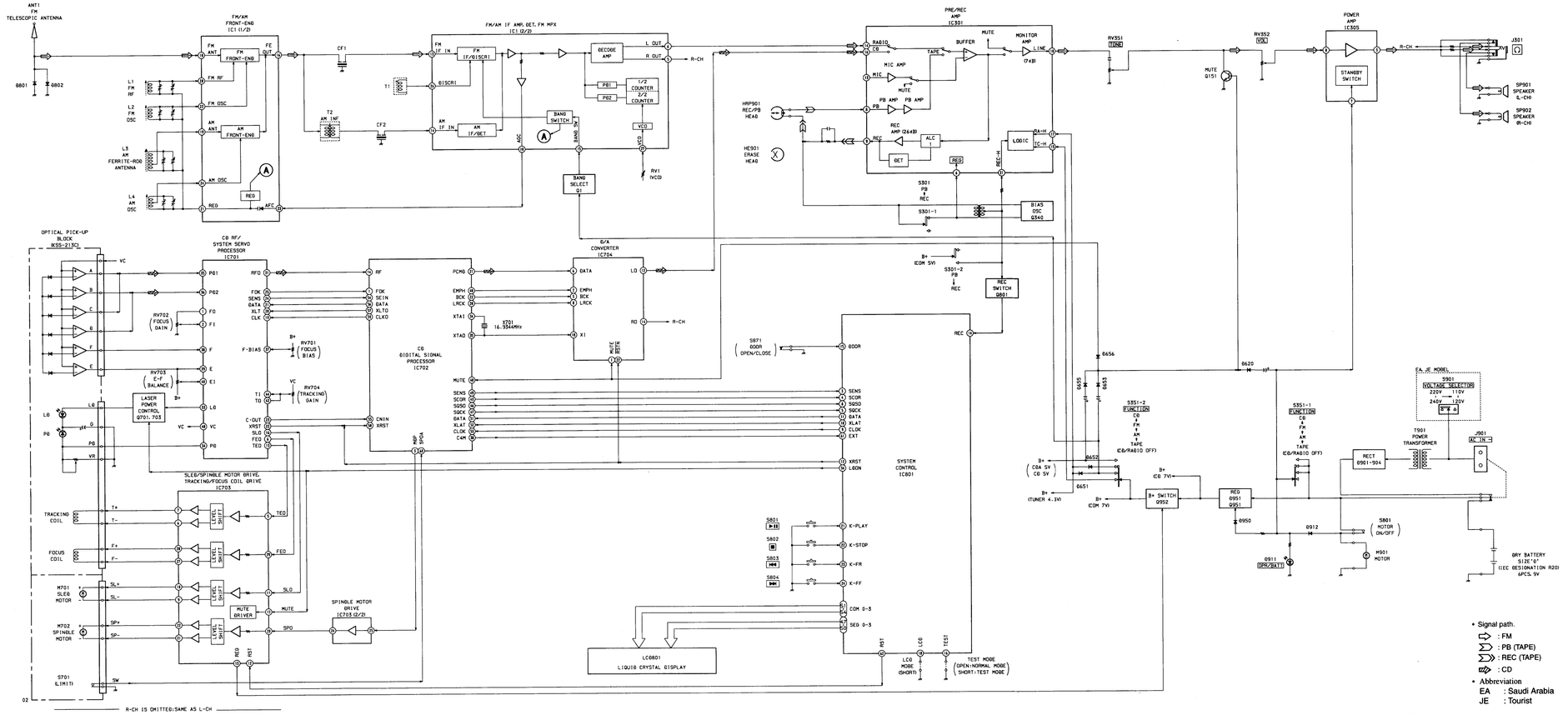
SECTION 6
EXPLANATION OF IC TERMINALS

IC801 CXP5086H-684Q (SYSTEM CONTROL)

Pin No.	Pin name	I/O	Description
1 – 2	NC	–	Not used (Open).
3	SENS	I	CD SENC input.
4	SCOR	I	CD SCOR input.
5	SQCK	O	CD SQCK output.
6 – 7	NC	–	Not used (Open).
8	SQSO	I	CD SUBQ input.
9	CLOCK	O	Clock output for CD DSP command.
10	XLAT	O	CD system lutch output.
11	DATA	O	CD DSP command data output.
12	XRST	O	CD system reset output.
13	GND	–	Ground terminal.
14	REC	I	Function REC input.
15	DOOR	I	CD door open/close input.
16	TEST	I	Test terminal. H : Normal mode, L : Test mode
17	NC	–	Not used (Open).
18	LCD	–	Not used (Connect to ground).
19	NC	–	Not used (Open).
20	NC	–	Not used (Open).
21	K-PLAY	I	PLAY key input.
22	K-STOP	I	STOP key input.
23	K-FR	I	⏮ key input.
24	K-FF	I	⏭ key input.
25	GND	–	Ground terminal.
26	VDD	–	Power supply terminal (+5V).
27	NC	–	Not used (Open).
28	NC	–	Not used (Open).
29 – 33	NC	–	Not used (Open).
34	LDON	O	Laser diode ON/OFF control.
35 – 46	NC	–	Not used (Open).
47 – 50	SEG 0 – 3	O	LCD segment output.
51 – 54	COM 0 – 3	O	LCD common output.
55	VLC1	–	LCD controller driver bias power supply.
56	VLC2	–	LCD controller driver bias power supply.
57	VLC3	–	LCD controller driver bias power supply.
58	VDD	–	Power supply terminal (+5V).
59	VL	–	Not used (Connect to ㊼ pin).
60	NC	–	Not used (Open).
61	EXT	I	Clock input from digital signal processor.
62	RST	I	Reset terminal.
63	GND	–	Ground terminal.
64	NC	–	Not used (Open).

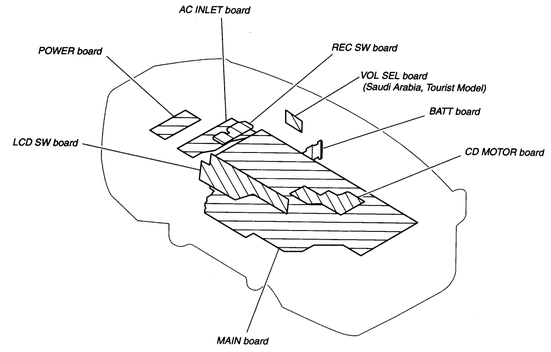
SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAM



- Signal path.
  - : FM
  - : PB (TAPE)
  - : REC (TAPE)
  - : CD
- Abbreviation
  - EA : Saudi Arabia
  - JE : Tourist

● CIRCUIT BOARDS LOCATION



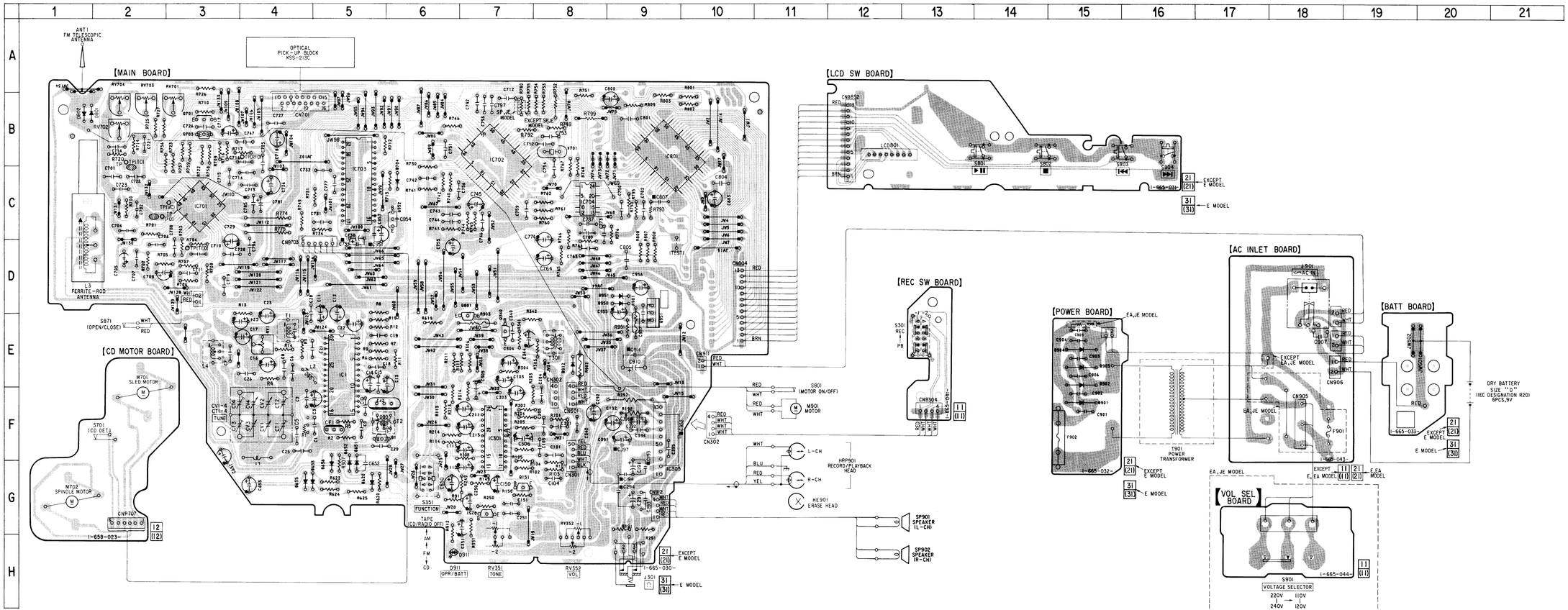
7-2. PRINTED WIRING BOARDS

• **SEMICONDUCTOR LOCATION**

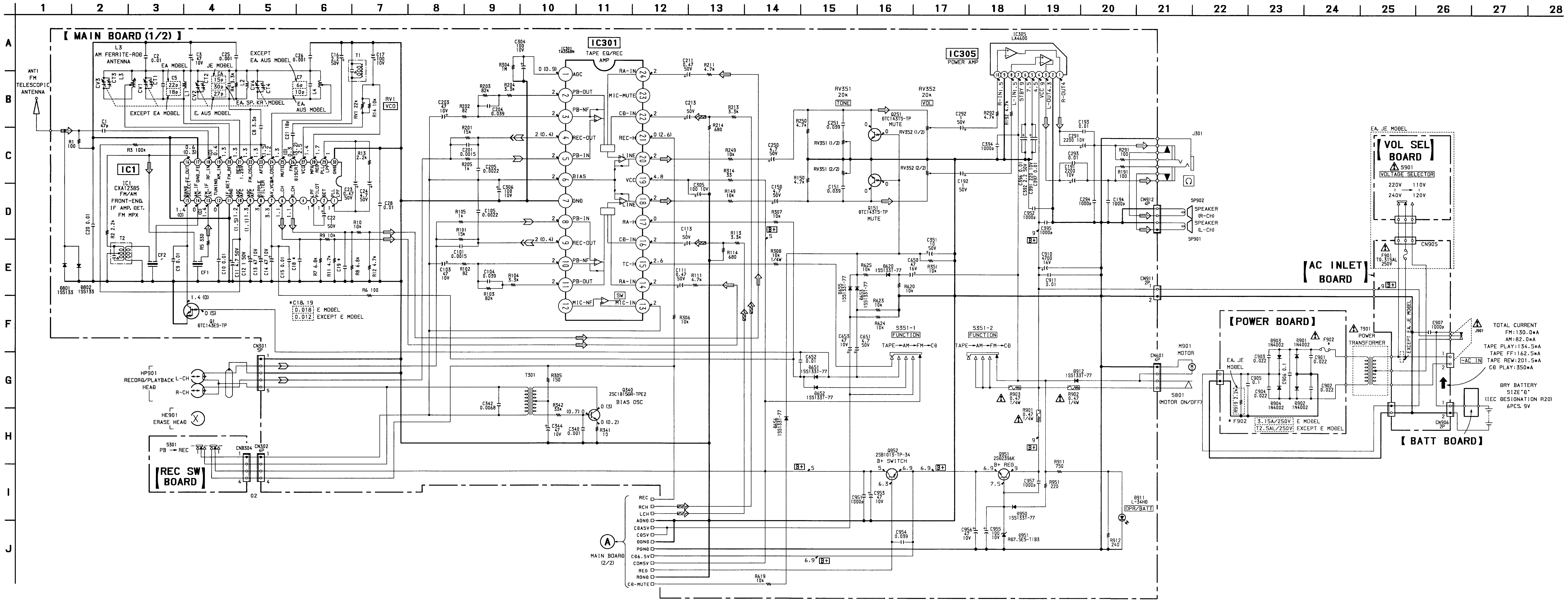
Ref. No.	Location
D620	G-5
D651	G-5
D652	G-5
D653	G-4
D655	G-4
D656	G-5
D704	C-6
D801	B-1
D802	B-1
D901	F-15
D902	E-15
D903	E-15
D904	E-15
D911	H-6
D912	E-8
D950	D-9
D951	D-9
IC1	E-5
IC301	F-7
IC305	F-9
IC701	C-3
IC702	B-7
IC703	C-5
IC704	C-8
IC801	B-9
Q1	F-5
Q151	G-7
Q251	G-7
Q340	E-7
Q701	B-3
Q703	B-3
Q801	E-7
Q951	D-9

Note:

- ○— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- : Pattern on the side which is seen.

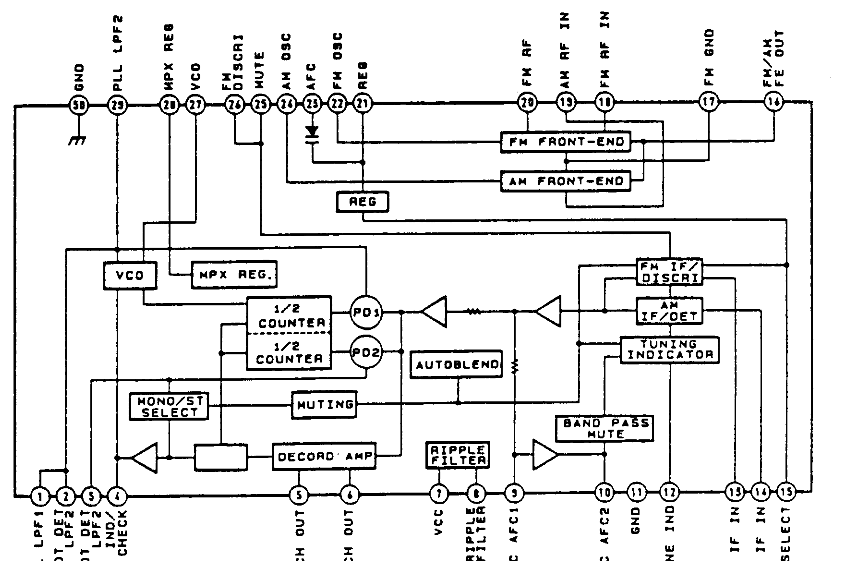


7-3. SCHEMATIC DIAGRAM – MAIN SECTION –



● IC BLOCK DIAGRAM –MAIN SECTION –

IC1 CXA1238S



Note :

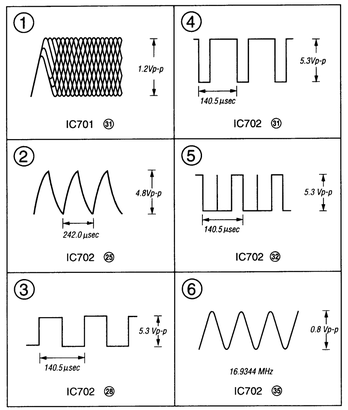
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- Δ : internal component.
- ─W∿─ : fusible resistor.

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

- B+ : B+ Line
- ▭ : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltage are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM (Radio section), CD STOP (CD section), PLAY (Tape section)
  (   ) : AM (Radio section), REC (Tape section)
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM ⋗ : PB
  ⇨ : CD ⋗⋗ : REC
- Abbreviation
  KR : Korean
  EA : Saudi Arabia
  AUS : Australian
  SP : Singapore
  JE : Tourist

7-4. SCHEMATIC DIAGRAM – CD SECTION –

● WAVEFORMS

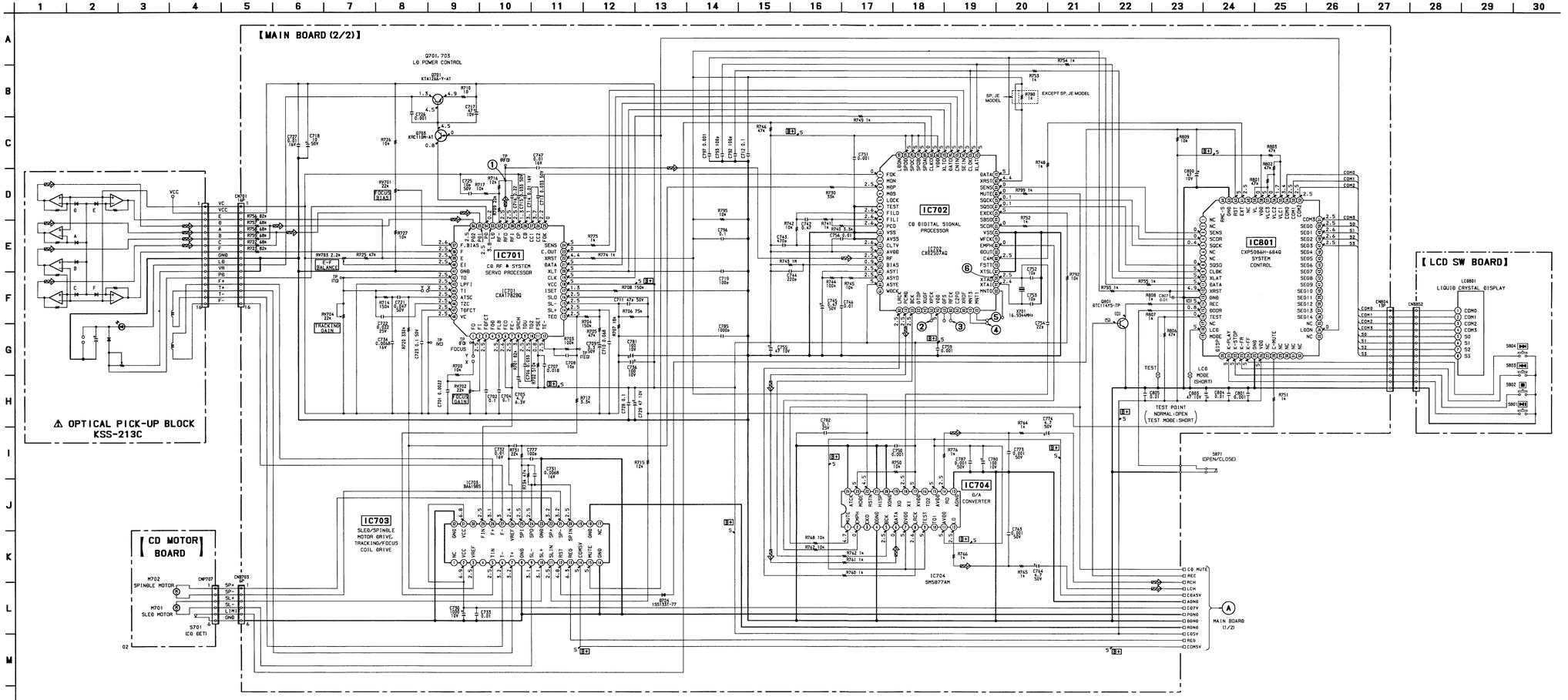


Note :

- All capacitors are in µF unless otherwise noted. pF: µµF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4-W or less unless otherwise specified.

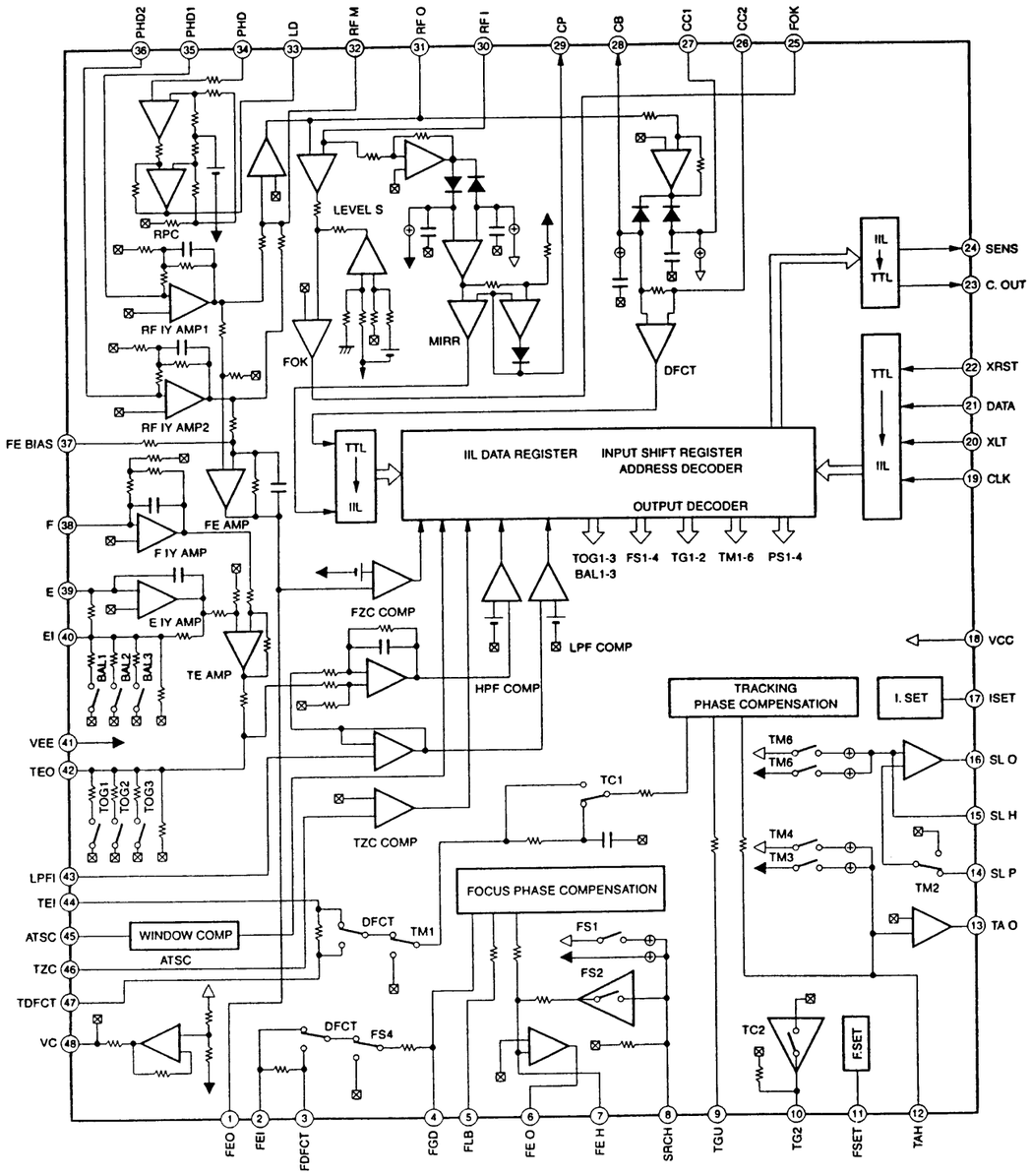
Note : The components identified by mark ⚠ or dotted line with mark ⚠are critical for safety. Replace only with part number specified.

- B+ : B+ Line
- ▭ : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM (Radio section), CD STOP (CD section), PLAY (Tape section)
  ( ) : AM (Radio section), REC (Tape section)
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ▱▷ : CD
- Abbreviation
  KR : Korean
  EA : Saudi Arabia
  AUS : Australian
  SP : Singapore
  JE : Tourist

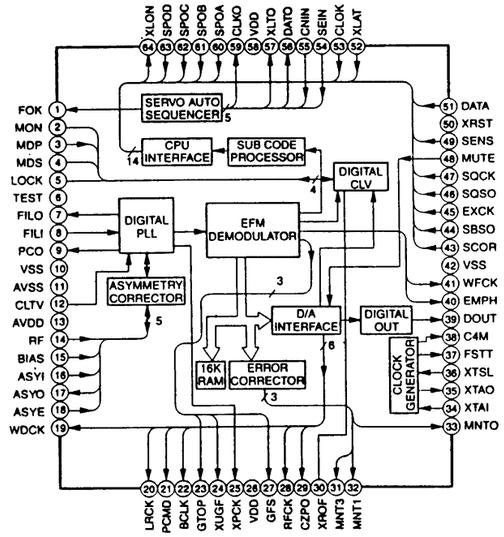


• IC BLOCK DIAGRAMS – CD SECTION –

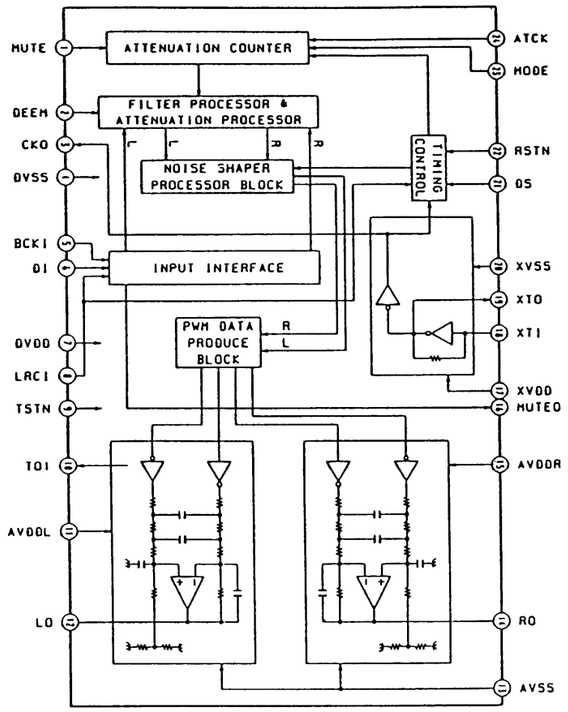
IC701 CXA1782BQ



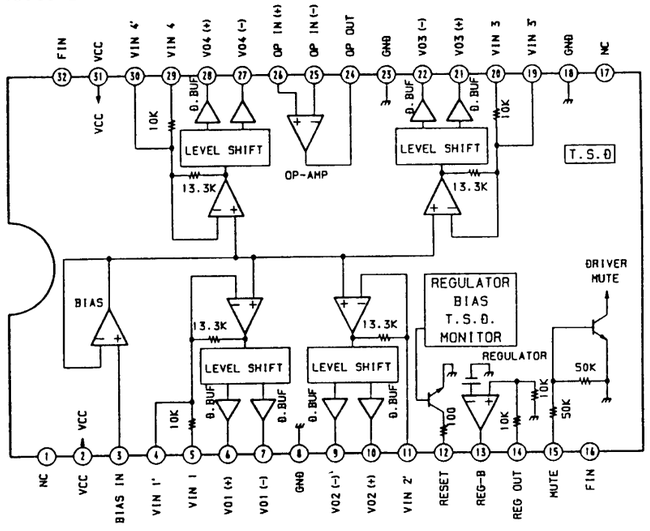
IC702 CXD2507AQ



IC704 SM5877AM



IC703 BA6198S

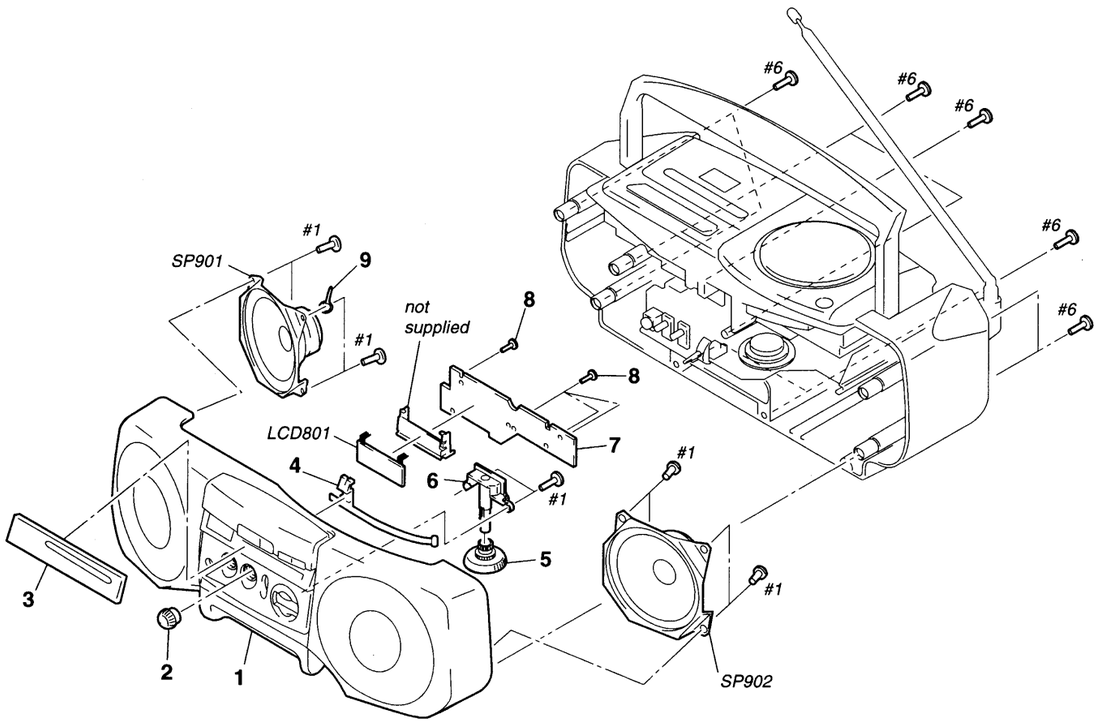


SECTION 8
EXPLODED VIEWS

NOTE :
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ••• (RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  KR : Korean
  EA : Saudi Arabia
  AUS : Australian
  SP : Singapore
  JE : Tourist

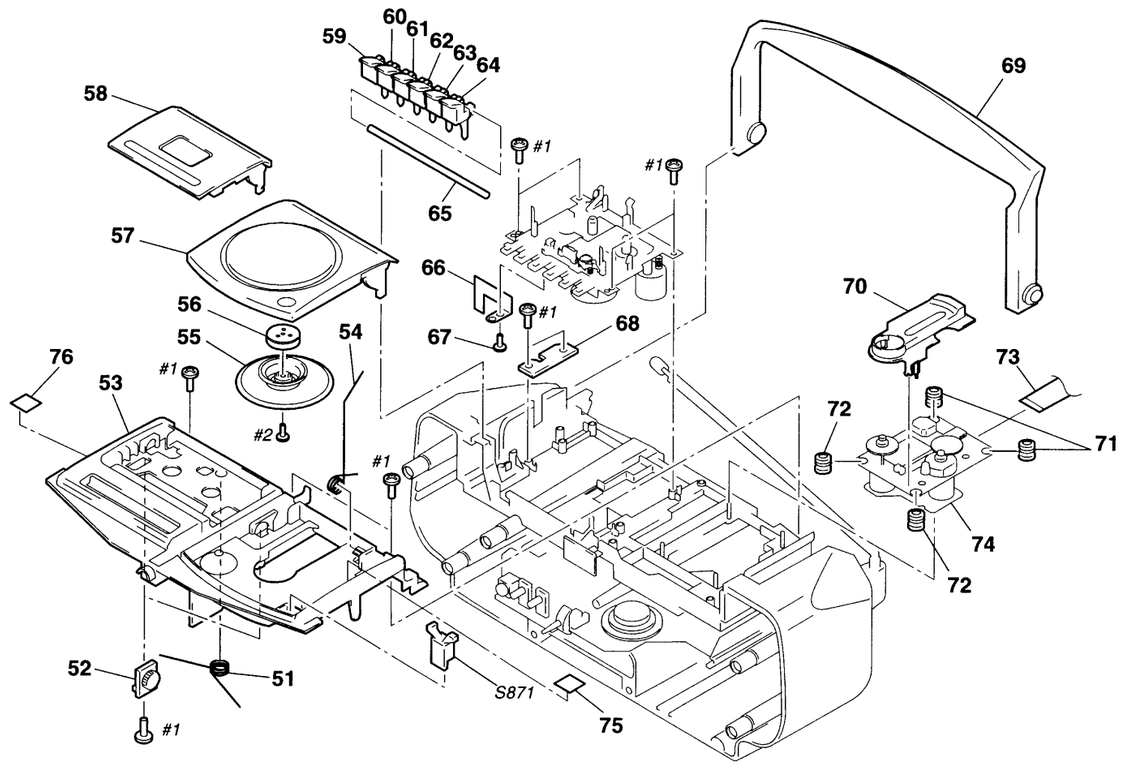
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

8-1. FRONT CABINET SECTION



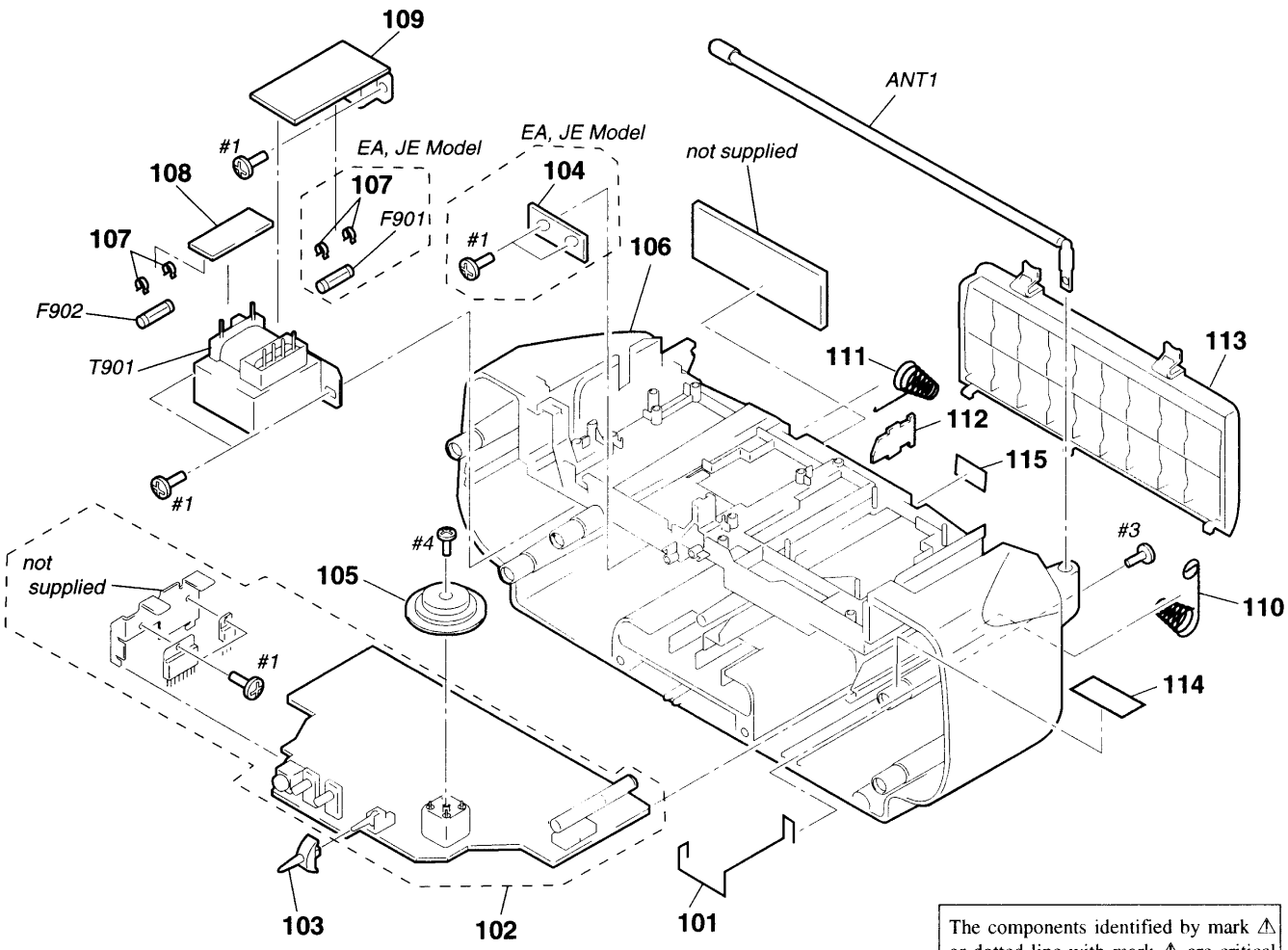
Ref. No.	Part No.	Description	Remark
1	X-3373-461-1	CABINET (FRONT) SUB ASSY (E)	
1	X-3373-930-1	CABINET (FRONT) SUB ASSY (KR, EA, AUS, SP, JE)	
1	X-3373-932-1	CABINET (FRONT) SUB ASSY (SP : ROUND SPEAKER GRILL TYPE)	
2	3-009-193-01	KNOB (VOL) (E)	
2	3-009-193-21	KNOB (VOL) (SP,KR,AUS,JE,EA)	
3	3-011-331-01	WINDOW TU (E)	
3	3-011-331-41	WINDOW TU (SP,KR)	
3	3-011-331-71	WINDOW TU (AUS)	
3	3-014-070-11	WINDOW TU (JE)	
3	3-014-070-21	WINDOW TU (EA)	
4	3-009-191-01	POINTER	
5	3-009-190-01	KNOB (TU) (E)	
5	3-009-190-21	KNOB (TU) (SP,KR,EA,AUS,JE)	
* 6	3-009-189-01	CHASSIS, TU	
* 7	1-665-031-21	LCD SW BOARD (EXCEPT E)	
* 7	1-665-031-31	LCD SW BOARD (E)	
8	4-951-620-01	SCREW (2.6X8), +BVTP	
9	3-703-397-01	STOPPER, WIRING	
LCD801	1-810-442-31	DISPLAY PANEL, LIQUID CRYSTAL	
SP901	1-505-531-11	SPEAKER (10cm) (L-CH)	
SP902	1-505-531-11	SPEAKER (10cm) (R-CH)	

8-2. UPPER CABINET SECTION



Ref. No.	Part No.	Description	Remark
51	3-009-208-01	SPRING, CASSETTE UP	
52	3-922-112-11	DAMPER	
53	3-009-186-01	CABINET (UPPER)	
54	3-009-209-01	SPRING, CD UP	
55	3-923-498-01	PLATE, CHUCK	
56	1-452-899-11	MAGNET	
57	3-009-187-01	LID, CD	
58	X-3373-389-1	HOLDER SUB ASSY, CASSETTE	
59	3-009-196-01	BUTTON (REC)	
60	3-009-199-01	BUTTON (PLAY)	
61	3-009-198-01	BUTTON (REW)	
62	3-009-197-01	BUTTON (FF)	
63	3-009-200-01	BUTTON (STOP)	
64	3-009-195-01	BUTTON (PAUSE)	
* 65	3-009-206-01	SHAFT (MD)	
66	3-009-214-01	SPRING, REC	
67	4-951-620-01	SCREW (2.6X8), +BVTP	
* 68	1-665-041-11	REC SW BOARD	
69	3-009-201-01	HANDLE	
70	3-923-736-01	COVER, CD	
71	3-910-095-01	RUBBER, VIBRATION PROOF (RED)	
72	3-910-095-11	RUBBER, VIBRATION PROOF (GREEN)	
73	1-777-955-11	WIRE (FLAT TYPE) (16 CORE)	
74	1-639-678-12	CD MOTOR BOARD	
75	3-015-646-01	CUSHION (CD)	
76	3-923-151-01	CUSHION, RUBBER	
S871	1-692-960-11	SWITCH, PUSH (1 KEY) (OPEN/CLOSE)	

8-3. REAR CABINET SECTION

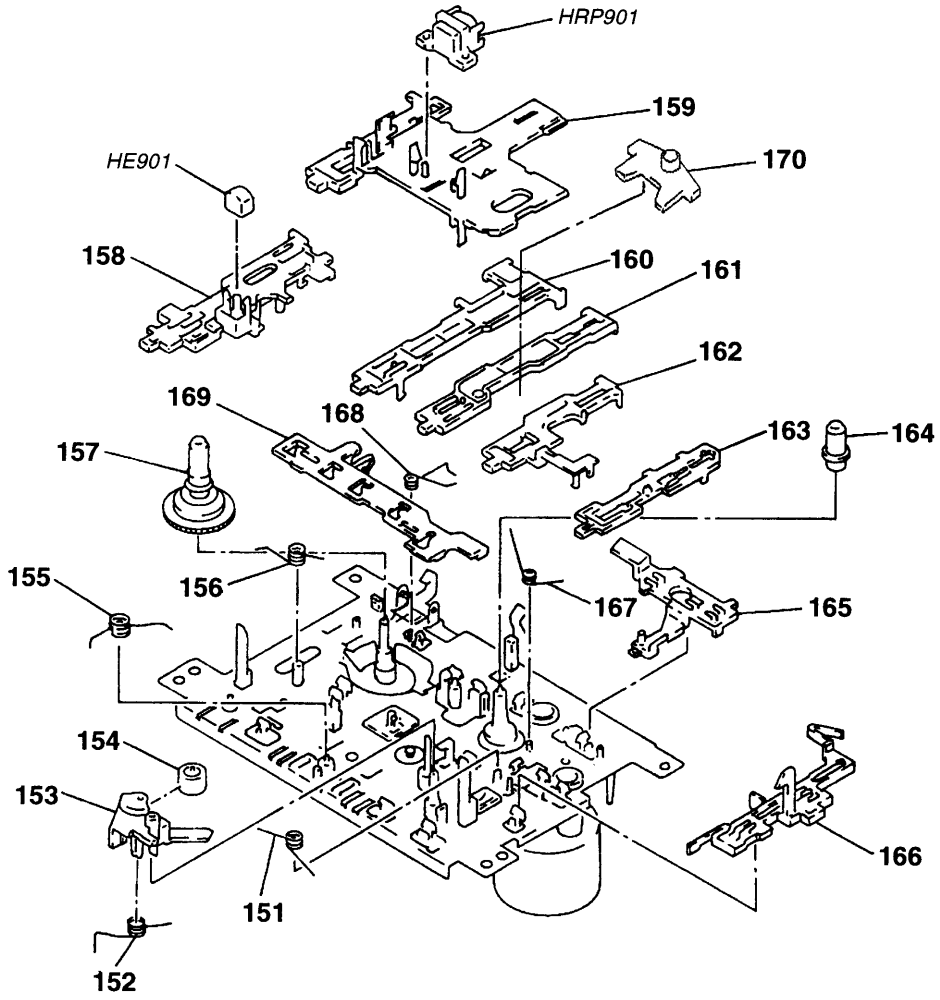


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 101	3-009-215-01	TERMINAL (ANALOG), ANTENNA	
* 102	A-3293-634-A	MAIN BOARD, COMPLETE (SP)	
* 102	A-3306-643-A	MAIN BOARD, COMPLETE (E)	
* 102	A-3306-646-A	MAIN BOARD, COMPLETE (EA)	
* 102	A-3306-662-A	MAIN BOARD, COMPLETE (AUS)	
* 102	A-3306-706-A	MAIN BOARD, COMPLETE (JE)	
* 102	A-3306-758-A	MAIN BOARD, COMPLETE (KR)	
103	3-009-194-21	KNOB (FUN) (EXCEPT E, EA)	
103	3-009-194-01	KNOB (FUN) (E, EA)	
* 104	1-665-044-11	VOL SEL BOARD (EA,JE)	
105	3-009-192-01	GEAR, TUNING CAPACITOR	
106	3-009-185-11	CABINET (REAR) (E)	
106	3-009-185-51	CABINET (REAR) (EA,JE)	
106	3-009-185-61	CABINET (REAR) (SP,KR,AUS)	
107	1-533-233-21	HOLDER, FUSE	
* 108	1-665-032-21	POWER BOARD(EXCEPT E)	
* 108	1-665-032-31	POWER BOARD(E)	

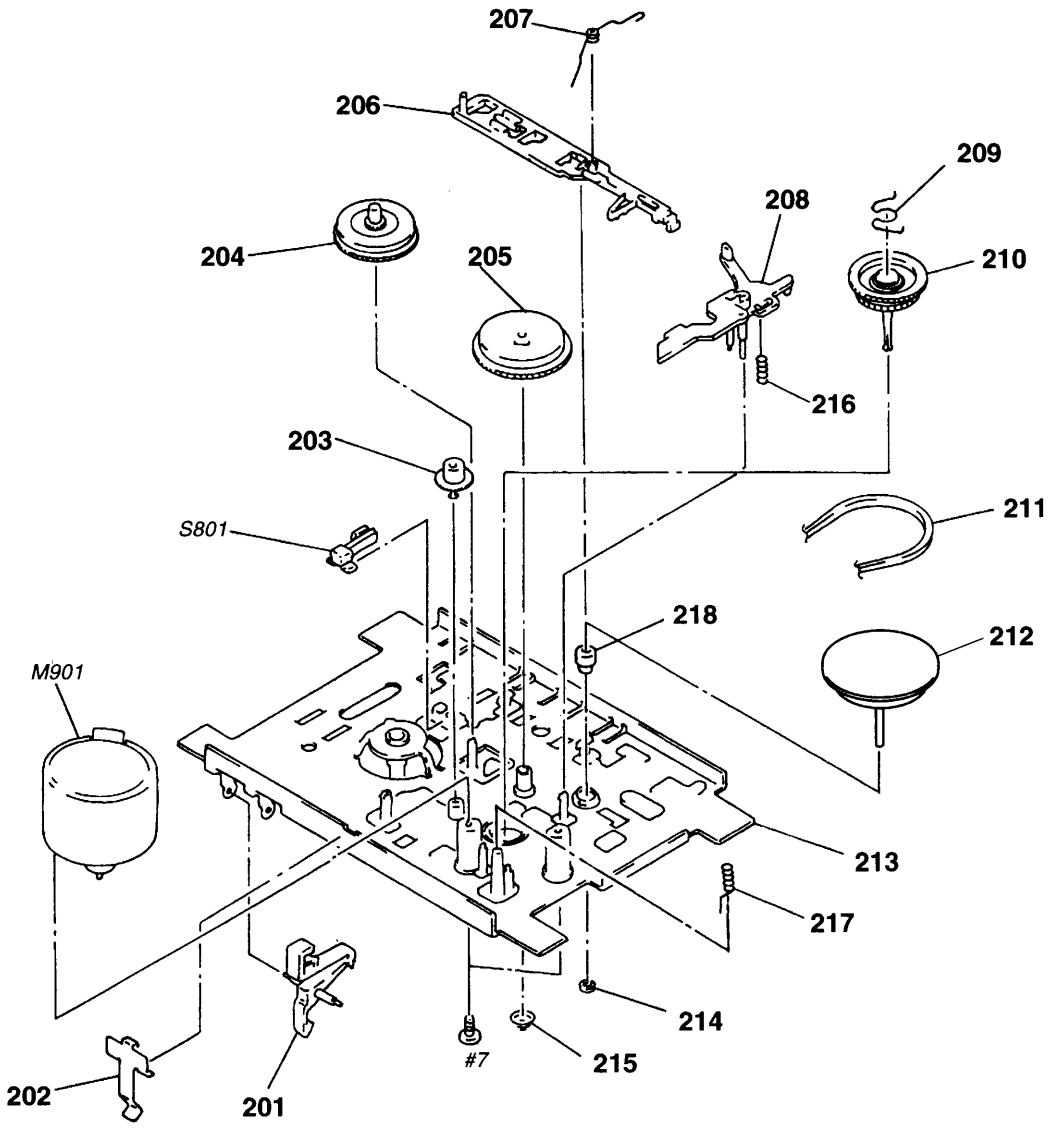
Ref. No.	Part No.	Description	Remark
* 109	1-665-034-31	AC INLET BOARD (E)	
* 109	1-665-043-21	AC INLET BOARD (EXCEPT E)	
110	3-009-210-01	SPRING (+ –)	
111	3-009-211-01	SPRING (–)	
* 112	1-665-033-31	BATT BOARD (E)	
* 112	1-665-033-21	BATT BOARD (EXCEPT E)	
113	3-009-202-01	LID, BATTERY CASE	
114	3-831-441-11	CUSHION (B)	
115	3-015-505-01	SEAL (A)	
ANT1	1-501-883-11	ANTENNA, TELESCOPIC	
⚠F901	1-532-467-51	FUSE, TIME LAG (T0.315AL/250V) (EA,JE)	
⚠F902	1-532-464-31	FUSE, TIME LAG (T2.5AL/250V) (EXCEPT E)	
⚠F902	1-533-618-11	FUSE, GLASS CYLINDERICAL (3.15A/250V) (E)	
⚠T901	1-426-632-11	TRANSFORMER, POWER (SP,KR,AUS)	
⚠T901	1-429-122-11	TRANSFORMER, POWER (EA,JE)	
⚠T901	1-431-230-11	TRANSFORMER, POWER (E)	

8-4. MECHANISM DECK SECTION (1)
(MF-V10-117)



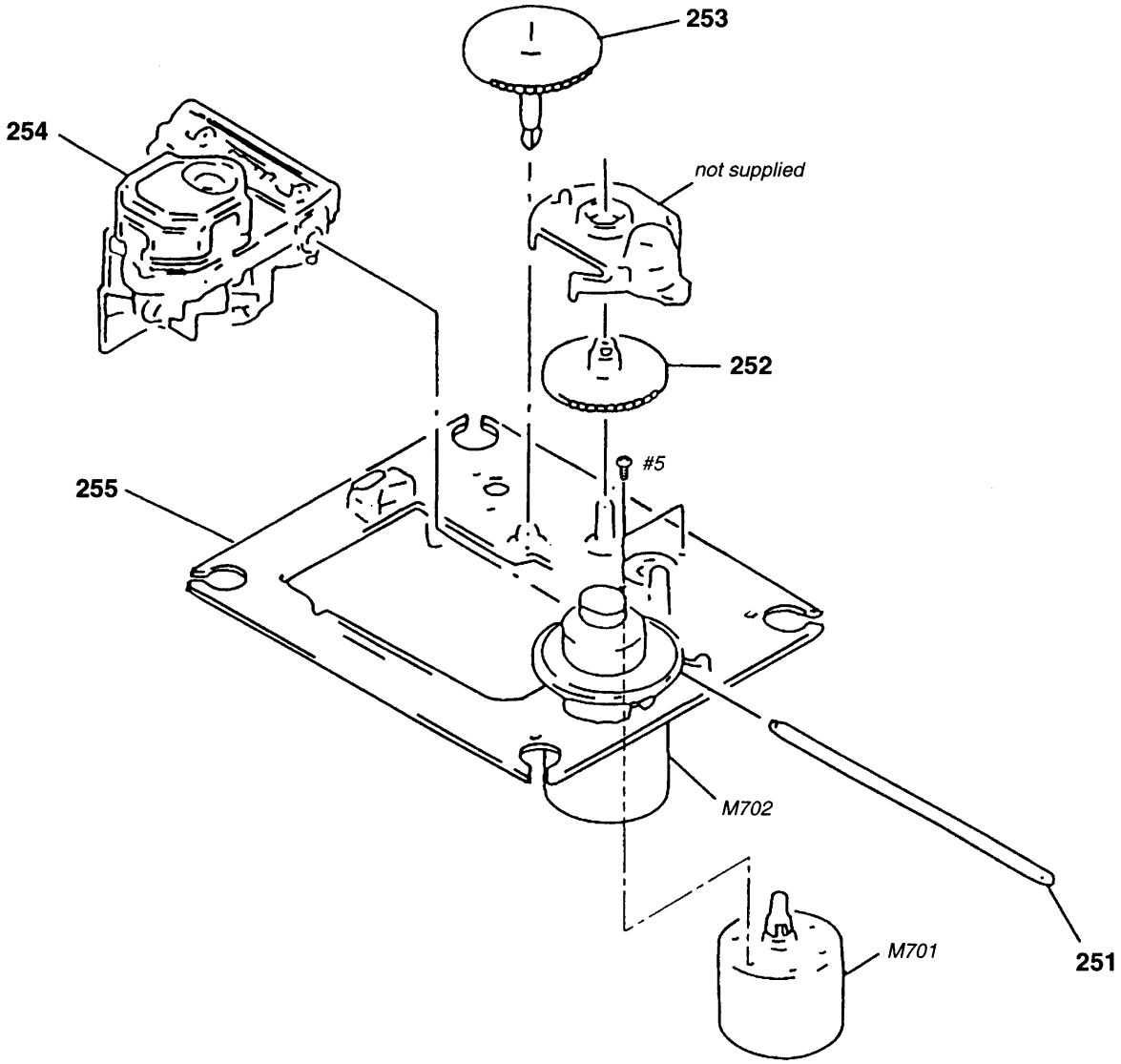
Ref. No.	Part No.	Description	Remark
151	3-933-010-01	SPRING (S/P), TORSION	
152	3-933-025-01	SPRING (P), TORSION	
153	3-933-026-01	LEVER (P)	
154	3-933-024-01	ROLLER, PINCH	
155	3-933-019-01	SPRING (F/R), TORSION	
156	3-933-028-01	SPRING (FWD), TORSION	
157	3-933-016-01	GEAR (S REEL)	
158	3-008-590-01	SLIDER (REC)	
159	3-008-592-01	BASE (H), HEAD	
* 160	3-008-588-01	SLIDER (REW)	
* 161	3-008-589-01	SLIDER (FF)	
* 162	3-008-587-01	SLIDER (STOP)	
163	3-008-591-01	SLIDER (PAUSE)	
164	3-933-004-01	CLAW, REEL	
* 165	3-933-021-01	SLIDER (FRP)	
166	3-933-006-01	SLIDER (EJECT)	
167	3-934-833-01	SPRING (FRP)	
168	3-934-834-01	SPRING (BT)	
169	3-933-007-01	PLATE, LOCK	
* 170	3-012-114-01	LEVER (FR)	
HE901	1-543-876-11	HEAD (ERASE)	
HRP901	1-500-364-11	HEAD,MAGNETIC(RECORD/PLAYBACK)	

8-5. MECHANISM DECK SECTION (2)
(MF-V10-117)



Ref. No.	Part No.	Description	Remark
201	3-933-029-01	LEVER, ERASING PREVENTION	
202	3-933-182-01	SPRING, CASSETTE	
203	3-932-995-01	GEAR (MID)	
204	X-3371-667-1	CLUTCH ASSY	
205	3-932-997-01	GEAR (CAM)	
* 206	3-932-999-01	SLIDER (SW)	
207	3-932-998-01	SPRING (GROUND), TORSION	
208	3-932-996-01	LEVER (S.OFF)	
209	3-934-835-01	SPRING (S.OFF)	
210	X-3371-666-1	REEL ASSY, T	
211	3-933-020-01	BELT	
212	X-3372-924-1	FLYWHEEL ASSY	
213	3-932-993-01	CHASSIS, OUTSERT	
214	3-343-358-01	RING, RETAINING	
215	3-933-005-01	SPRING (CAM), COMPRESSION	
216	3-939-383-01	SPRING, COMPRESSION	
217	3-937-760-01	SPRING (GROUND), COMPRESSION	
218	3-934-336-01	BEARING	
M901	A-3304-621-A	MOTOR ASSY	
S801	1-762-679-11	SWITCH, LEAF (MOTOR ON/OFF)	

8-6. OPTICAL PICK-UP SECTION (KSM-213CAM/C1NP)



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

Ref. No.	Part No.	Description	Remark
251	2-626-908-01	SHAFT, SLED	
252	2-627-003-02	GEAR (B)(RP)	
253	2-626-907-01	GEAR (A) (S)	
⚠254	8-820-018-02	OPTICAL PICK-UP KSS-213C	
255	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	
M701	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	

AC INLET | BATT | CD MOTOR | LCD SW | MAIN

SECTION 9
ELECTRICAL PARTS LIST

NOTE :
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE :Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  KR : Korean
  EA : Saudi Arabia
  AUS : Australian
  SP : Singapore
  JE : Tourist

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

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
*	1-665-043-11	AC INLET BOARD (EXCEPT E,EA)	
*	1-665-043-21	AC INLET BOARD (E,EA)	
		**********	
	1-533-233-21	HOLDER, FUSE (EA, JE)	
		< CAPACITOR >	
C907	1-162-294-31	CERAMIC 0.001uF 10%	
		< CONNECTOR >	
* CN905	1-564-752-11	PIN, CONNECTOR (WITH LOCK) 3P (EA, JE)	
* CN906	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P	
		< FUSE >	
⚠F901	1-532-467-51	FUSE, TIME LAG (T0.315AL/250V) (EA,JE)	
		< JACK >	
⚠J901	1-526-818-11	INLET, AC (~AC IN) (E)	
⚠J901	1-526-838-11	INLET, AC 2P (~AC IN) (EXCEPT E)	
**********			
*	1-665-033-31	BATT BOARD (E)	
*	1-665-033-21	BATT BOARD (EXCEPT E)	
		**********	
**********			
	1-639-678-12	CD MOTOR BOARD	
		**********	
		< CONNECTOR >	
CNP707	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P	
		< SWITCH >	
S701	1-572-085-11	SWITCH, LEAF (CD DET)	
**********			
*	1-665-031-31	LCD SW BOARD (E)	
*	1-665-031-21	LCD SW BOARD (EXCEPT E)	
		**********	
		< LIQUID CRYSTAL DISPLAY >	
LCD801	1-810-442-31	DISPLAY PANEL, LIQUID CRYSTAL	
		< SWITCH >	
S801	1-762-798-11	SWITCH, KEYBOARD (▶II)	
S802	1-762-798-11	SWITCH, KEYBOARD (■)	
S803	1-762-798-11	SWITCH, KEYBOARD (I◀◀)	
S804	1-762-798-11	SWITCH, KEYBOARD (▶▶I)	
**********			
*	A-3293-634-A	MAIN BOARD, COMPLETE (SP)	
*	A-3306-643-A	MAIN BOARD, COMPLETE (E)	
*	A-3306-646-A	MAIN BOARD, COMPLETE (EA)	
*	A-3306-662-A	MAIN BOARD, COMPLETE (AUS)	
*	A-3306-706-A	MAIN BOARD, COMPLETE (JE)	
*	A-3306-758-A	MAIN BOARD, COMPLETE (KR)	
		**********	
	7-621-773-95	SCREW +B 2.6X6	
	3-009-194-21	KNOB (FUN)	
	3-009-192-01	GEAR, TUNING CAPACITOR	
	3-009-194-01	KNOB (FUN)	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
		< CAPACITOR >	
C1	1-162-215-31	CERAMIC 47PF 5% 50V	
C2	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C3	1-104-664-11	ELECT 47uF 20% 10V	
C5	1-162-207-31	CERAMIC 22PF 5% 50V (EA)	
C5	1-162-205-31	CERAMIC 18PF 5% 50V (EXCEPT EA)	
C6	1-102-951-00	CERAMIC 15PF 5% 50V (JE)	
C6	1-102-962-00	CERAMIC 30PF 5% 50V (EA,SP,KR)	
C6	1-102-961-00	CERAMIC 27PF 5% 50V (E,AUS)	
C7	1-102-947-00	CERAMIC 10PF 5% 50V (EA,AUS)	
C7	1-102-943-00	CERAMIC 6.0PF ± 0.5PF 50V (SP,E,KR,JE)	
C8	1-162-193-31	CERAMIC 3.3PF 10% 50V	
C9	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C10	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C11	1-126-963-11	ELECT 4.7uF 20% 50V	
C12	1-124-903-11	ELECT 1uF 20% 50V	
C13	1-104-664-11	ELECT 47uF 20% 10V	
C14	1-104-664-11	ELECT 47uF 20% 10V	
C15	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C16	1-126-961-11	ELECT 2.2uF 20% 50V	
C17	1-124-443-00	ELECT 100uF 20% 10V	
C18	1-162-840-11	CERAMIC 0.012uF 10% 16V (EXCEPT E)	
C18	1-162-842-11	CERAMIC 0.018uF 10% 16V (E)	
C19	1-162-840-11	CERAMIC 0.012uF 10% 16V (EXCEPT E)	

MAIN

Ref. No.	Part No.	Description			Remark
C19	1-162-842-11	CERAMIC	0.018uF	10%	16V (E)
C20	1-162-306-11	CERAMIC	0.01uF	20%	16V
C21	1-162-205-31	CERAMIC	18PF	5%	50V
C22	1-124-903-11	ELECT	1uF	20%	50V
C23	1-124-902-00	ELECT	0.47uF	20%	50V
C24	1-126-963-11	ELECT	4.7uF	20%	50V
C25	1-162-294-31	CERAMIC	0.001uF	10%	50V
C26	1-162-294-31	CERAMIC	0.001uF	10%	50V
C28	1-162-306-11	CERAMIC	0.01uF	20%	16V
C101	1-162-301-11	CERAMIC	0.0015uF	20%	16V
C103	1-104-664-11	ELECT	47uF	20%	10V
C104	1-161-020-11	CERAMIC	0.039uF	10%	16V
C105	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C111	1-124-902-00	ELECT	0.47uF	20%	50V
C113	1-124-903-11	ELECT	1uF	20%	50V
C150	1-126-963-11	ELECT	4.7uF	20%	50V
C151	1-136-160-00	FILM	0.039uF	5%	50V
C191	1-126-927-11	ELECT	2200uF	20%	10V
C192	1-124-903-11	ELECT	1uF	20%	50V
C193	1-136-153-00	FILM	0.01uF	5%	50V
C194	1-102-074-00	CERAMIC	0.001uF	10%	50V
C201	1-162-301-11	CERAMIC	0.0015uF	20%	16V
C203	1-104-664-11	ELECT	47uF	20%	10V
C204	1-161-020-11	CERAMIC	0.039uF	10%	16V
C205	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C211	1-124-902-00	ELECT	0.47uF	20%	50V
C213	1-124-903-11	ELECT	1uF	20%	50V
C250	1-126-963-11	ELECT	4.7uF	20%	50V
C251	1-136-160-00	FILM	0.039uF	5%	50V
C291	1-126-927-11	ELECT	2200uF	20%	10V
C292	1-124-903-11	ELECT	1uF	20%	50V
C293	1-136-153-00	FILM	0.01uF	5%	50V
C294	1-102-074-00	CERAMIC	0.001uF	10%	50V
C304	1-124-443-00	ELECT	100uF	20%	10V
C305	1-124-443-00	ELECT	100uF	20%	10V
C306	1-124-443-00	ELECT	100uF	20%	10V
C340	1-162-294-31	CERAMIC	0.001uF	10%	50V
C342	1-130-481-00	MYLAR	0.0068uF	5%	50V
C344	1-104-664-11	ELECT	47uF	20%	10V
C351	1-124-907-11	ELECT	10uF	20%	50V
C391	1-104-666-11	ELECT	220uF	20%	10V
C392	1-126-961-11	ELECT	2.2uF	20%	50V
C394	1-162-294-31	CERAMIC	0.001uF	10%	50V
C395	1-162-294-31	CERAMIC	0.001uF	10%	50V
C396	1-162-306-11	CERAMIC	0.01uF	20%	16V
C397	1-162-306-11	CERAMIC	0.01uF	20%	16V
C650	1-104-664-11	ELECT	47uF	20%	16V
C651	1-126-963-11	ELECT	4.7uF	20%	50V
C652	1-162-306-11	CERAMIC	0.01uF	20%	16V
C653	1-104-664-11	ELECT	47uF	20%	10V
C701	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C702	1-136-165-00	FILM	0.1uF	5%	50V
C704	1-136-165-00	FILM	0.1uF	5%	50V
C705	1-131-375-00	TANTALUM	4.7uF	10%	10V
C706	1-130-489-00	MYLAR	0.033uF	5%	50V
C707	1-130-486-00	MYLAR	0.018uF	10%	50V
C708	1-162-199-31	CERAMIC	10PF	5%	50V
C709	1-126-962-11	ELECT	3.3uF	20%	50V
C710	1-130-493-00	MYLAR	0.068uF	5%	50V

Ref. No.	Part No.	Description			Remark
C711	1-162-215-31	CERAMIC	47PF	5%	50V
C712	1-161-772-11	CERAMIC	0.1uF	10%	25V
C713	1-130-489-00	MYLAR	0.033uF	5%	50V
C714	1-162-306-11	CERAMIC	0.01uF	20%	16V
C715	1-130-489-00	MYLAR	0.033uF	5%	50V
C716	1-136-169-00	FILM	0.22uF	5%	50V
C717	1-104-664-11	ELECT	47uF	20%	10V
C718	1-124-907-11	ELECT	10uF	20%	50V
C719	1-162-282-31	CERAMIC	100PF	10%	50V
C721	1-130-491-00	MYLAR	0.047uF	5%	50V
C722	1-161-494-00	CERAMIC	0.022uF		25V
C723	1-136-165-00	FILM	0.1uF	5%	50V
C725	1-162-199-31	CERAMIC	10PF	5%	50V
C726	1-162-294-31	CERAMIC	0.001uF	10%	50V
C727	1-162-306-11	CERAMIC	0.01uF	20%	16V
C728	1-161-772-11	CERAMIC	0.1uF	10%	25V
C729	1-104-664-11	ELECT	47uF	20%	10V
C730	1-124-473-11	ELECT	1000uF	20%	10V
C731	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C732	1-162-306-11	CERAMIC	0.01uF	20%	16V
C733	1-136-153-00	FILM	0.01uF	5%	50V
C734	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C736	1-124-443-00	ELECT	100uF	20%	10V
C742	1-136-173-00	FILM	0.47uF	5%	50V
C743	1-162-290-31	CERAMIC	470PF	10%	50V
C744	1-162-286-21	CERAMIC	220PF	10%	50V
C745	1-124-902-00	ELECT	0.47uF	20%	50V
C746	1-162-306-11	CERAMIC	0.01uF	20%	16V
C747	1-162-306-11	CERAMIC	0.01uF	20%	16V
C750	1-162-294-31	CERAMIC	0.001uF	10%	50V
C751	1-162-294-31	CERAMIC	0.001uF	10%	50V
C752	1-162-199-31	CERAMIC	10PF	5%	50V
C753	1-162-199-31	CERAMIC	10PF	5%	50V
C754	1-162-207-31	CERAMIC	22PF	5%	50V
C755	1-104-664-11	ELECT	47uF	20%	10V
C756	1-162-306-11	CERAMIC	0.01uF	20%	16V
C759	1-162-294-31	CERAMIC	0.001uF	10%	50V
C763	1-162-294-31	CERAMIC	0.001uF	10%	50V
C764	1-126-963-11	ELECT	4.7uF	20%	50V
C773	1-162-294-31	CERAMIC	0.001uF	10%	50V
C774	1-126-963-11	ELECT	4.7uF	20%	50V
C777	1-162-282-31	CERAMIC	100PF	10%	50V
C780	1-124-443-00	ELECT	100uF	20%	10V
C781	1-124-443-00	ELECT	100uF	20%	10V
C782	1-161-772-11	CERAMIC	0.1uF	10%	25V
C785	1-162-294-31	CERAMIC	0.001uF	10%	50V
C787	1-162-294-31	CERAMIC	0.001uF	10%	50V
C792	1-162-282-31	CERAMIC	100PF	10%	50V
C793	1-162-282-31	CERAMIC	100PF	10%	50V
C796	1-161-772-11	CERAMIC	0.1uF	10%	25V
C797	1-162-294-31	CERAMIC	0.001uF	10%	50V
C800	1-104-664-11	ELECT	47uF	20%	10V
C801	1-162-294-31	CERAMIC	0.001uF	10%	50V
C803	1-104-664-11	ELECT	47uF	20%	10V
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V
C805	1-162-306-11	CERAMIC	0.01uF	20%	16V
C807	1-162-306-11	CERAMIC	0.01uF	20%	16V
C910	1-126-937-11	ELECT	4700uF	20%	16V

Ref. No.	Part No.	Description			Remark
C911	1-136-153-00	FILM	0.01uF	5%	50V
C951	1-102-074-00	CERAMIC	0.001uF	10%	50V
C952	1-162-294-31	CERAMIC	0.001uF	10%	50V
C953	1-104-664-11	ELECT	47uF	20%	10V
C954	1-161-020-00	CERAMIC	0.039uF	10%	16V
C955	1-124-443-00	ELECT	100uF	20%	10V
C956	1-104-664-11	ELECT	47uF	20%	10V
C957	1-162-294-31	CERAMIC	0.001uF	10%	50V
		< FILTER >			
CF1	1-760-235-11	FILTER, CERAMIC			
CF2	1-577-072-11	FILTER, CERAMIC			
		< CONNECTOR >			
CN301	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P			
CN302	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CN601	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CN701	1-770-674-11	CONNECTOR, FFC/FPC 16P			
* CN804	1-691-584-11	PIN, CONNECTOR (PC BOARD) 13P			
* CN911	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P			
CN912	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
		< TRIMMER >			
CT1	1-141-560-11	CAP, VAR (JE)			
CT1	1-141-561-11	CAP, VAR (EXCEPT JE)			
CT2	1-141-560-11	CAP, VAR (JE)			
CT2	1-141-561-11	CAP, VAR (EXCEPT JE)			
CT3	1-141-560-11	CAP, VAR (JE)			
CT3	1-141-561-11	CAP, VAR (EXCEPT JE)			
CT4	1-141-560-11	CAP, VAR (JE)			
CT4	1-141-561-11	CAP, VAR (EXCEPT JE)			
		< VARIABLE CAPACITOR >			
CV1	1-141-560-11	CAP, VAR (TUNE) (JE)			
CV1	1-141-561-11	CAP, VAR (TUNE) (EXCEPT JE)			
CV2	1-141-560-11	CAP, VAR (TUNE) (JE)			
CV2	1-141-561-11	CAP, VAR (TUNE) (EXCEPT JE)			
CV3	1-141-560-11	CAP, VAR (TUNE) (JE)			
CV3	1-141-561-11	CAP, VAR (TUNE) (EXCEPT JE)			
CV4	1-141-560-11	CAP, VAR (TUNE) (JE)			
CV4	1-141-561-11	CAP, VAR (TUNE) (EXCEPT JE)			
		< DIODE >			
D620	8-719-991-33	DIODE 1SS133T-77			
D651	8-719-991-33	DIODE 1SS133T-77			
D652	8-719-991-33	DIODE 1SS133T-77			
D653	8-719-991-33	DIODE 1SS133T-77			
D655	8-719-991-33	DIODE 1SS133T-77			
D656	8-719-991-33	DIODE 1SS133T-77			
D704	8-719-991-33	DIODE 1SS133T-77			
D801	8-719-991-33	DIODE 1SS133T-77			
D802	8-719-991-33	DIODE 1SS133T-77			
D911	8-719-059-97	LED L-34HD (OPR/BATT)			
D912	8-719-991-33	DIODE 1SS133T-77			
D950	8-719-991-33	DIODE 1SS133T-77			
D951	8-719-110-04	DIODE RD7.5ES-B3			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC1	8-752-050-20	IC CXA1238S			
IC301	8-759-264-71	IC TA2068N			
IC305	8-759-452-80	IC LA4600			
IC701	8-752-069-56	IC CXA1782BQ			
IC702	8-752-372-94	IC CXD2507AQ			
IC703	8-759-453-99	IC BA6198S			
IC704	8-759-426-44	IC SM5877AM			
IC801	8-752-874-88	IC CXP5086H-684Q			
		< JACK >			
J301	1-566-891-11	JACK (🎧)			
		< COIL >			
L1	1-409-915-11	COIL, AIR-CORE			
L2	1-409-999-11	COIL, AIR-CORE (JE)			
L2	1-411-387-11	COIL, AIR-CORE (EXCEPT JE)			
L3	1-501-841-11	ANTENNA, FERRITE-ROD (MW)			
L4	1-406-040-00	COIL (OSC)			
		< TRANSISTOR >			
Q1	8-729-921-65	TRANSISTOR DTC143ES			
Q151	8-729-900-74	TRANSISTOR DTC143TS			
Q251	8-729-900-74	TRANSISTOR DTC143TS			
Q340	8-729-281-53	TRANSISTOR 2SC1815-GR			
Q701	8-729-037-02	TRANSISTOR KTA1266Y-AT			
Q703	8-729-036-80	TRANSISTOR KRC110M			
Q801	8-729-904-36	TRANSISTOR DTC114YS			
Q951	8-729-021-82	TRANSISTOR 2SD2396K			
Q952	8-729-801-84	TRANSISTOR 2SB1013-4			
		< RESISTOR >			
R1	1-247-807-31	CARBON	100	5%	1/4W
R2	1-249-421-11	CARBON	2.2K	5%	1/4W
R3	1-249-441-11	CARBON	100K	5%	1/4W
R4	1-247-843-11	CARBON	3.3K	5%	1/4W
R5	1-249-411-11	CARBON	330	5%	1/4W
R6	1-247-807-31	CARBON	100	5%	1/4W
R7	1-249-427-11	CARBON	6.8K	5%	1/4W
R8	1-249-427-11	CARBON	6.8K	5%	1/4W
R9	1-249-429-11	CARBON	10K	5%	1/4W
R10	1-249-429-11	CARBON	10K	5%	1/4W
R11	1-249-425-11	CARBON	4.7K	5%	1/4W
R12	1-249-425-11	CARBON	4.7K	5%	1/4W
R13	1-249-421-11	CARBON	2.2K	5%	1/4W
R14	1-249-429-11	CARBON	10K	5%	1/4W
R101	1-249-431-11	CARBON	15K	5%	1/4W
R102	1-249-404-00	CARBON	82	5%	1/4W
R103	1-249-440-11	CARBON	82K	5%	1/4W
R104	1-247-843-11	CARBON	3.3K	5%	1/4W
R105	1-249-417-11	CARBON	1K	5%	1/4W
R111	1-249-425-11	CARBON	4.7K	5%	1/4W
R113	1-247-843-11	CARBON	3.3K	5%	1/4W
R114	1-249-415-11	CARBON	680	5%	1/4W
R149	1-249-429-11	CARBON	10K	5%	1/4W
R150	1-249-425-11	CARBON	4.7K	5%	1/4W
R191	1-247-807-31	CARBON	100	5%	1/4W
R192	1-249-425-11	CARBON	4.7K	5%	1/4W
R201	1-249-431-11	CARBON	15K	5%	1/4W

MAIN

Ref. No.	Part No.	Description			Remark
R202	1-249-404-00	CARBON	82	5%	1/4W
R203	1-249-440-11	CARBON	82K	5%	1/4W
R204	1-247-843-11	CARBON	3.3K	5%	1/4W
R205	1-249-417-11	CARBON	1K	5%	1/4W
R211	1-249-425-11	CARBON	4.7K	5%	1/4W
R213	1-247-843-11	CARBON	3.3K	5%	1/4W
R214	1-249-415-11	CARBON	680	5%	1/4W
R249	1-249-429-11	CARBON	10K	5%	1/4W
R250	1-249-425-11	CARBON	4.7K	5%	1/4W
R291	1-247-807-31	CARBON	100	5%	1/4W
R292	1-249-425-11	CARBON	4.7K	5%	1/4W
R304	1-247-903-00	CARBON	1M	5%	1/4W
R305	1-249-407-11	CARBON	150	5%	1/4W
R306	1-249-429-11	CARBON	10K	5%	1/4W
R307	1-249-429-11	CARBON	10K	5%	1/4W
R308	1-249-429-11	CARBON	10K	5%	1/4W
R314	1-249-399-11	CARBON	33	5%	1/4W
R341	1-249-393-11	CARBON	10	5%	1/4W
R342	1-249-435-11	CARBON	33K	5%	1/4W
R351	1-249-429-11	CARBON	10K	5%	1/4W
R619	1-249-429-11	CARBON	10K	5%	1/4W
R620	1-249-429-11	CARBON	10K	5%	1/4W
R623	1-249-429-11	CARBON	10K	5%	1/4W
R624	1-249-429-11	CARBON	10K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
R700	1-249-429-11	CARBON	10K	5%	1/4W
R701	1-249-440-11	CARBON	82K	5%	1/4W
R702	1-247-896-11	CARBON	510K	5%	1/4W
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-247-883-00	CARBON	150K	5%	1/4W
R705	1-249-437-11	CARBON	47K	5%	1/4W
R706	1-247-876-11	CARBON	75K	5%	1/4W
R707	1-249-432-11	CARBON	18K	5%	1/4W
R708	1-247-883-00	CARBON	150K	5%	1/4W
R709	1-247-862-11	CARBON	20K	5%	1/4W
R710	1-249-393-11	CARBON	10	5%	1/4W
R712	1-247-843-11	CARBON	3.3K	5%	1/4W
R714	1-247-883-00	CARBON	150K	5%	1/4W
R715	1-249-430-11	CARBON	12K	5%	1/4W
R716	1-249-430-11	CARBON	12K	5%	1/4W
R717	1-249-429-11	CARBON	10K	5%	1/4W
R720	1-247-891-00	CARBON	330K	5%	1/4W
R722	1-249-439-11	CARBON	68K	5%	1/4W
R723	1-249-440-11	CARBON	82K	5%	1/4W
R725	1-249-437-11	CARBON	47K	5%	1/4W
R726	1-249-429-11	CARBON	10K	5%	1/4W
R727	1-249-429-11	CARBON	10K	5%	1/4W
R730	1-249-435-11	CARBON	33K	5%	1/4W
R731	1-247-863-91	CARBON	22K	5%	1/4W
R734	1-249-437-11	CARBON	47K	5%	1/4W
R740	1-247-843-11	CARBON	3.3K	5%	1/4W
R741	1-249-417-11	CARBON	1K	5%	1/4W
R742	1-249-429-11	CARBON	10K	5%	1/4W
R743	1-247-903-00	CARBON	1M	5%	1/4W
R744	1-249-441-11	CARBON	100K	5%	1/4W
R745	1-249-429-11	CARBON	10K	5%	1/4W
R746	1-249-437-11	CARBON	47K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R748	1-249-417-11	CARBON	1K	5%	1/4W
R749	1-249-417-11	CARBON	1K	5%	1/4W
R750	1-249-429-11	CARBON	10K	5%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R752	1-249-417-11	CARBON	1K	5%	1/4W
R753	1-249-417-11	CARBON	1K	5%	1/4W
R754	1-249-417-11	CARBON	1K	5%	1/4W
R755	1-249-417-11	CARBON	1K	5%	1/4W
R756	1-249-440-11	CARBON	82K	5%	1/4W
R757	1-249-439-11	CARBON	68K	5%	1/4W
R758	1-249-439-11	CARBON	68K	5%	1/4W
R759	1-249-439-11	CARBON	68K	5%	1/4W
R760	1-249-417-11	CARBON	1K	5%	1/4W
R761	1-249-417-11	CARBON	1K	5%	1/4W
R762	1-249-417-11	CARBON	1K	5%	1/4W
R764	1-249-417-11	CARBON	1K	5%	1/4W
R765	1-249-417-11	CARBON	1K	5%	1/4W
R766	1-249-417-11	CARBON	1K	5%	1/4W
R767	1-249-429-11	CARBON	10K	5%	1/4W
R768	1-249-429-11	CARBON	10K	5%	1/4W
R774	1-249-417-11	CARBON	1K	5%	1/4W
R775	1-249-417-11	CARBON	1K	5%	1/4W
R776	1-249-417-11	CARBON	1K	5%	1/4W
R780	1-249-417-11	CARBON	1K	5%	1/4W (EXCEPT SP,JE)
R792	1-249-429-11	CARBON	10K	5%	1/4W
R793	1-249-417-11	CARBON	1K	5%	1/4W
R795	1-249-429-11	CARBON	10K	5%	1/4W
R799	1-249-417-11	CARBON	1K	5%	1/4W
R801	1-249-437-11	CARBON	47K	5%	1/4W
R802	1-249-437-11	CARBON	47K	5%	1/4W
R803	1-249-437-11	CARBON	47K	5%	1/4W
R806	1-249-437-11	CARBON	47K	5%	1/4W
R807	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-417-11	CARBON	1K	5%	1/4W
R809	1-249-429-11	CARBON	10K	5%	1/4W
⚠R901	1-219-123-11	FUSIBLE	0.47	5%	1/4W F
⚠R902	1-219-123-11	FUSIBLE	0.47	5%	1/4W F
⚠R903	1-219-123-11	FUSIBLE	0.47	5%	1/4W F
R911	1-247-828-11	CARBON	750	5%	1/4W
R912	1-247-816-11	CARBON	240	5%	1/4W
R951	1-247-815-91	CARBON	220	5%	1/4W
		< VARIABLE RESISTOR >			
RV1	1-228-995-00	RES, ADJ, METAL 22K (VCO)			
RV351	1-225-438-11	RES, VAR, CARBON 20K/20K (TONE)			
RV352	1-225-439-11	RES, VAR, CARBON 20K/20K (VOL)			
RV701	1-228-995-00	RES, ADJ, METAL 22K (FOCUS BIAS)			
RV702	1-228-995-00	RES, ADJ, METAL 22K (FOCUS GAIN)			
RV703	1-228-991-00	RES, ADJ, METAL 2.2K (E-F BALANCE)			
RV704	1-228-995-00	RES, ADJ, METAL 22K (TRACKING GAIN)			
		< SWITCH >			
S351	1-571-345-11	SWITCH, LEVER SLIDE (FUNCTION)			

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

Ref. No.	Part No.	Description			Remark
		< TRANSFORMER >			
T1	1-409-944-11	COIL (DET)			
T2	1-416-155-11	COIL (455KHz IFT)			
T301	1-433-268-00	TRANSFORMER, BIAS OSCILLATOR			
		< VIBRATOR >			
X701	1-760-793-11	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
*	1-665-032-21	POWER BOARD(EXCEPT E)			
*	1-665-032-31	POWER BOARD(E)			
		**********			
		< CAPACITOR >			
C901	1-101-005-00	CERAMIC	22000PF		50V
C902	1-101-005-00	CERAMIC	22000PF		50V
C903	1-101-005-00	CERAMIC	22000PF		50V
C904	1-101-005-00	CERAMIC	22000PF		50V
C905	1-136-165-00	FILM	0.1uF	5%	50V
C906	1-136-165-00	FILM	0.1uF	5%	50V
		< DIODE >			
D901	8-719-063-79	DIODE 1N4002B			
D902	8-719-063-79	DIODE 1N4002B			
D903	8-719-063-79	DIODE 1N4002B			
D904	8-719-063-79	DIODE 1N4002B			
		< FUSE >			
⚠F902	1-532-464-31	FUSE, TIME LAG (T2.5AL/250V) (EXCEPT E)			
⚠F902	1-533-618-11	FUSE, GLASS CYLINDERICAL (3.15A/250V)(E)			
		< RESISTOR >			
R919	1-249-421-11	CARBON	2.2K	5%	1/4W (EA,JE)
**********					
*	1-665-041-11	REC SW BOARD			
		**********			
		< SWITCH >			
S301	1-762-565-11	SWITCH, SLIDE (PB/REC)			
**********					
*	1-665-044-11	VOL SEL BOARD (EA,JE)			
		**********			
		< SWITCH >			
⚠S901	1-552-921-00	SWITCH, POWER (VOLTAGE CHANGE) (VOLTAGE SELECTOR) (EA,JE)			
**********					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
56	1-452-899-11	MAGNET	
73	1-777-955-11	WIRE (FLAT TYPE) (16 CORE)	
107	1-533-233-21	HOLDER, FUSE	
⚠254	8-820-018-02	OPTICAL PICK-UP KSS-213C	
255	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	
ANT1	1-501-883-11	ANTENNA, TELESCOPIC	
⚠F901	1-532-467-51	FUSE, TIME LAG (T0.315AL/250V) (EA,JE)	
⚠F902	1-532-464-31	FUSE, TIME LAG (T2.5AL/250V) (EXCEPT E)	
⚠F902	1-533-618-11	FUSE, GLASS CYLINDERICAL (3.15A/250V)(E)	
HE901	1-543-876-11	HEAD (ERASE)	
HRP901	1-500-364-11	HEAD,MAGNETIC(RECORD/PLAYBACK)	
LCD801	1-810-442-31	DISPLAY PANEL, LIQUID CRYSTAL	
M701	X-2625-769-1	GEAR ASSY (MB)(RP), MOTOR (SLED)	
M901	A-3304-621-A	MOTOR ASSY	
S801	1-762-679-11	SWITCH, LEAF (MOTOR ON/OFF)	
S871	1-692-960-11	SWITCH, PUSH (1 KEY) (OPEN/CLOSE)	
SP901	1-505-531-11	SPEAKER (10cm) (L-CH)	
SP902	1-505-531-11	SPEAKER (10cm) (R-CH)	
⚠T901	1-426-632-11	TRANSFORMER, POWER (SP,KR,AUS)	
⚠T901	1-429-122-11	TRANSFORMER, POWER (EA,JE)	
⚠T901	1-431-230-11	TRANSFORMER, POWER (E)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
⚠	1-557-287-11	CORD, POWER (E)	
⚠	1-569-008-11	ADAPTOR, CONVERSION 2P (EA,JE)	
⚠	1-696-819-11	CORD, POWER(AUS)	
⚠	1-696-820-21	CORD, POWER(SP,JE)	
⚠	1-776-985-11	CORD, POWER(KR)	
	3-859-115-11	MANUAL, INSTRUCTION (ENGLISH)(E,AU)	
	3-859-115-31	MANUAL, INSTRUCTION (ENGLISH,GERMAN) (EA,SP,KR,JE)	
	3-859-115-41	MANUAL, INSTRUCTION (FRENCH,SPANISH) (EA,SP,JE)	
	3-859-115-91	MANUAL, INSTRUCTION (SPANISH) (E)	
	3-859-116-11	MANUAL, INSTRUCTION (KOREAN) (KR)	
*	4-941-548-01	LABEL, CLASS (1) (EA)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#3	7-682-548-04	SCREW +B 3X8	
#4	7-621-773-95	SCREW +B 2.6X6	
#5	7-621-255-15	SCREW +P 2X3	
#6	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	
#7	7-621-770-87	SCREW +B 2.6X5	

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

9-923-134-41

Sony Corporation
Personal A&V Products Company

97E027025-1
Printed in Singapore
Published by Quality Engineering Dept.
(Shibaura)

CFD-V10

SONY

SERVICE MANUAL

Australian Model
E Model
Tourist Model

SUPPLEMENT - 1

File this Supplement with the Service Manual.

Subject :
- **CHANGE OF BOARDS**
- **EXPLODED VIEWS**
- **ELECTRICAL PARTS LIST**

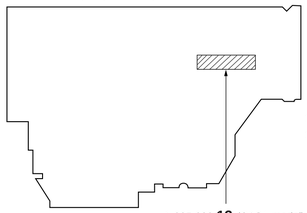
(SPM-97033)

● CHANGE OF BOARDS

The main board, SW board, power board, AC inlet board and BATT board have been changed.
Printed wiring boards and schematic diagram of new type, and changed parts list are described in this Supplement-1.
Refer to original service manual (9-923-134-41) previously issued for the other information.

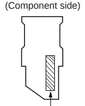
NEW TYPE IDENTIFICATION

– **MAIN BOARD** (Component side) –



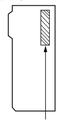
1-665-030-**13** (C&SA model)
1-665-030-**23** (EXCEPT C&SA model)

– **BATT BOARD** – (Component side)



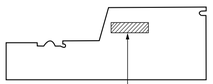
1-665-033-**13** (C&SA model)
1-665-033-**23** (EXCEPT C&SA model)

– **POWER BOARD** – (Component side)



1-665-032-**13** (C&SA model)
1-665-032-**23** (EXCEPT C&SA model)

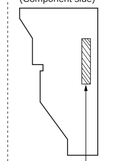
– **SW BOARD** (Component side) –



1-665-031-**13** (C&SA model)
1-665-031-**23** (EXCEPT C&SA model)

C&SA model

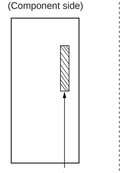
– **AC INLET BOARD** – (Component side)



1-665-034-**13**

EXCEPT C&SA model

– **AC INLET BOARD** – (Component side)

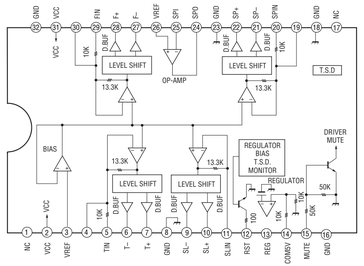


1-665-043-**13** (SP, AUS, KR model)
1-665-043-**23** (EA, JE model)

- Abbreviation
  KR : Korean EA : Saudi Arabia
  AUS : Australian SP : Singapore
  JE : Tourist
  C&SA : Central & South America

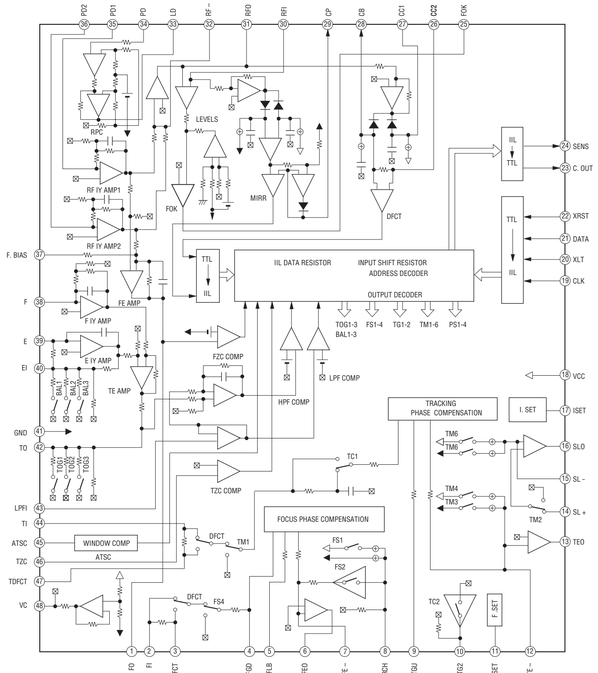
● IC BLOCK DIAGRAMS – CD SECTION –

IC703 BA6198S

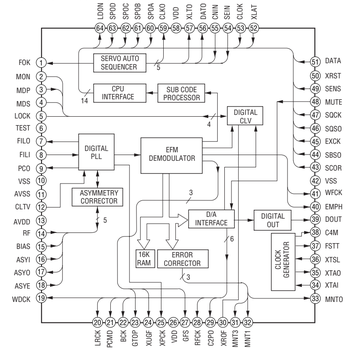


● IC BLOCK DIAGRAMS –CD SECTION –

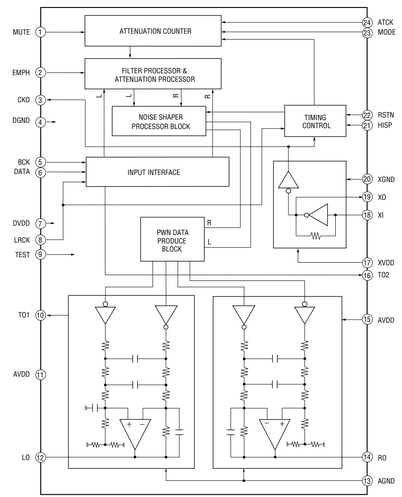
IC701 CXA1782BQ



IC702 CXD2507AQ



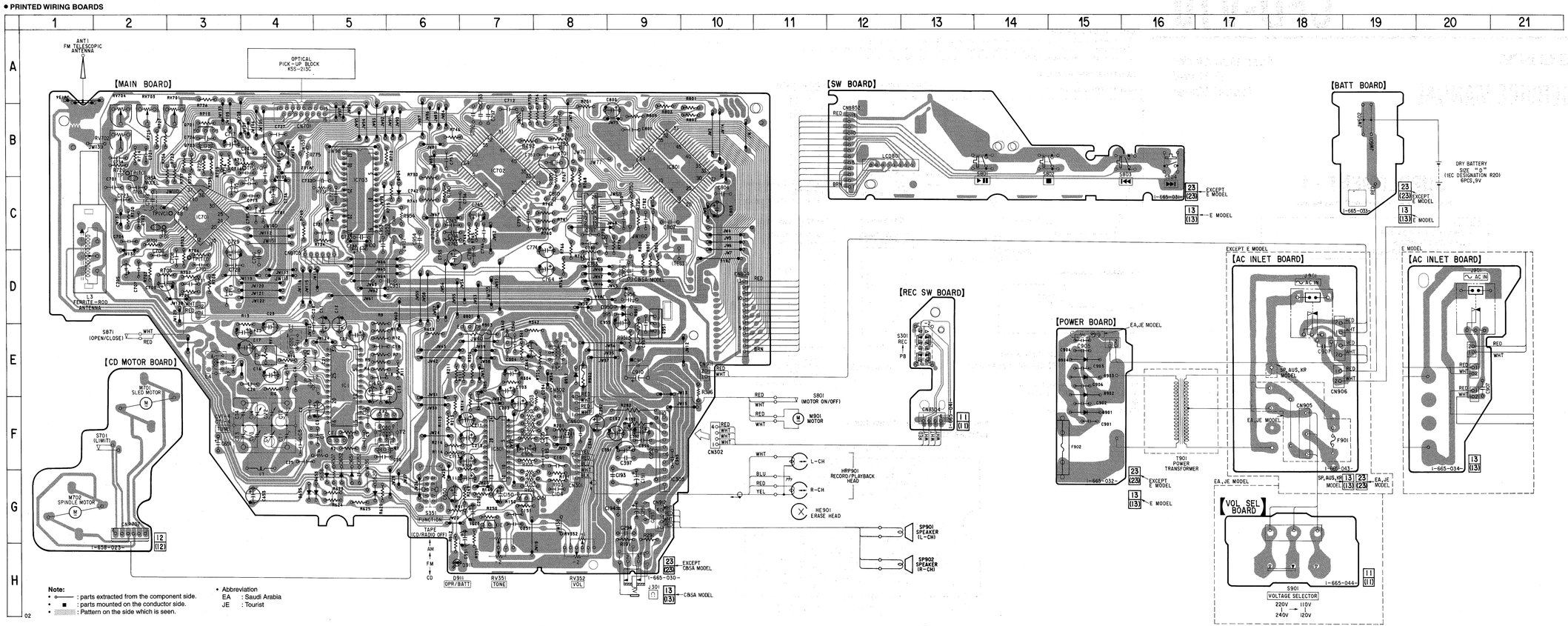
IC704 SM5877AM



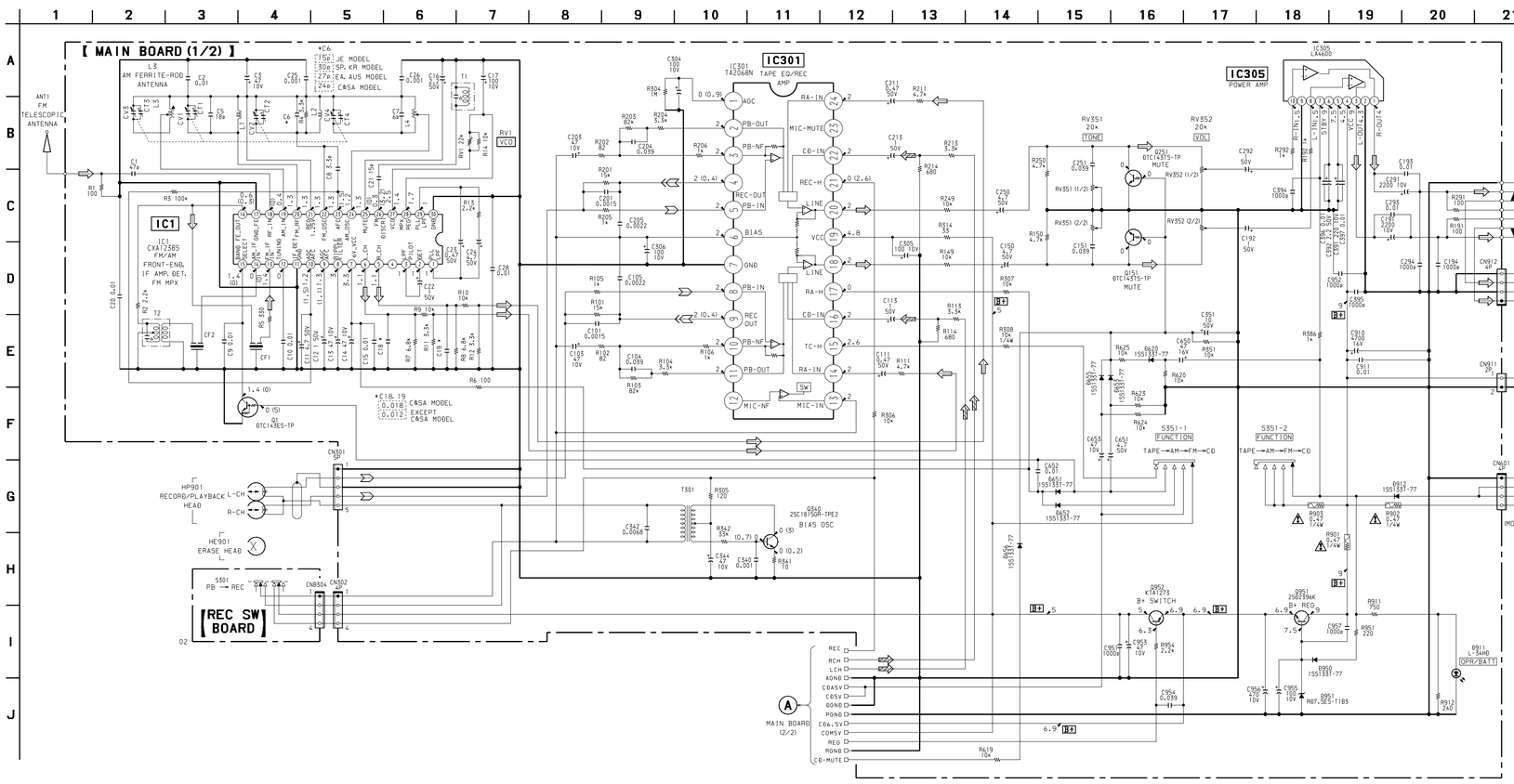
• PRINTED WIRING BOARDS

• SEMICONDUCTOR LOCATION

Ref. No.	Location
D620	G-5
D651	G-5
D652	G-5
D653	G-4
D655	G-4
D656	G-5
D704	C-6
D901	F-15
D902	E-15
D903	E-15
D904	E-15
D911	H-6
D912	E-8
D950	D-9
D951	D-9
IC1	E-5
IC301	F-7
IC305	F-9
IC701	C-3
IC702	B-7
IC703	C-5
IC704	C-8
IC801	B-9
Q1	F-5
Q151	G-7
Q251	G-7
Q340	E-7
Q701	B-3
Q703	B-3
Q801	E-7
Q951	D-9

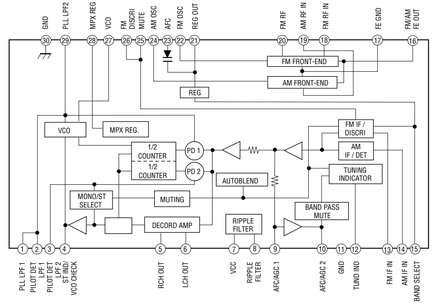


● SCHEMATIC DIAGRAM – MAIN SECTION –



● IC BLOCK DIAGRAM – MAIN SECTION –

IC1 CXA1238S



Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.

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

- B+ : B+ Line.
- : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM (Radio section), CD STOP (CD section) PLAY (Tape section)
  ( ) : AM (Radio section), REC (Tape section)
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : FM : PB
  : CD : REC

Note on Schematic Diagram:

Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.

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

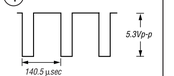
● SCHEMATIC DIAGRAM – CD SECTION –

● Refer to page 2 for IC Block Diagrams.

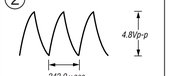
● WAVEFORMS

① IC701 ㉛ (RFO) — VOLT/DIV : 200mV AC, TIME/DIV : 0.5μsec

④ IC702 ㉛ (MNT3) — VOLT/DIV : 1V AC, TIME/DIV : 50μsec



② IC702 ㉙ (XPCK) — VOLT/DIV : 1V AC, TIME/DIV : 0.1msec



⑤ IC702 ㉜ (MNT1) — VOLT/DIV : 1V AC, TIME/DIV : 50μsec

③ IC702 ㉘ (RFCK) — VOLT/DIV : 1V AC, TIME/DIV : 50μsec

⑥ IC702 ㉝ (XTAO) — VOLT/DIV : 0.2V AC, TIME/DIV : 50nsec

Note on Schematic Diagram:

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.

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

- B+ : B+ Line.
- : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM (Radio section), CD STOP (CD section)
  PLAY (Tape section)
  ( ) : AM (Radio section), REC (Tape section)
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇒ : C D
- Abbreviation
  KR : Korean
  EA : Saudi Arabia
  AUS : Australian
  SP : Singapore
  JE : Tourist
  C&SA : Central and South America

【MAIN BOARD (2/2)】

【SW BOARD】

【CD MOTOR BOARD】

⚠ OPTICAL PICK-UP BLOCK KSS-213C

IC701 CD RF & SYSTEM SERVO PROCESSOR

IC702 CD DIGITAL SIGNAL PROCESSOR

IC703 SLED/SPINDLE MOTOR DRIVE, TRACKING/FOCUS COIL DRIVE

IC704 D/A CONVERTER

IC801 SYSTEM CONTROL

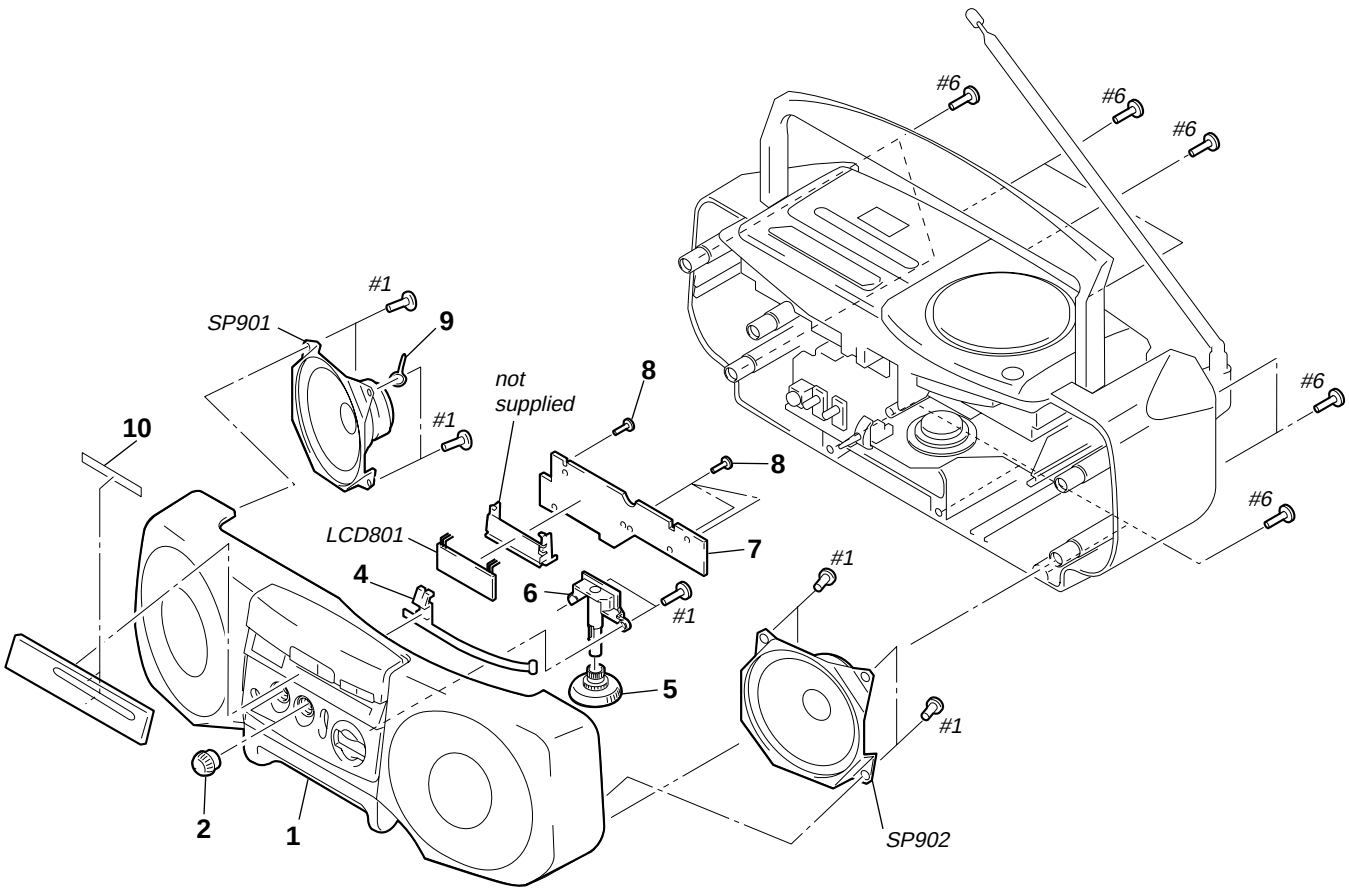
● EXPLODED VIEWS (Service Manual See page 33 to 38)

NOTE :

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ••• (RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  KR : Korean
  EA : Saudi Arabia
  AUS : Australian
  SP : Singapore
  JE : Tourist
  C&SA : Central & South America

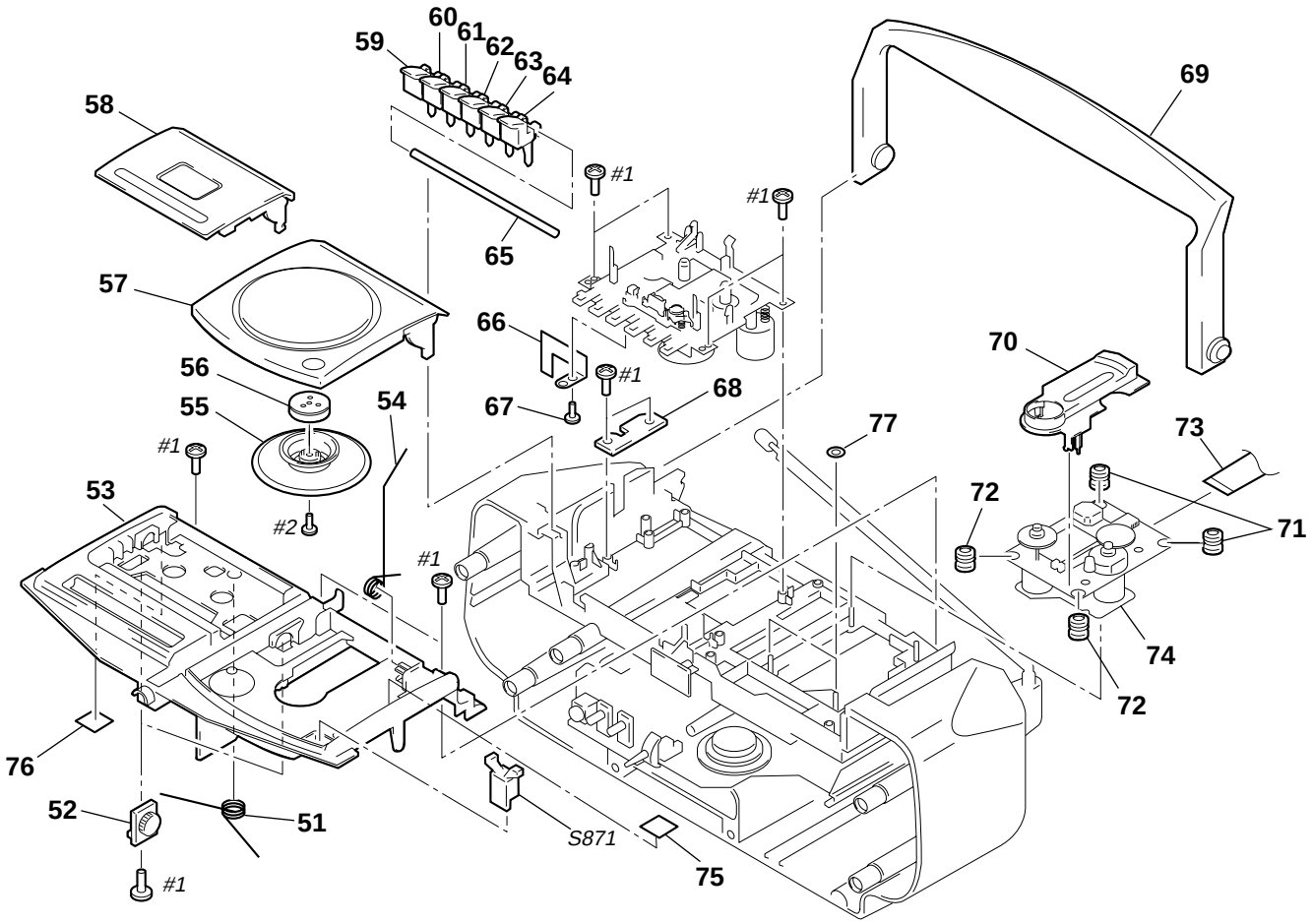
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

8-1. FRONT CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	X-3373-461-1	CABINET (FRONT) SUB ASSY (C&SA)	
1	X-3373-930-1	CABINET (FRONT) SUB ASSY (KR, EA, AUS, SP, JE)	
1	X-3373-932-1	CABINET (FRONT) SUB ASSY (SP : ROUND SPEAKER GRILL TYPE)	
2	3-009-193-01	KNOB (VOL) (C&SA)	
2	3-009-193-22	KNOB (VOL) (SP,KR,AUS,JE,EA)	
3	3-011-331-01	WINDOW TU (C&SA)	
3	3-011-331-41	WINDOW TU (SP,KR)	
3	3-011-331-71	WINDOW TU (AUS)	
3	3-014-070-11	WINDOW TU (JE)	
3	3-014-070-21	WINDOW TU (EA)	
4	3-009-191-01	POINTER	
5	3-009-190-01	KNOB (TU) (C&SA)	
5	3-009-190-22	KNOB (TU) (SP,KR,EA,AUS,JE)	
* 6	3-009-189-01	CHASSIS, TU	
* 7	1-665-031-21	SW BOARD (EXCEPT C&SA)	
* 7	1-665-031-31	SW BOARD (C&SA)	
8	4-951-620-01	SCREW (2.6X8), +BVTP	
9	3-703-397-01	STOPPER, WIRING	
10	3-014-933-01	SHEET (B), ADHESIVE	
LCD801	1-810-442-31	DISPLAY PANEL, LIQUID CRYSTAL	
SP901	1-505-531-11	SPEAKER (10cm) (L-CH)	
SP902	1-505-531-11	SPEAKER (10cm) (R-CH)	

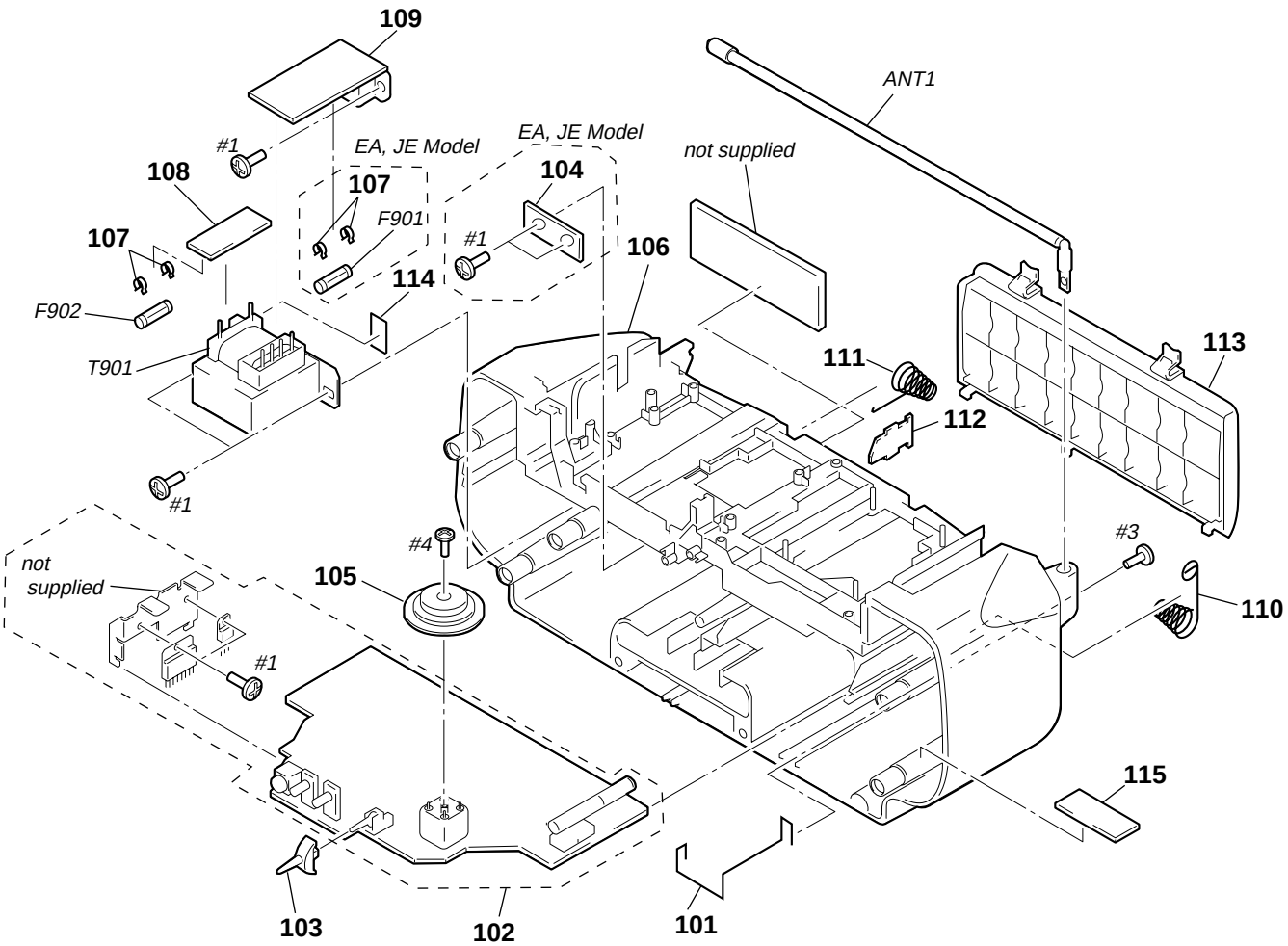
8-2. UPPER CABINET SECTION



Ref. No.	Part No.	Description	Remark
51	3-009-208-01	SPRING, CASSETTE UP	
52	3-922-112-11	DAMPER	
53	3-009-186-01	CABINET (UPPER)	
54	3-009-209-01	SPRING, CD UP	
55	3-923-498-01	PLATE, CHUCK	
56	1-452-899-11	MAGNET	
57	3-009-187-01	LID, CD	
58	X-3373-389-1	HOLDER SUB ASSY, CASSETTE	
59	3-009-196-01	BUTTON (REC)	
60	3-009-199-01	BUTTON (PLAY)	
61	3-009-198-01	BUTTON (REW)	
62	3-009-197-01	BUTTON (FF)	
63	3-009-200-01	BUTTON (STOP)	
64	3-009-195-01	BUTTON (PAUSE)	
* 65	3-009-206-01	SHAFT (MD)	

Ref. No.	Part No.	Description	Remark
66	3-009-214-01	SPRING, REC	
67	4-951-620-01	SCREW (2.6X8), +BVTP	
* 68	1-665-041-11	REC SW BOARD	
69	3-009-201-01	HANDLE	
70	3-923-736-01	COVER, CD	
71	3-910-095-01	RUBBER, VIBRATION PROOF (RED)	
72	3-910-095-11	RUBBER, VIBRATION PROOF (GREEN)	
73	1-777-955-11	WIRE (FLAT TYPE) (16 CORE)	
74	1-639-678-12	CD MOTOR BOARD	
75	3-015-646-01	CUSHION (CD)	
76	3-923-151-01	CUSHION, RUBBER	
77	7-623-957-11	SPACER (PICK)	
S871	1-692-960-11	SWITCH, PUSH (1 KEY) (OPEN/CLOSE)	

8-3. REAR CABINET SECTION

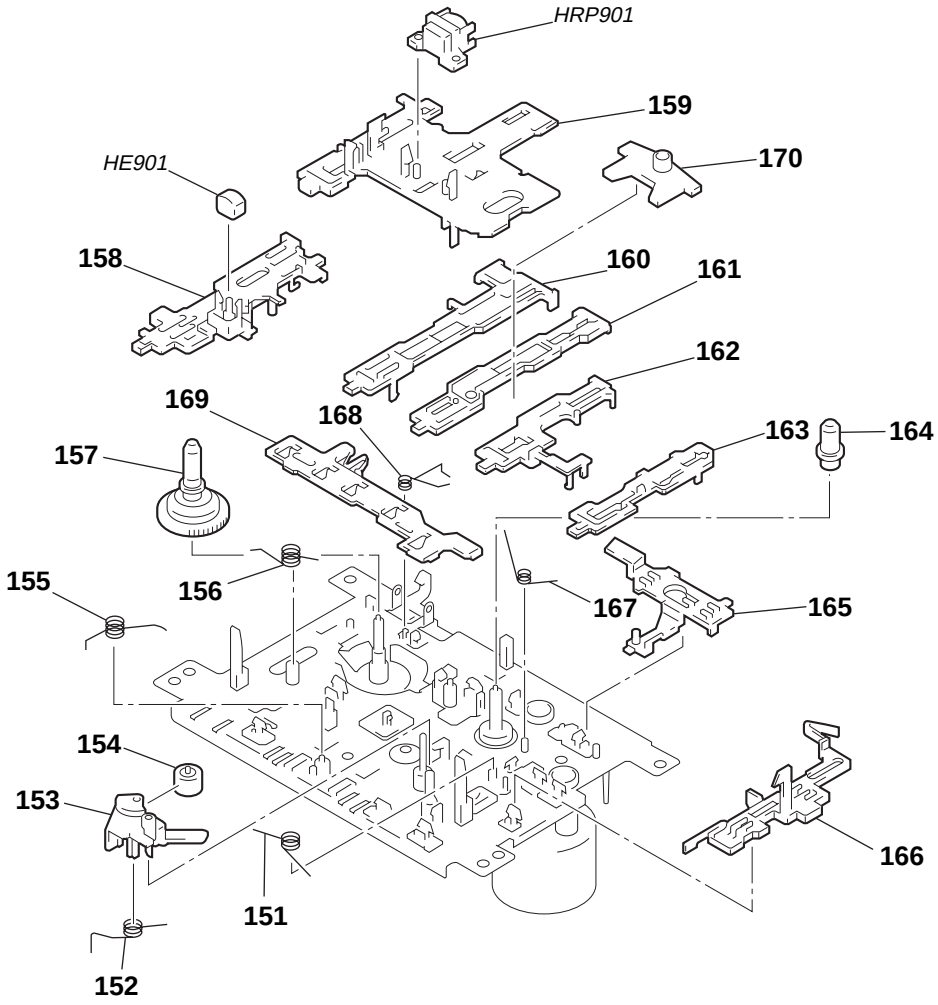


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 101	3-009-215-01	TERMINAL (ANALOG), ANTENNA	
* 102	A-3306-706-A	MAIN BOARD, COMPLETE (JE)	
* 102	A-3306-758-A	MAIN BOARD, COMPLETE (SP,KR)	
* 102	A-3306-986-A	MAIN BOARD, COMPLETE (C&SA)	
* 102	A-3321-130-A	MAIN BOARD, COMPLETE (AUS)	
* 102	A-3321-141-A	MAIN BOARD, COMPLETE (EA)	
103	3-009-194-21	KNOB (FUN) (EXCEPT C&SA, EA)	
103	3-009-194-01	KNOB (FUN) (C&SA, EA)	
* 104	1-665-044-11	VOL SEL BOARD (EA,JE)	
105	3-009-192-01	GEAR, TUNING CAPACITOR	
106	3-009-185-11	CABINET (REAR) (C&SA)	
106	3-009-185-51	CABINET (REAR) (EA,JE)	
106	3-009-185-61	CABINET (REAR) (SP,KR,AUS)	
107	1-533-217-31	HOLDER, FUSE	
* 108	1-665-032-11	POWER BOARD(C&SA)	
* 108	1-665-032-21	POWER BOARD(EXCEPT C&SA)	
* 109	1-665-034-12	AC INLET BOARD (C&SA)	
* 109	1-665-043-11	AC INLET BOARD (EXCEPT C&SA,EA,JE)	

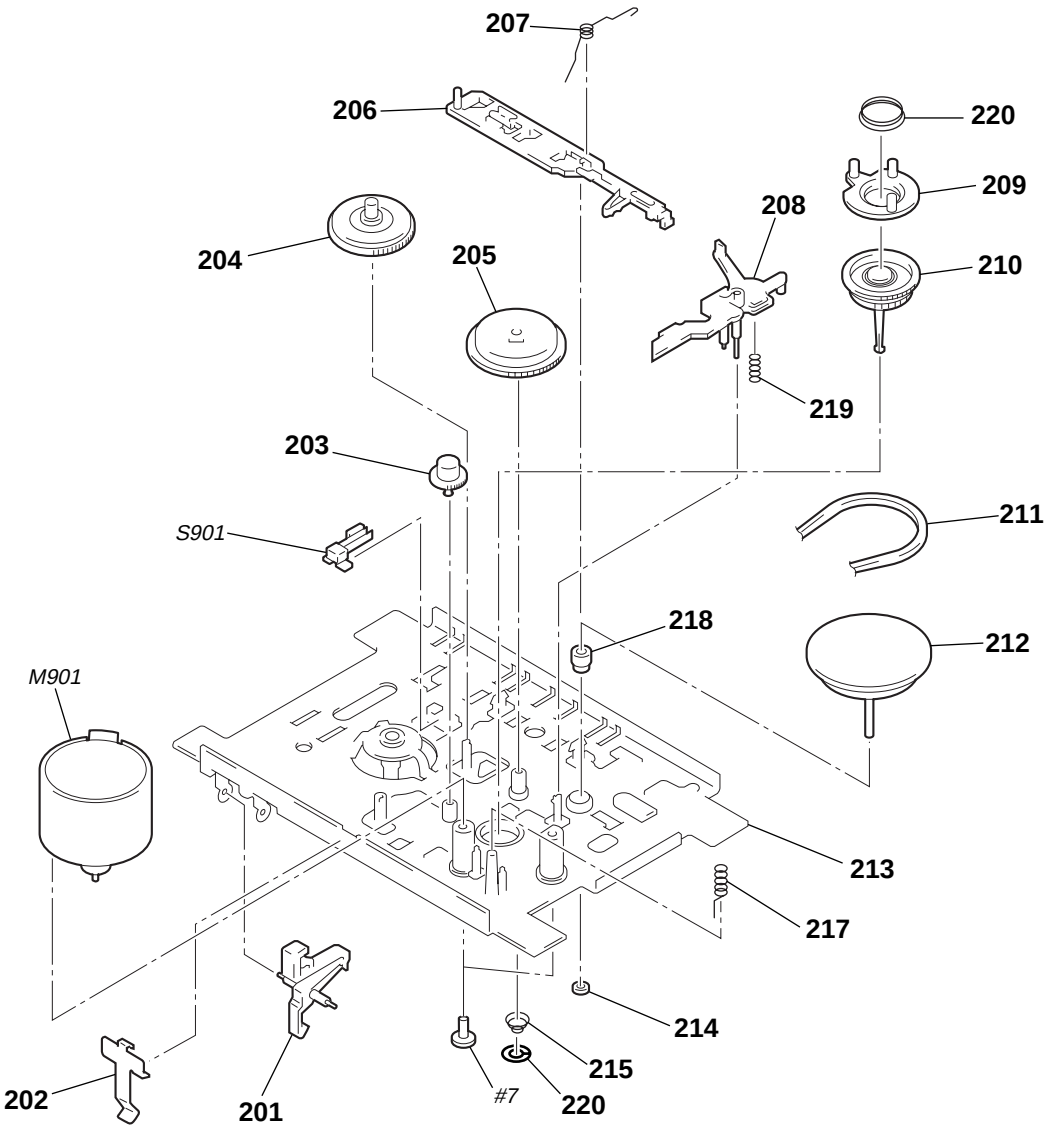
Ref. No.	Part No.	Description	Remark
* 109	1-665-043-21	AC INLET BOARD (EA,JE)	
110	3-009-210-01	SPRING (+ –)	
111	3-009-211-01	SPRING (–)	
* 112	1-665-033-11	BATT BOARD (C&SA)	
* 112	1-665-033-21	BATT BOARD (EXCEPT C&SA)	
113	3-009-202-01	LID, BATTERY CASE	
114	3-846-312-01	SPACER	
115	3-831-441-99	CUSHION, SPEAKER	
ANT1	1-501-883-11	ANTENNA, TELESCOPIC	
⚠F901	1-532-235-00	FUSE, TIME LAG (T0.315AL/250V) (EA,JE)	
⚠F902	1-532-286-00	FUSE, TIME LAG (T2.5AL/250V)	(EXCEPT C&SA)
⚠F902	1-576-107-11	FUSE, GLASS CYLINDERICAL (3.15A/250V)	(C&SA)
⚠T901	1-426-632-11	TRANSFORMER, POWER (SP,KR,AUS)	
⚠T901	1-429-122-11	TRANSFORMER, POWER (EA,JE)	
⚠T901	1-431-230-11	TRANSFORMER, POWER (C&SA)	

8-4. MECHANISM DECK SECTION (1)
(MF-V10-117)



Ref. No.	Part No.	Description	Remark
151	3-933-010-01	SPRING (S/P), TORSION	
152	3-933-025-01	SPRING (P), TORSION	
153	3-933-026-01	LEVER (P)	
154	3-933-024-01	ROLLER, PINCH	
155	3-933-019-01	SPRING (F/R), TORSION	
156	3-933-028-01	SPRING (FWD), TORSION	
157	3-933-016-01	GEAR (S REEL)	
158	3-008-590-01	SLIDER (REC)	
159	3-008-592-12	BASE (H), HEAD	
* 160	3-008-588-01	SLIDER (REW)	
* 161	3-008-589-01	SLIDER (FF)	
* 162	3-008-587-01	SLIDER (STOP)	
163	3-008-591-01	SLIDER (PAUSE)	
164	3-933-004-01	CLAW, REEL	
* 165	3-933-021-01	SLIDER (FRP)	
166	3-933-006-01	SLIDER (EJECT)	
167	3-934-833-01	SPRING (FRP)	
168	3-934-834-01	SPRING (BT)	
169	3-933-007-01	PLATE, LOCK	
* 170	3-012-114-01	LEVER (FR)	
HE901	1-543-876-11	HEAD (ERASE)	
HRP901	1-500-364-11	HEAD,MAGNETIC(RECORD/PLAYBACK)	

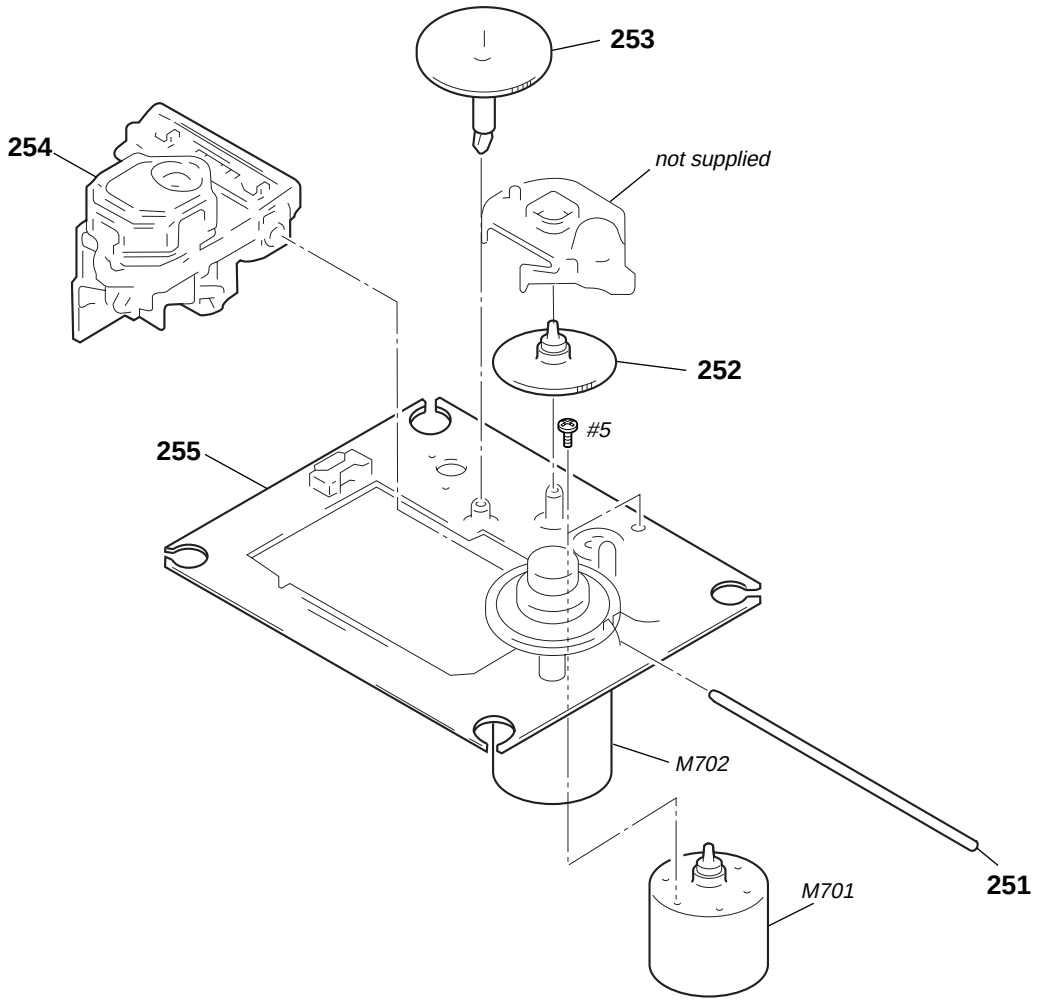
8-5. MECHANISM DECK SECTION (2)
(MF-V10-117)



Ref. No.	Part No.	Description	Remark
201	3-933-029-01	LEVER, ERASING PREVENTION	
202	3-933-182-01	SPRING, CASSETTE	
203	3-932-995-01	GEAR (MID)	
204	X-3371-667-1	CLUTCH ASSY	
205	3-932-997-01	GEAR (CAM)	
* 206	3-932-999-01	SLIDER (SW)	
207	3-932-998-01	SPRING (GROUND), TORSION	
208	3-009-648-01	LEVER (S.OFF)	
209	3-936-438-01	LEVER (K)	
210	X-3373-572-1	REEL ASSY (N) , T	

Ref. No.	Part No.	Description	Remark
211	3-933-020-01	BELT	
212	X-3372-924-1	FLYWHEEL ASSY	
213	3-932-993-01	CHASSIS, OUTSERT	
214	3-343-358-01	RING, RETAINING	
215	3-933-005-01	SPRING (CAM), COMPRESSION	
216	3-939-383-02	SPRING, COMPRESSION	
217	3-937-760-01	SPRING (GROUND), COMPRESSION	
218	3-934-336-01	BEARING	
219	3-009-650-02	SPRING (K), COMPRESSION	
220	3-016-349-01	WASHER	
M901	A-3304-619-A	MOTOR ASSY	
S801	1-762-679-11	SWITCH, LEAF (MOTOR ON/OFF)	

8-6. OPTICAL PICK-UP SECTION (KSM-213CAM)



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

Ref. No.	Part No.	Description	Remark
251	2-626-908-01	SHAFT, SLED	
252	2-627-003-02	GEAR (B)(RP)	
253	2-626-907-01	GEAR (A) (S)	
⚠254	8-848-483-05	OPTICAL PICK-UP KSS-213C	
255	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	
M701	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	

● ELECTRICAL PARTS LIST (Service Manual See page 39 to 43)

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE :Metal oxide-film resistor
  F : nonflammable
- Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ , for example :
  uA.... : μ A.... , uPA.... : μ PA....
  uPB.... : μ PB.... , uPC.... : μ PC....
  uPD.... : μ PD....
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H
- Abbreviation
  KR : Korean
  EA : Saudi Arabia
  AUS : Australian
  SP : Singapore
  JE : Tourist
  C&SA : Central & South America

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

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark
*	1-665-034-13	AC INLET BOARD (C&SA)	
*	1-665-043-13	AC INLET BOARD (KR,AUS,SP)	
*	1-665-043-23	AC INLET BOARD (EA,JE)	
		**********	
	1-533-217-31	HOLDER, FUSE (EA, JE)	
		< CAPACITOR >	
C907	1-162-294-31	CERAMIC 0.001uF 10%	
		< CONNECTOR >	
* CN905	1-564-752-11	PIN, CONNECTOR (WITH LOCK) 3P (EA, JE)	
		< FUSE >	
⚠F901	1-532-235-00	FUSE, TIME LAG (T0.315AL/250V) (EA,JE)	
		< JACK >	
⚠J901	1-526-818-11	INLET, AC (~AC IN) (C&SA)	
⚠J901	1-526-838-11	INLET, AC 2P (~AC IN) (EXCEPT C&SA)	
**********			
*	1-665-033-13	BATT BOARD (C&SA)	
*	1-665-033-23	BATT BOARD (EXCEPT C&SA)	
		**********	
**********			
	1-639-678-12	CD MOTOR BOARD	
		**********	
		< CONNECTOR >	
CNP707	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P	
		< SWITCH >	
S701	1-572-085-11	SWITCH, LEAF (LIMIT)	
**********			
*	A-3306-706-A	MAIN BOARD, COMPLETE (JE)	
*	A-3306-758-A	MAIN BOARD, COMPLETE (KR,SP)	
*	A-3306-986-A	MAIN BOARD, COMPLETE (C&SA)	
*	A-3321-130-A	MAIN BOARD, COMPLETE (AUS)	
*	A-3321-141-A	MAIN BOARD, COMPLETE (EA)	
		**********	
	3-009-192-01	GEAR, TUNING CAPACITOR	
	3-009-194-01	KNOB (FUN) (E,EA)	
	3-009-194-21	KNOB (FUN) (EXCEPT C&SA,EA)	
	7-621-770-99	SCREW +P 2.6X8 (EXCEPT JE)	
	7-621-773-95	SCREW +B 2.6X6 (JE)	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
		< CAPACITOR >	
C1	1-162-215-31	CERAMIC 47PF 5% 50V	
C2	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C3	1-104-664-11	ELECT 47uF 20% 10V	
C5	1-162-205-31	CERAMIC 18PF 5% 50V	
C6	1-102-951-00	CERAMIC 15PF 5% 50V (JE)	
C6	1-102-960-00	CERAMIC 24PF 5% 50V (C&SA)	
C6	1-102-962-00	CERAMIC 30PF 5% 50V (SP,KR)	
C6	1-102-961-00	CERAMIC 27PF 5% 50V (EA,AUS)	
C7	1-102-943-00	CERAMIC 6.0PF ± 0.5PF 50V	
C8	1-162-193-31	CERAMIC 3.3PF 10% 50V	
C9	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C10	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C11	1-126-963-11	ELECT 4.7uF 20% 50V	
C12	1-124-903-11	ELECT 1uF 20% 50V	
C13	1-104-664-11	ELECT 47uF 20% 10V	
C14	1-104-664-11	ELECT 47uF 20% 10V	
C15	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C16	1-126-961-11	ELECT 2.2uF 20% 50V	
C17	1-124-443-00	ELECT 100uF 20% 10V	
C18	1-162-840-11	CERAMIC 0.012uF 10% 16V (EXCEPT C&SA)	
C18	1-162-842-11	CERAMIC 0.018uF 10% 16V (C&SA)	
C19	1-162-840-11	CERAMIC 0.012uF 10% 16V (EXCEPT C&SA)	
C19	1-162-842-11	CERAMIC 0.018uF 10% 16V (C&SA)	
C20	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C21	1-162-203-31	CERAMIC 15PF 5% 50V	
C22	1-124-903-11	ELECT 1uF 20% 50V	
C23	1-124-902-00	ELECT 0.47uF 20% 50V	
C24	1-126-963-11	ELECT 4.7uF 20% 50V	
C25	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C26	1-162-294-31	CERAMIC 0.001uF 10% 50V	

MAIN

Ref. No.	Part No.	Description			Remark
C28	1-162-306-11	CERAMIC	0.01uF	20%	16V
C101	1-162-301-11	CERAMIC	0.0015uF	20%	16V
C103	1-104-664-11	ELECT	47uF	20%	10V
C104	1-161-020-11	CERAMIC	0.039uF	10%	16V
C105	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C111	1-124-902-00	ELECT	0.47uF	20%	50V
C113	1-124-903-11	ELECT	1uF	20%	50V
C150	1-126-963-11	ELECT	4.7uF	20%	50V
C151	1-136-160-00	FILM	0.039uF	5%	50V
C191	1-126-927-11	ELECT	2200uF	20%	10V
C192	1-124-903-11	ELECT	1uF	20%	50V
C193	1-136-153-00	FILM	0.01uF	5%	50V
C194	1-102-074-00	CERAMIC	0.001uF	10%	50V
C201	1-162-301-11	CERAMIC	0.0015uF	20%	16V
C203	1-104-664-11	ELECT	47uF	20%	10V
C204	1-161-020-11	CERAMIC	0.039uF	10%	16V
C205	1-162-302-11	CERAMIC	0.0022uF	20%	16V
C211	1-124-902-00	ELECT	0.47uF	20%	50V
C213	1-124-903-11	ELECT	1uF	20%	50V
C250	1-126-963-11	ELECT	4.7uF	20%	50V
C251	1-136-160-00	FILM	0.039uF	5%	50V
C291	1-126-927-11	ELECT	2200uF	20%	10V
C292	1-124-903-11	ELECT	1uF	20%	50V
C293	1-136-153-00	FILM	0.01uF	5%	50V
C294	1-102-074-00	CERAMIC	0.001uF	10%	50V
C304	1-124-443-00	ELECT	100uF	20%	10V
C305	1-124-443-00	ELECT	100uF	20%	10V
C306	1-124-443-00	ELECT	100uF	20%	10V
C340	1-162-294-31	CERAMIC	0.001uF	10%	50V
C342	1-130-481-00	MYLAR	0.0068uF	5%	50V
C344	1-104-664-11	ELECT	47uF	20%	10V
C351	1-124-907-11	ELECT	10uF	20%	50V
C391	1-104-666-11	ELECT	220uF	20%	10V
C392	1-126-961-11	ELECT	2.2uF	20%	50V
C394	1-162-294-31	CERAMIC	0.001uF	10%	50V
C395	1-162-294-31	CERAMIC	0.001uF	10%	50V
C396	1-162-306-11	CERAMIC	0.01uF	20%	16V
C397	1-162-306-11	CERAMIC	0.01uF	20%	16V
C650	1-104-664-11	ELECT	47uF	20%	16V
C651	1-126-963-11	ELECT	4.7uF	20%	50V
C652	1-162-306-11	CERAMIC	0.01uF	20%	16V
C653	1-104-664-11	ELECT	47uF	20%	10V
C701	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C702	1-136-165-00	FILM	0.1uF	5%	50V
C704	1-136-165-00	FILM	0.1uF	5%	50V
C705	1-131-375-00	TANTALUM	4.7uF	10%	10V
C706	1-130-489-00	MYLAR	0.033uF	5%	50V
C707	1-130-486-00	MYLAR	0.018uF	10%	50V
C708	1-162-199-31	CERAMIC	10PF	5%	50V
C709	1-126-962-11	ELECT	3.3uF	20%	50V
C710	1-130-493-00	MYLAR	0.068uF	5%	50V
C711	1-162-215-31	CERAMIC	47PF	5%	50V
C712	1-161-772-11	CERAMIC	0.1uF	10%	25V
C713	1-130-489-00	MYLAR	0.033uF	5%	50V
C714	1-162-306-11	CERAMIC	0.01uF	20%	16V
C715	1-130-489-00	MYLAR	0.033uF	5%	50V
C716	1-136-153-00	FILM	0.01uF	5%	50V
C717	1-104-664-11	ELECT	47uF	20%	10V
C718	1-124-907-11	ELECT	10uF	20%	50V
C719	1-162-282-31	CERAMIC	100PF	10%	50V
C721	1-130-491-00	MYLAR	0.047uF	5%	50V
C722	1-161-494-00	CERAMIC	0.022uF		25V
C723	1-136-165-00	FILM	0.1uF	5%	50V
C725	1-162-199-31	CERAMIC	10PF	5%	50V
C726	1-162-294-31	CERAMIC	0.001uF	10%	50V
C727	1-162-306-11	CERAMIC	0.01uF	20%	16V
C728	1-161-772-11	CERAMIC	0.1uF	10%	25V
C729	1-104-664-11	ELECT	47uF	20%	10V
C730	1-124-473-11	ELECT	1000uF	20%	10V
C731	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C732	1-162-306-11	CERAMIC	0.01uF	20%	16V
C733	1-136-153-00	FILM	0.01uF	5%	50V
C734	1-162-305-11	CERAMIC	0.0068uF	30%	16V
C736	1-124-443-00	ELECT	100uF	20%	10V
C742	1-136-173-00	FILM	0.47uF	5%	50V
C743	1-162-290-31	CERAMIC	470PF	10%	50V
C744	1-162-286-21	CERAMIC	220PF	10%	50V
C745	1-124-902-00	ELECT	0.47uF	20%	50V
C746	1-162-306-11	CERAMIC	0.01uF	20%	16V
C747	1-162-306-11	CERAMIC	0.01uF	20%	16V
C750	1-162-294-31	CERAMIC	0.001uF	10%	50V
C751	1-162-294-31	CERAMIC	0.001uF	10%	50V
C752	1-162-199-31	CERAMIC	10PF	5%	50V
C753	1-162-199-31	CERAMIC	10PF	5%	50V
C755	1-104-664-11	ELECT	47uF	20%	10V
C756	1-162-306-11	CERAMIC	0.01uF	20%	16V
C759	1-162-294-31	CERAMIC	0.001uF	10%	50V
C763	1-162-294-31	CERAMIC	0.001uF	10%	50V
C764	1-126-963-11	ELECT	4.7uF	20%	50V
C773	1-162-294-31	CERAMIC	0.001uF	10%	50V
C774	1-126-963-11	ELECT	4.7uF	20%	50V
C777	1-162-282-31	CERAMIC	100PF	10%	50V
C780	1-124-443-00	ELECT	100uF	20%	10V
C781	1-124-443-00	ELECT	100uF	20%	10V
C782	1-161-772-11	CERAMIC	0.1uF	10%	25V
C785	1-162-294-31	CERAMIC	0.001uF	10%	50V
C786	1-162-306-11	CERAMIC	0.01uF	20%	16V
C787	1-161-494-00	CERAMIC	0.022uF		25V (EXCEPT C&SA)
C787	1-162-306-11	CERAMIC	0.01uF	20%	16V (C&SA)
C792	1-162-282-31	CERAMIC	100PF	10%	50V
C793	1-162-282-31	CERAMIC	100PF	10%	50V
C796	1-161-772-11	CERAMIC	0.1uF	10%	25V
C797	1-162-294-31	CERAMIC	0.001uF	10%	50V
C798	1-162-294-31	CERAMIC	0.001uF	10%	50V (C&SA)
C800	1-104-664-11	ELECT	47uF	20%	10V
C801	1-162-294-31	CERAMIC	0.001uF	10%	50V (EXCEPT C&SA)
C801	1-162-306-11	CERAMIC	0.01uF	20%	16V (C&SA)
C803	1-104-664-11	ELECT	47uF	20%	10V
C804	1-161-494-00	CERAMIC	0.022uF		25V (EXCEPT C&SA)
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V (C&SA)

Ref. No.	Part No.	Description			Remark
C805	1-162-306-11	CERAMIC	0.01uF	20%	16V (C&SA)
C807	1-162-306-11	CERAMIC	0.01uF	20%	16V
C810	1-162-282-31	CERAMIC	100PF	10%	50V
C910	1-126-937-11	ELECT	4700uF	20%	16V
C911	1-136-153-00	FILM	0.01uF	5%	50V
C951	1-102-074-00	CERAMIC	0.001uF	10%	50V
C952	1-162-294-31	CERAMIC	0.001uF	10%	50V
C953	1-104-664-11	ELECT	47uF	20%	10V
C954	1-161-020-00	CERAMIC	0.039uF	10%	16V
C955	1-124-443-00	ELECT	100uF	20%	10V
C956	1-124-472-11	ELECT	470uF	20%	10V
C957	1-162-294-31	CERAMIC	0.001uF	10%	50V
		< FILTER >			
CF1	1-760-235-11	FILTER, CERAMIC			
CF2	1-577-072-11	FILTER, CERAMIC			
		< CONNECTOR >			
CN301	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P			
CN302	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CN601	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CN701	1-770-674-11	CONNECTOR, FFC/FPC 16P			
* CN804	1-691-584-11	PIN, CONNECTOR (PC BOARD) 13P			
* CN911	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P			
CN912	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
		< TRIMMER >			
CT1	1-141-559-11	CAP, VAR (C&SA)			
CT1	1-141-560-11	CAP, VAR (JE)			
CT1	1-141-561-11	CAP, VAR (EXCEPT C&SA,JE)			
CT2	1-141-559-11	CAP, VAR (C&SA)			
CT2	1-141-560-11	CAP, VAR (JE)			
CT2	1-141-561-11	CAP, VAR (EXCEPT C&SA,JE)			
CT3	1-141-559-11	CAP, VAR (C&SA)			
CT3	1-141-560-11	CAP, VAR (JE)			
CT3	1-141-561-11	CAP, VAR (EXCEPT C&SA,JE)			
CT4	1-141-559-11	CAP, VAR (C&SA)			
CT4	1-141-560-11	CAP, VAR (JE)			
CT4	1-141-561-11	CAP, VAR (EXCEPT C&SA,JE)			
		< VARIABLE CAPACITOR >			
CV1	1-141-559-11	CAP, VAR (TUNE) (C&SA)			
CV1	1-141-560-11	CAP, VAR (TUNE) (JE)			
CV1	1-141-561-11	CAP, VAR (TUNE) (EXCEPT C&SA,JE)			
CV2	1-141-559-11	CAP, VAR (TUNE) (C&SA)			
CV2	1-141-560-11	CAP, VAR (TUNE) (JE)			
CV2	1-141-561-11	CAP, VAR (TUNE) (EXCEPT C&SA,JE)			
CV3	1-141-559-11	CAP, VAR (TUNE) (C&SA)			
CV3	1-141-560-11	CAP, VAR (TUNE) (JE)			
CV3	1-141-561-11	CAP, VAR (TUNE) (EXCEPT C&SA,JE)			
CV4	1-141-559-11	CAP, VAR (TUNE) (C&SA)			
CV4	1-141-560-11	CAP, VAR (TUNE) (JE)			
CV4	1-141-561-11	CAP, VAR (TUNE) (EXCEPT C&SA,JE)			
		< DIODE >			
D620	8-719-991-33	DIODE 1SS133T-77			
D651	8-719-991-33	DIODE 1SS133T-77			
D652	8-719-991-33	DIODE 1SS133T-77			
D653	8-719-991-33	DIODE 1SS133T-77			
D655	8-719-991-33	DIODE 1SS133T-77			
D656	8-719-991-33	DIODE 1SS133T-77			
D704	8-719-991-33	DIODE 1SS133T-77			
D911	8-719-059-97	LED L-34HD (OPR/BATT)			
D912	8-719-991-33	DIODE 1SS133T-77			
D950	8-719-991-33	DIODE 1SS133T-77			
D951	8-719-110-04	DIODE RD7.5ES-B3			
		< IC >			
IC1	8-752-050-20	IC CXA1238S			
IC301	8-759-264-71	IC TA2068N			
IC305	8-759-452-80	IC LA4600			
IC701	8-752-074-34	IC CXA1782BQ			
IC702	8-752-372-94	IC CXD2507AQ			
IC703	8-759-453-99	IC BA6198S			
IC704	8-759-426-44	IC SM5877AM			
IC801	8-752-874-88	IC CXP5086H-684Q			
		< JACK >			
J301	1-566-891-11	JACK (2)			
		< COIL >			
L1	1-409-915-11	COIL, AIR-CORE			
L2	1-406-957-21	COIL (WITH CORE) (EA)			
L2	1-409-999-11	COIL, AIR-CORE (JE)			
L2	1-411-387-11	COIL, AIR-CORE (EXCEPT EA,JE)			
L3	1-501-841-11	ANTENNA, FERRITE-ROD (MW)			
L4	1-406-040-00	COIL (OSC)			
		< TRANSISTOR >			
Q1	8-729-921-65	TRANSISTOR DTC143ES			
Q151	8-729-900-74	TRANSISTOR DTC143TS			
Q251	8-729-900-74	TRANSISTOR DTC143TS			
Q340	8-729-281-53	TRANSISTOR 2SC1815-GR			
Q701	8-729-037-02	TRANSISTOR KTA1266Y-AT			
Q703	8-729-036-80	TRANSISTOR KRC110M			
Q801	8-729-904-36	TRANSISTOR DTC114YS			
Q951	8-729-021-82	TRANSISTOR 2SD2396K			
Q952	8-729-040-76	TRANSISTOR KTA1273			
		< RESISTOR >			
R1	1-247-807-31	CARBON	100	5%	1/4W
R2	1-249-421-11	CARBON	2.2K	5%	1/4W
R3	1-249-441-11	CARBON	100K	5%	1/4W
R4	1-247-843-11	CARBON	3.3K	5%	1/4W
R5	1-249-411-11	CARBON	330	5%	1/4W
R6	1-247-807-31	CARBON	100	5%	1/4W
R7	1-249-427-11	CARBON	6.8K	5%	1/4W
R8	1-249-427-11	CARBON	6.8K	5%	1/4W
R9	1-249-429-11	CARBON	10K	5%	1/4W
R10	1-249-429-11	CARBON	10K	5%	1/4W
R11	1-247-843-11	CARBON	3.3K	5%	1/4W
R12	1-247-843-11	CARBON	3.3K	5%	1/4W
R13	1-249-421-11	CARBON	2.2K	5%	1/4W
R14	1-249-429-11	CARBON	10K	5%	1/4W

MAIN

Ref. No.	Part No.	Description			Remark
R101	1-249-431-11	CARBON	15K	5%	1/4W
R102	1-249-404-00	CARBON	82	5%	1/4W
R103	1-249-440-11	CARBON	82K	5%	1/4W
R104	1-247-843-11	CARBON	3.3K	5%	1/4W
R105	1-249-417-11	CARBON	1K	5%	1/4W
R106	1-249-417-11	CARBON	1K	5%	1/4W
R111	1-249-425-11	CARBON	4.7K	5%	1/4W
R113	1-247-843-11	CARBON	3.3K	5%	1/4W
R114	1-249-415-11	CARBON	680	5%	1/4W
R149	1-249-429-11	CARBON	10K	5%	1/4W
R150	1-249-425-11	CARBON	4.7K	5%	1/4W
R191	1-247-807-31	CARBON	100	5%	1/4W
R192	1-249-417-11	CARBON	1K	5%	1/4W
R201	1-249-431-11	CARBON	15K	5%	1/4W
R202	1-249-404-00	CARBON	82	5%	1/4W
R203	1-249-440-11	CARBON	82K	5%	1/4W
R204	1-247-843-11	CARBON	3.3K	5%	1/4W
R205	1-249-417-11	CARBON	1K	5%	1/4W
R206	1-249-417-11	CARBON	1K	5%	1/4W
R211	1-249-425-11	CARBON	4.7K	5%	1/4W
R213	1-247-843-11	CARBON	3.3K	5%	1/4W
R214	1-249-415-11	CARBON	680	5%	1/4W
R249	1-249-429-11	CARBON	10K	5%	1/4W
R250	1-249-425-11	CARBON	4.7K	5%	1/4W
R291	1-247-807-31	CARBON	100	5%	1/4W
R292	1-249-417-11	CARBON	1K	5%	1/4W
R304	1-247-903-00	CARBON	1M	5%	1/4W
R305	1-249-406-11	CARBON	120	5%	1/4W
R306	1-249-417-11	CARBON	10K	5%	1/4W
R307	1-249-429-11	CARBON	10K	5%	1/4W
R308	1-249-429-11	CARBON	10K	5%	1/4W
R314	1-249-399-11	CARBON	33	5%	1/4W
R341	1-249-393-11	CARBON	10	5%	1/4W
R342	1-249-435-11	CARBON	33K	5%	1/4W
R351	1-249-429-11	CARBON	10K	5%	1/4W
R386	1-249-417-11	CARBON	1K	5%	1/4W
R619	1-249-429-11	CARBON	10K	5%	1/4W
R620	1-249-429-11	CARBON	10K	5%	1/4W
R623	1-249-429-11	CARBON	10K	5%	1/4W
R624	1-249-429-11	CARBON	10K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
R700	1-249-429-11	CARBON	10K	5%	1/4W
R701	1-249-440-11	CARBON	82K	5%	1/4W
R702	1-247-896-11	CARBON	510K	5%	1/4W
R703	1-249-441-11	CARBON	100K	5%	1/4W
R704	1-247-883-00	CARBON	150K	5%	1/4W
R705	1-249-437-11	CARBON	47K	5%	1/4W
R706	1-247-876-11	CARBON	75K	5%	1/4W
R707	1-249-432-11	CARBON	18K	5%	1/4W
R708	1-247-883-00	CARBON	150K	5%	1/4W
R709	1-247-862-11	CARBON	20K	5%	1/4W
R710	1-249-393-11	CARBON	10	5%	1/4W
R712	1-247-843-11	CARBON	3.3K	5%	1/4W
R714	1-247-883-00	CARBON	150K	5%	1/4W
R715	1-249-430-11	CARBON	12K	5%	1/4W
R716	1-249-430-11	CARBON	12K	5%	1/4W
R717	1-249-429-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R720	1-247-891-00	CARBON	330K	5%	1/4W
R722	1-249-439-11	CARBON	68K	5%	1/4W
R723	1-249-440-11	CARBON	82K	5%	1/4W
R725	1-249-437-11	CARBON	47K	5%	1/4W
R726	1-249-429-11	CARBON	10K	5%	1/4W
R727	1-249-429-11	CARBON	10K	5%	1/4W
R730	1-249-435-11	CARBON	33K	5%	1/4W
R731	1-247-863-91	CARBON	22K	5%	1/4W
R734	1-249-437-11	CARBON	47K	5%	1/4W
R740	1-247-843-11	CARBON	3.3K	5%	1/4W
R741	1-249-417-11	CARBON	1K	5%	1/4W
R742	1-249-429-11	CARBON	10K	5%	1/4W
R743	1-247-903-00	CARBON	1M	5%	1/4W
R744	1-249-441-11	CARBON	100K	5%	1/4W
R745	1-249-429-11	CARBON	10K	5%	1/4W
R746	1-249-437-11	CARBON	47K	5%	1/4W
R748	1-249-417-11	CARBON	1K	5%	1/4W
R749	1-249-417-11	CARBON	1K	5%	1/4W
R750	1-249-429-11	CARBON	10K	5%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R752	1-249-417-11	CARBON	1K	5%	1/4W
R753	1-249-417-11	CARBON	1K	5%	1/4W
R754	1-249-417-11	CARBON	1K	5%	1/4W
R755	1-249-417-11	CARBON	1K	5%	1/4W
R756	1-249-440-11	CARBON	82K	5%	1/4W
R757	1-249-439-11	CARBON	68K	5%	1/4W
R758	1-249-439-11	CARBON	68K	5%	1/4W
R759	1-249-439-11	CARBON	68K	5%	1/4W
R760	1-249-417-11	CARBON	1K	5%	1/4W
R761	1-249-417-11	CARBON	1K	5%	1/4W
R762	1-249-417-11	CARBON	1K	5%	1/4W
R764	1-249-417-11	CARBON	1K	5%	1/4W
R765	1-249-417-11	CARBON	1K	5%	1/4W
R766	1-249-417-11	CARBON	1K	5%	1/4W
R767	1-249-429-11	CARBON	10K	5%	1/4W
R768	1-249-429-11	CARBON	10K	5%	1/4W
R775	1-249-417-11	CARBON	1K	5%	1/4W
R776	1-249-417-11	CARBON	1K	5%	1/4W
R792	1-249-429-11	CARBON	10K	5%	1/4W
R795	1-249-429-11	CARBON	10K	5%	1/4W
R801	1-249-437-11	CARBON	47K	5%	1/4W
R802	1-249-437-11	CARBON	47K	5%	1/4W
R803	1-249-437-11	CARBON	47K	5%	1/4W
R806	1-249-437-11	CARBON	47K	5%	1/4W
R807	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-417-11	CARBON	1K	5%	1/4W
R809	1-249-429-11	CARBON	10K	5%	1/4W
R820	1-249-417-11	CARBON	1K	5%	1/4W
⚠R901	1-219-123-11	FUSIBLE	0.47	5%	1/4W F
⚠R902	1-219-123-11	FUSIBLE	0.47	5%	1/4W F
⚠R903	1-219-123-11	FUSIBLE	0.47	5%	1/4W F
R911	1-247-828-11	CARBON	750	5%	1/4W
R912	1-247-816-11	CARBON	240	5%	1/4W
R951	1-247-815-91	CARBON	220	5%	1/4W
R954	1-249-421-11	CARBON	2.2K	5%	1/4W

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

Ref. No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
RV1	1-228-995-00	RES, ADJ, METAL 22K (VCO)			
RV351	1-225-438-11	RES, VAR, CARBON 20K/20K (TONE)			
RV352	1-225-439-11	RES, VAR, CARBON 20K/20K (VOL)			
RV701	1-228-995-00	RES, ADJ, METAL 22K (FOCUS BIAS)			
RV702	1-228-995-00	RES, ADJ, METAL 22K (FOCUS GAIN)			
RV703	1-228-991-00	RES, ADJ, METAL 2.2K (E-F BALANCE)			
RV704	1-228-995-00	RES, ADJ, METAL 22K (TRACKING GAIN)			
		< SWITCH >			
S351	1-571-345-11	SWITCH, LEVER SLIDE (FUNCTION)			
		< TRANSFORMER >			
T1	1-409-944-11	COIL (DET)			
T2	1-416-155-11	COIL (455KHz IFT)			
T301	1-433-268-00	TRANSFORMER, BIAS OSCILLATOR			
		< VIBRATOR >			
X701	1-760-793-11	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
*	1-665-032-13	POWER BOARD(C&SA)			
*	1-665-032-23	POWER BOARD(EXCEPT C&SA)			
		**********			
	1-533-217-31	HOLDER, FUSE			
		< CAPACITOR >			
C901	1-101-005-00	CERAMIC	22000PF		50V
C902	1-101-005-00	CERAMIC	22000PF		50V
C903	1-101-005-00	CERAMIC	22000PF		50V
C904	1-101-005-00	CERAMIC	22000PF		50V
C905	1-136-165-00	FILM	0.1uF	5%	50V
C906	1-136-165-00	FILM	0.1uF	5%	50V
		< DIODE >			
D901	8-719-063-79	DIODE 1N4002B			
D902	8-719-063-79	DIODE 1N4002B			
D903	8-719-063-79	DIODE 1N4002B			
D904	8-719-063-79	DIODE 1N4002B			
		< FUSE >			
⚠F902	1-532-286-00	FUSE, TIME LAG (T2.5AL/250V)			(EXCEPT C&SA)
⚠F902	1-576-107-11	FUSE, GLASS CYLINDERICAL (3.15A/250V)			(C&SA)
		< RESISTOR >			
R919	1-249-421-11	CARBON	2.2K	5%	1/4W (EA,JE)
**********					

Ref. No.	Part No.	Description	Remark
*	1-665-041-11	REC SW BOARD	
		**********	
		< SWITCH >	
S301	1-762-565-11	SWITCH, SLIDE (PB/REC)	
**********			
*	1-665-031-13	SW BOARD (C&SA)	
*	1-665-031-23	SW BOARD (EXCEPT C&SA)	
		**********	
		< LIQUID CRYSTAL DISPLAY >	
LCD801	1-810-442-31	DISPLAY PANEL, LIQUID CRYSTAL	
		< SWITCH >	
S801	1-762-798-11	SWITCH, KEYBOARD (▶II)	
S802	1-762-798-11	SWITCH, KEYBOARD (■)	
S803	1-762-798-11	SWITCH, KEYBOARD (I◀◀)	
S804	1-762-798-11	SWITCH, KEYBOARD (▶▶I)	
**********			
*	1-665-044-11	VOL SEL BOARD (EA,JE)	
		**********	
		< SWITCH >	
⚠S901	1-552-921-00	SWITCH, POWER (VOLTAGE CHANGE) (VOLTAGE SELECTOR) (EA,JE)	
**********			
		MISCELLANEOUS	
		**********	
56	1-452-899-11	MAGNET	
73	1-777-955-11	WIRE (FLAT TYPE) (16 CORE)	
107	1-533-217-31	HOLDER, FUSE	
⚠254	8-848-483-05	OPTICAL PICK-UP KSS-213C	
255	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	
ANT1	1-501-883-11	ANTENNA, TELESCOPIC	
⚠F901	1-532-235-00	FUSE, TIME LAG (T0.315AL/250V) (EA,JE)	
⚠F902	1-532-286-00	FUSE, TIME LAG (T2.5AL/250V) (EXCEPT C&SA)	
⚠F902	1-576-107-11	FUSE, GLASS CYLINDERICAL (3.15A/250V) (C&SA)	
HE901	1-543-876-11	HEAD (ERASE)	
HRP901	1-500-364-11	HEAD,MAGNETIC(RECORD/PLAYBACK)	
LCD801	1-810-442-31	DISPLAY PANEL, LIQUID CRYSTAL	
M701	X-2625-769-1	GEAR ASSY (MB)(RP), MOTOR (SLED)	
M901	A-3304-619-A	MOTOR ASSY	
S801	1-762-679-11	SWITCH, LEAF (MOTOR ON/OFF)	
S871	1-692-960-11	SWITCH, PUSH (1 KEY) (OPEN/CLOSE)	
SP901	1-505-531-11	SPEAKER (10cm) (L-CH)	
SP902	1-505-531-11	SPEAKER (10cm) (R-CH)	
⚠T901	1-426-632-11	TRANSFORMER, POWER (SP,KR,AUS)	
⚠T901	1-429-122-11	TRANSFORMER, POWER (EA,JE)	
⚠T901	1-431-230-11	TRANSFORMER, POWER (C&SA)	
**********			

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

Ref. No.	Part No.	Description	Remark
		ACCESSORIES & PACKING MATERIALS	
		**********	
⚠	1-475-664-11	ADAPTOR, CONVERSION 2P (EA)	
⚠	1-557-287-11	CORD, POWER (C&SA)	
⚠	1-569-008-11	ADAPTOR, CONVERSION 2P (JE)	
⚠	1-696-819-11	CORD, POWER(AUS)	
⚠	1-696-820-21	CORD, POWER(SP,EA,JE)	
⚠	1-776-985-11	CORD, POWER(KR)	
	3-859-115-11	MANUAL, INSTRUCTION (ENGLISH)	(C&SA,AU)
	3-859-115-31	MANUAL, INSTRUCTION (ENGLISH,GERMAN)	(EA,SP,KR,JE)
	3-859-115-41	MANUAL, INSTRUCTION (FRENCH,SPANISH)	(EA,SP,JE)
	3-859-115-91	MANUAL, INSTRUCTION (SPANISH) (C&SA)	
	3-859-116-11	MANUAL, INSTRUCTION (KOREAN) (KR)	

****

****
HARDWARE LIST
****

#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#3	7-682-548-04	SCREW +B 3X8	
#4	7-621-773-95	SCREW +B 2.6X6 (JE)	
#4	7-621-770-99	SCREW +P 2.6X8 (EXCEPT JE)	
#5	7-621-255-15	SCREW +P 2X3	
#6	7-685-649-79	SCREW +BVTT 3X14 TYPE2 N-S	
#7	7-621-770-87	SCREW +B 2.6X5	

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

98A0226-1
Printed in Japan
Published by Quality Engineering Dept.
(Shibaura)

CFD-V10

SONY

SERVICE MANUAL

Ver 1.0 1998. 08

Australian Model
E Model
Tourist Model

SUPPLEMENT - 2

File this Supplement with the Service Manual and Supplement-1.

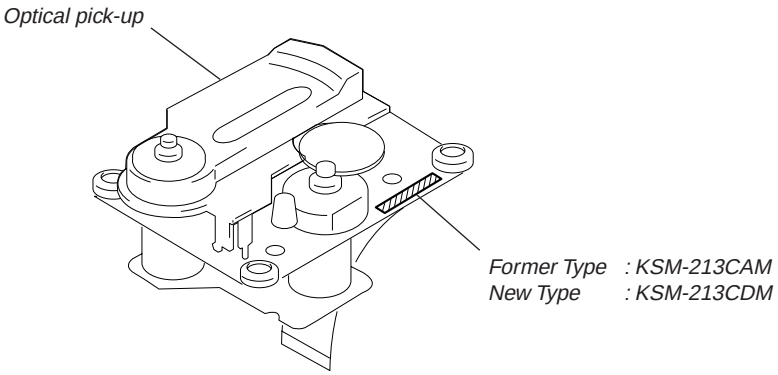
Subject : CHANGE OF OPTICAL PICK-UP BLOCK

(ECN-RC800385)

- **Optical pick-up block change**
  Since the new chassis assy (MB) (RP), motor (including M702) and chucking plate are not compatible with the former ones, when replacing either of these parts, replace them with the same version.

How to distinguish the sets

You can distinguish the sets by the type name printed on the optical pick-up block.



Page 1

☛: changed portion

Former Type

Model Name Using	CD Section	NEW
Similar Mechanism	Tape Section	NEW
Optical Pick-up Type		KSM-213CAM/C1NP
Tape Transport Mechanism Type		MF-V10-117

New Type

Model Name Using	CD Section	NEW
Similar Mechanism	Tape Section	NEW
Optical Pick-up Type		KSM-213CDM
Tape Transport Mechanism Type		MF-V10-117

DIFFERENCE PARTS LIST

(Supplement-1 See page 18, 22, 27)

Page	Former Type				New Type		
	Ref. No.	Part No.	Description	Remark	Part No.	Description	Remark
18	55	3-923-498-01	PLATE, CHUCK		3-019-395-01	PLATE, CHUCKING	
22, 27	**8-6. OPTICAL PICK-UP SECTION (KSM-213CAM)**				**8-6. OPTICAL PICK-UP SECTION (KSM-213CDM)**		
	255	X-2625-770-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)		X-2626-202-1	CHASSIS ASSY (MB) (RP), MOTOR (INCLUDING M702) (SPINDLE)	

● CORRECTION

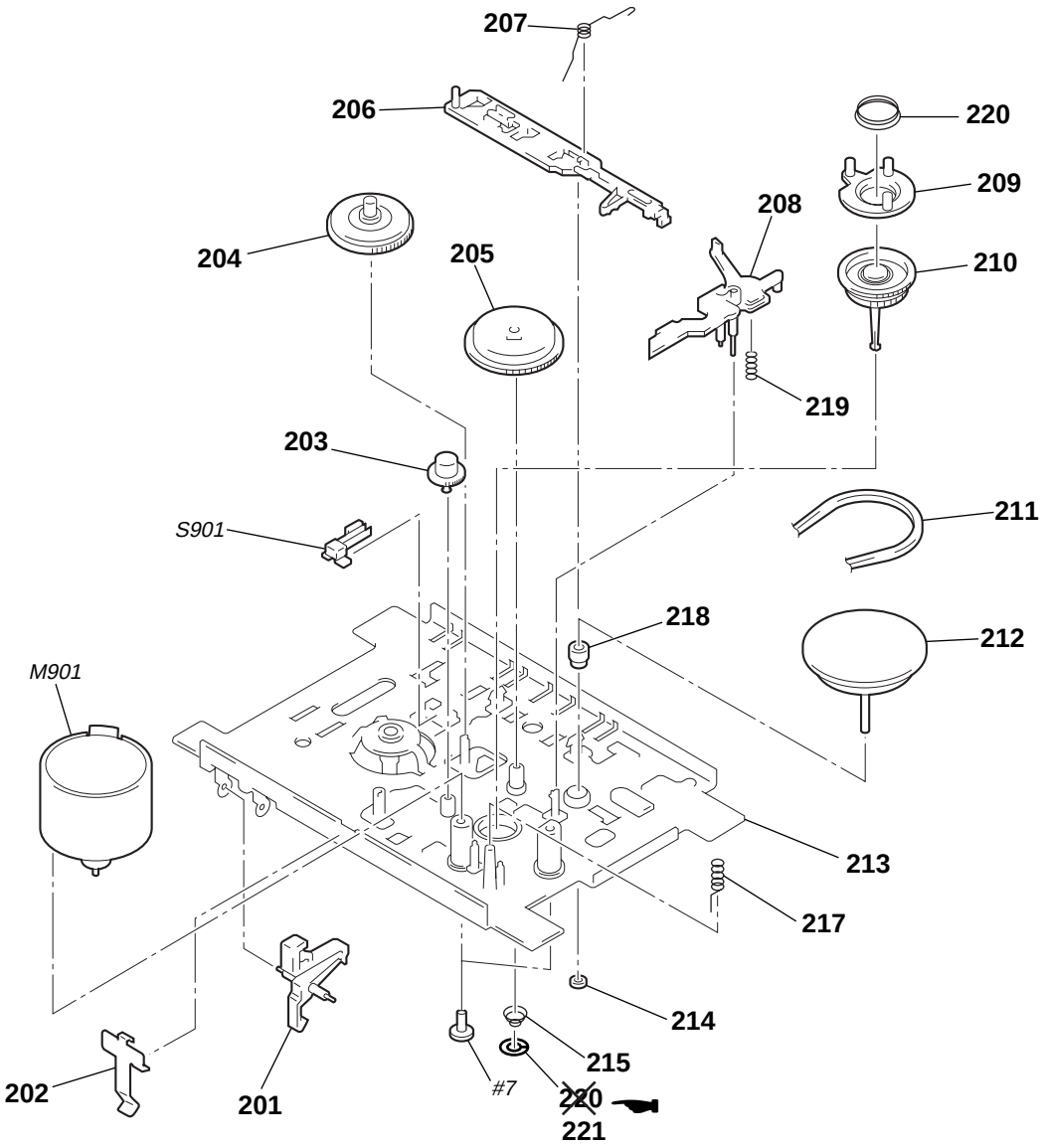
ELECTRICAL PARTS LIST (Supplement-1 See page 19, 27)

Page	INCORRECT				CORRECT		
	Ref. No.	Part No.	Description	Remark	Part No.	Description	Remark
19, 27	⚠ T901	1-426-632-11	TRANSFORMER, POWER (SP, KR, AUS)		1-427-943-11	TRANSFORMER, POWER (SP, KR, AUS)	

EXPLODED VIEWS (Supplement-1 See page 21)

☛: Corrected portion

INCORRECT				CORRECT		
Ref. No.	Part No.	Description	Remark	Part No.	Description	Remark
216	3-939-383-02	SPRING, COMPRESSION		————————		
219	3-009-650-02	SPRING (K), COMPRESSION		3-939-383-02	SPRING, COMPRESSION	
220	3-016-349-01	WASHER		3-009-650-02	SPRING (K), COMPRESSION	
221		————————		3-016-349-01	WASHER	



98H0225-1
Printed in Japan

Published by Quality Engineering Dept. (Shibaura)

CFD-V10

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CORRECTION-1

Correct your Service Manual as shown below.

- ☛ : indicates corrected portion

page	INCORRECT			CORRECT	
	Ref. No.	Part No.	Description	Part No.	Description
38, 43	⚠254	8-820-018-02	OPTICAL PICK-UP KSS-213C	8-848-483-05 ☛	OPTICAL PICK-UP KSS-213C/Q-RP

9-923-134-93

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97G0225-1

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SERVICE MANUAL

Australian Model
E Model
Tourist Model

CORRECTION - 2

File this Correction with the Service Manual.

☛ **: indicates corrected portion**

	INCORRECT			CORRECT	
Page	Ref. No.	Part No.	Description	Part No.	Description
37, 43	M901	A-3304-621-A	MOTOR ASSY	A-3304-619-A ☛	MOTOR ASSY

(SPM97033)

9-923-134-98

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