

CFS-J711S

SERVICE MANUAL

Saudi Arabia Model



MEGA BASS

Model Name Using Similar Mechanism		CFS-710S
Tape Transport Mechanism Type	deck A	MF-710PB-78D
	deck B	MF-710RP-75D

SPECIFICATIONS

Tuner frequency range	FM: 87.6 – 107 MHz MW: 530 – 1,605 kHz SW 1: 2.3 – 7 MHz SW 2: 7 – 22 MHz
Antennas	FM/SW: Telescopic antenna MW: Built-in ferrite bar
Recording system	4-track, 2-channel stereo
Frequency response	70 – 10,000 Hz
Speakers	Full-range: 12 cm (4 ³ / ₄ inches) dia. × 2
Maximum power output	5.8 W + 5.8 W
Inputs	MIX MIC input jack (mono minijack) (1) sensitivity 3.9 mV for low impedance microphone CD/LINE IN jacks (stereo phono) (2) input impedance 50 kilohms, sensibility 0.43 V
Outputs	Headphones jack (stereo minijack) for 16 – 68 ohm impedance headphones
Power requirements	110–120 V, 220–240 V AC, adjustable, 50/60 Hz 9 V DC, six R20 (size D) batteries
Power consumption	22 W

Battery life	Batteries	FM recording
	Sony New Super SUM-1 (NS)	Approx. 5.5 hours
	Sony AM1 alkaline	Approx. 11 hours
Dimensions	Approx. 681 × 215 × 225 mm (w/h/d) (26 ⁷ / ₈ × 8 ¹ / ₂ × 8 ⁷ / ₈ inches) not incl. projecting parts and controls	
Mass	Approx. 6.5 kg (14 lb 5 oz) incl. batteries	
Accessory supplied	AC power cord (1) AC plug adaptor (1)	



Design and specifications subject to change without notice.

RADIO CASSETTE-CORDER
SONY®

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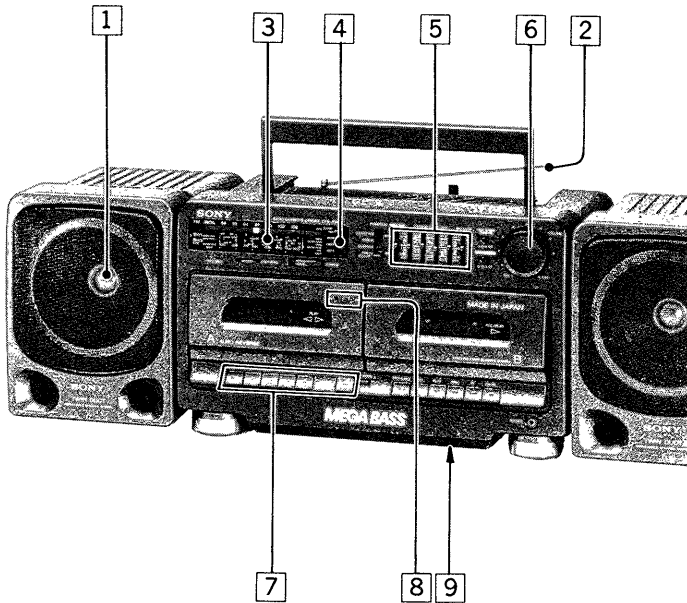
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SAFETY-RELATED COMPONENT WARNING!!

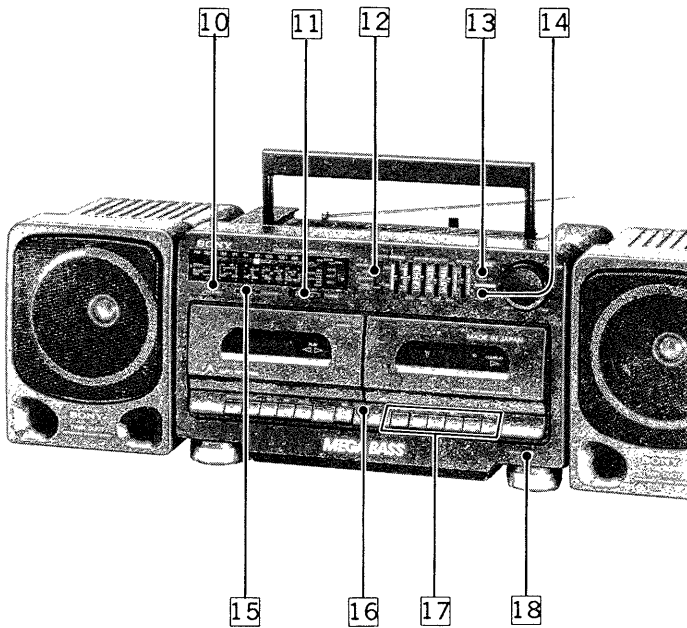
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS



- 1 Speaker
- 2 FM telescopic antenna
- 3 Dial pointer
- 4 BAND selector
- 5 6 BAND GRAPHIC EQUALIZER controls
MEGA BASS, 400Hz, 1kHz, 4kHz, 10kHz, BALANCE
- 6 VOLUME control
- 7 Tape operation buttons (deck A)
 - ▲ STOP/EJECT
 - ▶ PLAY
 - ◀◀ (rightward fast winding)
 - ▶▶ (leftward fast winding)
 - || PAUSE
 - ◀▶ DIR (direction)
- 8 OPR/BATT (operation/battery) and REV (reverse),
FWD (forward) indicators
- 9 VOLTAGE SELECTOR switch (bottom face)

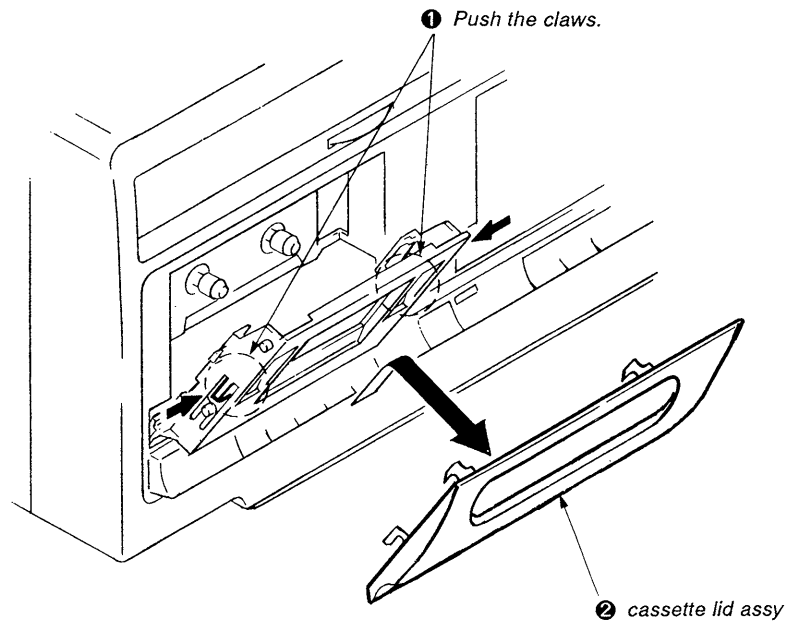


- 10 FM STEREO indicator
- 11 TUNING knob
- 12 FUNCTION selector
TAPE/RADIO OFF, DUBBING, RADIO, CD/LINE IN
- 13 HIGH SPEED DUBBING button
- 14 SPACE SOUND button
- 15 FINE TUNING knob
- 16 DIR (direction) MODE button
- 17 Tape operation buttons (deck B)
 - ▲ STOP/EJECT
 - REC (recording)
 - ▶ PLAY
 - ◀◀ REW (rewind)
 - ▶▶ FF (fast forward)
 - || PAUSE
- 18 PHONES (headphones) jack (stereo mini)

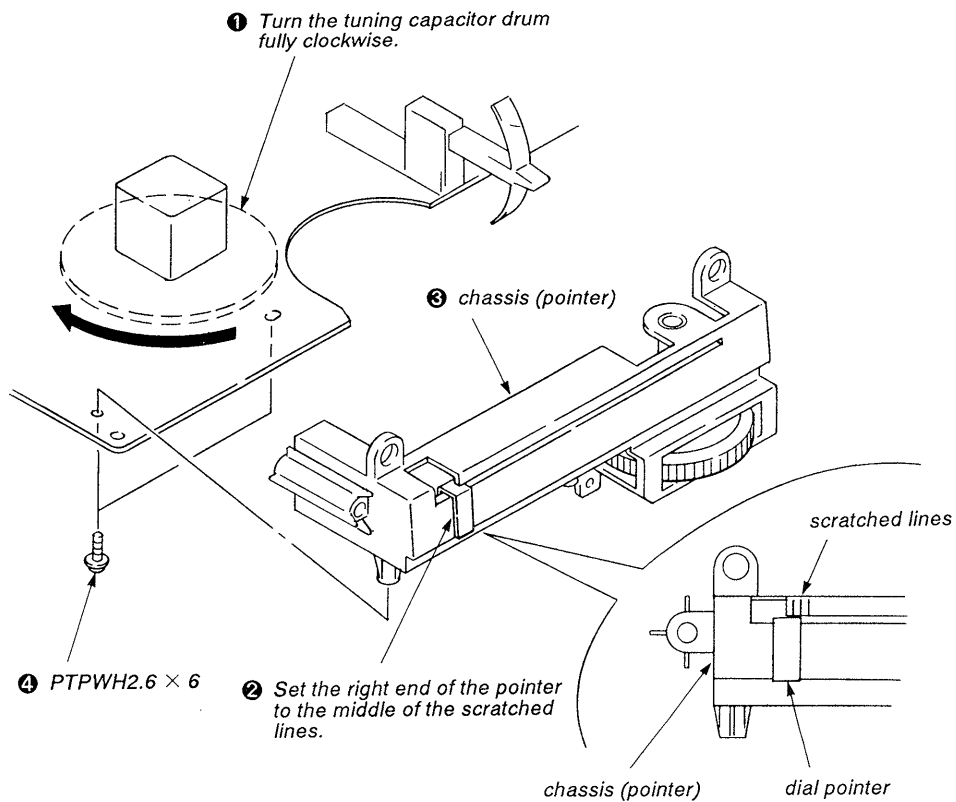
SECTION 2 DISASSEMBLY

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

2-1. REMOVAL OF CASSETTE LID ASSY



2-2. DIAL POINTER SETTING



SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
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.
6. Power supply voltage: 9V dc.

Torque Measurement

[DECK A]

Torque	Torque meter	Meter reading
Forward	CQ-102C	28–65g·cm (0.39–0.90 oz·inch)
Forward back tension	CQ-102C	2.5–5.5g·cm (0.035–0.076 oz·inch)
Reverse	CQ-102RC	28–65g·cm (0.39–0.90 oz·inch)
Reverse back tension	CQ-102RC	2.5–5.5g·cm (0.035–0.076 oz·inch)
Fast Forward	CQ-201B	more than 100g·cm (more than 1.39 oz·inch)
Rewind	CQ-201B	95–145g·cm (1.32–2.01 oz·inch)

[DECK B]

Torque	Torque meter	Meter reading
Forward	CQ-102C	25–50g·cm (0.35–0.69 oz·inch)
Forward back tension	CQ-102C	2–5g·cm (0.03–0.07 oz·inch)
Fast Forward and Rewind	CQ-201B	65–110g·cm (0.90–1.53 oz·inch)

Tape Tension Measurement

[DECK A]

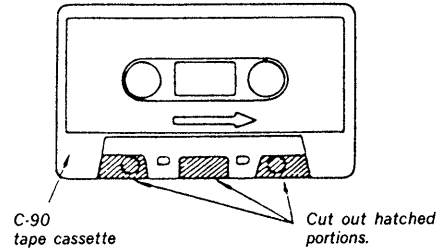
Mode	Meter	Meter Reading
Forward	CQ-403A	more than 120g (more than 4.23 oz)
Reverse	CQ-403R	

[DECK B]

Meter	Meter Reading
CQ-403A	more than 170g (more than 6.00 oz)

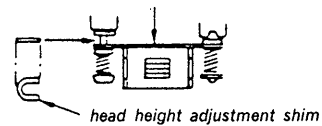
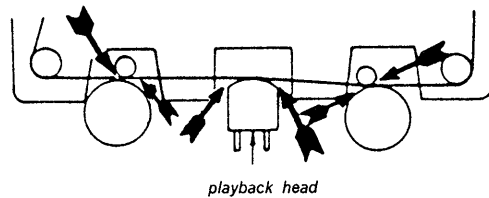
Head Height Adjustment

1. Use CQ-009C (Part No. 8-909-708-01) or prepare an adjustment cassette as shown below.



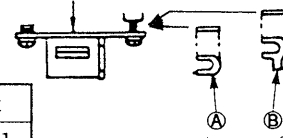
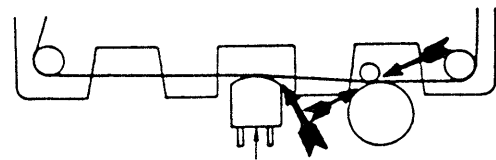
2. In playback mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at portions shown by arrows.

• DECK A



Part No.	t
3-578-138-01	0.1
3-578-138-11	0.2

• DECK B



	Part No.	t
Ⓐ	3-578-138-01	0.1
	3-578-138-11	0.2
	3-578-138-21	0.3
Ⓑ	3-331-108-01	0.1
	3-331-108-11	0.2
	3-331-108-21	0.3
	3-331-108-31	0.4
	3-331-108-41	0.5

SECTION 4 ELECTRICAL ADJUSTMENTS

4-1. TAPE RECORDER SECTION

Standard Input Level

Input terminal	LINE IN
source impedance	10k Ω
input signal level	0.44V (-5dB)

Standard Output Level

Output terminal	SP OUT	HP OUT
load impedance	3.2 Ω	32 Ω
output signal level	0.775V (0dB)	0.25V (-10dB)

Test Tape

Type	Signal	Used for
P-4-A063	6.3kHz, -10dB	head azimuth adjustment
WS-48A	3kHz, 0dB	tape speed adjustment

Head Azimuth Adjustment DECK A DECK B

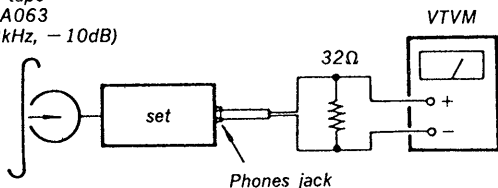
Perform adjustments in both forward and reverse playback modes for DECK A.

Output level of both forward and reverse playback modes should match together.

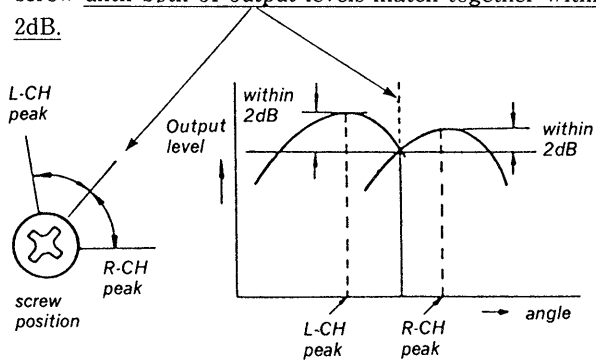
Procedure :

1. Mode : playback

test tape
P-4-A063
(6.3kHz, -10dB)



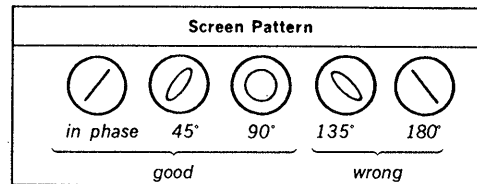
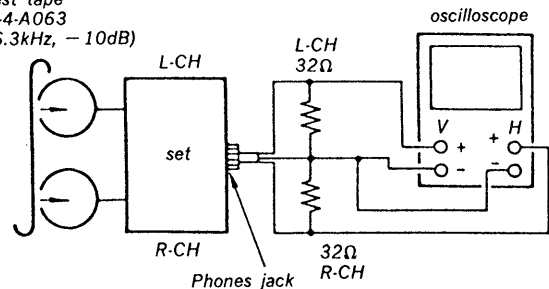
2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2dB.



3. Phase Check

Mode : playback

test tape
P-4-A063
(6.3kHz, -10dB)

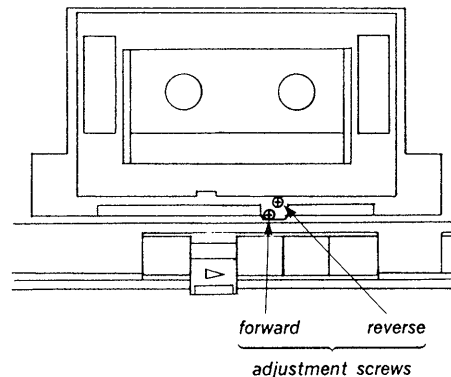


Note : Finish the screw adjustment with a turn in the clockwise direction.

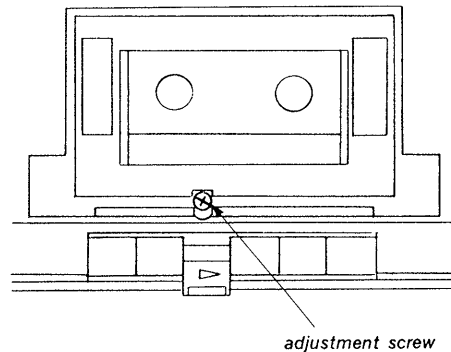
After the adjustment, apply suitable locking compound to the adjustment screw.

Adjustment Location :

DECK A



DECK B

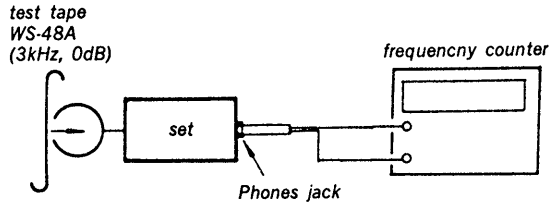


Tape Speed Adjustment DECK A DECK B

Procedure :

- Perform high speed adjustment before normal speed adjustment.

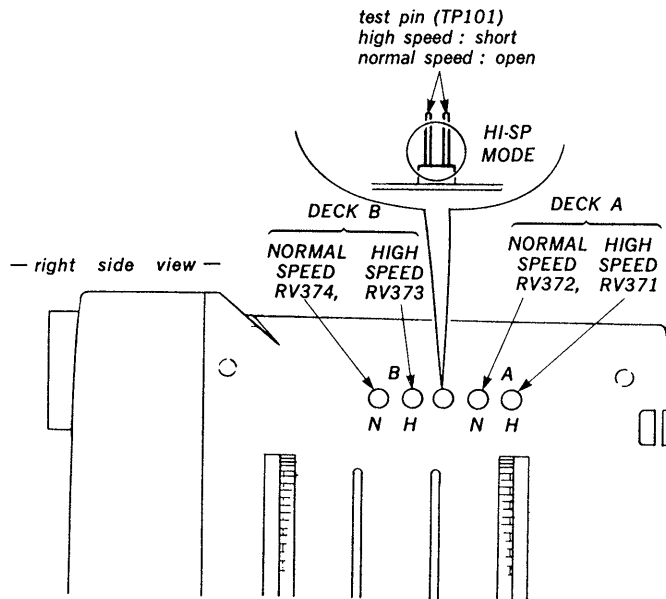
Mode : playback



Speed	Test pin (TP101)	Deck	Adjustment point	Frequency counter
High	short	A	RV371	5,685 – 5,715Hz
		B	RV373	
Normal	open	A	RV372	2,970 – 3,000Hz
		B	RV374	

Frequency difference between the beginning and the end of the tape should be within $\pm 1.5\%$.

Adjustment Location :

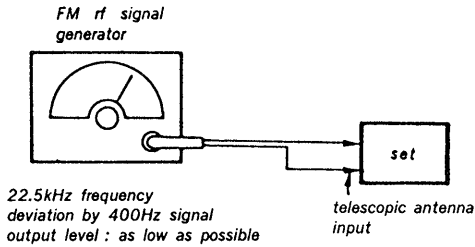


4-2. RADIO SECTION

• FM Section

Setting :

BAND switch : FM



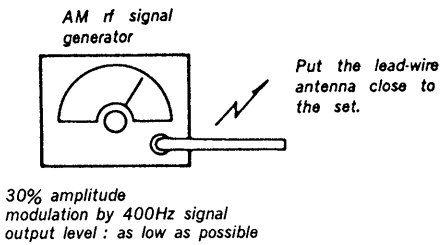
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	CT2
87.35MHz	107.8MHz

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	CT1
87.35MHz	107.8MHz

• MW Section

Setting :

BAND switch : MW



MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L4	CT4
520kHz	1,680kHz

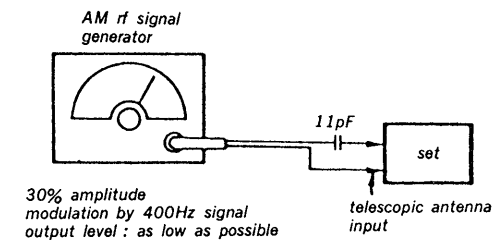
MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	CT3
600kHz	1,400kHz

• SW1/SW2 Section

Setting :

BAND switch : SW1/SW2

FINE TUNING knob : mechanical mid



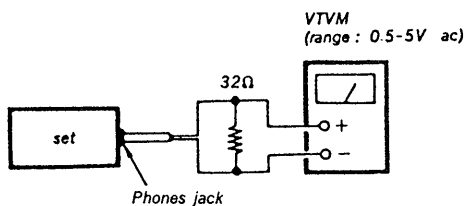
AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	
455kHz	

SW1 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L6	CT6
2.25MHz	7.3MHz

SW1 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L5	CT5
2.25MHz	7.3MHz

SW2 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L8	CT8
6.8MHz	22.5MHz

SW2 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L7	CT7
6.8MHz	22.5MHz

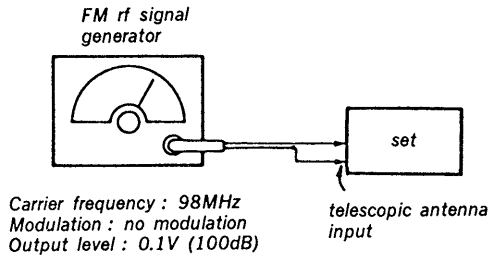


- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

VCO Adjustment

A) Regular Method

Procedure :

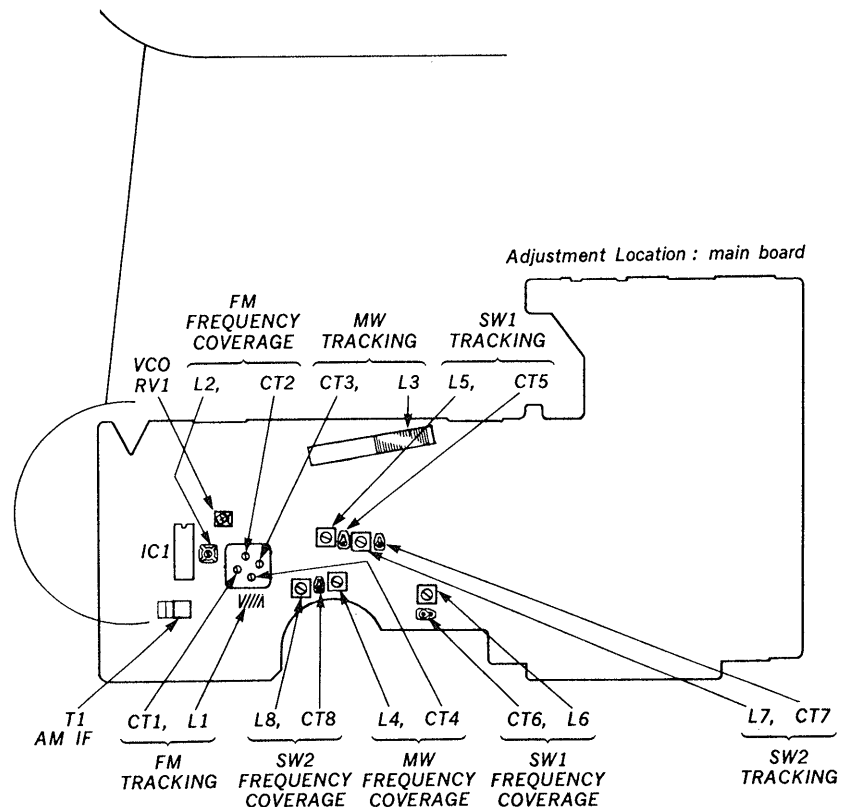
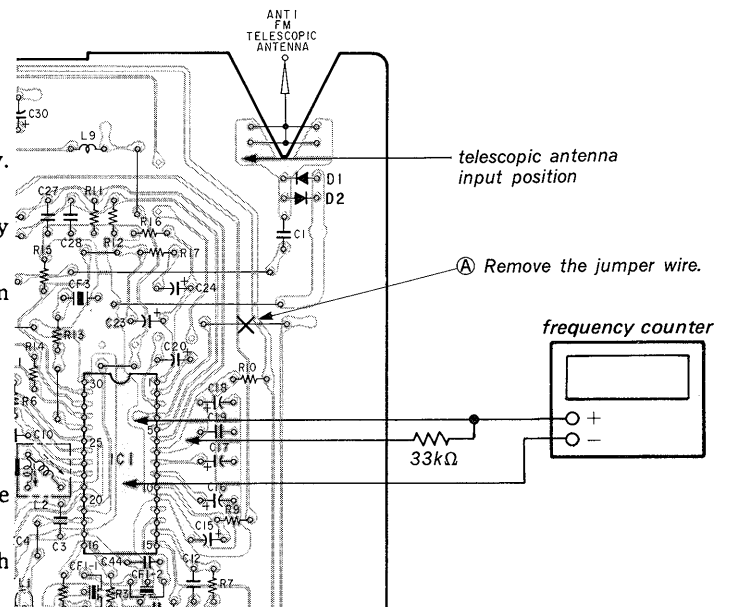
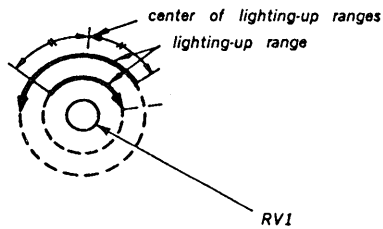


1. Remove jumper wire **(A)** as shown below.
2. Connect frequency counter to the positions shown below.
3. Tune the set to 98MHz.
4. Adjust RV1 for $76\text{kHz} \pm 500\text{Hz}$ reading on the frequency counter.
5. After adjustment, connect jumper wire **(A)** removed in step 1.

B) Simple Method

Procedure :

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RV1 clockwise or counterclockwise and memorize the lighting-up range of the FM STEREO lamp.
3. Secure RV1 at the center of the lighting-up range of both turns as shown below.

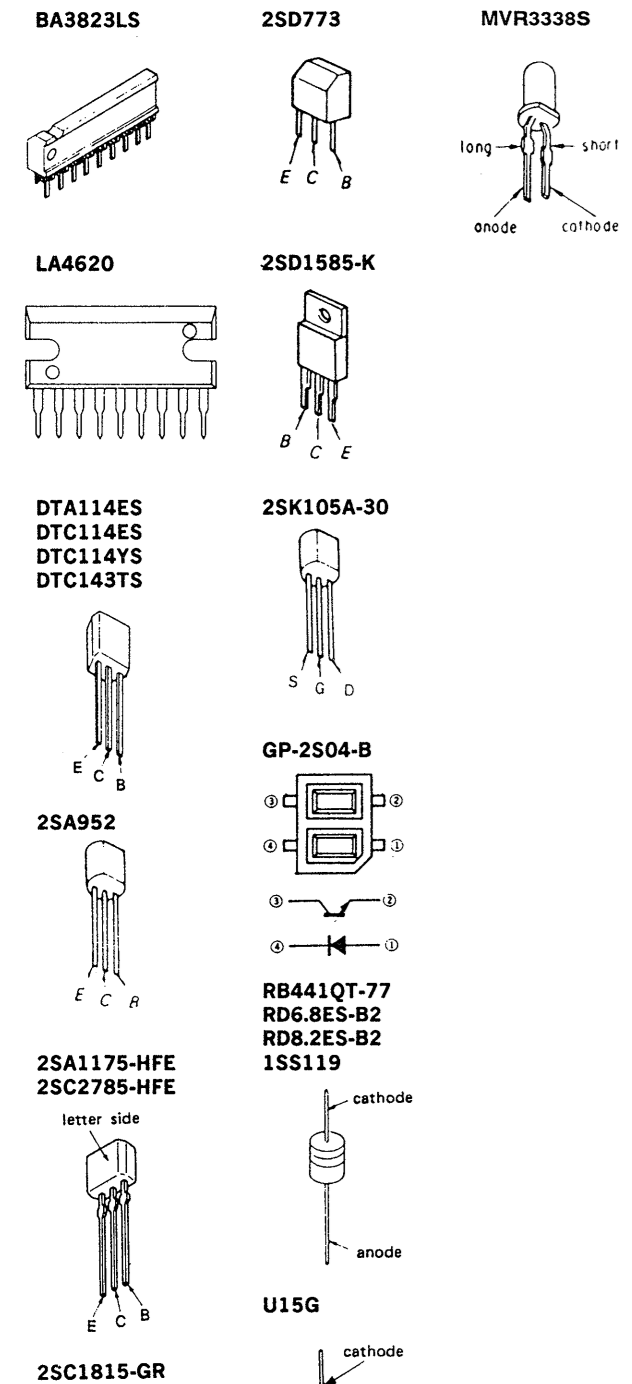


SECTION 5
DIAGRAMS

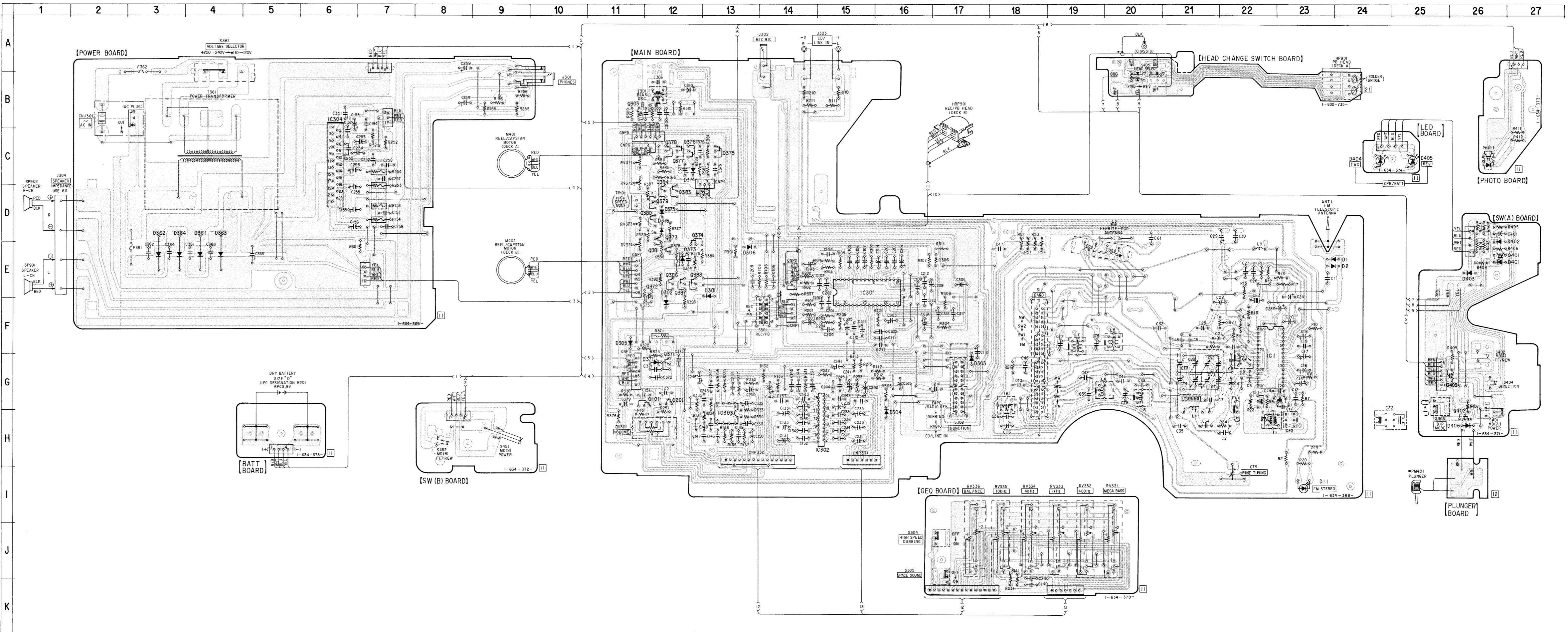
● Semiconductor Location

Ref. No.	Location
D1	E-24
D2	E-24
D11	I-23
D301	E-13
D302	E-12
D303	G-17
D304	H-16
D305	F-11
D306	E-13
D361	E-4
D362	E-3
D363	E-4
D364	E-3
D371	G-12
D373	E-12
D374	C-12
D375	D-12
D376	D-12
D401	E-27
D402	E-27
D403	E-26
D404	C-24
D405	C-25
D406	H-26
IC1	G-22
IC301	E-15
IC302	H-15
IC303	H-13
IC304	C-6
Q101	G-12
Q201	G-12
Q303	B-11
Q371	G-12
Q372	E-12
Q373	E-12
Q374	E-12
Q375	C-13
Q376	C-12
Q377	C-12
Q378	C-12
Q379	D-12
Q380	D-12
Q381	E-12
Q383	D-12
Q384	D-12
Q386	E-12
Q387	E-12
Q388	E-12
Q401	E-27
Q402	H-26
Q403	G-26

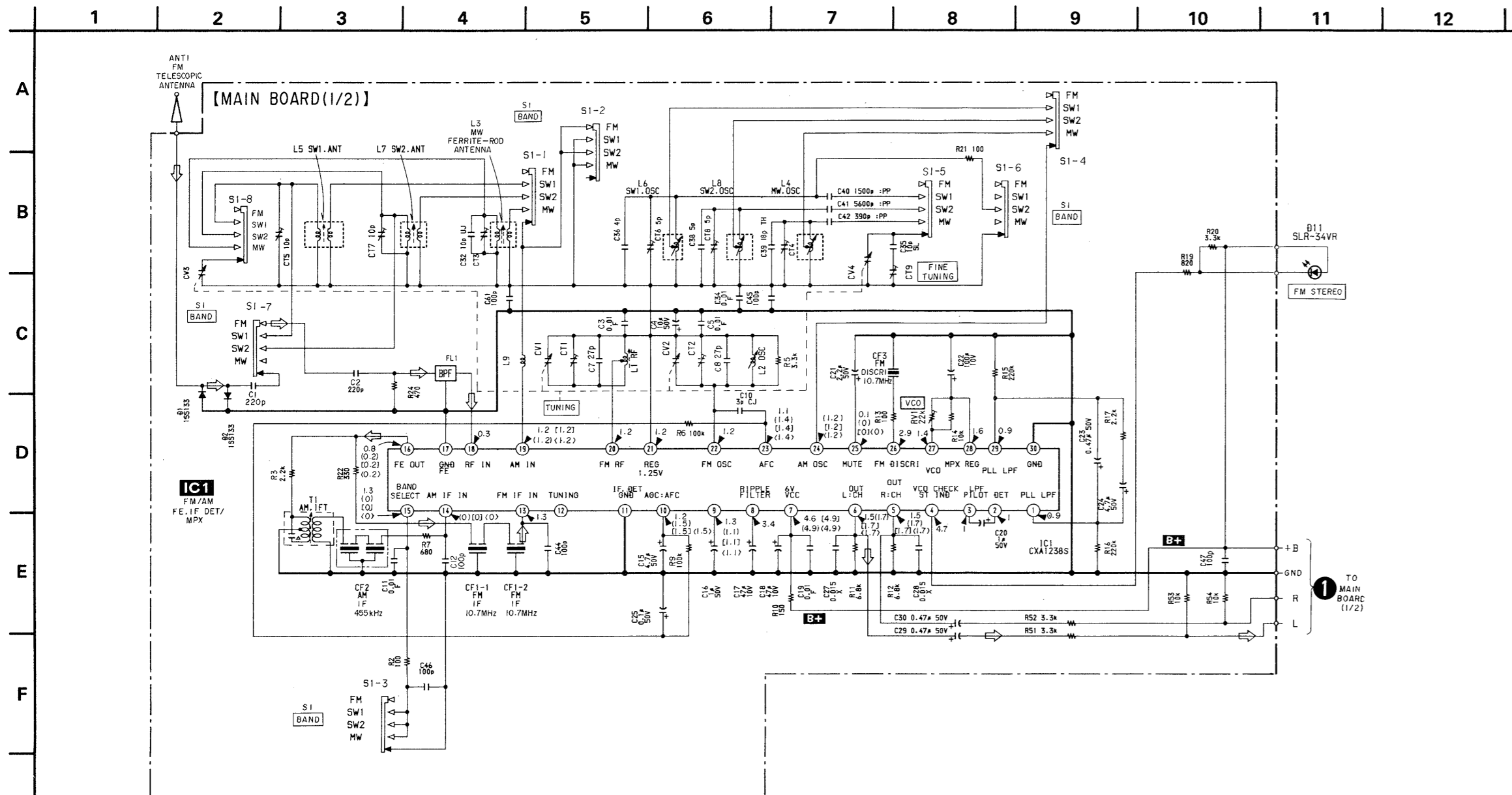
5-1. SEMICONDUCTOR LEAD LAYOUTS



Note:
 ● ○ : parts extracted from the component side.
 ● ○ : parts extracted from the conductor side.
 ● ■ : parts mounted on the conductor side.
 ● ○ : indicates side identified with part number.



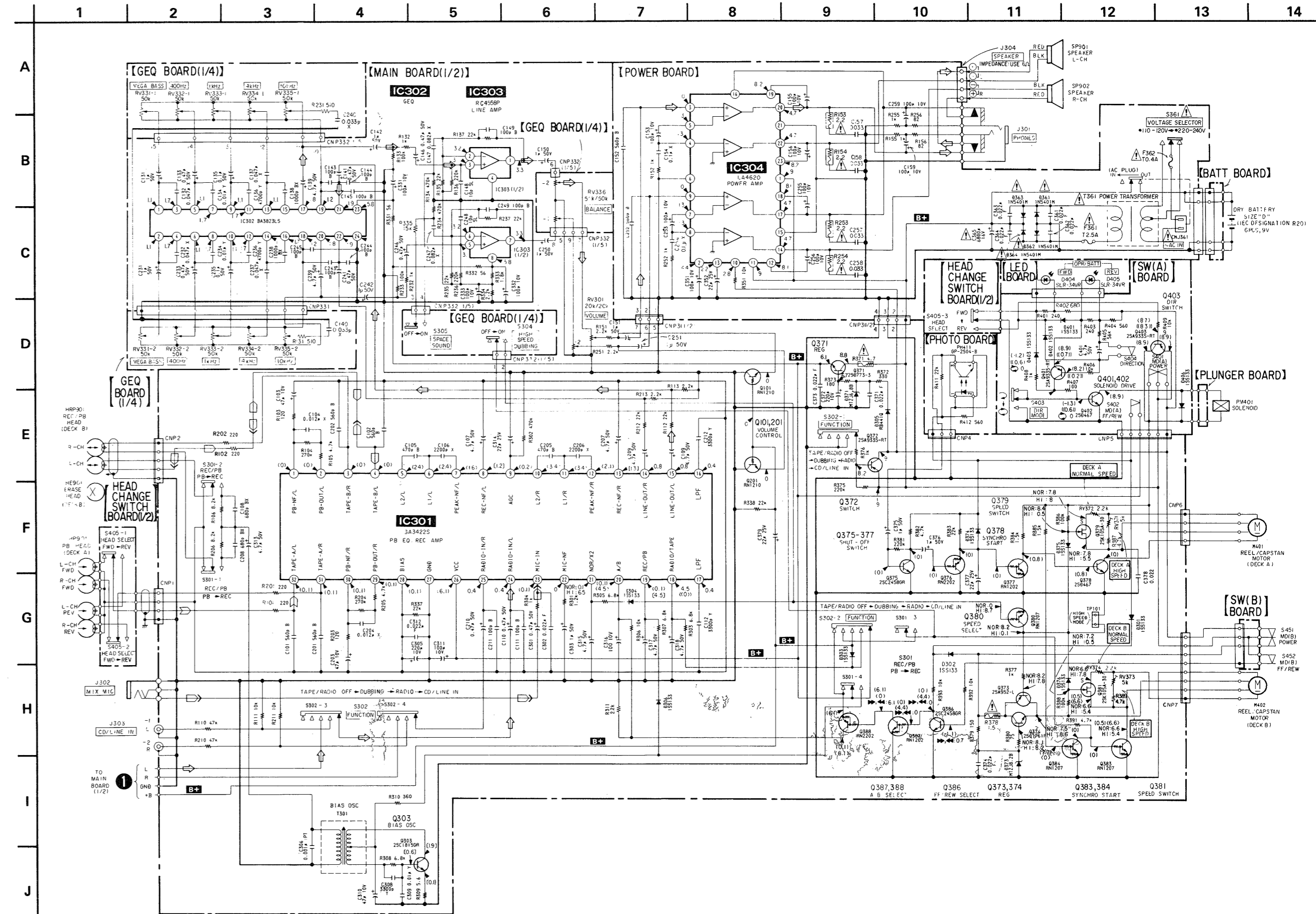
5-3. SCHEMATIC DIAGRAM - TUNER SECTION -



Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- \square : internal component.
- \square : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltage is dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
(): SW1
< >: SW2
< >: MW
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
↔: FM

5-4. SCHEMATIC DIAGRAM - AUDIO SECTION -



Note:

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- \square : nonflammable resistor.
- \square : fusible resistor.

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

- \square : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltage is dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
(): PB
< >: REC
NOR : NORMAL SPEED DUBBING
HI : HIGH SPEED DUBBING
A : DECK A
B : DECK B
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
↔: FM
↔: PB (DECK A)
↔: PB (DECK B)
↔: REC (DECK B)

SECTION 6 EXPLODED VIEWS

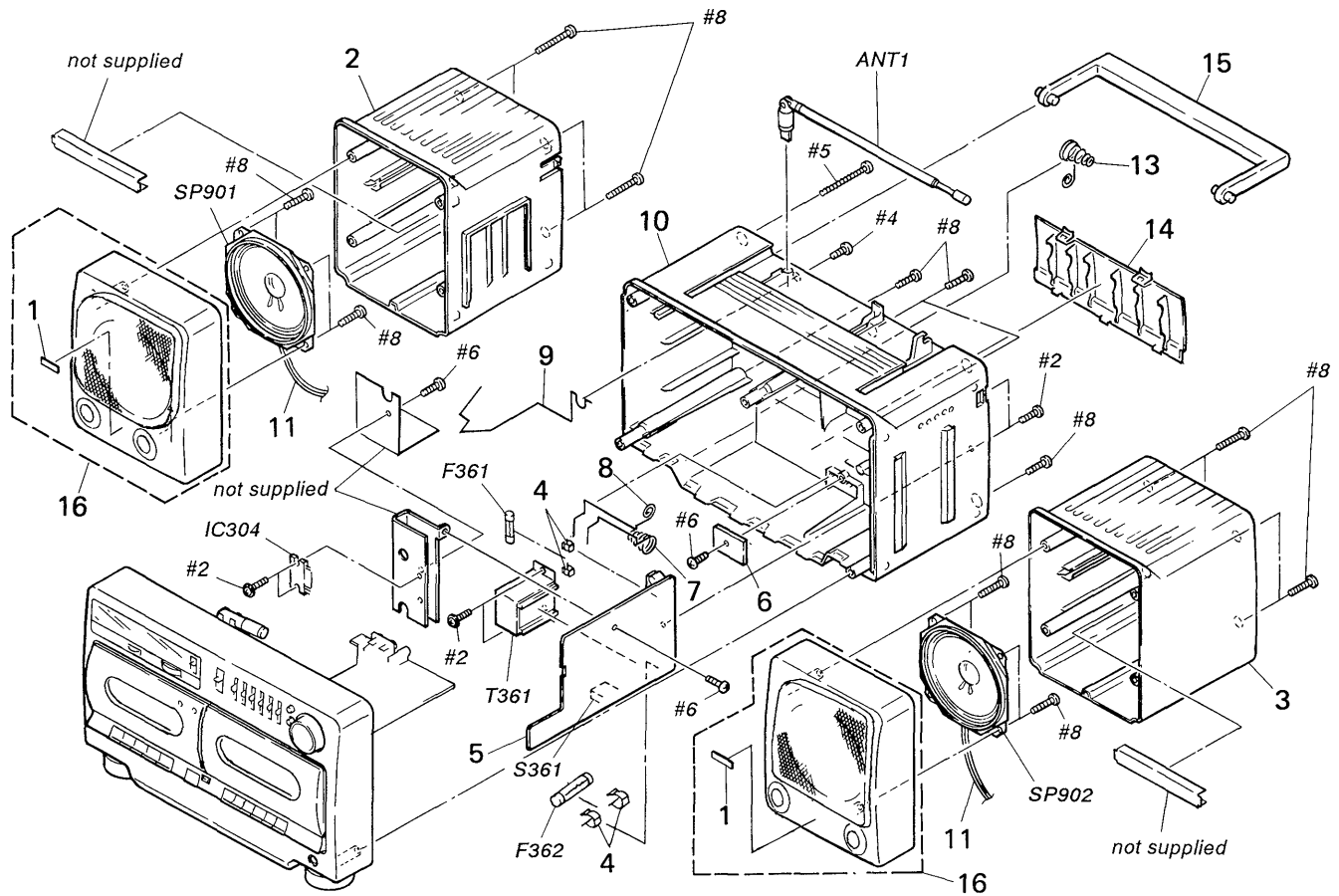
NOTE:

- -XX and -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 is given in the last of this parts list.

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

6-1. CABINET (REAR), SPEAKER SECTION

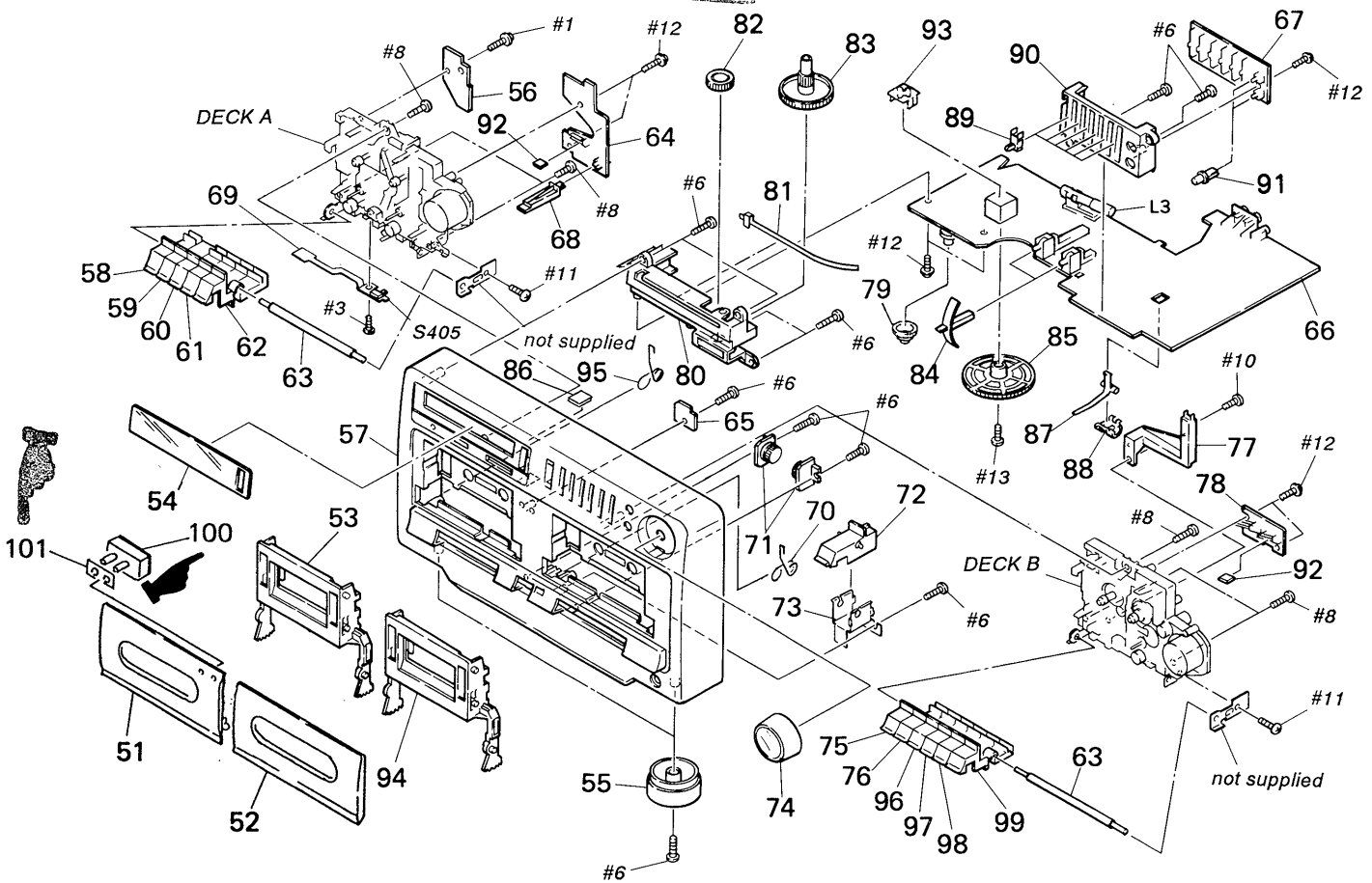


Ref. No.	Part No.	Description	Remark
1	3-359-261-01	EMBLEM, SONY	
2	3-359-295-01	CASE (L), REAR SP	
3	3-359-294-01	CASE (R), REAR SP	
Δ 4	1-533-233-11	HOLDER, FUSE	
* 5	A-3264-330-A	POWER BOARD, COMPLETE	
* 6	1-634-375-11	BATT BOARD	
7	3-359-276-01	SPRING (-), BATTERY COIL	
8	3-359-275-01	SPRING (PLUS TERMINAL)	
* 9	3-363-248-01	SPRING (ANT TERMINAL)	
10	3-359-296-21	CABINET (REAR)	
11	1-558-848-11	CORD, SPEAKER	
13	3-359-277-01	SPRING (+, -), BATTERY COIL	

Ref. No.	Part No.	Description	Remark
14	3-359-285-01	LID, BATTERY CASE	
15	A-3244-339-A	HANDLE ASSY	
16	X-3365-897-1	CASE ASSY, FRONT, SP	
ANT1	1-501-383-21	ANTENNA, TELESCOPIC	
Δ F361	1-532-286-00	FUSE, TIME-LAG (TO. 25A)	
Δ F362	1-532-066-00	FUSE, TIME-LAG (TO. 4A)	
IC304	8-759-822-51	IC LA4620	
SP901	1-544-309-11	SPEAKER	
SP902	1-544-309-11	SPEAKER	
Δ S361	1-552-921-00	SWITCH, POWER (VOLTAGE CHANGE)	
Δ T361	1-450-036-11	TRANSFORMER, POWER	

6-2. CABINET (FRONT) SECTION

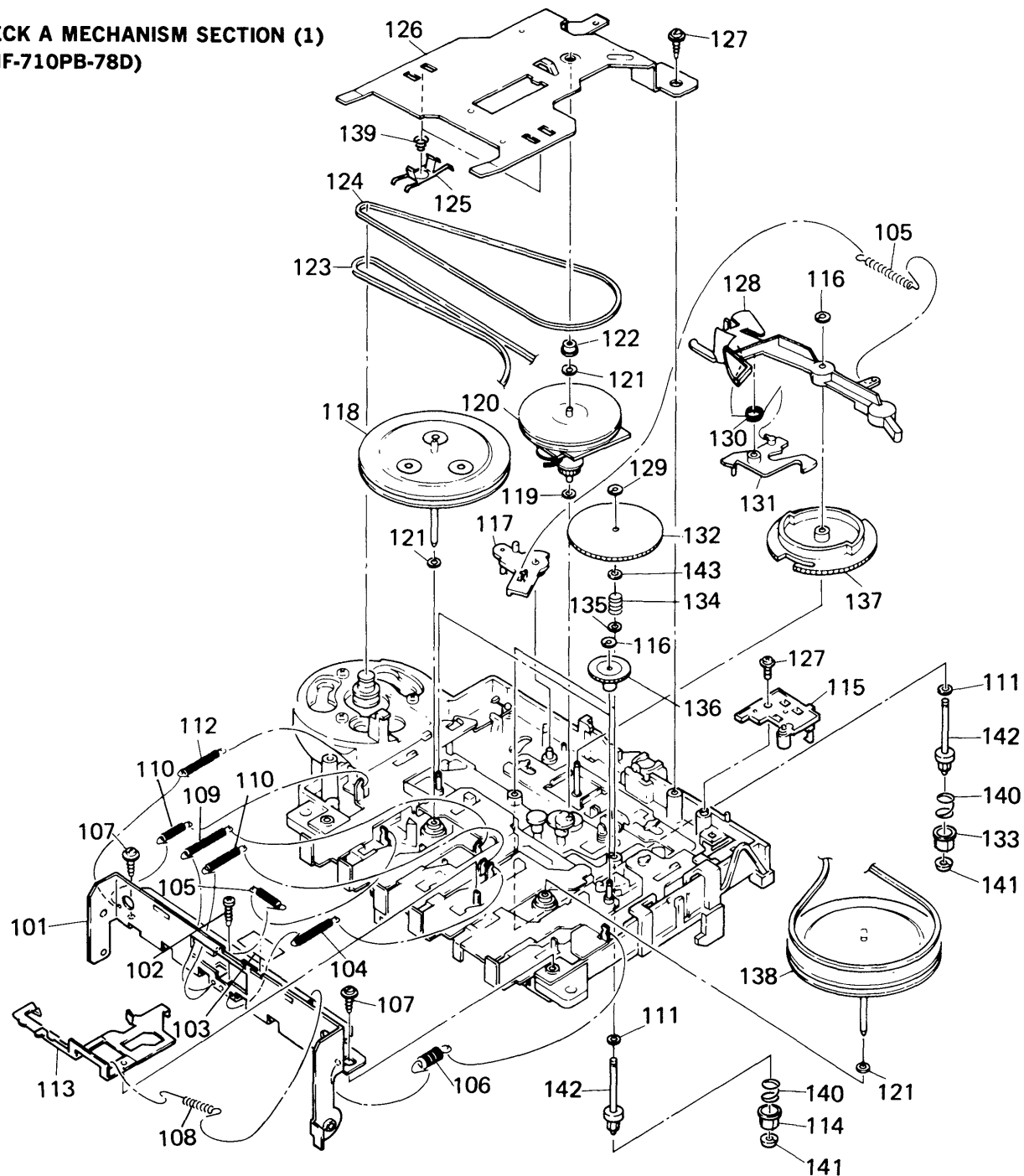
REVISED



Ref. No.	Part No.	Description	Remark
51	X-3366-150-1	LID (L) ASSY, CASSETTE	
52	X-3366-151-1	LID (R) ASSY, CASSETTE	
53	3-359-243-01	HOLDER (A), CASSETTE	
54	3-359-271-31	SCALE, DIAL	
55	3-359-272-11	FOOT (CABINET FRONT)	
* 56	1-634-373-11	PHOTO BOARD	
57	3-384-814-01	CABINET, FRONT	
58	3-359-245-01	BUTTON (STOP)	
59	3-359-230-01	BUTTON (PLAY)	
60	3-359-231-01	BUTTON (FF)	
61	3-359-229-01	BUTTON (REW)	
62	3-359-232-01	BUTTON (PAUSE)	
* 63	3-359-211-01	SHAFT, MD BUTTUN	
* 64	1-634-371-11	SW (A) BOARD	
* 65	1-634-374-11	LED BOARD	
* 66	A-3264-336-A	MAIN BOARD, COMPLETE	
* 67	1-634-370-11	GEQ BOARD	
68	3-359-223-01	BUTTON (DM)	
69	1-616-098-21	HEAD CHANGE SWITCH BOARD	
70	3-359-209-01	SPRING (CASSETTE L), TORSION	
71	3-356-157-01	DAMPER	
72	3-359-224-01	BUTTON (DIR)	
* 73	3-359-212-01	RETAINER, BUTTON (DIR)	
74	3-359-204-01	KNOB (VOL)	
75	3-359-233-01	BUTTON (STOP)	
76	3-359-228-01	BUTTON (REC)	

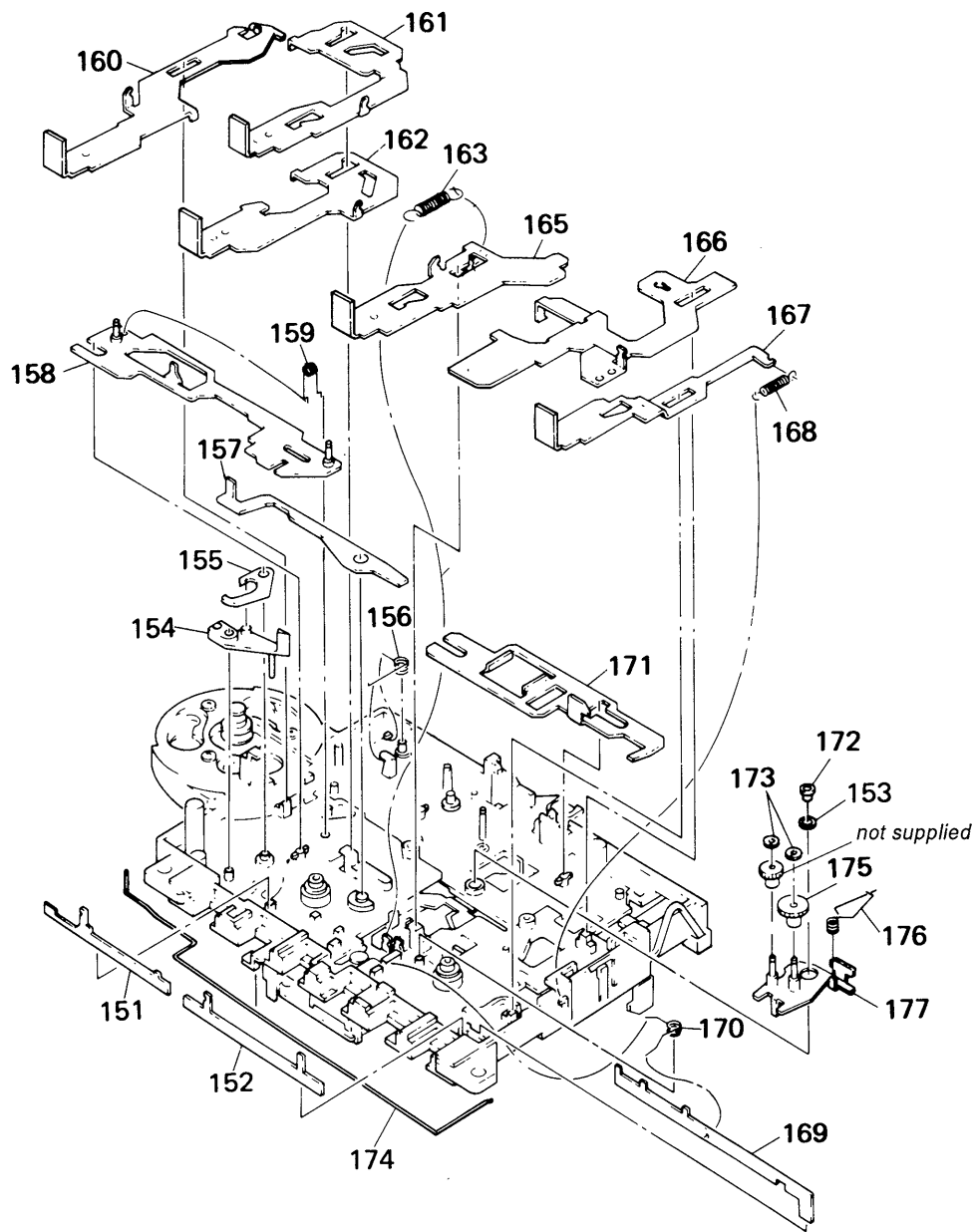
Ref. No.	Part No.	Description	Remark
* 77	3-359-281-01	LEVER (REC)	
* 78	1-634-372-11	SW (B) BOARD	
79	3-359-298-01	KNOB (FINE)	
* 80	3-359-287-01	CHASSIS (POINTER)	
81	3-359-282-01	POINTER	
82	3-359-278-01	GEAR (REVERSE)	
83	3-359-273-01	KNOB (TUNE)	
84	3-359-207-01	KNOB (FUNC)	
85	3-338-505-01	DRUM, TUNING CAPACITOR	
86	9-911-815-01	CUSHION (C)	
87	3-322-317-01	LEVER, REC	
88	3-322-316-01	BRACKET, REC LEVER	
89	3-359-222-01	KNOB (GEQ)	
* 90	3-359-286-01	CHASSIS (G)	
91	3-359-205-01	BUTTON (T)	
92	9-911-844-XX	SPACER, LEAF	
* 93	3-890-726-00	PLATE (C), SHIELD	
94	3-359-270-01	HOLDER (B), CASSETTE	
95	3-359-299-01	SPRING (CASSETTE R), TORSION	
96	3-361-707-01	BUTTON (PLAY)	
97	3-361-710-01	BUTTON (FF)	
98	3-361-708-01	BUTTON (REW)	
99	3-361-709-01	BUTTON (PAUSE)	
L3	1-402-418-11	ANTENNA, FERRITE-RD (LW/MW/SW)	
S405	1-570-943-11	SWITCH, SLIDE	
100	3-359-279-01	- LENS, LED	
101	3-904-078-01	SHEET (LED), ADHESIVE	

**6-3. DECK A MECHANISM SECTION (1)
(MF-710PB-78D)**



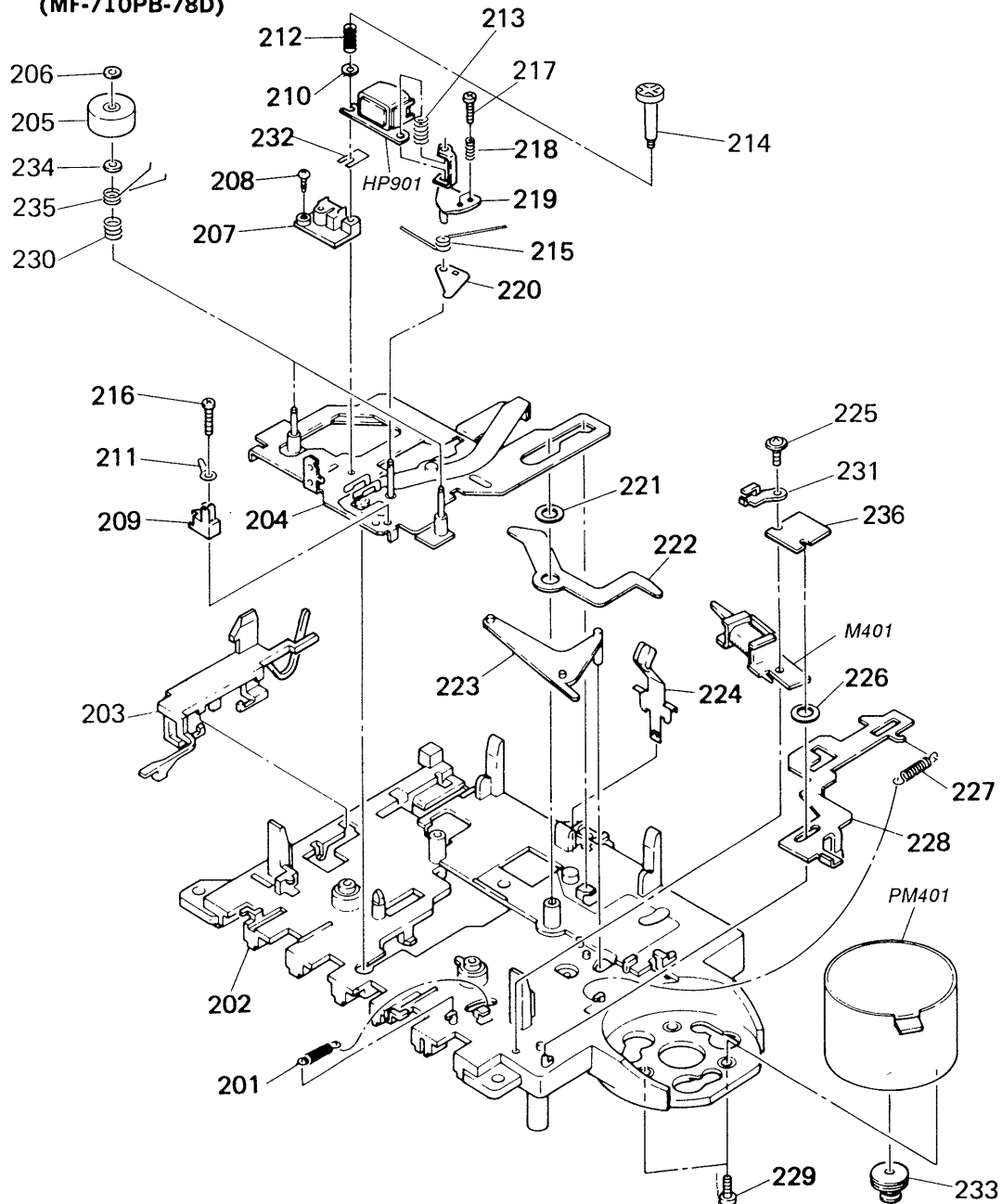
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	3-322-702-01	RETAINER (B), LEVER		123	3-322-533-01	BELT, CAPSTAN	
102	7-685-105-19	TPG +P2XB, TYPE 2, NON-SLIT		124	3-657-035-XX	BELT, DETECTION	
103	3-831-441-11	CUSHION (D)		125	3-322-524-01	SPRING	
104	3-322-526-01	SPRING, TENSION (POWER TENSION)		* 126	3-322-519-01	RETAINER, THRUST	
105	3-322-527-01	SPRING, TENSION		127	7-685-134-19	SCREW (BZ. 6), TAPPING	
106	3-322-691-01	SPRING, TENSION		128	3-330-833-01	LEVER (C), OA	
107	7-687-233-11	SCREW (+ PTPWH) (2. 6X6)		129	3-578-223-21	WASHER, NYLON	
108	3-330-605-01	SPRING, TENSION		130	3-322-534-01	SPRING	
109	3-328-103-01	SPRING, TENSION		131	3-330-826-01	LEVER (D), OA	
110	3-322-522-01	SPRING, TENSION		132	3-322-508-01	GEAR, REEL	
111	3-545-715-00	WASHER		133	3-307-447-00	CLAW (R), REEL	
112	3-530-260-00	SPRING, TENSION		134	3-321-541-01	SPRING, COMPRESSION	
* 113	3-330-606-01	LEVER, SELECTION, S. OFF		135	3-322-659-01	WASHER (A)	
114	3-307-363-00	CLAW (N), REEL		136	3-322-556-01	GEAR, FR	
* 115	3-322-665-11	BRACKET, ATS		137	3-322-553-01	GEAR, CAM	
116	3-307-948-01	WASHER, NYLON		138	X-3322-507-1	FLYWHEEL (R) ASSY	
117	3-330-827-01	LEVER (B), GEAR LOCK		139	3-322-676-01	SPRING (S), COMPRESSION	
118	X-3330-601-1	FLYWHEEL (NR) ASSY		140	3-321-531-01	SPRING, COMPRESSION	
119	3-701-437-01	WASHER		141	3-307-362-00	CAP, REEL	
120	X-3363-285-1	DETECTION BLOCK ASSY		142	X-3321-501-1	BUSHING ASSY, REEL TABLE	
121	3-701-437-11	WASHER		143	3-322-660-01	WASHER (B)	
122	3-322-566-01	BEARING, PULLEY					

**6-4. DECK A MECHANISM SECTION (2)
(MF-710PB-78D)**



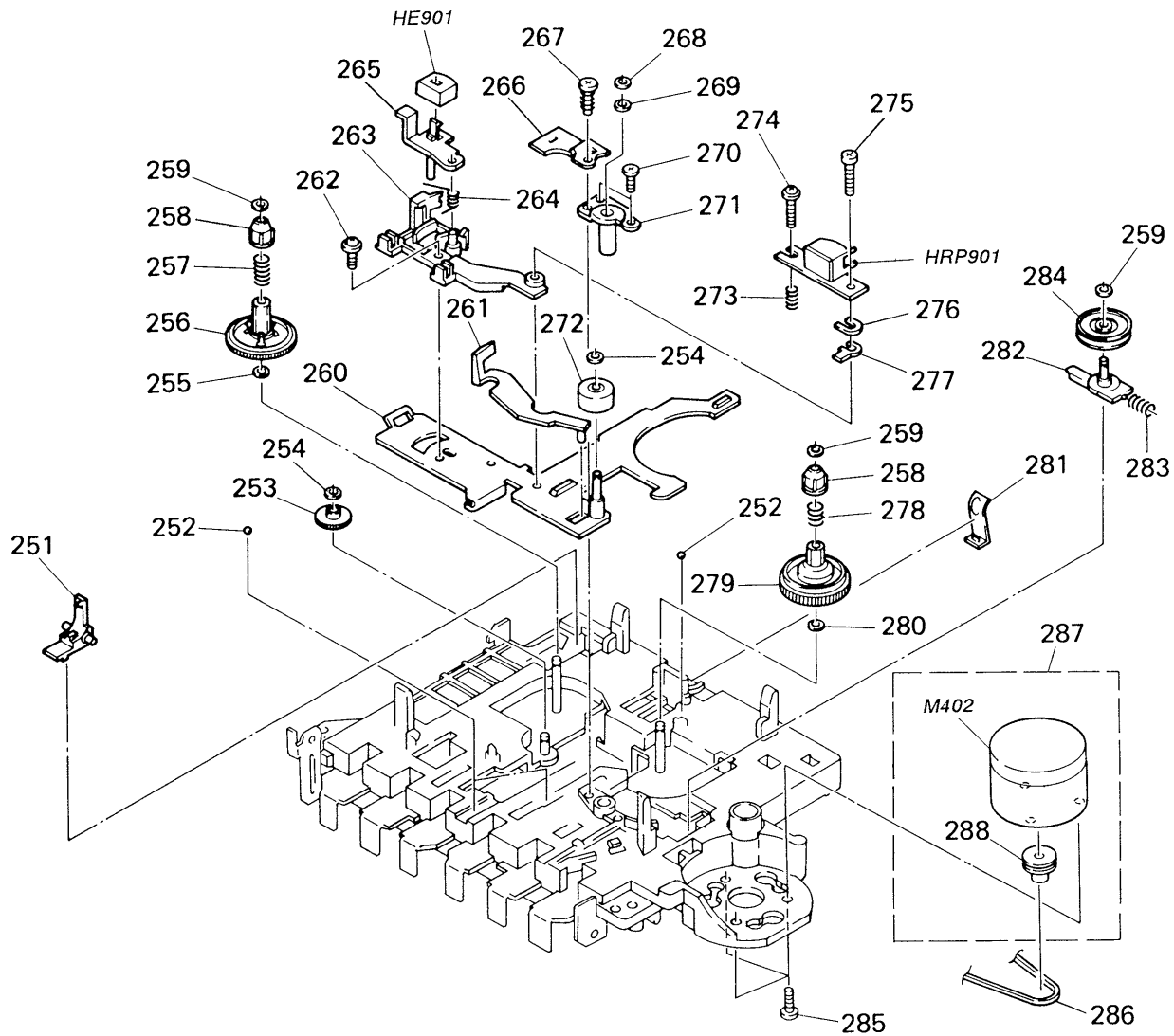
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 151	3-322-587-01	PLATE (B), LOCK		* 166	3-322-591-51	LEVER, REC BUTTON	
* 152	3-330-604-01	PLATE (C), LOCK		* 167	3-322-583-21	LEVER, STOP BUTTON	
153	3-322-689-01	RING		168	3-322-528-01	SPRING, TENSION	
154	X-3330-610-1	LEVER (R) ASSY, S. OFF		* 169	3-322-589-01	LEVER, SWITCH	
155	3-322-555-01	LEVER (E), S. OFF		170	3-322-579-01	SPRING	
156	3-322-577-01	SPRING		* 171	3-322-586-01	LEVER, DIRECTION	
* 157	3-322-517-01	LEVER, AMS		172	3-322-513-01	COLLAR	
158	X-3322-505-1	LEVER ASSY, FR		173	3-570-615-00	POLY-WASHER (DIA. 1.2)	
159	3-322-578-01	SPRING		174	3-339-312-01	LEVER, POWER SW	
* 160	3-330-829-21	LEVER (C), PAUSE BUTTON		175	3-343-146-01	GEAR (A), FWD	
* 161	3-322-515-21	LEVER, REW BUTTON		176	3-322-576-01	SPRING	
* 162	3-322-585-21	LEVER, FF BUTTON		* 177	X-3339-320-1	ARM ASSY (M), FWD GEAR	
163	3-322-693-01	SPRING, TENSION					
* 165	3-322-584-21	LEVER, PLAY BUTTON					

6-5. DECK A MECHANISM SECTION (3)
(MF-710PB-78D)



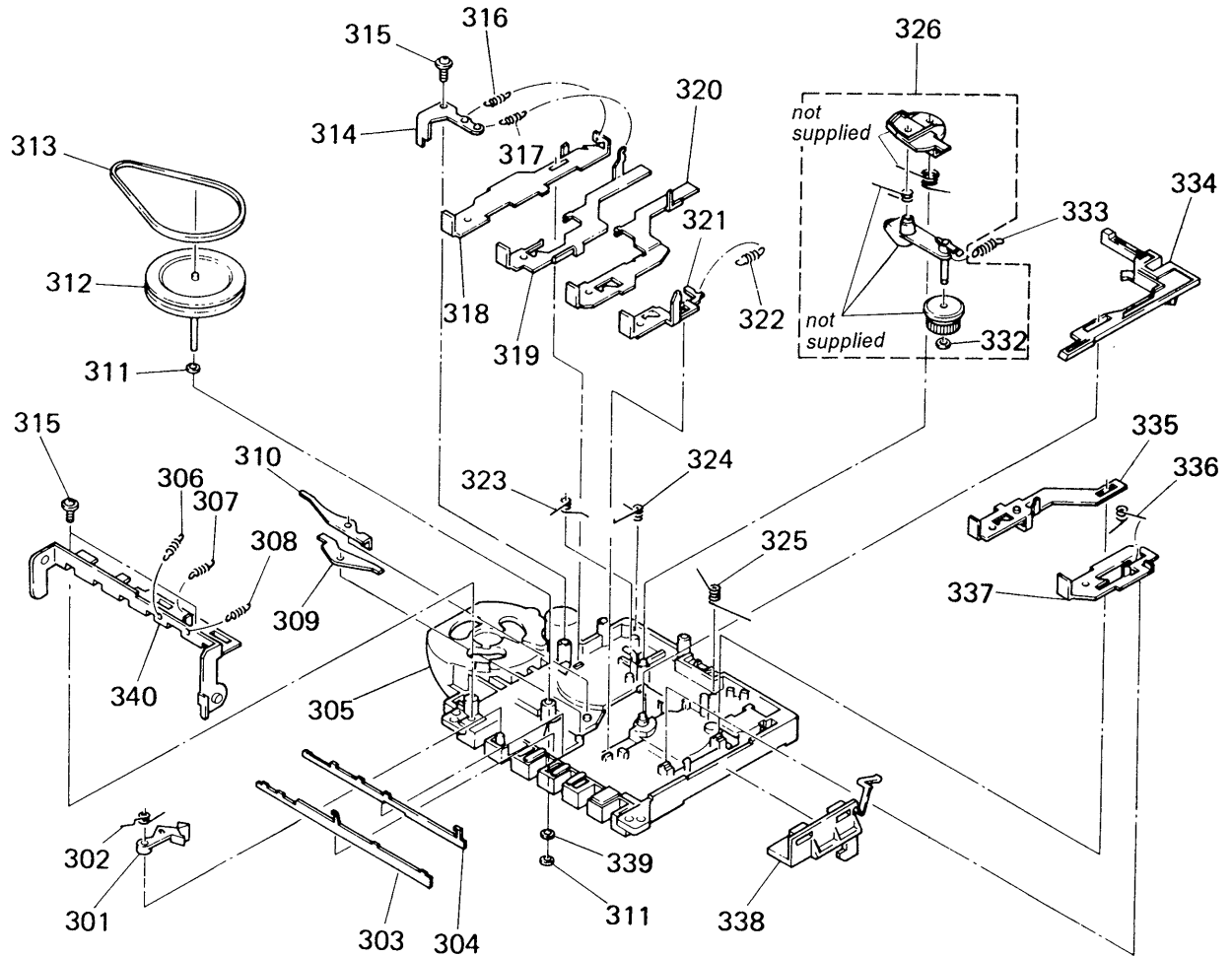
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-330-633-01	SPRING, TENSION		221	3-701-443-11	WASHER	
202	A-3102-061-A	CHASSIS ASSY, MECHANICAL		* 222	3-322-590-02	LEVER, DIRECTION RELEASE	
203	3-322-701-01	LEVER (B), EJECT		223	3-322-514-01	LINK (A)	
204	X-3337-810-1	CHASSIS (R) ASSY, HEAD		224	3-340-277-01	SPRING (M)	
205	3-703-597-41	PINCH ROLLER, STANDARD		225	7-685-105-19	SCREW (2X8), + PTPWH	
206	3-307-948-01	WASHER, NYLON		226	3-701-437-01	WASHER	
207	3-326-623-01	BRACKET, HEAD		227	3-322-528-01	SPRING, TENSION	
208	7-621-772-20	SCREW +B 2X5		228	3-359-263-01	LEVER, MANUAL BUTTON	
209	3-326-625-01	RETAINER, PC BOARD		229	7-621-770-87	SCREW +P 2.6X5	
210	7-688-001-01	W 2, SMALL		* 230	3-337-892-11	SPRING	
211	7-623-505-01	LUG, 2		* 231	3-322-704-01	GUIDE, WIRING	
212	3-318-106-01	SPRING (H), COMPRESSION		232	3-578-138-01	SHIM (T=0.1)	
213	3-341-163-01	SPRING, COMPRESSION		232	3-578-138-11	SHIM (T=0.2)	
214	3-322-567-11	SCREW, PAN, STEP		233	X-3330-616-1	PULLEY (W), MOTOR	
215	3-341-164-01	SPRING		234	3-330-642-01	WASHER, CLAMP	
216	7-621-255-65	SCREW +P 2X10		235	3-326-372-01	SPRING (C)	
217	7-627-851-27	SCREW, PRECISION +P 1.4X5		* 236	1-602-735-00	PC BOARD	
218	3-322-531-01	SPRING, COMPRESSION		M401	1-541-631-11	MOTOR, DC	
* 219	3-341-161-01	LEVER, AZIMUTH		HP901	1-543-389-41	HEAD, MAGNETIC (REC/PB)	
220	3-326-622-01	RETAINER, AZIMUTH		PM401	1-454-355-00	SOLENOID, PLUNGER	

6-6. DECK B MECHANISM SECTION (1)
(MF-710RP-75D)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	3-313-357-00	CLAW, REC PREVENTION		275	7-621-772-40	SCREW +B 2X8	
252	7-671-112-11	BALL, STEEL		276	3-578-138-01	SHIM (T=0.1)	
253	3-558-620-11	GEAR, REWIND		276	3-578-138-11	SHIM (T=0.2)	
254	3-307-948-01	WASHER, NYLON		276	3-578-138-21	SHIM (T=0.3)	
255	3-322-659-01	WASHER (A)		277	3-331-108-01	LUG (T), SHIM (T=0.1)	
256	3-313-305-00	TABLE, REEL, SUPPLY		277	3-331-108-11	LUG (T), SHIM (T=0.2)	
257	3-313-344-00	SPRING, COMPRESSION		277	3-331-108-21	LUG (T), SHIM (T=0.3)	
258	3-313-333-00	CLAW, REEL		277	3-331-108-31	LUG (T), SHIM (T=0.4)	
259	3-558-708-01	WASHER, STOPPER		277	3-331-108-41	LUG (T), SHIM (T=0.5)	
260	X-3313-311-1	CHASSIS ASSY		278	3-313-345-00	SPRING, COMPRESSION	
261	3-313-316-00	PU		279	A-3130-031-A	TABLE ASSY, REEL, TAKE-UP	
262	7-621-255-35	SCREW (2MMX5), + PWH		280	3-701-437-21	WASHER	
263	3-334-717-01	BRACKET (M), HEAD		281	3-313-902-11	SPRING	
264	3-313-339-00	SPRING		282	X-3313-301-0	BRACKET ASSY, T PULLEY	
* 265	3-324-221-01	ARM (DC), ERASE HD		283	3-573-464-00	SPRING, COMPRESSION	
* 266	3-332-309-01	SPRING (B)		284	X-3313-307-0	PULLEY ASSY, FWD	
267	7-685-134-19	SCREW (B2.6), TAPPING		285	7-621-770-87	SCREW +P 2.6X5	
268	3-307-948-41	WASHER, NYLON		286	3-679-171-00	BELT	
269	3-701-438-11	WASHER, 2.5		287	A-3133-415-A	MOTOR ASSY	
270	3-318-203-71	SCREW (B1.7X5), TAPPING		288	X-3330-617-1	PULLEY (S), MOTOR	
271	X-3319-945-1	BEARING ASSY, CAPSTAN		M402	1-541-630-11	MOTOR, DC	
272	3-703-597-41	PINCH ROLLER, STANDARD		HE901	1-543-525-11	HEAD, MAGNETIC (ERASE)	
273	3-313-340-00	SPRING, COMPRESSION		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB)	
274	7-621-255-55	SCREW, LOCK					

**6-7. DECK B MECHANISM SECTION (2)
(MF-710RP-75D)**



Ref. No.	Part No.	Description	Remark
	301	3-313-322-02 LEVER (A), S.OFF	
	302	3-313-323-00 SPRING	
*	303	3-313-351-16 PLATE (A), LOCK	
*	304	3-313-352-11 PLATE (B), LOCK	
	305	A-3102-112-A CHASSIS ASSY, MECHANICAL	
	306	3-313-369-00 SPRING, TENSION	
	307	3-313-343-00 SPRING, TENSION	
	308	3-322-691-01 SPRING, TENSION	
*	309	3-313-321-00 LEVER, PREVENTION, RFR	
*	310	3-313-320-00 LEVER, RCP	
	311	3-701-438-01 WASHER	
	312	X-3327-909-2 FLYWHEEL (G) ASSY	
	313	3-679-171-00 BELT	
	314	3-356-111-01 HOOK, SPRING	
	315	7-687-233-11 SCREW (+ PTPWH) (2.6X6)	
	316	3-313-349-00 SPRING, TENSION	
	317	3-313-348-00 SPRING, TENSION	
*	318	3-313-381-21 LEVER (B), PAUSE BUTTON	

Ref. No.	Part No.	Description	Remark
*	319	3-313-353-21 LEVER, FF BUTTON	
*	320	3-313-354-21 LEVER, REW BUTTON	
*	321	3-313-326-26 LEVER, FWD BUTTON	
	322	3-324-222-01 SPRING (HIGH TENSION), TENSION	
	323	3-313-338-00 SPRING	
	324	3-313-378-01 SPRING (A)	
	325	3-313-327-00 SPRING	
	326	A-3136-041-B IDLER COMPLETE ASSY, FR	
	332	3-558-708-01 WASHER, STOPPER	
	333	3-313-365-00 SPRING, TENSION	
	334	3-313-356-00 BRAKE	
*	335	3-313-350-21 LEVER, REC BUTTON	
	336	3-313-331-00 SPRING	
*	337	3-313-325-21 LEVER, STOP BUTTON	
	338	3-313-383-01 CLAW (B), EJECT	
	339	3-701-438-11 WASHER, 2.5	
*	340	3-313-382-01 RETAINER, LEVER	

SECTION 7

ELECTRICAL PARTS LIST

BATT

GEQ

HEAD CHANGE SWITCH

LED

MAIN

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 and -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

The components identified by mark Δ or dotted line with mark Δ 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
*	1-634-375-11	BATT BOARD *****	
*	1-565-385-11	HOLDER, CABLE 4P *****	
*	1-634-370-11	GEQ BOARD *****	
		< CAPACITOR >	
C140	1-161-057-00	CERAMIC	0.033uF 10% 50V
C240	1-161-057-00	CERAMIC	0.033uF 10% 50V
		< RESISTOR >	
R131	1-249-442-11	CARBON	510 5% 1/4W
R231	1-249-442-11	CARBON	510 5% 1/4W
		< VARIABLE RESISTOR >	
RV331	1-241-025-11	RES, VAR, SLIDE 50K/50K (MEGA BASS)	
RV332	1-241-023-11	RES, VAR, SLIDE 50K/50K (400Hz)	
RV333	1-241-023-11	RES, VAR, SLIDE 50K/50K (1KHz)	
RV334	1-241-023-11	RES, VAR, SLIDE 50K/50K (4KHz)	
RV335	1-241-023-11	RES, VAR, SLIDE 50K/50K (10KHz)	
RV336	1-241-024-11	RES, VAR, SLIDE 50K/50K (BALANCE)	
		< SWITCH >	
S304	1-572-337-11	SWITCH, PUSH (1 KEY) (HIGH SPEED DUBBING)	
S305	1-572-337-11	SWITCH, PUSH (1 KEY) (SPACE SOUND)	

	1-616-098-21	HEAD CHANGE SWITCH BOARD *****	
		< SWITCH >	
S405	1-570-943-11	SWITCH, SLIDE (HEAD SELECT)	

Ref. No.	Part No.	Description	Remark
*	1-634-374-11	LED BOARD *****	
		< DIODE >	
D404	8-719-980-67	LED MVR3338S (FWD)	
D405	8-719-980-67	LED MVR3338S (REV)	

*	A-3264-336-A	MAIN BOARD, COMPLETE *****	
		< FILTER >	
	3-322-316-01	BRACKET, REC LEVER	
	3-322-317-01	LEVER, REC	
	3-338-505-01	DRUM, TUNING CAPACITOR	
	3-359-205-01	BUTTON (T)	
	3-359-207-01	KNOB (FUNC)	
	3-359-222-01	KNOB (GEQ)	
	3-359-273-01	KNOB (TUNE)	
	3-359-278-01	GEAR (REVERSE)	
	3-359-282-01	POINTER	
*	3-359-286-01	CHASSIS (G)	
*	3-359-287-01	CHASSIS (POINTER)	
	3-359-298-01	KNOB (FINE)	
*	3-890-726-00	PLATE (C), SHIELD	
	7-621-770-87	SCREW +P 2.6X5	
	7-687-233-11	SCREW (+ PTPWH) (2.6X6)	
		< CAPACITOR >	
C1	1-162-286-31	CERAMIC	220PF 10% 50V
C2	1-162-286-31	CERAMIC	220PF 10% 50V
C3	1-164-096-11	CERAMIC	0.01uF 50V
C4	1-124-907-11	ELECT	10uF 20% 50V
C5	1-164-096-11	CERAMIC	0.01uF 50V
C7	1-164-056-11	CERAMIC	27PF 5% 50V
C8	1-102-961-00	CERAMIC	27PF 5% 50V
C10	1-164-012-11	CERAMIC	3PF 0.25PF 50V

Ref. No.	Part No.	Description	Remark		
C11	1-164-096-11	CERAMIC	0.01uF		50V
C12	1-162-282-31	CERAMIC	100PF	10%	50V
C15	1-124-927-11	ELECT	4.7uF	20%	100V
C16	1-124-903-11	ELECT	1uF	20%	50V
C17	1-124-126-00	ELECT	47uF	20%	10V
C18	1-124-126-00	ELECT	47uF	20%	10V
C19	1-164-096-11	CERAMIC	0.01uF		50V
C20	1-124-903-11	ELECT	1uF	20%	50V
C21	1-124-925-11	ELECT	2.2uF	20%	100V
C22	1-124-443-00	ELECT	100uF	20%	10V
C23	1-124-902-00	ELECT	0.47uF	20%	50V
C24	1-124-927-11	ELECT	4.7uF	20%	100V
C25	1-124-463-00	ELECT	0.1uF	20%	50V
C27	1-161-053-00	CERAMIC	0.015uF	10%	50V
C28	1-161-053-00	CERAMIC	0.015uF	10%	50V
C29	1-124-902-00	ELECT	0.47uF	20%	50V
C30	1-124-902-00	ELECT	0.47uF	20%	50V
C32	1-102-947-00	CERAMIC	10PF	5%	50V
C34	1-164-096-11	CERAMIC	0.01uF		50V
C35	1-164-046-11	CERAMIC	10PF	0.5PF	50V
C36	1-164-617-11	CERAMIC	4PF	5%	50V
C38	1-102-942-00	CERAMIC	5.0PF	+/-0.5PF	50V
C39	1-102-953-00	CERAMIC	18PF	5%	50V
C40	1-130-726-00	FILM	0.0015uF	5%	63V
C41	1-136-683-11	FILM	0.0056uF	5%	63V
C42	1-110-342-11	FILM	390PF	5%	63V
C44	1-162-282-31	CERAMIC	100PF	10%	50V
C45	1-162-282-31	CERAMIC	100PF	10%	50V
C46	1-162-282-31	CERAMIC	100PF	10%	50V
C47	1-162-282-31	CERAMIC	100PF	10%	50V
C61	1-162-282-31	CERAMIC	100PF	10%	50V
C101	1-162-291-31	CERAMIC	560PF	10%	50V
C102	1-162-291-31	CERAMIC	560PF	10%	50V
C103	1-124-126-00	ELECT	47uF	20%	10V
C104	1-162-840-11	CERAMIC	0.012uF	10%	16V
C105	1-162-290-31	CERAMIC	470PF	10%	50V
C106	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C107	1-124-927-11	ELECT	4.7uF	20%	100V
C108	1-162-292-31	CERAMIC	680PF	10%	50V
C109	1-124-927-11	ELECT	4.7uF	20%	100V
C110	1-124-902-00	ELECT	0.47uF	20%	50V
C111	1-162-282-31	CERAMIC	100PF	10%	50V
C112	1-161-327-00	CERAMIC	0.0033uF	20%	16V
C131	1-124-903-11	ELECT	1uF	20%	50V
C132	1-162-847-11	CERAMIC	0.047uF	10%	16V
C133	1-124-902-00	ELECT	0.47uF	20%	50V
C134	1-161-379-00	CERAMIC	0.01uF	20%	25V
C135	1-124-463-00	ELECT	0.1uF	20%	50V
C136	1-161-377-00	CERAMIC	0.0047uF	20%	16V

Ref. No.	Part No.	Description	Remark		
C137	1-162-847-11	CERAMIC	0.047uF	10%	16V
C138	1-162-294-31	CERAMIC	0.001uF	10%	50V
C139	1-124-927-11	ELECT	4.7uF	20%	100V
C141	1-124-902-00	ELECT	0.47uF	20%	50V
C142	1-124-903-11	ELECT	1uF	20%	50V
C143	1-162-282-31	CERAMIC	100PF	10%	50V
C144	1-162-282-31	CERAMIC	100PF	10%	50V
C145	1-162-282-31	CERAMIC	100PF	10%	50V
C146	1-124-902-00	ELECT	0.47uF	20%	50V
C147	1-162-850-11	CERAMIC	0.082uF	10%	16V
C148	1-162-199-31	CERAMIC	10PF	5%	50V
C149	1-162-282-31	CERAMIC	100PF	10%	50V
C150	1-124-903-11	ELECT	1uF	20%	50V
C151	1-124-903-11	ELECT	1uF	20%	50V
C201	1-162-291-31	CERAMIC	560PF	10%	50V
C202	1-162-291-31	CERAMIC	560PF	10%	50V
C203	1-124-126-00	ELECT	47uF	20%	10V
C204	1-162-840-11	CERAMIC	0.012uF	10%	16V
C205	1-162-290-31	CERAMIC	470PF	10%	50V
C206	1-161-375-00	CERAMIC	0.0022uF	20%	50V
C207	1-124-927-11	ELECT	4.7uF	20%	100V
C208	1-162-292-31	CERAMIC	680PF	10%	50V
C209	1-124-927-11	ELECT	4.7uF	20%	100V
C210	1-124-902-00	ELECT	0.47uF	20%	50V
C211	1-162-282-31	CERAMIC	100PF	10%	50V
C212	1-161-327-00	CERAMIC	0.0033uF	20%	16V
C231	1-124-903-11	ELECT	1uF	20%	50V
C232	1-162-847-11	CERAMIC	0.047uF	10%	16V
C233	1-124-902-00	ELECT	0.47uF	20%	50V
C234	1-161-379-00	CERAMIC	0.01uF	20%	25V
C235	1-124-463-00	ELECT	0.1uF	20%	50V
C236	1-161-377-00	CERAMIC	0.0047uF	20%	16V
C237	1-162-847-11	CERAMIC	0.047uF	10%	16V
C238	1-162-294-31	CERAMIC	0.001uF	10%	50V
C239	1-124-927-11	ELECT	4.7uF	20%	100V
C241	1-124-902-00	ELECT	0.47uF	20%	50V
C242	1-124-903-11	ELECT	1uF	20%	50V
C243	1-162-282-31	CERAMIC	100PF	10%	50V
C244	1-162-282-31	CERAMIC	100PF	10%	50V
C245	1-162-282-31	CERAMIC	100PF	10%	50V
C246	1-124-902-00	ELECT	0.47uF	20%	50V
C247	1-162-850-11	CERAMIC	0.082uF	10%	16V
C248	1-162-199-31	CERAMIC	10PF	5%	50V
C249	1-162-282-31	CERAMIC	100PF	10%	50V
C250	1-124-903-11	ELECT	1uF	20%	50V
C251	1-124-903-11	ELECT	1uF	20%	50V
C301	1-124-902-00	ELECT	0.47uF	20%	50V
C302	1-161-494-00	CERAMIC	0.022uF		25V
C303	1-124-903-11	ELECT	1uF	20%	50V

MAIN

Ref. No.	Part No.	Description	Remark
C305	1-126-176-11	ELECT	220uF 20% 10V
C306	1-130-471-00	MYLAR	0.001uF 5% 50V
C308	1-161-327-00	CERAMIC	0.0033uF 20% 16V
C309	1-161-379-00	CERAMIC	0.01uF 20% 25V
C310	1-124-126-00	ELECT	47uF 20% 10V
C311	1-124-443-00	ELECT	100uF 20% 10V
C312	1-161-494-00	CERAMIC	0.022uF 25V
C313	1-124-927-11	ELECT	4.7uF 20% 100V
C314	1-124-916-11	ELECT	22uF 20% 63V
C315	1-124-927-11	ELECT	4.7uF 20% 100V
C316	1-124-443-00	ELECT	100uF 20% 10V
C317	1-124-927-11	ELECT	4.7uF 20% 100V
C318	1-124-927-11	ELECT	4.7uF 20% 100V
C331	1-124-443-00	ELECT	100uF 20% 10V
C332	1-124-443-00	ELECT	100uF 20% 10V
C333	1-124-443-00	ELECT	100uF 20% 10V
C371	1-161-494-00	CERAMIC	0.022uF 25V
C372	1-126-176-11	ELECT	220uF 20% 10V
C373	1-161-494-00	CERAMIC	0.022uF 25V
C374	1-161-494-00	CERAMIC	0.022uF 25V
C375	1-124-903-11	ELECT	1uF 20% 50V
C376	1-124-903-11	ELECT	1uF 20% 50V
C377	1-124-916-11	ELECT	22uF 20% 63V
C378	1-161-494-00	CERAMIC	0.022uF 25V
C379	1-124-916-11	ELECT	22uF 20% 63V
< FILTER >			
CF1-1	1-577-599-11	FILTER, CERAMIC	10.7MHz
CF1-2	1-577-599-11	FILTER, CERAMIC	10.7MHz
CF2	1-567-670-11	FILTER, CERAMIC	455KHz
CF3	1-577-599-11	FILTER, CERAMIC	10.7MHz
< CONNECTOR >			
* CNP1	1-506-986-11	PIN, CONNECTOR (PC BOARD)	4P
* CNP2	1-506-987-11	PIN, CONNECTOR (PC BOARD)	5P
* CNP3	1-580-159-11	PIN, CONNECTOR (PC BOARD)	7P
* CNP4	1-580-155-11	PIN, CONNECTOR (PC BOARD)	3P
* CNP5	1-580-158-11	PIN, CONNECTOR (PC BOARD)	6P
CNP6	1-506-986-11	PIN, CONNECTOR (PC BOARD)	4P
* CNP7	1-580-160-11	PIN, CONNECTOR (PC BOARD)	8P
* CNP331	1-564-785-11	PIN, CONNECTOR	7P
* CNP332	1-565-002-11	PIN, CONNECTOR	15P
< TRIMMER >			
CT5	1-141-290-41	CAP, VAR FILM TRIMMER	10P
CT6	1-141-360-41	CAP, VAR FILM TRIMMER	5P
CT7	1-141-290-41	CAP, VAR FILM TRIMMER	10P
CT8	1-141-360-41	CAP, VAR FILM TRIMMER	5P
CT9	1-141-324-11	CAP, VAR, TRIMMER (FINE TUNING)	

Ref. No.	Part No.	Description	Remark
< VARIABLE CAPACITOR >			
CV1-4	1-151-637-11	CAP, VARIABLE	
CT1-4			
< DIODE >			
D1	8-719-911-19	DIODE	1SS119
D2	8-719-911-19	DIODE	1SS119
D11	8-719-980-67	LED	MVR3338S (FM STEREO)
D301	8-719-911-19	DIODE	1SS119
D302	8-719-911-19	DIODE	1SS119
D303	8-719-911-19	DIODE	1SS119
D304	8-719-911-19	DIODE	1SS119
D305	8-719-986-73	DIODE	RB441Q
D306	8-719-911-19	DIODE	1SS119
D371	8-719-109-97	DIODE	RD6.8ES-B2
D373	8-719-110-08	DIODE	RD8.2ES-B2
D374	8-719-911-19	DIODE	1SS119
D375	8-719-911-19	DIODE	1SS119
D376	8-719-911-19	DIODE	1SS119
< FILTER >			
FL1	1-236-711-21	FILTER, BAND PASS	
< IC >			
IC1	8-752-050-20	IC	CXA1238S
IC301	8-759-501-37	IC	BA3422S
IC302	8-759-972-97	IC	BA3823LS
IC303	8-759-145-58	IC	uPC4558C
< JACK >			
J302	1-563-330-11	JACK (MIX MIC)	
J303	1-563-716-11	JACK, PIN (CD/LINE IN)	
< COIL >			
L1	1-420-855-00	COIL, FM ANT	
L2	1-459-815-11	COIL (WITH CORE)	
L3	1-402-418-11	ANTENNA, FERRITE-ROD (LW/MW/SW)	
L4	1-406-253-11	COIL (OSC)	
L5	1-402-522-11	COIL (ANT)	
L6	1-406-247-11	COIL (OSC)	
L7	1-402-311-11	COIL (ANT)	
L8	1-406-246-11	COIL (OSC)	
* L9	1-409-293-00	COIL, AIR-CORE	
< TRANSISTOR >			
Q101	8-729-900-74	TRANSISTOR	DTC143TS
Q201	8-729-900-74	TRANSISTOR	DTC143TS
Q303	8-729-281-53	TRANSISTOR	2SC1815-GR

Ref. No.	Part No.	Description	Remark
Q371	8-729-177-32	TRANSISTOR 2SD773	
Q372	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q373	8-729-195-23	TRANSISTOR 2SA952	
Q374	8-729-107-26	TRANSISTOR 2SD1585-HFE	
Q375	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q376	8-729-900-61	TRANSISTOR DTA114ES	
Q377	8-729-900-80	TRANSISTOR DTC114ES	
Q378	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q378	8-729-177-32	TRANSISTOR 2SD773	
Q379	8-729-115-30	TRANSISTOR 2SK105A-30	
Q380	8-729-904-36	TRANSISTOR DTC114YS	
Q381	8-729-115-30	TRANSISTOR 2SK105A-30	
Q383	8-729-904-36	TRANSISTOR DTC114YS	
Q384	8-729-904-36	TRANSISTOR DTC114YS	
Q386	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q387	8-729-900-80	TRANSISTOR DTC114ES	
Q388	8-729-900-61	TRANSISTOR DTA114ES	
< RESISTOR >			
R2	1-249-405-11	CARBON 100 5%	1/4W F
R3	1-249-421-11	CARBON 2.2K 5%	1/4W F
R5	1-249-423-11	CARBON 3.3K 5%	1/4W F
R6	1-249-441-11	CARBON 100K 5%	1/4W
R7	1-249-415-11	CARBON 680 5%	1/4W F
R9	1-249-441-11	CARBON 100K 5%	1/4W
R10	1-249-407-11	CARBON 150 5%	1/4W F
R11	1-249-427-11	CARBON 6.8K 5%	1/4W F
R12	1-249-427-11	CARBON 6.8K 5%	1/4W F
R13	1-249-405-11	CARBON 100 5%	1/4W F
R14	1-249-429-11	CARBON 10K 5%	1/4W
R15	1-247-887-00	CARBON 220K 5%	1/4W
R16	1-247-887-00	CARBON 220K 5%	1/4W
R17	1-249-421-11	CARBON 2.2K 5%	1/4W F
R19	1-249-416-11	CARBON 820 5%	1/4W F
R20	1-249-423-11	CARBON 3.3K 5%	1/4W F
R21	1-249-405-11	CARBON 100 5%	1/4W F
R22	1-249-411-11	CARBON 330 5%	1/4W
R24	1-249-413-11	CARBON 470 5%	1/4W F
R51	1-249-423-11	CARBON 3.3K 5%	1/4W F
R52	1-249-423-11	CARBON 3.3K 5%	1/4W F
R53	1-249-429-11	CARBON 10K 5%	1/4W
R54	1-249-429-11	CARBON 10K 5%	1/4W
R101	1-249-409-11	CARBON 220 5%	1/4W F
R102	1-249-409-11	CARBON 220 5%	1/4W F
R103	1-249-406-11	CARBON 120 5%	1/4W F
R104	1-247-889-00	CARBON 270K 5%	1/4W
R105	1-249-425-11	CARBON 4.7K 5%	1/4W F
R106	1-249-428-11	CARBON 8.2K 5%	1/4W F
R110	1-249-437-11	CARBON 47K 5%	1/4W

Ref. No.	Part No.	Description	Remark
R111	1-249-429-11	CARBON 10K 5%	1/4W
R112	1-249-433-11	CARBON 22K 5%	1/4W
R113	1-249-421-11	CARBON 2.2K 5%	1/4W F
R132	1-249-417-11	CARBON 1K 5%	1/4W F
R133	1-249-441-11	CARBON 100K 5%	1/4W
R134	1-247-895-00	CARBON 470K 5%	1/4W
R135	1-249-433-11	CARBON 22K 5%	1/4W
R136	1-247-887-00	CARBON 220K 5%	1/4W
R137	1-249-433-11	CARBON 22K 5%	1/4W
R151	1-249-421-11	CARBON 2.2K 5%	1/4W F
R201	1-249-409-11	CARBON 220 5%	1/4W F
R202	1-249-409-11	CARBON 220 5%	1/4W F
R203	1-249-406-11	CARBON 120 5%	1/4W F
R204	1-247-889-00	CARBON 270K 5%	1/4W
R205	1-249-425-11	CARBON 4.7K 5%	1/4W F
R206	1-249-428-11	CARBON 8.2K 5%	1/4W F
R210	1-249-437-11	CARBON 47K 5%	1/4W
R211	1-249-429-11	CARBON 10K 5%	1/4W
R212	1-249-433-11	CARBON 22K 5%	1/4W
R213	1-249-421-11	CARBON 2.2K 5%	1/4W F
R232	1-249-417-11	CARBON 1K 5%	1/4W F
R233	1-249-441-11	CARBON 100K 5%	1/4W
R234	1-247-895-00	CARBON 470K 5%	1/4W
R235	1-249-433-11	CARBON 22K 5%	1/4W
R236	1-247-887-00	CARBON 220K 5%	1/4W
R237	1-249-433-11	CARBON 22K 5%	1/4W
R251	1-249-421-11	CARBON 2.2K 5%	1/4W F
R301	1-249-418-11	CARBON 1.2K 5%	1/4W F
R302	1-247-895-00	CARBON 470K 5%	1/4W
R303	1-249-427-11	CARBON 6.8K 5%	1/4W F
R304	1-249-417-11	CARBON 1K 5%	1/4W F
R305	1-249-427-11	CARBON 6.8K 5%	1/4W F
R306	1-249-429-11	CARBON 10K 5%	1/4W
R307	1-249-427-11	CARBON 6.8K 5%	1/4W F
R308	1-249-427-11	CARBON 6.8K 5%	1/4W F
R309	1-249-390-11	CARBON 5.6 5%	1/6W F
R310	1-247-820-11	CARBON 360 5%	1/4W
R311	1-249-421-11	CARBON 2.2K 5%	1/4W F
R331	1-249-402-11	CARBON 56 5%	1/4W F
R332	1-249-402-11	CARBON 56 5%	1/4W F
R333	1-249-420-11	CARBON 1.8K 5%	1/4W F
R334	1-249-421-11	CARBON 2.2K 5%	1/4W F
R335	1-249-431-11	CARBON 15K 5%	1/4W
R337	1-249-433-11	CARBON 22K 5%	1/4W
R338	1-249-433-11	CARBON 22K 5%	1/4W
△R371	1-217-641-00	FUSIBLE 4.7 5%	1/4W F
R372	1-249-411-11	CARBON 330 5%	1/4W
R373	1-249-408-11	CARBON 180 5%	1/4W F
R375	1-247-887-00	CARBON 220K 5%	1/4W

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

MAIN **PHOTO** **POWER**

Ref. No.	Part No.	Description	Remark
R376	1-249-417-11	CARBON	1K 5% 1/4W F
R377	1-249-417-11	CARBON	1K 5% 1/4W F
△R378	1-217-638-00	FUSIBLE	1.5 5% 1/4W F
R379	1-249-407-11	CARBON	150 5% 1/4W F
R380	1-247-804-11	CARBON	75 5% 1/4W
R381	1-247-887-00	CARBON	220K 5% 1/4W
R382	1-249-425-11	CARBON	4.7K 5% 1/4W F
R383	1-249-433-11	CARBON	22K 5% 1/4W
R384	1-249-419-11	CARBON	1.5K 5% 1/4W F
R385	1-249-419-11	CARBON	1.5K 5% 1/4W F
R386	1-249-441-11	CARBON	100K 5% 1/4W
R387	1-249-425-11	CARBON	4.7K 5% 1/4W F
R388	1-249-441-11	CARBON	100K 5% 1/4W
R389	1-249-425-11	CARBON	4.7K 5% 1/4W F
R391	1-249-425-11	CARBON	4.7K 5% 1/4W F
R392	1-249-429-11	CARBON	10K 5% 1/4W
R393	1-249-429-11	CARBON	10K 5% 1/4W
< VARIABLE RESISTOR >			
RV1	1-238-601-11	RES, ADJ, CARBON 22K	
RV301	1-241-106-11	RES, VAR, CARBON 20K/20K (VOLUME)	
RV371	1-238-076-11	RES, ADJ, CARBON 5K	
RV372	1-230-495-11	RES, ADJ, CARBON 2.2K	
RV373	1-238-076-11	RES, ADJ, CARBON 5K	
RV374	1-230-495-11	RES, ADJ, CARBON 2.2K	
< SWITCH >			
S1	1-572-013-11	SWITCH, LEVER SLIDE (BAND)	
S301	1-572-325-11	SWITCH, SLIDE (REC/PB)	
S302	1-571-080-11	SWITCH, LEVER SLIDE (FUNCTION)	
< TRANSFORMER >			
T1	1-404-355-00	TRANSFORMER, IF	
T301	1-433-346-11	TRANSFORMER, BIAS OSCILLATION	
< TEST PIN >			
* TP101	1-560-530-00	PIN, CONNECTOR 2P	

* 1-634-373-11	PHOTO BOARD		

< HOLDER >			
* KH1	1-565-384-11	HOLDER, CABLE 3P	
< PHOTO INTERRUPTER >			
PH411	8-719-913-55	DIODE	GP-2S04-B

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
R411	1-249-433-11	CARBON	22K 5% 1/4W
R412	1-249-414-11	CARBON	560 5% 1/4W F

* A-3264-330-A	POWER BOARD, COMPLETE		

1-533-233-11	HOLDER, FUSE		
* 1-565-384-11	HOLDER, CABLE 3P		
7-685-648-79	SCREW, TAPPING		
7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		
< CAPACITOR >			
C152	1-162-291-31	CERAMIC	560PF 10% 50V
C153	1-124-443-00	ELECT	100uF 20% 10V
C154	1-162-851-11	CERAMIC	0.1uF 10% 16V
C155	1-124-443-00	ELECT	100uF 20% 10V
C156	1-124-443-00	ELECT	100uF 20% 10V
C157	1-130-489-00	MYLAR	0.033uF 5% 50V
C158	1-130-489-00	MYLAR	0.033uF 5% 50V
C159	1-124-443-00	ELECT	100uF 20% 10V
C252	1-162-291-31	CERAMIC	560PF 10% 50V
C253	1-124-443-00	ELECT	100uF 20% 10V
C254	1-162-851-11	CERAMIC	0.1uF 10% 16V
C255	1-124-443-00	ELECT	100uF 20% 10V
C256	1-124-443-00	ELECT	100uF 20% 10V
C257	1-130-489-00	MYLAR	0.033uF 5% 50V
C258	1-130-489-00	MYLAR	0.033uF 5% 50V
C259	1-124-443-00	ELECT	100uF 20% 10V
C351	1-124-443-00	ELECT	100uF 20% 10V
C352	1-124-916-11	ELECT	22uF 20% 63V
C361	1-101-005-00	CERAMIC	22000PF 50V
C362	1-101-005-00	CERAMIC	22000PF 50V
C363	1-101-005-00	CERAMIC	22000PF 50V
C364	1-101-005-00	CERAMIC	22000PF 50V
C365	1-126-017-11	ELECT	6800uF 20% 16V
< JACK >			
△NJ361	1-526-838-11	INLET, AC 2P (~ AC IN)	
< DIODE >			
△D361	8-719-902-17	DIODE U15G	
△D362	8-719-902-17	DIODE U15G	
△D363	8-719-902-17	DIODE U15G	
△D364	8-719-902-17	DIODE U15G	

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

POWER

SW (A)

SW (B)

Ref. No.	Part No.	Description	Remark
		< FUSE >	
△F361	1-532-286-00	FUSE, TIME-LAG (T0. 25A)	
△F362	1-532-066-00	FUSE, TIME-LAG (T0. 4A)	
		< IC >	
IC304	8-759-822-51	IC LA4620	
		< JACK >	
J301	1-568-267-11	JACK (PHONES)	
J304	1-536-705-00	TERMINAL BOARD (SEAKER)	
		< HOLDER >	
* KH4	1-565-385-11	HOLDER, CABLE 4P	
* KH6	1-565-385-11	HOLDER, CABLE 4P	
		< RESISTOR >	
R152	1-249-417-11	CARBON 1K 5% 1/4W F	
△R153	1-217-639-00	FUSIBLE 2.2 5% 1/4W F	
△R154	1-217-639-00	FUSIBLE 2.2 5% 1/4W F	
R155	1-249-417-11	CARBON 1K 5% 1/4W F	
R156	1-249-404-00	CARBON 82 5% 1/4W	
R252	1-249-417-11	CARBON 1K 5% 1/4W F	
△R253	1-217-639-00	FUSIBLE 2.2 5% 1/4W F	
△R254	1-217-639-00	FUSIBLE 2.2 5% 1/4W F	
R255	1-249-417-11	CARBON 1K 5% 1/4W F	
R256	1-249-404-00	CARBON 82 5% 1/4W	
R351	1-249-429-11	CARBON 10K 5% 1/4W	
		< SWITCH >	
△S361	1-552-921-00	SWITCH, POWER (VOLTAGE SELECTOR)	
		< TRANSFORMER >	
△T361	1-450-036-11	TRANSFORMER, POWER	

*	1-634-371-11	SW (A) BOARD	

	9-911-844-XX	SPACER, LEAF	
		< CAPACITOR >	
C401	1-124-927-11	ELECT 4.7uF 20% 100V	
		< JACK >	
* CNJ5	1-563-474-11	HOUSING, CONNECTOR 6P	

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D401	8-719-911-19	DIODE 1SS119	
D402	8-719-911-19	DIODE 1SS119	
D403	8-719-911-19	DIODE 1SS119	
D406	8-719-911-19	DIODE 1SS119	
		< TRANSISTOR >	
Q401	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q402	8-729-177-32	TRANSISTOR 2SD773	
Q403	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		< RESISTOR >	
R401	1-247-816-11	CARBON 240 5% 1/4W	
R402	1-249-415-11	CARBON 680 5% 1/4W F	
R403	1-247-816-11	CARBON 240 5% 1/4W	
R404	1-249-414-11	CARBON 560 5% 1/4W F	
R405	1-249-438-11	CARBON 56K 5% 1/4W	
R406	1-249-429-11	CARBON 10K 5% 1/4W	
R407	1-249-405-11	CARBON 100 5% 1/4W F	
R409	1-249-429-11	CARBON 10K 5% 1/4W	
		< SWITCH >	
S401	1-570-441-11	SWITCH, LEAF (MD (A) POWER)	
S402	1-570-012-11	SWITCH, LEAF (MD (A) FF/REW)	
S403	1-572-337-11	SWITCH, PUSH (1 KEY) (DIR MODE)	
S404	1-552-864-00	SWITCH, LEAF (DIRECTION)	

*	1-634-372-11	SW (B) BOARD	

	9-911-844-XX	SPACER, LEAF	
		< CONNECTOR >	
* CN451	1-563-473-11	HOUSING, CONNECTOR 5P	
		< HOLDER >	
* KH7	1-565-385-11	HOLDER, CABLE 4P	
		< SWITCH >	
S451	1-554-495-00	SWITCH, LEAF (MD (B) POWER)	
S452	1-570-012-11	SWITCH, LEAF (MD (B) FF/REW)	

		MISCELLANEOUS	

11	1-558-848-11	CORD, SPEAKER	
ANT1	1-501-383-21	ANTENNA, TELESCOPIC	
HE901	1-543-525-11	HEAD, MAGNETIC (ERASE)	

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
HP901	1-543-389-41	HEAD, MAGNETIC (REC/PB)	
HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB)	
M402	1-541-630-11	MOTOR, DC	
M401	1-541-631-11	MOTOR, DC	
PM401	1-454-355-00	SOLENOID, PLUNGER	
SP901	1-544-309-11	SPEAKER	
SP902	1-544-309-11	SPEAKER	

ACCESSORIES & PACKING MATERIALS

△	1-555-234-00	CORD, POWER
△	1-569-008-11	ADAPTER, CONVERSION 2P
*	3-384-819-01	INDIVIDUAL CARTON
*	3-387-884-01	CUSHION (TOP)
*	3-387-885-01	CUSHION (CENTER)
*	3-387-886-01	CUSHION (BOTTOM)
	3-752-132-81	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, ARABIC)

HARDWARE LIST

#1	7-685-104-19	SCREW (2X6), + PTPWH
#2	7-685-648-79	SCREW, TAPPING
#3	7-621-772-18	SCREW +B 2X4
#4	7-682-548-09	SCREW +B 3X8
#5	7-685-155-19	SCREW +P 3X40 TYPE2 NON-SLIT
#6	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#7	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#8	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S
#9	7-621-773-86	SCREW +PTT 2.6X4 (S)
#10	7-621-770-67	SCREW +PTT 2.6X6 (S)
#11	7-682-546-04	SCREW +PTT 3X5 (S)
#12	7-687-233-11	SCREW (+PTPWH) (2.6X6)
#13	7-621-770-87	SCREW +P 2.6X5

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