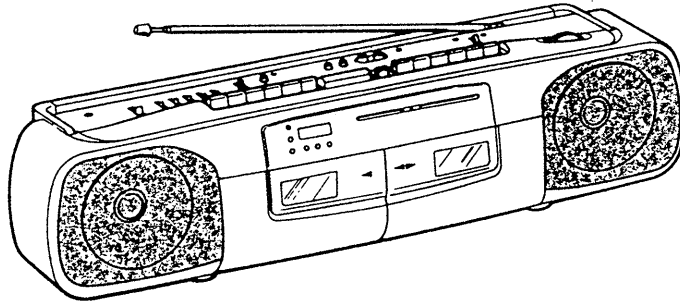


CFS-W404

SERVICE MANUAL

US Model
E Model
Australian Model



SPECIFICATIONS

Model Name Using Similar Mechanism	CFS-W401
Tape Transport Mechanism Type	DECK A : MF-W404PB-78D DECK B : MF-W404RP-75D

Audio power specifications

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven, from 150 to 10,000 Hz; rated 1.7W per channel minimum RMS power, with no more than 10% total harmonic distortion in AC operation.

Other specifications

Frequency range	FM 87.6 – 108 MHz AM 530 – 1,710 kHz
Antenna	FM: Telescopic antenna AM: Built-in ferrite bar antenna
Recording system	4-track, 2-channel stereo
Frequency response	80 – 10,000 Hz
Speakers	Full-range: 10 cm (4 inches) dia. × 2
Power output	2.3W + 2.3W (with 10% harmonic distortion; DC operation)
Inputs	Line input jacks (phono jacks) Sensitivity: 0.44V Input impedance: 47 kilohms or higher
Output	Headphones jack (stereo minijack) for 16 – 68 ohm impedance headphones
Power requirements	Australian model: 240V AC, 50 Hz US, E models: 120V AC, 60Hz 9V DC, six size D (R20) batteries Clock: DC 1.5V, 1 size AA (R6) battery
Power consumption	14W in AC operation

Battery life

Batteries	FM recording
Sony SUM-1 (NS)	Approx. 12 hours
Sony AM1 alkaline	Approx. 18 hours

Timer section:	Approx. 2 years using Sony SUM-3 (NS)
Dimensions	Approx. 566 × 148 × 150 mm (w/h/d) (22 ³ / ₈ × 5 ⁷ / ₈ × 6 inches) incl. projecting parts and controls, not incl. handle
Weight	Approx. 3.9 kg (8 lb 11 oz) incl. batteries
Accessory supplied	AC power cord(1)

Design and specifications subject to change without notice.

RADIO CASSETTE-CORDER
SONY®

FEATURES

- The auto-reverse function enables playback on both sides of a cassette without having to turn over the cassette.
- The graphic equalizer controls allow you to get the desired tone quality.
- The AMS function starts from the beginning of the desired selection.
- The normal/high speed dubbing with the synchronized starting system.
- Built-in digital clock timer.

SERVICING NOTE

• Repairing printed resistor

Cut both sides of the resistor and solder the carbon resistor having same value in place of printed one of the conductor side.

1/4W carbon resistor is supplied for the replacing part of the printed resistor.

• Note for tape operation buttons

When replacing tape operation buttons, cut them off and attach new parts with locking compound. (Refer to page 7.)

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

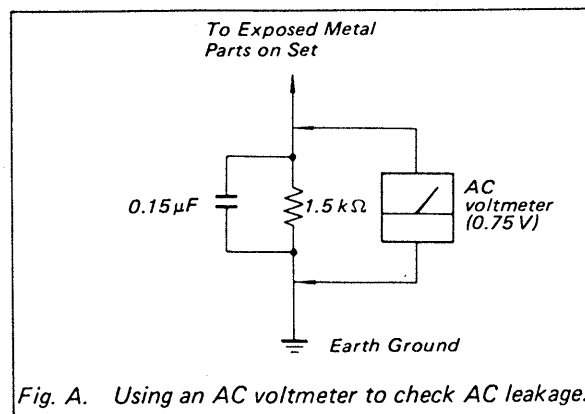


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

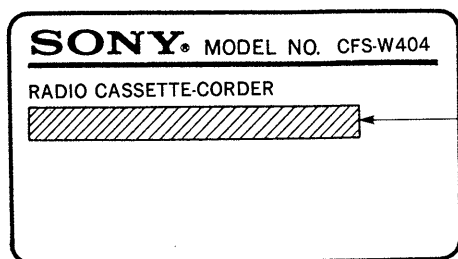
COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL			6. EXPLODED VIEWS		
1-1.	Location and Function of Controls	4	6-1.	Cabinet (Front) Section	22
1-2.	Setting the Clock	5	6-2.	Cabinet (Rear), Boards Section	23
1-3.	To Use the Built-in Timer	5	6-3.	Deck A mechanism Section (1)	24
2. DISASSEMBLY			6-4.	Deck A mechanism Section (2)	25
2-1.	Removal of Cassette Holder	7	6-5.	Deck A mechanism Section (3)	26
2-2.	Removal of Tape Operation Button.....	7	6-6.	Deck B mechanism Section (1)	27
2-3.	Pointer Setting	7	6-7.	Deck B mechanism Section (2)	28
3. MECHANICAL ADJUSTMENTS		8	7. ELECTRICAL PARTS LIST		29
4. ELECTRICAL ADJUSTMENTS					
4-1.	Tape Recorder Section	9			
4-2.	Radio Section	11			
5. DIAGRAMS					
5-1.	Printed Wiriwg Board —Tuner Section—	13			
5-2.	Schematic Diagram —Tuner Section—.....	14			
5-3.	Semiconductor Lead Layouts	16			
5-4.	LCD Schematic Diagram	16			
5-5.	Printed Wiring Boards —Audio Section—	17			
5-6.	Schematic Diagrams —Audio Section—	19			

MODEL IDENTIFICATION

— Specification Label —



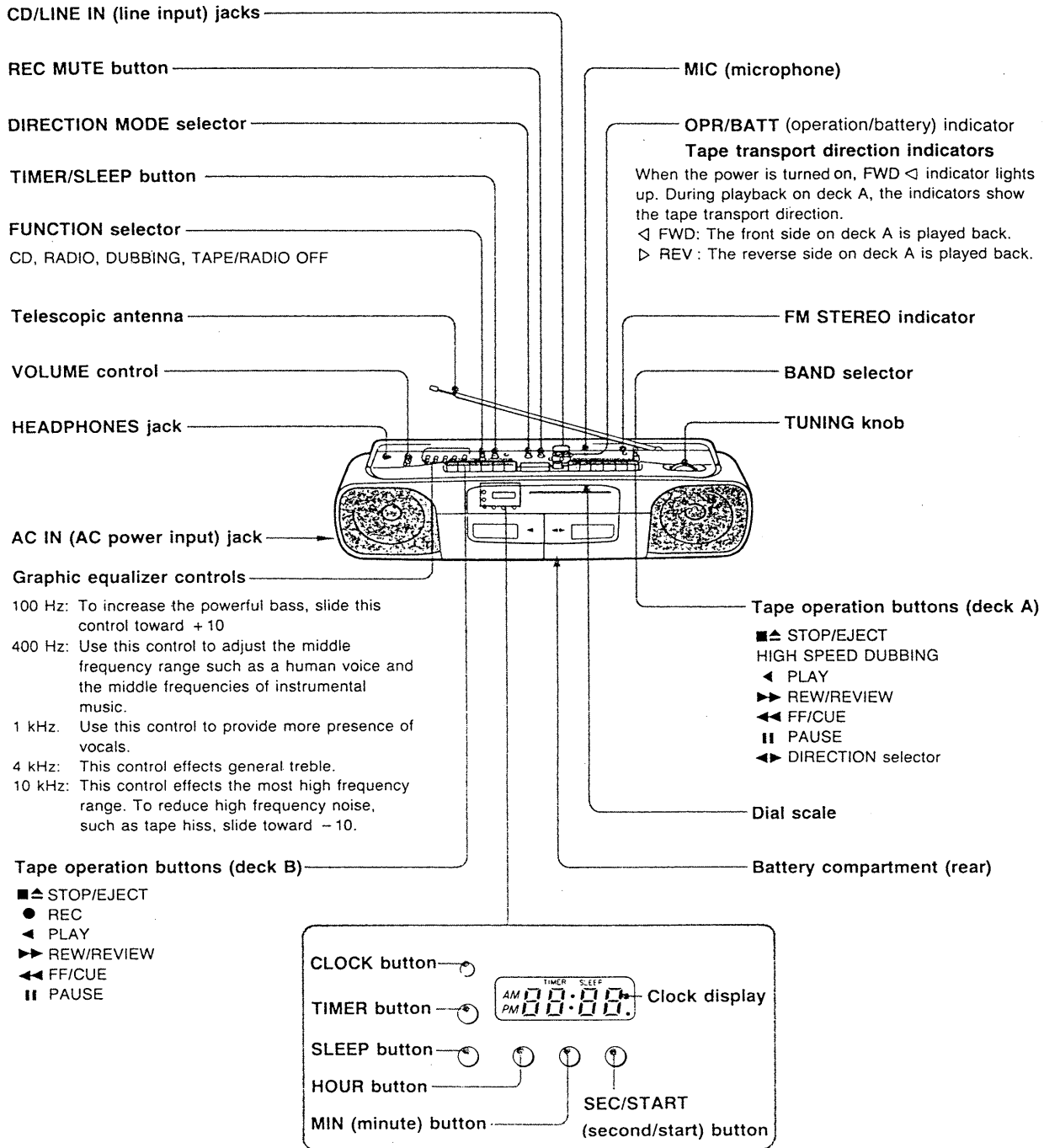
{ US model: AC: 120V 60Hz 14W
 E model: AC: 120V 60Hz 14W
 AUS model: AC: 240V~50Hz 14W
 (AUS: Australian)

Carved on rear cabinet (US model)

Sticked on rear cabinet (E, AUS model)

SECTION 1 GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS



1-2. SETTING THE CLOCK

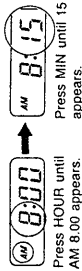
The battery for the clock/timer size AA (R6) should be inserted into the battery compartment.

1 Press 1, 2, 3. The display shows 12:01. The CLOCK indicator is on.

2 Press HOUR and then MIN while keeping CLOCK pressed.

3 Press SEC with the time signal while keeping CLOCK pressed.

Example: Set to 8:15 AM



Note on setting seconds
When you press SEC, the seconds setting will be reset to 0, and the minutes setting will:

- remain the same if the seconds setting was 0 - 29.
- advance one minute if the seconds setting was 30 - 59.

Hour and or minute can be changed continuously by keeping the HOUR and MIN button pressed.

Note on setting minutes
The minute digit advance to "00" after "59". The hour digits will not advance.

Time indication

AM 12:00 = midnight
PM 12:00 = noon

1-3. TO USE THE BUILT-IN TIMER

To Set the Timer

Only the starting time can be preset. The power turns off itself automatically after one hour.

1 Press 1, 2, 3. The display shows 12:01. The TIMER indicator is on.

2 Press HOUR and then MIN while keeping TIMER pressed.

3 Press TIMER. After setting the timer, release TIMER, and the current time will appear.

To check the preset time
Press TIMER.

Note
To set the timer, press the TIMER button first, and keep it pressed while pressing the HOUR and MIN buttons. Do not press the TIMER button after pressing the HOUR and MIN buttons. Otherwise, the current time will change on the display window.

To Listen to the Radio at the Desired Time

Check that the clock shows the current time. If it does not, see page 5.

1 Set the timer to the desired time.

2 Press FUNCTION.

3 Select the desired band and tune in the desired station.

4 Set TIMER/SLEEP to ON.

To stop the radio
Set FUNCTION to TAPE/RADIO OFF. Otherwise, the radio will continue to sound for about one hour and automatically turn off.

After using the timer
Set TIMER/SLEEP to OFF.

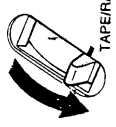
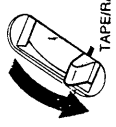

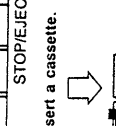
To record at the desired time

1. Follow the steps as described above.
2. Insert a blank tape in deck B.
3. Press ● on deck B.

Recording will start at the preset time. When the tape reaches its end of one side, recording will finish and the radio will turn off after one hour elapsed.

To Listen to the Tape at the Desired Time (deck B only)

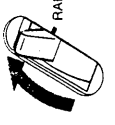
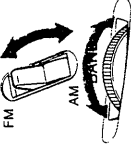
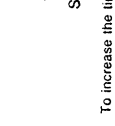


Check that the clock shows the current time. If it does not, see page 5. Use deck B only. On deck A the timer does not work.

<p>1</p> <p>Set the time for alarm.</p> 	<p>2</p> <p>FUNCTION TAPE/RADIO OFF</p> 	<p>3 Set TIMER/SLEEP to ON (ON)</p> 	<p>4 on deck B</p> <p>STOPEJECT</p> <p>Insert a cassette.</p> 
--	--	--	--

To stop playback, press **■** on deck B. After listening to the tape, set TIMER/SLEEP to OFF.

To Sleep with Radio (sleep function) and Wake up to the Radio

Set the time for alarm.

<p>1</p> <p>FUNCTION RADIO</p> 	<p>2 Select the desired band and tune in the desired station.</p> 	<p>3 Set the time to listen to the radio.</p>  <p>SLEEP +</p> <p>To increase the time: Press + while keeping SLEEP pressed. To decrease the time: Press - while keeping SLEEP pressed. The sleep timer can be set up to 59 minutes by one minute.</p>	<p>4 Set TIMER/SLEEP to ON (ON)</p> 	<p>5 Press START while keeping SLEEP pressed.</p>  <p>SLEEP</p> <p>START</p>
---	--	---	--	--

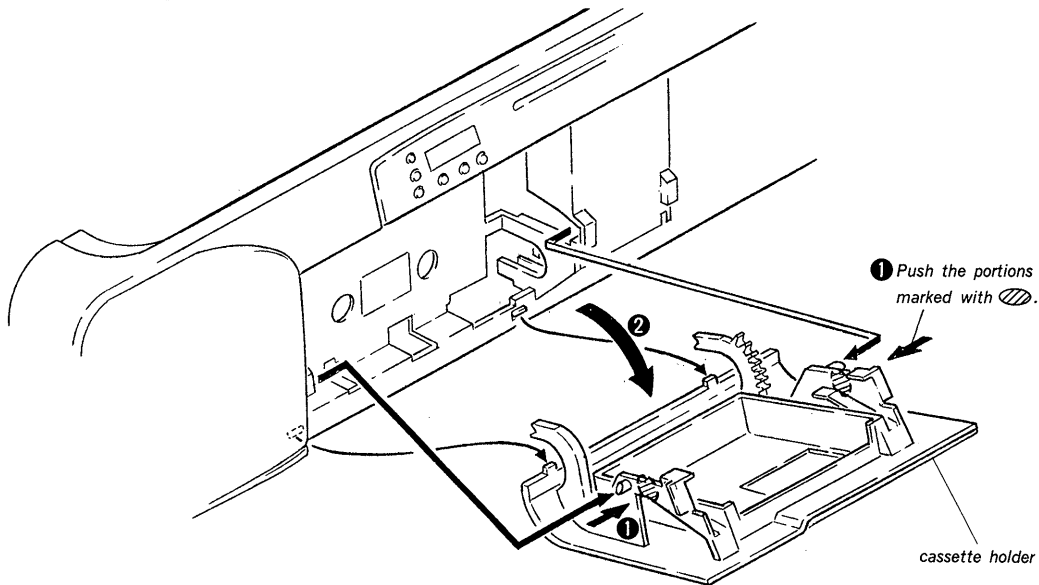
Notes

- To set the time for when you wish to listen to the radio, press SLEEP first, and keep it pressed while pressing either +, -, or START. Do not press SLEEP after pressing either +, -, or START. Otherwise, the current time will change on the display window.
- The preset sleep time is memorized until a new one is set.
- While the sleep timer is operating, the remaining time is not displayed. The remaining time will appear when SLEEP is pressed. If the remaining time becomes less than 20 minutes, the seconds will also appear.

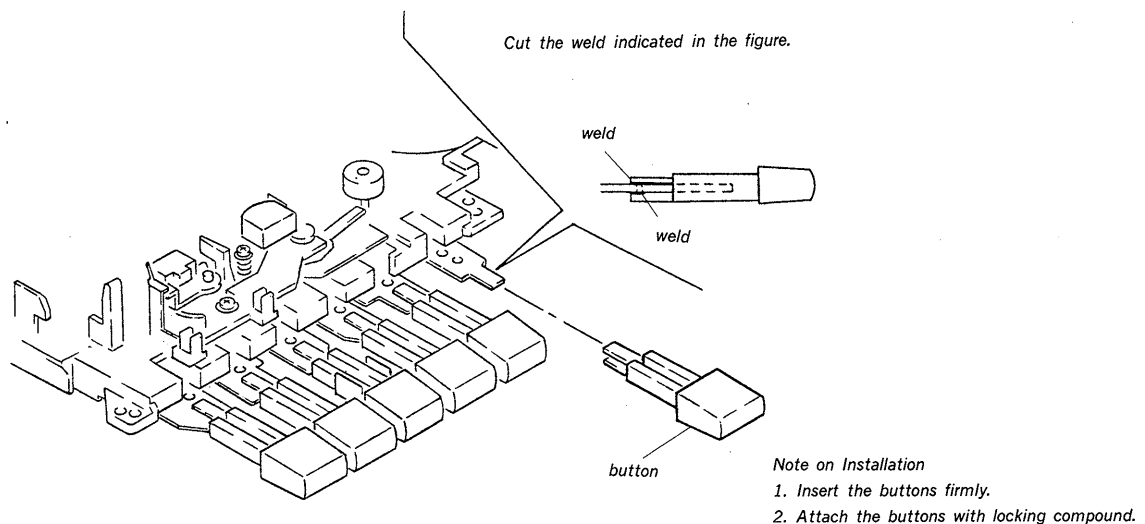
SECTION 2 DISASSEMBLY

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

2-1. REMOVAL OF CASSETTE HOLDER

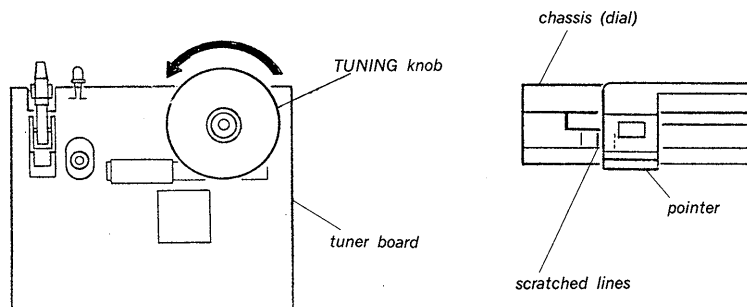


2-2. REMOVAL OF TAPE OPERATION BUTTON



2-3. POINTER SETTING.

1. Turn TUNING knob fully counterclockwise.
2. Set the left end of the pointer to the middle of the scratched lines.



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	24-70g·cm (0.33-0.97 oz·inch)
Forward back tension	CQ-102C	2-6g·cm (0.028-0.083 oz·inch)
Reverse	CQ-102RC	24-70g·cm (0.33-0.97 oz·inch)
Reverse back tension	CQ-102RC	2-6g·cm (0.028-0.083 oz·inch)
Fast Forward	CQ-201B	more than 85g·cm (more than 1.18 oz·inch)
Rewind	CQ-201B	85-150g·cm (1.18-2.08 oz·inch)

[DECK B]

Torque	Torque meter	Meter reading
Forward	CQ-102C	22.5-55g·cm (0.31-0.76 oz·inch)
Forward back tension	CQ-102C	2-5g·cm (0.03-0.07 oz·inch)
Fast Forward and Rewind	CQ-201B	60-120g·cm (0.83-1.67 oz·inch)

Tape Tension Measurement

[DECK A]

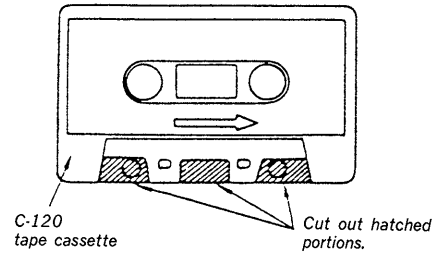
Mode	Meter	Meter Reading
Forward	CQ-403A	more than 110g (more than 3.88 oz)
Reverse	CQ-403R	

[DECK B]

Meter	Meter Reading
CQ-403A	more than 150g (more than 5.29 oz)

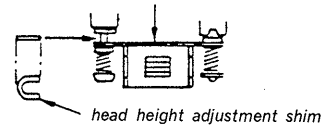
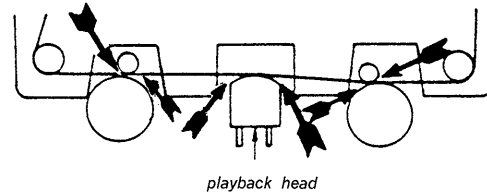
Head Height Adjustment

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



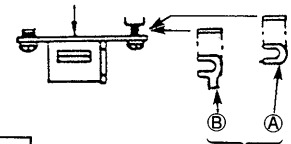
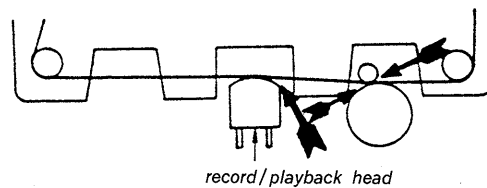
2. In playback mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at portions shown by arrows.

• 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	10kΩ
input signal level	0.44V (-5dB)

Standard Output Level

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

Test Tape

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

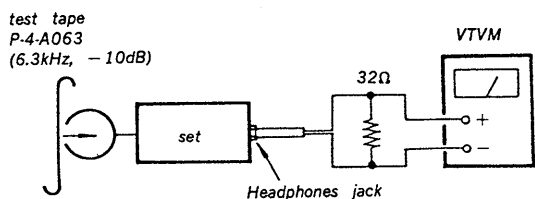
Head Azimuth Adjustment DECK A DECK B

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

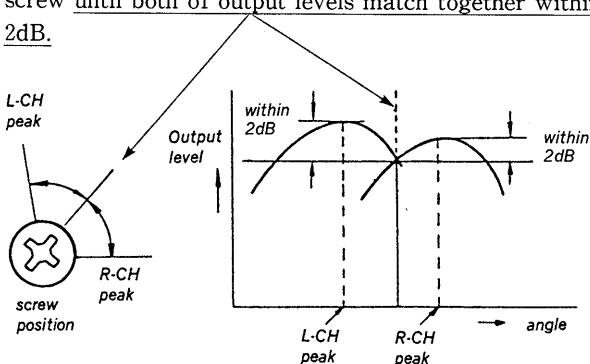
Output level of both forward and reverse playback modes should match together.

Procedure :

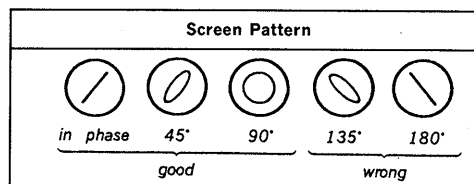
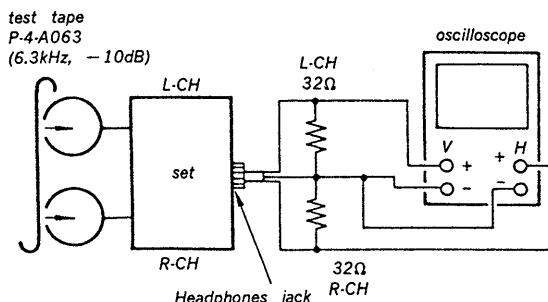
1. Mode : playback



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

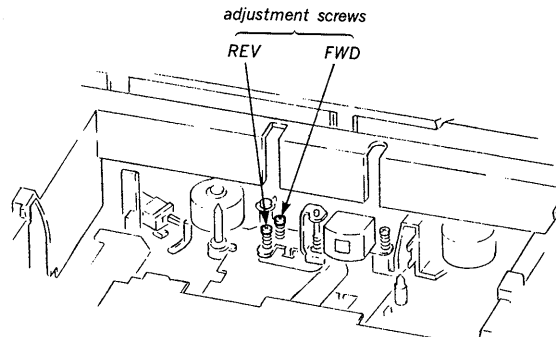


Note : Finish the screw adjustment with a turn in the clockwise direction.

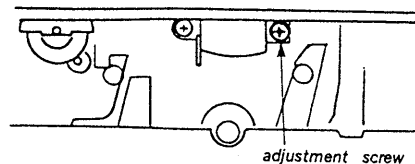
After the adjustment, apply suitable locking compound to the adjustment screw.

Adjustment Location :

DECK A



DECK B



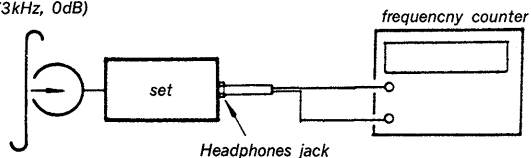
Tape Speed Adjustment DECK A DECK B

Procedure :

- Perform high speed adjustment before normal speed adjustment.

Mode : playback

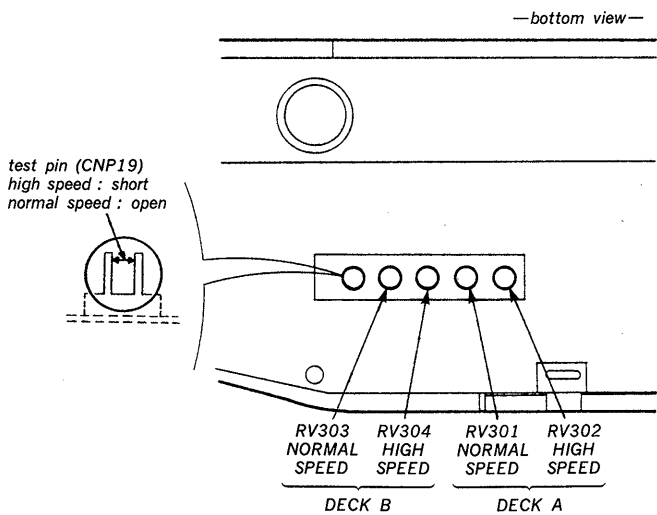
test tape
WS-48A
(3kHz, 0dB)



Speed	Test pin (CNP19)	Deck	Adjustment point	Frequency counter
High	short	A	RV302	5,685-5,715Hz
		B	RV304	
Normal	open	A	RV301	2,970-3,000Hz
		B	RV303	

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

Adjustment Location :



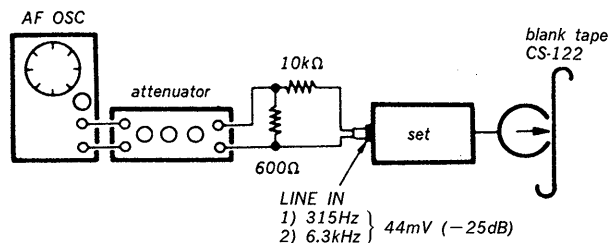
Record Bias Adjustment DECK B

Setting :

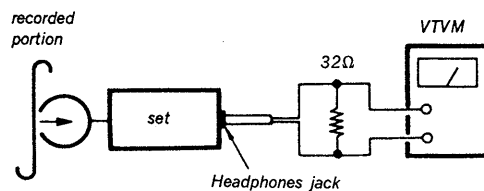
GRAPHIC EQUALIZER Controls : mechanical mid
FUNCTION selector : TAPE/RADIO OFF

Procedure :

1. Mode : record



2. Mode : playback

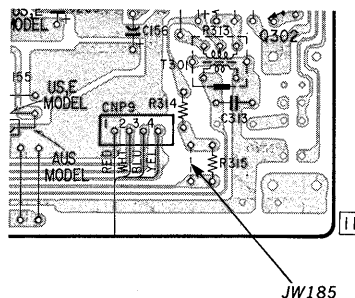


Confirm that the 6.3kHz playback signal level is $0 \pm 4dB$ relative to the 315Hz signal.

If necessary, adjust by connecting or disconnecting JW185.

Pattern connection	6.3kHz VTVM reading
disconnected	up
connected	down

Adjustment Location : main board

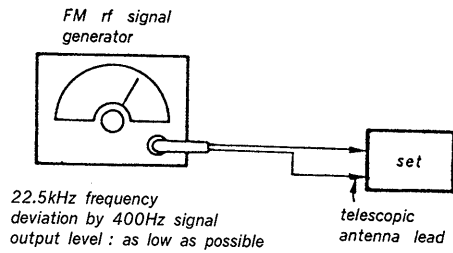


4-2. RADIO SECTION

• FM Section

Setting :

BAND switch : FM



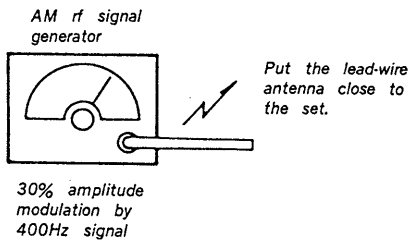
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	CT2
86.5MHz	109.5MHz

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	CT1
86.5MHz	109.5MHz

• AM Section

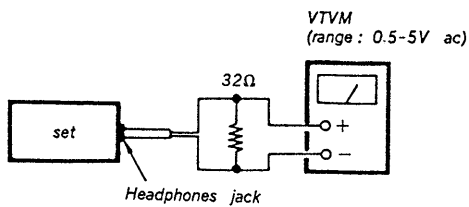
Setting :

BAND switch : AM



AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L4	CT4
520kHz	1,780kHz

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	CT3
600kHz	1,500kHz



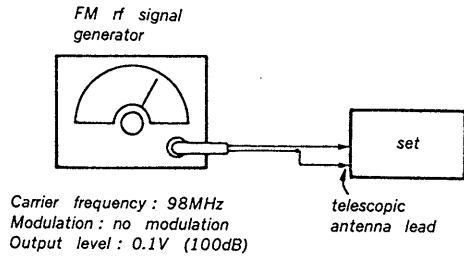
AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	
455kHz	

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

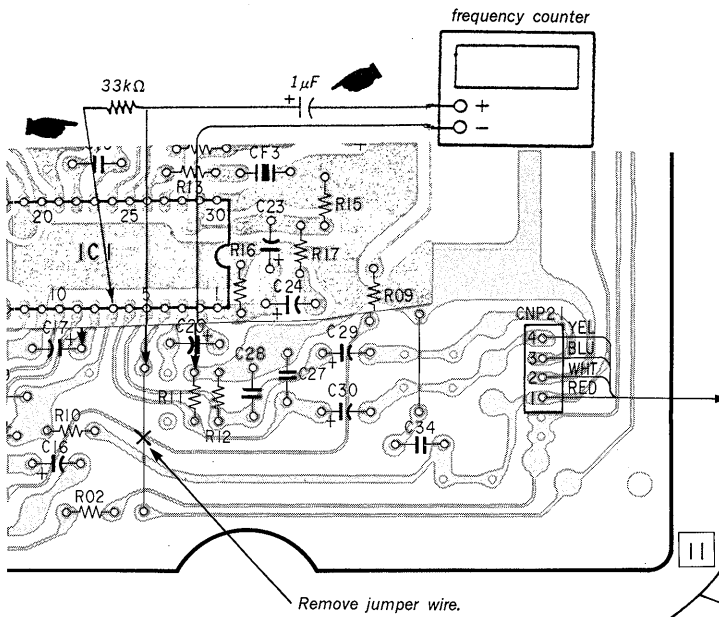
VCO Adjustment

A) Regular Method

Procedure :



1. Remove jumper wire as shown below.
2. Connect frequency counter to the positions shown below.
3. Tune the set to 98MHz.
4. Adjust RV1 for 76kHz ± 500Hz reading on the frequency counter.
5. After adjustment, connect jumper wire removed in step 1.

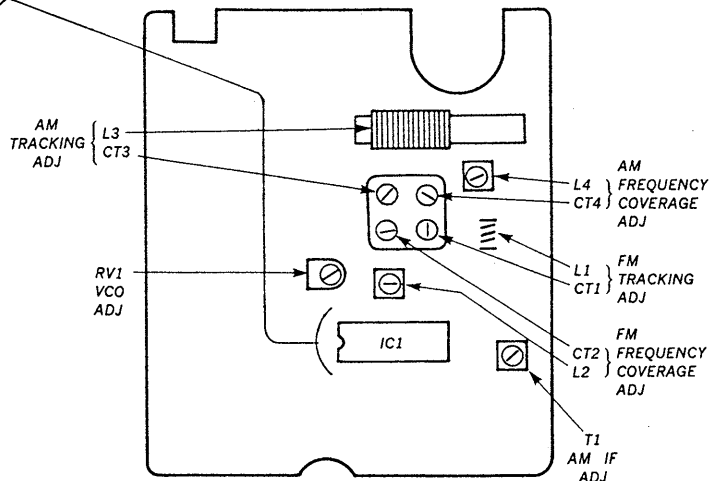
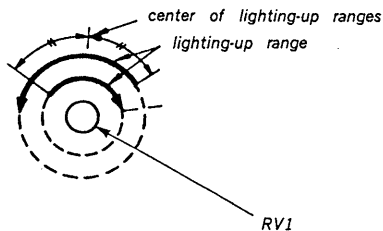


Adjustment Location : tuner board

B) Simple Method

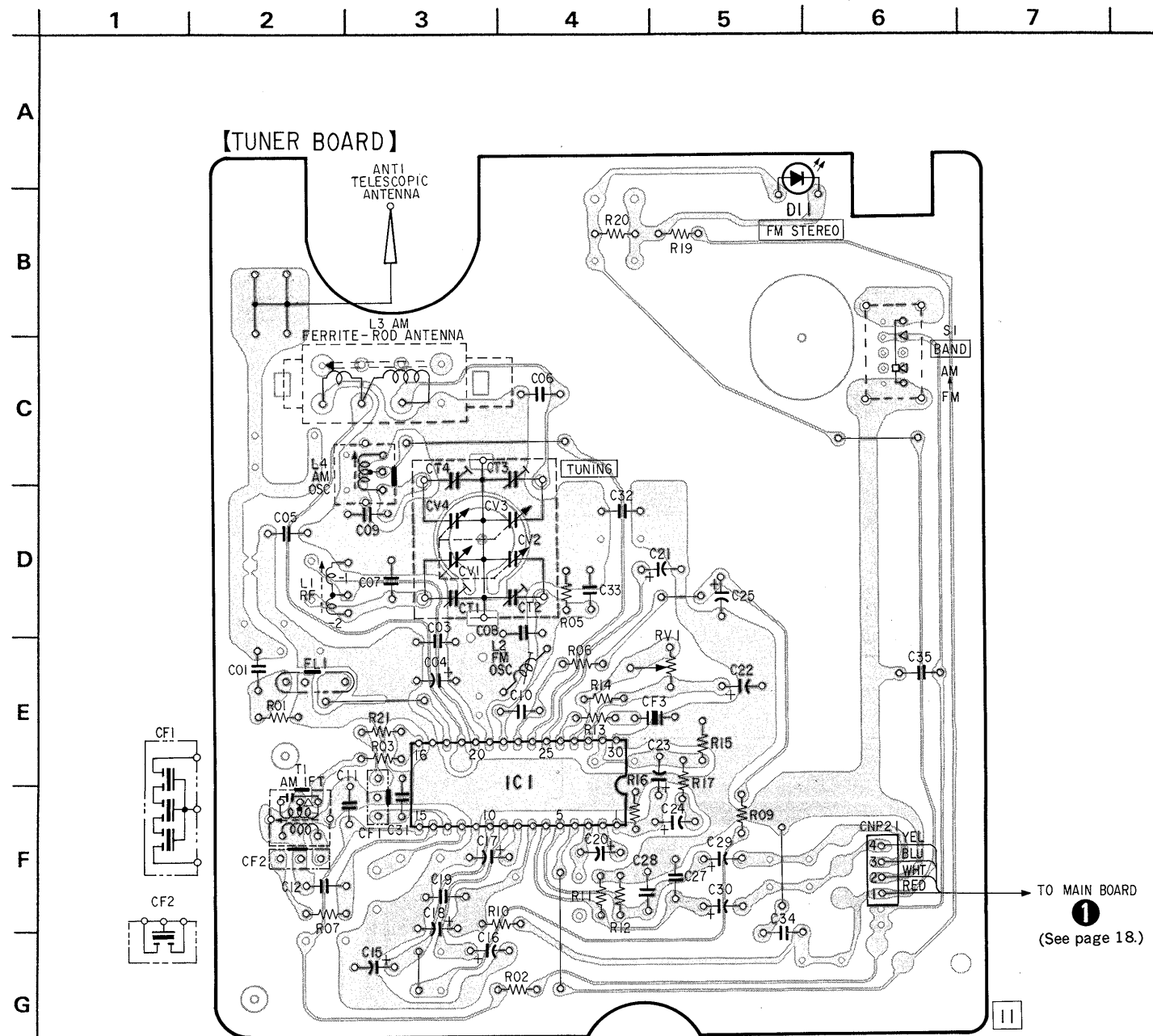
Procedure :

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.



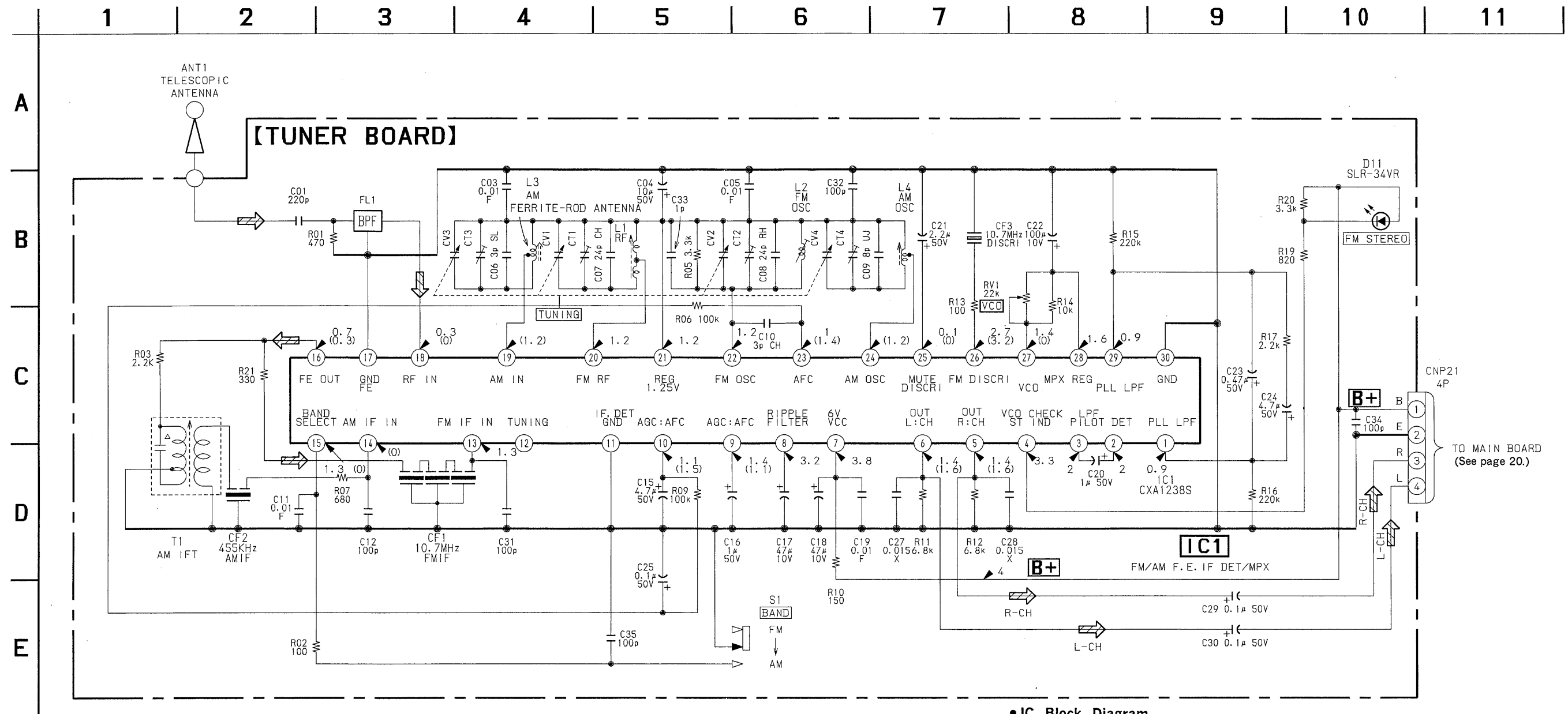
**SECTION 5
DIAGRAMS**

5-1. PRINTED WIRING BOARD —TUNER SECTION— • Refer to page 16 for semiconductor Lead Layouts.



Note:
 • ○ : parts extracted from the component side.
 • □ : indicates side identified with part number.

5-2. SCHEMATIC DIAGRAM —TUNER SECTION—

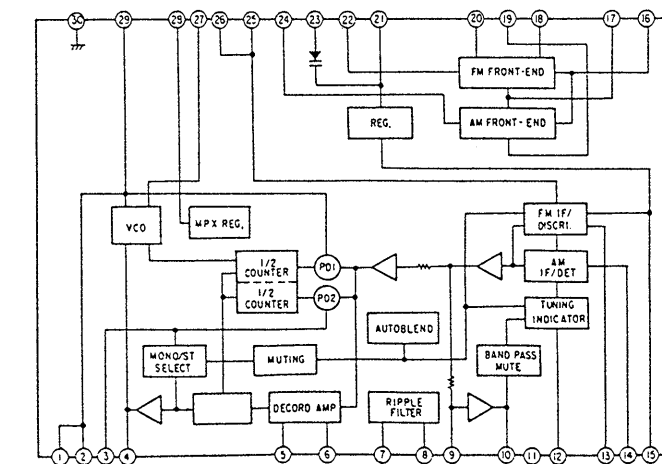


Note:

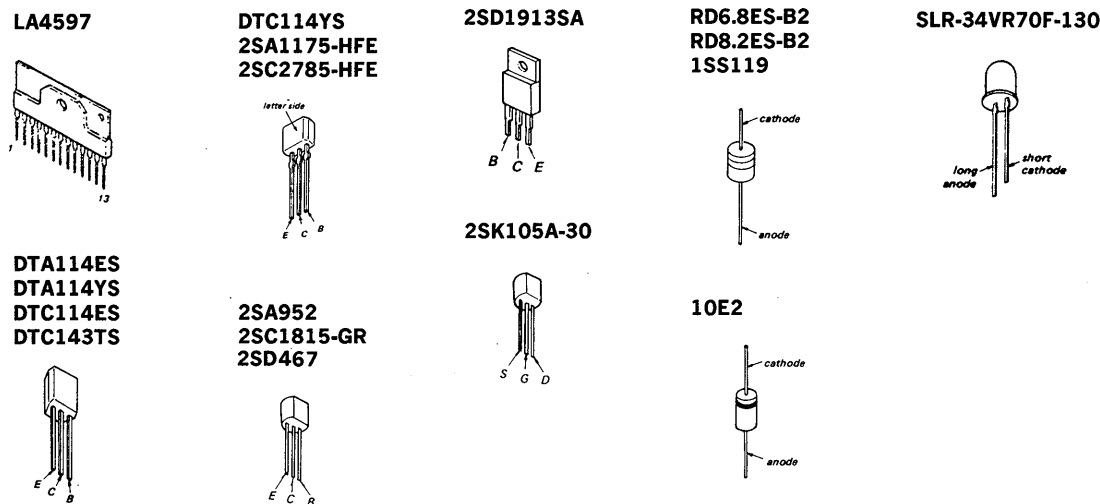
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- □ : internal component.
- △ : adjustment for repair.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark: FM
(): AM

- Voltages are taken with a VOM (input impedance 10M Ω) Voltage variations may be noted due to normal production tolerances.
- Signal path.
- ↗ : FM

**• IC Block Diagram
IC1 CX1238S**



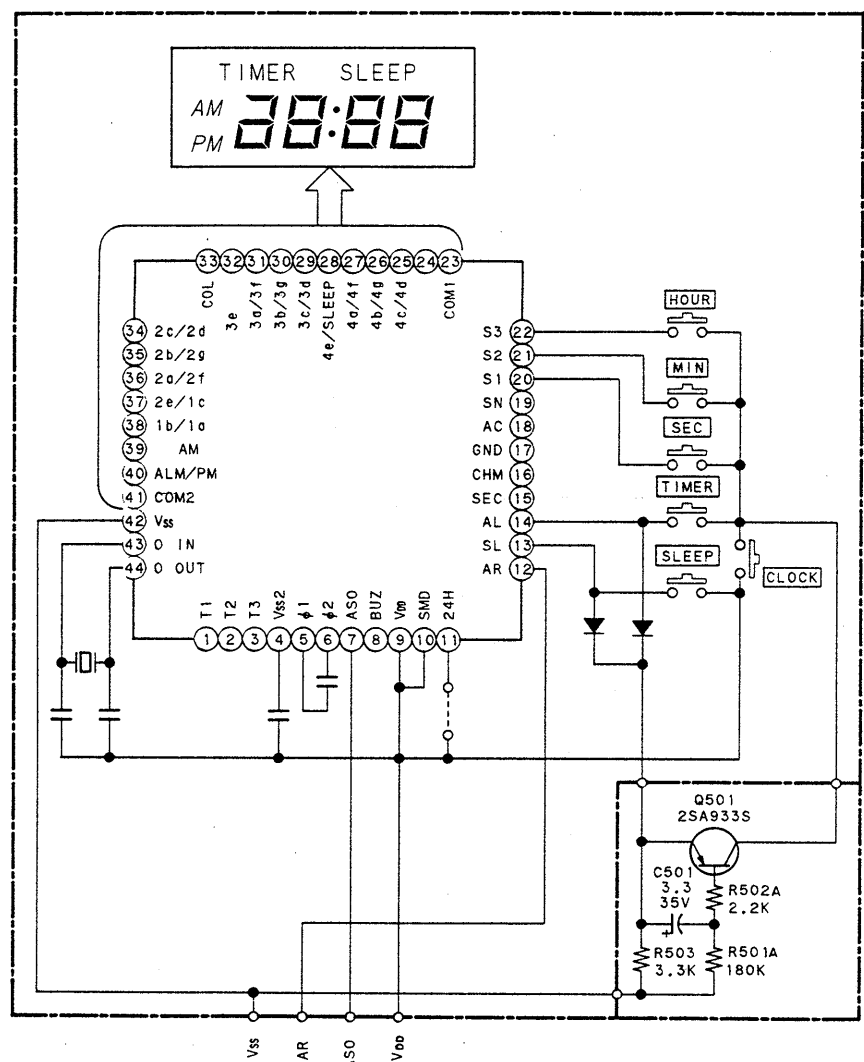
5-3. SEMICONDUCTOR LEAD LAYOUTS



5-4. LCD SCHEMATIC DIAGRAM

LCD
LIQUID CRYSTAL DISPLAY PANEL

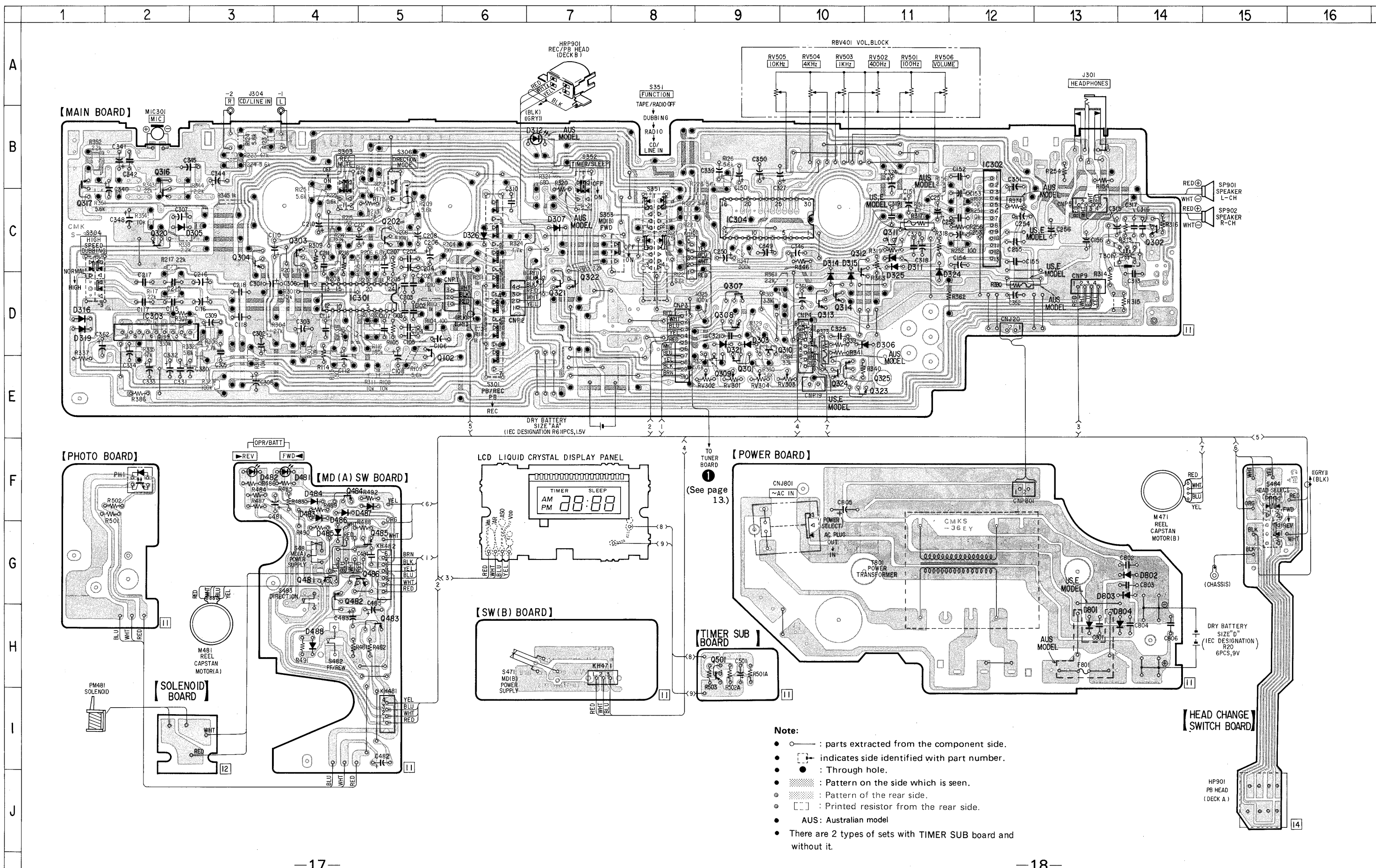
Note:
There are 2 types of sets with
TIMER SUB board and without it.



• Semiconductor Location

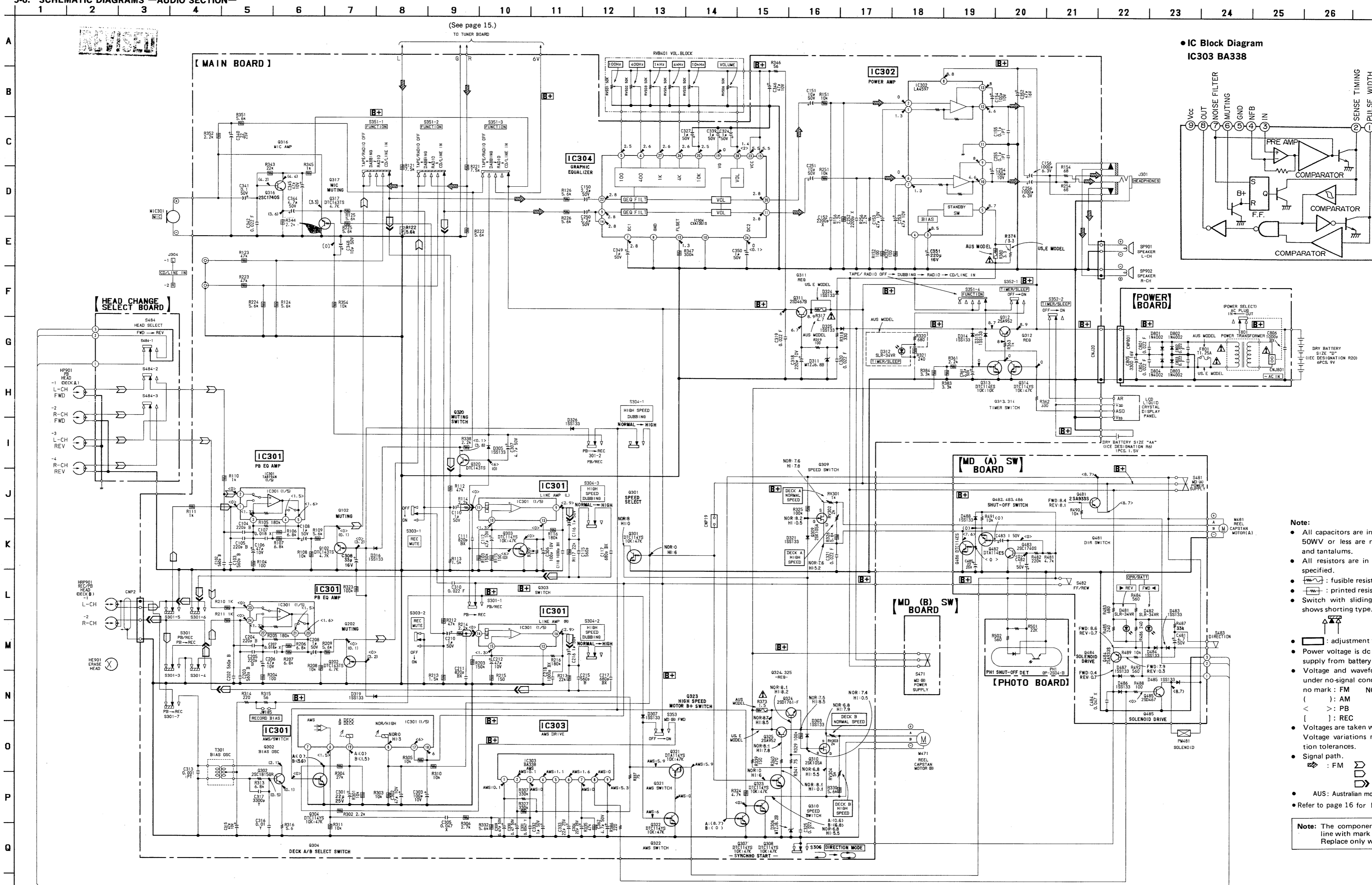
Ref. No.	Location
D303	D-9
D305	C-2
D306	D-11
D307	C-7
D311	C-11
D312	B-7
D314	C-10
D315	C-10
D316	D-1
D319	D-1
D321	D-9
D324	C-11
D325	C-11
D326	C-6
D481	F-4
D482	F-3
D483	F-4
D484	F-4
D485	G-4
D486	F-4
D487	F-5
D488	H-4
D801	H-13
D802	G-14
D803	G-14
D804	H-14
IC301	D-5
IC302	C-12
IC303	D-2
IC304	C-9
PH1	F-2
Q102	E-5
Q202	C-5
Q301	E-9
Q302	C-14
Q303	C-4
Q304	C-3
Q307	D-9
Q308	D-9
Q309	E-9
Q310	D-9
Q311	C-11
Q312	C-10
Q313	D-10
Q314	D-10
Q316	B-2
Q317	C-1
Q320	C-2
Q321	D-7
Q322	D-7
Q323	E-10
Q324	E-10
Q325	E-10
Q481	G-4
Q482	G-4
Q483	H-5
Q484	F-4
Q485	G-5
Q486	G-5
Q501	H-9

5-5. PRINTED WIRING BOARDS —AUDIO SECTION—

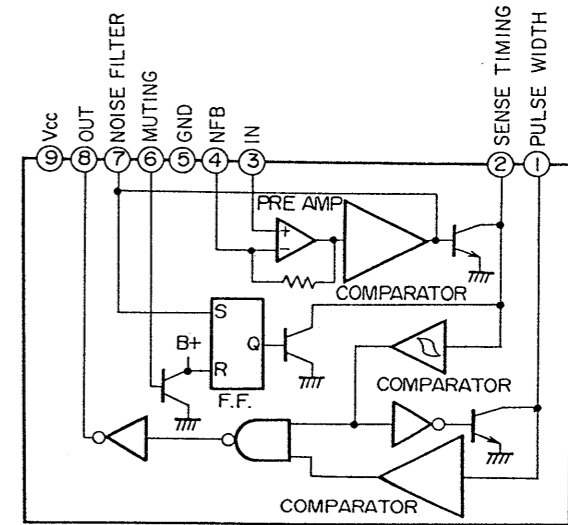


Note:

- : parts extracted from the component side.
- : indicates side identified with part number.
- : Through hole.
- ▨ : Pattern on the side which is seen.
- ◐ : Pattern of the rear side.
- : Printed resistor from the rear side.
- AUS: Australian model
- There are 2 types of sets with TIMER SUB board and without it.



IC Block Diagram
IC303 BA338



- Note:**
- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\text{F} \times 10^{-6}$ 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.
 - : fusible resistor.
 - : printed resistor.
 - Switch with sliding contact indicated by hatched lines shows shorting type.
 - : 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 NOR : NORMAL SPEED DUBBING
() : AM HI : HIGH SPEED DUBBING
< > : PB A : DECK A
[] : REC B : DECK B
 - Voltagcs are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 : FM : PB (DECK A)
 : PB (DECK B)
 : REC (DECK B)
 - AUS : Australian model
 - Refer to page 16 for LCD Schematic Diagram.
- Note:** The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

SECTION 6 EXPLODED VIEWS

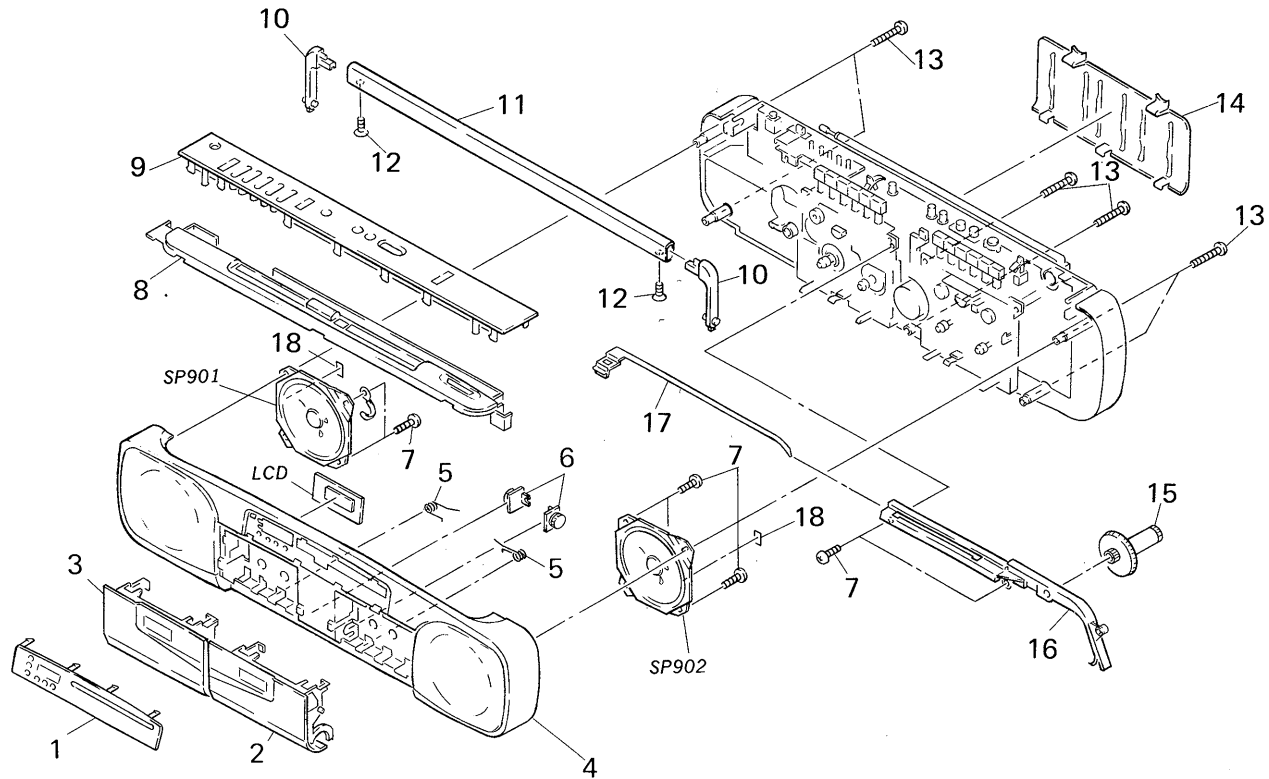
NOTE:

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

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- AUS: Australian model

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

6-1. CABINET (FRONT) SECTION

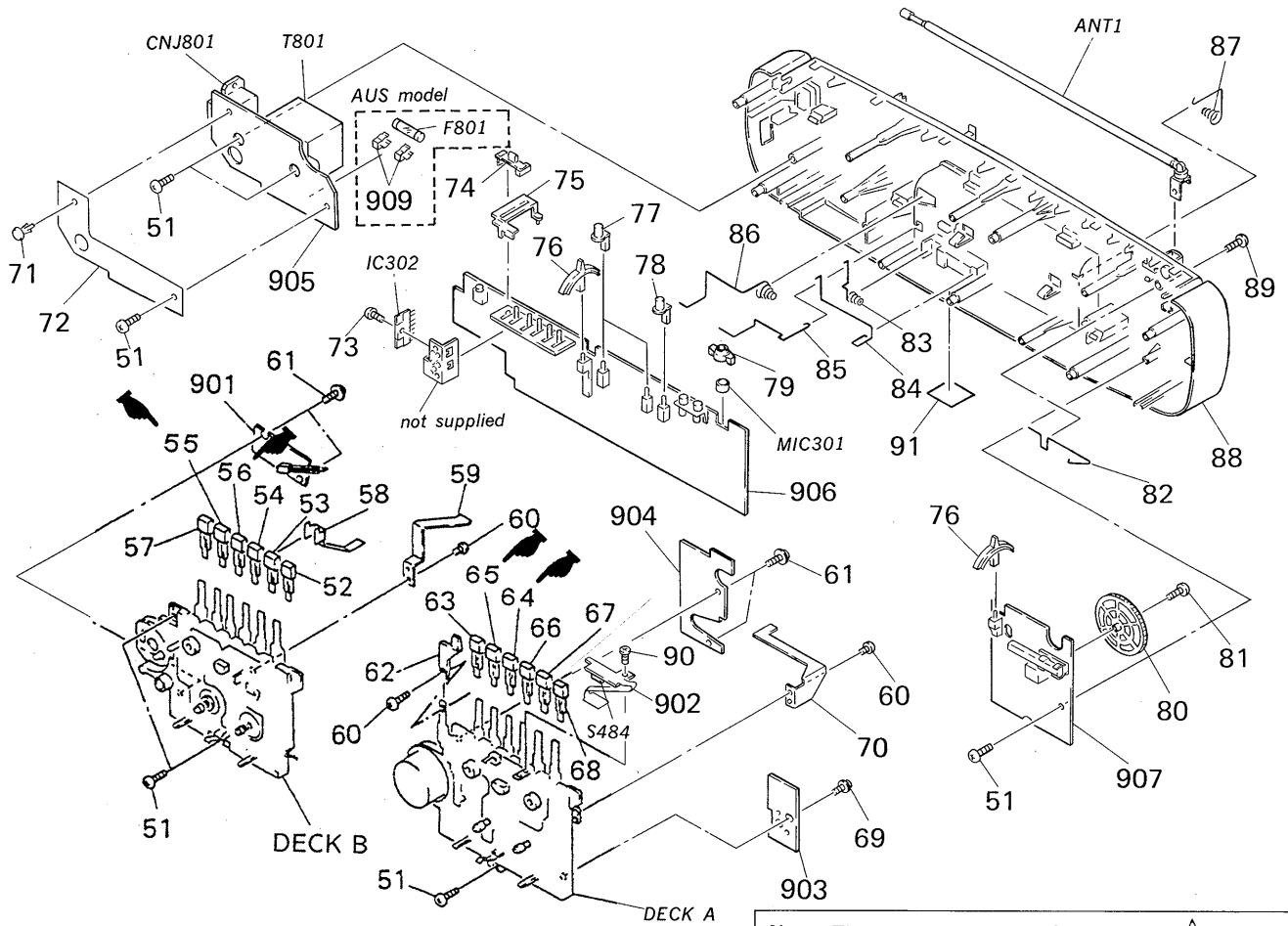


Ref.No	Part No.	Description	Remark
1	3-352-912-11	PLATE, TRANSPARENT	
2	A-3247-367-A	HOLDER (RIGHT) ASSY, CASSETTE	
3	A-3247-363-A	HOLDER (LEFT) ASSY, CASSETTE	
4	A-3242-364-A	CABINET (FRONT) ASSY (B)	
5	3-343-067-01	SPRING (CASSETTE)	
6	3-351-377-11	DAMPER	
7	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
8	3-352-904-11	PANEL (MD BUTTON)	
9	3-352-930-11	PANEL (CONTROL)	
10	3-343-078-01	PLATE, SIDE, HANDLE	
11	3-351-314-31	HANDLE	

Ref.No	Part No.	Description	Remark
12	7-685-247-19	SCREW +KTP 3X10 TYPE2 SLIT	
13	7-685-651-79	SCREW +P 3X20 TYPE2 NON-SLIT	
14	3-343-064-01	LID, BATTERY CASE	
15	3-343-097-01	KNOB (TUNING)	
16	★3-352-901-01	CHASSIS (DIAL)	
17	3-343-084-01	POINTER	
18	3-831-441-XX	CUSHION, SPEAKER	
LCD	1-808-735-41	DISPLAY PANEL, LIQUID CRYSTAL	
SP901	1-544-154-11	SPEAKER	
SP902	1-544-154-11	SPEAKER	

REVISED

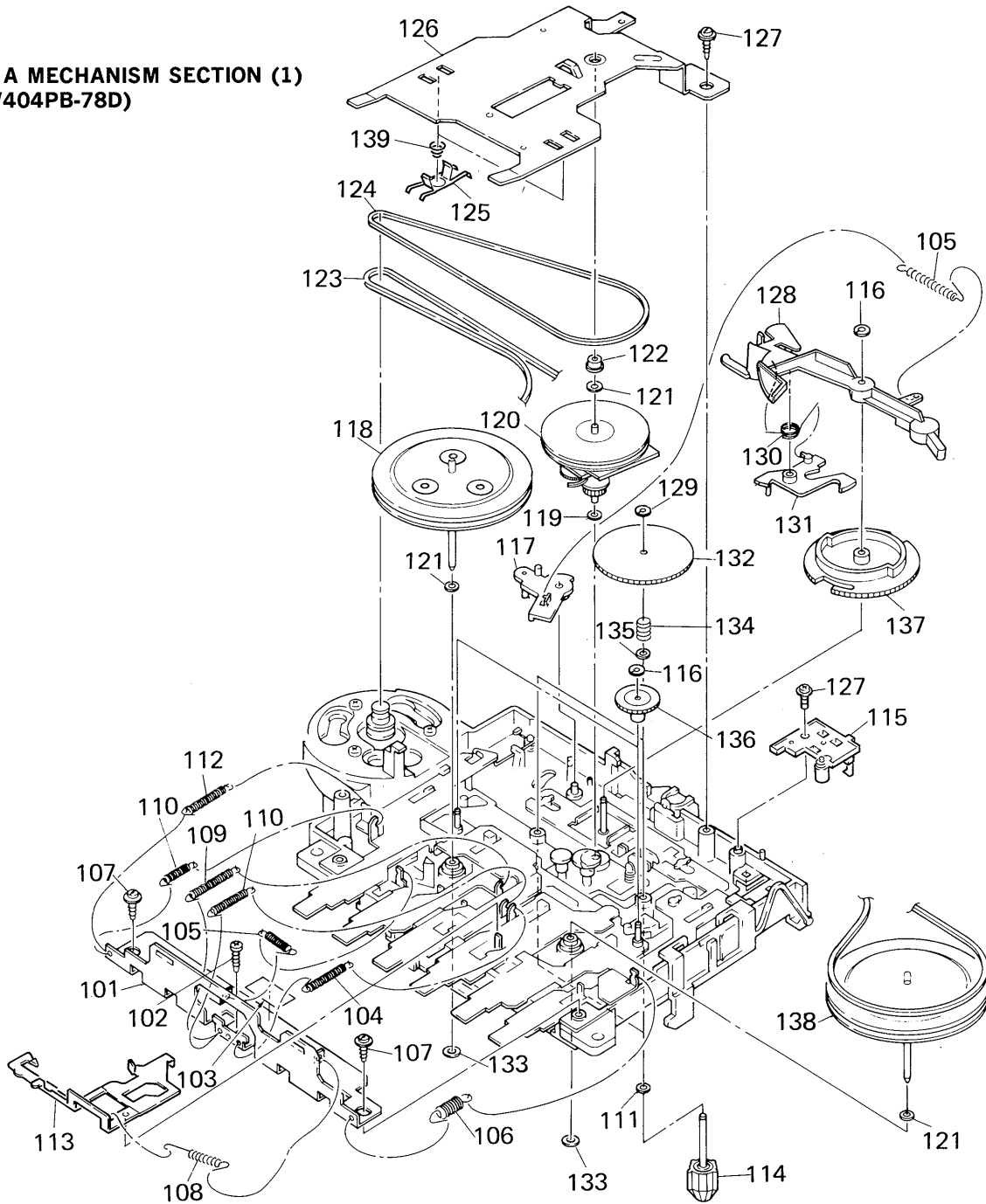
6-2. CABINET (REAR), BOARDS SECTION



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

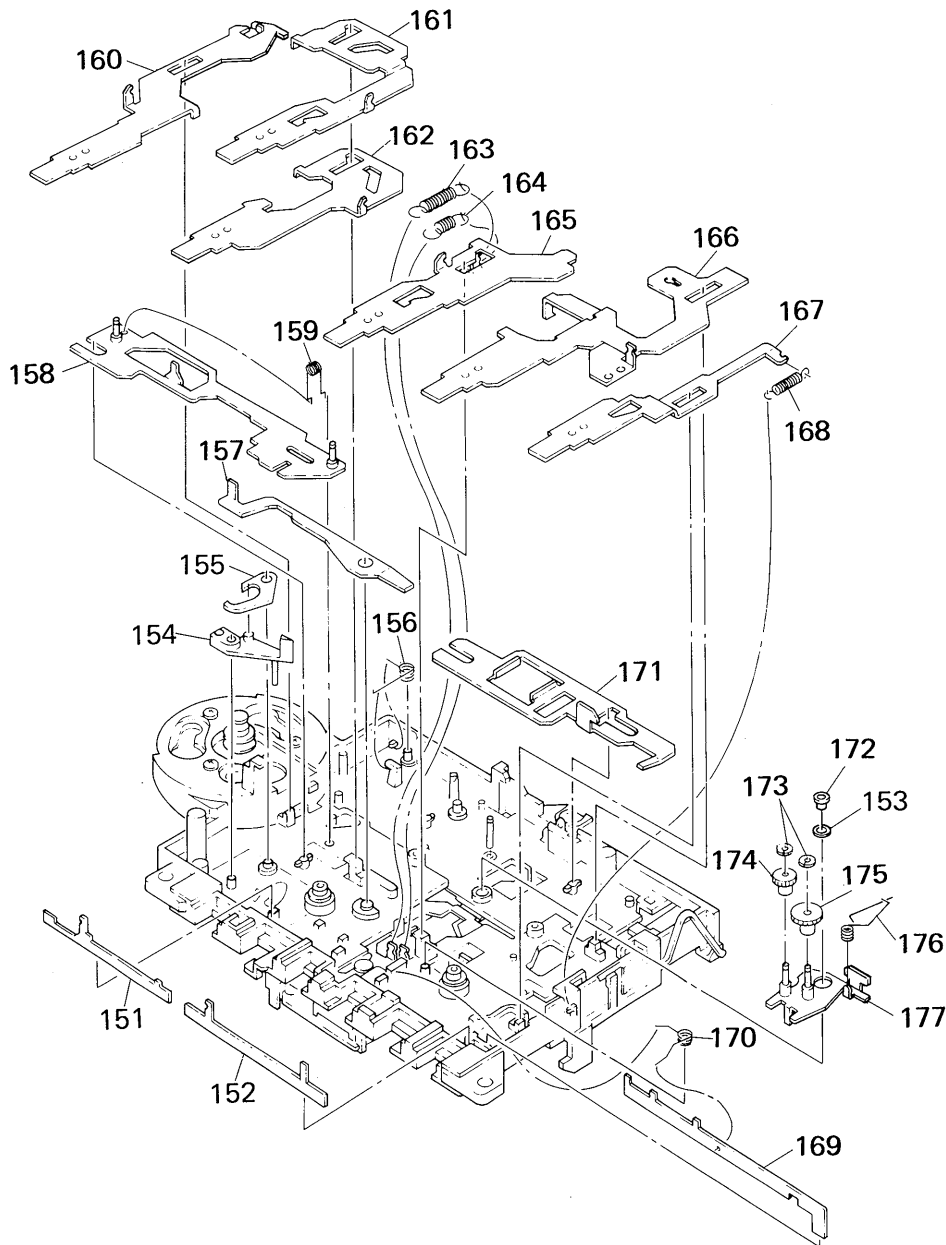
Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
51	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3		83	3-352-927-01	SPRING	
52	3-352-924-01	BUTTON (SE B)		84	3-352-925-01	TERMINAL (SMALL), PLUS	
53	3-352-923-01	BUTTON (REC)		85	3-343-068-01	TERMINAL, PLUS	
54	3-352-922-01	BUTTON (PLAY B)		86	3-343-069-01	SPRING (-)	
55	3-352-921-01	BUTTON (FF B)		87	3-343-070-01	SPRING (+, -)	
56	3-352-920-01	BUTTON (REW B)		88	3-343-066-71	(US)...CABINET (REAR)	
57	3-352-919-01	BUTTON (PAUSE B)		88	3-352-972-71	(E, AUS)...CABINET (REAR)	
58	*3-343-071-01	LEVER (PB)		89	7-682-548-09	SCREW +B 3X8	
59	*3-343-072-01	LEVER (REC)		90	7-627-553-27	SCREW,PRECISION +P 2X2.5	
60	7-621-773-86	SCREW +PTT 2.6X4 (S)		91	*3-354-322-01	(E)...LABEL, MODEL NUMBER	
61	7-687-233-11	SCREW (+ PTPWH) (2.6X6)		91	*3-354-323-01	(AUS)...LABEL, MODEL NUMBER	
62	3-351-306-11	BUTTON (DIR)		901	*1-630-081-11	PC BOARD, SW (B)	
63	3-352-913-01	BUTTON (PAUSE A)		902	1-616-098-11	PC BOARD, HEAD CHANGE SWITCH	
64	3-352-915-01	BUTTON (REW A)		903	*1-629-543-11	PC BOARD, PHOTO	
65	3-352-914-01	BUTTON (FF A)		904	*1-629-542-11	PC BOARD, MD (A) SW	
66	3-352-916-01	BUTTON (PLAY A)		905	*1-630-079-11	PC BOARD, POWER	
67	3-352-917-01	BUTTON (HI SP)		906	*A-3270-629-A	(AUS)...PC BOARD ASSY, MAIN	
68	3-352-918-01	BUTTON (SE A)		906	*A-3270-631-A	(US, E)...MOUNTED PCB, MAIN	
69	7-685-104-19	SCREW (2X6), + PTPWH		907	*A-3266-523-A	PC BOARD ASSY, TUNER	
70	*3-352-928-01	LEVER (HI SP)		909	1-533-217-31	(AUS)...HOLDER, FUSE	
71	4-812-134-00	RIVET NYLON, 3.5		ANT1	1-501-375-11	ANTENNA, TELESCOPIC	
72	*3-343-076-01	SHEET, INSULATING		F801	▲1-532-967-11	(AUS)...FUSE (1.25A)	
73	7-685-870-01	SCREW BVTT 3X5 (S)		IC302	8-759-820-22	IC LA4597	
74	3-352-910-01	KNOB (VOL)		S484	1-570-943-11	SWITCH, SLIDE (HEAD SELECT)	
75	*3-352-911-01	CHASSIS (VOL)		T801	▲1-449-538-11	(AUS)...TRANSFORMER, POWER	
76	3-343-062-01	KNOB (FUNCTION)		T801	▲1-449-540-11	(US, E)...TRANSFORMER, POWER	
77	3-351-312-01	BUTTON (PUSH)		CNJ801	▲1-526-818-11	(US, E)...INLET, AC (~AC IN) (INCLUDING POWER SELECT)	
78	3-351-312-31	BUTTON (PUSH)		CNJ801	▲1-526-838-11	(AUS)...INLET, AC 2P (~AC IN) (INCLUDING POWER SELECT)	
79	3-321-122-01	CUSHION, MICROPHONE		MIC301	8-814-186-00	MICROPHONE, ELECTRET CONDENSER	
80	3-338-505-01	DRUM, TUNING CAPACITOR					
81	7-621-770-87	SCREW P 2.6X5					
82	*3-352-966-01	TERMINAL, ANTENNA					

**6-3. DECK A MECHANISM SECTION (1)
(MF-W404PB-78D)**



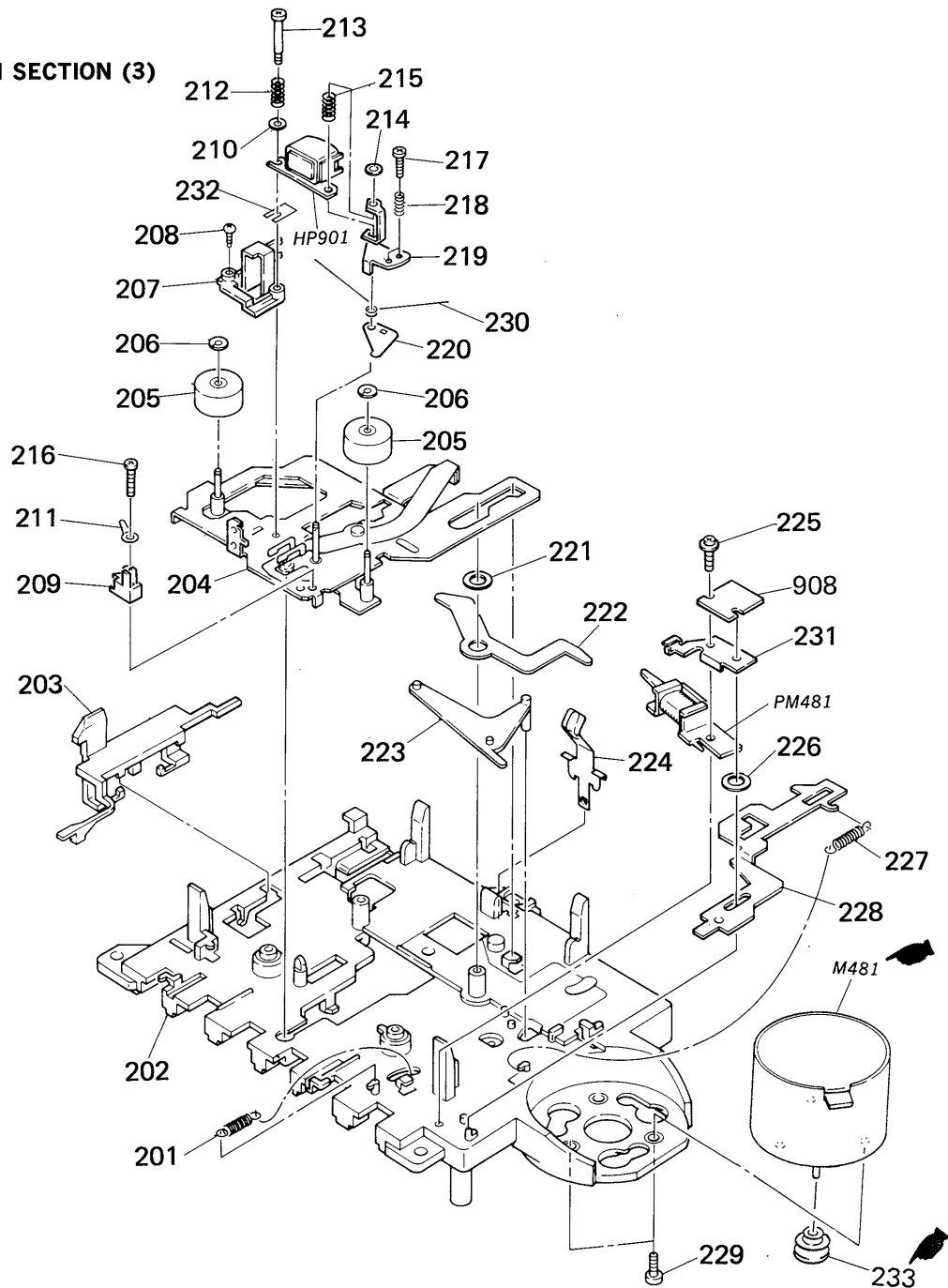
Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
101	*3-322-518-01	RETAINER, LEVER		121	3-701-437-11	WASHER	
102	7-685-105-19	TPG +P 2X8, TYPE 2, NON-SLIT		122	3-322-566-01	BEARING, PULLEY	
103	3-831-441-11	CUSHION (T)		123	3-322-533-01	BELT, CAPSTAN	
104	3-322-526-01	SPRING, TENSION(POWER TENSION)		124	3-322-635-01	BELT, DETECTION	
105	3-322-527-01	SPRING, TENSION		125	3-322-524-01	SPRING	
106	3-322-691-01	SPRING, TENSION		126	*3-322-519-01	RETAINER, THRUST	
107	7-687-233-11	SCREW (+ PTPWH) (2.6X6)		127	7-685-134-19	SCREW (+ PTPWH) (2.6X8)	
108	3-330-605-01	SPRING, TENSION		128	3-330-833-01	LEVER (C), OA	
109	3-328-103-01	SPRING, TENSION		129	3-578-223-21	WASHER, NYLON	
110	3-322-522-01	SPRING, TENSION		130	3-322-534-01	SPRING	
111	3-545-715-00	WASHER		131	3-330-826-01	LEVER (D), OA	
112	3-530-260-00	SPRING, TENSION		132	3-322-508-01	GEAR, REEL	
113	*3-330-606-01	LEVER, SELECTION, S.OFF		133	3-325-698-01	RING, RETAINING	
114	X-3322-502-1	CLAW ASSY, REEL		134	3-321-541-01	SPRING, COMPRESSION	
115	*3-322-665-11	BRACKET, ATS		135	3-322-659-01	WASHER (A)	
116	3-307-948-01	WASHER, NYLON		136	3-322-556-01	GEAR, FR	
117	3-330-827-01	LEVER (B), GEAR LOCK		137	3-322-553-01	GEAR, CAM	
118	X-3330-601-1	FLYWHEEL (NR) ASSY		138	*X-3341-302-1	FLYWHEEL (RV) ASSY	
119	3-701-437-01	WASHER		139	3-322-676-01	SPRING (S), COMPRESSION	
120	X-3322-540-1	DETECTION BLOCK ASSY					

6-4. DECK A MECHANISM SECTION (2)
(MF-W404PB-78D)



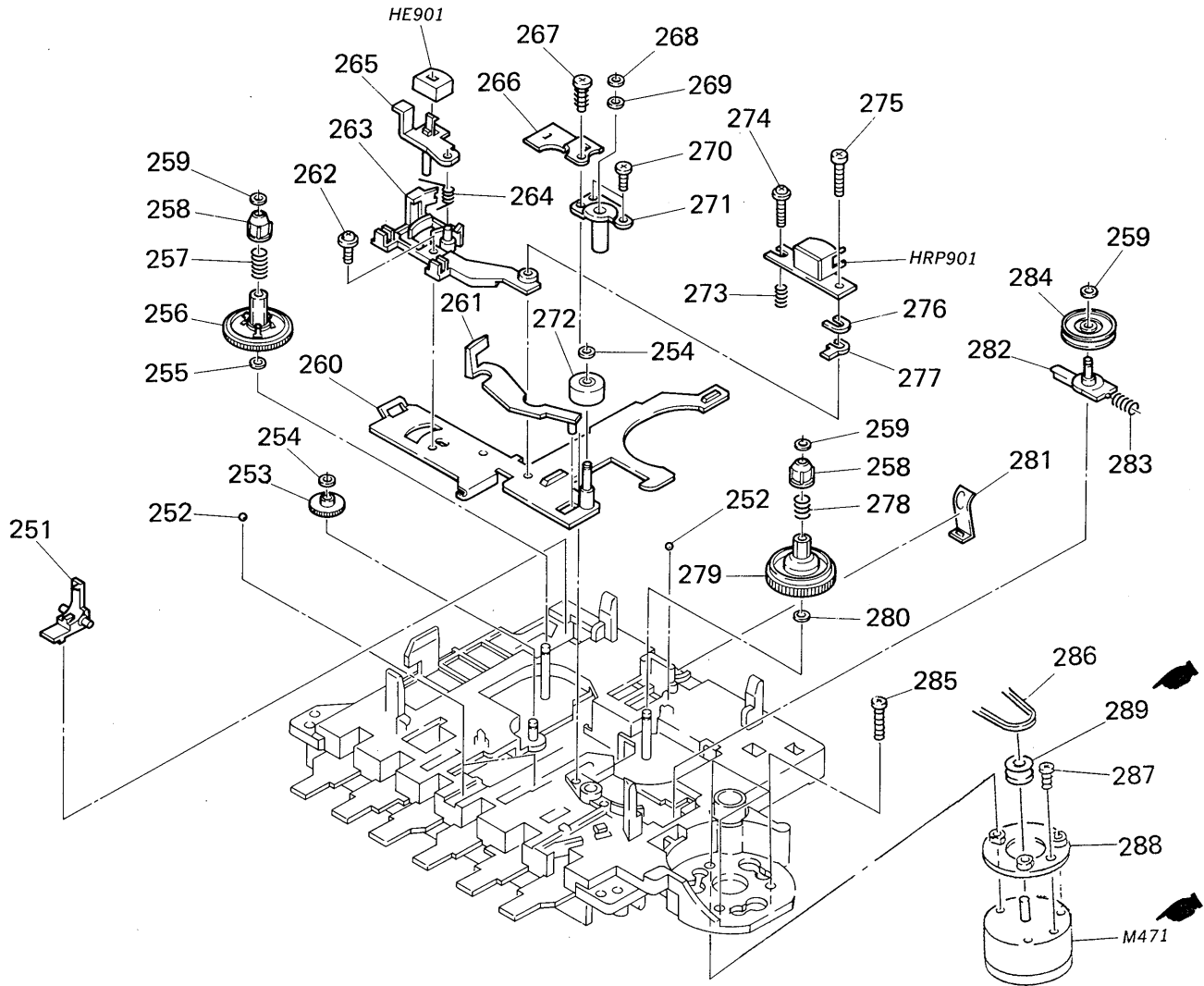
Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
151	*3-322-587-01	PLATE (B), LOCK		165	*3-322-584-11	LEVER, PLAY BUTTON	
152	*3-330-604-01	PLATE (C), LOCK		166	*3-322-591-41	LEVER, REC BUTTON	
153	3-322-689-01	RING		167	*3-322-583-11	LEVER, STOP BUTTON	
154	X-3330-610-1	LEVER (R) ASSY, S.OFF		168	3-322-528-01	SPRING, TENSION	
155	3-322-555-01	LEVER (E), S.OFF		169	*3-322-589-01	LEVER, SWITCH	
156	3-322-577-01	SPRING		170	3-322-579-01	SPRING	
157	*3-322-517-01	LEVER, AMS		171	*3-322-586-01	LEVER, DIRECTION	
158	*X-3322-505-1	LEVER ASSY, FR		172	3-322-513-01	COLLAR	
159	3-322-578-01	SPRING		173	3-570-615-00	POLY-WASHER (DIA.1.2)	
160	*3-330-829-11	LEVER (C), PAUSE BUTTON		174	3-343-145-01	GEAR (B), FWD	
161	3-322-515-11	LEVER, REW BUTTON		175	3-343-146-01	GEAR (A), FWD	
162	*3-322-585-11	LEVER, FF BUTTON		176	3-322-576-01	SPRING	
163	3-322-693-01	SPRING, TENSION		177	*X-3339-320-1	ARM ASSY (M), FWD GEAR	
164	3-322-520-01	SPRING, TENSION					

6-5. DECK A MECHANISM SECTION (3)
(MF-W404PB-78D)



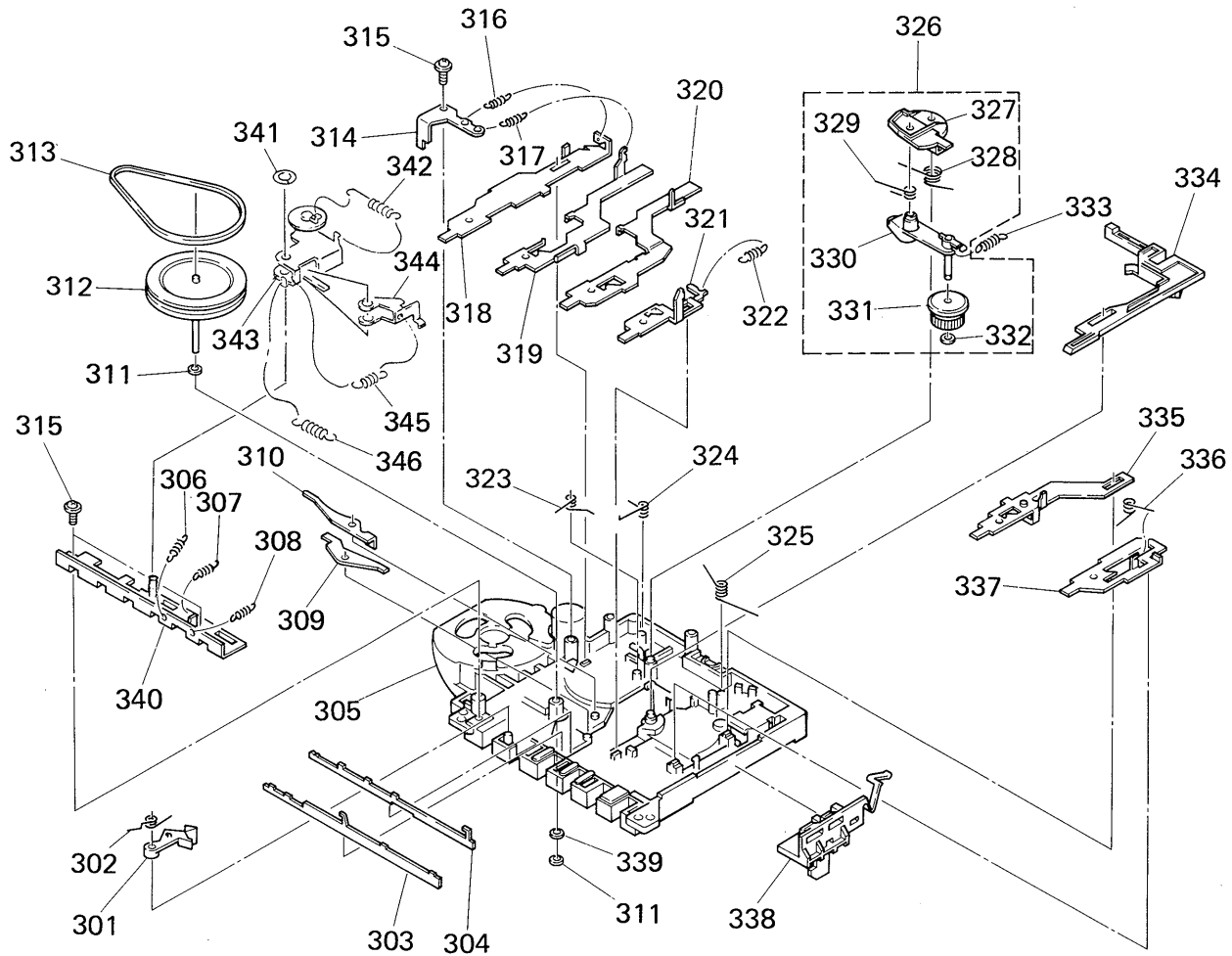
Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
201	3-330-633-01	SPRING, TENSION		220	3-326-622-01	RETAINER, AZIMUTH	
202	A-3102-109-A	CHASSIS ASSY, MECHANICAL		221	3-701-443-11	WASHER	
203	3-322-512-01	LEVER, EJECT		222	*3-322-590-02	LEVER, DIRECTION RELEASE	
204	X-3337-810-1	CHASSIS (R) ASSY, HEAD		223	3-322-514-01	LINK (A)	
205	3-703-597-41	PINCH ROLLER, STANDARD		224	3-322-595-01	SPRING	
206	3-307-948-01	WASHER, NYLON		225	7-685-105-19	SCREW (2X8), + PTPWH	
207	3-326-623-01	BRACKET, HEAD		226	3-701-437-01	WASHER	
208	7-621-772-20	SCREW +B 2X5		227	3-322-528-01	SPRING, TENSION	
209	3-326-625-01	RETAINER, PC BOARD		228	*3-330-601-01	LEVER, MANUAL BUTTON	
210	7-688-001-01	W 2, SMALL		229	7-621-770-87	SCREW +P 2.6X5	
211	7-623-505-01	LUG, 2		230	3-341-164-01	SPRING	
212	3-318-106-01	SPRING (H), COMPRESSION		231	*3-322-704-01	GUIDE, WIRING	
213	3-322-567-11	SCREW, PAN, STEP		232	3-578-138-01	SHIM (T=0.1)	
214	3-570-615-00	POLY-WASHER (DIA. 1.2)		232	3-578-138-11	SHIM (T=0.2)	
215	3-341-163-01	SPRING, COMPRESSION		233	X-3330-616-1	PULLEY (W), MOTOR	
216	7-621-255-65	SCREW +P 2X10		908	*1-602-735-00	PC BOARD, SOLENOID	
217	7-627-851-27	SCREW, PRECISION +P 1.4X5		HP901	1-543-389-41	HEAD, MAGNETIC (REC/PB)	
218	3-322-531-01	SPRING, COMPRESSION		M481	1-541-631-11	MOTOR, DC	
219	*3-341-161-01	LEVER, AZIMUTH		PM481	1-454-355-00	SOLENOID, PLUNGER	

6-6. DECK B MECHANISM SECTION (1)
(MF-W404RP-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-3337-805-1	CHASSIS (T) ASSY, HEAD		278	3-313-345-00	SPRING, COMPRESSION	
261	3-313-316-00	PU		279	A-3130-031-B	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	7-621-775-60	SCREW, PAN	
268	3-307-948-41	WASHER, NYLON		286	3-679-171-00	BELT	
269	3-701-438-11	WASHER, 2.5		287	7-621-773-86	SCREW +P 2.6X4	
270	3-318-203-71	SCREW (B1.7X5), TAPPING		288	3-330-679-01	BRACKET (M), MOTOR	
271	X-3319-945-1	BEARING ASSY, CAPSTAN		289	X-3330-617-1	PULLEY (S), MOTOR	
272	3-703-597-41	PINCH ROLLER, STANDARD		HE901	1-543-525-11	HEAD, MAGNETIC (ERASE)	
273	3-313-340-00	SPRING, COMPRESSION		M471	1-541-631-11	MOTOR, DC	
274	7-621-255-55	SCREW, LOCK		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB)	

6-7. DECK B MECHANISM SECTION (2)
(MF-W404RP-75D)



Ref.No	Part No.	Description	Remark	Ref.No	Part No.	Description	Remark
301	3-313-322-02	LEVER (A), S. OFF		324	3-313-378-01	SPRING (A)	
302	3-313-323-00	SPRING		325	3-313-327-00	SPRING	
303	*3-313-351-16	PLATE (A), LOCK		326	A-3136-041-B	IDLER COMPLETE ASSY. FR	327-332
304	*3-313-352-11	PLATE (B), LOCK		327	3-313-314-00	LEVER (SI), FR	
305	A-3102-092-A	CHASSIS ASSY, MECHANICAL		328	3-313-315-00	SPRING	
306	3-313-369-00	SPRING, TENSION		329	3-313-313-00	SPRING	
307	3-313-343-00	SPRING, TENSION		330	X-3313-304-0	ARM ASSY, REW	
308	3-322-529-01	SPRING, TENSION		331	X-3313-312-1	IDLER ASSY, FR	
309	*3-313-321-00	LEVER, PREVENTION, RFR		332	3-558-708-01	WASHER, STOPPER	
310	*3-313-320-11	LEVER, RCP		333	3-313-365-00	SPRING, TENSION	
311	3-701-438-01	WASHER		334	3-313-356-00	BRAKE	
312	X-3339-321-1	FLYWHEEL (GT) ASSY		335	*3-313-350-00	LEVER, REC BUTTON	
313	3-679-171-00	BELT		336	3-313-331-00	SPRING	
314	*3-332-310-01	HOOK, SPRING		337	*3-313-325-00	LEVER, STOP BUTTON	
315	7-687-233-11	SCREW (+ PTPWH) (2.6X6)		338	3-313-380-01	CLAW (A), EJECT	
316	3-313-349-00	SPRING, TENSION		339	3-701-438-11	WASHER, 2.5	
317	3-313-348-00	SPRING, TENSION		340	*X-3337-804-1	RETAINER ASSY, LEVER	
318	*3-313-381-01	LEVER (B), PAUSE BUTTON		341	3-307-948-21	WASHER, NYLON	
319	*3-313-353-00	LEVER, FF BUTTON		342	3-337-870-01	SPRING, TENSION	
320	*3-313-354-00	LEVER, REW BUTTON		343	X-3337-803-1	ARM ASSY, TS	
321	*3-313-326-00	LEVER, FWD BUTTON		344	*3-338-401-01	ARM, TS LOCK	
322	3-324-222-01	SPRING (HIGH TENSION), TENSION		345	3-489-310-XX	SPRING, TENSION	
323	3-313-338-00	SPRING		346	3-313-372-01	SPRING, TENSION	

SECTION 7 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.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:MF: μ F, PF: μ MF.**RESISTORS**

- All resistors are in ohms.
- F: Nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORSIn each case, U: μ , for example:UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

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

- AUS: Australian model

Ref.No	Part No.	Description	Ref.No	Part No.	Description						
901	*1-630-081-11	PC BOARD, SW (B)	C115	1-162-291-31	CERAMIC	560PF	10%	50V			
902	1-616-098-11	PC BOARD, HEAD CHANGE SWITCH	C116	1-124-499-11	ELECT	1MF	20%	50V			
903	*1-629-543-11	PC BOARD, PHOTO	C117	1-162-292-31	CERAMIC	680PF	10%	50V			
904	*1-629-542-11	PC BOARD, MD (A) SW	C118	1-162-294-31	CERAMIC	0.001MF	10%	50V			
905	*1-630-079-11	PC BOARD, POWER	C150	1-124-925-11	ELECT	2.2MF	20%	50V			
906	*A-3270-629-A	(AUS)...PC BOARD ASSY, MAIN	C151	1-123-875-11	ELECT	10MF	20%	50V			
906	*A-3270-631-A	(US, E)...MOUNTED PCB, MAIN	C152	1-161-375-00	CERAMIC	0.0022MF	30%	16V			
907	*A-3266-523-A	PC BOARD ASSY, TUNER	C153	1-124-446-11	ELECT	47MF	20%	10V			
908	*1-602-735-00	PC BOARD, SOLENOID	C154	1-124-443-00	ELECT	100MF	20%	10V			
909	1-533-217-31	(AUS)...HOLDER, FUSE	C155	1-130-495-00	MYLAR	0.1MF	5%	50V			
ANT1	1-501-375-11	ANTENNA, TELESCOPIC	C156	1-124-471-00	ELECT	1000MF	20%	6.3V			
		CAPACITOR	C202	1-162-291-31	CERAMIC	560PF	10%	50V			
C01	1-162-286-31	CERAMIC	220PF	10%	50V	C203	1-162-291-31	CERAMIC	560PF	10%	50V
C03	1-164-096-11	CERAMIC	0.01MF		50V	C204	1-162-286-31	CERAMIC	220PF	10%	50V
C04	1-123-875-11	ELECT	10MF	20%	50V	C205	1-162-286-31	CERAMIC	220PF	10%	50V
C05	1-164-096-11	CERAMIC	0.01MF		50V	C206	1-124-446-11	ELECT	47MF	20%	10V
C06	1-164-039-11	CERAMIC	3PF	0.25PF	50V	C207	1-162-842-11	CERAMIC	0.018MF	10%	16V
C07	1-164-028-11	CERAMIC	24PF	5%	50V	C208	1-124-499-11	ELECT	1MF	20%	50V
C08	1-102-960-00	CERAMIC	24PF	5%	50V	C210	1-124-499-11	ELECT	1MF	20%	50V
C09	1-102-945-00	CERAMIC	8PF	0.5PF	50V	C211	1-162-293-31	CERAMIC	820PF	10%	50V
C10	1-164-012-11	CERAMIC	3PF	0.25PF	50V	C212	1-124-446-11	ELECT	47MF	20%	10V
C11	1-164-096-11	CERAMIC	0.01MF		50V	C215	1-162-291-31	CERAMIC	560PF	10%	50V
C12	1-162-282-31	CERAMIC	100PF	10%	50V	C216	1-124-499-11	ELECT	1MF	20%	50V
C15	1-124-927-11	ELECT	4.7MF	20%	50V	C217	1-162-292-31	CERAMIC	680PF	10%	50V
C16	1-124-499-11	ELECT	1MF	20%	50V	C218	1-162-294-31	CERAMIC	0.001MF	10%	50V
C17	1-124-446-11	ELECT	47MF	20%	10V	C250	1-124-925-11	ELECT	2.2MF	20%	50V
C18	1-124-446-11	ELECT	47MF	20%	10V	C251	1-123-875-11	ELECT	10MF	20%	50V
C19	1-164-096-11	CERAMIC	0.01MF		50V	C252	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C20	1-124-499-11	ELECT	1MF	20%	50V	C253	1-124-446-11	ELECT	47MF	20%	10V
C21	1-124-925-11	ELECT	2.2MF	20%	50V	C254	1-124-443-00	ELECT	100MF	20%	10V
C22	1-124-443-00	ELECT	100MF	20%	10V	C255	1-130-495-00	MYLAR	0.1MF	5%	50V
C23	1-124-902-00	ELECT	0.47MF	20%	50V	C256	1-124-471-00	ELECT	1000MF	20%	6.3V
C24	1-124-927-11	ELECT	4.7MF	20%	50V	C301	1-126-233-11	ELECT	22MF	20%	25V
C25	1-124-463-00	ELECT	0.1MF	20%	50V	C302	1-124-446-11	ELECT	47MF	20%	10V
C27	1-161-053-00	CERAMIC	0.015MF	10%	16V	C303	1-124-443-00	ELECT	100MF	20%	10V
C28	1-161-053-00	CERAMIC	0.015MF	10%	16V	C305	1-162-847-11	CERAMIC	0.047MF	10%	16V
C29	1-124-463-00	ELECT	0.1MF	20%	50V	C306	1-124-443-00	ELECT	100MF	20%	10V
C30	1-124-463-00	ELECT	0.1MF	20%	50V	C307	1-124-927-11	ELECT	4.7MF	20%	50V
C31	1-162-282-31	CERAMIC	100PF	10%	50V	C308	1-124-963-11	ELECT	33MF	20%	16V
C32	1-162-282-31	CERAMIC	100PF	10%	50V	C309	1-124-902-00	ELECT	0.47MF	20%	50V
C33	1-162-187-31	CERAMIC	1PF	20%	50V	C310	1-161-494-00	CERAMIC	0.022MF		25V
C34	1-162-282-31	CERAMIC	100PF	10%	50V	C313	1-130-471-00	MYLAR	0.001MF	5%	50V
C35	1-162-282-31	CERAMIC	100PF	10%	50V	C315	1-124-446-11	ELECT	47MF	20%	10V
C102	1-162-291-31	CERAMIC	560PF	10%	50V	C316	1-161-379-00	CERAMIC	0.01MF	30%	16V
C103	1-162-291-31	CERAMIC	560PF	10%	50V	C317	1-161-327-00	CERAMIC	0.0033MF	20%	16V
C104	1-162-286-31	CERAMIC	220PF	10%	50V	C318	1-126-176-11	ELECT	220MF	20%	10V
C105	1-162-286-31	CERAMIC	220PF	10%	50V	C319	1-161-494-00	CERAMIC	0.022MF		25V
C106	1-124-446-11	ELECT	47MF	20%	10V	C320	1-161-494-00	CERAMIC	0.022MF		25V
C107	1-162-842-11	CERAMIC	0.018MF	10%	16V	C321	1-161-494-00	CERAMIC	0.022MF		25V
C108	1-124-499-11	ELECT	1MF	20%	50V	C324	1-124-499-11	ELECT	1MF	20%	50V
C110	1-124-499-11	ELECT	1MF	20%	50V	C325	1-161-494-00	CERAMIC	0.022MF		25V
C111	1-162-293-31	CERAMIC	820PF	10%	50V	C327	1-124-499-11	ELECT	1MF	20%	50V
C112	1-124-446-11	ELECT	47MF	20%	10V	C330	1-124-902-00	ELECT	0.47MF	20%	50V
						C331	1-161-377-00	CERAMIC	0.0047MF	30%	16V
						C332	1-124-499-11	ELECT	1MF	20%	50V

REVISED

Ref.No	Part No.	Description				Ref.No	Part No.	Description
C333	1-126-233-11	ELECT	22MF	20%	25V	D483	8-719-911-19	DIODE 1SS119
C334	1-126-233-11	ELECT	22MF	20%	25V	D484	8-719-911-19	DIODE 1SS119
C339	1-124-499-11	ELECT	1MF	20%	50V	D485	8-719-911-19	DIODE 1SS119
C340	1-126-233-11	ELECT	22MF	20%	25V	D486	8-719-911-19	DIODE 1SS119
C341	1-124-463-00	ELECT	0.1MF	20%	50V	D487	8-719-911-19	DIODE 1SS119
C342	1-101-005-00	CERAMIC	0.022MF		50V	D488	8-719-911-19	DIODE 1SS119
C344	1-124-927-11	ELECT	4.7MF	20%	50V	D801	8-719-200-02	DIODE 10E2
C345	1-124-446-11	ELECT	47MF	20%	10V	D802	8-719-200-02	DIODE 10E2
C346	1-124-446-11	ELECT	47MF	20%	10V	D803	8-719-200-02	DIODE 10E2
C348	1-123-875-11	ELECT	10MF	20%	50V	D804	8-719-200-02	DIODE 10E2
C349	1-124-499-11	ELECT	1MF	20%	50V	F801	△ 1-532-967-11	(AUS)...FUSE (1.25A)
C350	1-124-499-11	ELECT	1MF	20%	50V	FL1	1-236-022-11	FILTER, BAND PASS
C351	1-124-120-11	ELECT	220MF	20%	16V	HE901	1-543-525-11	HEAD, MAGNETIC (ERASE)
C352	1-124-477-11	ELECT	47MF	20%	16V	HP901	1-543-389-41	HEAD, MAGNETIC (REC/PB)
C361	1-124-925-11	ELECT	2.2MF	20%	50V	HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB)
C362	1-124-927-11	ELECT	4.7MF	20%	50V	IC1	8-752-035-68	IC CXA1238S
C481	1-124-927-11	ELECT	4.7MF	20%	50V	IC301	8-759-231-77	IC TA8149N
C482	1-124-499-11	ELECT	1MF	20%	50V	IC302	8-759-820-22	IC LA4597
C483	1-124-499-11	ELECT	1MF	20%	50V	IC303	8-759-905-47	IC BA338
C484	1-161-021-11	CERAMIC	0.047MF	10%	25V	IC304	8-752-036-78	IC CXA1351S
C485	1-126-233-11	ELECT	22MF	20%	25V	J301	1-568-267-11	JACK (HEADPHONES)
C501	1-126-162-11	ELECT	3.3MF	20%	35V	J304	1-563-716-11	JACK, PIN (CD/LINE IN)
C801	1-101-005-00	CERAMIC	0.022MF		50V	KH101	*1-565-386-11	HOLDER, CABLE 5P
C802	1-101-005-00	CERAMIC	0.022MF		50V	KH471	*1-565-384-11	HOLDER, CABLE 3P
C803	1-101-005-00	CERAMIC	0.022MF		50V	KH481	*1-565-385-11	HOLDER, CABLE 4P
C804	1-101-005-00	CERAMIC	0.022MF		50V	L1	*1-420-855-00	CAIL, FM ANT
C805	1-124-887-00	ELECT	3300MF	20%	16V	L2	1-459-815-11	COIL (WITH CORE)
C806	1-162-294-31	CERAMIC	0.001MF	10%	50V	L3	1-402-416-11	ANTENNA, FERRITE-ROD (AM)
CF1	1-567-166-00	FILTER, CERAMIC 10.7MHz				L4	1-406-040-00	COIL (OSC)
CF2	1-527-870-00	FILTER 455KHz				LCD	1-808-735-41	DISPLAY PANEL, LIQUID CRYSTAL
CF3	1-567-166-00	FILTER, CERAMIC 10.7MHz				M471	1-541-631-11	MOTOR, DC
CNJ20	*1-563-307-11	CONNECTOR (SOCKET) 2P				M481	1-541-631-11	MOTOR, DC
CNJ801	△ 1-526-818-11	(US, E)...INLET (AC IN) (INCLUDING POWER SELECT)				MIC301	8-814-186-00	MICROPHONE, ELECTRET CONDENSER
CNJ801	△ 1-526-838-11	(AUS)...INLET, AC 2P (AC IN) (INCLUDING POWER SELECT)				PH1	8-719-913-55	DIODE GP-2S04-B
CNP1	*1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P				PM481	1-454-355-00	SOLENOID, PLUNGER
CNP2	*1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P				Q102	8-729-900-74	TRANSISTOR DTC143TS
CNP3	*1-506-992-11	PIN, CONNECTOR (PC BOARD) 10P				Q202	8-729-900-74	TRANSISTOR DTC143TS
CNP4	*1-506-989-11	PIN, CONNECTOR (PC BOARD) 7P				Q301	8-729-904-36	TRANSISTOR DTC114YS
CNP5	*1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P				Q302	8-729-281-53	TRANSISTOR 2SC1815-GR
CNP9	*1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P				Q303	8-729-904-36	TRANSISTOR DTC114YS
CNP19	*1-560-530-00	PIN, CONNECTOR 2P				Q304	8-729-904-36	TRANSISTOR DTC114YS
CNP21	*1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P				Q307	8-729-904-36	TRANSISTOR DTC114YS
CNP801	*1-568-259-11	PIN, CONNECTOR (PC BOARD) 2P				Q308	8-729-904-36	TRANSISTOR DTC114YS
CT1-4	} 1-151-624-11	CAP, VARIABLE (TUNING)				Q309	8-729-115-30	TRANSISTOR 2SK105A-30
CV1-4						Q310	8-729-115-30	TRANSISTOR 2SK105A-30
D11	1-807-738-11	DIODE SLR-34VR70F130				Q311	1-808-454-21	TRANSISTOR 2SD467
D303	8-719-911-19	DIODE 1SS119				Q312	8-729-195-23	TRANSISTOR 2SA952
D305	8-719-911-19	DIODE 1SS119				Q313	8-729-900-80	TRANSISTOR DTA114ES
D306	8-719-110-08	DIODE RD8.2ES-B2				Q314	8-729-904-36	TRANSISTOR DTC114YS
D307	8-719-911-19	DIODE 1SS119				Q316	8-729-119-78	TRANSISTOR 2SC2785-HFE
D311	8-719-109-97	DIODE RD6.8ES-B2				Q317	8-729-900-74	TRANSISTOR DTC143TS
D312	1-807-738-11	(AUS)...DIODE SLR-34VR70F130				Q320	8-729-900-74	TRANSISTOR DTC143TS
D314	8-719-911-19	DIODE 1SS119				Q321	8-729-902-80	TRANSISTOR DTA114YS
D315	8-719-911-19	DIODE 1SS119				Q322	8-729-904-36	TRANSISTOR DTC114YS
D316	8-719-911-19	DIODE 1SS119				Q323	8-729-904-36	TRANSISTOR DTC114YS
D319	8-719-911-19	DIODE 1SS119				Q324	8-729-808-76	TRANSISTOR 2SD1913SA
D321	8-719-911-19	DIODE 1SS119				Q325	8-729-195-23	TRANSISTOR 2SA952
D324	8-719-911-19	DIODE 1SS119				Q481	8-729-119-76	TRANSISTOR 2SA1175-HFE
D325	8-719-911-19	DIODE 1SS119						
D326	8-719-911-19	DIODE 1SS119						
D481	1-807-738-11	DIODE SLR-34VR70F130						
D482	1-807-738-11	DIODE SLR-34VR70F130						

Note: 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				
Q482	8-729-900-61	TRANSISTOR DTA114ES				
Q483	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q484	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q485	1-808-454-21	TRANSISTOR 2SD467				
Q486	8-729-900-80	TRANSISTOR DTC114ES				
Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE				
RESISTOR						
R01	1-249-413-11	CARBON	470	5%	1/4W	
R02	1-249-405-11	CARBON	100	5%	1/4W	
R03	1-249-421-11	CARBON	2.2K	5%	1/4W	
R05	1-249-423-11	CARBON	3.3K	5%	1/4W	
R06	1-249-441-11	CARBON	100K	5%	1/4W	
R07	1-249-415-11	CARBON	680	5%	1/4W	
R09	1-249-441-11	CARBON	100K	5%	1/4W	
R10	1-249-407-11	CARBON	150	5%	1/4W	
R11	1-249-427-11	CARBON	6.8K	5%	1/4W	
R12	1-249-427-11	CARBON	6.8K	5%	1/4W	
R13	1-249-405-11	CARBON	100	5%	1/4W	
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	
R19	1-249-416-11	CARBON	820	5%	1/4W	
R20	1-249-423-11	CARBON	3.3K	5%	1/4W	
R21	1-249-411-11	CARBON	330	5%	1/4W	
R103	1-215-473-00	METAL	150K	1%	1/6W	
R104	1-249-405-11	CARBON	100	5%	1/4W	
R105	1-247-885-00	CARBON	180K	5%	1/4W	
R106	1-249-427-11	CARBON	6.8K	5%	1/4W	
R107	1-249-427-11	CARBON	6.8K	5%	1/4W	
R108	1-249-429-11	CARBON	10K	5%	1/4W	
R109	1-249-426-11	CARBON	5.6K	5%	1/4W	
R110	1-249-417-11	CARBON	1K	5%	1/4W	
R111	1-249-417-11	CARBON	1K	5%	1/4W	
R112	1-249-437-11	CARBON	47K	5%	1/4W	
R113	1-249-419-11	CARBON	1.5K	5%	1/4W	
R114	1-249-421-11	CARBON	2.2K	5%	1/4W	
R115	1-249-407-11	CARBON	150	5%	1/4W	
R116	1-247-885-00	CARBON	180K	5%	1/4W	
R117	1-249-433-11	CARBON	22K	5%	1/4W	
R121	1-215-442-00	METAL	7.5K	1%	1/6W	
R122	1-249-426-11	CARBON	5.6K	5%	1/4W	
R123	1-249-437-11	CARBON	47K	5%	1/4W	
R124	1-249-426-11	CARBON	5.6K	5%	1/4W	
R125	1-249-426-11	CARBON	5.6K	5%	1/4W	
R126	1-249-426-11	CARBON	5.6K	5%	1/4W	
R151	1-249-429-11	CARBON	10K	5%	1/4W	
R152	1-249-405-11	CARBON	100	5%	1/4W	
R154	1-249-403-11	CARBON	68	5%	1/4W	
R156	1-249-421-11	CARBON	2.2K	5%	1/4W	
R203	1-215-473-00	METAL	150K	1%	1/6W	
R204	1-249-405-11	CARBON	100	5%	1/4W	
R205	1-247-885-00	CARBON	180K	5%	1/4W	
R206	1-249-427-11	CARBON	6.8K	5%	1/4W	
R207	1-249-427-11	CARBON	6.8K	5%	1/4W	
R208	1-249-429-11	CARBON	10K	5%	1/4W	
R209	1-249-426-11	CARBON	5.6K	5%	1/4W	
R210	1-249-417-11	CARBON	1K	5%	1/4W	
R211	1-249-417-11	CARBON	1K	5%	1/4W	
R212	1-249-437-11	CARBON	47K	5%	1/4W	
R213	1-249-419-11	CARBON	1.5K	5%	1/4W	
R214	1-249-421-11	CARBON	2.2K	5%	1/4W	
R215	1-249-407-11	CARBON	150	5%	1/4W	
R216	1-247-885-00	CARBON	180K	5%	1/4W	

Ref.No	Part No.	Description				
R217	1-249-433-11	CARBON	22K	5%	1/4W	
R221	1-215-442-00	METAL	7.5K	1%	1/6W	
R222	1-249-426-11	CARBON	5.6K	5%	1/4W	
R223	1-249-437-11	CARBON	47K	5%	1/4W	
R224	1-249-426-11	CARBON	5.6K	5%	1/4W	
R225	1-249-426-11	CARBON	5.6K	5%	1/4W	
R226	1-249-426-11	CARBON	5.6K	5%	1/4W	
R251	1-249-429-11	CARBON	10K	5%	1/4W	
R252	1-249-405-11	CARBON	100	5%	1/4W	
R254	1-249-403-11	CARBON	68	5%	1/4W	
R256	1-249-421-11	CARBON	2.2K	5%	1/4W	
R301	1-249-429-11	CARBON	10K	5%	1/4W	
R302	1-249-421-11	CARBON	2.2K	5%	1/4W	
R303	1-249-429-11	CARBON	10K	5%	1/4W	
R304	1-249-434-11	CARBON	27K	5%	1/4W	
R305	1-249-429-11	CARBON	10K	5%	1/4W	
R306	1-249-422-11	CARBON	2.7K	5%	1/4W	
R307	1-215-481-00	METAL	330K	1%	1/6W	
R309	1-247-903-00	CARBON	1M	5%	1/4W	
R310	1-249-429-11	CARBON	10K	5%	1/4W	
R311	1-249-429-11	CARBON	10K	5%	1/4W	
R313	1-249-427-11	CARBON	6.8K	5%	1/4W	
R314	1-249-409-11	CARBON	220	5%	1/4W	
R315	1-249-402-11	CARBON	56	5%	1/4W	
R316	1-249-390-11	CARBON	5.6	5%	1/4W	
R317	△ 1-212-849-00	(AUS)...FUSE	4.7	5%	1/4W	F
R318	1-249-411-11	CARBON	330	5%	1/4W	
R319	1-249-405-11	CARBON	100	5%	1/4W	
R320	1-249-415-11	(AUS)... CARBON	680	5%	1/4W	
R321	1-247-816-11	CARBON	240	5%	1/4W	
R323	1-249-441-11	CARBON	100K	5%	1/4W	
R324	1-249-425-11	CARBON	4.7K	5%	1/4W	
R325	1-249-441-11	CARBON	100K	5%	1/4W	
R326	1-249-426-11	CARBON	5.6K	5%	1/4W	
R327	1-215-481-00	METAL	330K	1%	1/6W	
R329	1-249-441-11	CARBON	100K	5%	1/4W	
R330	1-249-426-11	CARBON	5.6K	5%	1/4W	
R332	1-249-426-11	CARBON	5.6K	5%	1/4W	
R335	1-249-437-11	CARBON	47K	5%	1/4W	
R337	1-247-804-11	CARBON	75	5%	1/4W	
R338	1-249-421-11	CARBON	2.2K	5%	1/4W	
R339	1-249-407-11	CARBON	150	5%	1/4W	
R340	1-249-413-11	CARBON	470	5%	1/4W	
R341	1-247-804-11	CARBON	75	5%	1/4W	
R343	1-249-433-11	CARBON	22K	5%	1/4W	
R344	1-249-421-11	CARBON	2.2K	5%	1/4W	
R345	1-249-417-11	CARBON	1K	5%	1/4W	
R346	1-249-402-11	CARBON	56	5%	1/4W	
R347	1-215-480-00	METAL	300K	1%	1/6W	
R351	1-249-426-11	CARBON	5.6K	5%	1/4W	
R352	1-249-421-11	CARBON	2.2K	5%	1/4W	
R354	1-249-429-11	CARBON	10K	5%	1/4W	
R361	1-249-421-11	CARBON	2.2K	5%	1/4W	
R362	1-249-411-11	CARBON	330	5%	1/4W	
R363	1-249-417-11	CARBON	1K	5%	1/4W	
R373	△ 1-217-638-00	(AUS)...FUSE	1.5	5%	1/4W	F
R374	1-249-387-11	(US,E)... CARBON	3.3	5%	1/4W	
R380	△ 1-217-640-11	(AUS)...FUSE	3.3	5%	1/4W	F
R383	1-249-423-11	CARBON	3.3K	5%	1/4W	
R384	1-249-423-11	CARBON	3.3K	5%	1/4W	
R386	1-249-409-11	CARBON	220	5%	1/4W	
R481	1-249-425-11	CARBON	4.7K	5%	1/4W	
R482	1-247-887-00	CARBON	220K	5%	1/4W	
R483	1-249-415-11	CARBON	680	5%	1/4W	

Note: 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			
R484	1-249-414-11	CARBON	560	5%	1/4W
R485	1-247-816-11	CARBON	240	5%	1/4W
R486	1-247-816-11	CARBON	240	5%	1/4W
R487	1-249-435-11	CARBON	33K	5%	1/4W
R488	1-249-405-11	CARBON	100	5%	1/4W
R489	1-249-429-11	CARBON	10K	5%	1/4W
R490	1-249-429-11	CARBON	10K	5%	1/4W
R491	1-249-429-11	CARBON	10K	5%	1/4W
R492	1-249-414-11	CARBON	560	5%	1/4W
R501	1-249-433-11	CARBON	22K	5%	1/4W
R501A	1-247-885-00	CARBON	180K	5%	1/4W
R502	1-249-414-11	CARBON	560	5%	1/4W
R502A	1-249-421-11	CARBON	2.2K	5%	1/4W
R503	1-249-423-11	CARBON	3.3K	5%	1/4W
RV1	1-228-995-00	RES, ADJ, CARBON 22K			
RV301	1-230-718-11	RES, ADJ, CARBON 1K			
RV302	1-230-719-11	RES, ADJ, CARBON 2K			
RV303	1-230-719-11	RES, ADJ, CARBON 2K			
RV304	1-230-720-11	RES, ADJ, CARBON 5K			
RVB401	1-238-533-11	RES, VAR, SLIDE 50KX6 (100Hz, 400Hz, 1KHz, 4KHz, 10KHz, VOLUME) (INCLUDING RV501-506)			
S1	1-570-729-11	SWITCH, LEVER SLIDE (BAND)			
S301	1-571-876-11	SWITCH, SLIDE (PB/REC)			
S303	1-571-043-11	SWITCH, PUSH (1 KEY) (REC/MUTE)			
S304	1-571-472-11	SWITCH, SLIDE (HIGH SPEED DUBBING)			
S306	1-571-832-11	SWITCH, PUSH (1 KEY) (DIRECTION MODE)			
S351	1-571-834-11	SWITCH, LEVER SLIDE (FUNCTION)			
S352	1-571-042-11	SWITCH, PUSH (1 KEY) (TIMER/SLEEP)			
S353	1-571-831-11	SWITCH, PUSH (1 KEY) (MD (B) FWD)			
S471	1-554-495-00	SWITCH, LEAF (MD (B) POWER SUPPLY)			
S481	1-570-441-11	SWITCH, LEAF (MD (A) POWER SUPPLY)			
S482	1-570-012-11	SWITCH, LEAF (FF/REW)			
S483	1-552-864-00	SWITCH, LEAF (DIRECTION)			
S484	1-570-943-11	SWITCH, SLIDE (HEAD SELECT)			
SP901	1-544-154-11	SPEAKER			
SP902	1-544-154-11	SPEAKER			
T1	1-404-355-00	TRANSFORMER, IF			
T301	1-433-346-11	TRANSFORMER, BIAS OSCILLATION			
T801	△ 1-449-540-11	(US, E)....TRANSFORMER, POWER			
T801	△ 1-449-538-11	(AUS)....TRANSFORMER, POWER			

Part No.	Description
ACCESSORY & PACKING MATERIAL	

△ 1-555-074-00	(AUS)....CORD, POWER
△ 1-559-047-11	(US, E)....CORD, POWER
3-339-382-01	SHEET, PROTECTION
*3-352-938-01	CUSHION (LEFT) (RIGHT)
*3-352-946-01	INDIVIDUAL CARTON
3-750-180-21	MANUAL, INSTRUCTION (ENGLISH)

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