

TC-K461S

SERVICE MANUAL

US Model
AEP Model
UK Model
Australian Model



* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen.

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Model Name Using Similar Mechanism	TC-K370/RX370
Tape Transport Mechanism Type	TCM-190VB12CS

SPECIFICATIONS

Recording system 4-track 2-channel stereo
Fast winding time Approx. 90 sec. (with Sony C-60 cassette)
Bias AC bias
Heads Erasing head \times 1 (F&F head)
Playback/Recording head \times 1 (SD head)
Motors Capstan motor \times 1 (DC servo motor)
Reel motor \times 1 (DC motor)

Signal-to-noise ratio (at peak level and weighted)

Cassette (Dolby NR off)	Type IV	Type II	Type I
	58 dB	57 dB	55 dB

S/N ratio improvement (approximate values)

With Dolby B NR on: 5 dB at 1 kHz; 10 dB at 5 kHz
With Dolby C NR on: 15 dB at 500 Hz; 20 dB at 1 kHz
With Dolby S NR on: 10 dB at 100 Hz; 24 dB at 1 kHz (TC-K461S only)

Harmonic distortion 0.4% (with Type I, 160 nWb/m, 315 Hz, 3rd H.D.)
1.8% (with Type IV, 250 nWb/m, 315 Hz, 3rd H.D.)

Frequency response (Dolby NR off)

Type IV cassette	30 - 15,000 Hz (\pm 3 dB, IEC) 30 - 13,000 Hz [\pm 3 dB (-4 dB recording)]
Type II cassette	30 - 15,000 Hz (\pm 3 dB, IEC)
Type I cassette	30 - 14,000 Hz (\pm 3 dB, IEC)

Type IV : Sony Type IV (METAL)
Type II : Sony Type II (HIGH)
Type I : Sony Type I (NORMAL)

Wow and flutter \pm 0.13% W.Peak (IEC)
0.07% W.RMS (NAB)
 \pm 0.18% W.Peak (DIN)

Inputs

Line inputs (phono jacks)	Sensitivity	0.16 V
	Input impedance	47 k ohms

Outputs

Line outputs (phono jacks)	Rated output level	0.5 V at a load impedance of 47 k ohms
	Load impedance	Over 10 k ohms
Headphones (stereo phone jack)	Output level	1 mW at a load impedance of 32 ohms

General

Power requirements

US model :
120 V AC, 60 Hz
AEP, German model :
220 - 230 V AC, 50/60 Hz
UK, Australian model :
240 V AC, 50/60 Hz

Power consumption

20W

Dimensions

Approx. 430 \times 123 \times 310 mm (w/h/d)
including projecting parts and controls
Approx. 3.7 kg

Mass

Supplied accessories

Audio connecting cords (2)

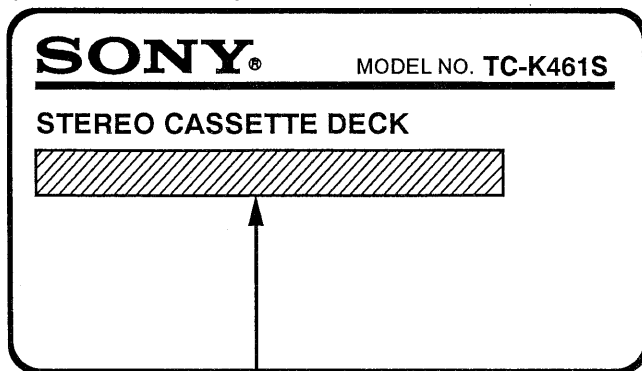
Design and specifications are subject to change without notice.

STEREO CASSETTE DECK
SONY[®]

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MODEL IDENTIFICATION (Specification Label)



US model : AC 120V~60Hz 20W
 AEP, German model : AC 220-230V ~50/60Hz 20W
 UK, Australian model : AC 240V~50/60Hz 20W

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.

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)

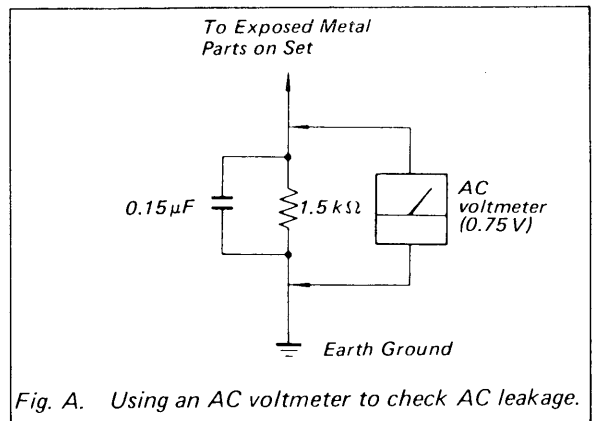
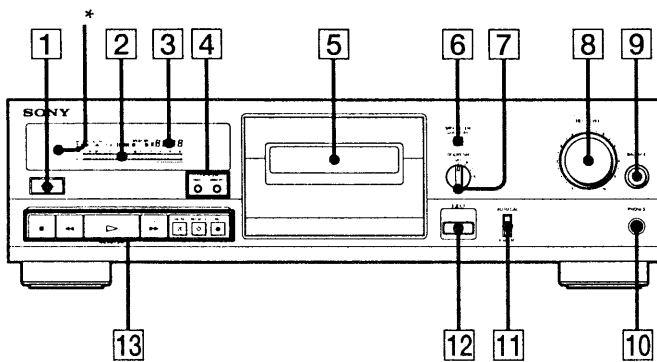


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1 GENERAL

This section is extracted from
instruction manual.



Identifying the Parts on the Front Panel



- 1 POWER switch
- 2 Peak level meters
- 3 Digital counter
- 4 COUNTER buttons
RESET button
MEMORY button
- 5 Cassette holder
- 6 MPX FILTER button
- 7 DOLBY NR (noise reduction) switch
- 8 REC (recording) LEVEL control
- 9 BALANCE control
- 10 PHONES jack (stereo phone jack)
- 11 AUTO CAL button
- 12 EJECT button
- 13 Tape operation buttons
 - (stop) button
 - ◀ (rewind) (Multi-AMS**) button
 - ▷ (play) button
 - ▶▶ (fast-forward) (Multi-AMS**) button
 - ⏸ PAUSE button
 - REC MUTE (record muting) button
 - REC (recording) button

* Remote control sensor

You can remotely control this cassette deck with:

- A remote commander that came with a Sony amplifier or receiver if it has the  mark and cassette deck control capability.
- An optional Sony remote commander with the  mark and cassette deck control capability.

** AMS is an abbreviation for Automatic Music Sensor.

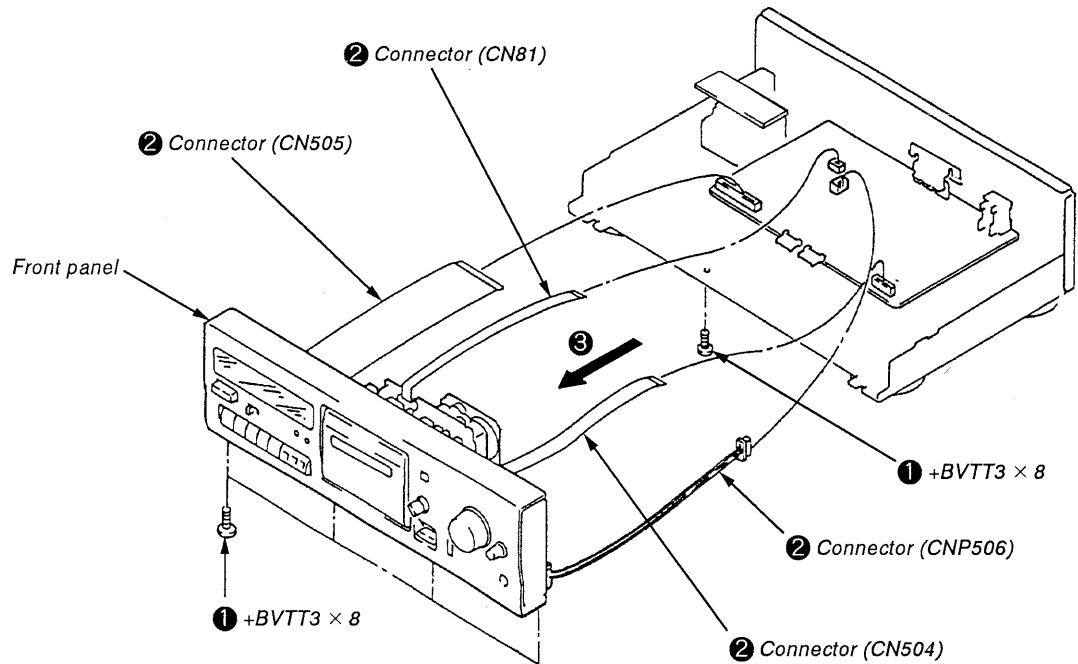
SECTION 2 DISASSEMBLY

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

CASE

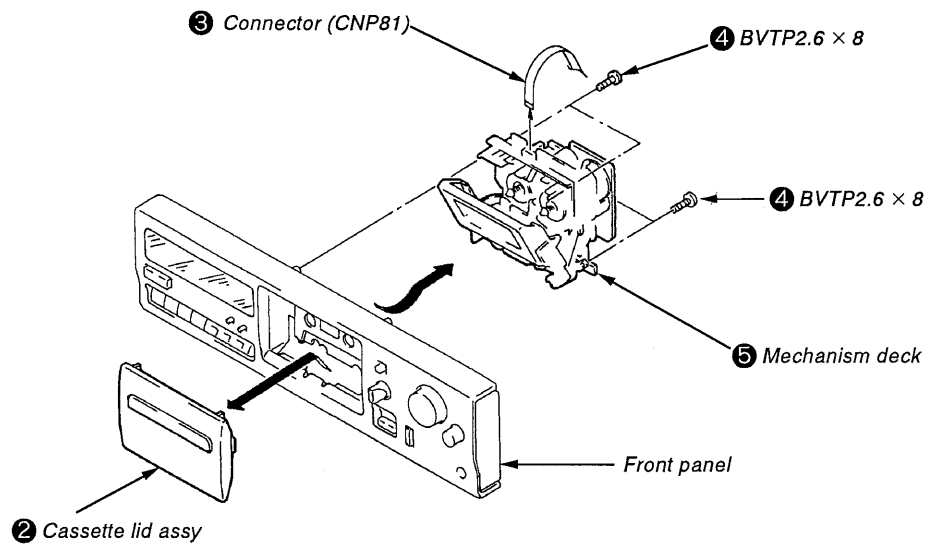
Unscrew the four case attachment screws M3 × 8 and remove the case.

2-1. FRONT PANEL

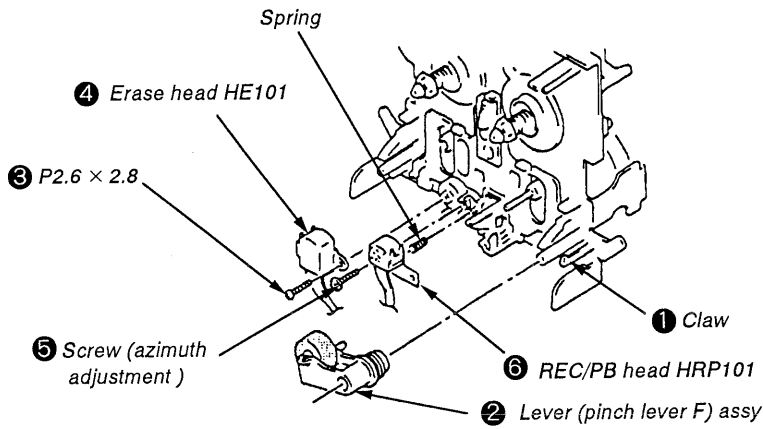


2-2 MECHANISM DECK

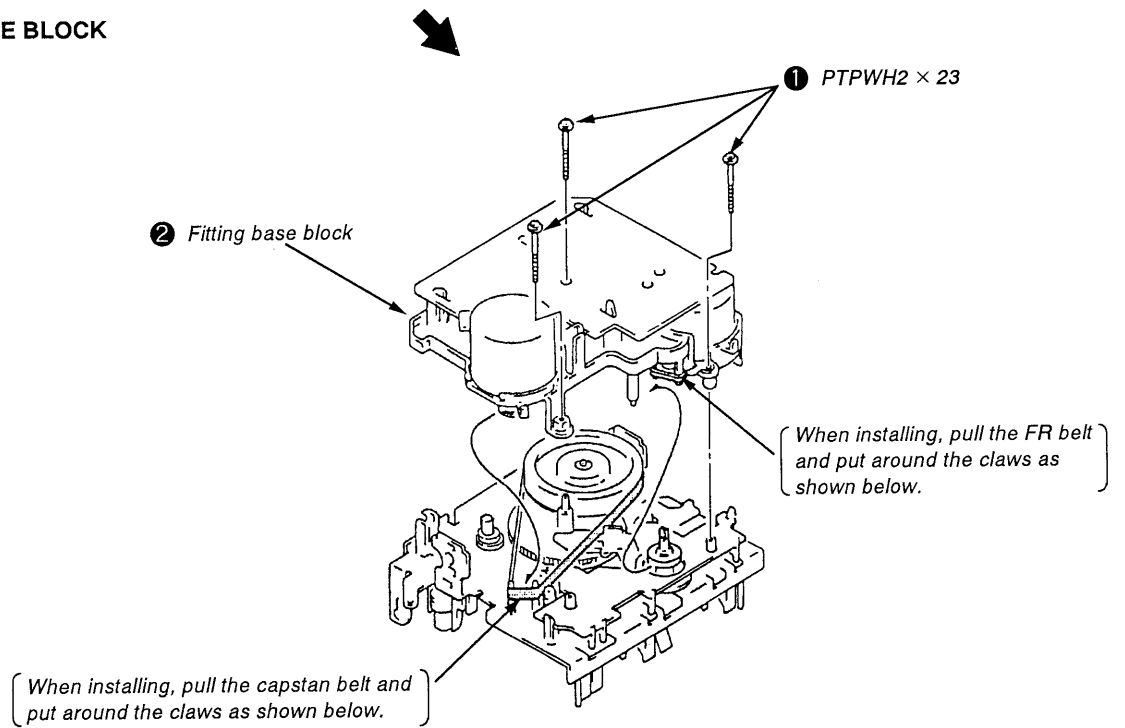
- ① Press the eject button.



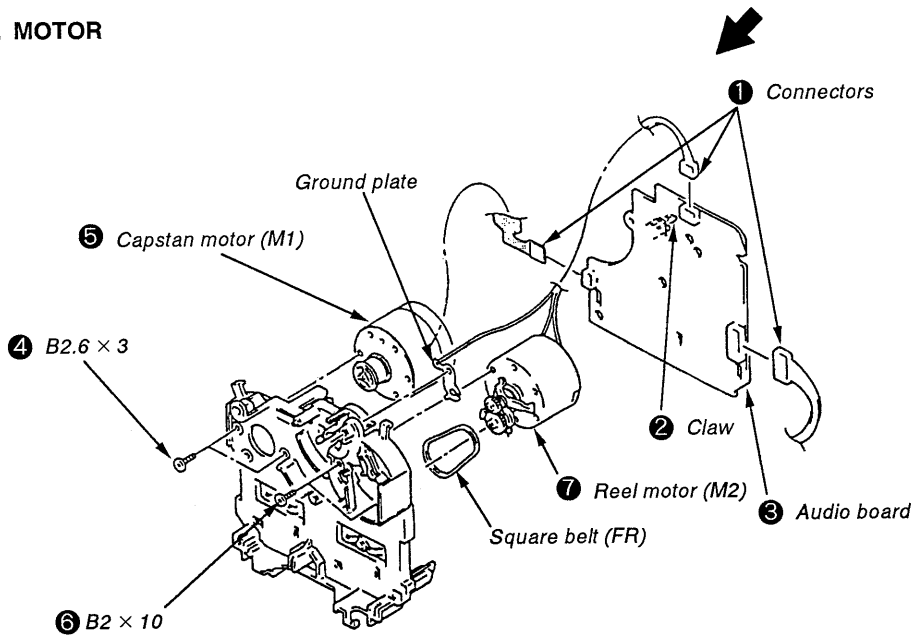
2-3. HEAD



2-4. FITTING BASE BLOCK



2-5. MOTOR



SECTION 3 EXPLANATION OF IC TERMINALS

IC801 CXP82612-011Q

Pin No.	Pin name	I/O	Description																								
1	STOP SW	I	Mechanism stop switch input terminal.																								
2	SIRCS IN	I	SIRCS signal in terminal.																								
3	VIRSION 2	I	Version selector 2. with=GND, without S=5V																								
4	NR0	O	NR control 0 terminal.																								
5	NR1	O	NR control 1 terminal.																								
6	MPX KEY	I	MPX Key ON/OFF switch input terminal. ON=5V, OFF=0V																								
7	MPX ON/OFF	O	MPX Filter ON/OFF control terminal. ON=5V, OFF=0V																								
8	CAL ON/OFF	O	Calibration ON/OFF control terminal. ON=5V																								
9	REC CAL0	I	REC calibration terminal.																								
10	REC CAL1	I	REC calibration terminal.																								
11	GP CAL0	I	GP calibration terminal.																								
12	GP CAL1	I	GP calibration terminal.																								
13	—	—	Nor used. (High level)																								
14	LINE MUTE	O	Line mute ON/OFF. 0V=Mute																								
15	REC/PB	O	Recording/Playback selector for dolby IC select. REC=0V, PB=0V																								
16	REC MUTE	O	REC out mute terminal. 5V=MUTE																								
17	REEL -	O	Reel motor - control terminal.																								
18	REEL +	O	Reel motor + control terminal.																								
19	BIAS	O	Bias ON/OFF. ON=5V																								
20	RELAY	O	Relay selector, terminal. ON=0V																								
21	CAL KEY	I	Calibration ON/OFF switch input terminal. ON=0V																								
22	KEY X	I	Key switch input terminal. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th>0V</th> <th>0.8V</th> <th>1.7V</th> <th>2.6V</th> <th>3.4V</th> <th>4.2V</th> <th>5V</th> </tr> </thead> <tbody> <tr> <td>KEY X</td> <td>PAUSE</td> <td>FWD</td> <td>REV</td> <td>RECM</td> <td>RESET</td> <td>MEMORY</td> <td>OFF</td> </tr> <tr> <td>KEY Y</td> <td>STOP</td> <td>REW</td> <td>FF</td> <td>REC</td> <td>CYCLE</td> <td>RELAY</td> <td>ONEWAY</td> </tr> </tbody> </table>		0V	0.8V	1.7V	2.6V	3.4V	4.2V	5V	KEY X	PAUSE	FWD	REV	RECM	RESET	MEMORY	OFF	KEY Y	STOP	REW	FF	REC	CYCLE	RELAY	ONEWAY
	0V	0.8V		1.7V	2.6V	3.4V	4.2V	5V																			
KEY X	PAUSE	FWD		REV	RECM	RESET	MEMORY	OFF																			
KEY Y	STOP	REW	FF	REC	CYCLE	RELAY	ONEWAY																				
23	KEY Y	I																									
24	METER L	I	Meter level Lch.																								
25	METER R	I	Meter level Rch.																								
26	DOLBY AD	I	Dolby OFF/B/C select terminal. 0V=OFF, 0.8V=B, 1.7V=C, 2.6V=S																								
27	HALF	I	Half pawl input terminal.																								
28	AMS IN	I	AMS signal input terminal.																								
29	S • REEL	I	Suplly pulse input terminal.																								
30	RESET	I	Reset terminal. Reset=0V																								
31	XO	O	System clock output terminal. (6MHz)																								
32	XI	I	System clock input terminal. (6MHz)																								
33	Vss	—	Power supply (GND)																								
34	BIAS CAL0	O	Bias calibration terminal.																								
35	BIAS CAL1	O	Bias calibration terminal.																								
36	BIAS CAL2	O	Bias calibration terminal.																								
37	BIAS CAL3	O	Bias calibration terminal.																								
38	CAP • M ON/OFF	O	Capstan motor. ON/OFF control. ON=5V																								
39	BC/S	O	Dolby BC/S selector. 5V=BC, 0V=S																								
40	OSC ON/OFF	O	OSC ON/OFF control. 5V=OFF, ON=0V																								

Pin No.	Pin name	I/O	Description
41	OSC \bar{H}/L	O	OSC H/L control. 5V=Low, 0V=High
42	NC	–	Not used. (OPEN)
43	NC	–	Not used. (OPEN)
44	NC	–	Not used. (OPEN)
45	NC	–	Not used. (OPEN)
46	S1	O	FL Segment P1 drive.
47	S2	O	FL Segment P2 drive.
48	S3	O	FL Segment P3 drive.
49	S4	O	FL Segment P4 drive.
50	S5	O	FL Segment P5 drive.
51	S6	O	FL Segment P6 drive.
52	S7	O	FL Segment P7 drive.
53	S8	O	FL Segment P8 drive.
54	S9	O	FL Segment P9 drive.
55	S10	O	FL Segment P10 drive.
56	S11	O	FL Segment P11 drive.
57	S12	O	FL Segment P12 drive.
58	S13	O	FL Segment P13 drive.
59	S14	O	FL Segment P14 drive.
60	S15	O	FL Segment P15 drive.
61	S16	O	FL Segment P16 drive.
62	S18	O	FL Segment P17 drive.
63	NC	–	Not used. (OPEN)
64	NC	–	Not used. (OPEN)
65	NC	–	Not used. (OPEN)
66	G5	O	FL Grid 5 drive.
67	G4	O	FL Grid 4 drive.
68	G3	O	FL Grid 3 drive.
69	G2	O	FL Grid 2 drive.
70	G1	O	FL Grid 1 drive.
71	V-DISP	–	– 20V.
72	V _{DD}	–	Power supply. (+5V)
73	METAL	–	Metal tape selector terminal. “H” : Metal
74	CHROM	I	CrO ₂ tape select terminal. “H” : CrO ₂
75	V _{DD}	I	Power supply. (+5V)
76	POWER IN	I	0V = Power OFF
77	POWER OUT	O	Power ON/OFF. ON = 0V
78	NC	–	Not used. (+5V)
79	TEST MODE	I	Test mode selector. 5V=Normal, 0V= Test mode
80	VERSION 1	I	Version selector. “H” : Reverse, “L” : 1 way

SECTION 4 ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENTS

PRECAUTION

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

record/playback/erase head	pinch roller
rubber belts	capstan
idlers	
2. Demagnetize the record/playback head with a head demagnetizer. (Head demagnetizer do not approach for the erase head.)
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

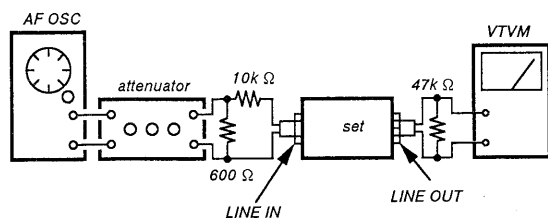
Torque	Torque meter	Meter reading
Forward	CQ-102C	30 to 65g•cm (0.42 to 0.9 oz•inch)
Forward back tension	CQ-102C	1 to 6g•cm (0.014 to 0.08 oz•inch)
FF/REW	CQ-201B	70 to 120g•cm (0.98 to 1.67 oz•inch)

4-2. ELECTRICAL ADJUSTMENTS

PRECAUTION

1. The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
2. The adjustments and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch : OFF
 - Standard record position :
Deliver the standard input signal level to input jack and set the REC LEVEL control to obtain the standard output signal level as follows.

— Record Mode —



Standard Input Level

Input terminal	LINE IN
source impedance	10k Ω
input signal level	0.5V (- 3.8dB)

Standard Output Level

Output terminal	LINE OUT
load impedance	47k Ω
output signal level	0.5V (- 3.8dB)

Test Tape

Tape	Contents	Use
P-4-A100	10kHz, - 10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

0dB=0.775V

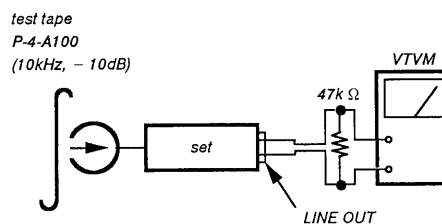
Test Mode

1. Insert a short-circuit plug into TP801 (2P) and turn ON the power switch. (Earth pin ⑦ of IC801 and turn ON the power switch.)
At first, all the fluorescent tubes light up, then the system returns to normal display. (However, "0000" is not displayed on the counter.)
2. To release the test mode, remove the short plug and turn off the power switch.
3. Remove the short plug after completion of adjustment.

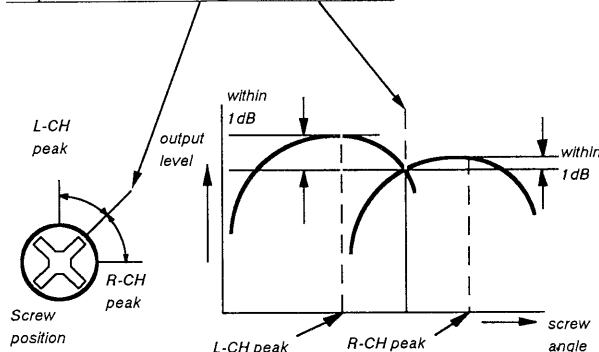
Record/Playback Head Azimuth Adjustment

Procedure :

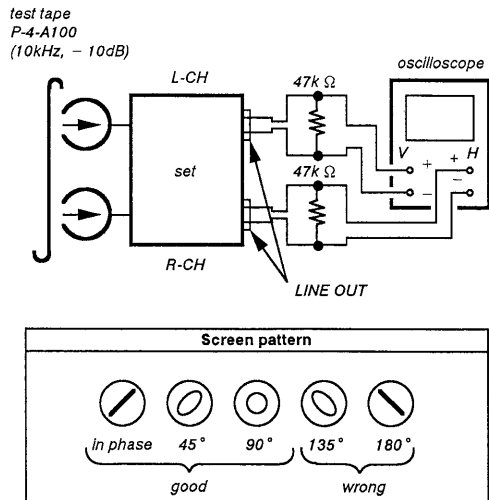
1. Forward playback Mode



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 1dB.

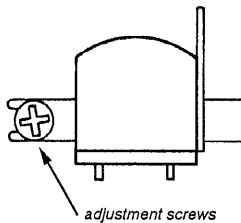


3. Playback Mode



4. After the adjustment, lock the adjustment screws with suitable locking compound.

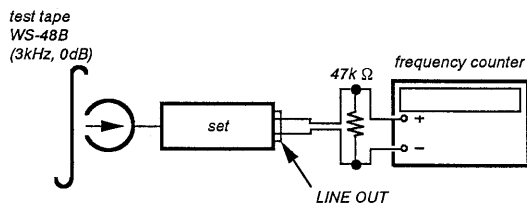
Adjustment Location : – record/playback head –



Tape Speed Adjustment

Procedure :

– Forward Playback Mode –



1. Set to FWD playback mode.
2. Adjust RV71 and RV72 so that the frequency counter reading becomes $3,000 \pm 10$ Hz.

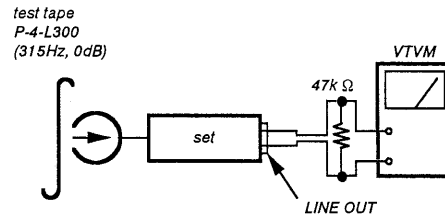
Frequency difference between the beginning and the end of the tape should be within 3%.

Adjustment Location : AUDIO board. (Page 11)

Playback Level Adjustment

Procedure :

– Forward Playback Mode –



Adjust RV11(L-CH) and RV21(R-CH) so the VTVM reading becomes the adjustment limits below.

Adjustment Value :

LINE OUT level : -7.7 ± 0.5 dB (0.301 to 0.338V)

Level difference between channels : within 0.5dB

Confirm the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times

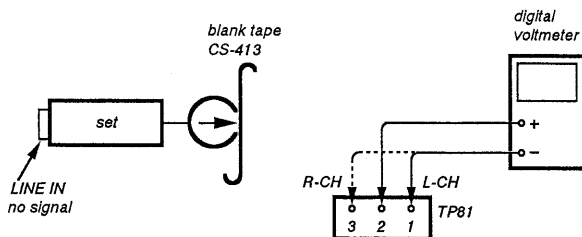
Adjustment Location : AUDIO board. (Page 11)

Bias Consumption Current Adjustment

This adjustment should be performed when replacing the head assy or the bias oscillating transformer (T81,T91).

Procedure :

() : R-CH



1. Connect the digital voltmeter to test point TP81.
2. Set RV81 (RV91) to mechanical center.
3. Set to FWD record mode.
4. Adjust T81 (T91) so that the digital voltmeter reading becomes minimum.

Adjustment Value : Maximum 220mV

Adjustment Location : AUDIO board. (Page 11)

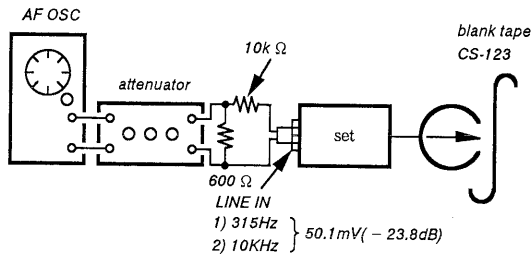
Record Bias Adjustment

Setting :

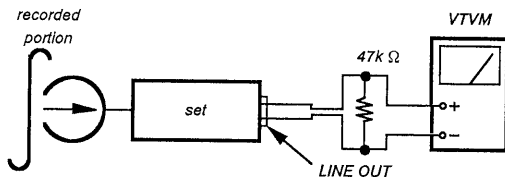
REC LEVEL control : standard record position (Refer to page 9.)

Procedure :

1. Record Mode



2. Playback Mode



Confirm that the 10kHz playback output is $0 \pm 0.5\text{dB}$ relative to the 315Hz output. If necessary, adjust RV81(L-CH), RV91(R-CH) and repeat the steps given above.

Adjustment Location : AUDIO board

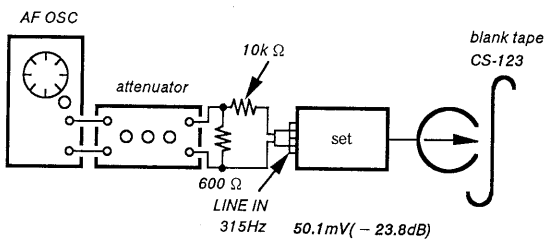
Record Level Adjustment

Setting :

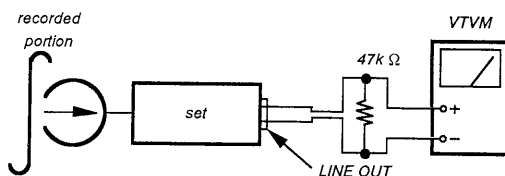
REC LEVEL control : standard record position (Refer to page 9.)

Procedure :

1. Record Mode



2. Playback Mode



Confirm playback the tape recorded become adjustment level as follows.

If necessary, adjust RV111(L-CH), RV211(R-CH) and repeat the steps 1 and 2.

Adjustment Value :

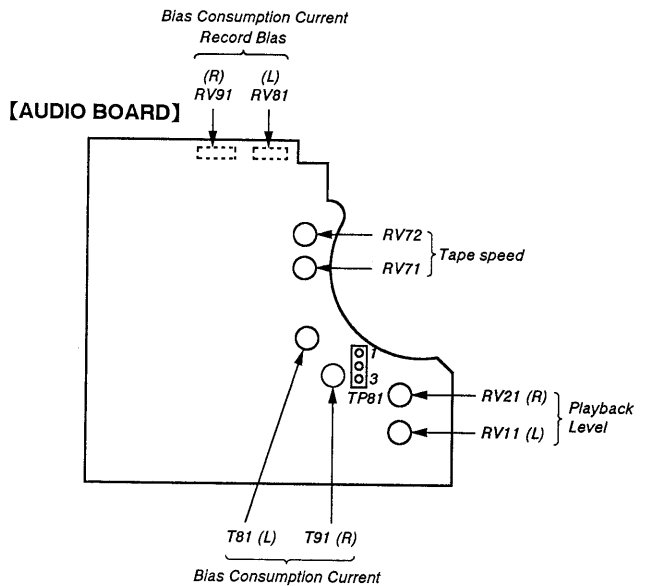
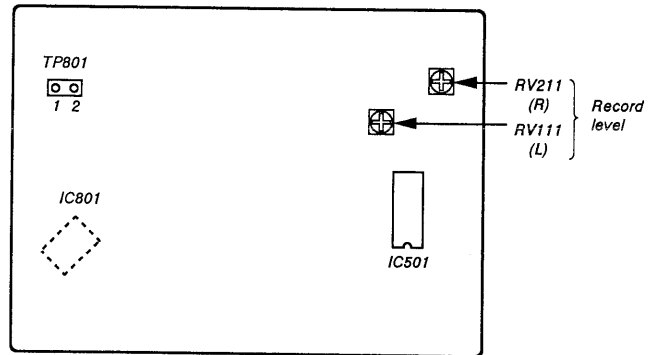
LINE OUT level : $-23.8 \pm 0.5\text{dB}$ (47.2 to 53mV)

Adjustment Location : SYSTEM CONTROL

– Adjustment Parts Location Diagrams –

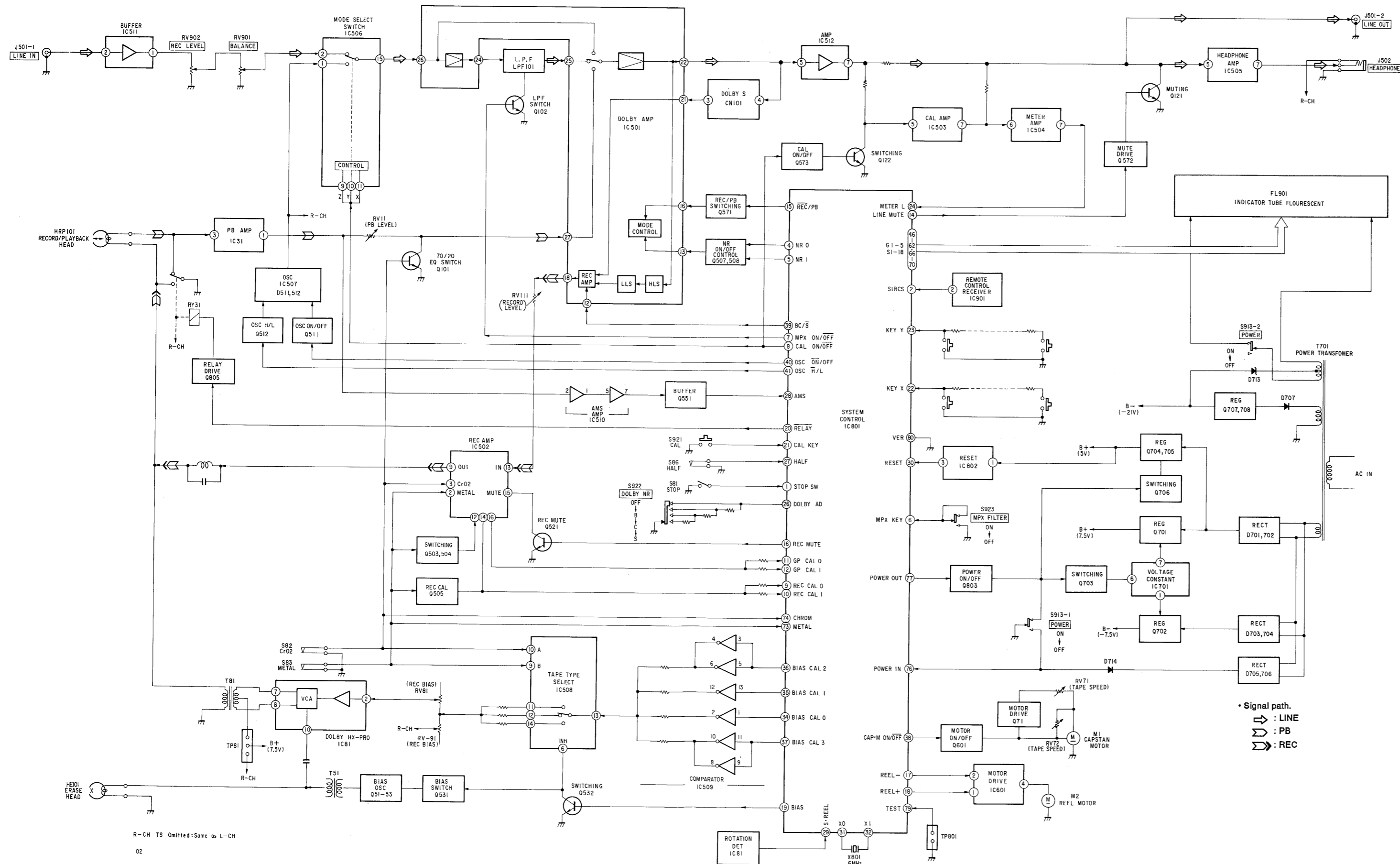
[SYSTEM CONTROL BOARD]

(Component side)

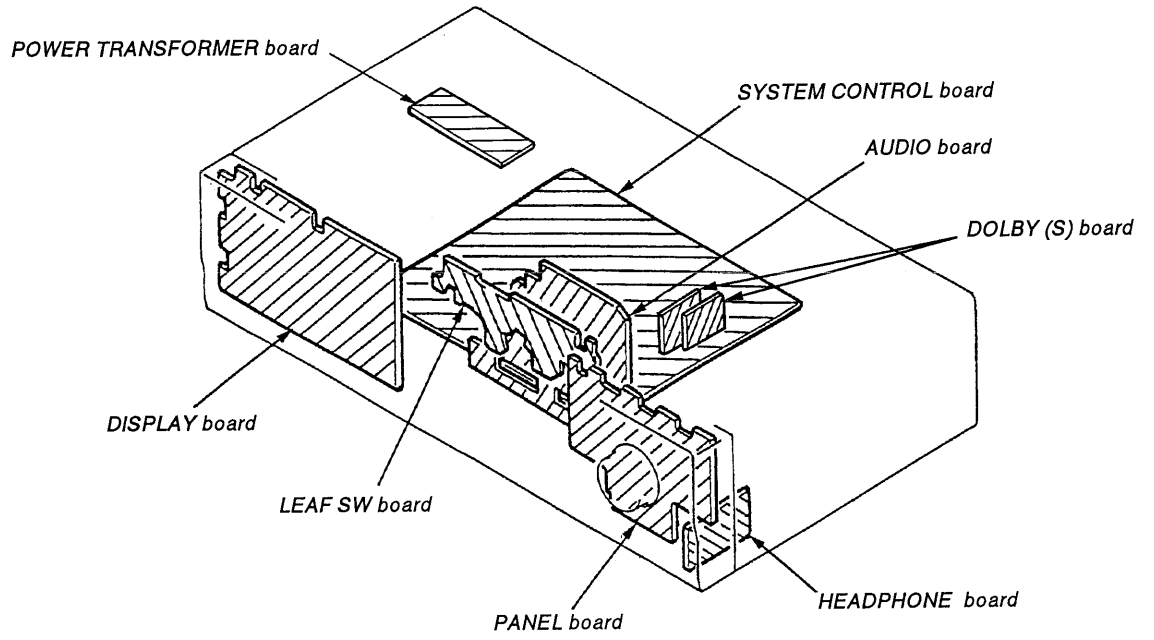


SECTION 5 DIAGRAMS

5-1. BLOCK DIAGRAM



5-2. CIRCUIT BOARDS LOCATION



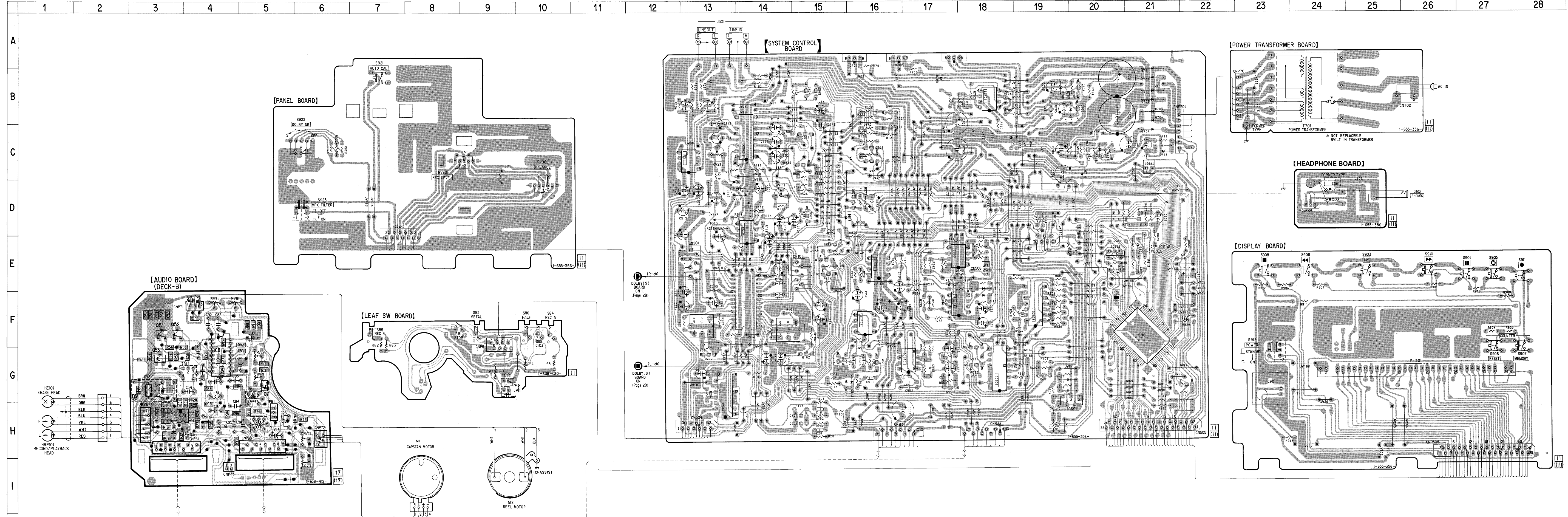
5-3. PRINTED WIRING BOARDS (SYSTEM CONTROL SECTION)

● SEMICONDUCTOR LOCATION

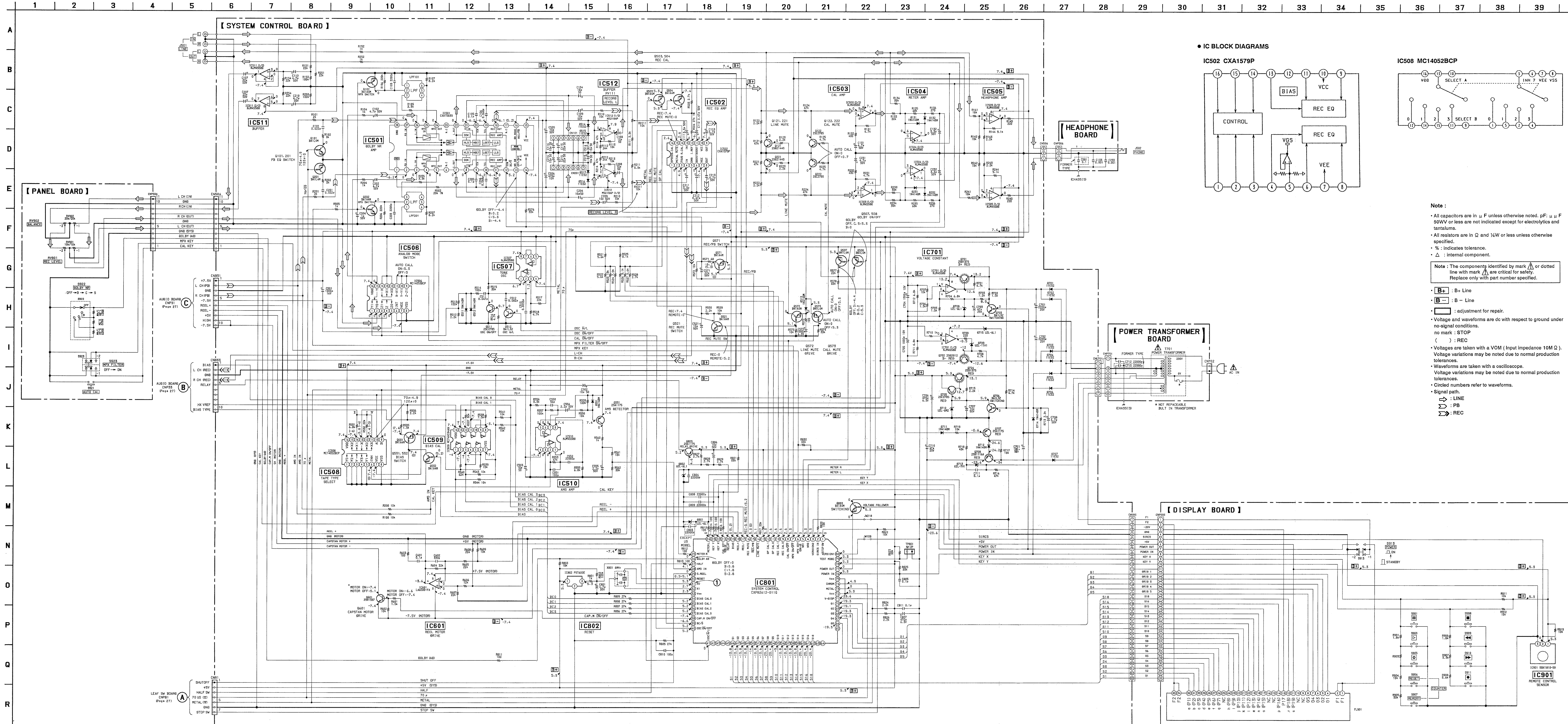
Ref. No.	Location	Ref. No.	Location
D31	H-3	IC701	B-18
D131	E-18	IC801	F-21
D132	F-18	IC802	E-20
D231	F-17	IC901	G-23
D232	F-17		
D511	G-15	Q51	F-3
D512	G-18	Q52	F-4
D513	D-15	Q53	G-3
D514	D-14	Q71	H-5
D515	D-13	Q101	H-15
D516	D-13	Q102	G-15
D517	D-13	Q121	C-16
D551	G-17	Q122	E-15
D701	B-21	Q201	H-15
D702	B-21	Q202	G-13
D703	B-21	Q221	B-16
D704	B-21	Q222	E-15
D705	B-21	Q503	B-15
D706	B-21	Q504	B-15
D707	C-21	Q505	C-15
D708	B-19	Q507	C-16
D709	B-17	Q508	C-16
D710	B-20	Q511	G-16
D711	C-19	Q512	G-15
D712	C-20	Q521	C-15
D713	C-21	Q531	G-18
D714	C-20	Q532	G-18
D715	C-18	Q551	G-17
D801	E-21	Q571	D-15
D802	E-21	Q572	D-16
IC31	H-4	Q573	E-15
IC81	G-4	Q601	G-19
	(AUDIO)	Q701	A-16
	G-9	Q702	A-16
	(LEAF SW)	Q703	B-20
IC501	F-14	Q704	A-17
IC502	C-14	Q705	B-19
IC503	E-16	Q706	B-20
		Q707	C-20
		Q708	C-20
IC504	F-17		
IC505	E-17		
IC506	G-13	Q803	G-22
IC507	F-16	Q805	D-21
IC508	G-18		
IC509	F-19		
IC510	G-17		
IC511	C-13		
IC512	D-14		
IC601	G-19		

Note:

- : parts extracted from the component side.
 - : parts mounted on the conductor side.
 - : Through hole.
 - ▨ : Pattern on the side which is seen.
 - ▩ : Pattern of the rear side.
- Abbreviation
 G : German
 AUS : Australian



5-4. SCHEMATIC DIAGRAM (SYSTEM CONTROL SECTION) Refer to page 28 for Waveforms.



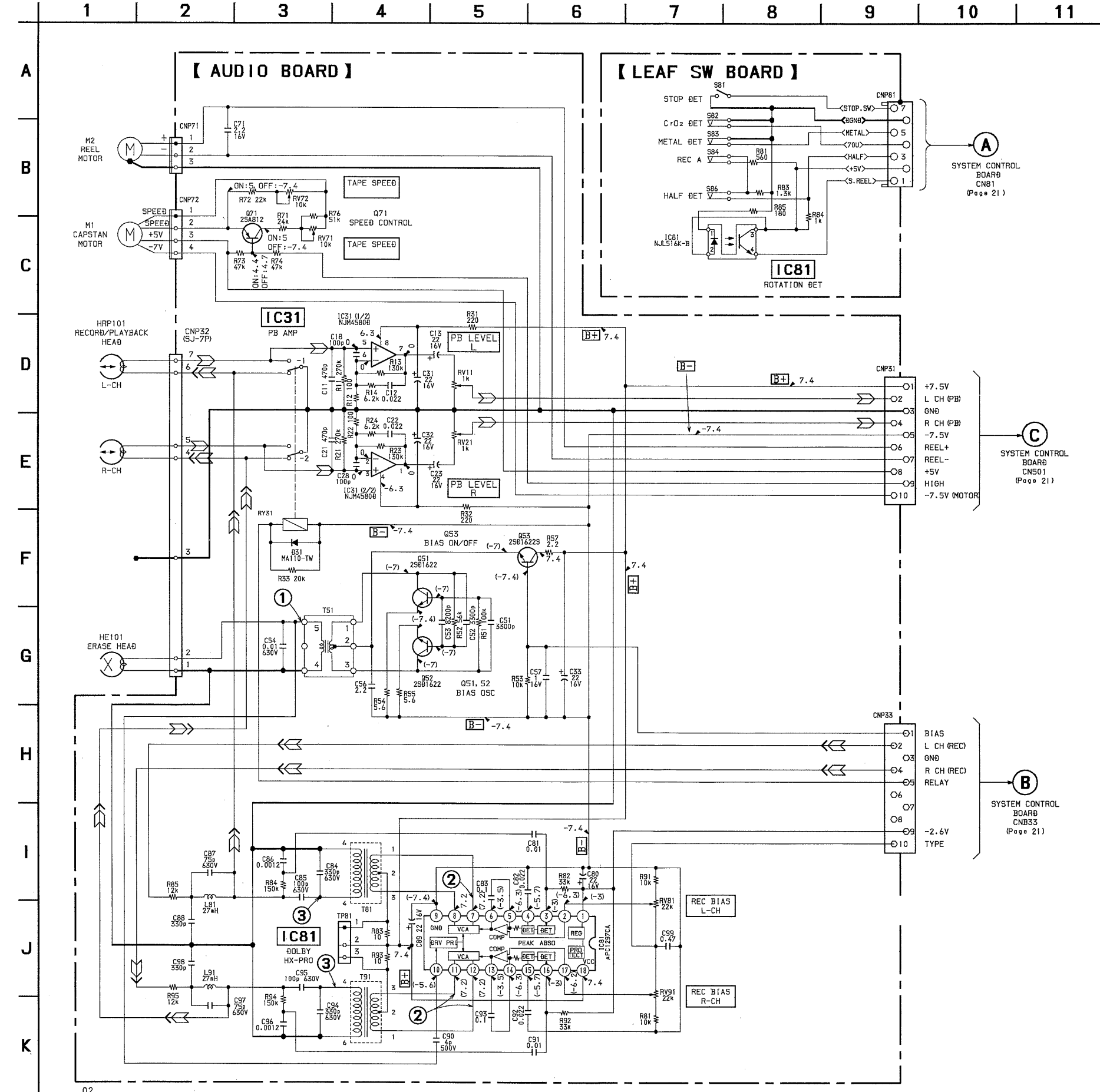
Note:

- 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 $\frac{1}{2}W$ or less unless otherwise specified.
- % : indicates tolerance.
- Δ : internal component.

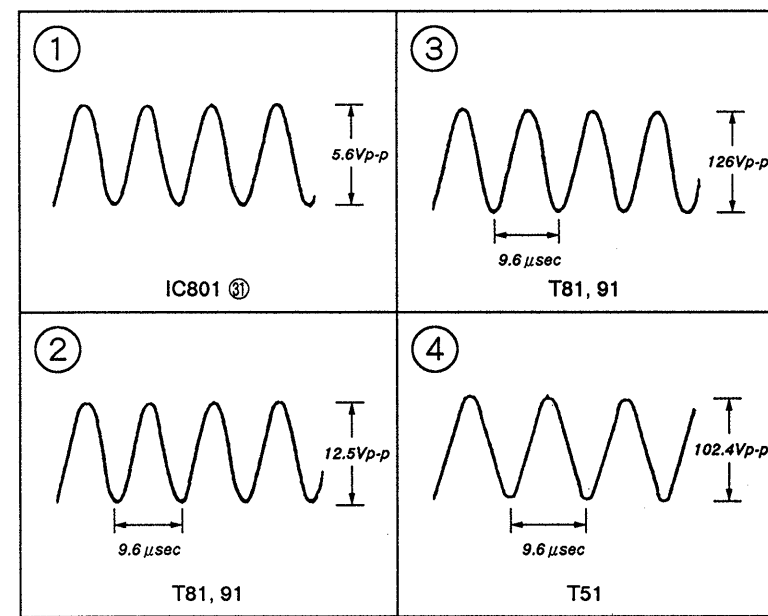
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- B+** : B+ Line
- B-** : B- Line
- \square : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- no mark : STOP
- () : REC
- Waveforms are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path:
 - \rightarrow : LINE
 - \rightarrow : PB
 - \rightarrow : REC

5-5. SCHEMATIC DIAGRAM (AUDIO SECTION)



• WAVEFORMS



Note :

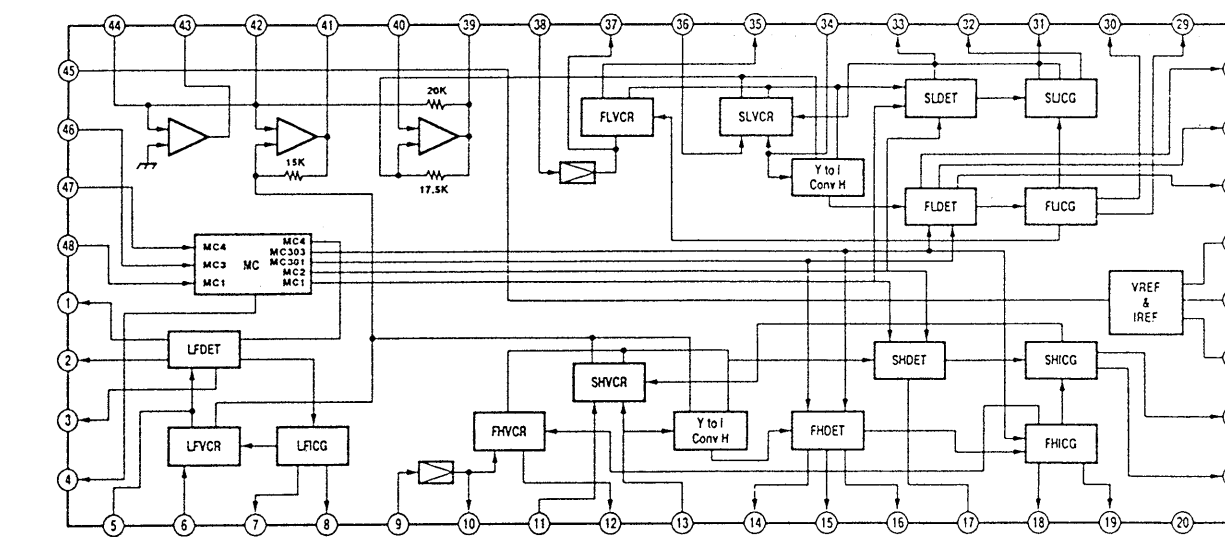
- All capacitors are in μ F unless otherwise noted. pF: μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- % : Indicates tolerance.

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

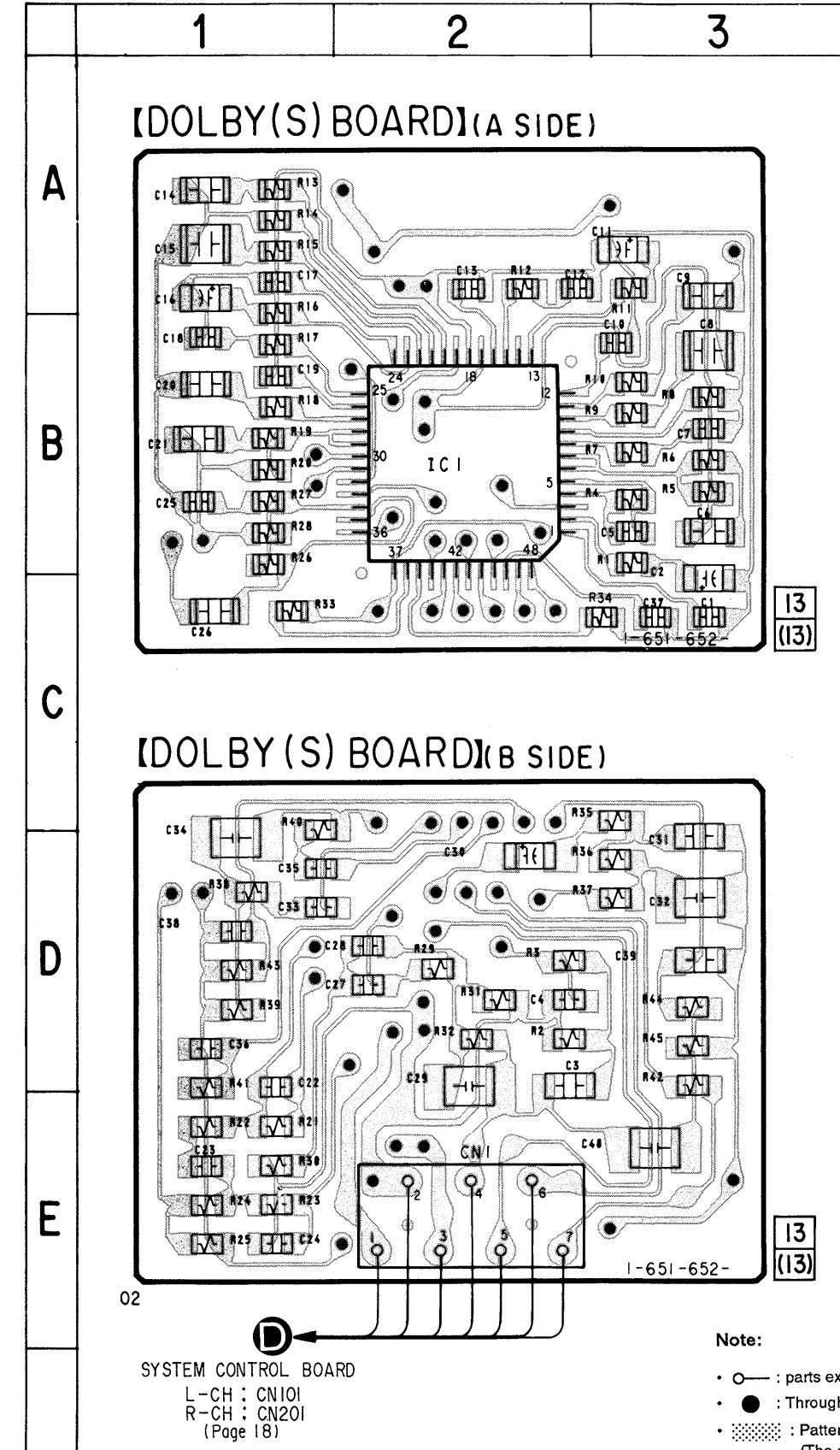
- **B+** : B+ Line
- **B-** : B - Line
- \square : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions. no mark : STOP
- () : REC
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \square : PB
- \square : REC

• IC BLOCK DIAGRAM

IC1 CXA1417Q



5-6. PRINTED WIRING BOARDS (DOLBY (S) SECTION)



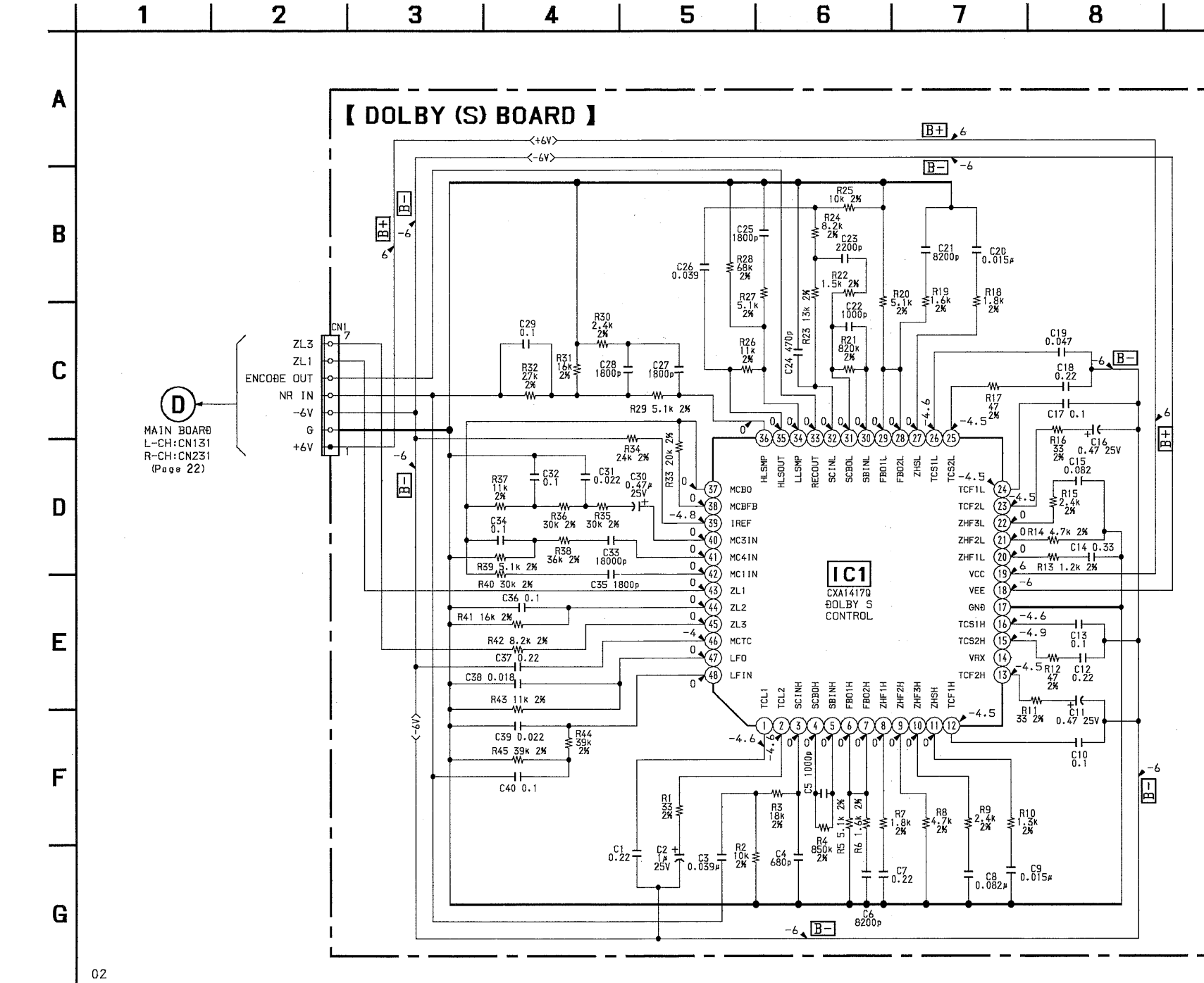
Note:

- \square : parts extracted from the component side.
- \bullet : Through hole.
- \square : Pattern from the side which enables seeing. (The other layers' patterns are not indicated)

Caution :

Pattern face side : Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated. Parts face side : Parts on the parts face side seen from the (Component side) the parts face are indicated.

5-7. SCHEMATIC DIAGRAM (DOLBY (S) SECTION)



Note :

- All capacitors are in μ F unless otherwise noted. pF: μ F 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/10W or less unless otherwise specified.
- % : Indicates tolerance.
- **B+** : B+ Line
- **B-** : B - Line
- Voltage and waveforms are dc with respect to ground under no-signal conditions. no mark : STOP
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.

SECTION 6 EXPLODED VIEWS

NOTE :

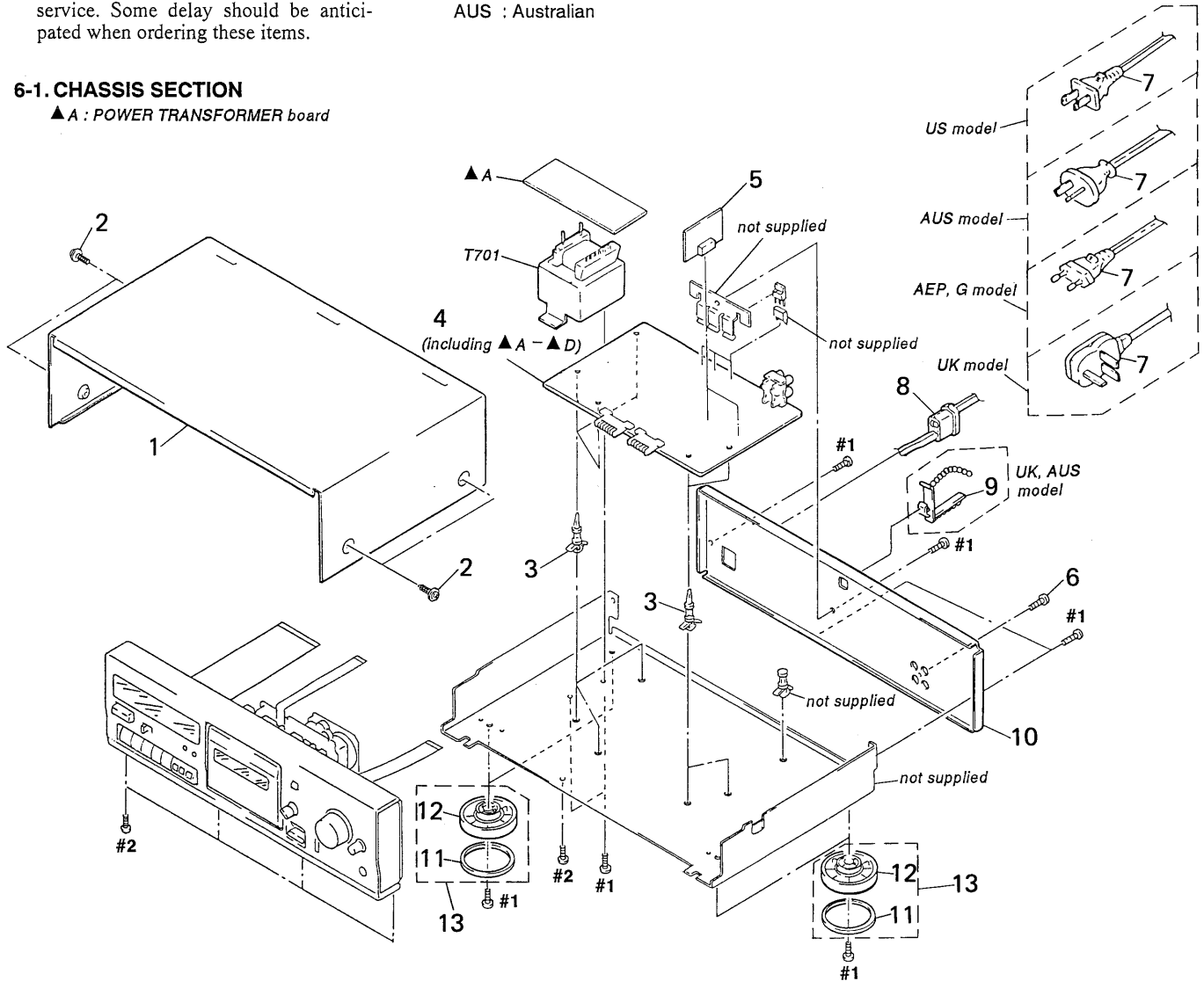
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
G : German
AUS : Australian

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

6-1. CHASSIS SECTION

▲ A : POWER TRANSFORMER board

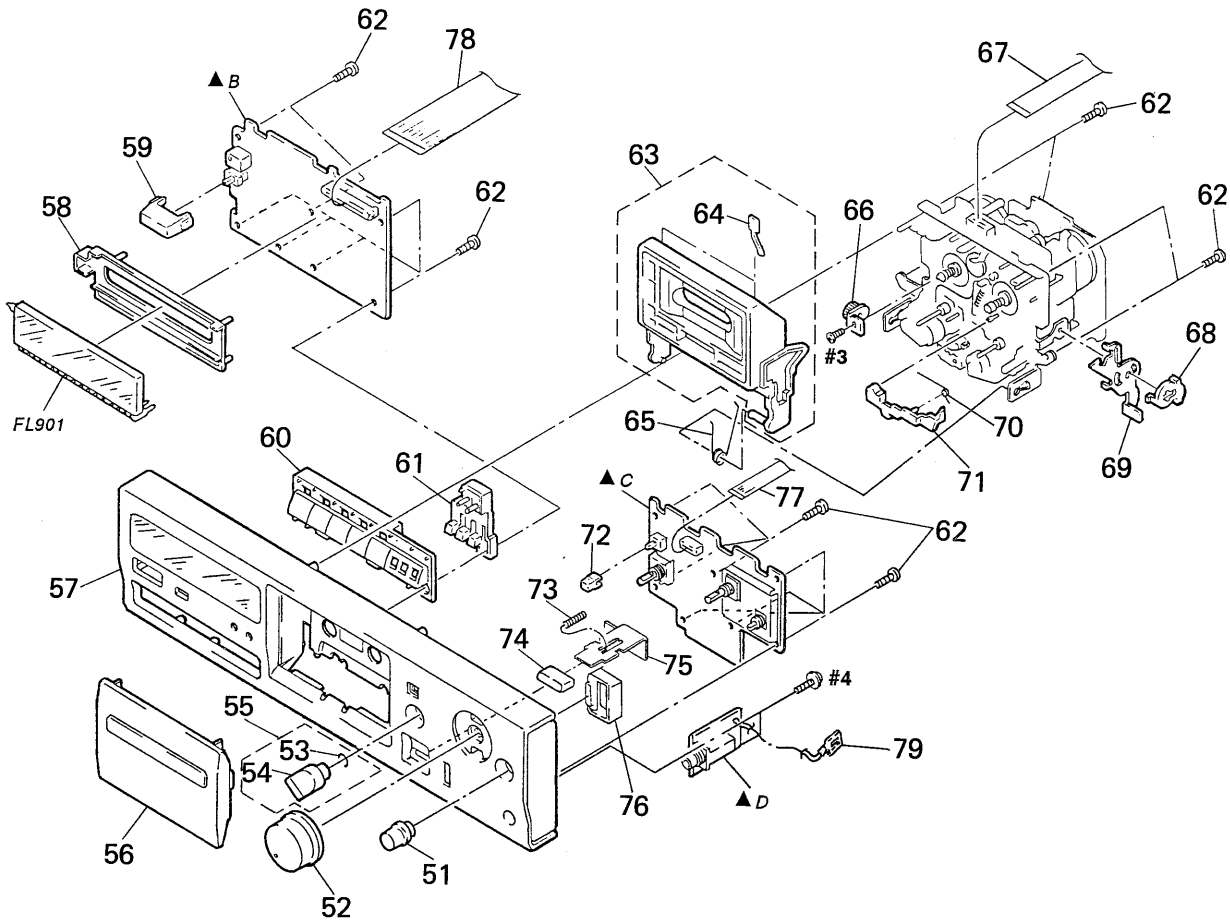


Ref. No.	Part No.	Description	Remark
* 1	4-943-088-41	CASE	
2	3-363-099-01	SCREW (CASE 3 TP2)	
* 3	3-346-265-31	HOLDER, PC BOARD	
* 4	A-2007-358-A	SYSTEM CONTROL BOARD, COMPLETE (US)	
* 4	A-2007-359-A	SYSTEM CONTROL BOARD, COMPLETE (AEP, G, AUS)	
* 4	A-2007-360-A	SYSTEM CONTROL BOARD, COMPLETE (UK)	
* 5	A-2007-416-A	DOLBY (S) BOARD, COMPLETE	
6	3-704-515-01	SCREW (BV/RING)	
▲ 7	1-558-945-21	CORD, POWER (POLAR. SPT-1) (US)	
▲ 7	1-575-651-21	CORD, POWER (AEP, G)	
▲ 7	1-696-586-11	CORD, POWER (UK)	
▲ 7	1-696-845-11	CORD, POWER (AUS)	
* 8	3-703-244-00	BUSHING (2104), CORD (AEP, UK, G, AUS)	

Ref. No.	Part No.	Description	Remark
8	3-703-571-11	BUSHING (S) (4516), CORD (US)	
9	4-956-370-12	BAND, PLUG FIXED (UK, AUS)	
* 10	3-920-041-01	PANEL, BACK (US)	
* 10	3-920-041-11	PANEL, BACK (AEP, G)	
* 10	3-920-041-21	PANEL, BACK (UK)	
* 10	3-920-041-31	PANEL, BACK (AUS)	
11	4-923-836-21	CUSHION	
12	3-318-688-31	FOOT (F58175S) (AEP, UK, G, AUS)	
12	3-318-688-51	FOOT (F58175S) (US)	
13	X-4941-291-1	FOOT ASSY (F58175S) (US)	
13	X-4941-292-1	FOOT ASSY (F58175S) (AEP, UK, G, AUS)	
▲ T701	1-427-751-11	TRANSFORMER, POWER (AEP, UK, G, AUS)	
▲ T701	1-427-752-11	TRANSFORMER, POWER (US)	

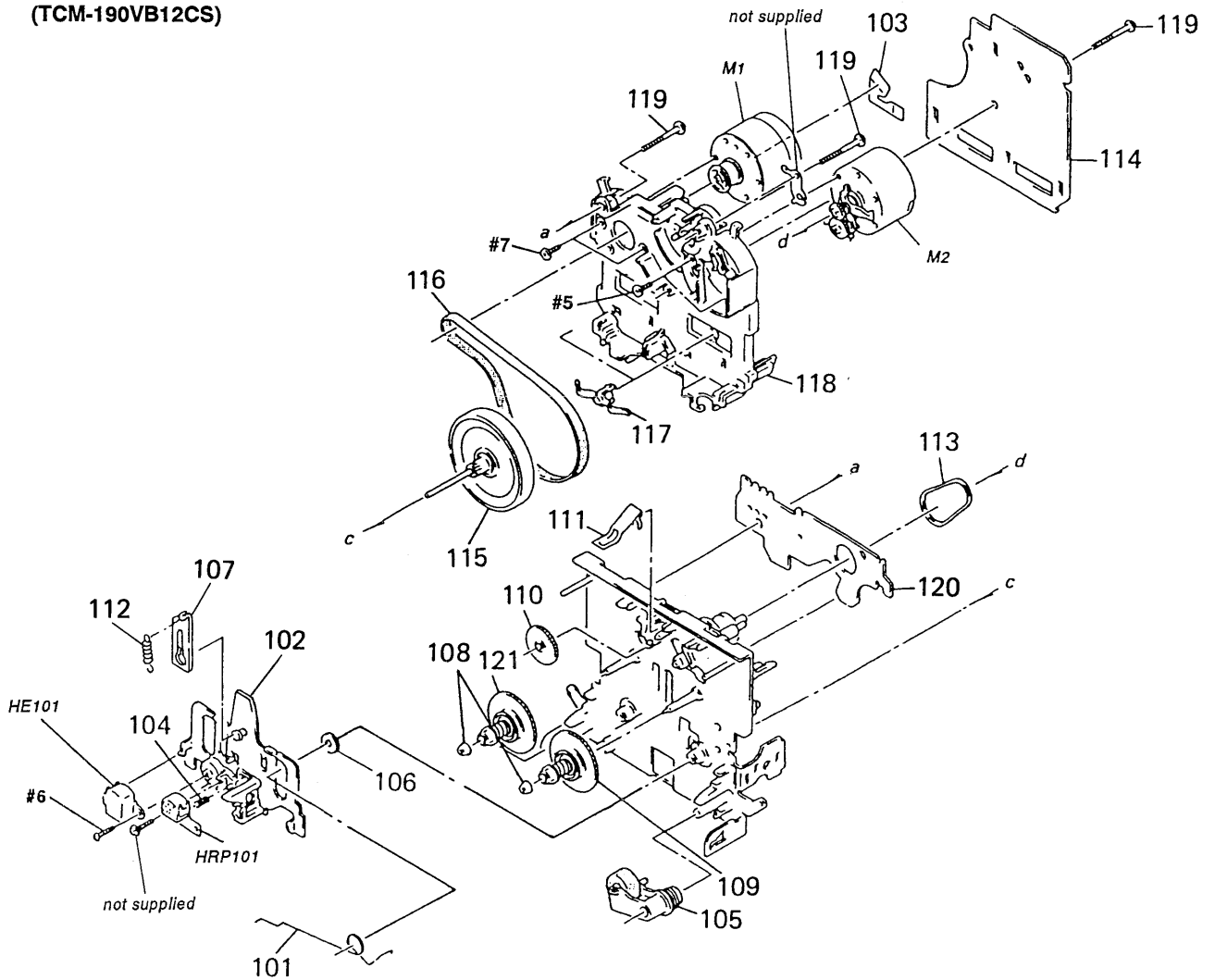
6-2. FRONT PANEL SECTION

- ▲ B : DISPLAY board
- ▲ C : PANEL board
- ▲ D : HEADPHONE board



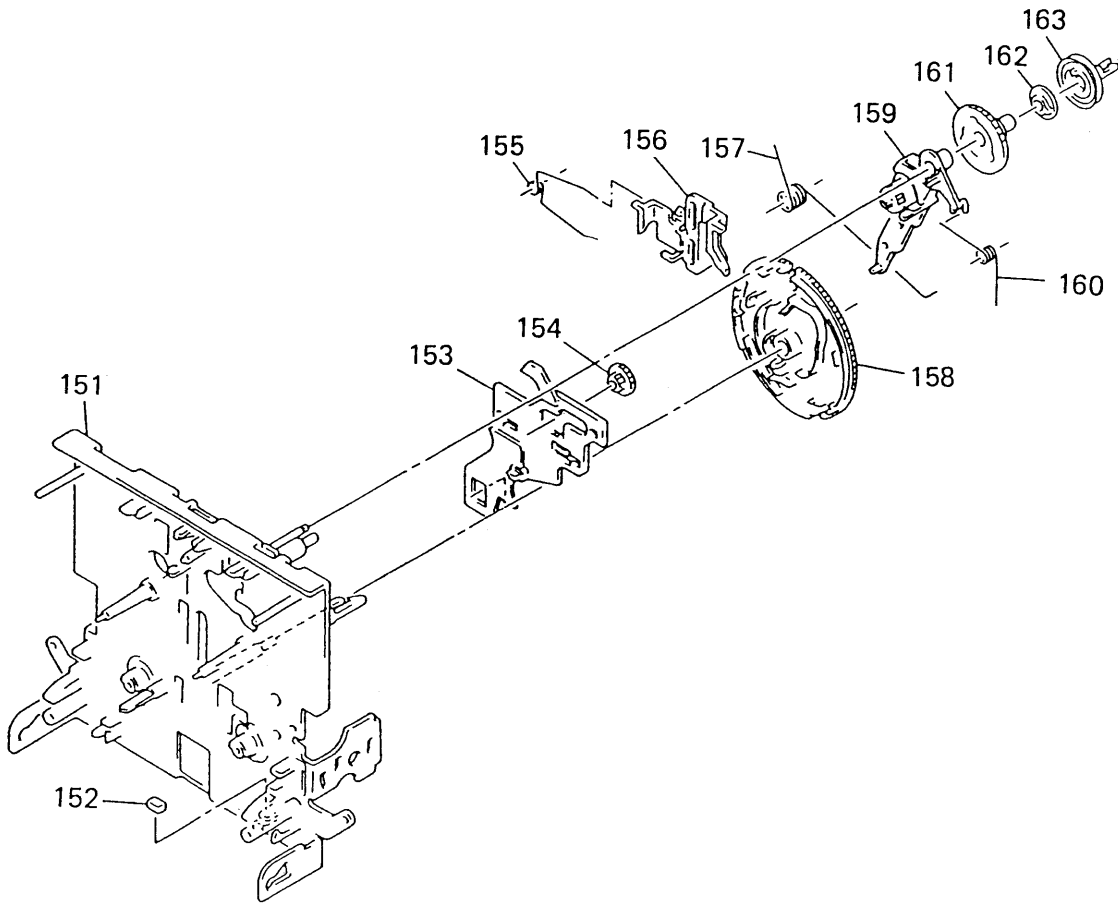
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-3368-033-1	KNOB (RB) ASSY		66	3-354-963-01	DAMPER	
52	3-389-516-01	KNOB (REC)		67	1-696-965-11	WIRE (FLAT TYPE) (7 CORE)	
53	3-350-440-11	SPRING, RING		68	3-354-957-01	JOINT (LOCK LEVER)	
54	4-908-097-21	KNOB		* 69	3-354-954-01	LEVER (LOCK LEVER R)	
55	X-3368-032-1	KNOB ASSY		70	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
56	X-3369-568-1	LID ASSY, CASSETTE		71	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
57	X-3369-569-1	PANEL ASSY, FRONT (US)		72	3-380-952-21	BUTTON	
57	X-3369-571-1	PANEL ASSY, FRONT (AEP, UK, G, AUS)		73	3-359-906-11	SPRING, COMPRESSION	
* 58	3-377-337-11	HOLDER (FL)		74	3-387-830-11	BUTTON (EJECT)	
59	3-354-932-01	BUTTON (POWER)		75	3-387-833-11	SLIDER (EJECT)	
60	3-386-247-11	BUTTON (FW)		76	3-387-834-31	BUTTON (MBC)	
61	3-386-248-11	BUTTON (RE)		77	1-575-784-11	WIRE (FLAT TYPE) (11 CORE)	
62	4-951-620-01	SCREW (2.6×8), +BVTP		78	1-751-736-11	WIRE (FLAT TYPE) (33 CORE)	
63	A-2004-357-A	HOLDER (R) ASSY, CASSETTE		* 79	1-690-880-11	LEAD (WITH CONNECTOR)	
64	3-308-823-11	DETENT, CASSETTE		FL901	1-517-374-11	INDICATOR TUBE, FLUORESCENT	
65	3-354-960-01	SPRING (LOADING R), TORSION					

**6-3. MECHANISM SECTION-1
(TCM-190VB12CS)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-907-362-01	SPRING, TORSION		* 114	A-2006-890-A	AUDIO BOARD, COMPLETE	
* 102	3-359-445-11	HOLDER (1 WAY HEAD)		115	X-3367-629-1	FLYWHEEL (FWD) ASSY	
103	1-638-983-11	PC BOARD, MOTOR FLEXIBLE		116	3-359-467-01	BELT (1 WAY FLAT BELT)	
104	3-343-484-01	SPRING, COMPRESSION		117	3-575-321-00	RETAINER, THRUST, CAPSTAN	
105	X-3366-047-1	LEVER (PINCH F) ASSY		118	3-359-436-11	BASE (THRUST RETAINER), FITTING	
106	3-356-713-01	WASHER		119	3-359-414-01	SCREW (+PTPWH 2×23)	
* 107	X-3368-865-1	SLIDER (LIMITER) ASSY		* 120	1-638-020-11	LEAF SW BOARD	
108	3-362-308-01	CAP (REEL)		121	X-3366-971-1	TABLE ASSY (B), REEL	
109	X-3366-970-1	TABLE ASSY, REEL		HE101	1-543-673-11	HEAD, MAGNETIC (ERASE)	
110	3-359-424-01	GEAR (REV GEAR)		* HRP101	1-543-919-11	HEAD, MAGNETIC (RECORD/PLAYBACK)	
111	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF		M1	X-3365-377-2	MOTOR ASSY (CAPSTAN)	
112	3-363-868-01	SPRING (HEAD CHASSIS), TENSION		M2	X-3363-501-2	MOTOR ASSY (REEL)	
113	3-359-466-01	BELT (FR), SQUARE					

**6-4. MECHANISM SECTION-2
(TCM-190VB12CS)**



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
151	X-3359-416-1	CHASSIS (ONE) ASSY, MECHANICAL	
152	3-359-469-01	SPACER	
* 153	3-359-415-01	SLIDER (TRIGGER SLIDER)	
154	3-359-448-01	GEAR (TRIGGER)	
155	3-359-454-01	SPRING, TORSION	
156	3-359-429-01	SLIDER (BRAKE PLATE)	
157	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
158	3-359-420-01	GEAR (CAM GEAR)	
159	X-3366-569-1	ARM ASSY, FR	
160	3-924-185-11	SPRING (FR ARM), TORSION	
161	3-359-419-11	GEAR (FR GEAR)	
162	3-359-421-01	CLUTCH (REEL DISK)	
163	3-359-418-01	PULLEY (FR PULLEY)	

SECTION 7 ELECTRICAL PARTS LIST

DOLBY (S)

NOTE :

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal oxide-film resistor
F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA.... : μ A.... , uPA.... : μ PA....
uPB.... : μ PB.... , uPC.... : μ PC....
uPD.... : μ PD....
- CAPACITORS
uF : μ F
- COILS
uH : μ H

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.

- Abbreviation
G : German
AUS : Australian

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-416-A	DOLBY (S) BOARD, COMPLETE *****		C36	1-165-319-11	CERAMIC CHIP	0. 1uF 50V
		< CAPACITOR >		C37	1-164-222-11	CERAMIC CHIP	0. 22uF 25V
C1	1-164-222-11	CERAMIC CHIP	0. 22uF 25V	C38	1-163-024-00	CERAMIC CHIP	0. 018uF 10% 50V
C2	1-135-177-21	TANTALUM CHIP	1uF 20% 20V	C39	1-104-555-11	FILM CHIP	0. 022uF 5% 16V
C3	1-104-558-11	FILM CHIP	0. 039uF 5% 16V	C40	1-104-563-11	FILM CHIP	0. 1uF 5% 16V
C4	1-163-007-11	CERAMIC CHIP	680PF 10% 50V			< CONNECTOR >	
C5	1-163-009-11	CERAMIC CHIP	0. 001uF 10% 50V	CN1	1-695-092-11	SOCKET, CONNECTOR 7P	
		< IC >				< IC >	
C6	1-164-717-11	CERAMIC CHIP	0. 0082uF 5% 50V	IC1	8-752-056-51	IC CXA1417Q	
C7	1-164-222-11	CERAMIC CHIP	0. 22uF 25V			< RESISTOR >	
C8	1-104-562-11	FILM CHIP	0. 082uF 5% 16V	R1	1-216-615-11	METAL CHIP	33 0. 5% 1/10W
C9	1-104-553-11	FILM CHIP	0. 015uF 5% 16V	R2	1-208-806-11	METAL GLAZE	10K 2% 1/10W
C10	1-165-319-11	CERAMIC CHIP	0. 1uF 50V	R3	1-208-812-11	METAL GLAZE	18K 2% 1/10W
C11	1-135-145-11	TANTALUM CHIP	0. 47uF 10% 35V	R4	1-216-119-00	METAL CHIP	820K 5% 1/10W
C12	1-164-222-11	CERAMIC CHIP	0. 22uF 25V	R5	1-208-799-11	METAL GLAZE	5. 1K 2% 1/10W
C13	1-165-319-11	CERAMIC CHIP	0. 1uF 50V	R6	1-208-787-11	METAL GLAZE	1. 6K 2% 1/10W
C14	1-162-568-11	CERAMIC CHIP	0. 33uF 10% 16V	R7	1-216-657-11	METAL CHIP	1. 8K 0. 5% 1/10W
C15	1-104-562-11	FILM CHIP	0. 082uF 5% 16V	R8	1-216-667-11	METAL CHIP	4. 7K 0. 5% 1/10W
C16	1-135-145-11	TANTALUM CHIP	0. 47uF 10% 35V	R9	1-208-791-11	METAL GLAZE	2. 4K 2% 1/10W
C17	1-165-319-11	CERAMIC CHIP	0. 1uF 50V	R10	1-216-052-00	METAL CHIP	1. 3K 5% 1/10W
C18	1-164-222-11	CERAMIC CHIP	0. 22uF 25V	R11	1-216-615-11	METAL CHIP	33 0. 5% 1/10W
C19	1-163-035-00	CERAMIC CHIP	0. 047uF 50V	R12	1-216-619-11	METAL CHIP	47 0. 5% 1/10W
C20	1-104-553-11	FILM CHIP	0. 015uF 5% 16V	R13	1-208-784-11	METAL GLAZE	1. 2K 2% 1/10W
C21	1-164-717-11	CERAMIC CHIP	0. 0082uF 5% 50V	R14	1-216-667-11	METAL CHIP	4. 7K 0. 5% 1/10W
C22	1-163-009-11	CERAMIC CHIP	0. 001uF 10% 50V	R15	1-208-791-11	METAL GLAZE	2. 4K 2% 1/10W
C23	1-164-161-11	CERAMIC CHIP	0. 0022uF 10% 100V	R16	1-216-615-11	METAL CHIP	33 0. 5% 1/10W
C24	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	R17	1-216-619-11	METAL CHIP	47 0. 5% 1/10W
C25	1-163-012-00	CERAMIC CHIP	0. 0018uF 10% 50V	R18	1-216-657-11	METAL CHIP	1. 8K 0. 5% 1/10W
C26	1-104-558-11	FILM CHIP	0. 039uF 5% 16V	R19	1-208-787-11	METAL GLAZE	1. 6K 2% 1/10W
C27	1-163-012-00	CERAMIC CHIP	0. 0018uF 10% 50V	R20	1-208-799-11	METAL GLAZE	5. 1K 2% 1/10W
C28	1-163-012-00	CERAMIC CHIP	0. 0018uF 10% 50V	R21	1-216-119-00	METAL CHIP	820K 5% 1/10W
C29	1-104-563-11	FILM CHIP	0. 1uF 5% 16V	R22	1-216-655-11	METAL CHIP	1. 5K 0. 5% 1/10W
C30	1-135-145-11	TANTALUM CHIP	0. 47uF 10% 35V	R23	1-216-678-11	METAL CHIP	13K 0. 5% 1/10W
C31	1-104-555-11	FILM CHIP	0. 022uF 5% 16V	R24	1-216-673-11	METAL CHIP	8. 2K 0. 5% 1/10W
C32	1-104-563-11	FILM CHIP	0. 1uF 5% 16V	R25	1-208-806-11	METAL GLAZE	10K 2% 1/10W
C33	1-163-024-00	CERAMIC CHIP	0. 018uF 10% 50V				
C34	1-104-563-11	FILM CHIP	0. 1uF 5% 16V				
C35	1-163-012-00	CERAMIC CHIP	0. 0018uF 10% 50V				

DOLBY (S) AUDIO

Ref.No.	Part No.	Description	Remark		
R26	1-216-676-11	METAL CHIP	11K	0.5%	1/10W
R27	1-208-799-11	METAL GLAZE	5.1K	2%	1/10W
R28	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R29	1-208-799-11	METAL GLAZE	5.1K	2%	1/10W
R30	1-208-791-11	METAL GLAZE	2.4K	2%	1/10W
R31	1-208-811-11	METAL GLAZE	16K	2%	1/10W
R32	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R33	1-208-813-11	METAL GLAZE	20K	2%	1/10W
R34	1-216-684-11	METAL CHIP	24K	0.5%	1/10W
R35	1-208-817-11	METAL GLAZE	30K	2%	1/10W
R36	1-208-817-11	METAL GLAZE	30K	2%	1/10W
R37	1-216-676-11	METAL CHIP	11K	0.5%	1/10W
R38	1-208-819-11	METAL GLAZE	36K	2%	1/10W
R39	1-208-799-11	METAL GLAZE	5.1K	2%	1/10W
R40	1-208-817-11	METAL GLAZE	30K	2%	1/10W
R41	1-208-811-11	METAL GLAZE	16K	2%	1/10W
R42	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R43	1-216-676-11	METAL CHIP	11K	0.5%	1/10W
R44	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R45	1-216-689-11	METAL CHIP	39K	0.5%	1/10W

*	A-2006-890-A	AUDIO BOARD, COMPLETE			

		< CAPACITOR >			
C11	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-234-00	ELECT	22uF	20%	16V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-234-00	ELECT	22uF	20%	16V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C31	1-124-234-00	ELECT	22uF	20%	16V
C32	1-124-234-00	ELECT	22uF	20%	16V
C33	1-124-234-00	ELECT	22uF	20%	16V
C51	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C52	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C53	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C54	1-136-601-11	FILM	0.01uF	5%	630V
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C57	1-164-346-11	CERAMIC CHIP	1uF		16V
C71	1-164-346-11	CERAMIC CHIP	1uF		16V
C80	1-124-234-00	ELECT	22uF	20%	16V
C81	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C82	1-136-157-00	FILM	0.022uF	5%	50V
C83	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C84	1-136-439-11	FILM	330PF	5%	630V

Ref.No.	Part No.	Description	Remark		
C85	1-136-433-11	FILM	100PF	5%	630V
C86	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C87	1-136-273-91	FILM	75PF	5%	630V
C88	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C89	1-124-234-00	ELECT	22uF	20%	16V
C90	1-107-584-11	CERAMIC	4PF		0.25PF 500V
C91	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C92	1-136-157-00	FILM	0.022uF	5%	50V
C93	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C94	1-136-439-11	FILM	330PF	5%	630V
C95	1-136-433-11	FILM	100PF	5%	630V
C96	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C97	1-136-273-91	FILM	75PF	5%	630V
C98	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C99	1-164-005-11	CERAMIC CHIP	0.47uF		25V
< CONNECTOR >					
* CNP31	1-580-782-11	CONNECTOR, BOARD TO BOARD			
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P			
* CNP33	1-580-782-11	CONNECTOR, BOARD TO BOARD			
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP72	1-764-902-11	CONNECTOR, FFC/FPC 4P			
< DIODE >					
D31	8-719-404-46	DIODE	MA110		
< IC >					
IC31	8-759-106-02	IC	uPC4570G2		
IC81	8-759-106-56	IC	uPC1297CA		
< COIL >					
L81	1-410-780-11	INDUCTOR	27mH		
L91	1-410-780-11	INDUCTOR	27mH		
< TRANSISTOR >					
Q51	8-729-808-01	TRANSISTOR	2SD1622-S		
Q52	8-729-808-01	TRANSISTOR	2SD1622-S		
Q53	8-729-808-01	TRANSISTOR	2SD1622-S		
Q71	8-729-602-36	TRANSISTOR	2SA1602		
< RESISTOR >					
R11	1-216-107-00	METAL CHIP	270K	5%	1/10W
R12	1-216-025-91	METAL GLAZE	100	5%	1/10W
R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R14	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R21	1-216-107-00	METAL CHIP	270K	5%	1/10W
R22	1-216-025-91	METAL GLAZE	100	5%	1/10W
R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R24	1-216-068-00	METAL CHIP	6.2K	5%	1/10W

AUDIO

LEAF SW

SYSTEM CONTROL

PANEL

POWER TRANSFORMER

HEADPHONE

DISPLAY

Ref. No.	Part No.	Description	Remark
R31	1-216-033-00	METAL CHIP	220 5% 1/10W
R32	1-216-033-00	METAL CHIP	220 5% 1/10W
R33	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R51	1-216-091-00	METAL CHIP	56K 5% 1/10W
R52	1-216-091-00	METAL CHIP	56K 5% 1/10W
R53	1-216-073-00	METAL CHIP	10K 5% 1/10W
R54	1-216-309-00	METAL CHIP	5.6 5% 1/10W
R55	1-216-309-00	METAL CHIP	5.6 5% 1/10W
R57	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R71	1-216-082-00	METAL GLAZE	24K 5% 1/10W
R72	1-216-081-00	METAL CHIP	22K 5% 1/10W
R73	1-216-089-00	METAL CHIP	47K 5% 1/10W
R74	1-216-089-00	METAL CHIP	47K 5% 1/10W
R81	1-216-073-00	METAL CHIP	10K 5% 1/10W
R82	1-216-085-00	METAL CHIP	33K 5% 1/10W
R83	1-216-001-00	METAL CHIP	10 5% 1/10W
R84	1-216-101-00	METAL CHIP	150K 5% 1/10W
R85	1-216-075-00	METAL CHIP	12K 5% 1/10W
R91	1-216-073-00	METAL CHIP	10K 5% 1/10W
R92	1-216-085-00	METAL CHIP	33K 5% 1/10W
R93	1-216-001-00	METAL CHIP	10 5% 1/10W
R94	1-216-101-00	METAL CHIP	150K 5% 1/10W
R95	1-216-075-00	METAL CHIP	12K 5% 1/10W
< VARIABLE RESISTOR >			
RV11	1-241-761-11	RES, ADJ, CARBON 1K (PLAYBACK LEVEL L)	
RV21	1-241-761-11	RES, ADJ, CARBON 1K (PLAYBACK LEVEL R)	
RV71	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED)	
RV72	1-241-630-11	RES, ADJ, CARBON 10K (TAPE SPEED)	
RV81	1-241-786-11	RES, ADJ, CARBON 22K (RECORD BIAS L)	
RV91	1-241-786-11	RES, ADJ, CARBON 22K (RECORD BIAS R)	
< RELAY >			
RY31	1-515-913-11	RELAY	
< TRANSFORMER >			
T81	1-433-398-11	TRANSFORMER, BIAS OSCILLATOR	
T51	1-433-383-11	TRANSFORMER, BIAS OSCILLATION	
T91	1-433-398-11	TRANSFORMER, BIAS OSCILLATOR	
< TEST PIN >			
* TP81	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P	

Ref. No.	Part No.	Description	Remark
*	1-638-020-11	LEAF SW BOARD	*****
		< CONNECTOR >	
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
		< IC >	
IC81	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R81	1-249-414-11	CARBON	560 5% 1/4W
R83	1-247-834-11	CARBON	1.3K 5% 1/4W
R84	1-249-417-11	CARBON	1K 5% 1/4W
R85	1-249-408-11	CARBON	180 5% 1/4W
		< SWITCH >	
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (CrO ₂)	
S83	1-571-281-21	SWITCH, LEAF (METAL)	
S84	1-571-281-21	SWITCH, LEAF (REC A)	
S86	1-571-281-21	SWITCH, LEAF (HALF)	

*	A-2007-358-A	SYSTEM CONTROL BOARD, COMPLETE (US)	
*	A-2007-359-A	SYSTEM CONTROL BOARD, COMPLETE (AEP, G, AUS)	
*	A-2007-360-A	SYSTEM CONTROL BOARD, COMPLETE (UK)	

		PANEL BOARD	

		POWER TRANSFORMER BOARD	

		HEADPHONE BOARD	

		DISPLAY BOARD	

*	1-690-880-11	LEAD (WITH CONNECTOR)	
		< CAPACITOR >	
C101	1-136-157-00	FILM	0.022uF 5% 50V
C102	1-126-963-11	ELECT	4.7uF 20% 50V
C103	1-162-302-11	CERAMIC	0.0022uF 20% 16V
C104	1-124-907-11	ELECT	10uF 20% 50V
C105	1-136-165-00	FILM	0.1uF 5% 50V
C106	1-136-163-00	FILM	0.068uF 5% 50V
C107	1-124-916-11	ELECT	22uF 20% 63V
C108	1-124-907-11	ELECT	10uF 20% 50V
C109	1-124-907-11	ELECT	10uF 20% 50V
C110	1-126-963-11	ELECT	4.7uF 20% 50V

SYSTEM CONTROL

PANEL

POWER TRANSFORMER

HEADPHONE

DISPLAY

Ref. No.	Part No.	Description	Remark
C111	1-126-962-11	ELECT	3. 3uF 20% 50V
C112	1-124-902-00	ELECT	0. 47uF 20% 50V
C113	1-126-963-11	ELECT	4. 7uF 20% 50V
C114	1-124-907-11	ELECT	10uF 20% 50V
C115	1-124-916-11	ELECT	22uF 20% 63V
C131	1-126-963-11	ELECT	4. 7uF 20% 50V
C132	1-126-962-11	ELECT	3. 3uF 20% 50V
C133	1-162-294-31	CERAMIC	0. 001uF 10% 50V
C201	1-136-157-00	FILM	0. 022uF 5% 50V
C202	1-126-963-11	ELECT	4. 7uF 20% 50V
C203	1-162-302-11	CERAMIC	0. 0022uF 20% 16V
C204	1-124-907-11	ELECT	10uF 20% 50V
C205	1-136-165-00	FILM	0. 1uF 5% 50V
C206	1-136-163-00	FILM	0. 068uF 5% 50V
C207	1-124-916-11	ELECT	22uF 20% 63V
C208	1-124-907-11	ELECT	10uF 20% 50V
C209	1-124-907-11	ELECT	10uF 20% 50V
C210	1-126-963-11	ELECT	4. 7uF 20% 50V
C211	1-126-962-11	ELECT	3. 3uF 20% 50V
C212	1-124-902-00	ELECT	0. 47uF 20% 50V
C213	1-126-963-11	ELECT	4. 7uF 20% 50V
C214	1-124-907-11	ELECT	10uF 20% 50V
C215	1-124-916-11	ELECT	22uF 20% 63V
C231	1-126-963-11	ELECT	4. 7uF 20% 50V
C232	1-126-962-11	ELECT	3. 3uF 20% 50V
C233	1-162-294-31	CERAMIC	0. 001uF 10% 50V
C501	1-126-942-61	ELECT	1000uF 20% 16V
C502	1-124-907-11	ELECT	10uF 20% 50V
C503	1-124-907-11	ELECT	10uF 20% 50V
C504	1-124-903-11	ELECT	1uF 20% 50V
C505	1-124-907-11	ELECT	10uF 20% 50V
C506	1-124-472-11	ELECT	470uF 20% 10V
C511	1-136-161-00	FILM	0. 047uF 5% 50V
C512	1-136-164-00	FILM	0. 082uF 5% 50V
C513	1-137-367-11	FILM	0. 0033uF 5% 50V
C514	1-124-907-11	ELECT	10uF 20% 50V
C515	1-124-907-11	ELECT	10uF 20% 50V
C521	1-124-907-11	ELECT	10uF 20% 50V
C551	1-162-282-31	CERAMIC	100PF 10% 50V
C552	1-161-494-00	CERAMIC	0. 022uF 25V
C553	1-162-217-31	CERAMIC	56PF 5% 50V
C554	1-124-925-11	ELECT	2. 2uF 20% 100V
C555	1-124-925-11	ELECT	2. 2uF 20% 100V
C571	1-124-916-11	ELECT	22uF 20% 63V
C572	1-126-916-11	ELECT	1000uF 20% 6. 3V
C581	1-164-159-11	CERAMIC	0. 1uF 50V (FORMER TYPE)
C601	1-164-159-11	CERAMIC	0. 1uF 50V
C602	1-162-288-31	CERAMIC	330PF 10% 50V

Ref. No.	Part No.	Description	Remark
C701	1-124-563-11	ELECT	2200uF 20% 25V
C702	1-124-563-11	ELECT	2200uF 20% 25V
C703	1-124-477-11	ELECT	47uF 20% 25V
C704	1-124-473-11	ELECT	1000uF 20% 10V
C705	1-124-473-11	ELECT	1000uF 20% 10V
C706	1-126-941-11	ELECT	470uF 20% 6. 3V
C707	1-124-907-11	ELECT	10uF 20% 50V
C708	1-126-963-11	ELECT	4. 7uF 20% 50V
C709	1-124-122-11	ELECT	100uF 20% 50V
C710	1-124-477-11	ELECT	47uF 20% 25V
C711	1-164-159-11	CERAMIC	0. 1uF 50V
C712	1-161-494-00	CERAMIC	0. 022uF 25V
C713	1-161-494-00	CERAMIC	0. 022uF 25V (FORMER TYPE)
C801	1-126-963-11	ELECT	4. 7uF 20% 50V
C803	1-161-494-00	CERAMIC	0. 022uF 25V (AEP, UK, G, AUS)
C804	1-161-494-00	CERAMIC	0. 022uF 25V
C805	1-164-159-11	CERAMIC	0. 1uF 50V
C806	1-124-907-11	ELECT	10uF 20% 50V
C807	1-126-941-11	ELECT	470uF 20% 6. 3V
C808	1-161-494-00	CERAMIC	0. 022uF 25V
C809	1-161-494-00	CERAMIC	0. 022uF 25V
C810	1-162-282-31	CERAMIC	100PF 10% 50V
C811	1-164-159-11	CERAMIC	0. 1uF 50V

< CONNECTOR >

CN81	1-568-826-11	CONNECTOR, FFC/FPC 7P
CN101	1-695-087-11	PIN, CONNECTOR (PC BOARD) 7P
CN201	1-695-087-11	PIN, CONNECTOR (PC BOARD) 7P
* CN504	1-750-416-11	CONNECTOR, FFC/FPC 11P
CN505	1-750-438-11	CONNECTOR, FFC/FPC 33P
CN506	1-506-468-11	PIN, CONNECTOR 3P
* CN702	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P
* CNB31	1-691-916-11	CONNECTOR, BOARD TO BOARD
* CNB33	1-691-916-11	CONNECTOR, BOARD TO BOARD
CNE701	1-564-510-11	PLUG, CONNECTOR 7P
* CNP504	1-750-416-11	CONNECTOR, FFC/FPC 11P
CNP505	1-750-438-11	CONNECTOR, FFC/FPC 33P

< DIODE >

D131	8-719-987-63	DIODE	1N4148M
D132	8-719-987-63	DIODE	1N4148M
D231	8-719-987-63	DIODE	1N4148M
D232	8-719-987-63	DIODE	1N4148M
D511	8-719-987-63	DIODE	1N4148M
D512	8-719-987-63	DIODE	1N4148M
D513	8-719-987-63	DIODE	1N4148M
D514	8-719-024-99	DIODE	11ES2

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POWER TRANSFORMER

HEADPHONE

DISPLAY

Ref. No.	Part No.	Description	Remark
D515	8-719-024-99	DIODE 11ES2	
D516	8-719-024-99	DIODE 11ES2	
D517	8-719-024-99	DIODE 11ES2	
D551	8-719-987-63	DIODE 1N4148M	
D701	8-719-024-99	DIODE 11ES2	
D702	8-719-024-99	DIODE 11ES2	
D703	8-719-024-99	DIODE 11ES2	
D704	8-719-024-99	DIODE 11ES2	
D705	8-719-024-99	DIODE 11ES2	
D706	8-719-024-99	DIODE 11ES2	
D707	8-719-024-99	DIODE 11ES2	
D708	8-719-933-33	DIODE HZS6A1L	
D709	8-719-001-51	DIODE UZL-11H1	
D710	8-719-000-60	DIODE UZL-6M2	
D711	8-719-987-63	DIODE 1N4148M	
D712	8-719-987-63	DIODE 1N4148M	
D713	8-719-000-93	DIODE UZL-7H1	
D714	8-719-987-63	DIODE 1N4148M	
D715	8-719-933-33	DIODE HZS6A1L	
D801	8-719-933-33	DIODE HZS6A1L	
D802	8-719-933-33	DIODE HZS6A1L	
< INDICATOR TUBE >			
FL901	1-517-374-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC501	8-752-066-35	IC CXA1563S	
IC502	8-752-055-62	IC CXA1579P	
IC503	8-759-634-51	IC M5218AP	
IC504	8-759-634-51	IC M5218AP	
IC505	8-759-634-51	IC M5218AP	
IC506	8-759-140-53	IC uPD4053BC	
IC507	8-759-634-51	IC M5218AP	
IC508	8-759-000-48	IC MC14052BCP	
IC509	8-759-916-14	IC SN74HC04AN	
IC510	8-759-634-51	IC M5218AP	
IC511	8-759-634-51	IC M5218AP	
IC512	8-759-634-51	IC M5218AP	
IC601	8-759-803-42	IC LA6500-FA	
IC701	8-759-634-51	IC M5218AP	
IC801	8-752-862-31	IC CXP82612-011Q	
IC802	8-759-165-82	IC PST600E-T	
IC802	8-759-520-90	IC PST572E	
IC901	8-741-810-59	IC ELEMENT, RAY-CATCHER SBX1810-59	
< JACK >			
J501	1-565-258-11	JACK, PIN 4P (LINE IN/OUT)	
J502	1-568-519-41	JACK, LARGE TYPE (PHONES)	

Ref. No.	Part No.	Description	Remark
< FILTER >			
LPF101	1-235-175-11	FILTER, LOW PASS	
LPF201	1-235-175-11	FILTER, LOW PASS	
< TRANSISTOR >			
Q101	8-729-900-89	TRANSISTOR DTC144ES	
Q102	8-729-900-80	TRANSISTOR DTC114ES	
Q121	8-729-922-37	TRANSISTOR 2SD2144S	
Q122	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q201	8-729-900-89	TRANSISTOR DTC144ES	
Q202	8-729-900-80	TRANSISTOR DTC114ES	
Q221	8-729-922-37	TRANSISTOR 2SD2144S	
Q222	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q503	8-729-422-57	TRANSISTOR UN4111	
Q504	8-729-900-80	TRANSISTOR DTC114ES	
Q507	8-729-900-65	TRANSISTOR DTA144ES	
Q508	8-729-900-65	TRANSISTOR DTA144ES	
Q511	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q512	8-729-900-74	TRANSISTOR DTC143TS	
Q521	8-729-900-80	TRANSISTOR DTC114ES	
Q531	8-729-422-57	TRANSISTOR UN4111	
Q532	8-729-900-80	TRANSISTOR DTC114ES	
Q551	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q571	8-729-422-57	TRANSISTOR UN4111	
Q572	8-729-422-57	TRANSISTOR UN4111	
Q573	8-729-900-65	TRANSISTOR DTA144ES	
Q601	8-729-801-93	TRANSISTOR 2SD1387	
Q701	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q702	8-729-209-15	TRANSISTOR 2SD2012	
Q703	8-729-900-74	TRANSISTOR DTC143TS	
Q704	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q706	8-729-900-74	TRANSISTOR DTC143TS	
Q707	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q708	8-729-140-04	TRANSISTOR 2SB1116A-L	
Q803	8-729-900-80	TRANSISTOR DTC114ES	
Q805	8-729-119-76	TRANSISTOR 2SA1175-HFE	
< RESISTOR >			
R101	1-247-838-00	CARBON 2K 5% 1/4W	
R102	1-247-842-11	CARBON 3K 5% 1/4W	
R104	1-249-417-11	CARBON 1K 5% 1/4W	
R105	1-249-423-11	CARBON 3.3K 5% 1/4W	
R106	1-247-887-00	CARBON 220K 5% 1/4W	
R107	1-249-428-11	CARBON 8.2K 5% 1/4W	
R108	1-249-429-11	CARBON 10K 5% 1/4W	
R110	1-249-429-11	CARBON 10K 5% 1/4W	
R111	1-249-423-11	CARBON 3.3K 5% 1/4W	

SYSTEM CONTROL**PANEL****POWER TRANSFORMER****HEADPHONE****DISPLAY**

Ref. No.	Part No.	Description	Remark		
R112	1-247-864-11	CARBON	24K	5%	1/4W
R113	1-249-429-11	CARBON	10K	5%	1/4W
R114	1-249-437-11	CARBON	47K	5%	1/4W
R121	1-249-437-11	CARBON	47K	5%	1/4W
R122	1-249-421-11	CARBON	2. 2K	5%	1/4W
R123	1-249-421-11	CARBON	2. 2K	5%	1/4W
R124	1-249-437-11	CARBON	47K	5%	1/4W
R125	1-249-425-11	CARBON	4. 7K	5%	1/4W
R131	1-249-425-11	CARBON	4. 7K	5%	1/4W
R132	1-247-822-11	CARBON	430	5%	1/4W
R133	1-247-866-11	CARBON	30K	5%	1/4W
R134	1-247-866-11	CARBON	30K	5%	1/4W
R135	1-249-439-11	CARBON	68K	5%	1/4W
R136	1-249-410-11	CARBON	270	5%	1/4W
R141	1-249-432-11	CARBON	18K	5%	1/4W
R142	1-249-432-11	CARBON	18K	5%	1/4W
R143	1-249-421-11	CARBON	2. 2K	5%	1/4W
R144	1-247-854-11	CARBON	9. 1K	5%	1/4W
R145	1-249-409-11	CARBON	220	5%	1/4W
R151	1-249-433-11	CARBON	22K	5%	1/4W
R152	1-249-417-11	CARBON	1K	5%	1/4W
R153	1-249-441-11	CARBON	100K	5%	1/4W
R154	1-249-433-11	CARBON	22K	5%	1/4W
R201	1-247-838-00	CARBON	2K	5%	1/4W
R202	1-247-842-11	CARBON	3K	5%	1/4W
R204	1-249-417-11	CARBON	1K	5%	1/4W
R205	1-249-423-11	CARBON	3. 3K	5%	1/4W
R206	1-247-887-00	CARBON	220K	5%	1/4W
R207	1-249-428-11	CARBON	8. 2K	5%	1/4W
R208	1-249-429-11	CARBON	10K	5%	1/4W
R210	1-249-429-11	CARBON	10K	5%	1/4W
R211	1-249-423-11	CARBON	3. 3K	5%	1/4W
R212	1-247-864-11	CARBON	24K	5%	1/4W
R213	1-249-429-11	CARBON	10K	5%	1/4W
R214	1-249-437-11	CARBON	47K	5%	1/4W
R221	1-249-437-11	CARBON	47K	5%	1/4W
R222	1-249-421-11	CARBON	2. 2K	5%	1/4W
R223	1-249-421-11	CARBON	2. 2K	5%	1/4W
R224	1-249-437-11	CARBON	47K	5%	1/4W
R225	1-249-425-11	CARBON	4. 7K	5%	1/4W
R231	1-249-425-11	CARBON	4. 7K	5%	1/4W
R232	1-247-822-11	CARBON	430	5%	1/4W
R233	1-247-866-11	CARBON	30K	5%	1/4W
R234	1-247-866-11	CARBON	30K	5%	1/4W
R235	1-249-439-11	CARBON	68K	5%	1/4W
R236	1-249-410-11	CARBON	270	5%	1/4W
R241	1-249-432-11	CARBON	18K	5%	1/4W
R242	1-249-432-11	CARBON	18K	5%	1/4W
R243	1-249-421-11	CARBON	2. 2K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R244	1-247-854-11	CARBON	9. 1K	5%	1/4W
R245	1-249-409-11	CARBON	220	5%	1/4W
R251	1-249-433-11	CARBON	22K	5%	1/4W
R252	1-249-417-11	CARBON	1K	5%	1/4W
R253	1-249-441-11	CARBON	100K	5%	1/4W
R254	1-249-433-11	CARBON	22K	5%	1/4W
R502	1-215-452-00	METAL	20K	1%	1/4W
R503	1-249-422-11	CARBON	2. 7K	5%	1/4W
R504	1-215-455-00	METAL	27K	1%	1/4W
R505	1-249-417-11	CARBON	1K	5%	1/4W
R512	1-249-421-11	CARBON	2. 2K	5%	1/4W
R513	1-249-441-11	CARBON	100K	5%	1/4W
R514	1-249-441-11	CARBON	100K	5%	1/4W
R515	1-249-436-11	CARBON	39K	5%	1/4W
R516	1-249-425-11	CARBON	4. 7K	5%	1/4W
R517	1-249-433-11	CARBON	22K	5%	1/4W
R518	1-249-425-11	CARBON	4. 7K	5%	1/4W
R521	1-249-426-11	CARBON	5. 6K	5%	1/4W
R522	1-249-426-11	CARBON	5. 6K	5%	1/4W
R523	1-247-858-11	CARBON	13K	5%	1/4W
R524	1-247-852-11	CARBON	7. 5K	5%	1/4W
R525	1-247-854-11	CARBON	9. 1K	5%	1/4W
R526	1-247-854-11	CARBON	9. 1K	5%	1/4W
R527	1-249-426-11	CARBON	5. 6K	5%	1/4W
R528	1-249-422-11	CARBON	2. 7K	5%	1/4W
R529	1-249-429-11	CARBON	10K	5%	1/4W
R530	1-249-421-11	CARBON	2. 2K	5%	1/4W
R531	1-249-427-11	CARBON	6. 8K	5%	1/4W
R532	1-249-433-11	CARBON	22K	5%	1/4W
R535	1-249-419-11	CARBON	1. 5K	5%	1/4W
R536	1-249-421-11	CARBON	2. 2K	5%	1/4W
R537	1-247-866-11	CARBON	30K	5%	1/4W
R538	1-247-852-11	CARBON	7. 5K	5%	1/4W
R539	1-249-431-11	CARBON	15K	5%	1/4W
R540	1-247-874-11	CARBON	62K	5%	1/4W
R541	1-249-429-11	CARBON	10K	5%	1/4W
R542	1-249-429-11	CARBON	10K	5%	1/4W
R543	1-249-429-11	CARBON	10K	5%	1/4W
R544	1-249-429-11	CARBON	10K	5%	1/4W
R553	1-249-437-11	CARBON	47K	5%	1/4W
R555	1-249-427-11	CARBON	6. 8K	5%	1/4W
R556	1-249-423-11	CARBON	3. 3K	5%	1/4W
R557	1-249-441-11	CARBON	100K	5%	1/4W
R558	1-249-429-11	CARBON	10K	5%	1/4W
R559	1-249-441-11	CARBON	100K	5%	1/4W
R560	1-249-417-11	CARBON	1K	5%	1/4W
R561	1-249-432-11	CARBON	18K	5%	1/4W
R562	1-249-436-11	CARBON	39K	5%	1/4W
R571	1-249-403-11	CARBON	68	5%	1/4W

SYSTEM CONTROL

PANEL

POWER TRANSFORMER

HEADPHONE

DISPLAY

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R572	1-249-429-11	CARBON	10K 5% 1/4W	R816	1-247-807-31	CARBON	100 5% 1/4W
R573	1-249-429-11	CARBON	10K 5% 1/4W	R817	1-249-435-11	CARBON	33K 5% 1/4W
R574	1-249-435-11	CARBON	33K 5% 1/4W	R820	1-247-807-31	CARBON	100 5% 1/4W
R575	1-247-807-31	CARBON	100 5% 1/4W	R821	1-249-435-11	CARBON	33K 5% 1/4W
R576	1-249-435-11	CARBON	33K 5% 1/4W	R822	1-249-429-11	CARBON	10K 5% 1/4W
R577	1-249-433-11	CARBON	22K 5% 1/4W	R823	1-249-435-11	CARBON	33K 5% 1/4W
R578	1-249-435-11	CARBON	33K 5% 1/4W	R824	1-249-421-11	CARBON	2.2K 5% 1/4W
R601	1-249-419-11	CARBON	1.5K 5% 1/4W	R825	1-249-435-11	CARBON	33K 5% 1/4W
R602	1-249-429-11	CARBON	10K 5% 1/4W	R826	1-249-421-11	CARBON	2.2K 5% 1/4W
R603	1-247-807-31	CARBON	100 5% 1/4W	R827	1-249-422-11	CARBON	2.7K 5% 1/4W
R604	1-249-433-11	CARBON	22K 5% 1/4W	R828	1-249-422-11	CARBON	2.7K 5% 1/4W
R605	1-249-433-11	CARBON	22K 5% 1/4W	R829	1-249-422-11	CARBON	2.7K 5% 1/4W
R606	1-249-430-11	CARBON	12K 5% 1/4W	R830	1-249-435-11	CARBON	33K 5% 1/4W
R607	1-249-433-11	CARBON	22K 5% 1/4W	R901	1-249-420-11	CARBON	1.8K 5% 1/4W
R608	1-247-862-11	CARBON	20K 5% 1/4W	R903	1-247-854-11	CARBON	9.1K 5% 1/4W
R609	1-249-429-11	CARBON	10K 5% 1/4W	R904	1-249-429-11	CARBON	10K 5% 1/4W
R701	1-249-425-11	CARBON	4.7K 5% 1/4W	R905	1-249-435-11	CARBON	33K 5% 1/4W
R702	1-249-419-11	CARBON	1.5K 5% 1/4W	R906	1-249-420-11	CARBON	1.8K 5% 1/4W
R703	1-249-418-11	CARBON	1.2K 5% 1/4W	R907	1-249-423-11	CARBON	3.3K 5% 1/4W
R704	1-249-427-11	CARBON	6.8K 5% 1/4W	R908	1-249-426-11	CARBON	5.6K 5% 1/4W
R705	1-249-419-11	CARBON	1.5K 5% 1/4W	R911	1-249-429-11	CARBON	10K 5% 1/4W
R706	1-249-419-11	CARBON	1.5K 5% 1/4W	R912	1-249-429-11	CARBON	10K 5% 1/4W
R707	1-249-429-11	CARBON	10K 5% 1/4W	R913	1-249-429-11	CARBON	10K 5% 1/4W
R708	1-249-425-11	CARBON	4.7K 5% 1/4W	R921	1-249-420-11	CARBON	1.8K 5% 1/4W
R709	1-249-409-11	CARBON	220 5% 1/4W	R922	1-249-423-11	CARBON	3.3K 5% 1/4W
R710	1-249-417-11	CARBON	1K 5% 1/4W	R923	1-249-426-11	CARBON	5.6K 5% 1/4W
R711	1-249-427-11	CARBON	6.8K 5% 1/4W			< VARIABLE RESISTOR >	
R712	1-249-427-11	CARBON	6.8K 5% 1/4W	RV111	1-241-630-11	RES, ADJ, CARBON 10K (RECORD LEVEL L)	
R713	1-249-421-11	CARBON	2.2K 5% 1/4W	RV211	1-241-630-11	RES, ADJ, CARBON 10K (RECORD LEVEL R)	
R714	1-249-425-11	CARBON	4.7K 5% 1/4W	RV901	1-223-604-11	RES, VAR, CARBON 10K/10K (REC LEVEL)	
R715	1-249-421-11	CARBON	2.2K 5% 1/4W	RV902	1-223-605-11	RES, VAR, CARBON 20K/20K (BALANCE)	
R716	1-249-437-11	CARBON	47K 5% 1/4W			< SWITCH >	
R717	1-249-429-11	CARBON	10K 5% 1/4W	S901	1-554-303-21	SWITCH, TACTILE ()	
R718	1-247-870-11	CARBON	43K 5% 1/4W	S903	1-554-303-21	SWITCH, TACTILE (▷)	
R719	1-249-429-11	CARBON	10K 5% 1/4W	S905	1-554-303-21	SWITCH, TACTILE (●)	
R801	1-249-417-11	CARBON	1K 5% 1/4W	S906	1-554-303-21	SWITCH, TACTILE (RESET)	
R802	1-249-441-11	CARBON	100K 5% 1/4W	S907	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R803	1-249-429-11	CARBON	10K 5% 1/4W	S908	1-554-303-21	SWITCH, TACTILE (■)	
R805	1-249-434-11	CARBON	27K 5% 1/4W	S909	1-554-303-21	SWITCH, TACTILE (◀)	
R806	1-249-434-11	CARBON	27K 5% 1/4W	S910	1-554-303-21	SWITCH, TACTILE (▶)	
R807	1-249-434-11	CARBON	27K 5% 1/4W	S911	1-554-303-21	SWITCH, TACTILE (●)	
R808	1-249-434-11	CARBON	27K 5% 1/4W	S913	1-692-409-11	SWITCH, PUSH (1 KEY) (POWER)	
R809	1-249-434-11	CARBON	27K 5% 1/4W	S921	1-554-303-21	SWITCH, TACTILE (AUTO CAL)	
R810	1-247-807-31	CARBON	100 5% 1/4W	S922	1-692-410-11	SWITCH, ROTARY (DOLBY NR)	
R811	1-247-807-31	CARBON	100 5% 1/4W	S923	1-554-118-00	SWITCH, PUSH (1 KEY) (MPX FILTER)	
R812	1-247-807-31	CARBON	100 5% 1/4W				
R813	1-247-807-31	CARBON	100 5% 1/4W				
R814	1-247-807-31	CARBON	100 5% 1/4W				
R815	1-247-807-31	CARBON	100 5% 1/4W				

SYSTEM CONTROL

PANEL

POWER TRANSFORMER

HEADPHONE

DISPLAY

Ref. No.	Part No.	Description	Remark
		< TEST PIN >	

* TP801 1-560-060-00 PIN, CONNECTOR 2P

< VIBRATOR >

X801 1-577-360-11 VIBRATOR, CERAMIC (6MHz)

MISCELLANEOUS

△7 1-558-945-21 CORD, POWER (POLAR. SPT-1) (US)

△7 1-575-651-21 CORD, POWER (AEP, G)

△7 1-696-586-11 CORD, POWER (UK)

△7 1-696-845-11 CORD, POWER (AUS)

67 1-696-965-11 WIRE (FLAT TYPE) (7 CORE)

77 1-575-784-11 WIRE (FLAT TYPE) (11 CORE)

78 1-751-736-11 WIRE (FLAT TYPE) (33 CORE)

* 79 1-690-880-11 LEAD (WITH CONNECTOR)

103 1-638-983-11 PC BOARD, MOTOR FLEXIBLE

HE101 1-543-673-11 HEAD, MAGNETIC (ERASE)

* HRP101 1-543-919-11 HEAD, MAGNETIC (RECORD/PLAYBACK)

M1 X-3365-377-2 MOTOR ASSY (CAPSTAN)

M2 X-3363-501-2 MOTOR ASSY (REEL)

△T701 1-427-751-11 TRANSFORMER, POWER (AEP, UK, G, AUS)

△T701 1-427-752-11 TRANSFORMER, POWER (US)

ACCESSORIES & PACKING MATERIALS

1-551-734-11 CORD, CONNECTION

3-798-461-11 MANUAL, INSTRUCTION (ENGLISH/FRENCH/
SPANISH/PORTUGUESE) (AEP)

3-798-461-21 MANUAL, INSTRUCTION (ENGLISH)
(US, UK, AUS)

3-798-461-41 MANUAL, INSTRUCTION (GERMAN/DUTCH/
SWEDISH/ITALIAN) (AEP)

3-798-461-51 MANUAL, INSTRUCTION (GERMAN) (G)

* 3-907-887-01 CUSHION

* 3-923-964-31 INDIVIDUAL CARTON (US, AUS)

* 3-923-964-41 INDIVIDUAL CARTON (AEP, UK, G)

HARDWARE LIST

#1 7-682-548-04 SCREW +BVTT 3×8 (S)

#2 7-682-548-09 SCREW +BVTT 3×8 (S)

#3 7-621-773-95 SCREW +BVTT 2.6×6 (S)

#4 7-685-134-19 SCREW +P 2.6×8

Ref. No.	Part No.	Description	Remark
#5	7-621-772-58	SCREW +B2×10	
#6	7-627-556-08	SCREW +P 2.6×2.8	
#7	7-621-775-00	SCREW +B 2.6×3	

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