

TC-W370/W411/WR511/WR570

SERVICE MANUAL

US Model
TC-W370/W411/WR511/WR570

Canadian Model
AEP Model
UK Model
E Model
TC-W370/WR570



Photo: TC-WR570

SPECIFICATIONS

Recording system 4-track 2-channel stereo
Fast winding time Approx. 90 sec. (with Sony C-60 cassette)
Bias AC bias
Signal-to-noise ratio (at peak level)

Dolby NR switch	OFF	B-Type ON	C-Type ON
Cassette			
Type IV (Sony METAL-SLT/S)	58 dB	66 dB	73 dB
Type II (Sony UX-S)	57 dB	65 dB	72 dB
Type I (Sony HF-S)	55 dB	63 dB	70 dB

Total harmonic distortion 1.0% (with Sony METAL-SLT/S cassettes)
Frequency response (DOLBY NR OFF)

Type IV cassette (Sony METAL-SLT/S)	30 - 15,000 Hz (± 3 dB, IEC) 30 - 13,000 Hz [± 3 dB 0VU (-4 dB) recording]
Type II cassette (Sony UX-S)	30 - 15,000 Hz (± 3 dB, IEC)
Type I cassette (Sony HF-S)	30 - 14,000 Hz (± 3 dB, IEC)

Wow and flutter $\pm 0.14\%$ W. Peak (IEC)
0.08% WRMS (NAB)
 $\pm 0.19\%$ W. Peak (DIN)

Inputs

Line inputs (phono jacks)	Sensitivity	77.5 mV
	Input impedance	47 k ohms

Outputs

Line outputs (phono jacks)	Rated output level	0.32 V at a load impedance of 47 k ohms
	Load impedance	Over 10 k ohms
Headphones (stereo phone jack)	Output level	0.3 mW at a load impedance of 32 ohms

Model Name Using Similar Mechanism		TC-W320/W320S /WR520/WR520S	
Tape Transport Mechanism Type	TC-W370 /W411	DECK A	TCM-190VA12
		DECK B	TCM-190VB12
	TC-WR511	DECK A	TCM-190RA12
		DECK B	TCM-190RB22
	TC-WR570	DECK A	TCM-190RA12
		DECK B	TCM-190RB12

General

Power requirements US, Canadian model: 120V AC, 60Hz
AEP, Germany model: 220V AC, 50/60Hz
UK model: 240V AC, 50/60Hz
E model: 120, 220, 240V
AC adjustable, 50/60Hz

Power consumption 23 W

Dimensions Approx. 430 x 125 x 285 mm (w/h/d)
(17 x 5 x 11 $\frac{1}{4}$ inches)
including projecting parts and controls

Weight Approx. 4.5 kg (9 lbs 15 oz)

Supplied accessory

Audio connecting cords (2)
Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

Dolby noise reduction manufactured under license from
Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol $\square\square$ are trademarks of
Dolby Laboratories Licensing Corporation.

STEREO CASSETTE DECK

SONY®

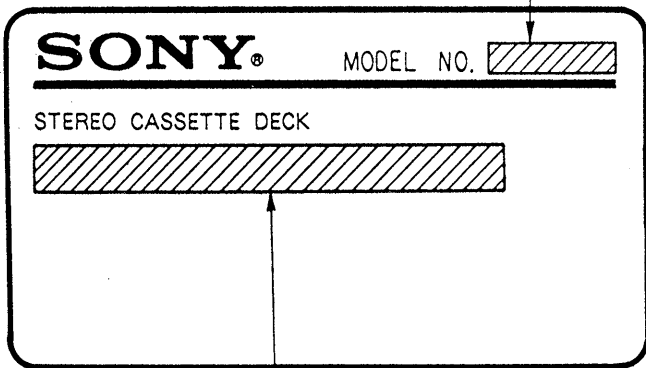


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MODEL IDENTIFICATION
(Specification Label)

TC-W370
TC-W411
TC-WR511
TC-WR570



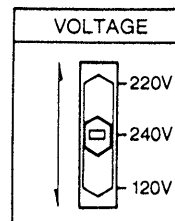
US, Canadian model: AC120V 60Hz 23W
 UK model: AC240V ~50/60Hz
 Germany, AEP model: AC220-230V ~50/60Hz
 E model: AC120, 220, 240V ~50/60Hz 23W

Operating voltage (E model)

Operate the unit on either 120, 220 or 240 V AC, 50/60 Hz. Before connecting the unit to the power source, check that the operating voltage of your unit is the same as the local power line voltage.

The voltage selector is located on the rear panel. If the selector must be reset, disconnect the AC power cord and set the selector to the appropriate voltage.

VOLTAGE Selector



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)

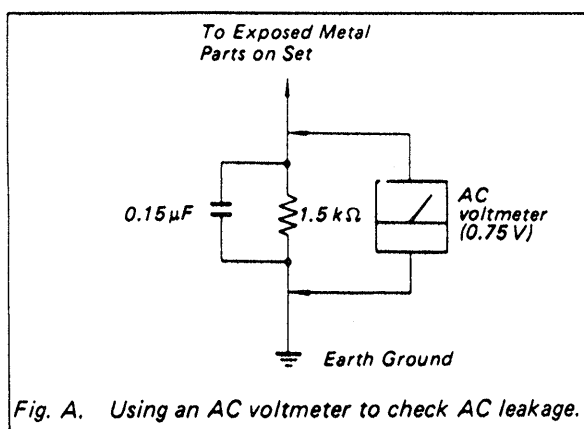


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle 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.

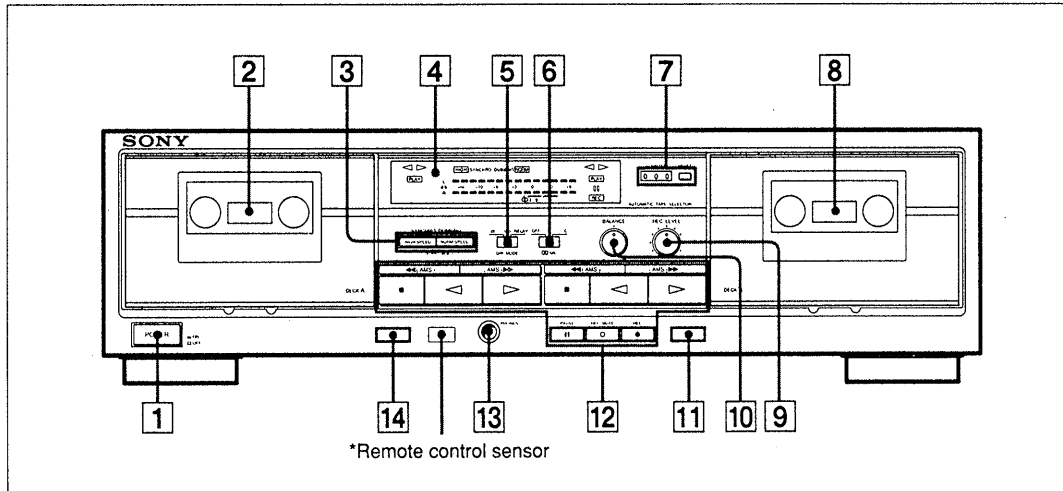
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

SECTION 1 GENERAL

This section is extracted
from instruction manual.

Identification of Front Panel Parts



For details, refer to the page number indicated in ●

1 POWER switch

2 Deck A

3 SYNCHRO DUBBING buttons ●
HIGH SPEED button
NORM (normal) SPEED button

4 Display panel

5 DIR (direction) MODE switch
(TC-WR570/WR511 only) ● ● ● ●

6 NR (Dolby noise reduction) switch ● ●

7 Tape COUNTER and RESET button

8 Deck B

9 REC (recording) LEVEL control ●

10 BALANCE control ●

11 ▲ (eject) button (deck B)

12 Tape operation buttons



- (stop) button
- ◀◀ (AMS**) (leftward fast winding) button
- ◀ (reverse play) button (TC-WR570/WR511 only)
- ▶▶ (forward play) button
- ▶▶ (AMS**) (rightward fast winding) button
- || PAUSE button (deck B only)
- REC MUTE (record muting) button (deck B only) ●
- REC (recording) button (deck B only)

13 PHONES (headphones) jack (stereo phone jack)

14 ▲ (eject) button (deck A)

*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.
- Any optional Sony remote commander with the  mark and cassette deck control capability.

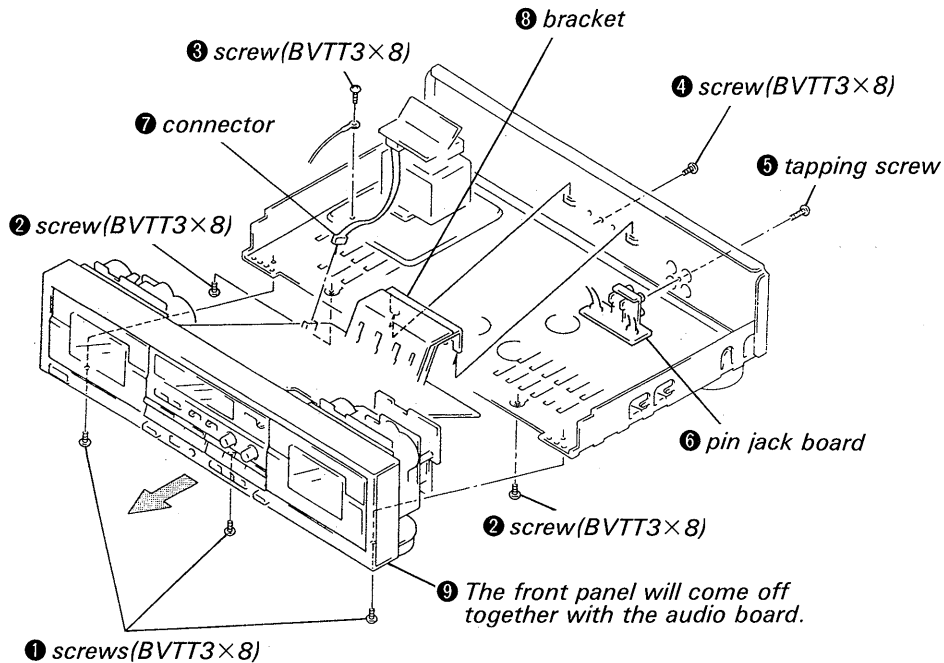
**AMS is an abbreviation for Automatic Music Sensor.

SECTION 2 DISASSEMBLY

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

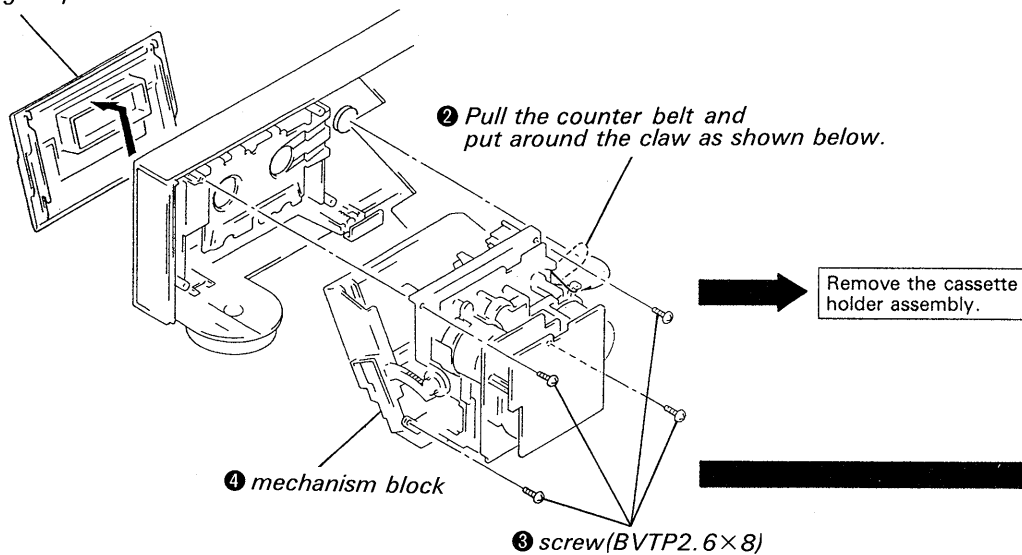
- W370 :TC-W370
- W411 :TC-W411
- WR511:TC-WR511
- WR570:TC-WR570

[FRONT PANEL]



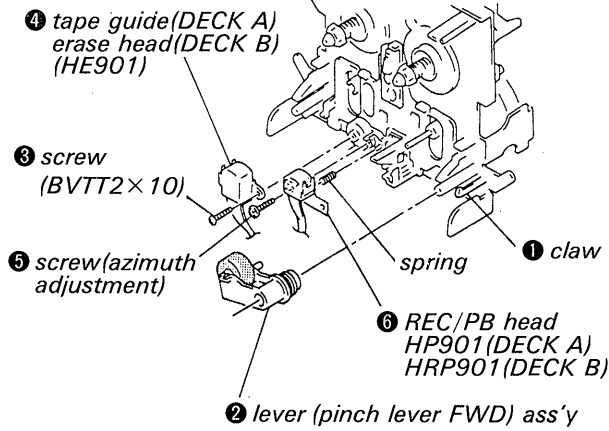
[MECHANISM BLOCK]

① Press the eject button and remove the cassette lid by sliding it upward.

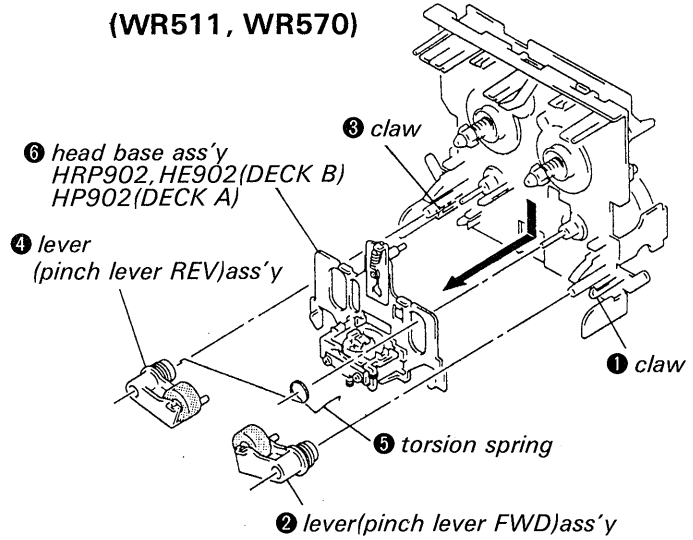


[HEAD]

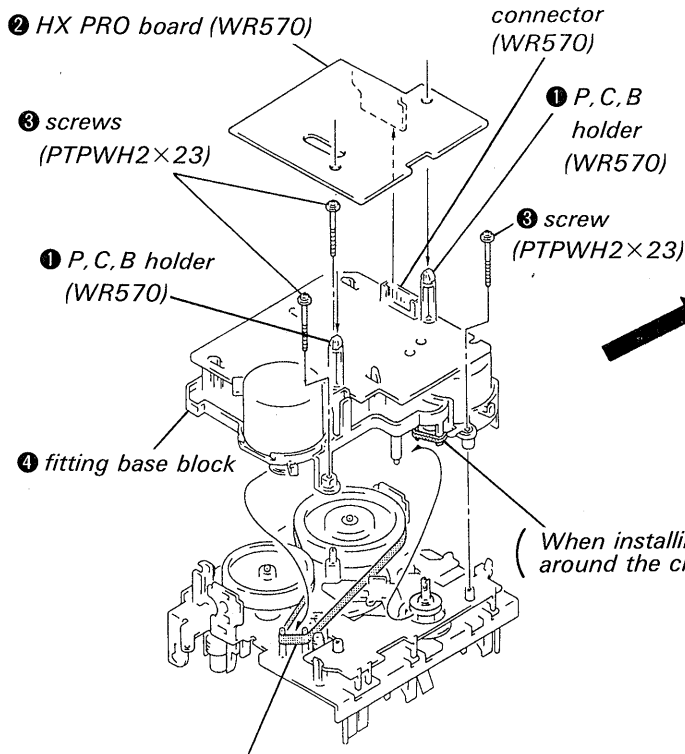
(W370, W411)



(WR511, WR570)

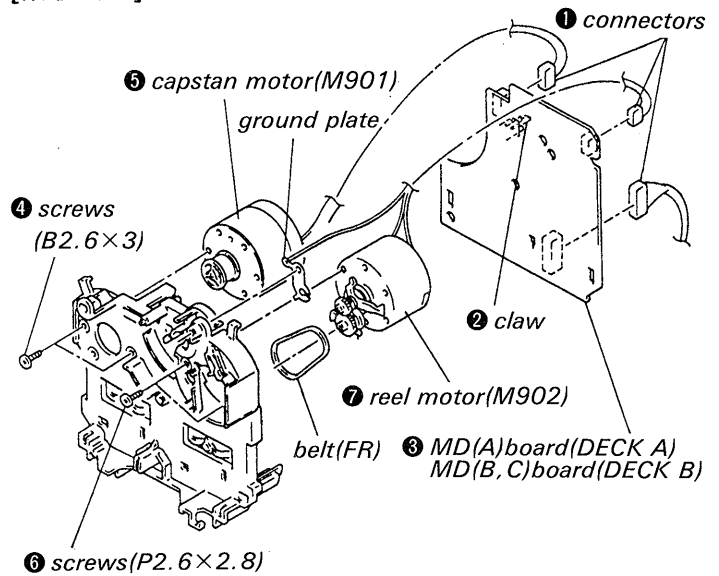


[FITTING BASE BLOCK]



(When installing, pull the FR belt and put around the claws as shown below.)

[MOTOR]



(When installing, pull the capstan belt and put around the claws as shown below.)

SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

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

record/playback head	pinch roller
erase head	rubber belts
capstan	idler
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed in the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30 to 65g · cm (0.42 to 0.9 oz · inch)
FWD Back tension	CQ-102C	DECK A : 1 to 6g · cm (0.014 to 0.08 oz · inch) DECK B : 2 to 9g · cm (0.03 to 0.12 oz · inch)
REV (TC-WR511/WR570)	CQ-102RC	30 to 65g · cm (0.42 to 0.9 oz · inch)
REV Back tension (TC-WR511/WR570)	CQ-102RC	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)

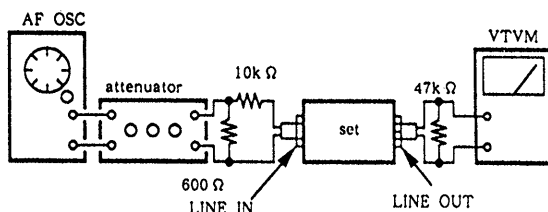
3-2. ELECTRICAL ADJUSTMENT

Note: The adjustment should be performed in the order given in the service manual. As a rule, adjustment about playback should be performed before adjustment about recording. The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.
 - NR switch : OFF
 - DIR MODE switch : ↔
- Standard Record:

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

— Record Mode —



Standard Input Level

input terminal	LINE IN
source impedance	10kΩ
input level	0.25V (-10dB)

Standard Output Level

output terminal	LINE OUT
load impedance	47kΩ
output level	0.44V (-5dB)

Test tape

Type	Signal	Used for
P-4-A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

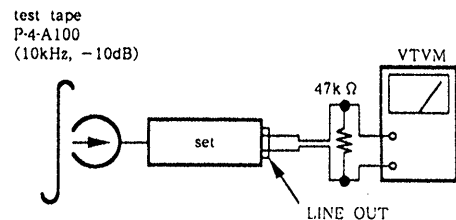
$$0\text{dB} = 0.775\text{V}$$

Record/Playback Head Azimuth Adjustment

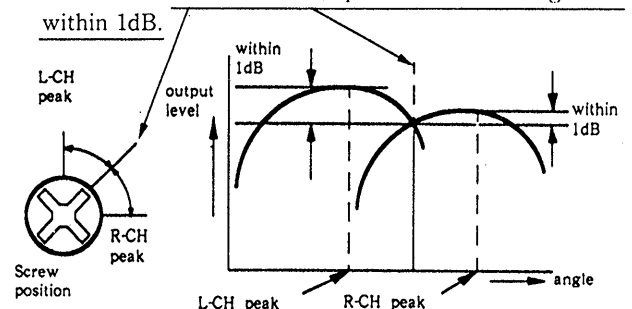
DECK A DECK B

Procedure :

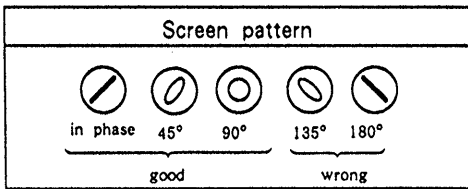
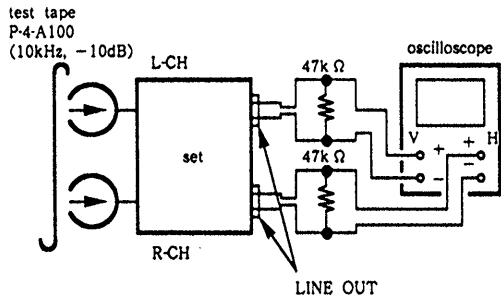
- Mode: FWD playback



- 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.

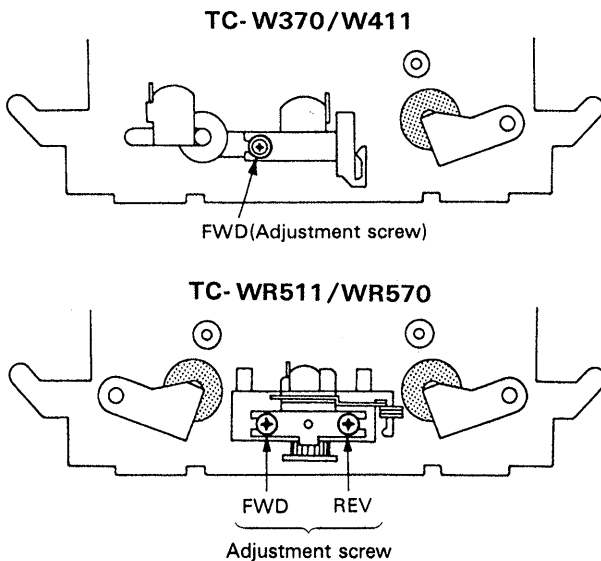


3. Phase Check
Mode: playback



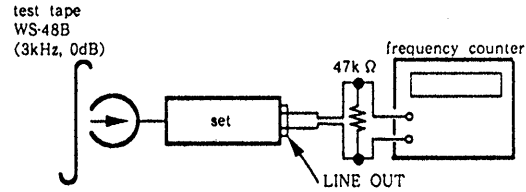
4. Set in the REV mode and repeat the step 1-3.
(TC - WR511/WR570)
5. After the adjustment, lock the screws with locking compound.

Adjustment Location: Record/playback head



Tape Speed Adjustment DECK A DECK B

Procedure:
Mode: playback



Perform high speed adjustment before normal speed adjustment.

(high speed adjustment)

1. Short test pin CN805 on audio board and turn POWER switch on.
2. Set to FWD playback mode.
3. Keep on pressing the HIGH SPEED DUBBING switch.
4. Adjust RV72 so that the frequency counter reading becomes $6,000 \pm 20\text{Hz}$.
5. After adjustment, disconnect CN805 shorted in step 1.

(normal speed adjustment)

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

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

Frequency difference between deck A and deck B the beginning of the tape should be within 1.5%.

Adjustment Location:

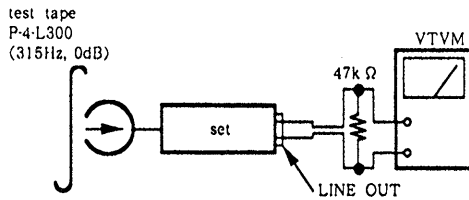
MD-A, MD-B, MD-C board

Playback Level Adjustment

DECK A **DECK B**

Procedure :

Mode: playback



Adjust RV11 (L-CH), RV21 (R-CH) so that the reading on VTVM meets the adjustment limits below.

Adjustment Limits :

LINE OUT level: $-5 \pm 0.5\text{dB}$ (0.42–0.46V)

Level difference between channels: less than 0.5dB

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

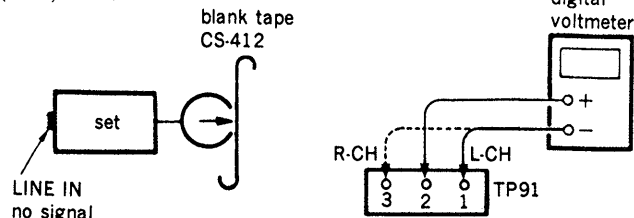
Adjustment Location : MD-A, MD-B, MD-C board

Bias Consumption Current Adjustment **DECK B**

This adjustment should be performed when replacing the head assy or the bias oscillating transformer (T51, T71), or DOLBY HX PRO IC (IC91). (TC-WR570)

Procedure :

() : R-CH



1. Connect the digital voltmeter to test point TP91.
2. Set RV42 (RV62) to mechanical center.
3. Set to FWD record mode.
4. Adjust T51 (T71) so that the digital voltmeter reading becomes minimum.

Adjustment Location : HX PRO board

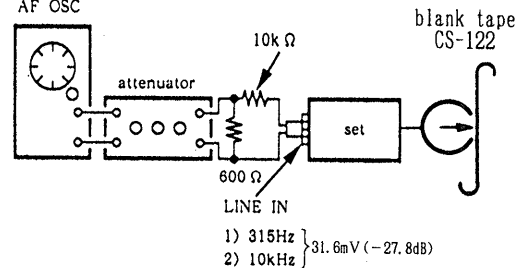
Record Bias Adjustment **DECK B**

Setting :

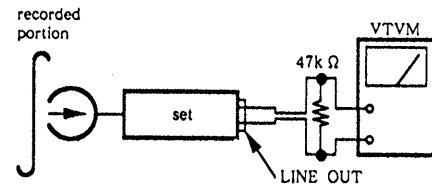
REC LEVEL control: Standard Record (See page 7.)

Procedure :

1. Mode: record



2. Mode: playback



Playback the signal recorded in step 1.

Confirm that the 10kHz playback output is $0 \pm 0.5\text{dB}$ relative to the 315Hz output. If necessary, adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

Adjustment Location : MD-B board

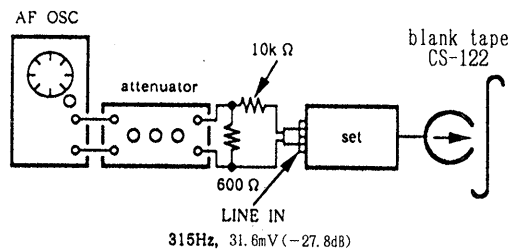
Record Level Adjustment **DECK B**

Setting :

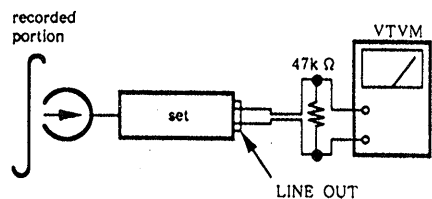
REC LEVEL control: Standard Record (See page 7.)

Procedure :

1. Mode: record



2. Mode: playback

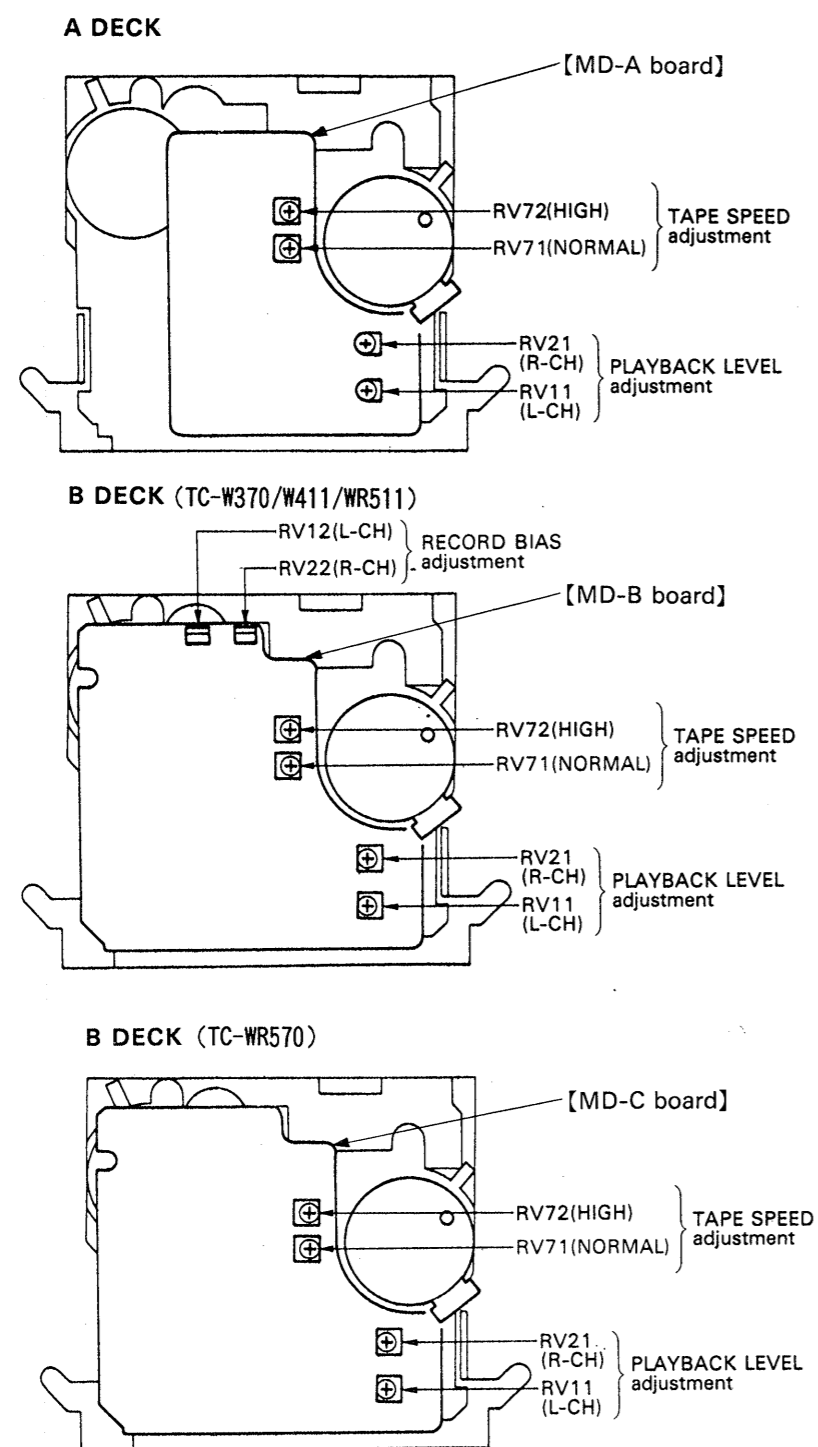


- Playback the signal recorded in step 1.
Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the step1-2.

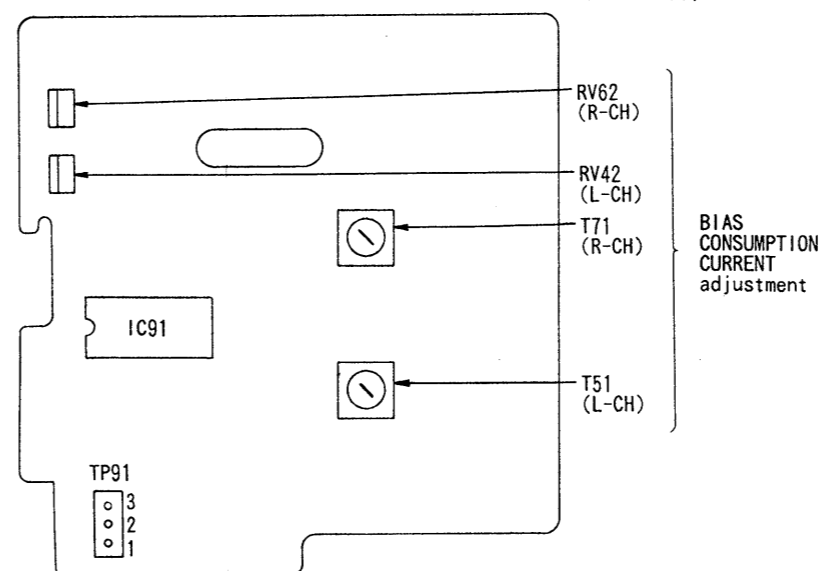
Adjustment Limits: $-27.8 \pm 0.5\text{dB}$ (29 to 33.4 mV)

Adjustment Location: audio board (component side)

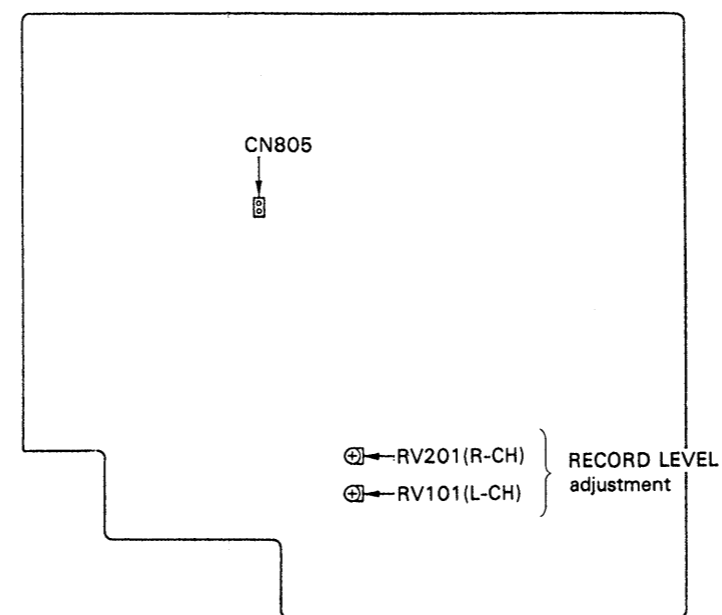
- Adjustment Parts Location Diagrams -



HX PRO BOARD (COMPONENT SIDE) (TC-WR570)

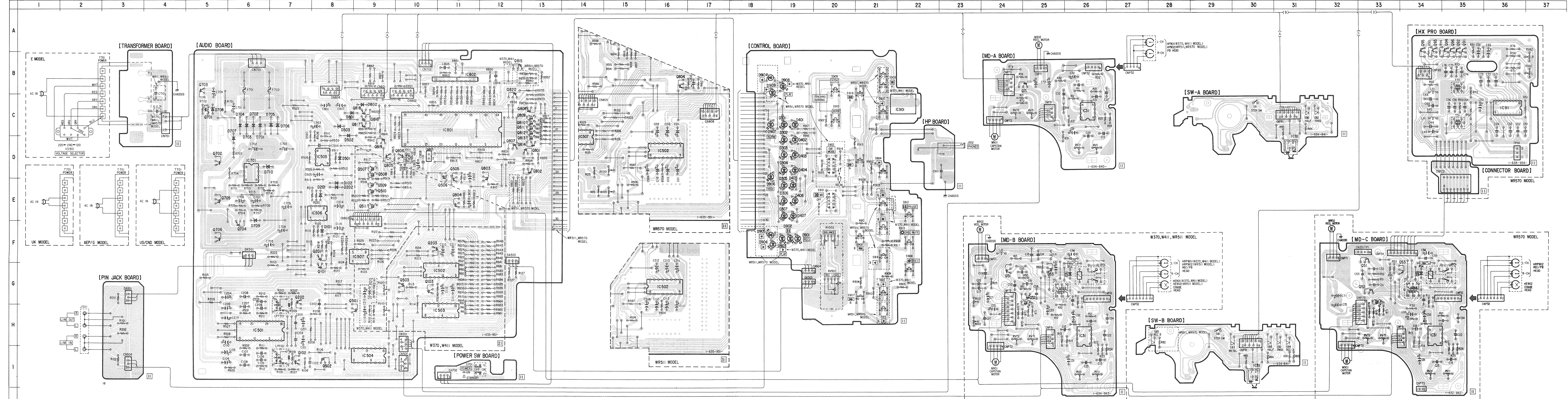


AUDIO BOARD (COMPONENT SIDE)



SECTION 4
DIAGRAMS

4-1. PRINTED WIRING BOARDS •See page 27 for Circuit board Location.



Note:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : indicates side identified with part number.
- CND : Canadian model
- G : Germany model

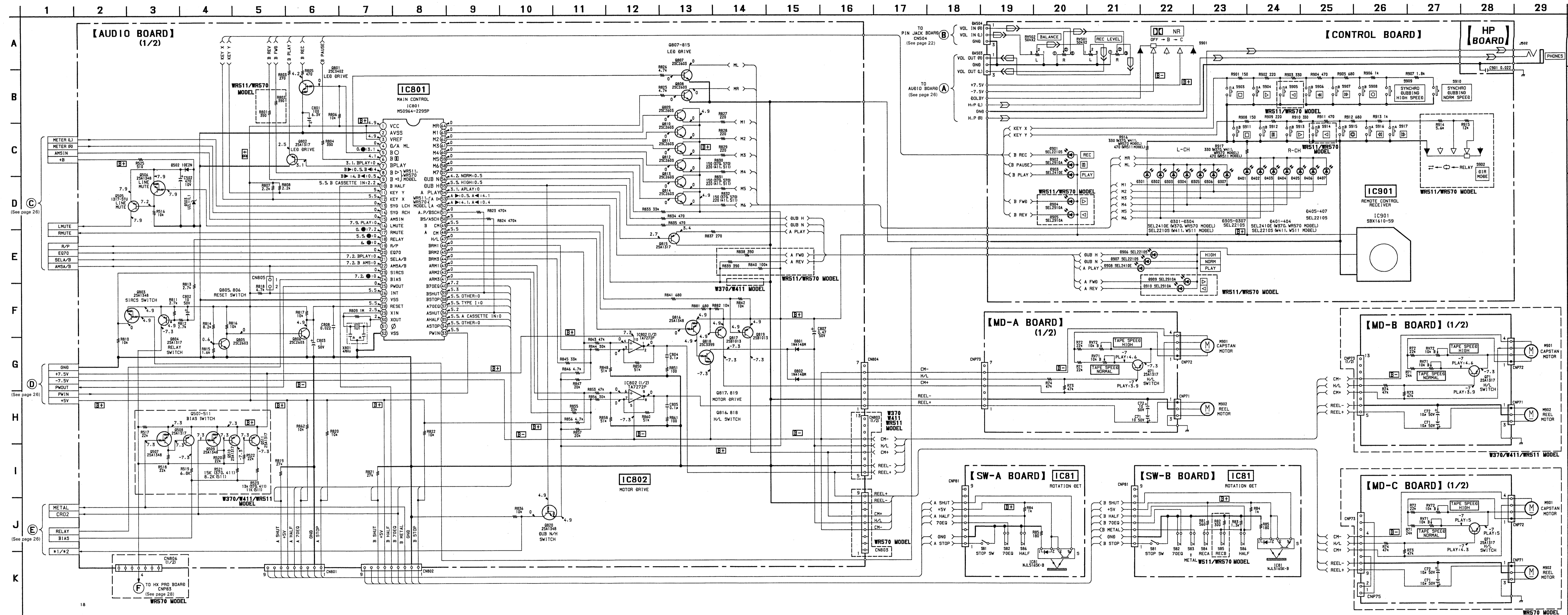
● W370 : TC-W370
 ● W411 : TC-W411
 ● WR511 : TC-WR511
 ● WR570 : TC-WR570

- 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 $\frac{1}{4}W$ or less unless otherwise specified.
 - % : indicates tolerance.
 - Δ : internal component.
 - \square : adjustment for repair.
 - Voltage and waveforms are dc with respect to ground under no-signal
 - no mark: STOP
 - \blacktriangleright : FWD
 - \blacktriangleleft : REV
 - \bullet : REC
 - Voltages are taken with a VOM (input impedance 10M Ω)
 - Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 - \square : PB (DECK A)
 - \square : REC (DECK B)

4-2. SCHEMATIC DIAGRAM - System Control Section -

• Semiconductor Locations • (): board

Ref. No.	Location	Ref. No.	Location
D31(MD-B)	G-25	IC802	B-11
D31(MD-C)	G-34	IC901	C-22
D101	F-8		
D102	E-8	Q51(MD-B)	G-24
D201	E-8	Q51(MD-C)	F-33
D202	E-8	Q52(MD-B)	G-24
D301	C-19	Q52(MD-C)	G-33
D302	D-19	Q53(MD-B)	G-25
D303	D-19	Q53(MD-C)	G-34
D304	D-19	Q71(MD-A)	B-24
D305	E-19	Q71(MD-B)	G-24
D306	E-19	Q71(MD-C)	G-33
D307	E-19	Q81	A-35
D401	C-19	Q82	A-35
D402	D-19	Q83	A-34
D403	D-19	Q84	A-35
D404	D-19	Q85	A-34
D405	E-19	Q86	A-35
D406	E-19	Q101	G-8
D407	E-19	Q102	F-7
D501	D-8	Q103	G-10
D502	D-8	Q201	F-8
D503	C-8	Q202	G-7
D701	C-6	Q203	F-10
D702	C-6	Q501	H-9
D703	C-6	Q502	I-8
D704	C-6	Q503	G-10
D705	C-7	Q505	D-11
D706	C-7	Q506	D-11
D707	D-6	Q507	D-9
D708	C-5	Q508	D-9
D709	F-6	Q509	E-9
D710	D-6	Q510	E-9
D801	C-8	Q511	E-9
D802	C-9	Q701	C-5
D901	F-19	Q702	D-5
D902	F-19	Q703	B-5
D903	F-19	Q704	F-6
D904	F-18	Q705	E-5
D905	F-18	Q706	F-5
D906	E-18	Q801	D-13
D907	C-18	Q802	D-13
D908	B-19	Q803	D-12
D909	B-18	Q804	E-11
D910	B-18	Q805	D-9
		Q806	D-10
		Q807	D-12
		Q808	C-13
		Q809	C-13
		Q810	C-13
		Q811	C-13
		Q812	C-13
		Q813	D-13
		Q814	D-13
		Q815	B-12
		Q816	C-9
		Q817	C-9
		Q818	C-9
		Q819	D-9
		Q820	C-12
IC31(MD-A)	C-26	Q807	D-12
IC31(MD-B)	H-26	Q808	C-13
IC31(MD-C)	H-34	Q809	C-13
IC81(SW-A)	D-31	Q810	C-13
IC81(SW-B)	I-30	Q811	C-13
IC81	C-36	Q812	C-13
IC501	H-6	Q813	D-13
IC502	G-11	Q814	D-13
IC503	H-11	Q815	B-12
IC504	I-9	Q816	C-9
IC505	D-8	Q817	C-9
IC506	E-8	Q818	C-9
IC507	F-9	Q819	D-9
IC701	D-6	Q820	C-12
IC801	C-11		



- Note:**
- All capacitors are in μF unless otherwise noted. μF : 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.
 - % : indicates tolerance.

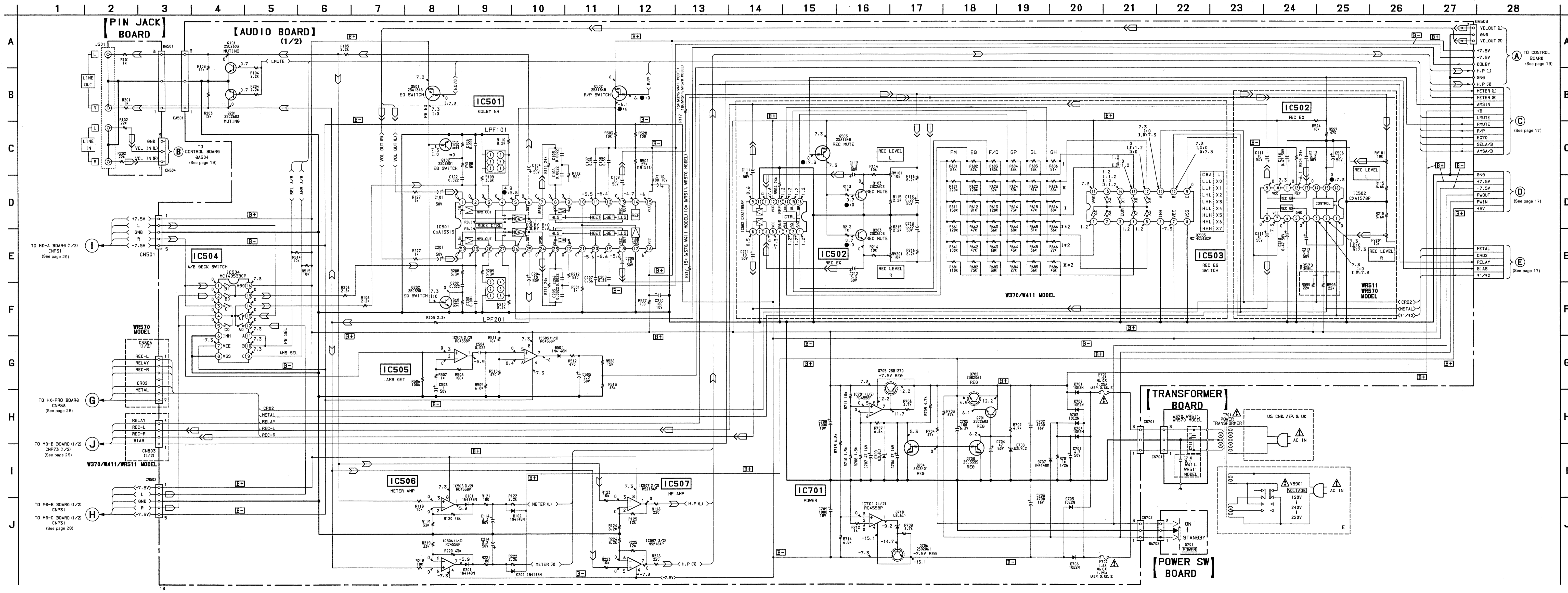
Note:
The components identified by mark **A** or dotted line with mark **A** are critical for safety. Replace only with part number specified.

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

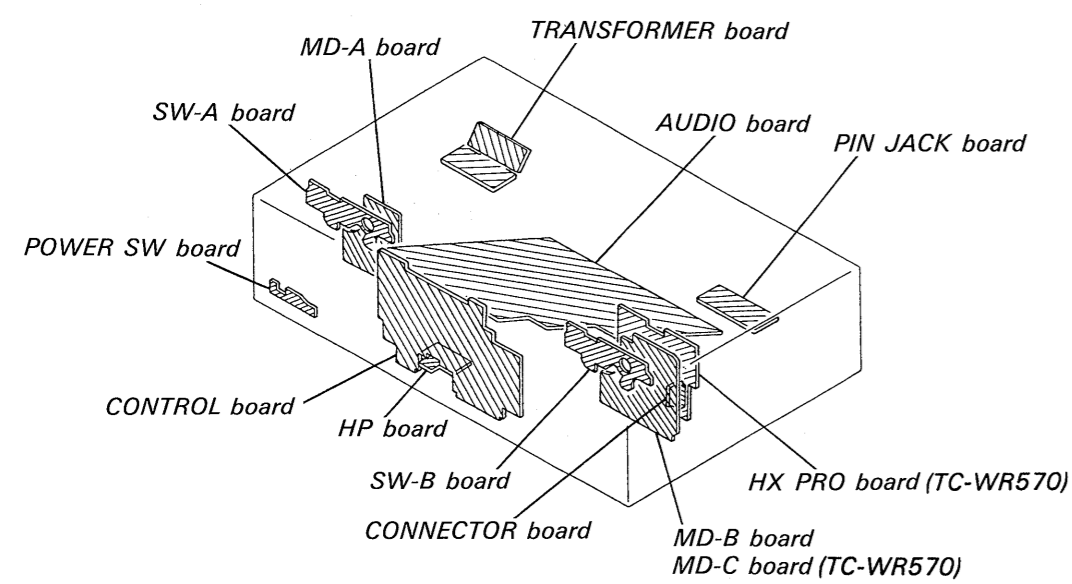
- : adjustment for repair.
- : Voltage and waveforms are dc with respect to ground under no-signal no mark: STOP
- : REC
- : Voltages are taken with a VOM (Input Impedance 10M Ω) Voltage variations may be noted due to normal production tolerances.
- : Signal path.
- : PB (DECK A)
- : PB (DECK B)
- : REC (DECK B)
- : CND : Canadian model
- : G : Germany model

- W370 : TC-W370
- W411 : TC-W411
- WRS11 : TC-WRS11
- WRS70 : TC-WRS70

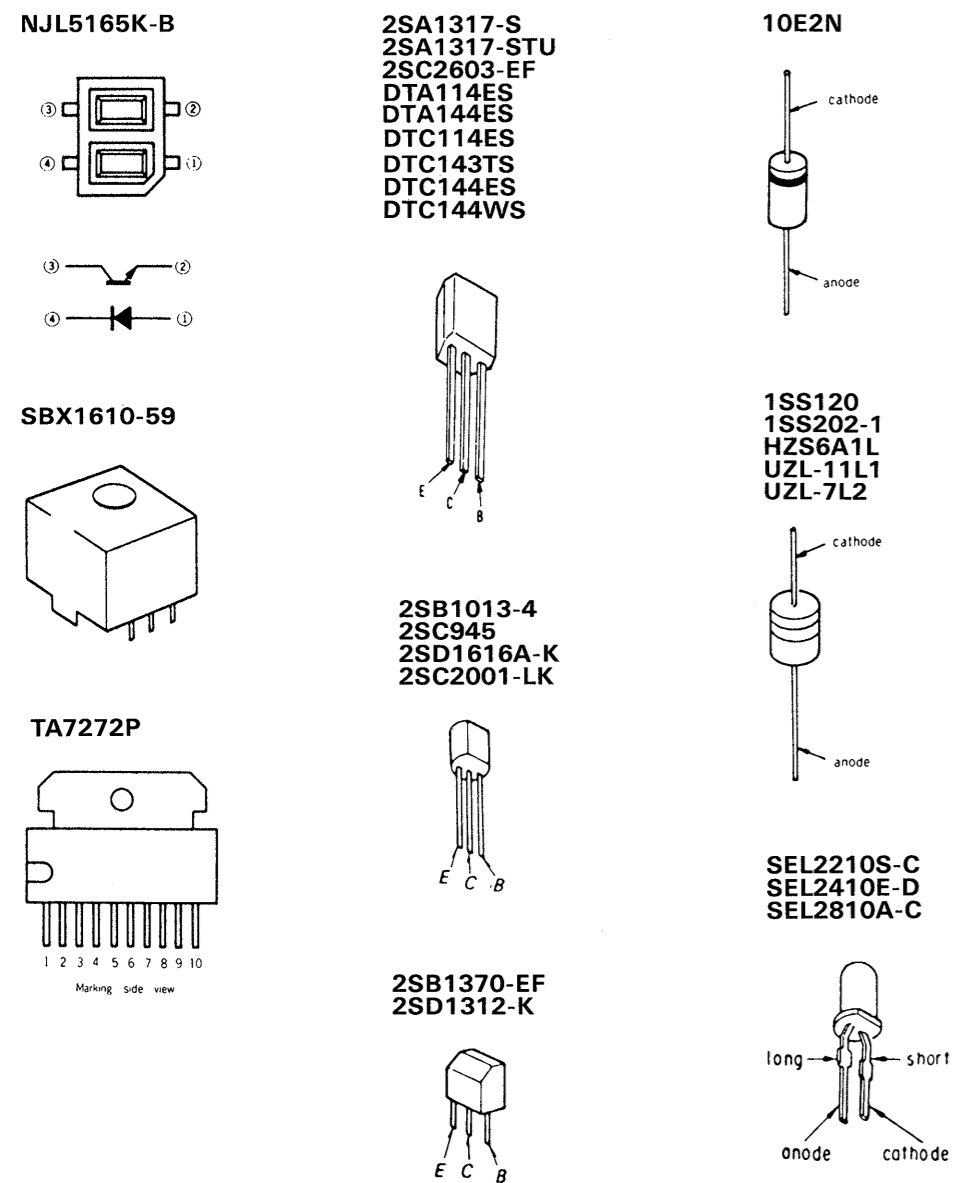
4-3. SCHEMATIC DIAGRAM - Audio Section -



4-4. CIRCUIT BOARDS LOCATION



4-5. SEMICONDUCTOR LEAD LAYOUTS



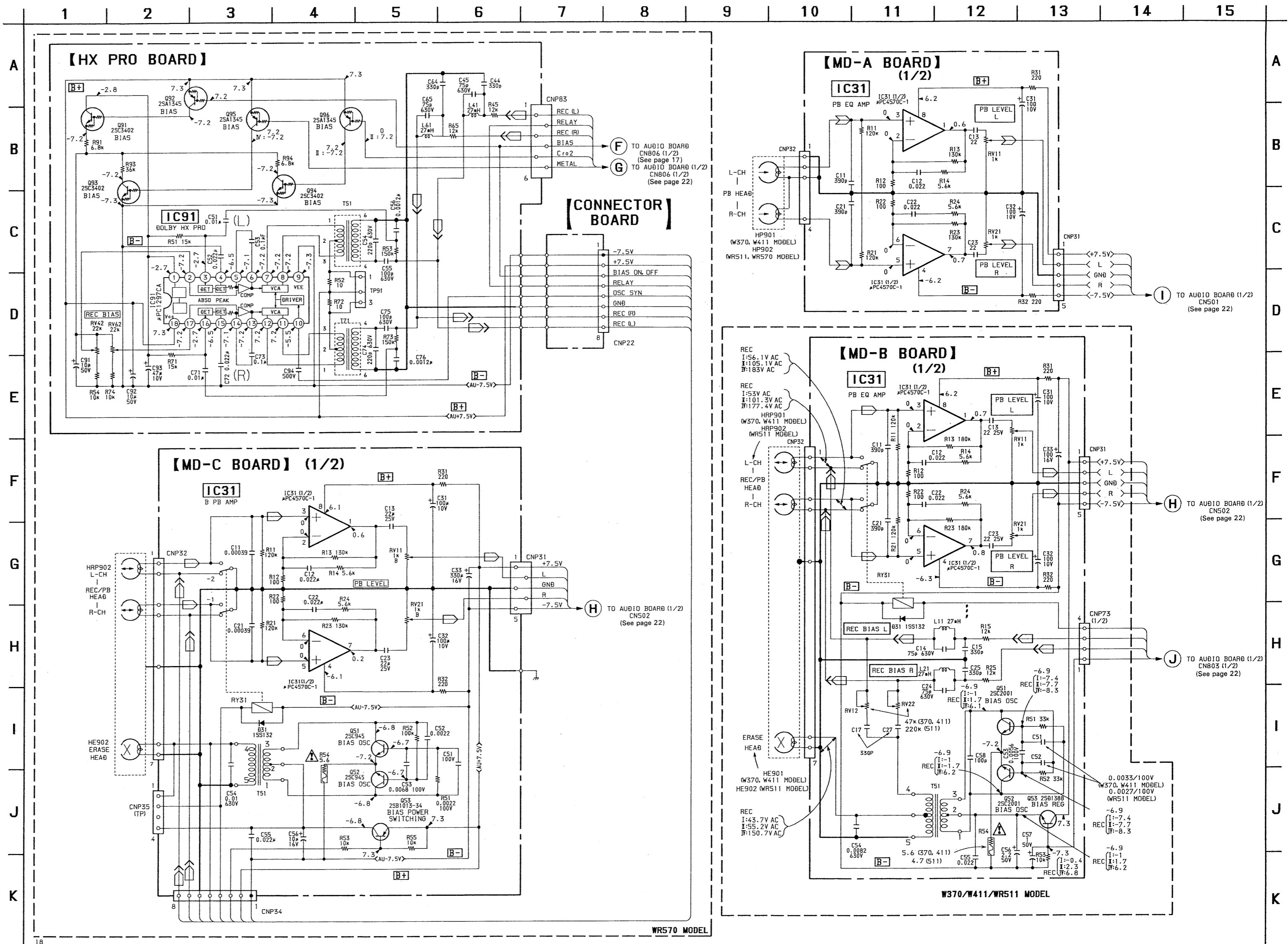
- Note:**
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
 - % : indicates tolerance.
 - : fusible resistor.

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

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

- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal no mark: STOP
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$) Voltage variations may be noted due to normal production tolerances.
- Signal path.
- Σ : PB (DECK A)
- \square : PB (DECK B)
- \square : REC (DECK B)
- W370 : TC-W370
- W411 : TC-W411
- WR511 : TC-WR511
- WR570 : TC-WR570

4-6. SCHEMATIC DIAGRAM - MD Section -



SECTION 5 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Color Indication of Appearance Parts
Example:
KNOB, BALANCE(WHITE)...(RED)
↑ ↑
Part's Color Cabinet's Color
- Hardware (#mark) list is given in the last of this parts list.
- G : Germany model

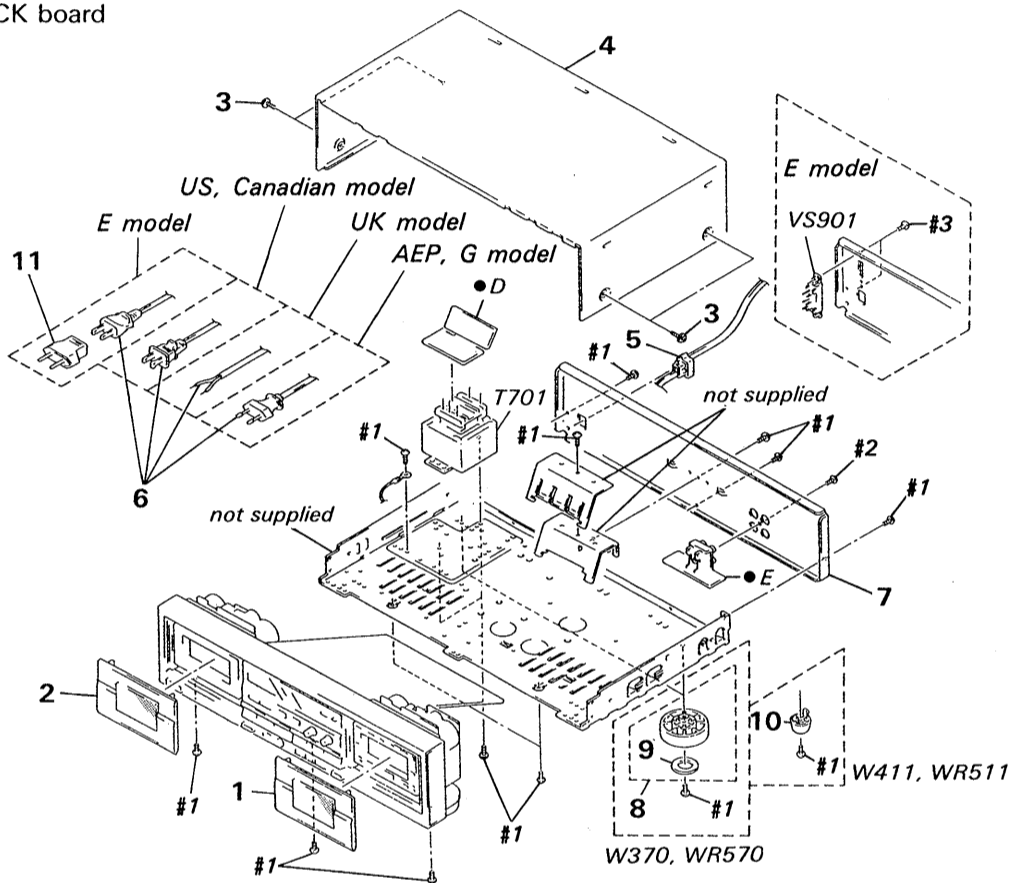
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

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

- W370 or 370 :TC-W370
- W411 or 411 :TC-W411
- WR511 or 511:TC-WR511
- WR570 or 570:TC-WR570

5-1. CHASSIS SECTION

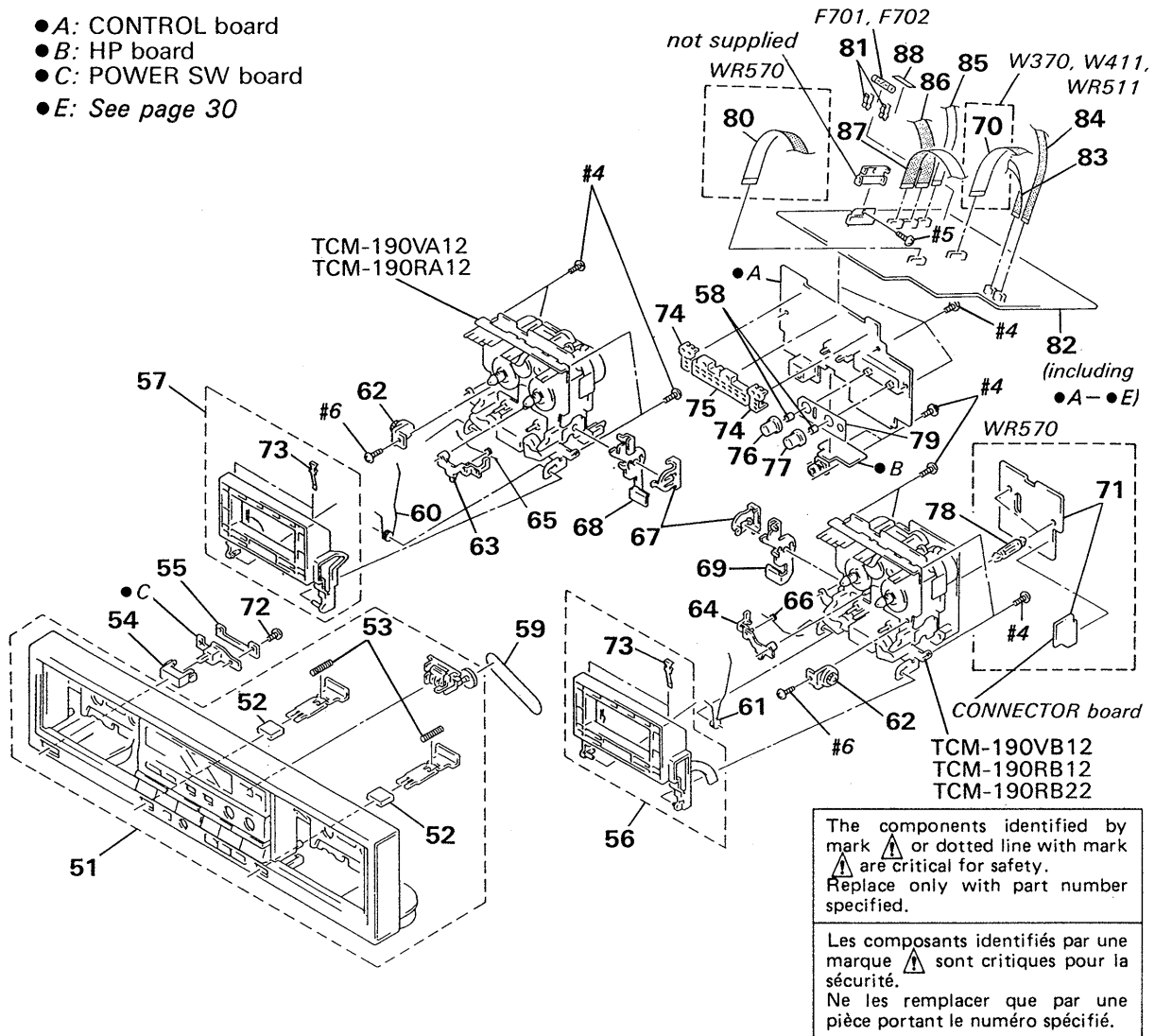
- D: TRANSFORMER board
- E: PIN JACK board



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3362-932-1	LID (B) ASSY, CASSETTE (370, 411)		8	X-4885-950-1	FOOT ASSY (370, 570:US, Canadian)	
1	X-3362-986-1	LID (B) ASSY, CASSETTE (511, 570)		8	X-3304-938-2	FOOT ASSY (AEP, G, UK, E)	
2	X-3362-985-1	LID (A) ASSY, CASSETTE (511, 570)		9	4-923-836-11	CUSHION (370, 570)	
2	X-3362-931-1	LID (A) ASSY, CASSETTE (370, 411)		10	4-930-848-01	FOOT (411, 511)	
3	3-704-366-01	SCREW (CASE) (M3X8)		11	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
4	3-332-578-61	CASE		T701	1-450-465-11	TRANSFORMER, POWER (AEP, G, UK, 370:E)	
5	* 3-703-571-11	BUSHING (S) (4516), CORD (US, Canadian, E)		T701	1-449-666-21	TRANSFORMER, POWER (570:E)	
5	* 3-703-244-00	BUSHING (2104), CORD (AEP, G, UK)		T701	1-449-420-21	TRANSFORMER, POWER (US, Canadian)	
6	1-551-506-XX	CORD, POWER (US, Canadian)		VS901	1-570-307-11	SWITCH, VOLTAGE CHANGE (E)	
6	1-555-795-00	CORD, POWER, EULO PLUG (AEP, G)					
6	1-556-035-00	CORD, POWER (UK)					
6	1-551-188-XX	CORD, POWER (E)					
7	* 3-365-373-01	PANEL, BACK (570:US, Canadian)					
7	* 3-365-373-21	PANEL, BACK (570:AEP, G)					
7	* 3-365-373-11	PANEL, BACK (570:UK)					
7	* 3-365-373-41	PANEL, BACK (570:E)					
7	* 3-365-373-51	PANEL, BACK (511)					
7	* 3-365-374-01	PANEL, BACK (370:US, Canadian)					
7	* 3-365-374-11	PANEL, BACK (370:UK)					
7	* 3-365-374-21	PANEL, BACK (370:G)					
7	* 3-365-374-31	PANEL, BACK (370:AEP)					
7	* 3-365-374-41	PANEL, BACK (411)					
7	* 3-365-374-51	PANEL, BACK (370:E)					

5-2. FRONT PANEL SECTION

- A: CONTROL board
- B: HP board
- C: POWER SW board
- E: See page 30

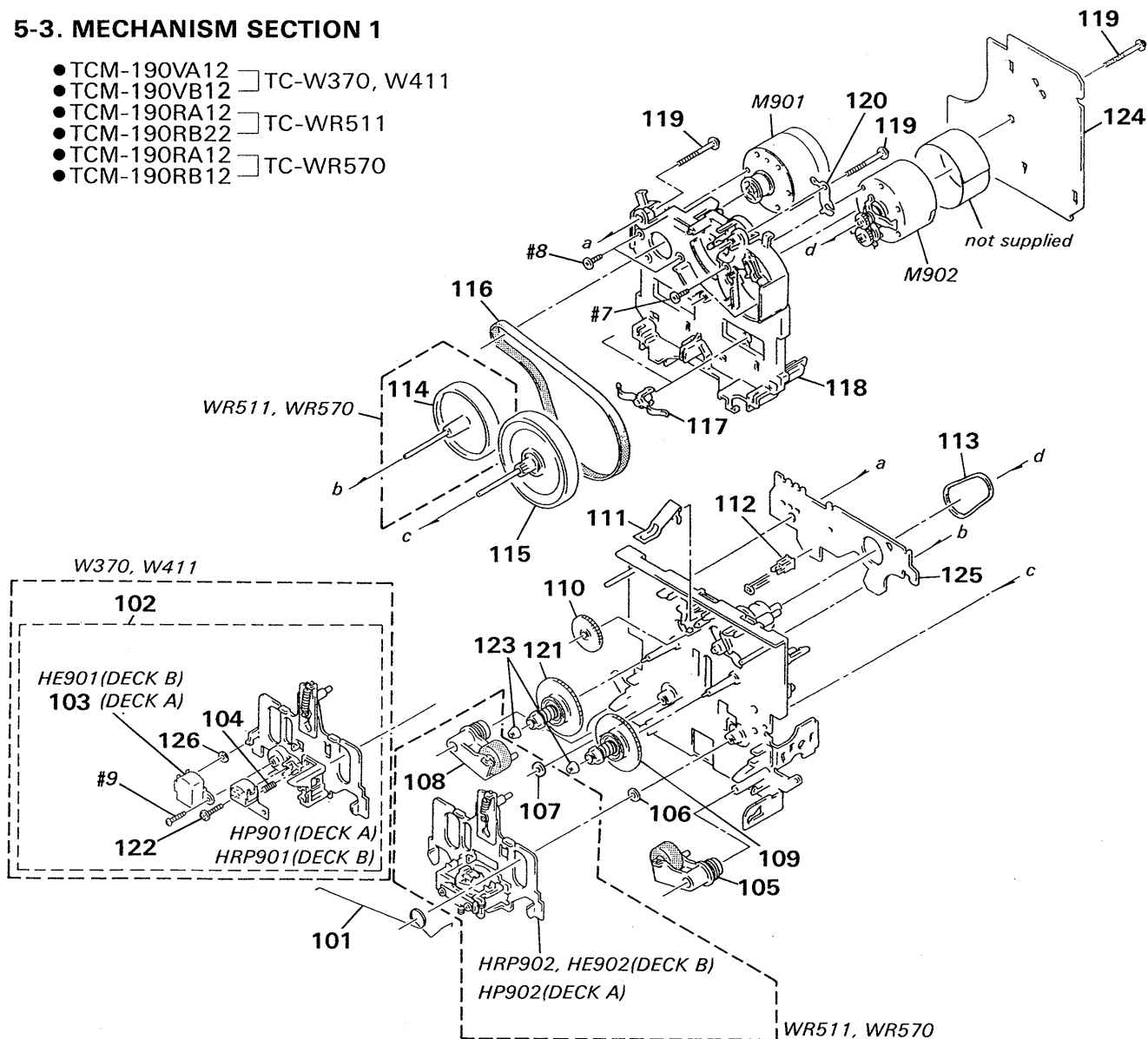


Ref. No.	Part No.	Description	Remark
51	X-3362-987-1	PANEL ASSY, FRONT (570:US, Canadian)	
51	X-3362-933-1	PANEL ASSY, FRONT (370:US, Canadian)	
51	X-3362-929-1	PANEL ASSY, FRONT (411)	
51	X-3362-930-1	PANEL ASSY, FRONT (370:AEP, G. UK, E)	
51	X-3362-983-1	PANEL ASSY, FRONT (511)	
51	X-3362-984-1	PANEL ASSY, FRONT (570:AEP, G. UK, E)	
52	3-359-907-11	BUTTON (EJECT)	
53	3-359-906-01	SPRING, COMPRESSION	
54	3-354-932-01	BUTTON (POWER)	
55	* 3-359-910-01	REINFORCEMENT	
56	X-3340-194-1	HOLDER (L) ASSY, CASSETTE	
57	X-3340-195-1	HOLDER (R) ASSY, CASSETTE	
58	3-356-957-01	SPRING	
59	3-305-524-00	BELT	
60	3-354-960-01	SPRING (LOADING R), TORSION	
61	3-354-959-01	SPRING (LOADING L), TORSION	
62	3-354-963-01	DAMPER	
63	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
64	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
65	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
66	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
67	3-354-957-01	JOINT (LOCK LEVER)	
68	* 3-354-954-01	LEVER (LOCK LEVER R)	
69	* 3-354-953-01	LEVER (LOCK LEVER L)	
70	1-575-784-11	WIRE, FLAT TYPE (13 CORE) (370, 411, 511)	
71	* A-2006-403-A	HX PRO BOARD, COMPLETE (570)	

Ref. No.	Part No.	Description	Remark
72	4-928-635-21	SCREW, +BV (2.6X10) TAPPING	
73	3-308-823-11	SPRING	
74	* 3-354-966-01	HOLDER (DIR), LED	
75	* 3-354-972-01	HOLDER (METER), LED	
76	3-367-431-01	KNOB (BAL)	
77	3-367-431-11	KNOB (REC)	
78	* 3-682-419-21	HOLDER, P. C. B (570)	
79	* 3-359-940-01	PLATE, SHIELD	
80	1-575-851-21	WIRE, FLAT TYPE (7 CORE) (570)	
81	* 1-533-213-31	HOLDER, FUSE	
82	* A-2006-402-A	AUDIO BOARD, COMPLETE (570)	
82	* A-2006-418-A	AUDIO BOARD, COMPLETE (370)	
82	* A-2006-419-A	AUDIO BOARD, COMPLETE (411)	
82	* A-2006-529-A	AUDIO BOARD, COMPLETE (511)	
83	* 1-575-847-11	WIRE, FLAT TYPE (5 CORE)	
84	1-575-779-11	WIRE, FLAT TYPE (5 CORE)	
85	1-575-968-11	WIRE, FLAT TYPE (7 CORE)	
86	1-575-781-11	WIRE, FLAT TYPE (9 CORE)	
87	1-575-782-11	WIRE, FLAT TYPE (9 CORE)	
88	3-701-947-12	LABEL (T1, 25A) FUSE (AEP, G. UK, E)	
F701	⚠ 1-532-285-00	FUSE, TIME-LAG 1.25A (AEP, G. UK, E)	
F701	⚠ 1-532-742-11	FUSE, GLASS TUBE 1.6A (US, Canadian)	
F702	⚠ 1-532-285-00	FUSE, TIME-LAG 1.25A (AEP, G. UK, E)	
F702	⚠ 1-532-742-11	FUSE, GLASS TUBE 1.6A (US, Canadian)	

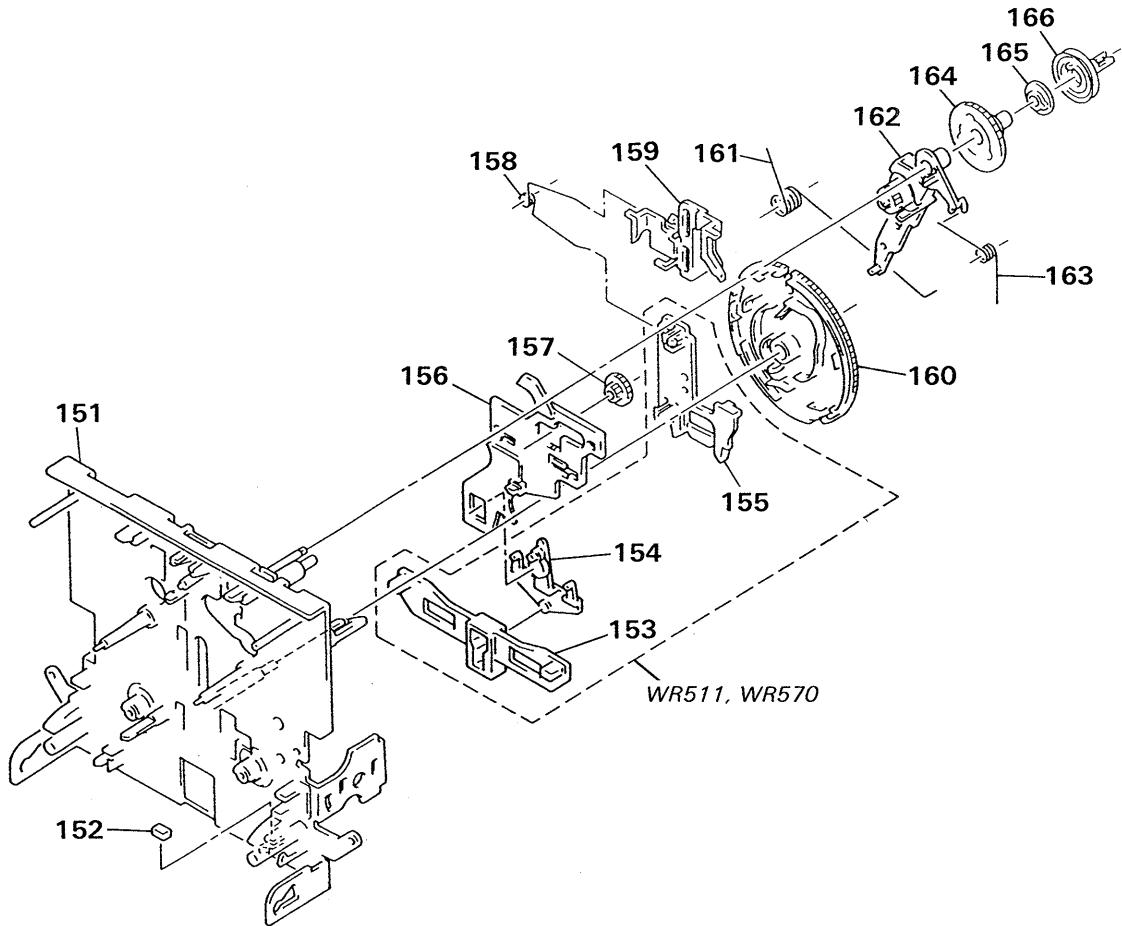
5-3. MECHANISM SECTION 1

- TCM-190VA12 □ TC-W370, W411
- TCM-190VB12 □ TC-W370, W411
- TCM-190RA12 □ TC-WR511
- TCM-190RB22 □ TC-WR511
- TCM-190RA12 □ TC-WR570
- TCM-190RB12 □ TC-WR570



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-359-455-01	SPRING, TORSION		120	3-359-450-01	PLATE, GROUND	
102	A-2003-475-A	BASE (ONE) ASSY, HEAD (370, 411 DECK A)		121	X-3362-078-1	TABLE ASSY (B), REEL	
102	A-2003-476-A	BASE (ONE) ASSY, HEAD (370, 411 DECK B)		122	3-359-446-01	SCREW (AZIMUTH ADJUSTMENT) (370, 411)	
103	3-319-716-01	GUID, TAPE (370, 411 DECK A)		123	3-362-308-01	CAP (REEL)	
104	3-343-484-01	SPRING, COMPRESSION (370, 411)		124	* 1-634-840-11	MD-A BOARD (DECK A)	
105	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY		124	* 1-634-842-11	MD-C BOARD (570 DECK A)	
106	3-356-713-01	WASHER		124	* 1-634-843-11	MD-B BOARD (370, 411, 511 DECK B)	
107	3-356-714-01	WASHER (511, 570)		125	* 1-634-841-11	SW-A BOARD	
108	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY (511, 570)		125	* 1-634-841-11	SW-B BOARD	
109	X-3359-404-1	TABLE ASSY, REEL		126	3-359-364-01	WASHER (TAPE GUIDE) (370, 411 DECK A)	
110	3-359-424-01	GEAR (REV GEAR)		HE901	1-543-535-11	HEAD, MAGNETIC (ERASE) (370, 411 DECK B)	
111	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF		HP901	1-543-536-11	HEAD, MAGNETIC (PLAYBACK) (370, 411 DECK A)	
112	3-343-419-01	HOLDER (S SENSOR A)		HP902	A-2003-418-A	BASE ASSY, HEAD (PLAYBACK) (511, 570 DECK A)	
113	3-359-466-01	BELT (FR), SQUARE		HRP901	1-543-537-11	HEAD, MAGNETIC (REC/PB) (370, 411 DECK B)	
114	X-3359-410-1	FLYWHEEL (REV) ASSY (511, 570)		HRP902	A-2003-477-A	BASE ASSY, HEAD (REC/PB/ERASE) (511, 570 DECK B)	
115	X-3359-406-1	FLYWHEEL (FWD) COMPLETE ASSY		HE902			
116	3-359-417-01	BELT (FLAT), CAPSTAN (511, 570)		M901	X-3359-417-1	MOTOR (CAPSTAN) ASSY	
116	3-359-467-01	BELT (1 WAY FLAT BELT) (370, 411)		M902	A-2003-474-A	MOTOR (REEL) ASSY	
117	3-575-321-00	RETAINER, THRUST, CAPSTAN					
118	* 3-359-436-01	BASE (THRUST RETAINER), FITTING					
119	3-359-414-01	SCREW (+PTPW 2X23)					

5-4. MECHANISM SECTION 2



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-3359-415-1	CHASSIS ASSY, MECHANICAL (511, 570)		158	3-359-454-01	SPRING, TORSION	
151	X-3359-416-1	CHASSIS ASSY, MECHANICAL (370, 411)		159	3-359-429-01	SLIDER (BRAKE PLATE)	
152	3-359-469-01	SPACER		160	3-359-420-01	GEAR (CAM GEAR)	
153	* 3-359-425-01	SLIDER (REVERSE SLIDER) (511, 570)		161	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
154	3-359-426-01	LEVER (REVERSE LEVER) (511, 570)		162	X-3359-405-1	LEVER (FR ARM) ASSY	
155	* 3-359-427-01	SLIDER (LEVERSE SLIDER) (511, 570)		163	3-359-453-01	SPRING (FR ARM), TORSION	
156	* 3-359-415-01	SLIDER (TRIGGER SLIDER)		164	3-359-419-01	GEAR (FR GEAR)	
157	3-359-448-01	GEAR (TRIGGER)		165	3-359-421-01	CLUTCH (REEL DISK)	
				166	3-359-418-01	PULLEY (FR PULLEY)	

SECTION 6
ELECTRICAL PARTS LIST

AUDIO

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.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable

- 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
- G: Germany model
- 370:TC-W370
411:TC-W411
R511:TC-WR511
R570:TC-WR570

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

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	* A-2006-402-A	AUDIO BOARD, COMPLETE (570)		C205	1-130-475-00	MYLAR	0.0022uF 5% 50V
	* A-2006-418-A	AUDIO BOARD, COMPLETE (370)		C206	1-130-475-00	MYLAR	0.0022uF 5% 50V
	* A-2006-419-A	AUDIO BOARD, COMPLETE (411)		C207	1-136-174-00	FILM	0.56uF 5% 50V
	* A-2006-529-A	AUDIO BOARD, COMPLETE (511)		C208	1-136-171-00	FILM	0.33uF 5% 50V

	* 1-533-213-31	HOLDER, FUSE		C209	1-126-059-11	ELECT	10uF 20% 50V
	* 3-354-966-01	HOLDER (DIR), LED		C210	1-124-994-11	ELECT	100uF 20% 10V
	* 3-354-972-01	HOLDER (METER), LED		C211	1-126-059-11	ELECT	10uF 20% 50V
	* 3-359-940-01	PLATE, SHIELD		C212	1-126-162-11	ELECT	3.3uF 20% 50V
	7-682-547-04	SCREW +BVTT 3X6 (S)		C213	1-124-464-11	ELECT	0.22uF 20% 50V (370, 411)
				C213	1-126-300-11	ELECT	0.47uF 20% 50V (511, 570)
	< CAPACITOR >						
C101	1-126-301-11	ELECT	1uF 20% 50V	C214	1-126-162-11	ELECT	3.3uF 20% 50V
C102	1-136-157-00	FILM	0.022uF 5% 50V	C502	1-124-997-11	ELECT	470uF 20% 10V
C103	1-162-294-31	CERAMIC	0.001uF 10% 50V	C503	1-126-301-11	ELECT	1uF 20% 50V
C104	1-126-059-11	ELECT	10uF 20% 50V	C504	1-161-494-00	CERAMIC	0.022uF 25V
C105	1-130-475-00	MYLAR	0.0022uF 5% 50V	C505	1-126-161-11	ELECT	2.2uF 20% 50V
C106	1-130-475-00	MYLAR	0.0022uF 5% 50V	C506	1-126-059-11	ELECT	10uF 20% 50V (511, 570)
C107	1-136-174-00	FILM	0.56uF 5% 50V	C701	1-126-163-11	ELECT	4.7uF 20% 50V
C108	1-136-171-00	FILM	0.33uF 5% 50V	C702	1-126-937-11	ELECT	4700uF 20% 16V
C109	1-126-059-11	ELECT	10uF 20% 50V	C703	1-126-937-11	ELECT	4700uF 20% 16V
C110	1-124-994-11	ELECT	100uF 20% 10V	C704	1-124-910-11	ELECT	47uF 20% 50V
C111	1-126-059-11	ELECT	10uF 20% 50V	C705	1-124-443-00	ELECT	100uF 20% 10V
C112	1-126-162-11	ELECT	3.3uF 20% 50V	C706	1-126-022-11	ELECT	47uF 20% 16V
C113	1-124-464-11	ELECT	0.22uF 20% 50V (370, 411)	C707	1-126-022-11	ELECT	47uF 20% 16V
C113	1-126-300-11	ELECT	0.47uF 20% 50V (511, 570)	C708	1-124-473-11	ELECT	1000uF 20% 10V
C114	1-126-162-11	ELECT	3.3uF 20% 50V	C709	1-124-473-11	ELECT	1000uF 20% 10V
C201	1-126-301-11	ELECT	1uF 20% 50V	C710	1-164-159-11	CERAMIC	0.1uF 50V (411, 511)
C202	1-136-157-00	FILM	0.022uF 5% 50V	C711	1-164-159-11	CERAMIC	0.1uF 50V (370, 511, 570)
C203	1-162-294-31	CERAMIC	0.001uF 10% 50V	C801	1-124-443-00	ELECT	100uF 20% 10V
C204	1-126-059-11	ELECT	10uF 20% 50V	C802	1-126-059-11	ELECT	10uF 20% 50V
				C803	1-126-301-11	ELECT	1uF 20% 50V

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
C804	1-136-165-00	FILM	0.1uF 5% 50V	D405	8-719-301-38	LED SEL2210S-C	
C805	1-136-165-00	FILM	0.1uF 5% 50V	D406	8-719-301-38	LED SEL2210S-C	
C807	1-126-300-11	ELECT	0.47uF 20% 50V	D407	8-719-301-38	LED SEL2210S-C	
C808	1-161-494-00	CERAMIC	0.022uF 25V	D501	8-719-912-20	DIODE 1SS120	
C901	1-161-494-00	CERAMIC	0.022uF 25V	D502	8-719-200-77	DIODE 10E2N	
< CONNECTOR >				D503	8-719-001-33	DIODE UZL-11L1	
CN501	* 1-568-824-11	SOCKET, CONNECTOR 5P		D701	8-719-200-77	DIODE 10E2N	
CN502	* 1-568-824-11	SOCKET, CONNECTOR 5P		D702	8-719-200-77	DIODE 10E2N	
CN504	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P		D703	8-719-200-77	DIODE 10E2N	
CN701	* 1-564-506-11	PLUG, CONNECTOR 3P		D704	8-719-200-77	DIODE 10E2N	
CN702	* 1-564-337-00	PIN, CONNECTOR 3P		D705	8-719-200-77	DIODE 10E2N	
CN801	* 1-568-828-11	SOCKET, CONNECTOR 9P		D706	8-719-200-77	DIODE 10E2N	
CN802	* 1-568-828-11	SOCKET, CONNECTOR 9P		D707	8-719-912-20	DIODE 1SS120	
CN803	* 1-568-828-11	SOCKET, CONNECTOR 9P (570)		D708	8-719-000-78	DIODE HZS6A1L	
CN803	* 1-568-832-11	SOCKET, CONNECTOR 13P (370, 411, 511)		D709	8-719-933-33	DIODE HZS6A1L	
CN804	* 1-568-826-11	SOCKET, CONNECTOR 7P		D710	8-719-933-33	DIODE HZS6A1L	
CN805	* 1-564-505-11	PLUG, CONNECTOR 2P		D801	8-719-912-20	DIODE 1SS120	
CN806	* 1-568-826-11	SOCKET, CONNECTOR 7P (570)		D802	8-719-912-20	DIODE 1SS120	
< DIODE >				D901	8-719-301-38	LED SEL2210S-C(B REC)	
D101	8-719-912-20	DIODE 1SS120		D902	8-719-301-52	LED SEL2810A-C(B PAUSE)	
D102	8-719-912-20	DIODE 1SS120		D903	8-719-301-44	LED SEL2410E-D(B PLAY)	
D201	8-719-912-20	DIODE 1SS120		D904	8-719-301-52	LED SEL2810A-C(B FWD)	
D202	8-719-912-20	DIODE 1SS120		D905	8-719-301-52	LED SEL2810A-C(B REV)	
D301	8-719-301-38	LED SEL2210S-C (411, 511)		D906	8-719-301-38	LED SEL2210S-C (DUB H)	
D301	8-719-301-44	LED SEL2410E-D (370, 570)		D907	8-719-301-38	LED SEL2210S-C (DUB N)	
D302	8-719-301-38	LED SEL2210S-C (411, 511)		D908	8-719-301-44	LED SEL2410E-D (A PLAY)	
D302	8-719-301-44	LED SEL2410E-D (370, 570)		D909	8-719-301-52	LED SEL2810A-C (511, 570) (A FWD)	
D303	8-719-301-38	LED SEL2210S-C (411, 511)		D910	8-719-301-52	LED SEL2810A-C (511, 570) (A REV)	
D303	8-719-301-44	LED SEL2410E-D (370, 570)		< IC >			
D304	8-719-301-38	LED SEL2210S-C (411, 511)		IC501	8-752-035-94	IC CXA1331S	
D304	8-719-301-44	LED SEL2410E-D (370, 570)		IC502	8-752-038-02	IC CXA1198AP (370, 411)	
D305	8-719-301-38	LED SEL2210S-C		IC502	8-752-055-61	IC CXA1578P (511, 570)	
D306	8-719-301-38	LED SEL2210S-C		IC503	8-759-208-06	IC TC4051BPHB (370, 411)	
D307	8-719-301-38	LED SEL2210S-C		IC504	8-759-140-53	IC uPD4053BC	
D401	8-719-301-38	LED SEL2210S-C (411, 511)		IC505	8-759-945-58	IC RC4558P	
D401	8-719-301-44	LED SEL2410E-D (370, 570)		IC506	8-759-945-58	IC RC4558P	
D402	8-719-301-38	LED SEL2210S-C (411, 511)		IC507	8-759-634-51	IC M5218AP	
D402	8-719-301-44	LED SEL2410E-D (370, 570)		IC701	8-759-945-58	IC RC4558P	
D403	8-719-301-38	LED SEL2210S-C (411, 511)		IC801	8-759-636-80	IC M50964-229SP	
D403	8-719-301-44	LED SEL2410E-D (370, 570)		IC802	8-759-207-05	IC TA7272P	
D404	8-719-301-38	LED SEL2210S-C (411, 511)		IC901	8-741-100-48	IC SBX1610-59	
D404	8-719-301-44	LED SEL2410E-D (370, 570)		< JACK >			
				J501	1-565-258-11	JACK, PIN 4P (LINE IN/OUT)	
				J502	1-507-796-71	JACK (PHONES)	

AUDIO

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< FILTER >				< RESISTOR >	
LPF101	1-236-087-11	FILTER, LOW PASS		R101	1-249-417-11	CARBON 1K 5% 1/4W	
LPF201	1-236-087-11	FILTER, LOW PASS		R102	1-249-433-11	CARBON 22K 5% 1/4W	
		< TRANSISTOR >		R103	1-249-430-11	CARBON 12K 5% 1/4W	
Q101	8-729-620-05	TRANSISTOR 2SC2603-EF		R104	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q102	8-729-900-74	TRANSISTOR DTC143TS		R105	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q103	8-729-620-05	TRANSISTOR 2SC2603-EF (370, 411)		R106	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q201	8-729-620-05	TRANSISTOR 2SC2603-EF		R107	1-247-887-00	CARBON 220K 5% 1/4W	
Q202	8-729-900-74	TRANSISTOR DTC143TS		R108	1-249-423-11	CARBON 3.3K 5% 1/4W	
Q203	8-729-620-05	TRANSISTOR 2SC2603-EF (370, 411)		R109	1-249-423-11	CARBON 3.3K 5% 1/4W	
Q501	8-729-900-61	TRANSISTOR DTA114ES		R110	1-249-428-11	CARBON 8.2K 5% 1/4W	
Q502	8-729-900-61	TRANSISTOR DTA114ES		R111	1-247-864-11	CARBON 24K 5% 1/4W	
Q503	8-729-900-61	TRANSISTOR DTA114ES (370, 411)		R112	1-249-414-11	CARBON 560 5% 1/4W	
Q505	8-729-821-04	TRANSISTOR 2SA1317-STU		R113	1-249-417-11	CARBON 1K 5% 1/4W (370, 411)	
Q506	8-729-900-61	TRANSISTOR DTA114ES		R114	1-249-429-11	CARBON 10K 5% 1/4W (370, 411)	
Q507	8-729-900-61	TRANSISTOR DTA114ES (370, 411, 511)		R115	1-249-421-11	CARBON 2.2K 5% 1/4W (370, 411)	
Q508	8-729-821-04	TRANSISTOR 2SA1317-STU (370, 411, 511)		R115	1-249-426-11	CARBON 5.6K 5% 1/4W (511, 570)	
Q509	8-729-900-61	TRANSISTOR DTA114ES (370, 411, 511)		R116	1-249-428-11	CARBON 8.2K 5% 1/4W (370, 411)	
Q510	8-729-821-04	TRANSISTOR 2SA1317-STU (370, 411, 511)		R117	1-249-431-11	CARBON 15K 5% 1/4W (370, 411)	
Q511	8-729-821-04	TRANSISTOR 2SA1317-STU (370, 411, 511)		R117	1-249-429-11	CARBON 10K 5% 1/4W (511, 570)	
Q701	8-729-620-05	TRANSISTOR 2SC2603-EF		R118	1-249-429-11	CARBON 10K 5% 1/4W	
Q702	8-729-111-55	TRANSISTOR 2SD1312-K		R119	1-249-435-11	CARBON 33K 5% 1/4W	
Q703	8-729-900-89	TRANSISTOR DTC144ES		R120	1-247-870-11	CARBON 43K 5% 1/4W	
Q704	8-729-900-85	TRANSISTOR DTC144WS		R121	1-249-408-11	CARBON 180 5% 1/4W	
Q705	8-729-924-90	TRANSISTOR 2SB1370-EF		R122	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q706	8-729-111-55	TRANSISTOR 2SD1312-K		R123	1-249-429-11	CARBON 10K 5% 1/4W	
Q801	8-729-900-80	TRANSISTOR DTC114ES		R124	1-249-428-11	CARBON 8.2K 5% 1/4W	
Q802	8-729-821-04	TRANSISTOR 2SA1317-STU		R125	1-249-430-11	CARBON 12K 5% 1/4W	
Q803	8-729-900-61	TRANSISTOR DTA114ES		R126	1-249-409-11	CARBON 220 5% 1/4W	
Q804	8-729-821-04	TRANSISTOR 2SA1317-STU		R127	1-249-417-11	CARBON 1K 5% 1/4W	
Q805	8-729-620-05	TRANSISTOR 2SC2603-EF		R201	1-249-417-11	CARBON 1K 5% 1/4W	
Q806	8-729-620-05	TRANSISTOR 2SC2603-EF		R202	1-249-433-11	CARBON 22K 5% 1/4W	
Q807	8-729-620-05	TRANSISTOR 2SC2603-EF		R203	1-249-430-11	CARBON 12K 5% 1/4W	
Q808	8-729-620-05	TRANSISTOR 2SC2603-EF		R204	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q809	8-729-620-05	TRANSISTOR 2SC2603-EF		R205	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q810	8-729-620-05	TRANSISTOR 2SC2603-EF		R206	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q811	8-729-620-05	TRANSISTOR 2SC2603-EF		R207	1-247-887-00	CARBON 220K 5% 1/4W	
Q812	8-729-620-05	TRANSISTOR 2SC2603-EF		R208	1-249-423-11	CARBON 3.3K 5% 1/4W	
Q813	8-729-620-05	TRANSISTOR 2SC2603-EF		R209	1-249-423-11	CARBON 3.3K 5% 1/4W	
Q814	8-729-620-05	TRANSISTOR 2SC2603-EF		R210	1-249-428-11	CARBON 8.2K 5% 1/4W	
Q815	8-729-821-04	TRANSISTOR 2SA1317-STU		R211	1-247-864-11	CARBON 24K 5% 1/4W	
Q816	8-729-900-61	TRANSISTOR DTA114ES		R212	1-249-414-11	CARBON 560 5% 1/4W	
Q817	8-729-801-84	TRANSISTOR 2SB1013-4		R213	1-249-417-11	CARBON 1K 5% 1/4W (370, 411)	
Q818	8-729-900-89	TRANSISTOR DTC144ES		R214	1-249-429-11	CARBON 10K 5% 1/4W (370, 411)	
Q819	8-729-801-84	TRANSISTOR 2SB1013-4		R215	1-249-421-11	CARBON 2.2K 5% 1/4W (370, 411)	
Q820	8-729-900-61	TRANSISTOR DTA114ES		R215	1-249-426-11	CARBON 5.6K 5% 1/4W (511, 570)	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R216	1-249-428-11	CARBON	8. 2K 5% 1/4W (370, 411)	R598	1-249-433-11	CARBON	22K 5% 1/4W (570)
R217	1-249-429-11	CARBON	10K 5% 1/4W (511, 570)	R599	1-249-433-11	CARBON	22K 5% 1/4W (570)
R217	1-249-431-11	CARBON	15K 5% 1/4W (370, 411)	R601	1-249-438-11	CARBON	56K 5% 1/4W (370, 411)
R218	1-249-429-11	CARBON	10K 5% 1/4W	R602	1-249-440-11	CARBON	82K 5% 1/4W (370, 411)
R219	1-249-435-11	CARBON	33K 5% 1/4W	R603	1-247-882-11	CARBON	130K 5% 1/4W (370, 411)
R220	1-247-870-11	CARBON	43K 5% 1/4W	R604	1-249-439-11	CARBON	68K 5% 1/4W (370, 411)
R221	1-249-408-11	CARBON	180 5% 1/4W	R605	1-249-435-11	CARBON	33K 5% 1/4W (370, 411)
R222	1-249-421-11	CARBON	2. 2K 5% 1/4W	R606	1-247-872-11	CARBON	51K 5% 1/4W (370, 411)
R223	1-249-429-11	CARBON	10K 5% 1/4W	R611	1-247-883-00	CARBON	150K 5% 1/4W (370, 411)
R224	1-249-428-11	CARBON	8. 2K 5% 1/4W	R612	1-247-878-00	CARBON	91K 5% 1/4W (370, 411)
R225	1-249-430-11	CARBON	12K 5% 1/4W	R613	1-247-881-00	CARBON	120K 5% 1/4W (370, 411)
R226	1-249-409-11	CARBON	220 5% 1/4W	R614	1-247-876-11	CARBON	75K 5% 1/4W (370, 411)
R227	1-249-417-11	CARBON	1K 5% 1/4W	R615	1-249-437-11	CARBON	47K 5% 1/4W (370, 411)
R501	1-249-417-11	CARBON	1K 5% 1/4W	R616	1-249-439-11	CARBON	68K 5% 1/4W (370, 411)
R502	1-215-455-00	METAL	27K 1% 1/6W (511, 570)	R621	1-247-887-00	CARBON	220K 5% 1/4W (370, 411)
R502	1-249-434-11	CARBON	27K 5% 1/4W (370, 411)	R622	1-247-881-00	CARBON	120K 5% 1/4W (370, 411)
R503	1-249-429-11	CARBON	10K 5% 1/4W	R623	1-249-440-11	CARBON	82K 5% 1/4W (370, 411)
R504	1-247-864-11	CARBON	24K 5% 1/4W	R624	1-249-436-11	CARBON	39K 5% 1/4W (370, 411)
R506	1-249-441-11	CARBON	100K 5% 1/4W	R625	1-247-872-11	CARBON	51K 5% 1/4W (370, 411)
R507	1-249-417-11	CARBON	1K 5% 1/4W	R626	1-249-439-11	CARBON	68K 5% 1/4W (370, 411)
R508	1-249-441-11	CARBON	100K 5% 1/4W	R641	1-249-441-11	CARBON	100K 5% 1/4W (370, 411)
R509	1-249-427-11	CARBON	6. 8K 5% 1/4W	R642	1-249-437-11	CARBON	47K 5% 1/4W (370, 411)
R510	1-249-413-11	CARBON	470 5% 1/4W	R643	1-249-439-11	CARBON	68K 5% 1/4W (370, 411)
R511	1-249-429-11	CARBON	10K 5% 1/4W	R644	1-249-870-11	CARBON	43K 5% 1/4W (370, 411)
R512	1-249-413-11	CARBON	470 5% 1/4W	R645	1-247-868-11	CARBON	36K 5% 1/4W (370, 411)
R513	1-247-870-11	CARBON	43K 5% 1/4W	R646	1-249-433-11	CARBON	22K 5% 1/4W (370, 411)
R514	1-249-429-11	CARBON	10K 5% 1/4W	R661	1-247-881-00	CARBON	120K 5% 1/4W (370, 411)
R515	1-249-429-11	CARBON	10K 5% 1/4W	R662	1-249-437-11	CARBON	47K 5% 1/4W (370, 411)
R516	1-249-429-11	CARBON	10K 5% 1/4W	R663	1-249-438-11	CARBON	56K 5% 1/4W (370, 411)
R517	1-249-433-11	CARBON	22K 5% 1/4W (370, 411, 511)	R664	1-249-439-11	CARBON	68K 5% 1/4W (370, 411)
R518	1-249-433-11	CARBON	22K 5% 1/4W (370, 411, 511)	R665	1-247-872-11	CARBON	51K 5% 1/4W (370, 411)
R519	1-249-427-11	CARBON	6. 8K 5% 1/4W (370, 411, 511)	R666	1-247-868-11	CARBON	36K 5% 1/4W (370, 411)
R520	1-249-433-11	CARBON	22K 5% 1/4W (370, 411, 511)	R681	1-247-880-11	CARBON	110K 5% 1/4W (370, 411)
R521	1-249-428-11	CARBON	8. 2K 5% 1/4W (511)	R682	1-247-876-11	CARBON	75K 5% 1/4W (370, 411)
R521	1-249-431-11	CARBON	15K 5% 1/4W (370, 411)	R683	1-249-436-11	CARBON	39K 5% 1/4W (370, 411)
R522	1-249-433-11	CARBON	22K 5% 1/4W (370, 411, 570)	R684	1-249-434-11	CARBON	27K 5% 1/4W (370, 411)
R523	1-247-856-00	CARBON	11K 5% 1/4W (511, 570)	R685	1-249-438-11	CARBON	56K 5% 1/4W (370, 411)
R523	1-247-858-11	CARBON	13K 5% 1/4W (370, 411)	R686	1-247-870-11	CARBON	43K 5% 1/4W (370, 411)
R524	1-249-429-11	CARBON	10K 5% 1/4W (511, 570)	R701	1-247-752-11	CARBON	1K 5% 1/2W
R525	1-249-442-11	CARBON	510 5% 1/4W	R702	1-249-425-11	CARBON	4. 7K 5% 1/4W
R526	1-249-431-11	CARBON	15K 5% 1/4W	R703	1-249-437-11	CARBON	47K 5% 1/4W
R527	1-249-405-11	CARBON	100 5% 1/4W	R704	1-249-437-11	CARBON	47K 5% 1/4W
R528	1-249-405-11	CARBON	100 5% 1/4W	R705	1-249-425-11	CARBON	4. 7K 5% 1/4W
R597	1-249-413-11	CARBON	470 5% 1/4W (511, 570)	R706	1-249-425-11	CARBON	4. 7K 5% 1/4W
				R707	1-249-427-11	CARBON	6. 8K 5% 1/4W
				R708	1-249-419-11	CARBON	1. 5K 5% 1/4W
				R709	1-249-425-11	CARBON	4. 7K 5% 1/4W
				R710	1-249-419-11	CARBON	1. 5K 5% 1/4W
				R711	1-249-429-11	CARBON	10K 5% 1/4W

AUDIO

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R712	1-249-417-11	CARBON	1K	5%	1/4W	R842	1-249-429-11	CARBON	10K	5%	1/4W
R713	1-249-427-11	CARBON	6.8K	5%	1/4W	R843	1-249-437-11	CARBON	47K	5%	1/4W
R714	1-249-427-11	CARBON	6.8K	5%	1/4W	R844	1-247-866-11	CARBON	30K	5%	1/4W
R801	1-249-412-11	CARBON	390	5%	1/4W (511, 570)	R845	1-249-435-11	CARBON	33K	5%	1/4W
R802	1-249-412-11	CARBON	390	5%	1/4W (511, 570)	R846	1-249-425-11	CARBON	4.7K	5%	1/4W
R803	1-249-410-11	CARBON	270	5%	1/4W	R847	1-247-862-11	CARBON	20K	5%	1/4W
R804	1-249-412-11	CARBON	390	5%	1/4W	R848	1-247-872-11	CARBON	51K	5%	1/4W
R805	1-249-413-11	CARBON	470	5%	1/4W	R850	1-247-872-11	CARBON	51K	5%	1/4W
R806	1-249-429-11	CARBON	10K	5%	1/4W	R851	1-249-405-11	CARBON	100	5%	1/4W
R807	1-249-421-11	CARBON	2.2K	5%	1/4W	R853	1-249-437-11	CARBON	47K	5%	1/4W
R808	1-249-421-11	CARBON	2.2K	5%	1/4W	R854	1-247-866-11	CARBON	30K	5%	1/4W
R809	1-247-903-00	CARBON	1M	5%	1/4W	R855	1-249-435-11	CARBON	33K	5%	1/4W
R810	1-249-429-11	CARBON	10K	5%	1/4W	R856	1-249-425-11	CARBON	4.7K	5%	1/4W
R811	1-249-422-11	CARBON	2.7K	5%	1/4W	R857	1-247-862-11	CARBON	20K	5%	1/4W
R812	1-249-422-11	CARBON	2.7K	5%	1/4W	R858	1-247-872-11	CARBON	51K	5%	1/4W
R813	1-249-422-11	CARBON	2.7K	5%	1/4W	R860	1-247-872-11	CARBON	51K	5%	1/4W
R814	1-249-428-11	CARBON	8.2K	5%	1/4W	R861	1-249-405-11	CARBON	100	5%	1/4W
R815	1-247-836-11	CARBON	1.6K	5%	1/4W	R862	1-249-429-11	CARBON	10K	5%	1/4W
R816	1-249-429-11	CARBON	10K	5%	1/4W	R881	1-249-415-11	CARBON	680	5%	1/4W
R817	1-249-429-11	CARBON	10K	5%	1/4W	R882	1-249-429-11	CARBON	10K	5%	1/4W
R818	1-249-425-11	CARBON	4.7K	5%	1/4W	R901	1-249-407-11	CARBON	150	5%	1/4W
R819	1-249-434-11	CARBON	27K	5%	1/4W	R902	1-249-409-11	CARBON	220	5%	1/4W
R820	1-249-429-11	CARBON	10K	5%	1/4W	R903	1-249-411-11	CARBON	330	5%	1/4W
R821	1-249-434-11	CARBON	27K	5%	1/4W	R904	1-249-413-11	CARBON	470	5%	1/4W
R822	1-249-429-11	CARBON	10K	5%	1/4W	R905	1-249-415-11	CARBON	680	5%	1/4W
R823	1-247-895-00	CARBON	470K	5%	1/4W	R906	1-249-417-11	CARBON	1K	5%	1/4W
R824	1-247-895-00	CARBON	470K	5%	1/4W	R907	1-249-420-11	CARBON	1.8K	5%	1/4W
R825	1-249-425-11	CARBON	4.7K	5%	1/4W	R908	1-249-407-11	CARBON	150	5%	1/4W
R826	1-249-425-11	CARBON	4.7K	5%	1/4W	R909	1-249-409-11	CARBON	220	5%	1/4W
R827	1-249-409-11	CARBON	220	5%	1/4W	R910	1-249-411-11	CARBON	330	5%	1/4W
R828	1-249-409-11	CARBON	220	5%	1/4W	R911	1-249-413-11	CARBON	470	5%	1/4W
R829	1-249-409-11	CARBON	220	5%	1/4W	R912	1-249-415-11	CARBON	680	5%	1/4W
R830	1-249-407-11	CARBON	150	5%	1/4W (370, 411, 570)	R913	1-249-417-11	CARBON	1K	5%	1/4W
R830	1-249-409-11	CARBON	220	5%	1/4W (511)	R914	1-249-426-11	CARBON	5.6K	5%	1/4W (511, 570)
R831	1-249-407-11	CARBON	150	5%	1/4W (370, 411, 570)	R915	1-249-430-11	CARBON	12K	5%	1/4W (511, 570)
R831	1-249-409-11	CARBON	220	5%	1/4W (511)	R916	1-249-411-11	CARBON	330	5%	1/4W (370, 570)
R832	1-249-407-11	CARBON	150	5%	1/4W (370, 411, 570)	R916	1-249-413-11	CARBON	470	5%	1/4W (411, 511)
R832	1-249-409-11	CARBON	220	5%	1/4W (511)	R917	1-249-411-11	CARBON	330	5%	1/4W (370, 570)
R833	1-249-435-11	CARBON	33K	5%	1/4W	R917	1-249-413-11	CARBON	470	5%	1/4W (411, 511)
R834	1-249-413-11	CARBON	470	5%	1/4W	< VARIABLE RESISTOR >					
R835	1-249-413-11	CARBON	470	5%	1/4W	RV101	1-238-600-11	RES. ADJ. CARBON	10K		
R836	1-249-429-11	CARBON	10K	5%	1/4W	RV201	1-238-600-11	RES. ADJ. CARBON	10K		
R837	1-249-410-11	CARBON	270	5%	1/4W	RV501	1-241-058-11	RES. VAR. CARBON	50K/50K		(REC LABEL)
R838	1-249-412-11	CARBON	390	5%	1/4W (511, 570)	RV502	1-241-057-11	RES. VAR. CARBON	50K/50K		(BALANCE)
R839	1-249-412-11	CARBON	390	5%	1/4W (511, 570)						
R840	1-249-441-11	CARBON	100K	5%	1/4W (511, 570)						
R841	1-249-415-11	CARBON	680	5%	1/4W						

AUDIO

HX PRO

MD-A

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S701	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)	
S901	1-572-358-11	SWITCH, SLIDE (DOLBY NR)	
S902	1-572-358-11	SWITCH, SLIDE (DIR MODE) (511, 570)	
S903	1-554-303-21	SWITCH, TACTILE (A STOP)	
S904	1-554-303-21	SWITCH, TACTILE (A FWD)	
S905	1-554-303-21	SWITCH, TACTILE (A REV) (511, 570)	
S906	1-554-303-21	SWITCH, TACTILE (B REW)	
S907	1-554-303-21	SWITCH, TACTILE (B FF)	
S908	1-554-303-21	SWITCH, TACTILE (B REC)	
S909	1-554-303-21	SWITCH, TACTILE (DUBBING HIGH)	
S910	1-554-303-21	SWITCH, TACTILE (DUBBING NORM)	
S911	1-554-303-21	SWITCH, TACTILE (B STOP)	
S912	1-554-303-21	SWITCH, TACTILE (B PAUSE)	
S913	1-554-303-21	SWITCH, TACTILE (B FWD)	
S914	1-554-303-21	SWITCH, TACTILE (B REV) (511, 570)	
S915	1-554-303-21	SWITCH, TACTILE (B REC MUTE)	
S916	1-554-303-21	SWITCH, TACTILE (A REW)	
S917	1-554-303-21	SWITCH, TACTILE (A FF)	
< CERAMIC >			
X801	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

* A-2006-403-A HX PRO BOARD, COMPLETE (570)			

< CAPACITOR >			
C44	1-162-288-31	CERAMIC 330PF 10% 50V	
C45	1-136-273-91	FILM 75PF 5% 630V	
C51	1-136-153-00	FILM 0.01uF 5% 50V	
C52	1-136-157-00	FILM 0.022uF 5% 50V	
C53	1-136-165-00	FILM 0.1uF 5% 50V	
C54	1-136-437-11	FILM 220PF 5% 630V	
C55	1-136-433-11	FILM 100PF 5% 630V	
C56	1-130-472-00	MYLAR 0.0012uF 5% 50V	
C64	1-162-288-31	CERAMIC 330PF 10% 50V	
C65	1-136-273-91	FILM 75PF 5% 630V	
C71	1-136-153-00	FILM 0.01uF 5% 50V	
C72	1-136-157-00	FILM 0.022uF 5% 50V	
C73	1-136-165-00	FILM 0.1uF 5% 50V	
C74	1-136-437-11	FILM 220PF 5% 630V	
C75	1-136-433-11	FILM 100PF 5% 630V	
C76	1-130-472-00	MYLAR 0.0012uF 5% 50V	
C91	1-126-059-11	ELECT 10uF 20% 50V	
C92	1-126-059-11	ELECT 10uF 20% 50V	
C93	1-126-022-11	ELECT 47uF 20% 10V	
C94	1-107-046-00	MICA 4.7PF 500V	

Ref. No.	Part No.	Description	Remark
< CONNECTOR >			
CNP22	* 1-565-347-11	SOCKET, CONNECTOR (PC BOARD) 8P	
CNP83	* 1-568-826-11	SOCKET, CONNECTOR 7P	
< IC >			
IC91	8-759-106-56	IC uPC1297CA	
< COIL >			
L41	1-410-780-11	INDUCTOR 27mH	
L61	1-410-780-11	INDUCTOR 27mH	
< TRANSISTOR >			
Q91	8-729-900-80	TRANSISTOR DTC114ES	
Q92	8-729-900-65	TRANSISTOR DTA144ES	
Q93	8-729-900-80	TRANSISTOR DTC114ES	
Q94	8-729-900-80	TRANSISTOR DTC114ES	
Q95	8-729-900-65	TRANSISTOR DTA144ES	
Q96	8-729-900-65	TRANSISTOR DTA144ES	
< RESISTOR >			
R45	1-249-430-11	CARBON 12K 5% 1/4W	
R51	1-249-431-11	CARBON 15K 5% 1/4W	
R52	1-249-393-11	CARBON 10 5% 1/4W	
R53	1-247-883-00	CARBON 150K 5% 1/4W	
R54	1-249-429-11	CARBON 10K 5% 1/4W	
R65	1-249-430-11	CARBON 12K 5% 1/4W	
R71	1-249-431-11	CARBON 15K 5% 1/4W	
R72	1-249-393-11	CARBON 10 5% 1/4W	
R73	1-247-883-00	CARBON 150K 5% 1/4W	
R74	1-249-429-11	CARBON 10K 5% 1/4W	
R91	1-249-427-11	CARBON 6.8K 5% 1/4W	
R93	1-247-868-11	CARBON 36K 5% 1/4W	
R94	1-249-427-11	CARBON 6.8K 5% 1/4W	
< VARIABLE RESISTOR >			
RV42	1-230-722-11	RES, ADJ, CARBON 22K	
RV62	1-230-722-11	RES, ADJ, CARBON 22K	
< TRANSFORMER >			
T51	1-433-367-11	TRANSFORMER, BIAS OSCILLATION	
T71	1-433-367-11	TRANSFORMER, BIAS OSCILLATION	
TP91	* 1-564-518-11	PLUG, CONNECTOR 3P	

* 1-634-840-11 MD-A BOARD (DECK A)			

MD-A

MD-C

Ref. No.	Part No.	Description	Remark		
< CAPACITOR >					
C11	1-110-342-11	MYLAR	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-282-00	ELECT	22uF	20%	25V
C21	1-110-342-11	MYLAR	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-282-00	ELECT	22uF	20%	25V
C31	1-124-443-00	ELECT	100uF	20%	10V
C32	1-124-443-00	ELECT	100uF	20%	10V
C71	1-123-875-11	ELECT	10uF	20%	50V
C72	1-123-875-11	ELECT	10uF	20%	50V
< CONNECTOR >					
CNP31	* 1-568-824-11	SOCKET, CONNECTOR 5P			
CNP32	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CNP71	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP72	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CNP73	* 1-568-826-11	SOCKET, CONNECTOR 7P			
< IC >					
IC31	8-759-111-44	IC uPC4570C-1			
< TRANSISTOR >					
Q71	8-729-820-16	TRANSISTOR 2SA1317-S			
< RESISTOR >					
R11	1-247-881-00	CARBON	120K	5%	1/4W
R12	1-249-405-11	CARBON	100	5%	1/4W
R13	1-247-882-11	CARBON	130K	5%	1/4W
R14	1-249-426-11	CARBON	5.6K	5%	1/4W
R21	1-247-881-00	CARBON	120K	5%	1/4W
R22	1-249-405-11	CARBON	100	5%	1/4W
R23	1-247-882-11	CARBON	130K	5%	1/4W
R24	1-249-426-11	CARBON	5.6K	5%	1/4W
R31	1-249-409-11	CARBON	220	5%	1/4W
R32	1-249-409-11	CARBON	220	5%	1/4W
R71	1-247-864-11	CARBON	24K	5%	1/4W
R72	1-249-433-11	CARBON	22K	5%	1/4W
R73	1-249-437-11	CARBON	47K	5%	1/4W
R74	1-249-437-11	CARBON	47K	5%	1/4W
< VARIABLE RESISTOR >					
RV11	1-238-597-11	RES. ADJ. CARBON 1K			
RV21	1-238-597-11	RES. ADJ. CARBON 1K			
RV71	1-238-600-11	RES. ADJ. CARBON 10K			
RV72	1-238-600-11	RES. ADJ. CARBON 10K			

Ref. No.	Part No.	Description	Remark		
	1-634-842-11	MD-C BOARD (570 DECK B) *****			
< CAPACITOR >					
C11	1-110-342-11	MYLAR	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-282-00	ELECT	22uF	20%	25V
C21	1-110-342-11	MYLAR	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-282-00	ELECT	22uF	20%	25V
C31	1-124-443-00	ELECT	100uF	20%	10V
C32	1-124-443-00	ELECT	100uF	20%	10V
C33	1-124-119-00	ELECT	330uF	20%	16V
C51	1-136-230-00	FILM	0.0022uF	5%	100V
C52	1-136-230-00	FILM	0.0022uF	5%	100V
C53	1-130-856-00	FILM	0.0068uF	5%	100V
C54	1-136-601-11	FILM	0.01uF	5%	630V
C55	1-161-494-00	CERAMIC	0.022uF		25V
C56	1-126-157-11	ELECT	10uF	20%	16V
C71	1-123-875-11	ELECT	10uF	20%	50V
C72	1-123-875-11	ELECT	10uF	20%	50V
< CONNECTOR >					
CNP31	* 1-568-824-11	SOCKET, CONNECTOR 5P			
CNP32	* 1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P			
CNP34	* 1-565-344-11	PIN, CONNECTOR (PC BOARD) 8P			
CNP71	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP72	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CNP73	* 1-568-828-11	SOCKET, CONNECTOR 9P			
CNP75	* 1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
< DIODE >					
D31	8-719-107-94	DIODE 1SS202-1			
< IC >					
IC31	8-759-111-44	IC uPC4570C-1			
< TRANSISTOR >					
Q51	8-729-194-57	TRANSISTOR 2SC945			
Q52	8-729-194-57	TRANSISTOR 2SC945			
Q53	8-729-801-84	TRANSISTOR 2SB1013-4			
Q71	8-729-820-16	TRANSISTOR 2SA1317-S			
< RESISTOR >					
R11	1-247-881-00	CARBON	120K	5%	1/4W
R12	1-249-405-11	CARBON	100	5%	1/4W
R13	1-247-882-11	CARBON	130K	5%	1/4W
R14	1-249-426-11	CARBON	5.6K	5%	1/4W

MD-C MD-B

Ref. No.	Part No.	Description	Remark		
R21	1-247-881-00	CARBON	120K	5%	1/4W
R22	1-249-405-11	CARBON	100	5%	1/4W
R23	1-247-882-11	CARBON	130K	5%	1/4W
R24	1-249-426-11	CARBON	5.6K	5%	1/4W
R31	1-249-409-11	CARBON	220	5%	1/4W
R32	1-249-409-11	CARBON	220	5%	1/4W
R51	1-249-441-11	CARBON	100K	5%	1/4W
R52	1-249-441-11	CARBON	100K	5%	1/4W
R53	1-249-429-11	CARBON	10K	5%	1/4W
R54	△ 1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R55	1-249-429-11	CARBON	10K	5%	1/4W
R71	1-247-864-11	CARBON	24K	5%	1/4W
R72	1-249-433-11	CARBON	22K	5%	1/4W
R73	1-249-437-11	CARBON	47K	5%	1/4W
R74	1-249-437-11	CARBON	47K	5%	1/4W
< VARIABLE RESISTOR >					
RV11	1-238-597-11	RES. ADJ. CARBON	1K		
RV21	1-238-597-11	RES. ADJ. CARBON	1K		
RV71	1-238-600-11	RES. ADJ. CARBON	10K		
RV72	1-238-600-11	RES. ADJ. CARBON	10K		
< RELAY >					
RY31	1-515-726-11	RELAY			
< TRANSFORMER >					
T51	1-433-366-11	TRANSFORMER, BIAS OSCILLATION			

* 1-634-843-11 PC BOARD, MD-B (370, 411, 511 DECK B)					

< CAPACITOR >					
C11	1-110-342-11	MYLAR	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-282-00	ELECT	22uF	20%	25V
C14	1-136-273-91	FILM	75PF	5%	630V
C15	1-162-288-31	CERAMIC	330PF	10%	50V
C17	1-162-209-31	CERAMIC	27PF	5%	50V (511)
C17	1-162-288-31	CERAMIC	330PF	10%	50V (370, 411)
C21	1-110-342-11	MYLAR	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-282-00	ELECT	22uF	20%	25V
C24	1-136-273-91	FILM	75PF	5%	630V
C25	1-162-288-31	CERAMIC	330PF	10%	50V
C27	1-162-288-31	CERAMIC	330PF	10%	50V (370, 411)
C27	1-162-209-31	CERAMIC	27PF	5%	50V (511)

Ref. No.	Part No.	Description	Remark		
C31	1-124-443-00	ELECT	100uF	20%	10V
C32	1-124-443-00	ELECT	100uF	20%	10V
C33	1-124-119-00	ELECT	330MF	20%	16V
C51	1-130-729-00	FILM	0.0027	5%	100V (511)
C51	1-136-593-11	FILM	0.0033MF	5%	100V (370, 411)
C52	1-130-729-00	FILM	0.0027	5%	100V (511)
C52	1-136-593-11	FILM	0.0033MF	5%	100V (370, 411)
C53	1-130-339-00	FILM	0.0056MF	5%	100V
C54	1-136-562-11	FILM	0.0082	5%	630V (511)
C54	1-136-601-11	FILM	0.01MF	5%	630V (370, 411)
C55	1-161-494-00	CERAMIC	0.022MF		25V
C56	1-124-925-11	ELECT	2.2MF	20%	50V
C57	1-124-791-11	ELECT	1MF	20%	50V
C58	1-162-282-31	CERAMIC	100PF	10%	50V
C71	1-123-875-11	ELECT	10MF	20%	50V
C72	1-123-875-11	ELECT	10MF	20%	50V
< CONNECTOR >					
CNP31	* 1-568-824-11	SOCKET, CONNECTOR	5P		
CNP32	* 1-564-709-11	PIN, CONNECTOR (SMALL TYPE)	7P		
CNP71	* 1-564-705-11	PIN, CONNECTOR (SMALL TYPE)	3P		
CNP72	* 1-564-706-11	PIN, CONNECTOR (SMALL TYPE)	4P		
CNP73	* 1-568-832-11	SOCKET, CONNECTOR	13P		
< DIODE >					
D31	8-719-107-94	DIODE 1SS202-1			
< IC >					
IC31	8-759-111-44	IC uPC4570C-1			
< COIL >					
L11	1-410-780-11	INDUCTOR	27mH		
L21	1-410-780-11	INDUCTOR	27mH		
< TRANSISTOR >					
Q51	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q52	8-729-142-46	TRANSISTOR 2SC2001-LK			
Q53	8-729-111-29	TRANSISTOR 2SD1616A-K			
Q71	8-729-820-16	TRANSISTOR 2SA1317-S			
< RESISTOR >					
R11	1-247-881-00	CARBON	120K	5%	1/4W
R12	1-249-405-11	CARBON	100	5%	1/4W
R13	1-247-882-11	CARBON	130K	5%	1/4W
R14	1-249-426-11	CARBON	5.6K	5%	1/4W
R15	1-249-430-11	CARBON	12K	5%	1/4W

<p>Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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MD-B

SW-A

SW-B

Ref. No.	Part No.	Description	Remark
R21	1-247-881-00	CARBON 120K 5% 1/4W	
R22	1-249-405-11	CARBON 100 5% 1/4W	
R23	1-247-882-11	CARBON 130K 5% 1/4W	
R24	1-249-426-11	CARBON 5.6K 5% 1/4W	
R25	1-249-430-11	CARBON 12K 5% 1/4W	
R31	1-249-409-11	CARBON 220 5% 1/4W	
R32	1-249-409-11	CARBON 220 5% 1/4W	
R51	1-249-435-11	CARBON 33K 5% 1/4W	
R52	1-249-435-11	CARBON 33K 5% 1/4W	
R53	1-249-429-11	CARBON 10K 5% 1/4W	
R54	△ 1-212-849-00	FUSIBLE 4.7 5% 1/4W F(511)	
R54	△ 1-212-851-00	FUSIBLE 5.6 5% 1/4W F(370, 411)	
R71	1-247-864-11	CARBON 24K 5% 1/4W	
R72	1-249-433-11	CARBON 22K 5% 1/4W	
R73	1-249-437-11	CARBON 47K 5% 1/4W	
R74	1-249-437-11	CARBON 47K 5% 1/4W	
< VARIABLE RESISTOR >			
RV11	1-238-597-11	RES. ADJ. CARBON 1K	
RV12	1-230-498-11	RES. ADJ. CARBON 47K (370, 411)	
RV12	1-230-500-11	RES. ADJ. CARBON 220K (511)	
RV21	1-238-597-11	RES. ADJ. CARBON 1K	
RV22	1-230-498-11	RES. ADJ. CARBON 47K (370, 411)	
RV22	1-230-500-11	RES. ADJ. CARBON 220K (511)	
RV71	1-238-600-11	RES. ADJ. CARBON 10K	
RV72	1-238-600-11	RES. ADJ. CARBON 10K	
< RELAY >			
RY31	1-515-726-11	RELAY	
< TRANSFORMER >			
T51	1-433-337-11	TRANSFORMER, BIAS OSCILLATION (511)	
T51	1-433-338-12	TRANSFORMER, BIAS OSCILLATION (370, 411)	

* 1-634-841-11 SW-A BOARD

3-343-419-01 HOLDER (S SENSER A)

< CONNECTOR >




CNP81 * 1-568-852-11 SOCKET, CONNECTOR 9P

< IC >

IC81 8-719-710-03 PHOTO INTERRUPTOR NJL5165K-B

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
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)	
S82	1-571-281-21	SWITCH, LEAF (70EQ)	
S86	1-571-281-21	SWITCH, LEAF (HALF)	

* 1-634-841-11 SW-B BOARD *****			
3-343-419-01 HOLDER (S SENSER A)			
< CONNECTOR >			
CNP81	* 1-568-852-11	SOCKET, CONNECTOR 9P	
< IC >			
IC81	8-719-710-03	PHOTO INTERRUPTOR NJL5165K-B	
< RESISTOR >			
R81	1-249-414-11	CARBON 560 5% 1/4W	
R82	1-247-818-11	CARBON 300 5% 1/4W (511, 570)	
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)	
S82	1-571-281-21	SWITCH, LEAF (70EQ)	
S83	1-571-281-21	SWITCH, LEAF (METAL)	
S84	1-571-281-21	SWITCH, LEAF (REC A)	
S85	1-571-281-21	SWITCH, LEAF (REC B) (511, 570)	
S86	1-571-281-21	SWITCH, LEAF (HALF)	

<p>Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark
MISCELLANEOUS *****			
6	△ 1-551-188-XX	CORD, POWER (E)	
6	△ 1-551-506-XX	CORD, POWER (US, Canadian)	
6	△ 1-555-795-00	CORD, POWER, EULO PLUG (AEP, G)	
6	△ 1-556-035-00	CORD, POWER (UK)	
11	△ 1-569-007-11	ADAPTER, CONVERSION 2P (E)	
70	1-575-784-11	WIRE, FLAT TYPE (13 CORE) (370, 411, 511)	
80	1-575-851-21	WIRE, FLAT TYPE (7 CORE) (570)	
81	* 1-533-213-31	HOLDER, FUSE	
83	* 1-575-847-11	WIRE, FLAT TYPE (5 CORE)	
84	1-575-779-11	WIRE, FLAT TYPE (5 CORE)	
85	1-575-968-11	WIRE, FLAT TYPE (7 CORE)	
86	1-575-781-11	WIRE, FLAT TYPE (9 CORE)	
87	1-575-782-11	WIRE, FLAT TYPE (9 CORE)	
F701	△ 1-532-285-00	FUSE, TIME-LAG 1.25A (AEP, G, UK, E)	
F701	△ 1-532-742-11	FUSE, GLASS TUBE 1.6A (US, Canadian)	
F702	△ 1-532-285-00	FUSE, TIME-LAG 1.25A (AEP, G, UK, E)	
F702	△ 1-532-742-11	FUSE, GLASS TUBE 1.6A (US, Canadian)	
HE901	1-543-535-11	HEAD, MAGNETIC (ERASE) (370, 411 DECK B)	
HP901	1-543-536-11	HEAD, MAGNETIC (PLAYBACK) (370, 411 DECK A)	
HP902	A-2003-418-A	BASE ASSY, HEAD (PLAYBACK) (511, 570 DECK A)	
HRP901	1-543-537-11	HEAD, MAGNETIC (REC/PB) (370, 411 DECK B)	
HRP902	} A-2003-477-A	BASE ASSY, HEAD (REC/PB/ERASE) (511, 570 DECK B)	
HE902			
M901	X-3359-417-1	MOTOR (CAPSTAN) ASSY	
M902	A-2003-474-A	MOTOR (REEL) ASSY	
T701	△ 1-449-420-21	TRANSFORMER, POWER (US, Canadian)	
T701	△ 1-449-666-21	TRANSFORMER, POWER (E)	
T701	△ 1-450-465-11	TRANSFORMER, POWER (AEP, G, UK)	
VS901	△ 1-570-307-11	SWITCH, VOLTAGE CHANGE (E)	

ACCESSORY & PACKING MATERIAL

- 1-558-271-11 CORD, CONNECTION
- 1-559-533-11 CORD, CONNECTION
- * 3-354-917-01 CUSHION
- * 3-366-701-01 INDIVIDUAL CARTON (570)
- * 3-366-701-11 INDIVIDUAL CARTON (511)
- * 3-366-701-21 INDIVIDUAL CARTON (370)
- * 3-366-701-31 INDIVIDUAL CARTON (411)
- 3-703-450-01 INSTRUCTION (US)
- 3-753-096-11 MANUAL, INSTRUCTION (Canadian, AEP)
(ENGLISH, FRENCH, SPANISH, PORTUGUESE)
- 3-753-096-21 MANUAL, INSTRUCTION (US, UK) (ENGLISH)
- 3-753-096-41 MANUAL, INSTRUCTION (AEP)
(GERMAN, DUTCH, SWEDISH, ITALIAN)
- 3-753-096-51 MANUAL, INSTRUCTION (G) (GERMAN)
- 3-753-096-61 MANUAL, INSTRUCTION (E)
(ENGLISH, FRENCH, SPANISH, CHINESE)

Ref. No.	Part No.	Description	Remark
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HARDWARE LIST

- # 1 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
- # 2 7-621-849-00 SCREW (BV/RING)
- # 3 7-685-534-19 SCREW +BTP 2.6X8 TYPE2 N-S (E)
- # 4 7-621-773-93 SCREW (PANEL 2.6 TP2)
- # 5 7-682-547-04 SCREW +BVTT 3X6 (S)
- # 6 7-621-773-95 SCREW +BVTT 2.6X6 (S)
- # 7 7-627-556-08 SCREW +P 2.6X2.8
- # 8 7-621-775-00 SCREW +B 2.6X3
- # 9 7-621-772-58 SCREW (+B 2X10) (370, 411)

Note:

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

Note:

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

TC-W370/W411/WR511/WR570

SONY[®] SERVICE MANUAL

US Model

TC-W370/W411/WR511/WR570

Canadian Model

AEP Model

UK Model

E Model

Australian Model

TC-W370/WR570

SUPPLEMENT-1

File this supplement with the service manual.

For the TC-W370 and TC-WR570 Service Manual released previously, the Australian Model is added. Please utilize it since its contents are same as those of UK Model.

TC-W370/W411/WR511/WR570

SONY[®] SERVICE MANUAL

US Model
TC-W370/W411/WR511/WR570

Canadian Model

AEP Model

UK Model

E Model

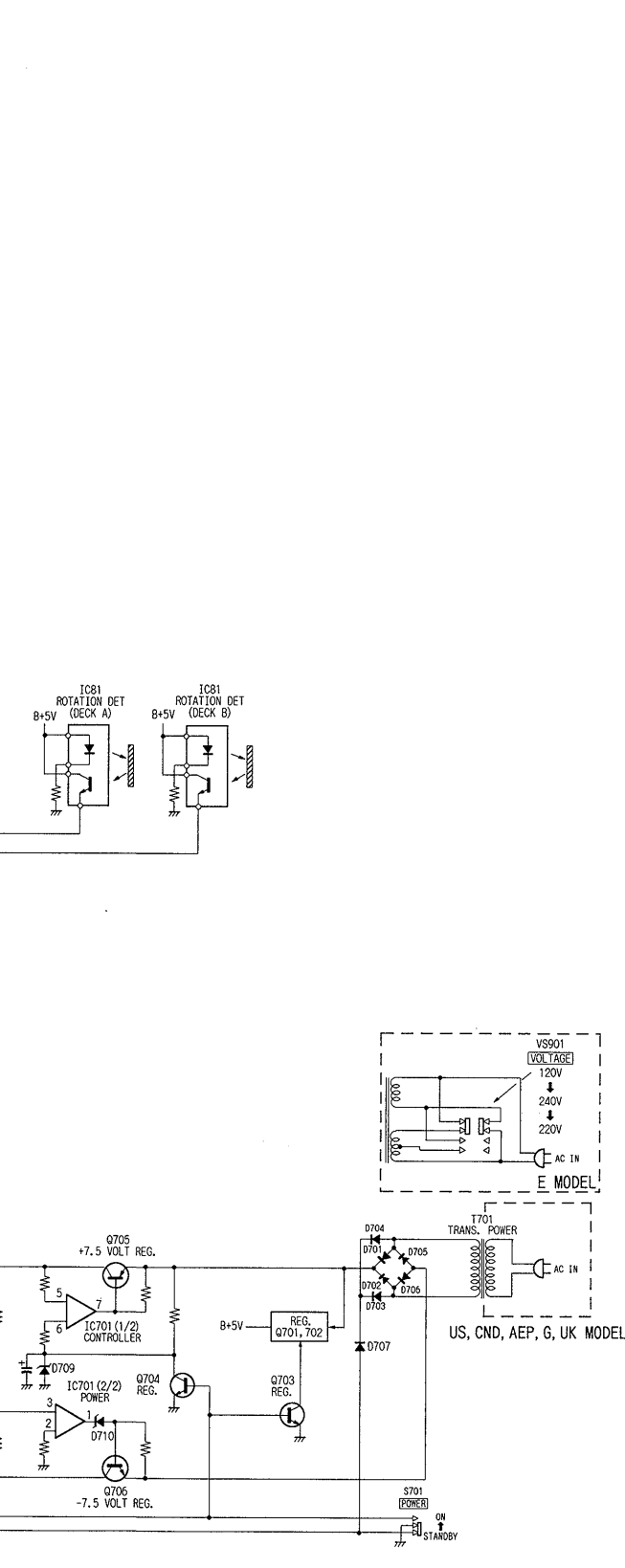
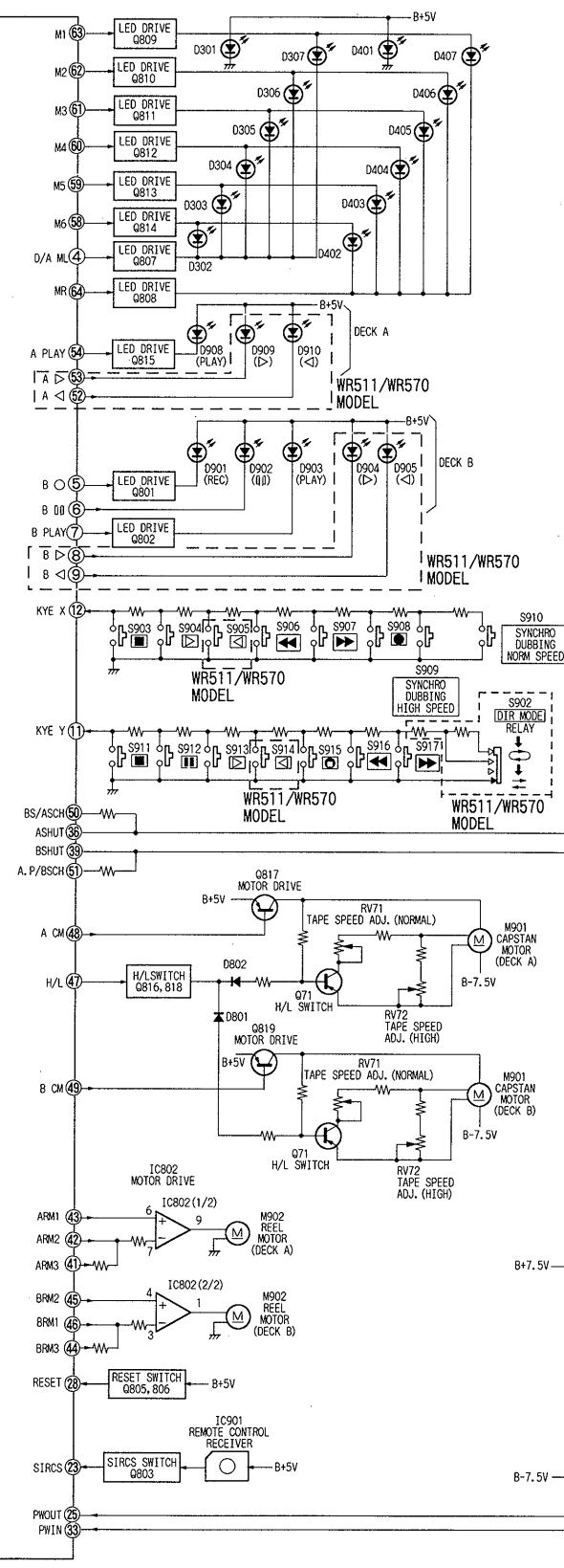
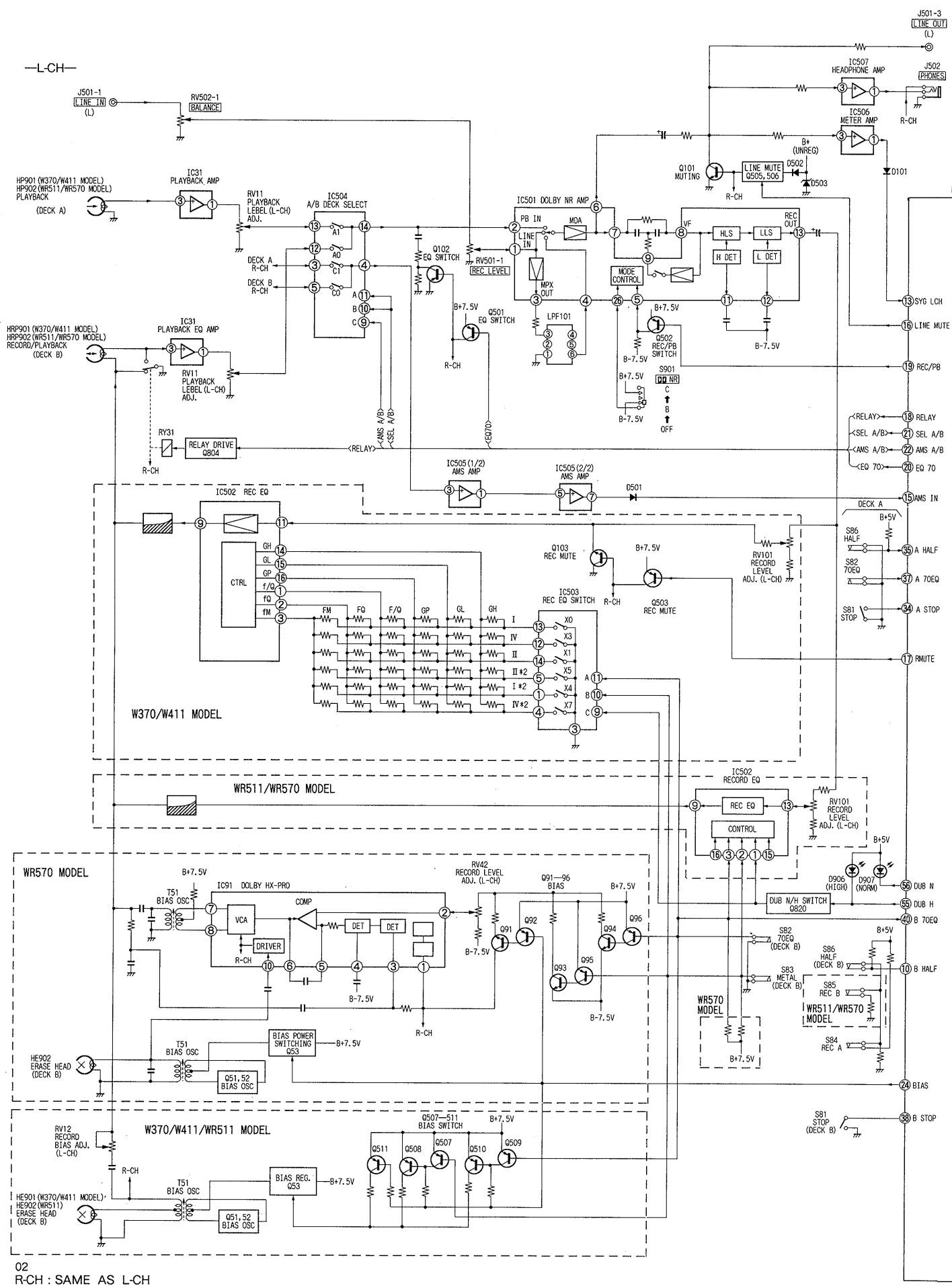
Australian Model

TC-W370/WR570

SUPPLEMENT-2

File this supplement with the service manual and supplement-1.

BLOCK DIAGRAM



02 R-CH : SAME AS L-CH