

TC-H1600

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model*



This set is the deck section in
MHC-H1600, FH-E636CD.

Model Name Using Similar Mechanism	TC-WR520/WR520S	
Tape Transport Mechanism Type	DECK A	TCM-190RA12A
	DECK B	TCM-190RB22A

SPECIFICATIONS

Cassette Deck Section

Recording system 4-track 2-channel stereo
Frequency response (DOLBY NR OFF)
40 — 13,000 Hz (± 3 dB)
using TYPE I cassette
(Sony HF-S)
40 — 14,000 Hz (± 3 dB)
using TYPE II cassette
Wow and flutter 0.1% WRMS $\pm 0.3\%$ (DIN)

Design and specifications subject to change
without notice.

Note

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



STEREO CASSETTE DECK
SONY®

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Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.


Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  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

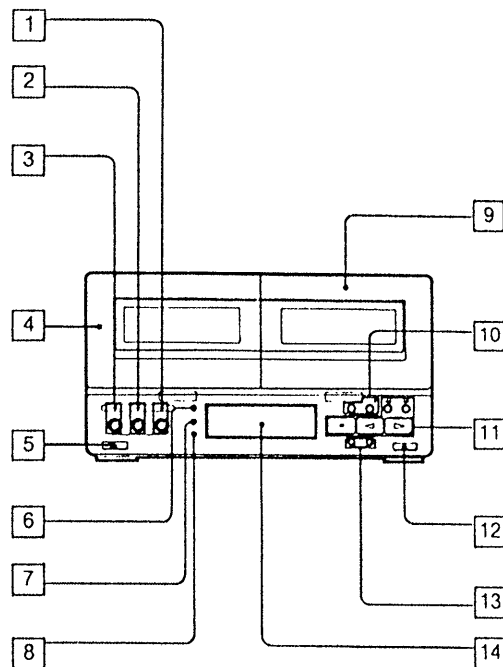
GENERAL

This section is extracted from instruction manual.

1-1. PARTS IDENTIFICATION

Cassette Deck Section B

- 1 CD SYNCHRO (CD synchronized recording) button and indicator
- 2 NORMAL SPEED (normal-speed dubbing) button and indicator
- 3 HIGH SPEED (high-speed dubbing) button and indicator
- 4 Cassette holder (Deck A)
- 5 ⏏ (eject) button (Deck A)
- 6 RESET button
- 7 DOLBY NR (Dolby Noise Reduction) button
- 8 DIRECTION MODE button
- 9 Cassette holder (Deck B)
- 10 Tape operation buttons (for Deck B only)
 - ▮ : PAUSE
 - : REC (recording)
- 11 Tape operation buttons (for Deck A and B)
 - ⏪⏩ : Fast winding
 - : Stop
 - ▷ : Forward play
 - ◁ : Reverse play
- 12 ⏏ (eject) button (Deck B)
- 13 DECK A/B selection button
- 14 Display window

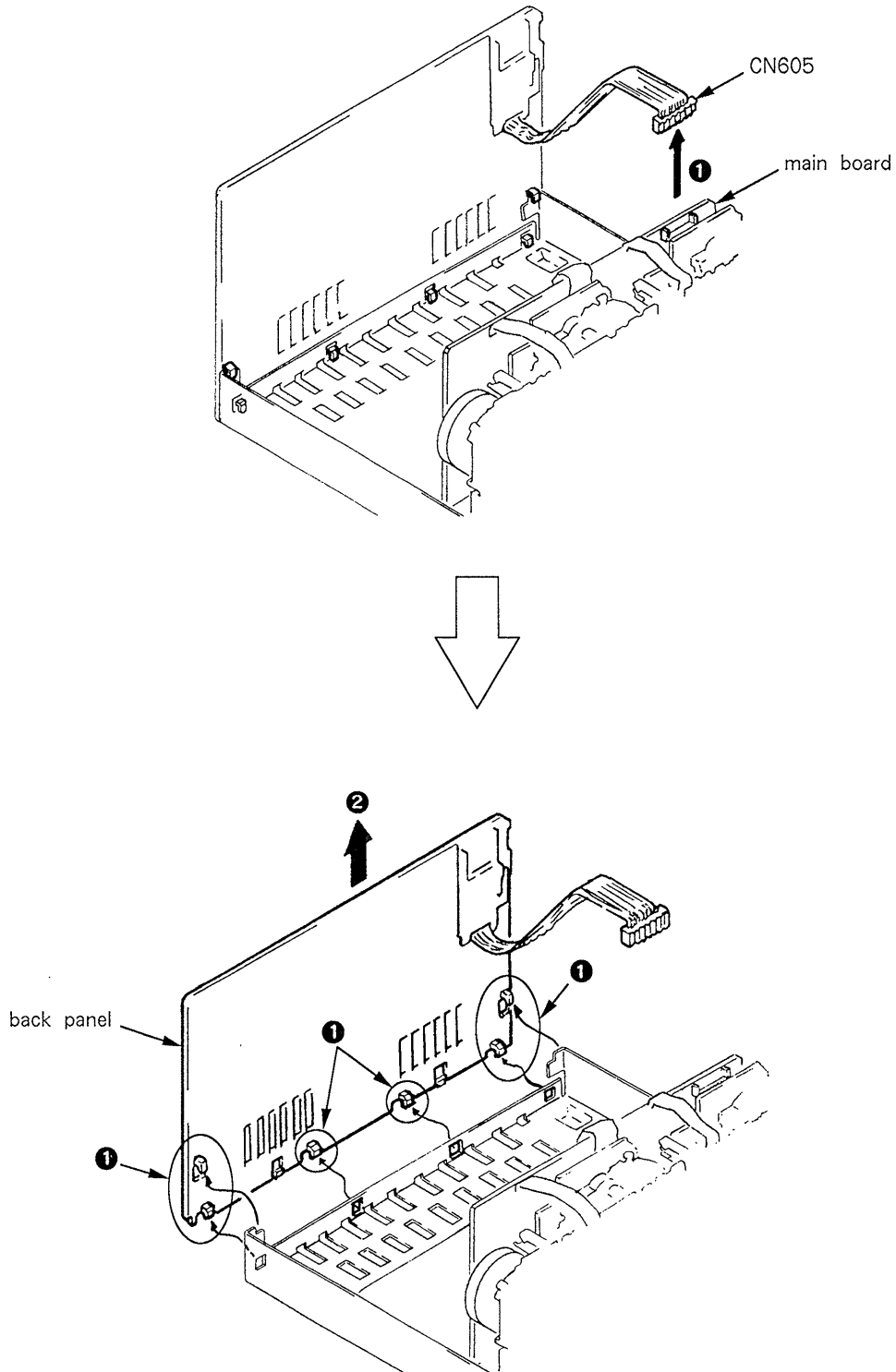


SECTION 2 DISASSEMBLY

2-1. BACK PANEL REMOVAL

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

- ① Remove the connector of the main board (CN605).
- ② Release the latches while lifting up back panel.



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

PRECAUTION

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

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

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	35 to 60g · cm (0.49 to 0.83 oz · inch)
FWD Back tension	CQ-102C	2 to 6g · cm (0.028 to 0.08 oz · inch)
REV	CQ-102RC	35 to 60g · cm (0.49 to 0.83 oz · inch)
REV Back tension	CQ-102RC	2 to 6g · cm (0.028 to 0.08 oz · inch)
FF, REW	CQ-201B	70 to 110g · cm (0.98 to 1.52 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.

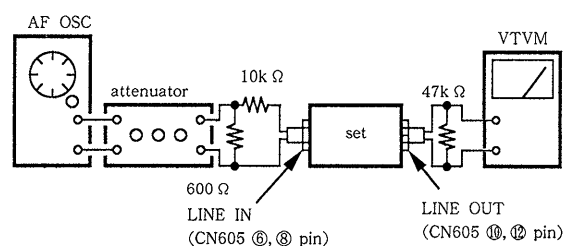
DOLBY NR switch : OFF

DIRECTION 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	0.35V (-7dB)

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

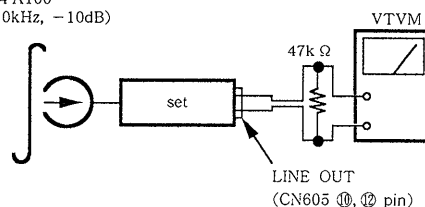
Record/Playback Head Azimuth Adjustment

DECK A DECK B

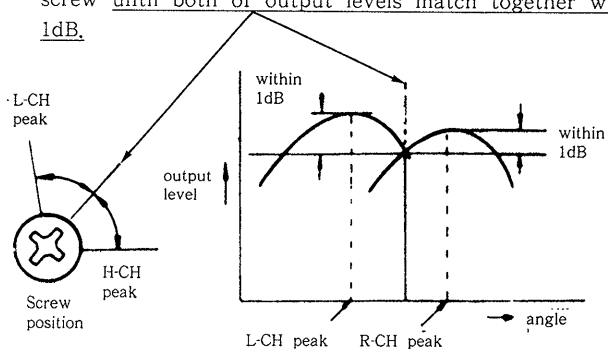
Procedure :

1. Mode : FWD playback

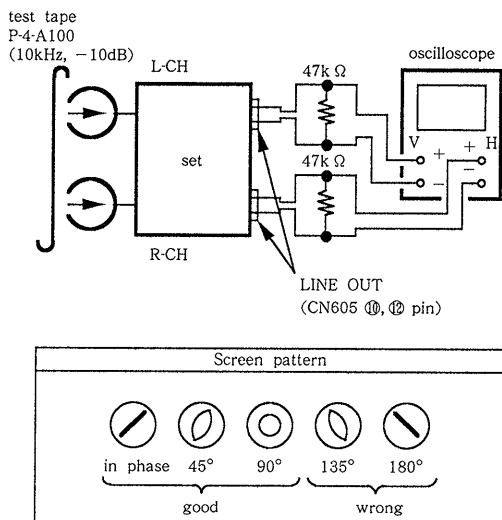
test tape
P-4-A100
(10kHz, -10dB)



- 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.

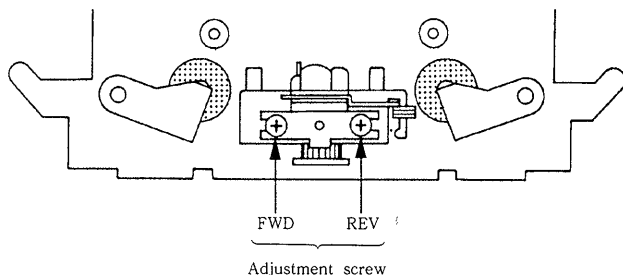


- Phase Check
Mode : playback



- Set in the REV mode and repeat the step 1-3.
- After the adjustment, lock the screws with locking compound.

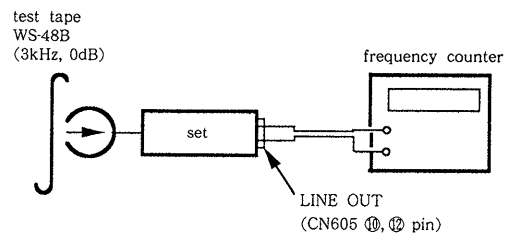
Adjustment Location : Record/Playback head



Tape Speed Adjustment DECK A DECK B

Procedure :

Mode : playback



Perform high speed adjustment before normal speed adjustment

(high speed adjustment)

- Set to FWD playback mode.
- Keep on pressing the HIGH SPEED DUBBING switch.
- Adjust the RV72A (DECK A), RV72B (DECK B) so that the frequency counter reading becomes $6,000 \pm 30\text{Hz}$.
- Set in the REV mode and repeat the step 1-3.

(normal speed adjustment)

- Set to FWD playback mode.
- Keep on pressing the NORMAL SPEED DUBBING switch.
- Adjust the RV71A (DECK A), RV71B (DECK B) so that the frequency counter reading becomes $3,000 \pm 15\text{Hz}$.
- Set in the REV mode and repeat the step 1-3.

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%.

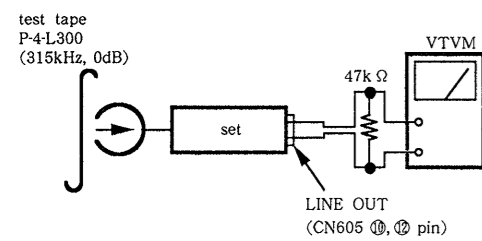
Adjustment Location : MD (A), MD (B) board

**SECTION 4
DIAGRAMS**

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 : $-7 \pm 1\text{dB}$ (0.39-0.31dB)

Level difference between channels : less than 1dB

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) board

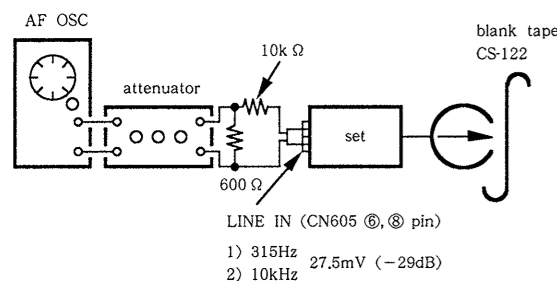
Record Bias Adjustment DECK A DECK B

Setting :

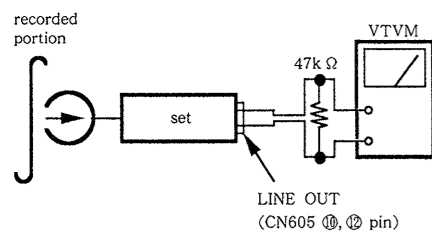
REC LEVEL control : Standard Record (See page 5).

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

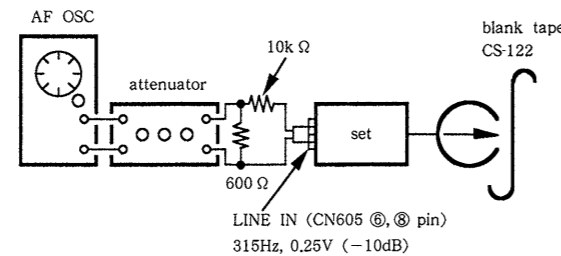
Record Level Adjustment DECK A DECK B

Setting :

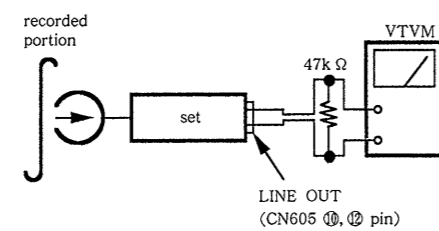
REC LEVEL control : Standard Record (See page 5).

Procedure :

1. Mode : record



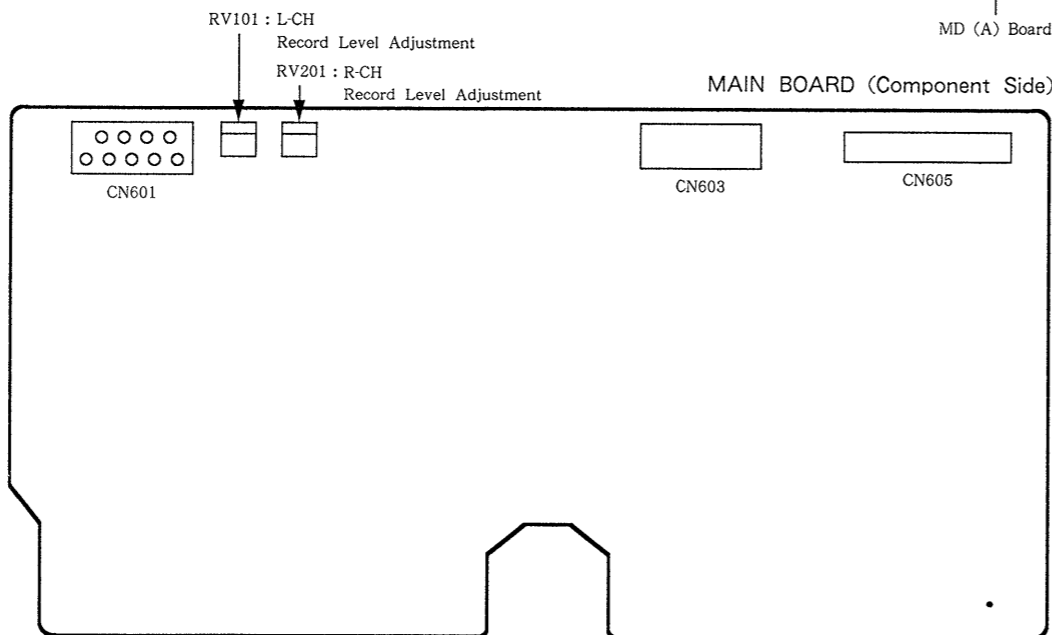
2. Mode : playback



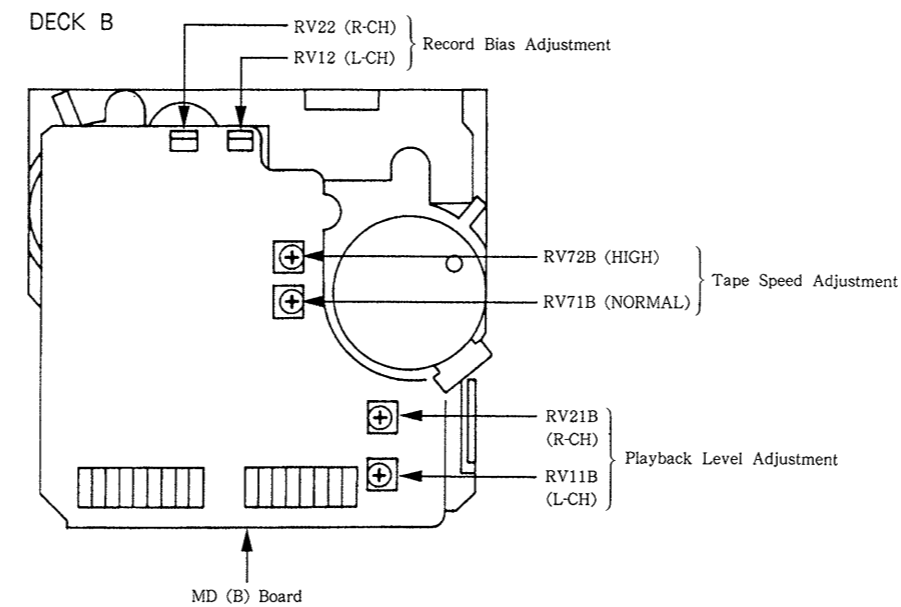
3. Playback the signal recorded in step 1. Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the step 1-3.

Adjustment Limits : $-7\text{dB} \pm 0.5\text{dB}$ (0.33-0.36V)

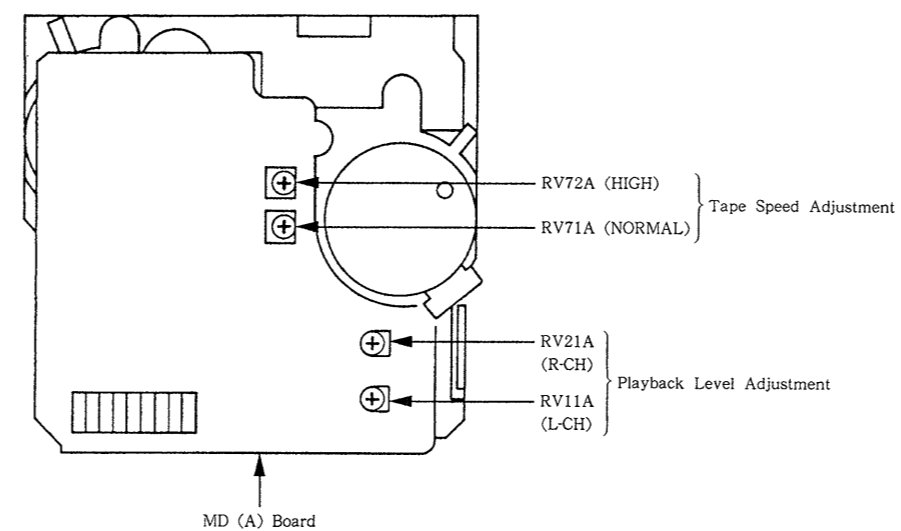
Adjustment Location : MAIN board



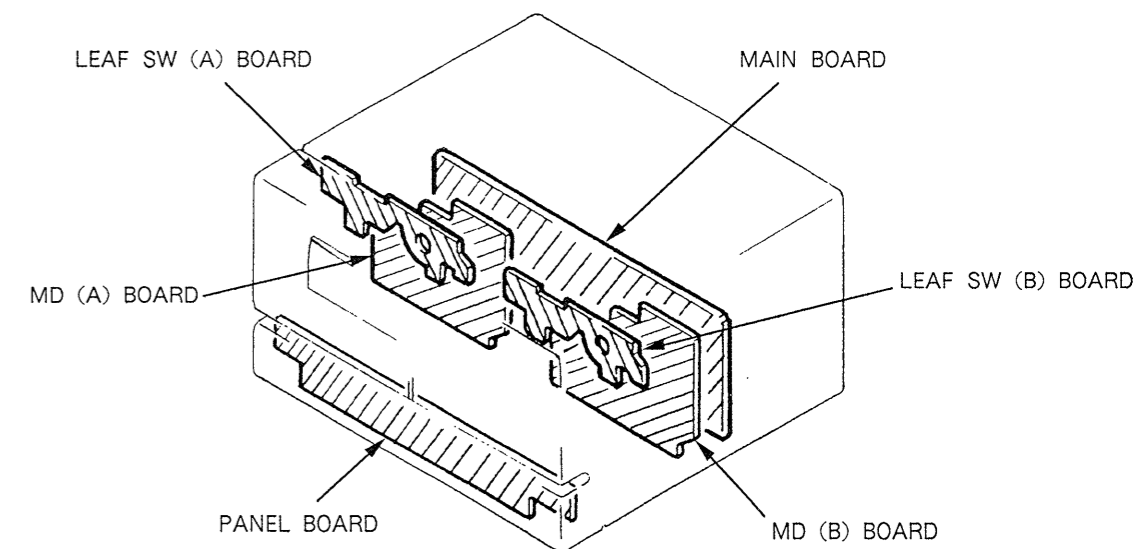
Adjustment Location : MD (B) board



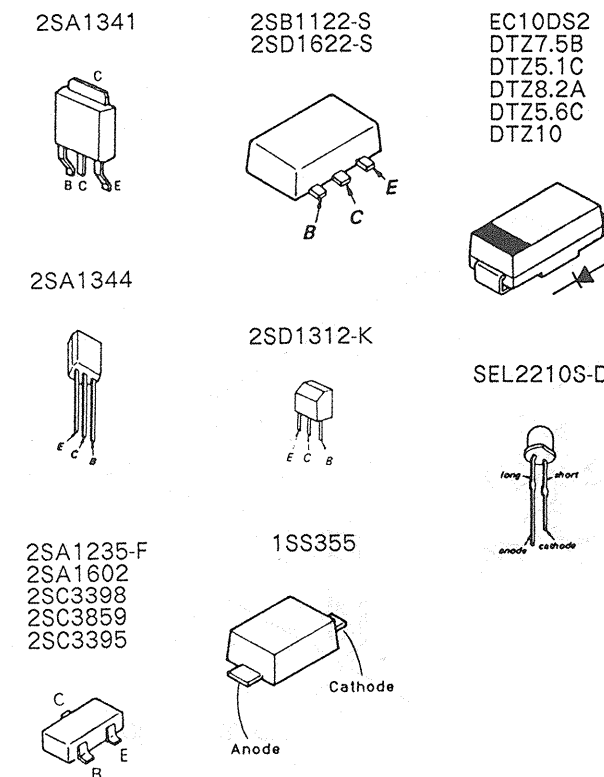
DECK A



4.1. CIRCUIT BOARDS LOCATION



4-2. SEMICONDUCTOR LEAD LAYOUTS



Note on Schematic Diagram :

- 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.
- Δ : internal component.
- $\text{---}/\text{---}$: 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 ou pointillés avec une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- $\text{---}/\text{---}$: B+ Line
- $\text{---}/\text{---}$: B- Line
- \square : adjustment for repair.
- 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.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- $\text{---}/\text{---}$: PB (DECK A)
- $\text{---}/\text{---}$: PB (DECK B)
- $\text{---}/\text{---}$: REC (DECK B)

• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D31	H-23	IC603	C-1
D351	K-3	IC604	E-3
D352	K-2	IC605	E-5
D353	K-4	IC6001	C-7
D602	E-2		
D603	C-7	Q51	G-23
D604	B-7	Q52	G-24
D605	B-4	Q53	G-23
D606	B-7	Q101	B-10
D607	B-6	Q102	D-11
D6001	F-11	Q201	B-10
D6002	F-10	Q202	D-11
D6003	F-2	Q604	C-11
D6004	F-2	Q605	C-12
D6005	F-2	Q606	C-12
D6006	F-2	Q607	E-9
D6007	G-3	Q608	D-9
D6008	G-5	Q609	B-8
D6009	G-10	Q611	D-4
D6010	C-9	Q612	E-4
D6011	C-10	Q613	E-4
D6012	C-11	Q616	E-7
		Q617	D-7
		Q618	B-4
		Q619	C-6
IC101	D-10		
IC102	E-11		
IC103	E-8	Q620	C-6
IC104	D-12	Q6001	G-4
IC105	D-12	Q6002	G-6
		Q6003	G-11
		Q6004	G-11
		Q6005	C-6
IC106	C-12		
IC351	J-7		
IC601	C-8		
IC602	D-5		

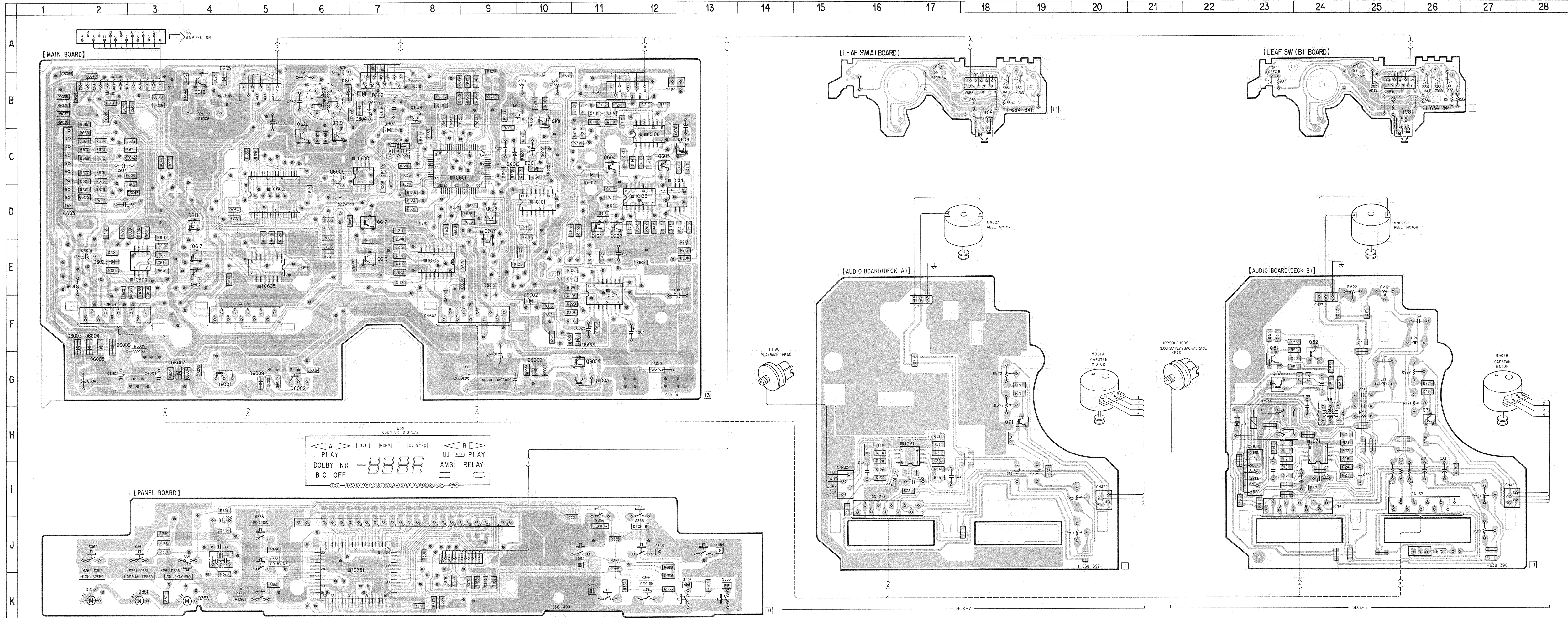
LEAF SW (A) BOARD		LEAF SW (B) BOARD	
Ref. No.	Location	Ref. No.	Location
IC81	B-18	IC81	B-26

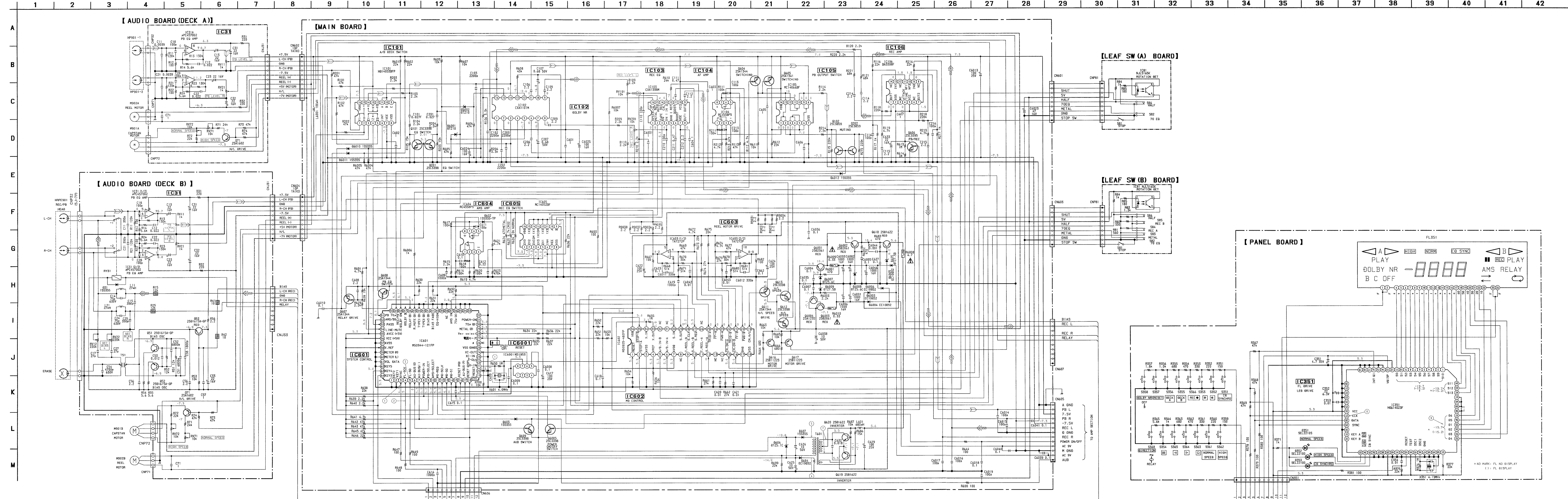
MD (A) BOARD		MD (B) BOARD	
Ref. No.	Location	Ref. No.	Location
IC31	H-17	IC31	H-24
Q71	H-19	Q71	H-26

Note on Printed Wiring Boards :

- \circ : parts extracted from the component side.
- \blacksquare : parts mounted on the conductor side.
- \bullet : Through hole.
- $\text{---}/\text{---}$: Pattern on the side which is seen.
- $\text{---}/\text{---}$: Pattern of the rear side.
- \square : Chip components extracted from the rear side.

4-3. PRINTED WIRING BOARDS - US, Canadian, E Model-





• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D31	H-23	Q51	G-23
D351	K-3	Q52	G-24
D352	K-2	Q53	G-23
D353	K-4	Q101	B-10
D601	F-10	Q102	D-11
D602	E-2	Q201	B-10
D603	C-7	Q202	D-11
D604	B-7	Q601	F-10
D605	B-4	Q602	F-10
D606	B-7	Q603	F-11
D607	B-6	Q604	C-11
D6003	F-2	Q605	C-12
D6004	F-2	Q606	C-12
D6005	F-2	Q607	E-9
D6006	F-2	Q608	D-9
D6007	G-3	Q609	B-8
D6008	G-5	Q611	D-4
D6009	G-10	Q612	E-4
D6010	C-9	Q613	E-4
D6011	C-10	Q616	E-7
D6012	C-11		
IC101	D-10	Q617	D-7
IC102	E-11	Q618	B-4
IC103	E-8	Q619	C-6
IC104	D-12	Q620	C-6
IC105	D-12	Q6001	G-4
IC106	C-12	Q6002	G-6
IC351	J-7	Q6003	G-11
IC601	C-8	Q6004	G-11
IC602	D-5	Q6005	C-6
IC603	C-1		
IC604	E-3		
IC605	E-5		
IC6001	C-7		

Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF : μF 50VV 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.
- Δ : internal component.
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Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- --- : B+ Line
- --- : B- Line
- \square : adjustment for repair.
- 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.
- Waveforms are taken with a oscilloscope.
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- --- : PB (DECK A)
- --- : PB (DECK B)
- --- : REC (DECK B)

LEAF SW (A) BOARD

Ref. No.	Location
IC81	B-18

LEAF SW (B) BOARD

Ref. No.	Location
IC81	B-26

MD (A) BOARD

Ref. No.	Location
IC31	H-17
Q71	H-19

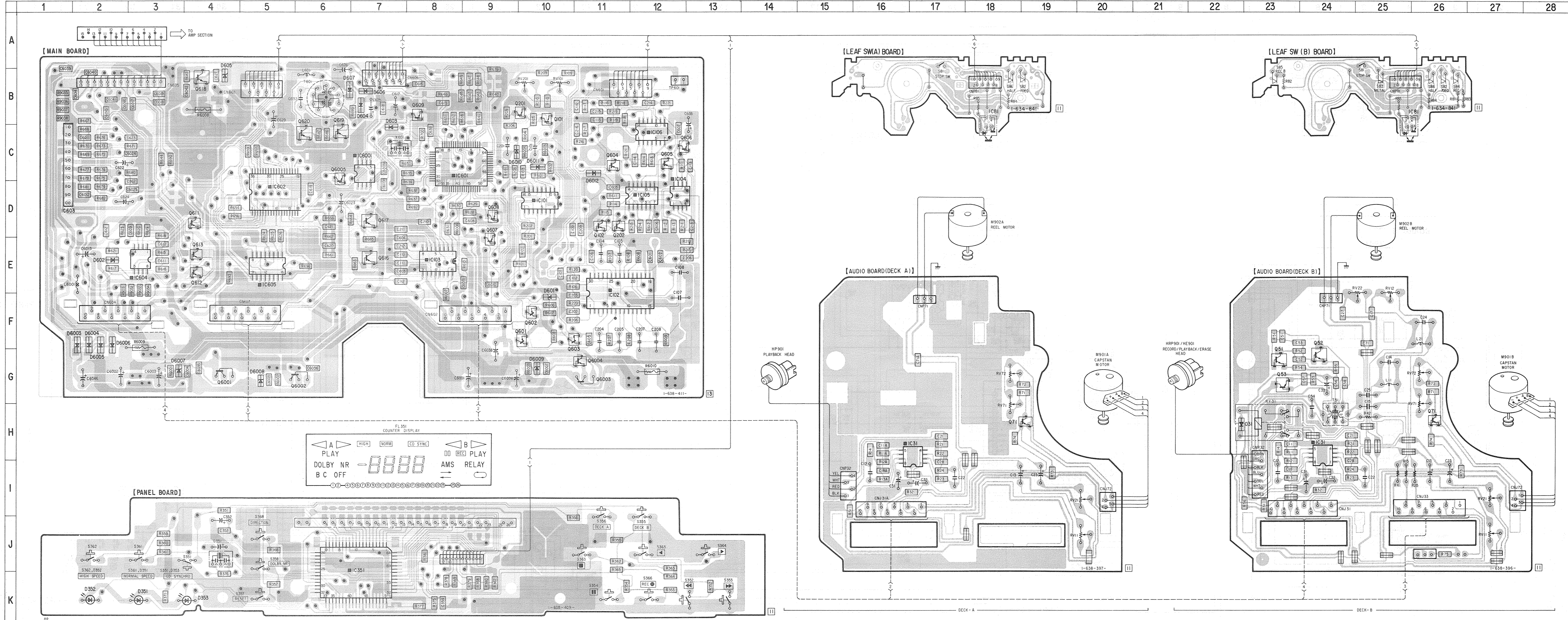
MD (B) BOARD

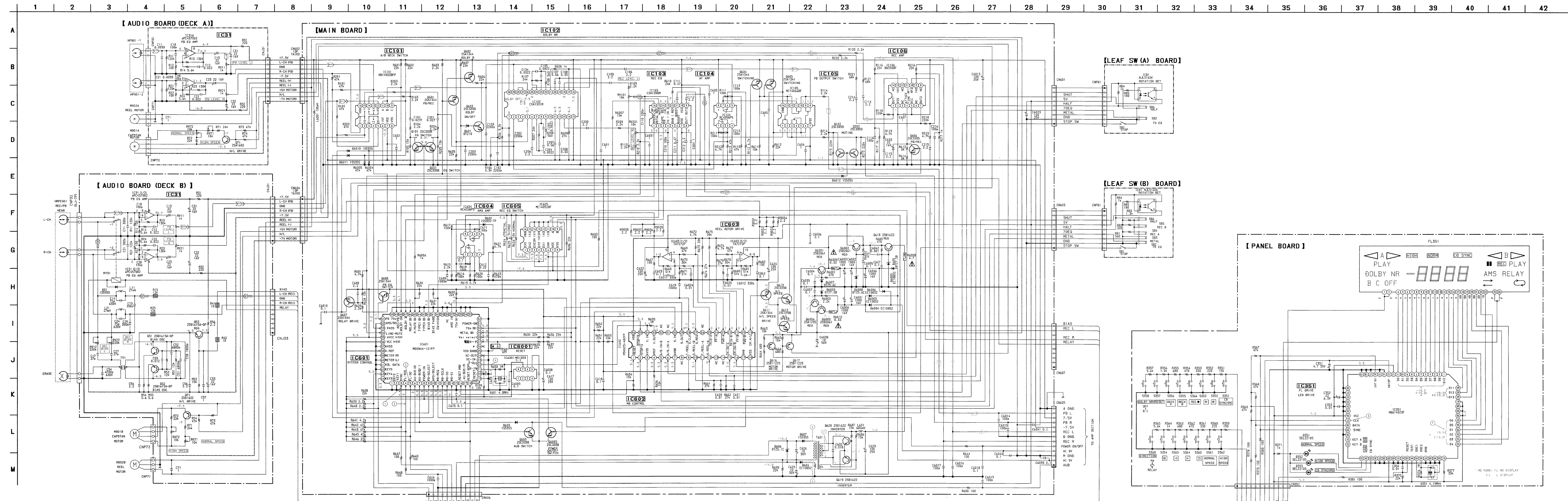
Ref. No.	Location
IC31	H-24
Q71	H-26

Note on Printed Wiring Boards :

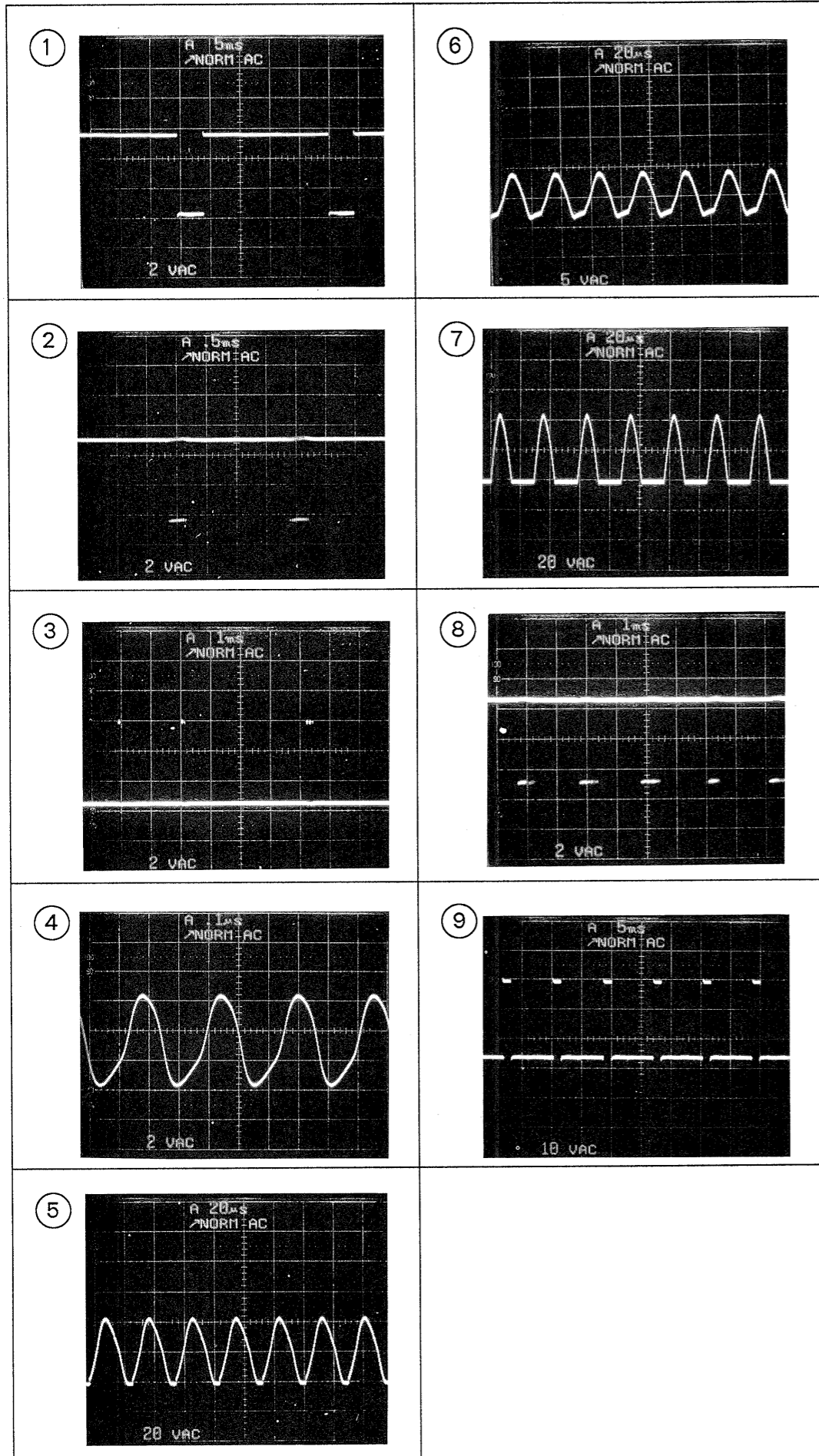
- \circ : parts extracted from the component side.
- \blacksquare : parts mounted on the conductor side.
- \bullet : Through hole.
- --- : Pattern on the side which is seen.
- --- : Pattern of the rear side.
- \square : Chip components extracted from the rear side.

4-5. PRINTED WIRING BOARDS —AEP, UK, Germany, Australian Model— • Refer to page 10 for Semiconductor Lead Layouts.



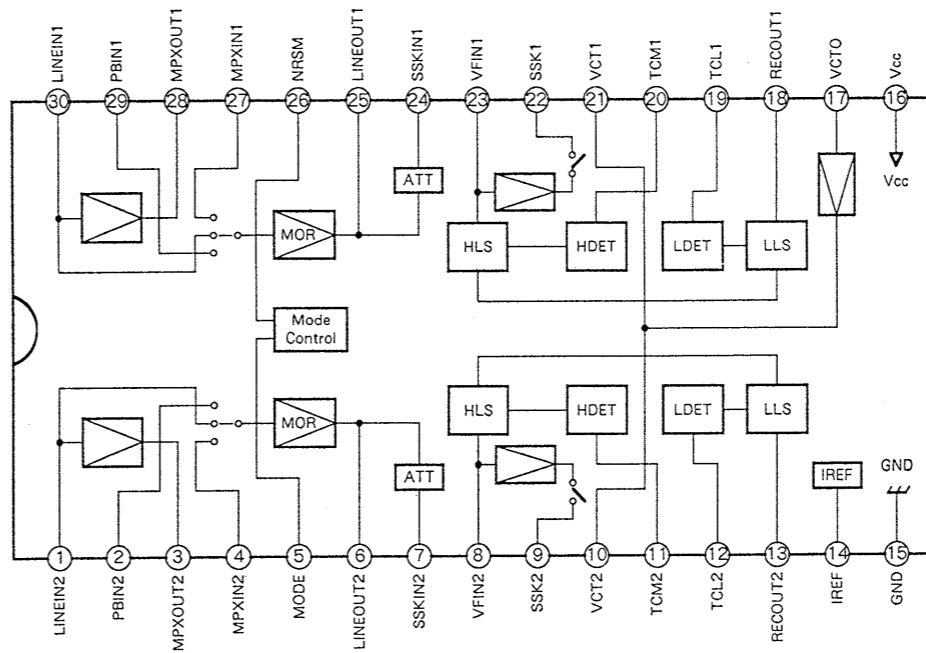


• WAVEFORMS

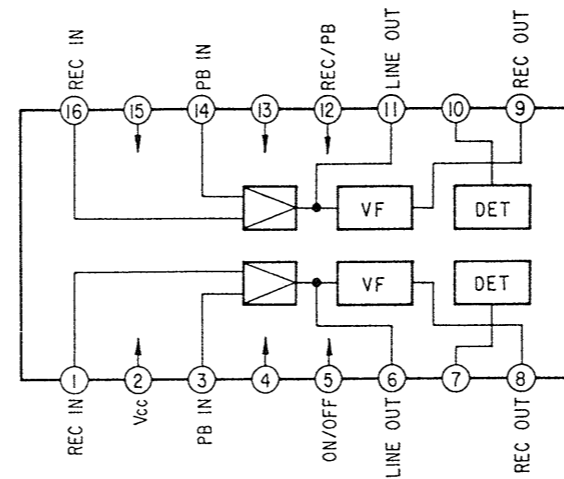


• IC BLOCK DIAGRAMS

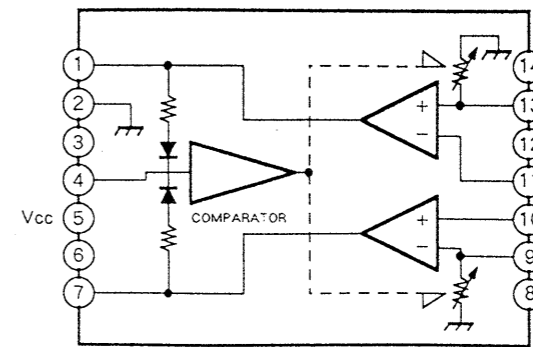
IC102 CXA1331M : AEP, UK, Germany, Australian Model



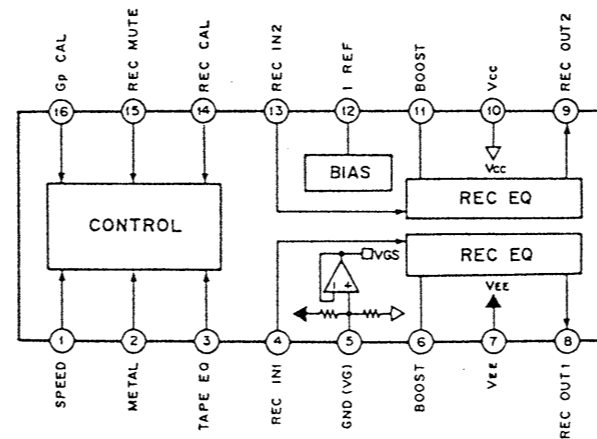
IC102 CXA1101M : US, Canadian, E Model



IC106 BA3308F



IC103 CXA1398M



SECTION 5 EXPLODED VIEWS

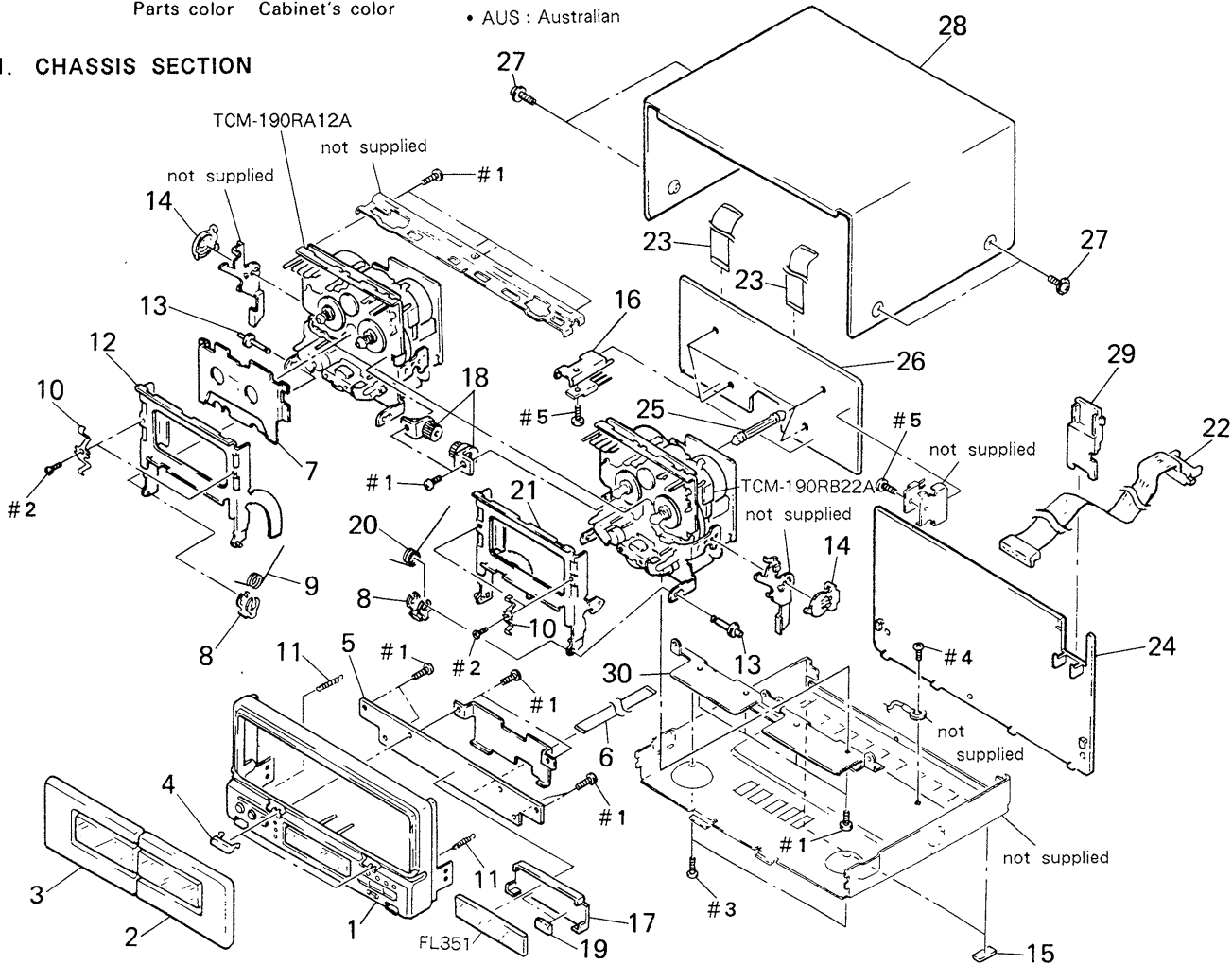
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE)....(RED)

↑ ↑
Parts color Cabinet's color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (#mark) list is given in the last of this parts list.
- G : Germany
- AUS : Australian

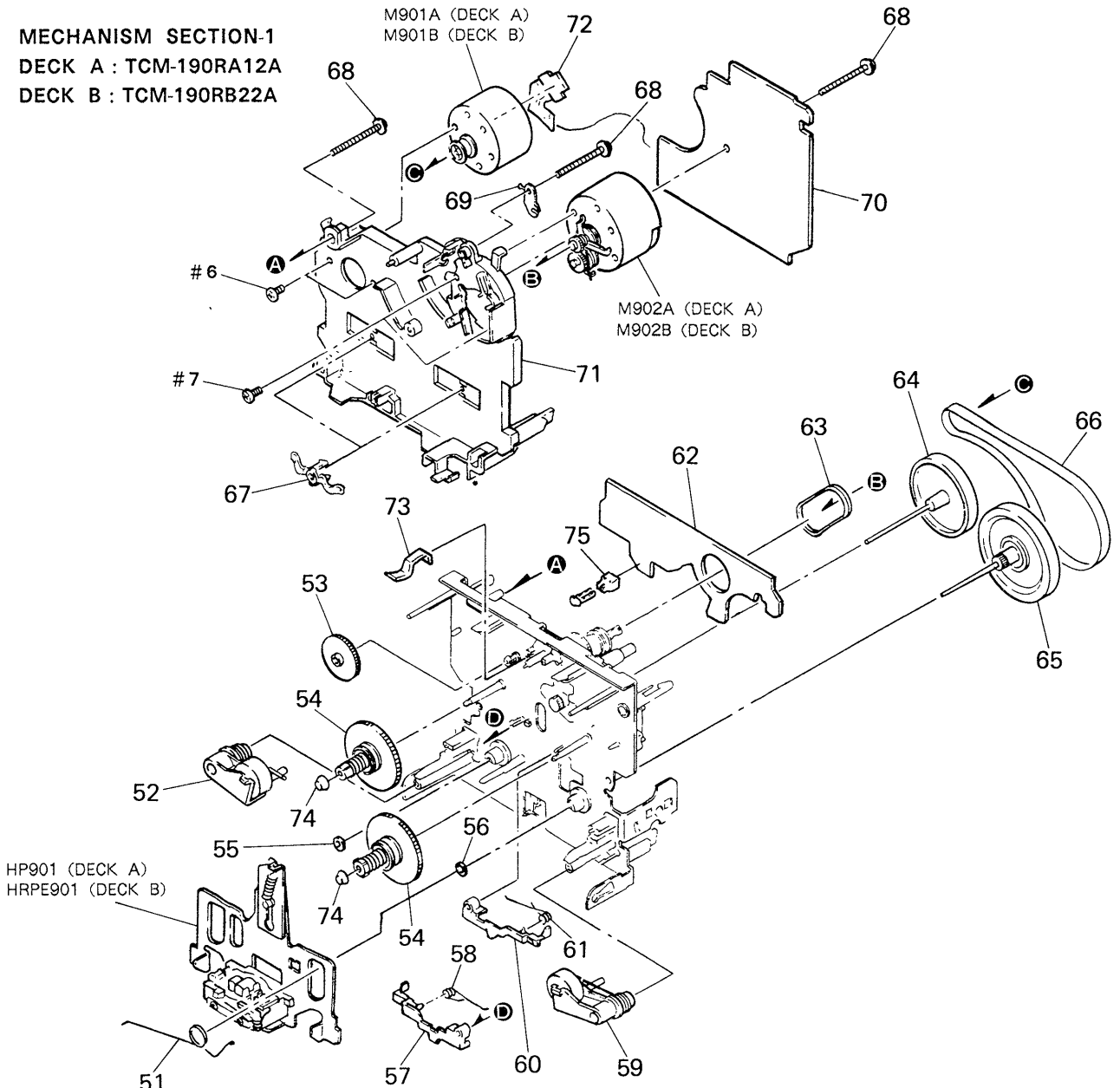
5-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	X-3362-860-1	PANEL ASSY, FRONT	
2	X-3362-859-1	LID (B) ASSY, CASSETTE (US, Canadian, E)	
2	X-4941-577-1	LID (B) ASSY, CASSETTE (AEP, UK, G, AUS)	
3	X-3362-858-1	LID (A) ASSY, CASSETTE	
4	3-367-718-01	COVER (AZIMUTH)	
5	* A-2006-424-A	PANEL BOARD, COMPLETE (AEP, UK, G, AUS)	
5	* A-2006-426-A	PANEL BOARD, COMPLETE (US, Canadian, E)	
6	1-590-904-11	WIRE, FLAT TYPE (12 CORE)	
7	3-367-711-01	RETAINER, CASSETTE	
8	3-367-720-01	RING (W), RETAINING	
9	3-354-959-01	SPRING (LOADING L), TORSION	
10	3-340-137-01	SPRING, CASSETTE RETAINER	
11	3-489-099-11	SPRING, TENSION	
12	X-3362-857-1	HOLDER (L) ASSY, CASSETTE	
13	3-367-721-01	SHAFT (FULCRUM SHAFT)	
14	3-354-957-01	JOINT (LOCK LEVER)	

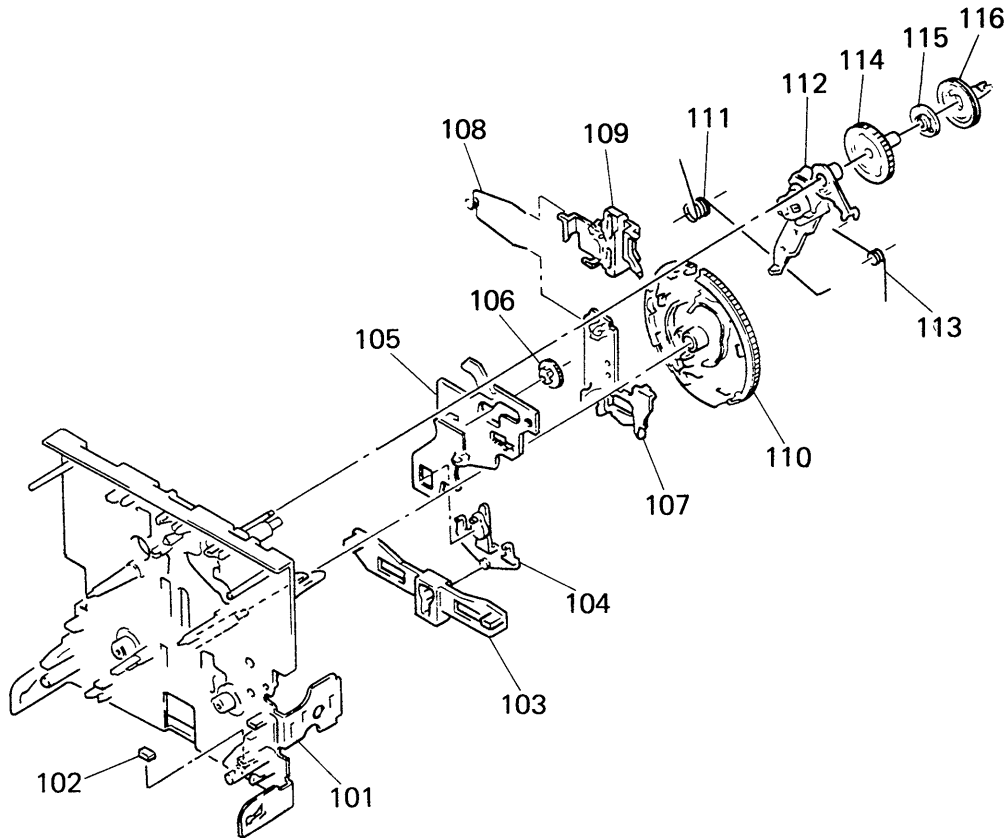
Ref. No.	Part No.	Description	Remark
15	4-930-336-01	FOOT (FELT)	
16	* 3-309-144-21	HEAT SINK	
17	* 3-367-839-01	HOLDER, FL TUBE	
18	3-354-963-01	DAMPER	
19	* 4-932-810-11	CUSHION (FL)	
20	3-354-960-01	SPRING (LOADING R), TORSION	
21	X-3362-856-1	HOLDER (R) ASSY, CASSETTE	
22	1-590-579-11	CORD (WITH CONNECTOR)	
23	1-590-902-11	WIRE, FLAT TYPE (9 CORE)	
24	* 3-367-730-01	PANEL, BACK	
25	* 3-682-419-21	HOLDER, P. C. B	
26	* A-2006-423-A	MAIN BOARD, COMPLETE (AEP, UK, G, AUS)	
26	* A-2006-425-A	MAIN BOARD, COMPLETE (US, Canadian, E)	
27	3-704-366-01	SCREW (CASE) (M3X8)	
28	* 4-944-213-01	CASE	
29	* 4-930-344-01	HOLDER (CONNECTION CORD)	
30	* 3-367-724-01	JOINT (LOWER)	
FL351	1-519-638-11	INDICATOR TUBE, FLUORESCENT	

5-2. MECHANISM SECTION-1
DECK A : TCM-190RA12A
DECK B : TCM-190RB22A



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-359-455-01	SPRING, TORSION		68	3-359-414-01	SCREW (+PTPW 2X23)	
52	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY		69	3-359-450-01	PLATE, GROUND	
53	3-359-424-01	GEAR (REV GEAR)		70	* A-2006-399-A	MOUNTED PCB (RA12A), AUDIO (DECK A)	
54	X-3359-404-1	TABLE ASSY, REEL		70	* A-2006-400-A	MOUNTED PCB (RB22A), AUDIO (DECK B)	
55	3-356-714-01	WASHER		71	* 3-359-436-01	BASE (THRUST RETAINER), FITTING	
56	3-356-713-01	WASHER		72	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
57	3-354-956-01	LEVER (EJ SAFTY LEVER R)		73	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
58	3-354-962-01	SPRING (EJ SAFTY SPRING R)		74	3-362-308-01	CAP (REEL)	
59	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY		75	3-343-419-01	HOLDER (S SENSOR A)	
60	3-354-955-01	LEVER (EJ SAFTY LEVER L)		HP901	A-2003-837-A	BASE ASSY, HEAD (DECK A)	
61	3-354-961-01	SPRING (EJ SAFTY SPRING L)		HRPE901	A-2003-838-A	BASE ASSY, HEAD (DECK B)	
62	* 1-634-841-11	LEAF SW (A), (B) BOARD		M901A	X-3359-417-1	MOTOR ASSY, CAPSTAN	
63	3-359-466-01	BELT (FR), SQUARE		M901B	X-3359-417-1	MOTOR ASSY, CAPSTAN	
64	X-3359-410-1	FLYWHEEL (REV) ASSY		M902A	X-3363-501-1	MOTOR ASSY, REEL	
65	X-3359-406-1	FLYWHEEL (FWD) COMPLETE ASSY		M902B	X-3363-501-1	MOTOR ASSY, REEL	
66	3-359-417-01	BELT (FLAT), CAPSTAN					
67	3-575-321-00	RETAINER, THRUST, CAPSTAN					

5-3. MECHANISM SECTION-2



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-3359-415-1	CHASSIS ASSY, MECHANICAL		109	3-359-429-01	SLIDER (BRAKE PLATE)	
102	3-359-469-01	SPACER		110	3-359-420-01	GEAR (CAM GEAR)	
103	* 3-359-425-01	SLIDER (REVERSE SLIDER)		111	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
104	3-359-426-01	LEVER (REVERSE LEVER)		112	X-3359-405-1	LEVER (FR ARM) ASSY	
105	* 3-359-415-01	SLIDER (TRIGGER SLIDER)		113	3-359-453-01	SPRING (FR ARM), TORSION	
106	3-359-448-01	GEAR (TRIGGER)		114	3-359-419-01	GEAR (FR GEAR)	
107	* 3-359-427-01	SLIDER (LEVERSE SLIDER)		115	3-359-421-01	CLUTCH (REEL DISK)	
108	3-359-454-01	SPRING, TORSION		116	3-359-418-01	PULLEY (FR PULLEY)	

SECTION 6
ELECTRICAL PARTS LIST

LEAF SW(A)

LEAF SW(B)

MAIN

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -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
• G : Germany
• AUS: Australian
- 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.

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
	* 1-634-841-11	LEAF 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	IC PHOTO REFLECTOR NJL5165K-B < 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	LEAF 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	IC PHOTO REFLECTOR NJL5165K-B	

Ref.No.	Part No.	Description	Remark
< RESISTOR >			
R81	1-249-414-11	CARBON 560 5% 1/4W	
R82	1-247-818-11	CARBON 300 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)	
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)	
S86	1-571-281-21	SWITCH, LEAF (HALF)	

* A-2006-423-A MAIN BOARD, COMPLETE (AEP, UK, G, AUS)			
* A-2006-425-A MAIN BOARD, COMPLETE (US, Canadian, E)			

* 3-309-144-21 HEAT SINK			
< CAPACITOR >			
C101	1-136-158-00	FILM 0.027uF 5% 50V	
C102	1-163-013-11	CERAMIC CHIP 0.0022uF 10% 25V (US, Canadian, E)	
C102	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V (AEP, UK, G, AUS)	
C103	1-163-013-11	CERAMIC CHIP 0.0022uF 10% 25V (US, Canadian, E)	
C103	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V (AEP, UK, G, AUS)	

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C104	1-130-475-00	MYLAR	0.0022uF 5% 50V (AEP, UK, G, AUS)	C601	1-164-346-11	CERAMIC CHIP 1uF	16V
C105	1-130-475-00	MYLAR	0.0022uF 5% 50V (AEP, UK, G, AUS)	C602	1-164-346-11	CERAMIC CHIP 1uF	16V
C106	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C603	1-164-346-11	CERAMIC CHIP 1uF	16V
C107	1-124-254-00	ELECT	0.68uF 20% 50V (US, Canadian, E)	C604	1-164-346-11	CERAMIC CHIP 1uF	16V
C107	1-136-174-00	FILM	0.56uF 5% 50V (AEP, UK, G, AUS)	C605	1-164-346-11	CERAMIC CHIP 1uF	16V
C108	1-136-171-00	FILM	0.33uF 5% 50V (AEP, UK, G, AUS)	C606	1-164-346-11	CERAMIC CHIP 1uF	16V
C109	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C607	1-164-346-11	CERAMIC CHIP 1uF	16V
C110	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C608	1-164-505-11	CERAMIC CHIP 2.2uF	16V
C111	1-164-005-11	CERAMIC CHIP	0.47uF 25V	C609	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C112	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C610	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C113	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C611	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C114	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C612	1-164-222-11	CERAMIC CHIP 0.22uF	25V
C115	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C615	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C116	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C616	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C201	1-136-158-00	FILM	0.027uF 5% 50V	C617	1-124-478-11	ELECT 100uF	20% 25V
C202	1-163-013-11	CERAMIC CHIP	0.0022uF 10% 25V (US, Canadian, E)	C618	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C202	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V (AEP, UK, G, AUS)	C619	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C203	1-163-013-11	CERAMIC CHIP	0.0022uF 10% 25V (US, Canadian, E)	C620	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C203	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V (AEP, UK, G, AUS)	C621	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C204	1-130-475-00	MYLAR	0.0022uF 5% 50V (AEP, UK, G, AUS)	C622	1-124-478-11	ELECT 100uF	20% 25V
C205	1-130-475-00	MYLAR	0.0022uF 5% 50V (AEP, UK, G, AUS)	C623	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C206	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C624	1-124-478-11	ELECT 100uF	20% 25V
C207	1-124-254-00	ELECT	0.68uF 20% 50V (US, Canadian, E)	C625	1-124-907-11	ELECT 10uF	20% 50V
C207	1-136-174-00	FILM	0.56uF 5% 50V (AEP, UK, G, AUS)	C626	1-124-907-11	ELECT 10uF	20% 50V
C208	1-136-171-00	FILM	0.33uF 5% 50V (AEP, UK, G, AUS)	C627	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C209	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C629	1-124-478-11	ELECT 100uF	20% 25V
C210	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C632	1-136-594-11	FILM 0.018uF	5% 100V
C211	1-164-005-11	CERAMIC CHIP	0.47uF 25V	C633	1-124-234-00	ELECT 22uF	20% 16V
C212	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C639	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C213	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C862	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C214	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C6001	1-124-360-00	ELECT 1000uF	20% 16V
C215	1-164-505-11	CERAMIC CHIP	2.2uF 16V	C6002	1-124-360-00	ELECT 1000uF	20% 16V
C216	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	C6003	1-124-360-00	ELECT 1000uF	20% 16V
				C6004	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C6005	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C6006	1-124-360-00	ELECT 1000uF	20% 16V
				C6007	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C6008	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C6009	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C6010	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C6011	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
				C6012	1-163-129-00	CERAMIC CHIP 330PF	5% 50V
				C6013	1-124-478-11	ELECT 100uF	20% 25V
				C6014	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C6015	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C6016	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C6017	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
				C6018	1-163-038-00	CERAMIC CHIP 0.1uF	25V
				C6019	1-163-117-00	CERAMIC CHIP 100PF	5% 50V

MAIN

Ref. No.	Part No.	Description	Remark
C6023	1-123-332-00	ELECT 47uF 20% 16V	(US, Canadian, E)
C6023	1-124-478-11	ELECT 100uF 20% 25V	(AEP, UK, G, AUS)
C6024	1-124-478-11	ELECT 100uF 20% 25V	(US, Canadian, E)
C6024	1-164-232-11	CERAMIC CHIP 0.01uF 50V	(AEP, UK, G, AUS)
C6025	1-124-478-11	ELECT 100uF 20% 25V	(US, Canadian, E)
C6025	1-164-232-11	CERAMIC CHIP 0.01uF 50V	(AEP, UK, G, AUS)
C6031	1-164-346-11	CERAMIC CHIP 1uF 16V	
C6035	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C6036	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C6038	1-124-907-11	ELECT 10uF 20% 50V	
C6039	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C6040	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C6041	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C6042	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	(AEP, UK, G, AUS)
C6042	1-164-232-11	CERAMIC CHIP 0.01uF 50V	(US, Canadian, E)
C6043	1-164-232-11	CERAMIC CHIP 0.01uF 50V	(US, Canadian, E)
C6044	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	(US, Canadian, E)
C6046	1-124-360-00	ELECT 1000uF 20% 16V	
< CONNECTOR >			
CN602	1-580-783-11	CONNECTOR, BOARD TO BOARD	
CN604	1-580-783-11	CONNECTOR, BOARD TO BOARD	
CN606	1-568-795-11	SOCKET, CONNECTOR 12P	
CN607	1-580-783-11	CONNECTOR, BOARD TO BOARD	
< DIODE >			
D601	8-719-977-26	DIODE DTZ10 (AEP, UK, G, AUS)	
D602	8-719-988-62	DIODE 1SS355	
D603	8-719-988-62	DIODE 1SS355	
D604	8-719-210-33	DIODE EC10DS2	
D605	8-719-977-16	DIODE DTZ7.5B	
D606	8-719-977-00	DIODE DTZ5.1C	
D607	8-719-988-62	DIODE 1SS355	
D6001	8-719-977-26	DIODE DTZ101 (US, Canadian, E)	
D6002	8-719-977-26	DIODE DTZ101 (US, Canadian, E)	
D6003	8-719-210-33	DIODE EC10DS2	
D6004	8-719-210-33	DIODE EC10DS2	

Ref. No.	Part No.	Description	Remark
D6005	8-719-210-33	DIODE EC10DS2	
D6006	8-719-210-33	DIODE EC10DS2	
D6007	8-719-977-04	DIODE DTZ5.6C	
D6008	8-719-977-04	DIODE DTZ5.6C	
D6009	8-719-977-16	DIODE DTZ7.5B	
D6010	8-719-988-62	DIODE 1SS355	
D6011	8-719-988-62	DIODE 1SS355	
D6012	8-719-988-62	DIODE 1SS355	
< IC >			
IC101	8-759-300-71	IC HD14053BFP	
IC102	8-752-037-90	IC CXA1331M (AEP, UK, G, AUS)	
IC102	8-752-050-13	IC CXA1101M (US, Canadian, E)	
IC103	8-752-056-00	IC CXA1398M	
IC104	8-759-981-95	IC RC4558-S	
IC105	8-759-516-47	IC CD4066BCM	
IC106	8-759-998-71	IC BA3308F	
IC601	8-759-636-37	IC M50944-121FP	
IC602	8-759-636-67	IC M50925-482FP	
IC603	8-759-207-05	IC TA7272P	
IC604	8-759-981-95	IC RC4558-S	
IC605	8-759-516-41	IC CD4052BCM (US, Canadian, E)	
IC605	8-759-009-06	IC MC14052BF (AEP, UK, G, AUS)	
IC6001	8-759-634-43	IC M51953BFP	
< COIL >			
L601	1-410-761-11	INDUCTOR 0.68mH	
L6001	1-410-482-31	INDUCTOR 100uH	
< TRANSISTOR >			
Q101	8-729-805-41	TRANSISTOR 2SC3398	
Q102	8-729-805-42	TRANSISTOR 2SC3859	
Q201	8-729-805-41	TRANSISTOR 2SC3398	
Q202	8-729-805-42	TRANSISTOR 2SC3859	
Q601	8-729-805-65	TRANSISTOR 2SA1344 (AEP, UK, G, AUS)	
Q602	8-729-805-65	TRANSISTOR 2SA1344 (AEP, UK, G, AUS)	
Q603	8-729-805-41	TRANSISTOR 2SC3398 (AEP, UK, G, AUS)	
Q604	8-729-805-65	TRANSISTOR 2SA1344	
Q605	8-729-805-69	TRANSISTOR 2SA1341	
Q606	8-729-805-45	TRANSISTOR 2SC3395	
Q607	8-729-805-65	TRANSISTOR 2SA1344	
Q608	8-729-805-65	TRANSISTOR 2SA1344	

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q609	8-729-805-41	TRANSISTOR 2SC3398		R208	1-216-043-00	METAL CHIP	560 5% 1/10W (AEP, UK, G, AUS)
Q611	8-729-805-65	TRANSISTOR 2SA1344		R209	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
Q612	8-729-805-41	TRANSISTOR 2SC3398		R210	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
Q613	8-729-805-41	TRANSISTOR 2SC3398		R211	1-216-097-00	METAL CHIP	100K 5% 1/10W
Q616	8-729-820-86	TRANSISTOR 2SB1121-ST		R212	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
Q617	8-729-820-86	TRANSISTOR 2SB1121-ST		R213	1-216-089-00	METAL CHIP	47K 5% 1/10W
Q618	8-729-808-01	TRANSISTOR 2SD1622-S		R214	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
Q619	8-729-808-01	TRANSISTOR 2SD1622-S		R215	1-216-105-00	METAL CHIP	220K 5% 1/10W
Q620	8-729-808-01	TRANSISTOR 2SD1622-S		R216	1-216-081-00	METAL CHIP	22K 5% 1/10W
Q6001	8-729-111-55	TRANSISTOR 2SD1312-K		R217	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q6002	8-729-111-55	TRANSISTOR 2SD1312-K		R218	1-216-105-00	METAL CHIP	220K 5% 1/10W
Q6003	8-729-111-55	TRANSISTOR 2SD1312-K		R219	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
Q6004	8-729-600-22	TRANSISTOR 2SA1235-F		R220	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
Q6005	8-729-805-41	TRANSISTOR 2SC3398		R221	1-216-093-00	METAL CHIP	68K 5% 1/10W
		< RESISTOR >		R601	1-216-081-00	METAL CHIP	22K 5% 1/10W
R101	1-216-089-00	METAL CHIP	47K 5% 1/10W	R602	1-216-081-00	METAL CHIP	22K 5% 1/10W
R102	1-216-089-00	METAL CHIP	47K 5% 1/10W	R603	1-216-057-00	METAL CHIP	2.2K 5% 1/10W (AEP, UK, G, AUS)
R103	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R603	1-216-073-00	METAL CHIP	10K 5% 1/10W (US, Canadian, E)
R104	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R605	1-216-081-00	METAL CHIP	22K 5% 1/10W (AEP, UK, G, AUS)
R105	1-216-077-00	METAL CHIP	15K 5% 1/10W	R605	1-216-089-00	METAL CHIP	47K 5% 1/10W (US, Canadian, E)
R106	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	R606	1-216-081-00	METAL CHIP	22K 5% 1/10W (AEP, UK, G, AUS)
R107	1-216-082-00	METAL GLAZE	24K 5% 1/10W (AEP, UK, G, AUS)	R606	1-216-089-00	METAL CHIP	47K 5% 1/10W (US, Canadian, E)
R108	1-216-043-00	METAL CHIP	560 5% 1/10W (AEP, UK, G, AUS)	R607	1-216-073-00	METAL CHIP	10K 5% 1/10W (US, Canadian, E)
R109	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R607	1-216-081-00	METAL CHIP	22K 5% 1/10W (AEP, UK, G, AUS)
R110	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R608	1-216-049-00	METAL CHIP	1K 5% 1/10W (AEP, UK, G, AUS)
R111	1-216-097-00	METAL CHIP	100K 5% 1/10W	R608	1-216-088-00	METAL CHIP	43K 5% 1/10W (US, Canadian, E)
R112	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R609	1-216-083-00	METAL CHIP	27K 5% 1/10W (AEP, UK, G, AUS)
R113	1-216-089-00	METAL CHIP	47K 5% 1/10W	R611	1-216-073-00	METAL CHIP	10K 5% 1/10W
R114	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R612	1-216-081-00	METAL CHIP	22K 5% 1/10W
R115	1-216-105-00	METAL CHIP	220K 5% 1/10W	R613	1-216-121-00	METAL CHIP	1M 5% 1/10W
R116	1-216-081-00	METAL CHIP	22K 5% 1/10W	R614	1-216-121-00	METAL CHIP	1M 5% 1/10W
R117	1-216-049-00	METAL CHIP	1K 5% 1/10W	R615	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R118	1-216-105-00	METAL CHIP	220K 5% 1/10W	R616	1-216-097-00	METAL CHIP	100K 5% 1/10W
R119	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R617	1-216-097-00	METAL CHIP	100K 5% 1/10W
R120	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R618	1-216-097-00	METAL CHIP	100K 5% 1/10W
R121	1-216-093-00	METAL CHIP	68K 5% 1/10W				
R201	1-216-089-00	METAL CHIP	47K 5% 1/10W				
R202	1-216-089-00	METAL CHIP	47K 5% 1/10W				
R203	1-216-057-00	METAL CHIP	2.2K 5% 1/10W				
R204	1-216-057-00	METAL CHIP	2.2K 5% 1/10W				
R205	1-216-077-00	METAL CHIP	15K 5% 1/10W				
R206	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
R207	1-216-082-00	METAL GLAZE	24K 5% 1/10W (AEP, UK, G, AUS)				

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R619	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	R676	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R620	1-216-097-00	METAL CHIP	100K	5%	1/10W	R677	1-216-089-00	METAL CHIP	47K	5%	1/10W
R621	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	R678	1-216-084-00	METAL GLAZE	30K	5%	1/10W
R623	1-216-113-00	METAL CHIP	470K	5%	1/10W	R679	1-216-083-00	METAL CHIP	27K	5%	1/10W
R624	1-216-041-00	METAL CHIP	470	5%	1/10W	R680	1-216-090-00	METAL CHIP	51K	5%	1/10W
R625	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	R681	1-216-090-00	METAL CHIP	51K	5%	1/10W
R626	1-216-073-00	METAL CHIP	10K	5%	1/10W	R682	1-216-025-00	METAL CHIP	100	5%	1/10W
R628	1-216-073-00	METAL CHIP	10K	5%	1/10W	R683	1-216-041-00	METAL CHIP	470	5%	1/10W
R629	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R686	1-216-077-00	METAL CHIP	15K	5%	1/10W
R630	1-216-081-00	METAL CHIP	22K	5%	1/10W	R687	1-216-077-00	METAL CHIP	15K	5%	1/10W
R631	1-216-081-00	METAL CHIP	22K	5%	1/10W	R690	1-216-025-00	METAL CHIP	100	5%	1/10W
R634	1-216-081-00	METAL CHIP	22K	5%	1/10W	R691	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R635	1-216-081-00	METAL CHIP	22K	5%	1/10W	R692	1-216-081-00	METAL CHIP	22K	5%	1/10W
R636	1-216-081-00	METAL CHIP	22K	5%	1/10W	R693	1-216-025-00	METAL CHIP	100	5%	1/10W
R637	1-216-081-00	METAL CHIP	22K	5%	1/10W	R696	1-216-081-00	METAL CHIP	22K	5%	1/10W
R638	1-216-081-00	METAL CHIP	22K	5%	1/10W	R699	1-216-081-00	METAL CHIP	22K	5%	1/10W
R639	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R700	1-216-073-00	METAL CHIP	10K	5%	1/10W
R640	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R6001	1-216-041-00	METAL CHIP	470	5%	1/10W
R641	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	R6002	1-216-041-00	METAL CHIP	470	5%	1/10W
R642	1-216-089-00	METAL CHIP	47K	5%	1/10W	R6003	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R643	1-216-089-00	METAL CHIP	47K	5%	1/10W	R6004	1-216-089-00	METAL CHIP	47K	5%	1/10W
R644	1-216-025-00	METAL CHIP	100	5%	1/10W	R6005	1-216-089-00	METAL CHIP	47K	5%	1/10W
R645	1-216-089-00	METAL CHIP	47K	5%	1/10W	R6006	1-216-049-00	METAL CHIP	1K	5%	1/10W
R646	1-216-081-00	METAL CHIP	22K	5%	1/10W	R6007	1-216-073-00	METAL CHIP	10K	5%	1/10W
R647	1-216-025-00	METAL CHIP	100	5%	1/10W	R6008 Δ	1-212-849-00	FUSIBLE	4.7	5%	1/4W F
R648	1-216-025-00	METAL CHIP	100	5%	1/10W	R6009 Δ	1-219-137-11	FUSIBLE	0.33	10%	1/4W F
R649	1-216-025-00	METAL CHIP	100	5%	1/10W	R6010 Δ	1-219-137-11	FUSIBLE	0.33	10%	1/4W F
R650	1-216-121-00	METAL CHIP	1M	5%	1/10W	R9031	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R651	1-216-081-00	METAL CHIP	22K	5%	1/10W	R9032	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R652	1-216-081-00	METAL CHIP	22K	5%	1/10W	R9033	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R653	1-216-073-00	METAL CHIP	10K	5%	1/10W	R9034	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R654	1-216-073-00	METAL CHIP	10K	5%	1/10W	R9035	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R655	1-216-121-00	METAL CHIP	1M	5%	1/10W	R9036	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R656	1-216-073-00	METAL CHIP	10K	5%	1/10W	R9037	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R661	1-216-083-00	METAL CHIP	27K	5%	1/10W	R9038	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R662	1-216-083-00	METAL CHIP	27K	5%	1/10W						
R663	1-216-073-00	METAL CHIP	10K	5%	1/10W			< TRANSFORMER >			
R664	1-216-045-00	METAL CHIP	680	5%	1/10W	T601	1-450-458-11	TRANSFORMER, DC-DC CONVERTER			
R665	1-216-073-00	METAL CHIP	10K	5%	1/10W			< TEST PIN >			
R666	1-216-045-00	METAL CHIP	680	5%	1/10W						
R667	1-216-025-00	METAL CHIP	100	5%	1/10W	TP601	* 1-564-517-11	PLUG, CONNECTOR 2P			
R668	1-216-090-00	METAL CHIP	51K	5%	1/10W			< CERAMIC >			
R669	1-216-089-00	METAL CHIP	47K	5%	1/10W						
R670	1-216-084-00	METAL GLAZE	30K	5%	1/10W	X601	1-577-358-21	VIBRATOR, CERAMIC			
R671	1-216-090-00	METAL CHIP	51K	5%	1/10W						
R672	1-216-065-00	METAL CHIP	4.7K	5%	1/10W						
R673	1-216-080-00	METAL CHIP	20K	5%	1/10W						
R674	1-216-083-00	METAL CHIP	27K	5%	1/10W						
R675	1-216-080-00	METAL CHIP	20K	5%	1/10W						

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.

AUDIO(DECK A)

AUDIO(DECK B)

Ref. No.	Part No.	Description	Remark		
* A-2006-399-A MOUNTED PCB, AUDIO (DECK A)					

< CAPACITOR >					
C11	1-163-131-00	CERAMIC CHIP	390PF	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	1-163-131-00	CERAMIC CHIP	390PF	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
C71	1-164-346-11	CERAMIC CHIP	1uF		16V
< CONNECTOR >					
CNJ31	* 1-580-782-11	CONNECTOR, BOARD TO BOARD			
CNP32	* 1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P			
CNP71	* 1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP72	* 1-580-411-11	SOCKET, CONNECTOR 4P			
< IC >					
IC31	8-759-970-66	IC LM833M			
< JUMPER >					
JW1	1-216-295-00	METAL CHIP	0	5%	1/10W
JW51	1-216-296-00	METAL CHIP	0	5%	1/8W
JW52	1-216-296-00	METAL CHIP	0	5%	1/8W
JW53	1-216-296-00	METAL CHIP	0	5%	1/8W
JW54	1-216-296-00	METAL CHIP	0	5%	1/8W
< TRANSISTOR >					
Q71	8-729-602-36	TRANSISTOR 2SA1602			
< RESISTOR >					
R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
R12	1-216-025-00	METAL CHIP	100	5%	1/10W
R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R14	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R21	1-216-099-00	METAL CHIP	120K	5%	1/10W
R22	1-216-025-00	METAL CHIP	100	5%	1/10W
R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R24	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R31	1-216-033-00	METAL CHIP	220	5%	1/10W
R32	1-216-033-00	METAL CHIP	220	5%	1/10W

Ref. No.	Part No.	Description	Remark		
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
< VARIABLE RESISTOR >					
RV11	1-238-012-11	RES, ADJ, CARBON 1K (PB LEVEL L)			
RV21	1-238-012-11	RES, ADJ, CARBON 1K (PB LEVEL R)			
RV71	1-238-016-11	RES, ADJ, CARBON 10K (NORMAL SPEED)			
RV72	1-238-016-11	RES, ADJ, CARBON 10K (HIGH SPEED)			

* A-2006-400-A MOUNTED PCB, AUDIO (DECK B)					

< CAPACITOR >					
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-234-00	ELECT	22uF	20%	16V
C14	1-136-273-91	FILM	75PF	5%	630V
C15	1-164-080-11	CERAMIC	390PF	10%	50V
C17	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-234-00	ELECT	22uF	20%	16V
C24	1-136-273-91	FILM	75PF	5%	630V
C25	1-164-080-11	CERAMIC	390PF	10%	50V
C27	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
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	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C52	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C53	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C54	1-136-559-11	FILM	0.0047uF	5%	630V
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C57	1-164-346-11	CERAMIC CHIP	1uF		16V
C58	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C71	1-164-346-11	CERAMIC CHIP	1uF		16V
< CONNECTOR >					
CNJ31	* 1-580-782-11	CONNECTOR, BOARD TO BOARD			
CNJ33	* 1-580-782-11	CONNECTOR, BOARD TO BOARD			
CNP32	* 1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P			
CNP71	* 1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CNP72	* 1-580-411-11	SOCKET, CONNECTOR 4P			

AUDIO(DECK B)

PANEL

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D31	8-719-988-62	DIODE 1SS355	
		< IC >	
IC31	8-759-970-66	IC LM833M	
		< JUMPER >	
JW1	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW3	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW4	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW5	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW6	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW7	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW52	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW53	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW54	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW55	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW56	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW57	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW58	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW59	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW60	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW61	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< COIL >	
L11	1-410-780-11	INDUCTOR 27mH	
L21	1-410-780-11	INDUCTOR 27mH	
		< TRANSISTOR >	
Q51	8-729-808-01	TRANSISTOR 2SD1622	
Q52	8-729-808-01	TRANSISTOR 2SD1622	
Q53	8-729-808-01	TRANSISTOR 2SD1622	
Q71	8-729-602-36	TRANSISTOR 2SA1602	
		< RESISTOR >	
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R12	1-216-025-00	METAL CHIP 100 5% 1/10W	
R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R15	1-249-430-11	CARBON 12K 5% 1/4W	
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R25	1-249-430-11	CARBON 12K 5% 1/4W	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
R41	1-249-393-11	CARBON 10 5% 1/4W	
R42	1-249-393-11	CARBON 10 5% 1/4W	
R51	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R52	1-216-075-00	METAL CHIP 12K 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	
R56	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	
		< VARIABLE RESISTOR >	
RV11	1-238-012-11	RES. ADJ. CARBON 1K (PB LEVEL L)	
RV12	1-238-551-11	RES. ADJ. CARBON 220K (REC BIAS L)	
RV21	1-238-012-11	RES. ADJ. CARBON 1K (PB LEVEL R)	
RV22	1-238-551-11	RES. ADJ. CARBON 220K (REC BIAS R)	
RV71	1-238-016-11	RES. ADJ. CARBON 10K (NORMAL SPEED)	
RV72	1-238-016-11	RES. ADJ. CARBON 10K (HIGH SPEED)	
		< RELAY >	
RY31	1-515-726-11	RELAY	
		< COIL >	
T51	1-406-419-11	COIL, BIAS OSCILLATION	

* A-2006-424-A PANEL BOARD, COMPLETE (AEP, UK, G, AUS)			
* A-2006-426-A PANEL BOARD, COMPLETE (US, Canadian, E)			

* 3-367-839-01 HOLDER, FL TUBE			
* 4-932-810-11 CUSHION (FL)			
		< CAPACITOR >	
C351	1-126-163-11	ELECT 4.7uF 20% 50V	
C352	1-124-638-11	ELECT 22uF 20% 10V	
C353	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C354	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
		< CONNECTOR >	
CN351	1-580-883-41	SOCKET, CONNECTOR (SMT) 12P	

PANEL

Ref. No.	Part No.	Description	Remark
< DIODE >			
D351	8-719-301-37	LED SEL2210S-CD (NORMAL SPEED)	
D352	8-719-301-37	LED SEL2210S-CD (HIGH SPEED)	
D353	8-719-301-37	LED SEL2210S-CD (CD SYNCHRO)	
< FLUORESCENT >			
FL351	1-519-638-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC351	8-759-323-35	IC HD-614023-FA93	
< RESISTOR >			
R351	1-216-029-00	METAL CHIP 150 5% 1/10W	
R352	1-216-033-00	METAL CHIP 220 5% 1/10W	
R353	1-216-037-00	METAL CHIP 330 5% 1/10W	
R354	1-216-041-00	METAL CHIP 470 5% 1/10W	
R355	1-216-045-00	METAL CHIP 680 5% 1/10W	
R356	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R357	1-216-055-00	METAL CHIP 1.8K 5% 1/10W (US, Canadian, E)	
R357	1-216-067-00	METAL CHIP 5.6K 5% 1/10W (AEP, UK, G, AUS)	
R359	1-216-029-00	METAL CHIP 150 5% 1/10W	
R360	1-216-033-00	METAL CHIP 220 5% 1/10W	
R361	1-216-037-00	METAL CHIP 330 5% 1/10W	
R362	1-216-041-00	METAL CHIP 470 5% 1/10W	
R363	1-216-045-00	METAL CHIP 680 5% 1/10W	
R364	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R365	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R366	1-216-295-00	METAL CHIP 0 5% 1/10W	
R367	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R368	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R369	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R371	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R375	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R376	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R377	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R378	1-216-025-00	METAL CHIP 100 5% 1/10W	
R379	1-216-025-00	METAL CHIP 100 5% 1/10W	
R380	1-216-025-00	METAL CHIP 100 5% 1/10W	
R381	1-216-025-00	METAL CHIP 100 5% 1/10W	
< SWITCH >			
S351	1-572-184-11	SWITCH, KEYBOARD (CD SYNCHRO)	
S352	1-572-184-11	SWITCH, KEYBOARD (<<)	
S353	1-572-184-11	SWITCH, KEYBOARD (>>)	
S354	1-572-184-11	SWITCH, KEYBOARD (□)	
S355	1-572-184-11	SWITCH, KEYBOARD (DECK B)	

Ref. No.	Part No.	Description	Remark
S356	1-572-184-11	SWITCH, KEYBOARD (DECK A)	
S357	1-572-184-11	SWITCH, KEYBOARD (RESET)	
S358	1-572-184-11	SWITCH, KEYBOARD (DOLBY NR)	
S361	1-572-184-11	SWITCH, KEYBOARD (NORMAL SPEED)	
S362	1-572-184-11	SWITCH, KEYBOARD (HIGH SPEED)	
S363	1-572-184-11	SWITCH, KEYBOARD (□)	
S364	1-572-184-11	SWITCH, KEYBOARD (>)	
S365	1-572-184-11	SWITCH, KEYBOARD (>)	
S366	1-572-184-11	SWITCH, KEYBOARD (REC ●)	
S368	1-572-184-11	SWITCH, KEYBOARD (DIRECTION)	
< CERAMIC >			
X351	1-577-359-21	VIBRATOR, CERAMIC	

MISCELLANEOUS			

6	1-590-904-11	WIRE, FLAT TYPE (12 CORE)	
22	1-590-579-11	CORD (WITH CONNECTOR)	
23	1-590-902-11	WIRE, FLAT TYPE (9 CORE)	
72	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
HP901	A-2003-837-A	BASE ASSY, HEAD (DECK A)	
HRPE901	A-2003-838-A	BASE ASSY, HEAD (DECK B)	
M901A	X-3359-417-1	MOTOR ASSY, CAPSTAN	
M901B	X-3359-417-1	MOTOR ASSY, CAPSTAN	
M902A	X-3363-501-1	MOTOR ASSY, REEL	
M902B	X-3363-501-1	MOTOR ASSY, REEL	

ACCESSORY & PACKING MATERIAL			

*	4-943-847-01	CUSHION, UPPER (EXCEPT E)	
*	4-943-848-01	CUSHION, LOWER (EXCEPT E)	

HARDWARE LIST			

# 1	7-621-773-93	SCREW (PANEL 2.6 TP2)	
# 2	7-621-255-15	SCREW +PTT 2X3 (S)	
# 3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
# 4	7-685-870-01	SCREW +BVTT 3X5	
# 5	7-682-547-04	SCREW +BVTT 3X6 (S)	
# 6	7-621-775-00	SCREW +B 2.6X3	
# 7	7-627-556-08	SCREW +P 2.6X2.8	


TC-H1600


SONY[®] SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model*

CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT		
	<u>No.</u>	<u>Part No.</u>	<u>Description</u>	<u>No.</u>	<u>Part No.</u>	<u>Description</u>
34	101	X-3359-415-1	CHASSIS ASSY, MECHANICAL		<u>X-3363-790-1</u> 	CHASSIS ASSY, MECHANICAL