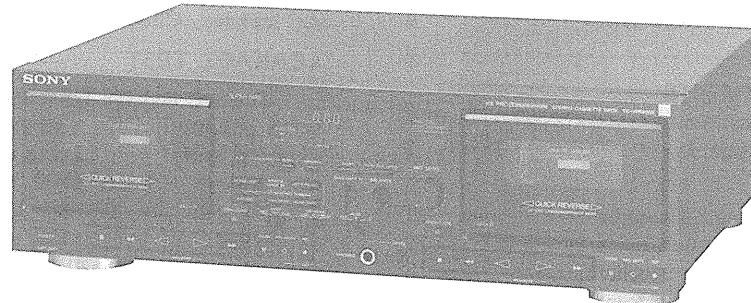


TC-WR820

SERVICE MANUAL

Canadian Model
AEP Model
UK Model
E Model



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

Model Name Using Similar Mechanism	NEW
Tape Transport Mechanism Type	TCM-200R3

SPECIFICATIONS

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

Cassette	Dolby NR switch	OFF	B-TYPE ON	C-TYPE ON
TYPE IV (Sony METAL-ES)		59 dB	67 dB	74 dB
TYPE II (Sony UX-S)		58 dB	66 dB	73 dB
TYPE I (Sony HF-S)		56 dB	64 dB	71 dB

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

TYPE IV cassette (Sony METAL-ES)	25 - 18,000 Hz (± 3 dB) 30 - 15,000 Hz (OVU recording)
TYPE II cassette (Sony UX-S)	25 - 17,000 Hz (± 3 dB)
TYPE I cassette (Sony HF-S)	25 - 16,000 Hz (± 3 dB)

Wow and flutter 0.06% WRMS (NAB)
Inputs

Line inputs (phono jacks)	Sensitivity	97.5 mV (-18 dB)
	Input impedance	50 kohms

Outputs

Line outputs (phono jacks)	Rated output level	0.44 V (-5 dB) at a load impedance of 47 kohms
	Load impedance	Over 10 kohms
Headphones (stereo phone jack)	Output level	0-2.5 mW at a load impedance of 32 ohms

General

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

Power consumption 29 watts

Dimensions Approx. 430 $\times$ 135 $\times$ 345 mm (w/h/d)
(17 $\times$ 5 $\frac{1}{8}$ $\times$ 13 $\frac{5}{8}$ inches)
including projecting parts and controls
Weight Approx. 6.2 kg (13 lbs 11 oz)

Supplied accessories

Audio connecting cord (2)
AEP model : Wireless remote control unit RM-J901 (1)
AEP model : Sony R6 (size AA) batteries (2)

Design and specifications subject to change without notice.



STEREO CASSETTE DECK
SONY

TABLE OF CONTENTS

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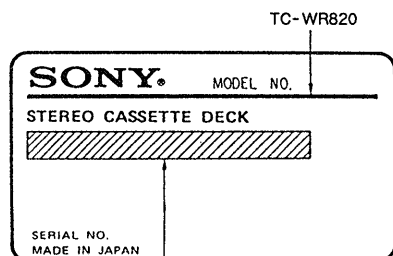
Features

- The **Dolby HX PRO*** system which improves the linearity of a tape's high-range response during recording.
- **Automatic recording level adjustment** for one-touch protection against distortion.
- **A relay function** for long recording and playback.
- **Quick reversing** at the end of a tape to minimize interruptions during playback and recording.
- **Fade-in and fade-out functions** to start and end recordings with a professional touch.
- **Auto-synchro dubbing** at normal or high (double) speed.
- **AMS and memory play functions** which provide easy access to desired selections.
- **An easy-to-read linear counter** which shows the elapsed recording or playback time for decks A and B.

* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen. "DOLBY", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

MODEL IDENTIFICATION

— Specification Label —



Canadian Model: AC: 120V 60Hz 29W

West Germany, AEP Models: AC: 220V ~ 50/60Hz 29W

UK Model: AC: 240V ~ 50/60Hz 29W

E Model: AC: 120/220/240V ~ 50/60Hz 29W

SAFETY CHECK-OUT

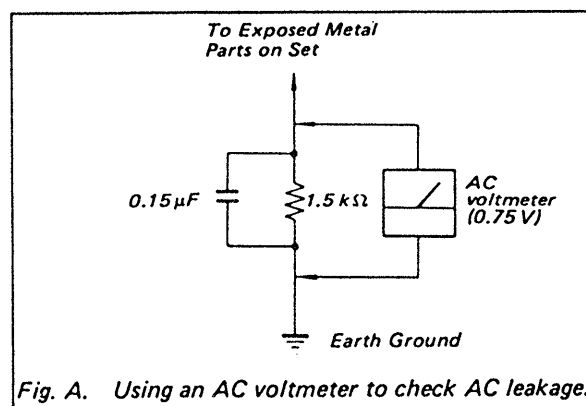
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

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 microamperes). 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)



SAFETY-RELATED COMPONENT WARNING!!

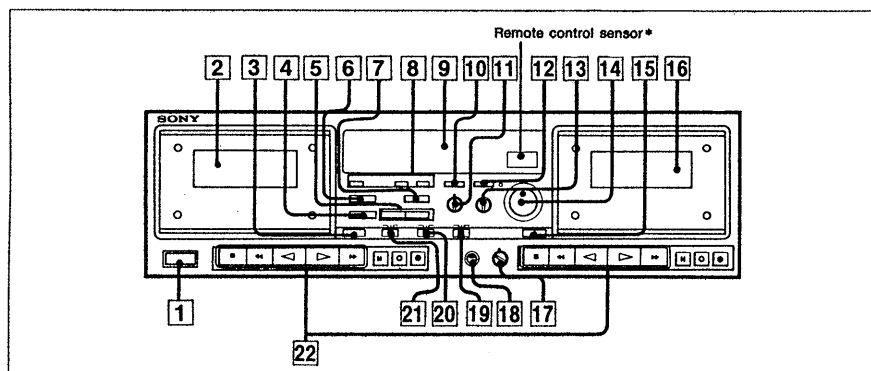
COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET 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

Identification of Front Panel Parts



- 8 COUNTER buttons
A/B (deck A/B) selector
RESET button
MEMORY button

- 9 Display panel

- 10 FADER button

- 11 BIAS control (deck B)

- 12 AUTO REC (automatic recording) LEVEL button

- 13 BALANCE control

- 14 REC (recording) LEVEL control

- 15 OPEN/CLOSE button (deck B)

- 16 Cassette holder (deck B)

- 17 Headphones LEVEL control

- 18 PHONES (headphones) jack (stereo phone jack)

- 19 NR (Dolby noise reduction) switch

- 20 DIR (direction) MODE switch

- 1 POWER switch

- 2 Cassette holder (deck A)

- 3 OPEN/CLOSE button (deck A)

- 4 A + B REC (recording) button and indicator

- 5 SYNCHRO DUBBING buttons
HIGH SPEED button
NORM (normal) SPEED button

- 6 BLANK SKIP button

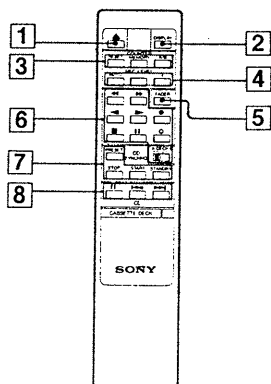
- 7 AUTO PAUSE button

- 21 TIMER switch

- 22 Tape operation buttons
■ (stop) button
◀◀ (leftward fast winding) button
▶▶ (forward play) button
◀ (reverse play) button
▶▶ (rightward fast winding) button
|| PAUSE button
○ REC MUTE (recording muting) button
● REC (recording) button

* 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.

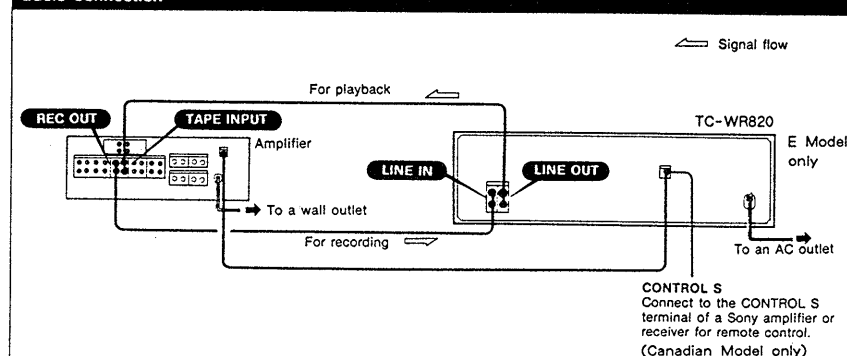
Remote Commander (RM-J901) (EXCEPT Canadian Model)



- 1 OPEN/CLOSE button
for opening and closing the cassette holder
- 2 DISPLAY button
for selecting the display mode
- 3 COUNTER buttons
RESET button
for resetting the counter to zero
MEMORY button
for activating and deactivating the Memory function
A/B button
for selecting deck A or B for counter operation
- 4 REC LEVEL (Recording Level) buttons
AUTO (Automatic Recording Level) button
for activating the Automatic Recording Level function
(-)/(+) buttons
for lowering and raising the recording level manually

- 5 FADER button
for activating Fade-in or Fade-out recording
- 6 Tape operation buttons
◀◀ (leftward fast winding) button
▶▶ (rightward fast winding) button
◀ (reverse play) button
▶▶ (forward play) button
● (record) button
■ (stop) button
|| (pause) button
○ (record muting) button
A/B deck selector switch

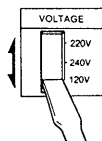
Basic Connection



Operating voltage

Before connecting the unit to the power source, check that the operating voltage of your unit is the same as the local power supply.

Where purchased	Operating voltage
AEP, WG Models	220 V AC (or 240V AC adjustable by authorized Sony personnel), 50/60 Hz
Canada	120 V AC, 60 Hz
UK Model	240 V AC (or 220 V AC adjustable by authorized Sony personnel), 50 Hz
E Model	120, 220 or 240 V AC adjustable, 50/60 Hz A 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

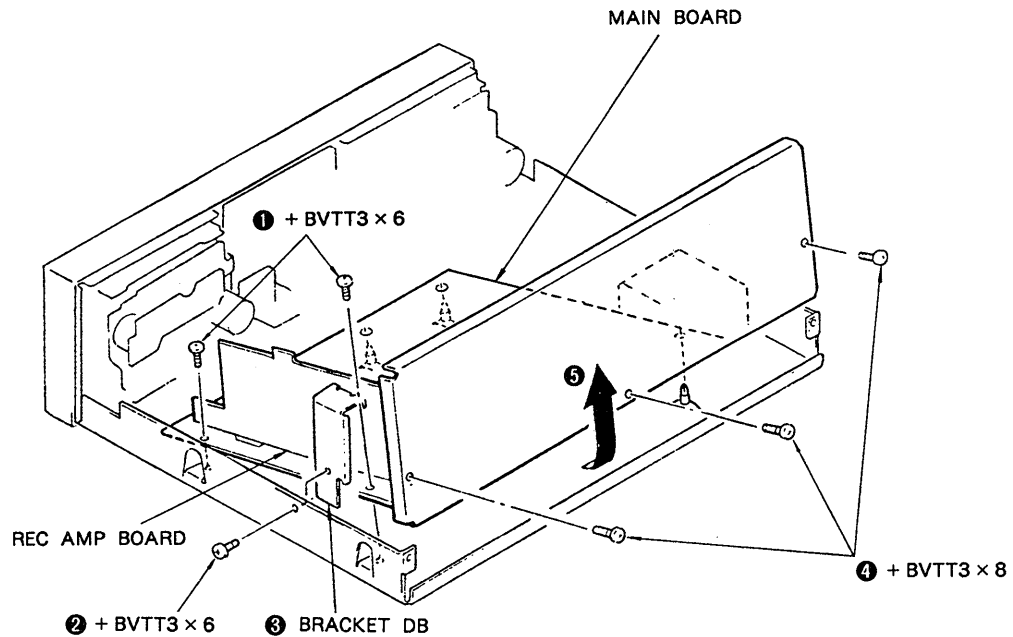
SECTION 2

DISASSEMBLY

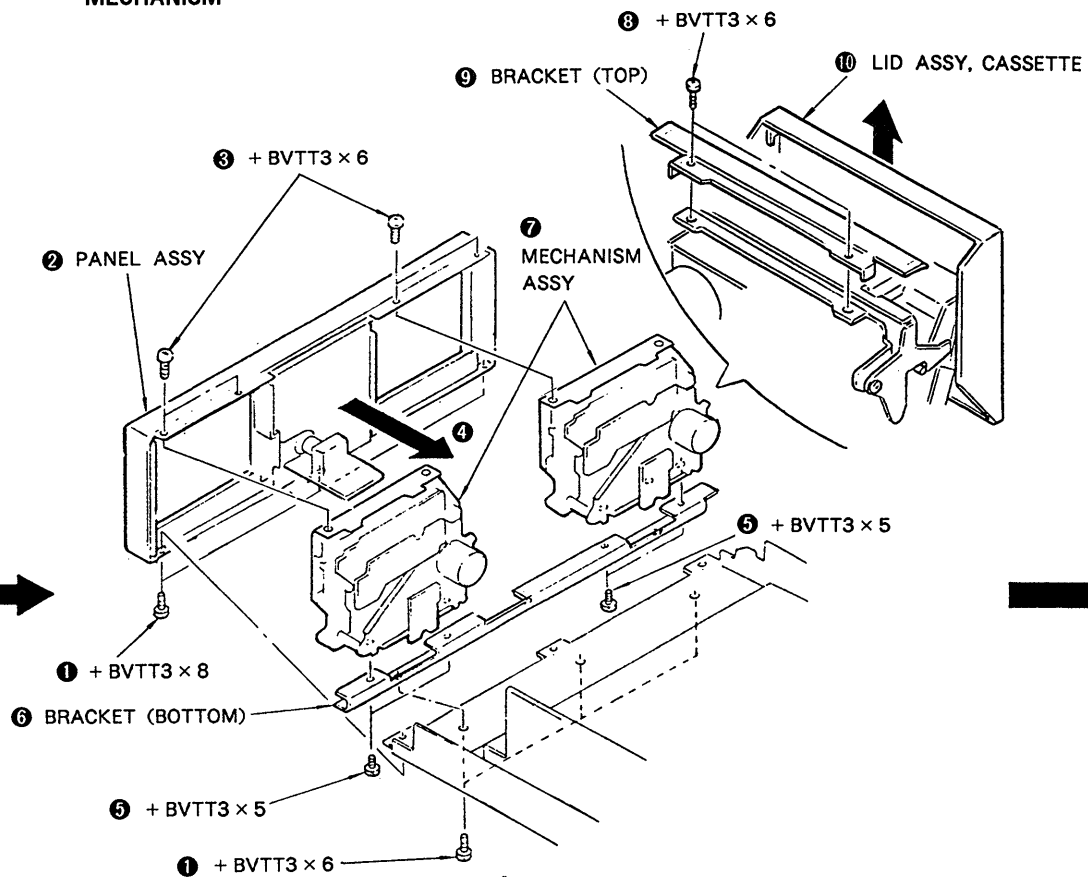
Note: Follow the disassembly procedure in the numerical order given.

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

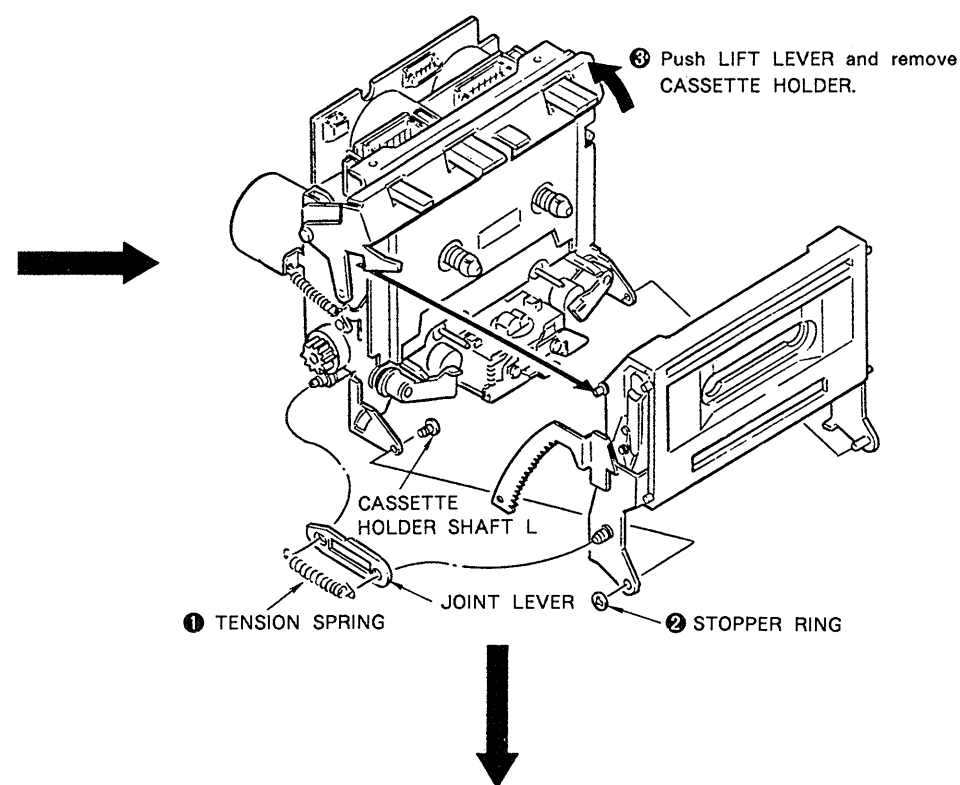
REC AMP BOARD, MAIN BOARD



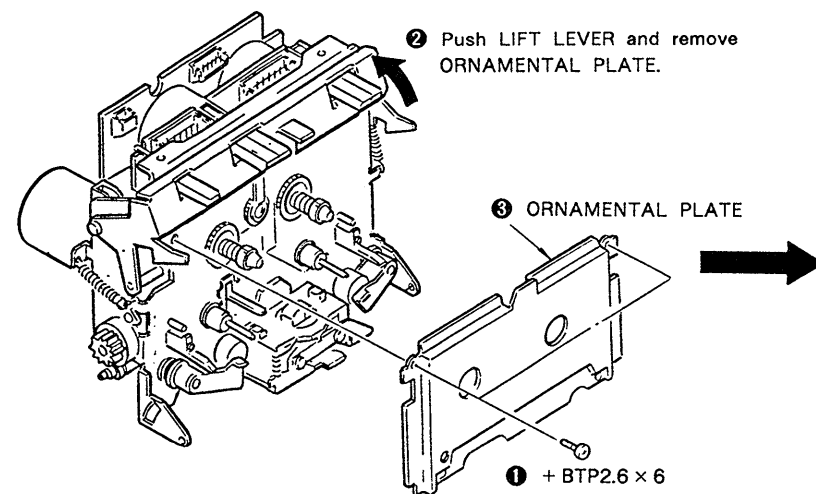
MECHANISM



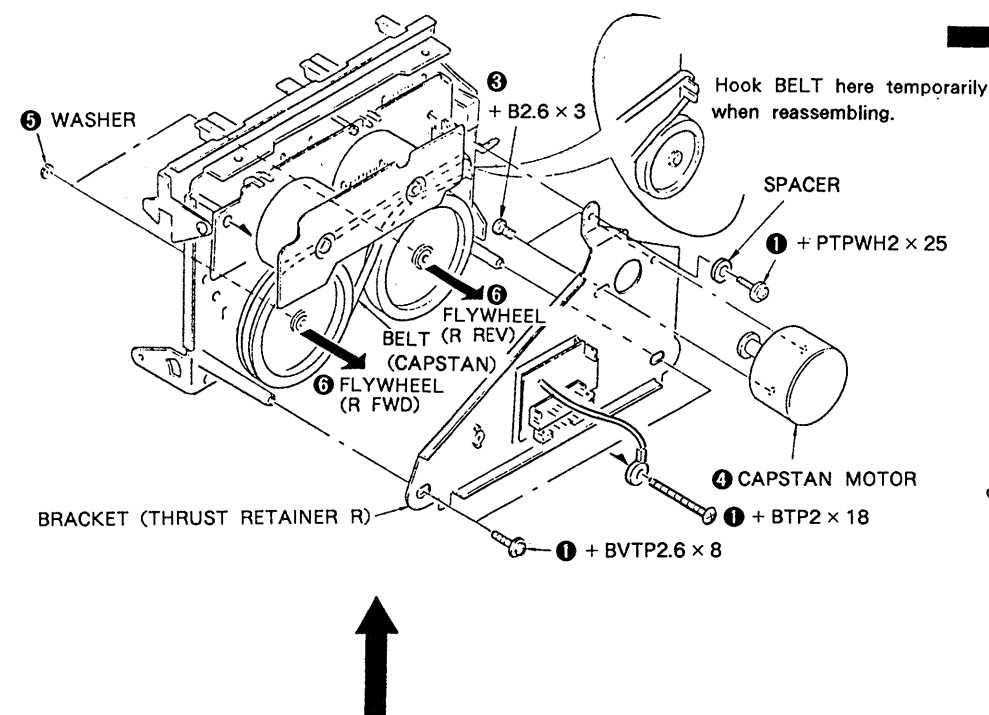
CASSETTE HOLDER



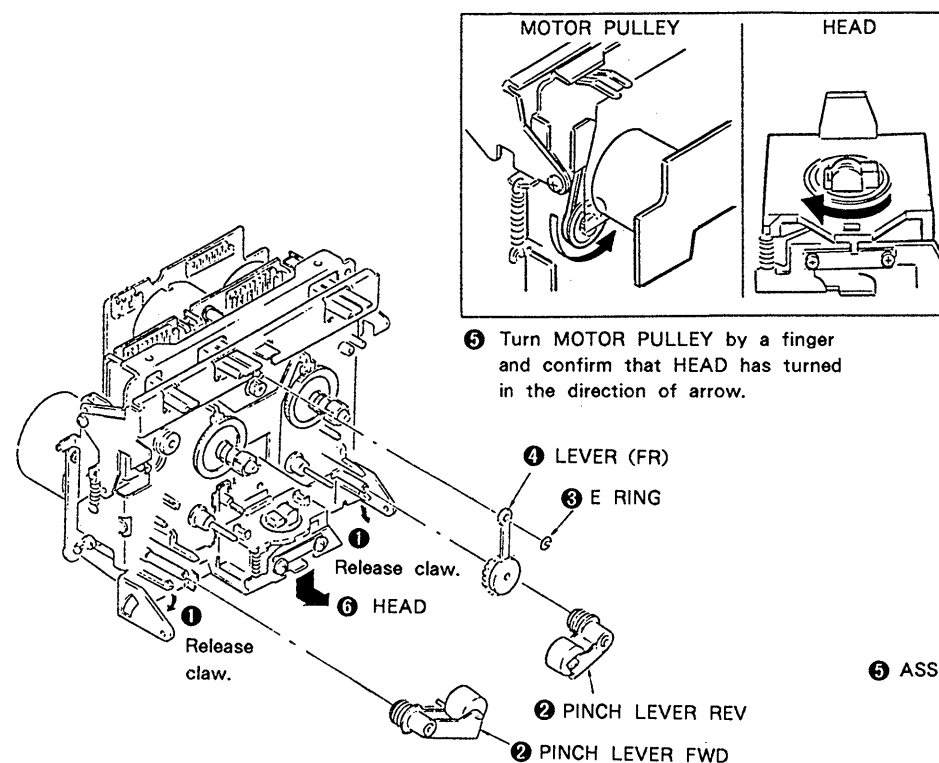
ORNAMENTAL PLATE



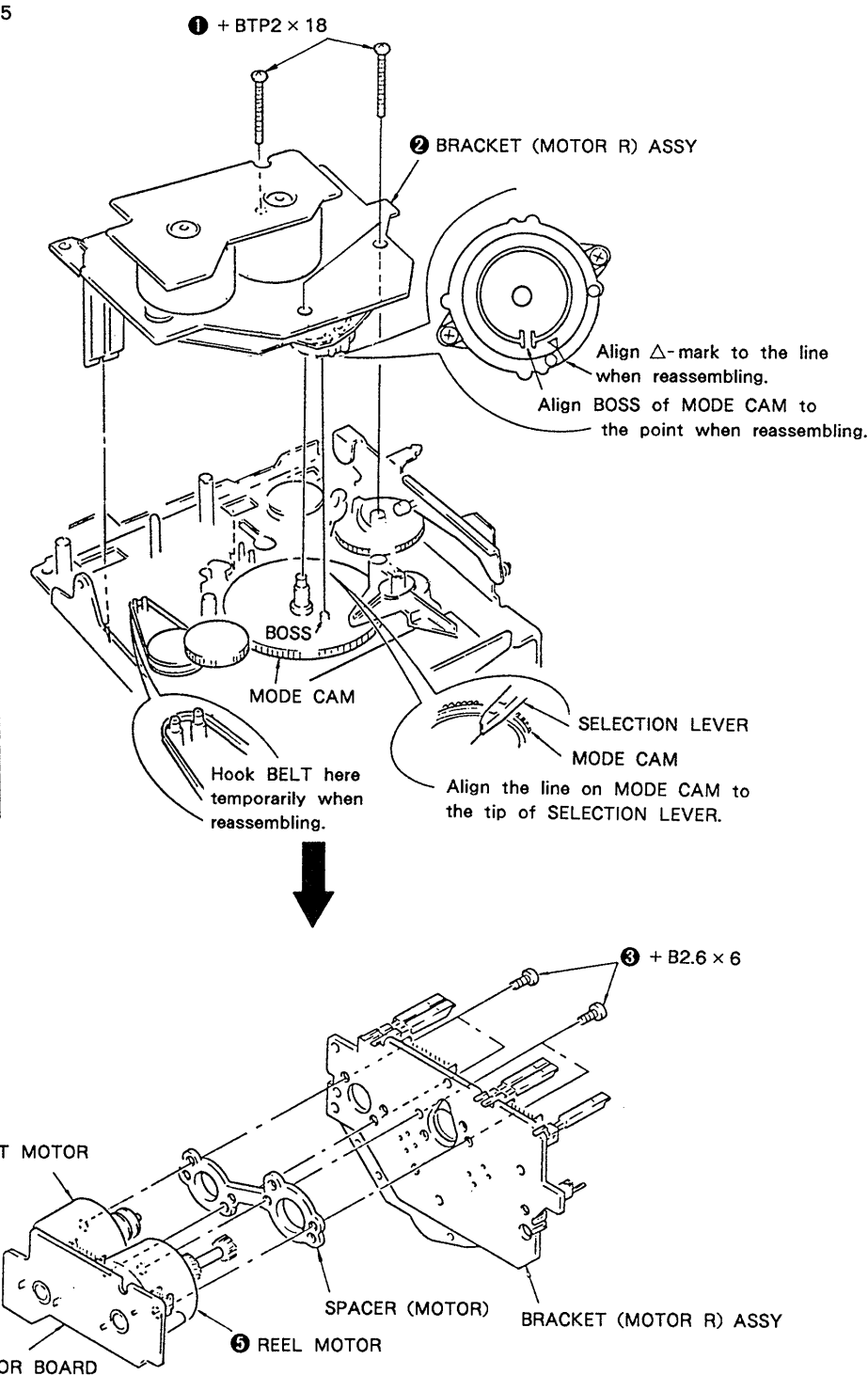
CAPSTAN MOTOR/FLYWHEEL



PINCH LEVER/HEAD



REEL and ASSIST MOTORS



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	30 - 60g·cm (0.42 - 0.83oz·inch)
FWD Back tension	CQ-102C	1 - 5g·cm (0.014 - 0.063oz·inch)
REV	CQ-102RB	30 - 60g·cm (0.42 - 0.83oz·inch)
REV Back tension	CQ-102RB	1 - 5g·cm (0.014 - 0.063oz·inch)
FF, REW	CQ-201B	70 - 100g·cm (0.97 - 1.39oz·inch)

3-2. ELECTRICAL ADJUSTMENT

Note: The adjustment should be performed in the order given in the service manual. As a rule, adjustments about playback should be performed before those about recording.

The adjustments should be performed for both L-CH and R-CH.

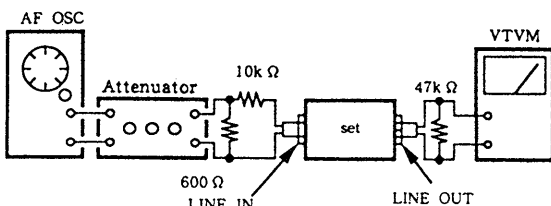
- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF
 DIRECTION switch :
 TIMER switch : OFF
 MPX FILTER switch : OFF

- 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	10k Ω
input level	0.25V (-10dB)

Standard Output Level

output terminal	LINE OUT
load impedance	47k Ω
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

The set will get into TEST MODE by shorting the pins of TP801 (TEST) on Main board before turning the power on, and TEST MODE functions as follows :

1. Source monitor
Cancels muting of line signal while recording.
2. High speed playback
Pressing HIGH SPEED (DUBBING) button while playback changes to high speed playback and another press of the button returns the set to normal speed playback.
3. Record memory stop
When starting recording, tape counter is reset to zero and counter memory turned on.

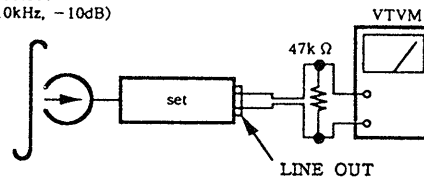
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

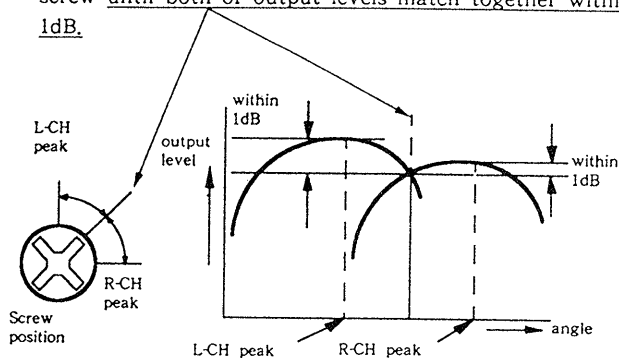
Procedure :

1. Mode : FWD playback

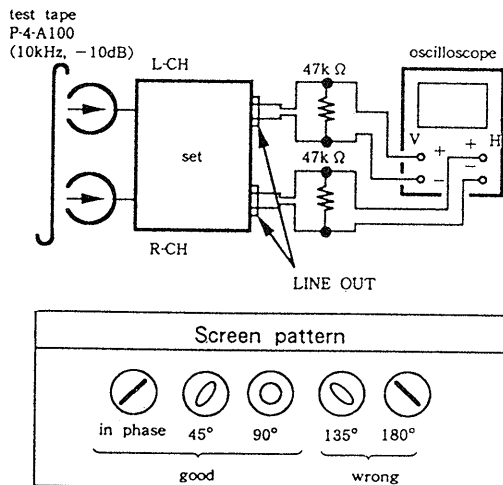
Test tape
 P-4-A100
 (10kHz, -10dB)



- 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.

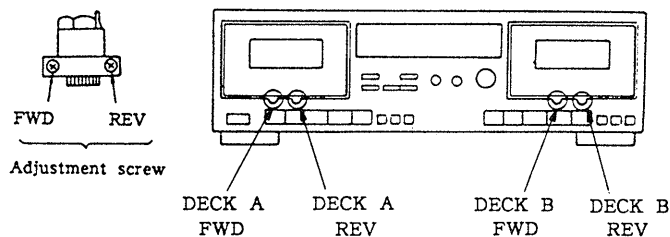


- Phase Check
Mode : playback



- 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

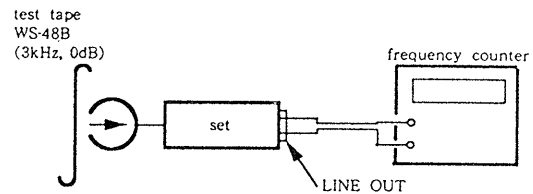


Tape Speed Adjustment DECK A DECK B

Procedure :

Mode : playback

Perform high speed adjustment before normal speed adjustment



(high speed adjustment)

- Short test pin TP801 (TEST) on Main board.
- Set to FWD playback mode.
- Press the HIGH SPEED DUBBING switch.
- Adjust RV871 (DECK A) and RV881 (DECK B) on Main board so that the frequency counter reading becomes $6,000 \pm 30\text{Hz}$.
- After adjustment, disconnect TP801 shorted in step 1.

(normal speed adjustment)

- Set to FWD playback mode.
- Adjust RV872 (DECK A) and RV882 (DECK B) on Main board so that the frequency counter reading becomes $3,000 \pm 15\text{Hz}$.

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%.

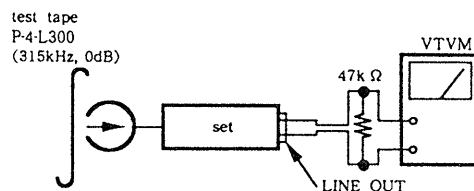
Adjustment Location :

motor rear side (both DECK A and B)

Playback Level Adjustment DECK A DECK B

Procedure :

Mode : playback



Adjust RV131 (L-ch) and RV231 (R-ch) for DECK A and RV151 (L-ch) and RV251 (R-ch) for DECK B 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 even if Playback and Stop operation is repeated several times.

Adjustment Location : MAIN board

BIAS CURRENT ADJUSTMENT

Procedure :

1. Set RV121 and RV221 (DECK A), RV141 and RV241 (DECK B) to mechanical center and turn the set recording mode.
2. Connect digital voltmeter as shown by the following table.
3. Adjust the following transformers for the minimum readings on the digital voltmeter.

DECK		Mesurement Point	Adjustment	Value
A	L	① and ②, TP521	T121	not more than 80mV
	R	② and ③, TP521	T221	
B	L	① and ②, TP541	T141	
	R	② and ③, TP541	T241	

Adjustment Location : MAIN board

Record Bias Adjustment DECK A DECK B

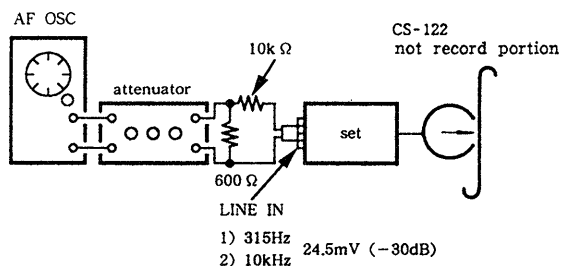
Setting :

REC LEVEL control : standard Record (See page 8.)

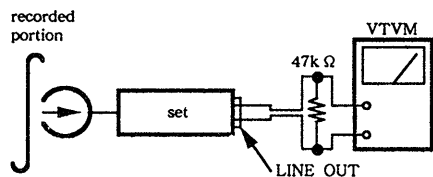
test pin TP801 : short

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 RV121 (L-ch) and RV221 (R-ch) for DECK A and RV141 (L-ch) and RV241 (R-ch) for DECK B, and repeat the steps given above.

Adjustment Location : MAIN board

Record Level Adjustment DECK A DECK B

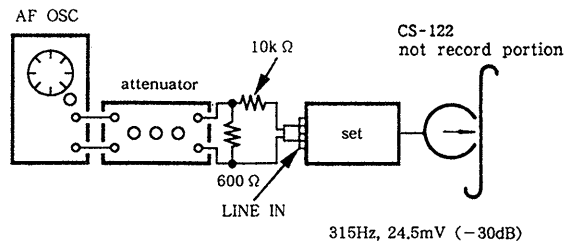
Setting :

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

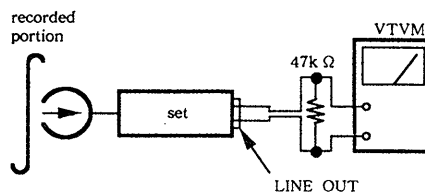
test pin TP801 : short

Procedure :

1. Mode : record



2. Mode : playback



3. Playback the signal recorded in step1.

Confirm that the signal level is within the adjustment limits below.

If necessary, adjust RV301 (L-ch) and RV401 (R-ch) for DECK A and RV351 (L-ch) and RV451 (R-ch) for DECK B, and repeat the step1-2.

Adjustment Limits : $-25\text{dB} \pm 0.5\text{dB}$ (42-46mV)

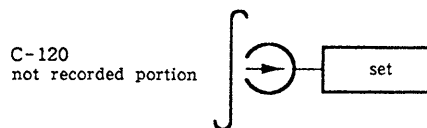
Adjustment Location : REC EQ board (component side)

Quick Reverse Sensitivity Adjustment DECK A DECK B

Conditions :

DIRECTION MODE switch : $\Rightarrow$

Adjustment procedure :

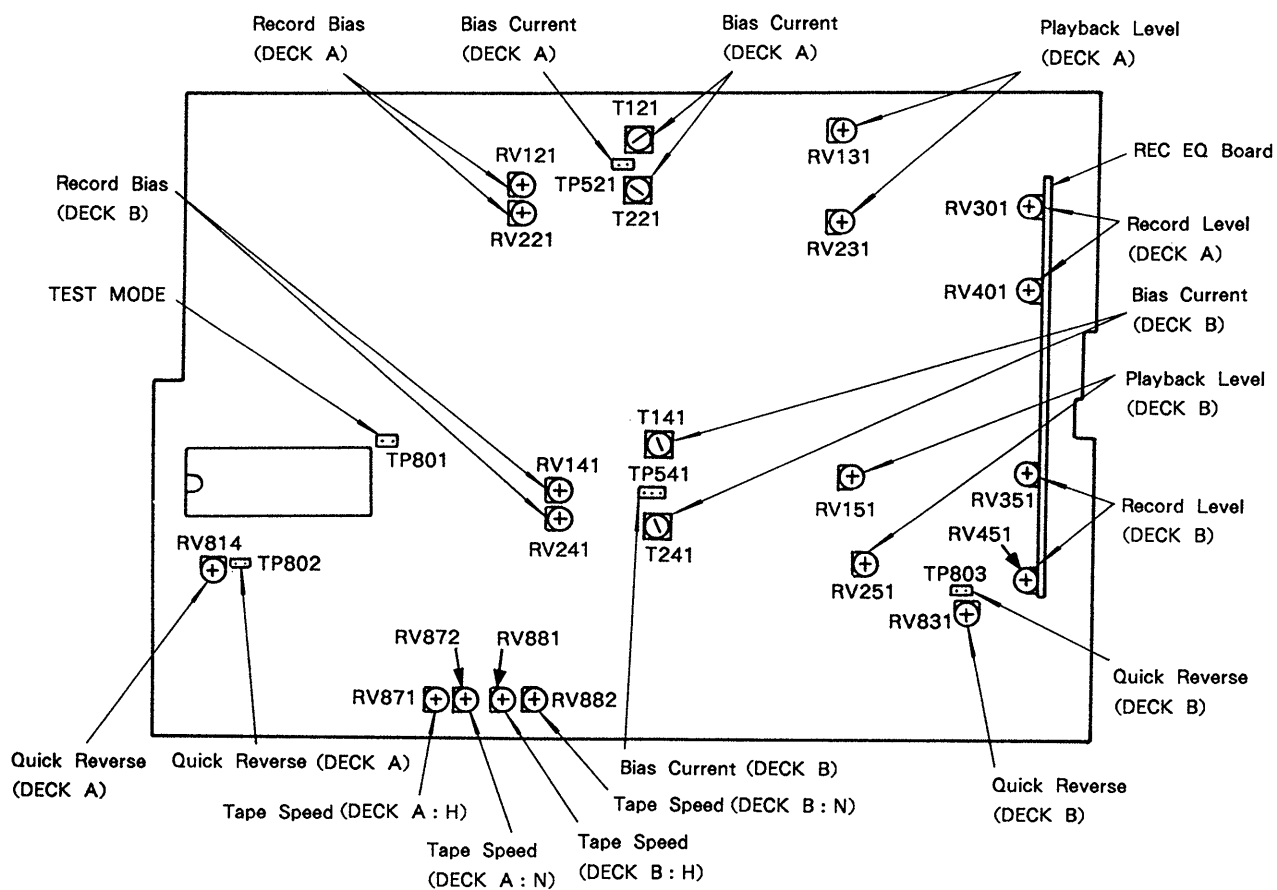


1. Connect the digital voltmeter to test point TP802 (DECK A) / TP803 (DECK B).
2. Load C-120 tape cassette and playback the leading portion in FWD mode.
3. Adjust the RV841 (DECK A), RV831 (DECK B) for $4.5 \pm 0.5\text{V}$ reading on the digital voltmeter.
4. Playback C-120 tape cassette in FWD mode again.
5. Confirm that the reading on the digital voltmeter is "L" level at the magnetic portion of the tape.
6. Confirm that the tape stop around the tape end (border of the leading and the magnetic portions).

Adjustment Location : MAIN board

ADJUSTMENT PARTS LOCATION DIAGRAM

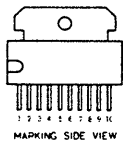
— MAIN/REC EQ boards —



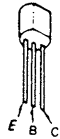
SECTION 4
DIAGRAMS

4-1. SEMICONDUCTOR LEAD LAYOUTS

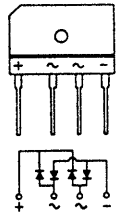
LB1641
BA6219B



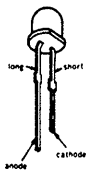
2SB1116



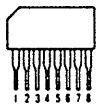
D2SB20



SEL2210S



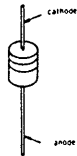
M5218AL



2SB1187 - EF
2SD1761 - EF



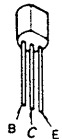
HZS6A1L
HZS6B3L
HZS6C3L
HZS9A2L
1SS202 - 1



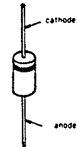
DTA114ES
DTA144ES
DTC144ES
DTC143TS
2SA1317 - STU
2SC2603 - EF
2SC2144S
2SD2144S



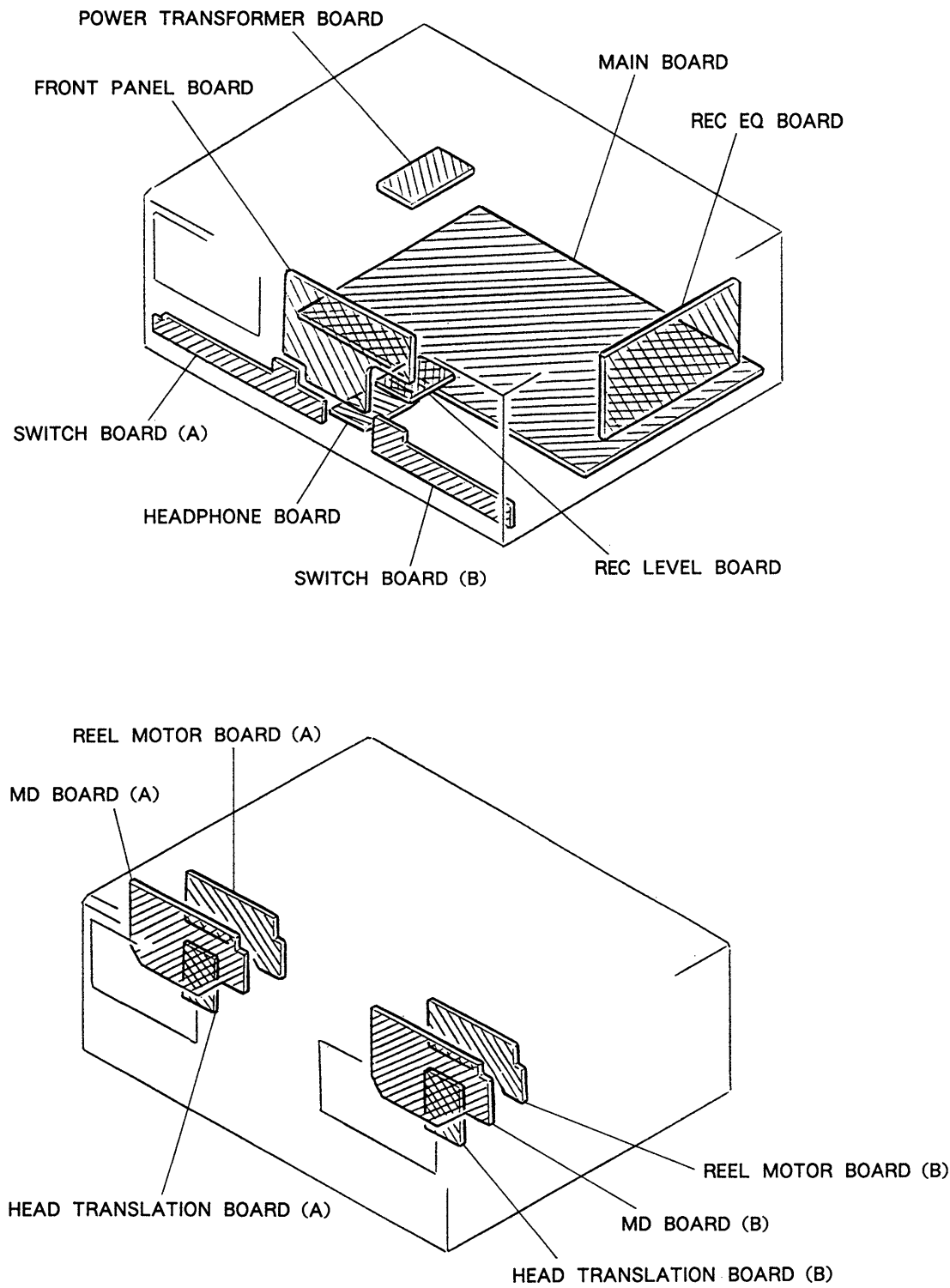
2SC2001 - LK



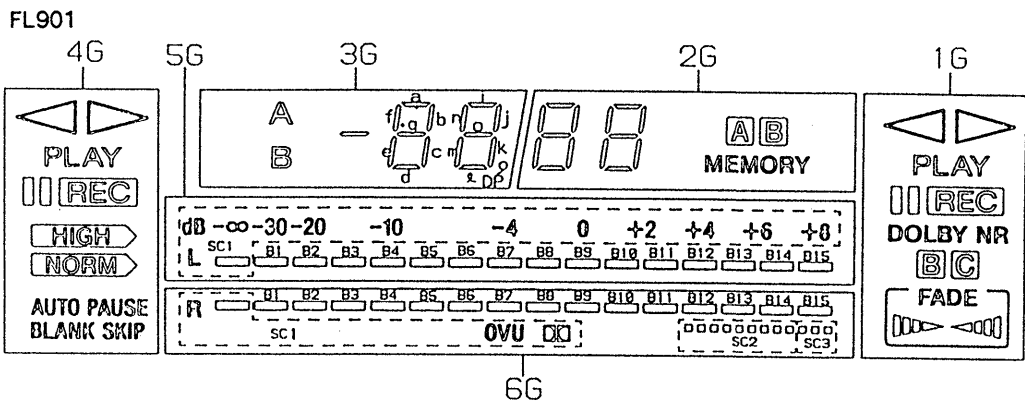
UZL-11H2
10E2Z



4-2. CIRCUIT BOARDS LOCATION



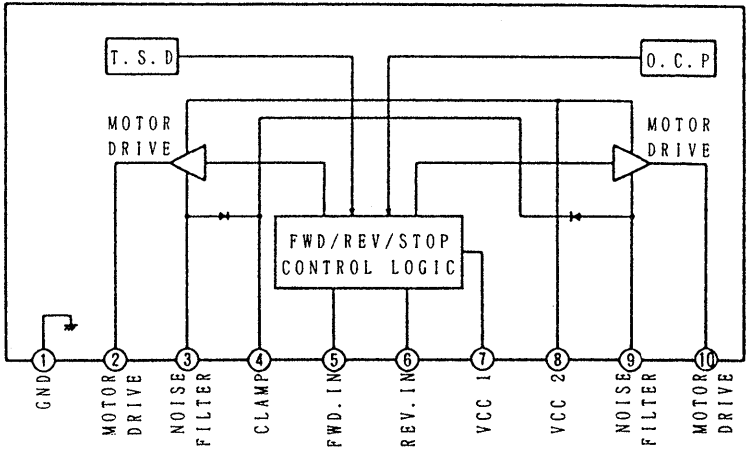
4-3. IC BLOCK DIAGRAM



ANODE CONNECTION

	6G	5G	4G	3G	2G	1G
a	SC1	SC1	▷	a	a	▷
b	B1	B1	PLAY	b	b	▷
c	B4	B4	▷	c	c	PLAY
d	B6	B6	REC	d	d	REC
e	B5	B5		e	e	
f	B2	B2	-	f	f	-
g	B3	B3	-	g	g	-
h	B7	B7	-	-	-	-
i	B8	B8	NORM	i	i	DOLBY NR
j	B9	B9	HIGH	j	j	B
k	B15	B15	AUTO PAUSE	k	k	FADE
ℓ	B13	B13	BLANK SKIP	ℓ	ℓ	▷
m	B14	B14	-	m	m	◁
n	B10	B10	-	n	n	C
o	B11	B11	-	o	o	-
p	B12	B12	-	DP	MEMORY	-
q	SC2	-	-	A	A	-
r	SC3	-	-	B	B	-

IC805 BA6219B
IC806 LB1641

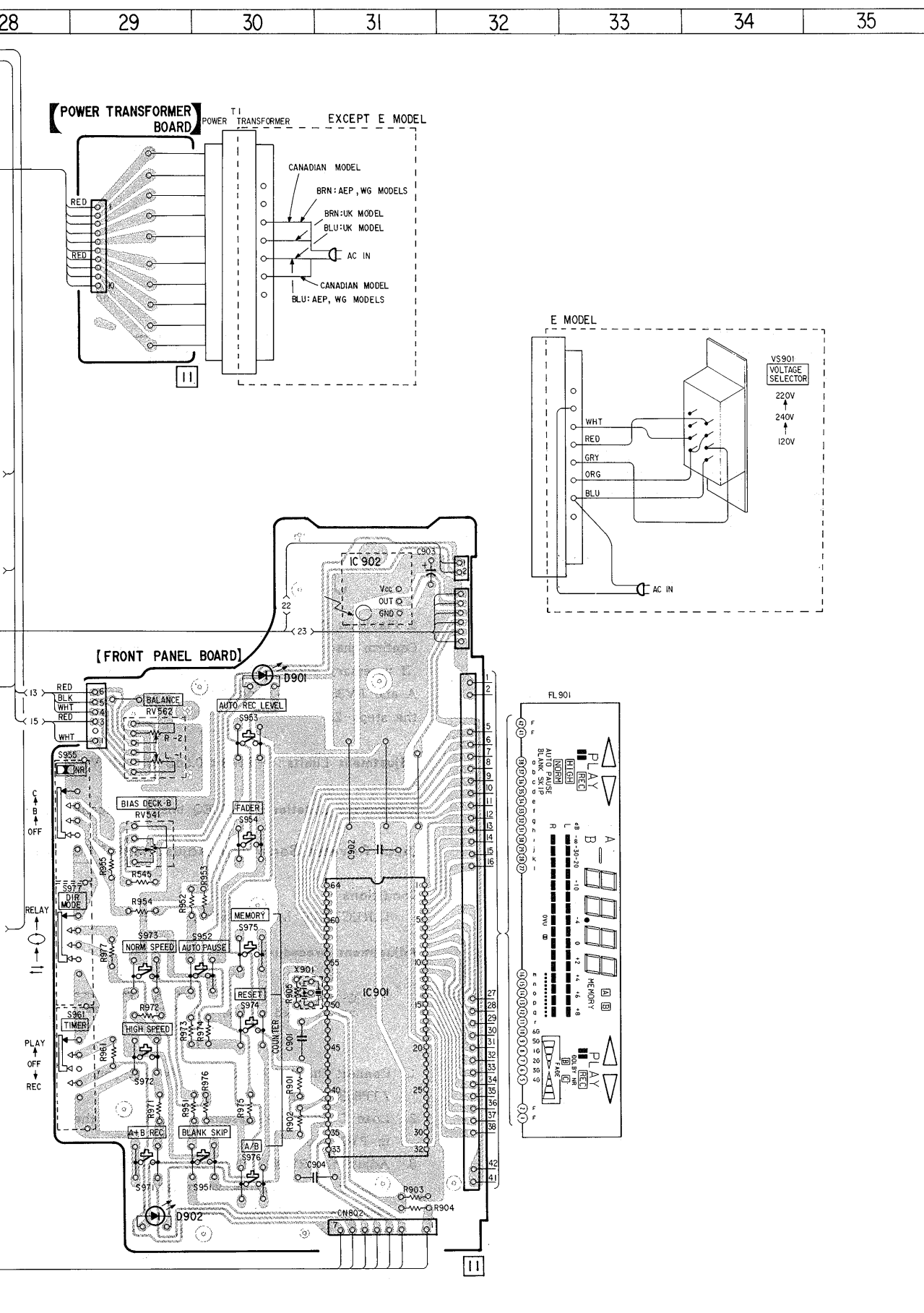
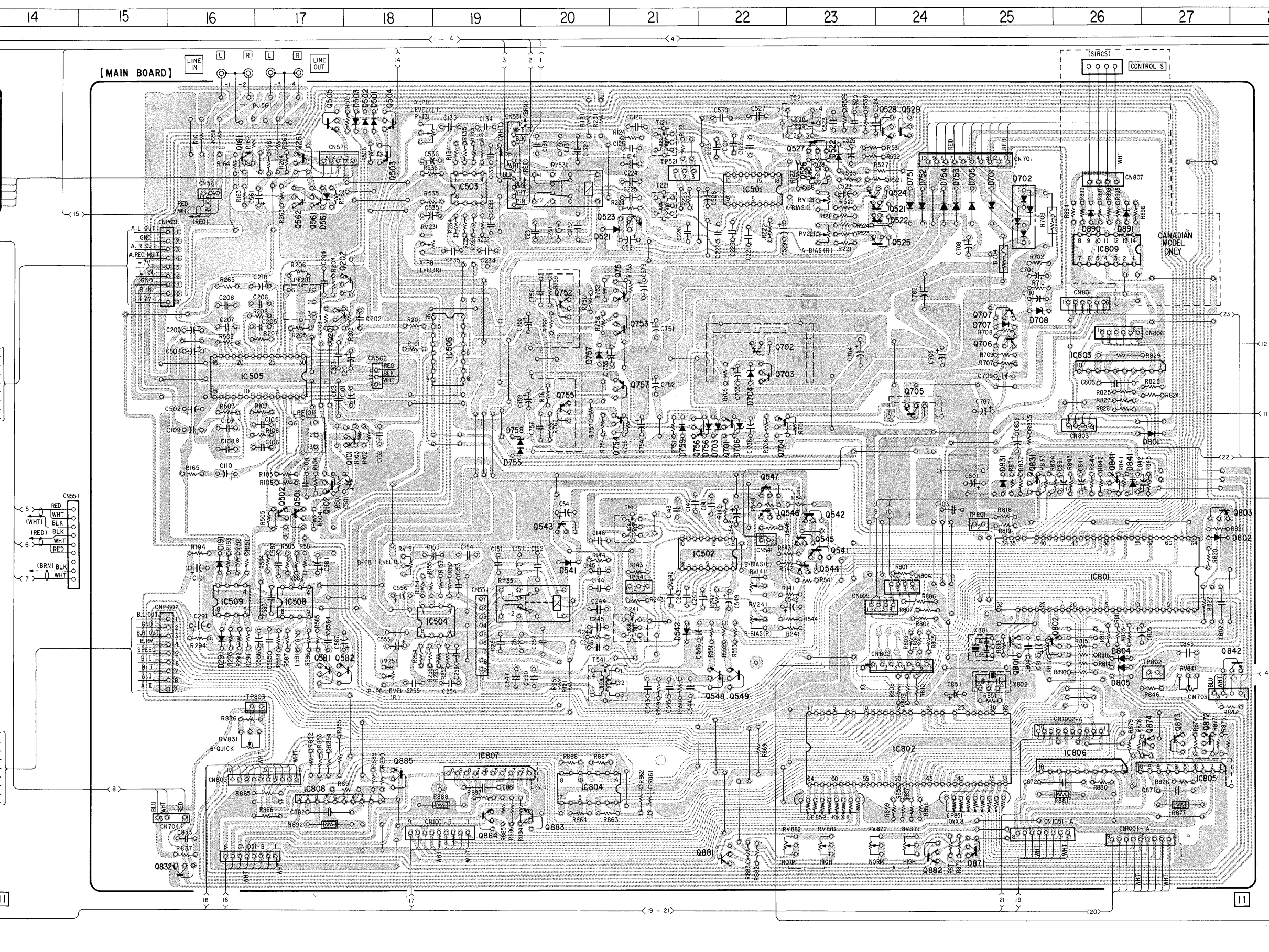
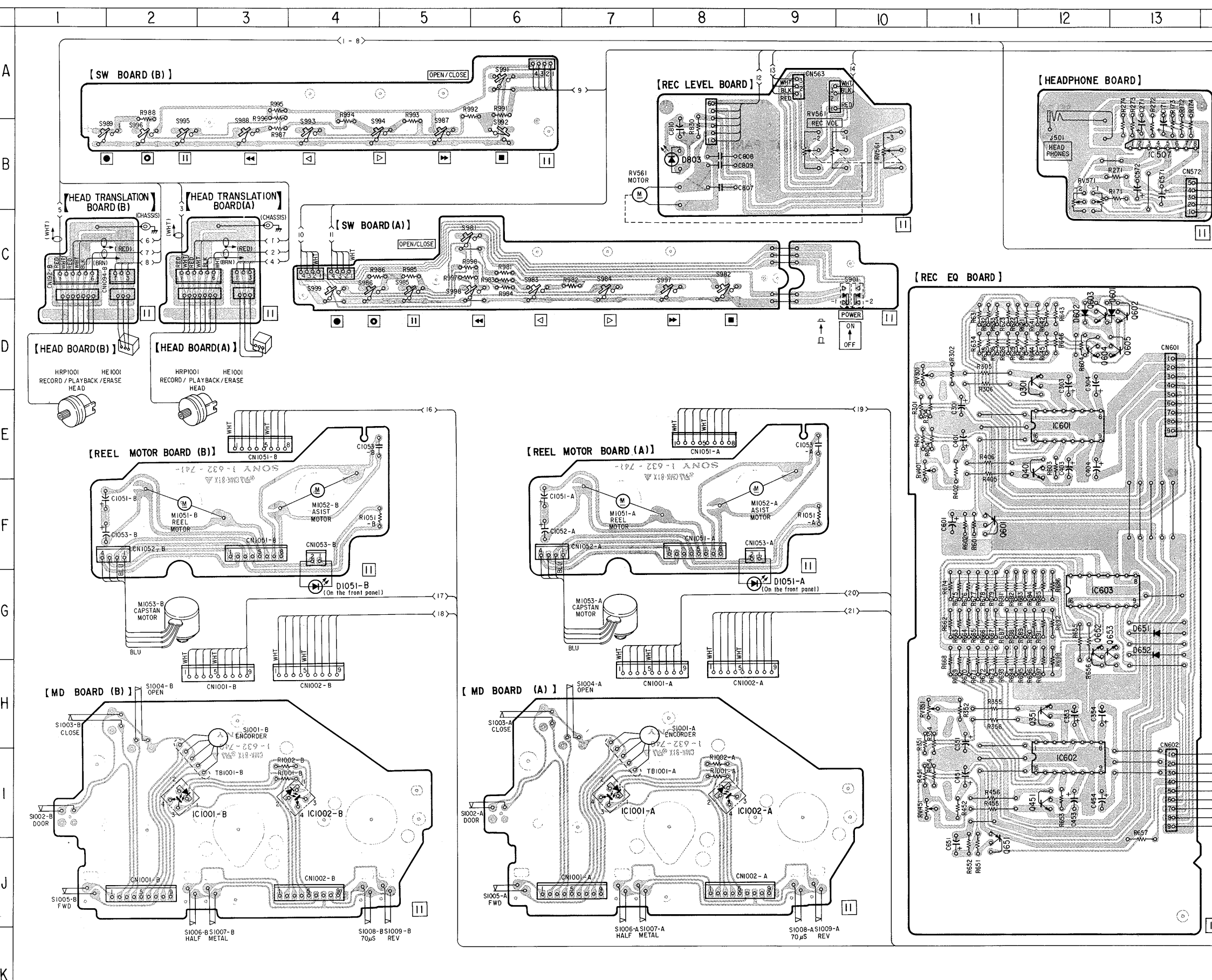


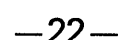
Semiconductor Location		
Ref. No.	Location	Ref. No.
D191	G-16	Q161
D291	H-16	Q201
D501	B-18	Q202
D502	B-18	Q261
D503	B-18	Q301
D521	C-20	Q351
D522	B-23	Q401
D541	G-20	Q451
D542	G-21	Q501
D561	C-17	Q502
D601	D-13	Q503
D602	D-12	Q504
D651	G-13	Q505
D652	G-13	Q521
D701	C-25	Q522
D702	C-25	Q523
D703	E-22	Q524
D704	E-22	Q525
D705	C-25	Q526
D706	E-22	Q527
D707	D-25	Q528
D708	C-24	Q529
D751	C-24	Q541
D752	C-24	Q542
D753	C-24	Q543
D754	C-24	Q544
D755	E-19	Q545
D756	E-22	Q546
D757	D-20	Q547
D758	E-19	Q548
D759	E-21	Q549
D801	E-27	Q561
D802	E-27	Q562
D803	B-8	Q581
D804	H-26	Q582
D805	H-26	Q601
D831	F-25	Q602
D841	F-26	Q603
D890*	C-26	Q604
D891*	C-26	Q605
D901	F-30	Q651
D902	J-29	Q652
D1051	G-4	Q653
D1091	D-2	Q701
D1091	D-3	Q702
D1091	D-3	Q703
IC501	B-22	Q704
IC502	G-22	Q705
IC503	B-19	Q706
IC504	G-19	Q707
IC505	E-17	Q751
IC506	D-19	Q752
IC507	B-13	Q753
IC508	G-17	Q754
IC509	G-16	Q755
IC601	E-12	Q756
IC602	E-12	Q757
IC603	G-12	Q801
IC801	G-26	Q802
IC802	I-24	Q803
IC803	D-26	Q831
IC804	I-20	Q832
IC805	I-27	Q841
IC806	I-26	Q842
IC807	I-19	Q871
IC808	I-17	Q872
IC809*	C-26	Q873
IC901	I-31	Q874
IC902	E-31	Q881
IC1001-A8	I-7	Q882
IC1001-B8	I-2	Q883
IC1002-A	I-8	Q884
IC1002-B	I-4	Q885
Q101	E-18	Q1091
Q102	F-17	Q1091

* Canadian Model only

Note:

- : parts extracted from the component side.
- : indicates side identified with part number.
- WG : West Germany







SECTION 5

EXPLODED VIEWS

NOTE:

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

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

- Color Indication of Appearance Parts
Example:

(RED) ... KNOB, BALANCE (WHITE)

↑ Cabinet's Color

↑ Parts' Color

- WG : West Germany

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.

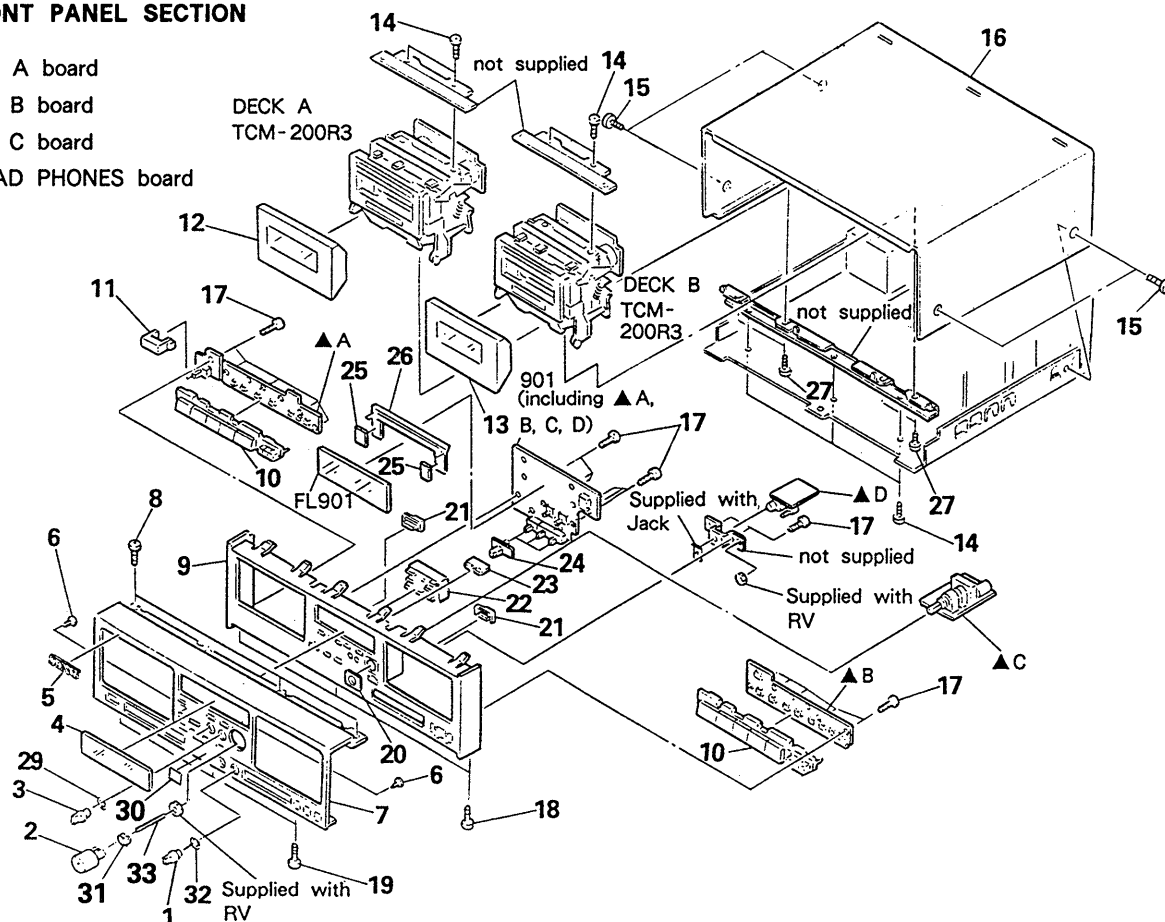
5-1. FRONT PANEL SECTION

▲A: SW A board

▲B: SW B board

▲C: SW C board

▲D: HEAD PHONES board

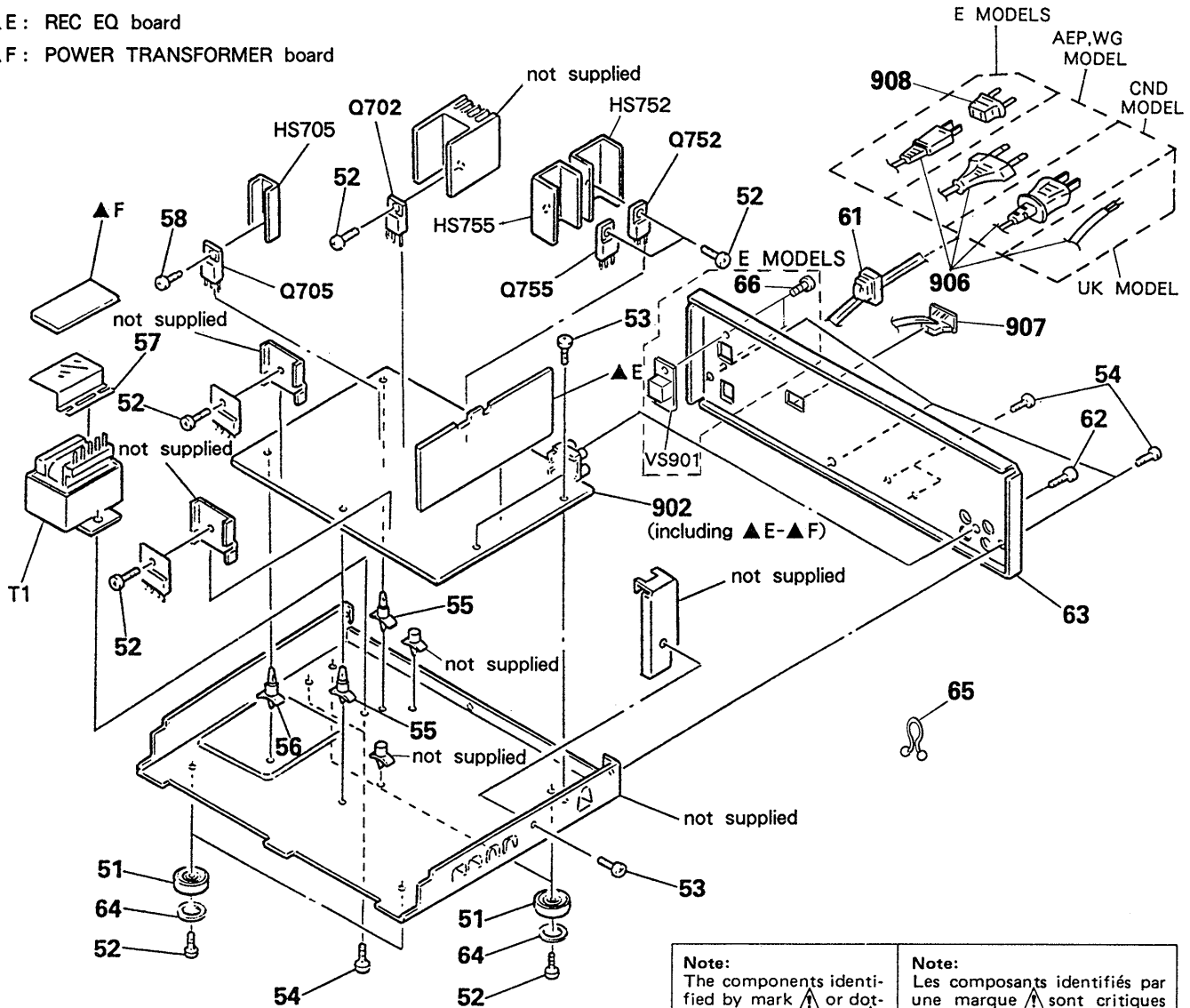


No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	3-354-931-01	KNOB (DIA.10)		18	7-682-548-09	SCREW +BVTT 3X8 (S)	
2	3-329-983-01	KNOB (REC)		19	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
3	3-354-931-11	KNOB (DIA.10)		20	3-354-923-01	PLATE (VOL), ORNAMENTAL	
4	3-354-933-02	(EXCEPT Canadian)...WINDOW (METER)		21	3-354-930-01	BUTTON (D)	
5	4-908-848-01	EMBLEM, SONY		22	3-354-938-01	BUTTON (B)	
6	3-354-924-01	PLATE, INDICATION		23	3-354-929-01	BUTTON (C)	
7	3-354-939-31	(EXCEPT Canadian)...PANEL, FRONT		24	4-922-518-01	KNOB (TIMER)	
	3-354-939-21	(Canadian).....PANEL, FRONT		25	9-911-844-XX	CUSHION	
8	3-703-108-01	SCREW +BV 3X6, S TIGHT		26	*4-925-125-01	HOLDER, FL TUBE	
9	3-354-916-01	PANEL (BASE)		27	7-685-870-01	SCREW +BVTT 3X5 (S)	
10	3-354-937-01	BUTTON (A)		29	3-354-981-01	SPRING (SUS), RING	
11	3-354-932-01	BUTTON (POWER)		30	*3-703-710-41	STICKER, SONY SYMBOL (12)	
12	X-3340-192-1	LID (A) ASSY, CASSETTE		31	4-922-978-01	HOLDER (FIBER)	
13	X-3340-193-1	LED (B) ASSY, CASSETTE		32	3-356-935-01	SPRING	
14	7-682-547-04	SCREW +BVTT 3X6 (S)		33	4-922-979-01	INDICATOR	
15	3-704-366-01	SCREW (CASE) (M3X8)		901	*1-634-143-11	PC BOARD, PANEL (including A-D)	
16	4-925-039-61	CASE		FL901	1-519-593-11	INDICATOR TUBE, FLUORESCENT	
17	4-928-635-01	SCREW, +BV (2.6X8) TAPPING					

5-2. CHASSIS SECTION

▲E: REC EQ board

▲F: POWER TRANSFORMER board

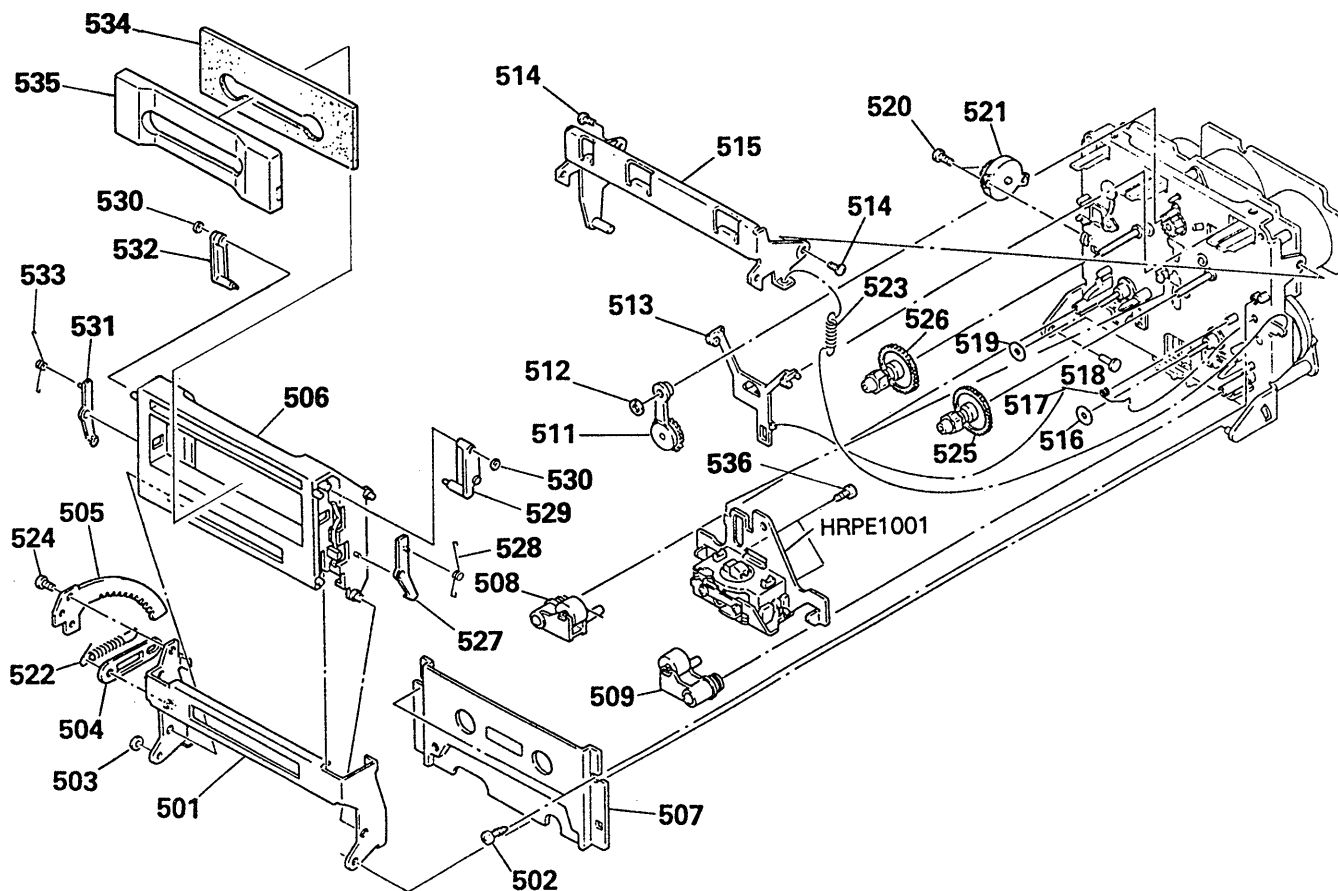


Note:
The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

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

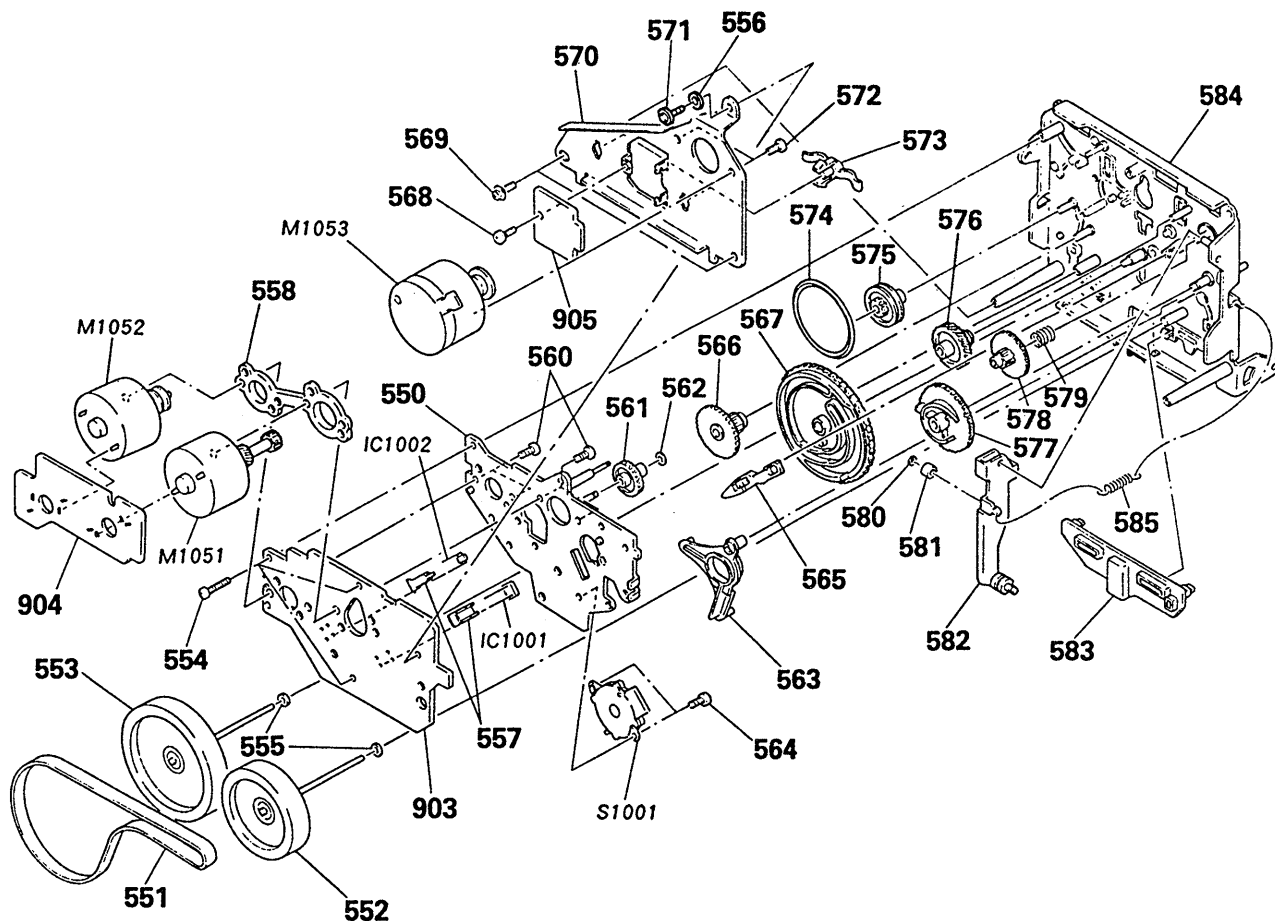
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	X-3304-938-2 X-4885-950-1	(EXCEPT Canadian)...FOOT ASSY (Canadian).....FOOT ASSY		902	*A-2006-238-A *A-2006-239-A	(EXCEPT Canadian)...MOUNTED PCB, MAIN (Canadian)...MOUNTED PCB, MAIN (including ▲E-F) (including ▲E-F)	
52	7-682-548-04	SCREW +BVTT 3X8 (S)		906	▲.1-551-188-XX ▲.1-555-465-00 ▲.1-555-795-00 ▲.1-556-035-00	(E).....CORD, POWER (Canadian)...CORD, POWER (AEP,WG).....CORD, POWER, EULO PLUG (UK).....CORD, POWER	
53	7-682-547-04	SCREW +BV 3x6, S TIGHT		907	▲.1-558-350-21	CORD (WITH CONNECTOR)(SIRCS)	
54	7-682-548-09	SCREW +BVTT 3X8 (S)		908	▲.1-559-533-11 ▲.1-569-007-11	CORD, CONNECTION (E)...ADAPTOR, CONVERSION 2P	
55	*3-346-265-11	HOLDER, PC BOARD		HS705	*3-309-144-21	HEAT SINK	
56	*4-924-098-11	HOLDER, PC BOARD		HS752	*4-880-403-11	HEAT SINK	
57	*3-337-136-11	COVER, TRANSFORMER SAFETY		HS755	*4-880-403-11	HEAT SINK	
58	7-682-548-01	SCREW +B 3x8		T1	▲.1-449-944-11	(Canadian)....TRANSFORMER, POWER	
61	*3-703-244-00 *3-703-571-11	(EXCEPT E)...BUSHING (2104), CORD (E).....BUSHING (S)(4516), CORD		T1	▲.1-449-945-11	(AEP,UK,WG)...TRANSFORMER, POWER	
62	7-621-849-00	SCREW, TAPPING		T1	▲.1-449-946-11	(E).....TRANSFORMER, POWER	
63	*3-354-914-21 *3-354-914-31 *3-354-914-51 *3-354-914-61	(Canadian)...PANEL, BACK (UK).....PANEL, BACK (AEP,WG).....PANEL, BACK (E).....PANEL, BACK		VS901	▲.1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE	
64	4-923-836-11	CUSHION					
65	2-056-665-00	HOLDER,WIRE (PURCE LOCK 5 DIA)					
66	7-685-543-19	+BTP 2.6X8					

5-3. MECHANISM SECTION 1 (TCM-200R3)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
501	X-3356-612-1	HOLDER (B) ASSY, CASSETTE		521	3-712-786-01	DAMPER, OIL	
502	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S		522	3-356-626-01	SPRING, TENSION	
503	3-558-708-21	WASHER, STOPPER		523	3-356-625-01	SPRING, TENSION	
504	*3-356-717-01	LEVER (JOINT)		524	7-621-775-10	SCREW +B 2.6X4	
505	3-356-708-01	GEAR (SOFT EJECT)		525	X-3356-627-1	GEAR (A) ASSY	
506	X-3356-611-1	HOLDER (A) ASSY, CASSETTE		526	X-3356-628-1	GEAR (S) ASSY	
507	X-3356-613-1	PLATE ASSY, ORNAMENTAL		527	3-356-930-01	LEVER (RA)	
508	X-3343-456-1	LEVER (PINCH R) ASSY		528	3-356-926-01	SPRING (RIGHT), TORSION	
509	X-3343-455-1	LEVER (PINCH F) ASSY		529	3-356-931-01	LEVER (RB)	
511	X-3356-641-1	LEVER (FR2) ASSY		530	3-356-946-01	BUSHING	
512	3-701-436-11	WASHER, 1.6 POLYETHYLENE		531	3-356-932-01	LEVER (LA)	
513	3-356-614-01	SLIDER (BRAKE)		532	3-356-933-01	LEVER (LB)	
514	3-356-601-11	SCREW, STEP		533	3-356-927-01	SPRING (LEFT), TORSION	
515	*X-3356-608-1	LEVER (LIFTER) ASSY		534	3-356-731-01	ABSORBENT, VIBRATION	
516	3-356-713-01	WASHER		535	3-356-928-01	PLATE (A), ORNAMENTAL	
517	3-356-619-01	SPRING (B), TORSION		536	3-356-716-01	SCREW (2X4)(B TIGHT), +P	
518	3-356-710-01	SHAFT (LEFT) (CASSETTE HOLDER)		HRPE1001	A-2003-533-A	SLIDER COMPLETE ASSY	
519	3-356-714-01	WASHER					
520	7-685-851-09	SCREW +BVTT 2X4 (S)					

5-4. MECHANISM SECTION 2 (TCM-200R3)



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
550	*X-3356-602-4	BRACKET (MOTOR R) ASSY		573	3-575-321-00	RETAINER, THRUST, CAPSTAN	
551	3-356-604-01	BELT (CAPSTAN)		574	3-356-603-01	BELT (MODE)	
552	X-3356-642-1	FLYWHEEL (R FWD) ASSY		575	3-356-607-01	PULLEY (MODE)	
553	X-3356-643-1	FLYWHEEL (R REV) ASSY		576	3-356-703-01	GEAR (COMMUNICATION C)	
554	3-355-801-01	SCREW (BTP 2X18)		577	3-356-616-01	GEAR (LOADING CAM)	
555	3-356-705-01	WASHER (CAPSTAN)		578	3-356-609-01	GEAR (LOADING)	
556	*3-356-718-01	SPACER (THRUST RETAINER R)		579	3-356-605-01	SPRING, COMPRESSION	
557	3-356-631-01	HOLDER (SENSOR)		580	3-558-708-11	WASHER, STOPPER	
558	*3-356-628-01	SPACER (MOTOR)		581	3-356-630-01	ROLLER (LOADING)	
560	7-621-773-95	SCREW +B 2.6X6		582	*X-3356-606-1	LEVER (LOADING) ASSY	
561	3-356-702-01	GEAR (COMMUNICATION B)		583	3-356-612-01	SLIDER (REVERSE)	
562	3-669-465-00	WASHER (1.5), STOPPER		584	X-3356-634-1	CHASSIS (R2) COMPLETE ASSY, MECH	
563	3-356-613-01	LEVER (MODE)		585	3-356-624-01	SPRING, TENSION	
564	7-621-772-20	SCREW +B 2X5		903	*1-632-740-11	PC BOARD, MD	
565	3-356-617-01	LEVER (SELECTION)		904	*1-632-741-11	PC BOARD, REEL MOTOR	
566	3-356-606-01	GEAR (MODE)		905	*1-634-323-11	PC BOARD, TRANSLATION	
567	3-356-615-01	GEAR (MODE CAM RR)		M1051	X-3356-638-1	MOTOR (REEL R) ASSY	
568	7-621-770-67	SCREW +BVT 2.6X6 (S)		M1052	X-3356-604-1	MOTOR (ASSIST) ASSY	
569	4-928-635-01	SCREW, +BV (2.6X8) TAPPING		M1053	X-3356-605-1	MOTOR (CAPSTAN R) ASSY	
570	*3-356-629-01	BRACKET (THRUST RETAINER R)		S1001	1-466-237-11	ENCODER, ROTARY	
571	3-356-707-01	SCREW (+PTPW 2X25)					
572	7-621-775-00	SCREW +B 2.6X3					

SECTION 6

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

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

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

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

- WG: West Germany

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.

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
901	*1-634-143-11	PC BOARD, PANEL (including A-D)	C154	1-136-157-00	FILM 0.022MF 5% 50V
902	*A-2006-238-A	(EXCEPT Canadian)...MOUNTED PCB, MAIN (including E-F)	C155	1-124-657-00	ELECT 10MF 20% 50V
	*A-2006-239-A	(Canadian)...MOUNTED PCB, MAIN (including E-F)	C171	1-126-157-11	ELECT 10MF 20% 16V
903	*1-632-740-11	PC BOARD, MD	C191	1-123-382-00	ELECT 3.3MF 20% 50V
904	*1-632-741-11	PC BOARD, REEL MOTOR	C201	1-124-925-11	ELECT 2.2MF 20% 50V
905	*1-634-323-11	PC BOARD, TRANSLATION	C202	1-136-157-00	FILM 0.022MF 5% 50V
906	Δ 1-551-188-XX	(E).....CORD, POWER	C203	1-162-294-31	CERAMIC 0.001MF 10% 50V
	Δ 1-555-465-00	(Canadian)...CORD, POWER	C204	1-161-375-00	CERAMIC 0.0022MF 30% 16V
	Δ 1-555-795-00	(AEP,WG).....CORD, POWER, EULO PLUG	C205	1-130-475-00	MYLAR 0.0022MF 5% 50V
	Δ 1-556-035-00	(UK).....CORD, POWER	C206	1-130-475-00	MYLAR 0.0022MF 5% 50V
907	Δ 1-558-350-21	CORD (WITH CONNECTOR)(SIRCS)	C207	1-136-174-00	FILM 0.56MF 5% 50V
908	Δ 1-569-007-11	(E)...ADAPTOR, CONVERSION 2P	C208	1-136-171-00	FILM 0.33MF 5% 50V
C101	1-124-925-11	ELECT 2.2MF 20% 50V	C209	1-124-927-11	ELECT 4.7MF 20% 50V
C102	1-136-157-00	FILM 0.022MF 5% 50V	C210	1-124-927-11	ELECT 4.7MF 20% 50V
C103	1-162-294-31	CERAMIC 0.001MF 10% 50V	C221	1-136-153-00	FILM 0.01MF 5% 50V
C104	1-161-375-00	CERAMIC 0.0022MF 30% 16V	C222	1-136-157-00	FILM 0.022MF 5% 50V
C105	1-130-475-00	MYLAR 0.0022MF 5% 50V	C223	1-136-161-00	FILM 0.047MF 5% 50V
C106	1-130-475-00	MYLAR 0.0022MF 5% 50V	C224	1-136-272-00	FILM 68PF 5% 630V
C107	1-136-174-00	FILM 0.56MF 5% 50V	C225	1-136-433-11	FILM 100PF 5% 630V
C108	1-136-171-00	FILM 0.33MF 5% 50V	C226	1-130-468-00	MYLAR 560PF 5% 50V
C109	1-124-927-11	ELECT 4.7MF 20% 50V	C231	1-136-935-11	FILM 22PF 5% 630V
C110	1-124-927-11	ELECT 4.7MF 20% 50V	C232	1-162-285-31	CERAMIC 180PF 10% 50V
C121	1-136-153-00	FILM 0.01MF 5% 50V	C233	1-130-469-00	MYLAR 680PF 5% 50V
C122	1-136-157-00	FILM 0.022MF 5% 50V	C234	1-136-157-00	FILM 0.022MF 5% 50V
C123	1-136-161-00	FILM 0.047MF 5% 50V	C235	1-124-657-00	ELECT 10MF 20% 50V
C124	1-136-272-00	FILM 68PF 5% 630V	C241	1-136-153-00	FILM 0.01MF 5% 50V
C125	1-136-433-11	FILM 100PF 5% 630V	C242	1-136-157-00	FILM 0.022MF 5% 50V
C126	1-130-468-00	MYLAR 560PF 5% 50V	C243	1-136-161-00	FILM 0.047MF 5% 50V
C131	1-136-935-11	FILM 22PF 5% 630V	C244	1-136-272-00	FILM 68PF 5% 630V
C132	1-162-285-31	CERAMIC 180PF 10% 50V	C245	1-136-433-11	FILM 100PF 5% 630V
C133	1-130-469-00	MYLAR 680PF 5% 50V	C246	1-130-468-00	MYLAR 560PF 5% 50V
C134	1-136-157-00	FILM 0.022MF 5% 50V	C251	1-136-935-11	FILM 22PF 5% 630V
C135	1-124-657-00	ELECT 10MF 20% 50V	C252	1-162-285-31	CERAMIC 180PF 10% 50V
C141	1-136-153-00	FILM 0.01MF 5% 50V	C253	1-130-469-00	MYLAR 680PF 5% 50V
C142	1-136-157-00	FILM 0.022MF 5% 50V	C254	1-136-157-00	FILM 0.022MF 5% 50V
C143	1-136-161-00	FILM 0.047MF 5% 50V	C255	1-124-657-00	ELECT 10MF 20% 50V
C144	1-136-272-00	FILM 68PF 5% 630V	C271	1-126-157-11	ELECT 10MF 20% 16V
C145	1-136-433-11	FILM 100PF 5% 630V	C291	1-123-382-00	ELECT 3.3MF 20% 50V
C146	1-130-468-00	MYLAR 560PF 5% 50V	C301	1-124-902-00	ELECT 0.47MF 20% 50V
C151	1-136-935-11	FILM 22PF 5% 630V	C303	1-124-927-11	ELECT 4.7MF 20% 50V
C152	1-162-285-31	CERAMIC 180PF 10% 50V	C304	1-124-927-11	ELECT 4.7MF 20% 50V
C153	1-130-469-00	MYLAR 680PF 5% 50V	C351	1-124-902-00	ELECT 0.47MF 20% 50V
			C353	1-124-927-11	ELECT 4.7MF 20% 50V
			C354	1-124-927-11	ELECT 4.7MF 20% 50V
			C401	1-124-902-00	ELECT 0.47MF 20% 50V

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
C403	1-124-927-11	ELECT	4.7MF	20%	50V	C754	1-124-120-11	ELECT	220MF	20%	16V
C404	1-124-927-11	ELECT	4.7MF	20%	50V	C755	1-124-925-11	ELECT	2.2MF	20%	50V
C451	1-124-902-00	ELECT	0.47MF	20%	50V	C756	1-162-286-31	CERAMIC	220PF	10%	50V
C453	1-124-927-11	ELECT	4.7MF	20%	50V	C757	1-162-286-31	CERAMIC	220PF	10%	50V
C454	1-124-927-11	ELECT	4.7MF	20%	50V	C758	1-126-176-11	ELECT	220MF	20%	10V
C501	1-124-791-11	ELECT	1MF	20%	50V	C759	1-126-176-11	ELECT	220MF	20%	10V
C502	1-124-925-11	ELECT	2.2MF	20%	50V	C801	1-124-443-00	ELECT	100MF	20%	10V
C503	1-124-925-11	ELECT	2.2MF	20%	50V	C802	1-164-159-11	CERAMIC	0.1MF		50V
C521	1-124-925-11	ELECT	2.2MF	20%	50V	C803	1-161-494-00	CERAMIC	0.022MF		25V
C522	1-124-902-00	ELECT	0.47MF	20%	50V	C804	1-162-306-11	CERAMIC	0.01MF	20%	16V
C523	1-136-230-00	FILM	0.0022MF	5%	100V	C805	1-124-925-11	ELECT	2.2MF	20%	50V
C524	1-136-230-00	FILM	0.0022MF	5%	100V	C806	1-164-159-11	CERAMIC	0.1MF		50V
C525	1-130-856-00	FILM	0.0068MF	5%	100V	C807	1-164-159-11	CERAMIC	0.1MF		50V
C526	1-123-875-11	ELECT	10MF	20%	50V	C808	1-164-159-11	CERAMIC	0.1MF		50V
C527	1-136-558-11	FILM	0.0039MF	5%	630V	C809	1-164-159-11	CERAMIC	0.1MF		50V
C528	1-124-477-11	ELECT	47MF	20%	16V	C810	1-124-927-11	ELECT	4.7MF	20%	50V
C529	1-124-477-11	ELECT	47MF	20%	16V	C811	1-126-233-11	ELECT	22MF	20%	50V
C530	1-107-046-00	MICA	4.7PF	0.5PF	500V	C831	1-124-927-11	ELECT	4.7MF	20%	50V
C535	1-126-176-11	ELECT	220MF	20%	10V	C832	1-124-477-11	ELECT	47MF	20%	16V
C536	1-126-176-11	ELECT	220MF	20%	10V	C833	1-130-479-00	MYLAR	0.0047MF	5%	50V
C541	1-124-925-11	ELECT	2.2MF	20%	50V	C841	1-124-927-11	ELECT	4.7MF	20%	50V
C542	1-124-902-00	ELECT	0.47MF	20%	50V	C842	1-124-477-11	ELECT	47MF	20%	16V
C543	1-136-230-00	FILM	0.0022MF	5%	100V	C843	1-130-479-00	MYLAR	0.0047MF	5%	50V
C544	1-136-230-00	FILM	0.0022MF	5%	100V	C851	1-124-443-00	ELECT	100MF	20%	10V
C545	1-130-856-00	FILM	0.0068MF	5%	100V	C871	1-164-159-11	CERAMIC	0.1MF		50V
C546	1-123-875-11	ELECT	10MF	20%	50V	C872	1-164-159-11	CERAMIC	0.1MF		50V
C547	1-136-558-11	FILM	0.0039MF	5%	630V	C881	1-164-159-11	CERAMIC	0.1MF		50V
C548	1-124-477-11	ELECT	47MF	20%	16V	C882	1-164-159-11	CERAMIC	0.1MF		50V
C549	1-124-477-11	ELECT	47MF	20%	16V	C901	1-161-494-00	CERAMIC	0.022MF		25V
C550	1-107-046-00	MICA	4.7PF	0.5PF	500V	C902	1-164-159-11	CERAMIC	0.1MF		50V
C555	1-126-176-11	ELECT	220MF	20%	10V	C903	1-124-443-00	ELECT	100MF	20%	10V
C556	1-126-176-11	ELECT	220MF	20%	10V	C904	1-162-294-31	CERAMIC	0.001MF	10%	50V
C561	1-124-120-11	ELECT	220MF	20%	16V	C1051	1-123-875-11	ELECT	10MF	20%	50V
C571	1-126-163-11	ELECT	4.7MF	20%	50V	C1052	1-123-875-11	ELECT	10MF	20%	50V
C572	1-126-163-11	ELECT	4.7MF	20%	50V	C1053	1-164-159-11	CERAMIC	0.1MF		50V
C573	1-161-494-00	CERAMIC	0.022MF		25V	CN541	*1-564-336-00	PIN, CONNECTOR	2P		
C581	1-124-925-11	ELECT	2.2MF	20%	50V	CN561	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE)	3P		
C582	1-162-217-31	CERAMIC	56PF	5%	50V	CN562	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE)	3P		
C583	1-136-157-00	FILM	0.022MF	5%	50V	CN563	*1-564-705-11	PIN, CONNECTOR (SMALL TYPE)	3P		
C585	1-162-286-31	CERAMIC	220PF	10%	50V	CN571	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE)	5P		
C586	1-124-925-11	ELECT	2.2MF	20%	50V	CN572	*1-564-721-11	PIN, CONNECTOR (SMALL TYPE)	5P		
C587	1-124-925-11	ELECT	2.2MF	20%	50V	CN701	*1-564-513-11	PLUG, CONNECTOR	10P		
C601	1-124-791-11	ELECT	1MF	20%	50V	CN801	*1-564-340-61	PIN, CONNECTOR	6P		
C651	1-124-791-11	ELECT	1MF	20%	50V	CN802	*1-564-510-11	PLUG, CONNECTOR	7P		
C701	1-123-875-11	ELECT	10MF	20%	50V	CN803	*1-564-338-00	PIN, CONNECTOR	4P		
C702	1-124-772-11	ELECT	10000MF	20%	25V	CN804	*1-564-338-61	PIN, CONNECTOR	4P		
C703	1-124-446-11	ELECT	47MF	20%	10V	CN805	*1-564-338-71	PIN, CONNECTOR	4P		
C704	1-124-898-11	ELECT	4700MF	20%	16V	CN806	*1-564-340-00	PIN, CONNECTOR	6P		
C705	1-124-556-11	ELECT	2200MF	20%	16V	CN807	1-565-951-11	(Canadian)...SOCKET, CONNECTOR (PC BOARD)	4P		
C706	1-124-443-00	ELECT	100MF	20%	10V	CN1001	1-506-615-11	PIN, CONNECTOR	9P		
C707	1-124-471-00	ELECT	1000MF	20%	6.3V	CN1002	*1-564-502-11	PIN, CONNECTOR	10P		
C708	1-124-911-11	ELECT	220MF	20%	50V	CN1051	1-564-501-11	PIN, CONNECTOR	8P		
C709	1-124-927-11	ELECT	4.7MF	20%	50V	CN1052	*1-564-720-11	PIN, CONNECTOR (SMALL TYPE)	4P		
C710	1-124-927-11	ELECT	4.7MF	20%	50V	CN1053	*1-564-718-11	PIN, CONNECTOR (SMALL TYPE)	2P		
C751	1-124-556-11	ELECT	2200MF	20%	16V	CN1091	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE)	7P		
C752	1-124-556-11	ELECT	2200MF	20%	16V	CN1092	*1-564-509-11	PLUG, CONNECTOR	6P		
C753	1-124-120-11	ELECT	220MF	20%	16V						

Ref.No.	Part No.	Description
	CN1093*1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
	CN1094*1-564-506-11	PLUG, CONNECTOR 3P
	CNJ601*1-563-660-11	CONNECTOR 9P
	CNJ602*1-563-660-11	CONNECTOR 9P
	CNP601*1-560-339-00	PIN, CONNECTOR 9P
	CNP602*1-560-339-00	PIN, CONNECTOR 9P
	CP851 1-233-199-11	COMPOSITION CIRCUIT BLOCK
	CP852 1-233-199-11	COMPOSITION CIRCUIT BLOCK
	D191 8-719-107-94	DIODE 1SS202-1
	D291 8-719-107-94	DIODE 1SS202-1
	D501 8-719-107-94	DIODE 1SS202-1
	D502 8-719-107-94	DIODE 1SS202-1
	D503 8-719-933-54	DIODE UZL-9L2-TP
	D521 8-719-107-94	DIODE 1SS202-1
	D522 8-719-107-94	DIODE 1SS202-1
	D541 8-719-107-94	DIODE 1SS202-1
	D542 8-719-107-94	DIODE 1SS202-1
	D561 8-719-107-94	DIODE 1SS202-1
	D601 8-719-107-94	DIODE 1SS202-1
	D602 8-719-107-94	DIODE 1SS202-1
	D651 8-719-107-94	DIODE 1SS202-1
	D652 8-719-107-94	DIODE 1SS202-1
	D701 8-719-200-77	DIODE 10E2N
	D702 8-719-500-36	DIODE D2SB20
	D703 8-719-107-94	DIODE 1SS202-1
	D704 8-719-001-54	DIODE UZL-11H2
	D705 8-719-200-77	DIODE 10E2N
	D706 8-719-933-41	DIODE HZS6C3L
	D707 8-719-107-94	DIODE 1SS202-1
	D708 8-719-933-38	DIODE HZS6B3L
	D751 8-719-200-77	DIODE 10E2N
	D752 8-719-200-77	DIODE 10E2N
	D753 8-719-200-77	DIODE 10E2N
	D754 8-719-200-77	DIODE 10E2N
	D755 8-719-109-74	DIODE 1SS202-1
	D756 8-719-109-74	DIODE 1SS202-1
	D757 8-719-933-33	DIODE HZS6A1L
	D758 8-719-107-94	DIODE 1SS202-1
	D759 8-719-107-94	DIODE 1SS202-1
	D801 8-719-107-94	DIODE 1SS202-1
	D802 8-719-107-94	DIODE 1SS202-1
	D804 8-719-107-94	DIODE 1SS202-1
	D805 8-719-107-94	DIODE 1SS202-1
	D831 8-719-107-94	DIODE 1SS202-1
	D841 8-719-107-94	DIODE 1SS202-1
	D890 8-719-107-94	(Canadian)...DIODE 1SS202-1
	D891 8-719-107-94	(Canadian)...DIODE 1SS202-1
	D901 8-719-301-39	DIODE SEL2210
	D902 8-719-301-39	DIODE SEL2210
	D1091 8-719-950-74	DIODE SLR-314D-B
HRP1001	A-2003-533-A	SLIDER COMPLETE ASSY
FL901	1-519-593-11	INDICATOR TUBE, FLUORESCENT
HS705	*3-309-144-21	HEAT SINK
HS752	*4-880-403-11	HEAT SINK
HS755	*4-880-403-11	HEAT SINK

Ref.No.	Part No.	Description
IC501	8-759-106-56	IC UPC1297CA
IC502	8-759-106-56	IC UPC1297CA
IC503	8-759-111-44	IC UPC4570C-1
IC504	8-759-111-44	IC UPC4570C-1
IC505	8-752-036-34	IC CXA1330S
IC506	8-759-040-53	IC MC14053BCP
IC507	8-759-634-50	IC M5218AL
IC508	8-759-945-58	IC RC4558P
IC509	8-759-945-58	IC RC4558P
IC601	8-752-038-02	IC CXA1198AP
IC602	8-752-038-02	IC CXA1198AP
IC603	8-759-208-06	IC TC4051BPHB
IC801	8-759-634-67	IC M50944-160SP
IC802	8-759-633-86	IC M50747-B831P
IC803	8-759-822-09	IC LB1641
IC804	8-759-240-71	IC TC4071BP
IC805	8-759-973-95	IC BA6219B
IC806	8-759-822-09	IC LB1641
IC807	8-759-973-95	IC BA6219B
IC808	8-759-822-09	IC LB1641
IC809	8-759-040-11	(Canadian)...IC MC14011BCP
IC901	8-759-322-40	IC HD614023SA40
IC902	8-741-100-48	IC SBX1610-59
IC1001	8-749-920-97	PHOTO REFLECTOR GP2S22B
IC1002	8-749-920-97	PHOTO REFLECTOR GP2S22B
J501	1-507-796-71	JACK (PHONES)
L131	1-410-780-11	INDUCTOR 27MMH
L151	1-410-780-11	INDUCTOR 27MMH
L231	1-410-780-11	INDUCTOR 27MMH
L251	1-410-780-11	INDUCTOR 27MMH
LPF101	1-236-475-11	FILTER, LOW PASS
LPF201	1-236-475-11	FILTER, LOW PASS
M1051	X-3356-638-1	MOTOR (REEL R) ASSY
M1052	X-3356-604-1	MOTOR (ASSIST) ASSY
M1053	X-3356-605-1	MOTOR (CAPSTAN R) ASSY
PJ561	1-565-258-11	JACK, PIN 4P (LINE IN/OUT)
Q101	8-729-900-74	TRANSISTOR DTC143TS
Q102	8-729-900-80	TRANSISTOR DTC114ES
Q161	8-729-922-37	TRANSISTOR 2SD2144S
Q201	8-729-900-74	TRANSISTOR DTC143TS
Q202	8-729-900-80	TRANSISTOR DTC114ES
Q261	8-729-922-37	TRANSISTOR 2SD2144S
Q301	8-729-620-05	TRANSISTOR 2SC2603-EF
Q351	8-729-620-05	TRANSISTOR 2SC2603-EF
Q401	8-729-620-05	TRANSISTOR 2SC2603-EF
Q451	8-729-620-05	TRANSISTOR 2SC2603-EF
Q501	8-729-900-65	TRANSISTOR DTA144ES
Q502	8-729-900-65	TRANSISTOR DTA144ES
Q503	8-729-900-65	TRANSISTOR DTA144ES
Q504	8-729-900-65	TRANSISTOR DTA144ES
Q505	8-729-900-89	TRANSISTOR DTC144ES
Q521	8-729-900-65	TRANSISTOR DTA144ES
Q522	8-729-900-65	TRANSISTOR DTA144ES
Q523	8-729-900-65	TRANSISTOR DTA144ES
Q524	8-729-900-89	TRANSISTOR DTC144ES
Q525	8-729-900-89	TRANSISTOR DTC144ES
Q526	8-729-900-80	TRANSISTOR DTC114ES

Ref.No.	Part No.	Description
Q527	8-729-821-04	TRANSISTOR 2SA1317-STU
Q528	8-729-142-46	TRANSISTOR 2SC2001-LK
Q529	8-729-142-46	TRANSISTOR 2SC2001-LK
Q541	8-729-900-65	TRANSISTOR DTA114ES
Q542	8-729-900-65	TRANSISTOR DTA114ES
Q543	8-729-900-65	TRANSISTOR DTA114ES
Q544	8-729-900-89	TRANSISTOR DTC144ES
Q545	8-729-900-89	TRANSISTOR DTC144ES
Q546	8-729-900-80	TRANSISTOR DTC114ES
Q547	8-729-821-04	TRANSISTOR 2SA1317-STU
Q548	8-729-142-46	TRANSISTOR 2SC2001-LK
Q549	8-729-142-46	TRANSISTOR 2SC2001-LK
Q561	8-729-900-65	TRANSISTOR DTA114ES
Q562	8-729-821-04	TRANSISTOR 2SA1317-STU
Q581	8-729-900-65	TRANSISTOR DTA144ES
Q582	8-729-900-89	TRANSISTOR DTC144ES
Q601	8-729-900-65	TRANSISTOR DTA114ES
Q602	8-729-900-89	TRANSISTOR DTC144ES
Q603	8-729-900-89	TRANSISTOR DTC144ES
Q604	8-729-620-05	TRANSISTOR 2SC2603-EF
Q605	8-729-900-89	TRANSISTOR DTC144ES
Q651	8-729-900-65	TRANSISTOR DTA144ES
Q652	8-729-620-05	TRANSISTOR 2SC2603-EF
Q653	8-729-900-89	TRANSISTOR DTC144ES
Q701	8-729-620-05	TRANSISTOR 2SC2603-EF
Q702	8-729-920-97	TRANSISTOR 2SB1187-EF
Q703	8-729-620-05	TRANSISTOR 2SC2603-EF
Q704	8-729-620-05	TRANSISTOR 2SC2603-EF
Q705	8-729-920-98	TRANSISTOR 2SD1761-EF
Q706	8-729-821-04	TRANSISTOR 2SA1317-STU
Q707	8-729-118-01	TRANSISTOR 2SB1116
Q751	8-729-620-05	TRANSISTOR 2SC2603-EF
Q752	8-729-920-98	TRANSISTOR 2SD1761-EF
Q753	8-729-620-05	TRANSISTOR 2SC2603-EF
Q754	8-729-821-04	TRANSISTOR 2SA1317-STU
Q755	8-729-920-97	TRANSISTOR 2SB1187-EF
Q756	8-729-821-04	TRANSISTOR 2SA1317-STU
Q757	8-729-821-04	TRANSISTOR 2SA1317-STU
Q801	8-729-620-05	TRANSISTOR 2SC2603-EF
Q802	8-729-620-05	TRANSISTOR 2SC2603-EF
Q803	8-729-821-04	TRANSISTOR 2SA1317-STU
Q831	8-729-620-05	TRANSISTOR 2SC2603-EF
Q832	8-729-620-05	TRANSISTOR 2SC2603-EF
Q841	8-729-620-05	TRANSISTOR 2SC2603-EF
Q842	8-729-620-05	TRANSISTOR 2SC2603-EF
Q871	8-729-900-65	TRANSISTOR DTA144ES
Q872	8-729-900-89	TRANSISTOR DTC144ES
Q873	8-729-900-89	TRANSISTOR DTC144ES
Q874	8-729-900-89	TRANSISTOR DTC144ES
Q881	8-729-900-65	TRANSISTOR DTA144ES
Q882	8-729-900-89	TRANSISTOR DTC144ES
Q883	8-729-900-80	TRANSISTOR DTC114ES
Q884	8-729-900-80	TRANSISTOR DTC114ES
Q885	8-729-900-80	TRANSISTOR DTC114ES
Q1091	8-729-809-43	PHOTO TRANSISTOR SPS-314B-BE
R001	1-249-673-11	CARBON 1K 5% 1/2W
R101	1-249-421-11	CARBON 2.2K 5% 1/4W
R102	1-249-423-11	CARBON 3.3K 5% 1/4W

Ref.No.	Part No.	Description
R103	1-247-887-00	CARBON 220K 5% 1/4W
R104	1-249-441-11	CARBON 100K 5% 1/4W
R105	1-249-423-11	CARBON 3.3K 5% 1/4W
R106	1-249-428-11	CARBON 8.2K 5% 1/4W
R107	1-247-864-11	CARBON 24K 5% 1/4W
R108	1-249-414-11	CARBON 560 5% 1/4W
R121	1-249-434-11	CARBON 27K 5% 1/4W
R122	1-249-432-11	CARBON 18K 5% 1/4W
R123	1-249-393-11	CARBON 10 5% 1/4W
R124	1-247-883-00	CARBON 150K 5% 1/4W
R131	1-249-428-11	CARBON 8.2K 5% 1/4W
R132	1-249-435-11	CARBON 33K 5% 1/4W
R133	1-249-404-00	CARBON 82 5% 1/4W
R134	1-247-882-11	CARBON 130K 5% 1/4W
R135	1-249-426-11	CARBON 5.6K 5% 1/4W
R141	1-249-434-11	CARBON 27K 5% 1/4W
R142	1-249-432-11	CARBON 18K 5% 1/4W
R143	1-249-393-11	CARBON 10 5% 1/4W
R144	1-247-883-00	CARBON 150K 5% 1/4W
R151	1-249-428-11	CARBON 8.2K 5% 1/4W
R152	1-249-435-11	CARBON 33K 5% 1/4W
R153	1-249-404-00	CARBON 82 5% 1/4W
R154	1-247-882-11	CARBON 130K 5% 1/4W
R155	1-249-426-11	CARBON 5.6K 5% 1/4W
R161	1-249-433-11	CARBON 22K 5% 1/4W
R162	1-249-417-11	CARBON 1K 5% 1/4W
R163	1-249-421-11	CARBON 2.2K 5% 1/4W
R164	1-249-429-11	CARBON 10K 5% 1/4W
R165	1-249-421-11	CARBON 2.2K 5% 1/4W
R171	1-249-433-11	CARBON 22K 5% 1/4W
R172	1-249-421-11	CARBON 2.2K 5% 1/4W
R173	1-249-433-11	CARBON 22K 5% 1/4W
R174	1-249-409-11	CARBON 220 5% 1/4W
R191	1-249-429-11	CARBON 10K 5% 1/4W
R192	1-249-435-11	CARBON 33K 5% 1/4W
R193	1-247-862-11	CARBON 20K 5% 1/4W
R194	1-249-408-11	CARBON 180 5% 1/4W
R201	1-249-421-11	CARBON 2.2K 5% 1/4W
R202	1-249-423-11	CARBON 3.3K 5% 1/4W
R203	1-247-887-00	CARBON 220K 5% 1/4W
R204	1-249-441-11	CARBON 100K 5% 1/4W
R205	1-249-423-11	CARBON 3.3K 5% 1/4W
R206	1-249-428-11	CARBON 8.2K 5% 1/4W
R207	1-247-864-11	CARBON 24K 5% 1/4W
R208	1-249-414-11	CARBON 560 5% 1/4W
R221	1-249-434-11	CARBON 27K 5% 1/4W
R222	1-249-432-11	CARBON 18K 5% 1/4W
R223	1-249-393-11	CARBON 10 5% 1/4W
R224	1-247-883-00	CARBON 150K 5% 1/4W
R231	1-249-428-11	CARBON 8.2K 5% 1/4W
R232	1-249-435-11	CARBON 33K 5% 1/4W
R233	1-249-404-00	CARBON 82 5% 1/4W
R234	1-247-882-11	CARBON 130K 5% 1/4W
R235	1-249-426-11	CARBON 5.6K 5% 1/4W
R241	1-249-434-11	CARBON 27K 5% 1/4W
R242	1-249-432-11	CARBON 18K 5% 1/4W
R243	1-249-393-11	CARBON 10 5% 1/4W

Ref.No.	Part No.	Description
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R244	1-247-883-00	CARBON	150K	5%	1/4W
R251	1-249-428-11	CARBON	8.2K	5%	1/4W
R252	1-249-435-11	CARBON	33K	5%	1/4W
R253	1-249-404-00	CARBON	82	5%	1/4W
R254	1-247-882-11	CARBON	130K	5%	1/4W
R255	1-249-426-11	CARBON	5.6K	5%	1/4W
R261	1-249-433-11	CARBON	22K	5%	1/4W
R262	1-249-417-11	CARBON	1K	5%	1/4W
R263	1-249-421-11	CARBON	2.2K	5%	1/4W
R264	1-249-429-11	CARBON	10K	5%	1/4W
R265	1-249-421-11	CARBON	2.2K	5%	1/4W
R271	1-249-433-11	CARBON	22K	5%	1/4W
R272	1-249-421-11	CARBON	2.2K	5%	1/4W
R273	1-249-433-11	CARBON	22K	5%	1/4W
R274	1-249-409-11	CARBON	220	5%	1/4W
R291	1-249-429-11	CARBON	10K	5%	1/4W
R292	1-249-435-11	CARBON	33K	5%	1/4W
R293	1-247-862-11	CARBON	20K	5%	1/4W
R294	1-249-408-11	CARBON	180	5%	1/4W
R301	1-249-429-11	CARBON	10K	5%	1/4W
R302	1-249-425-11	CARBON	4.7K	5%	1/4W
R304	1-249-425-11	CARBON	4.7K	5%	1/4W
R305	1-249-425-11	CARBON	4.7K	5%	1/4W
R306	1-249-425-11	CARBON	4.7K	5%	1/4W
R351	1-249-429-11	CARBON	10K	5%	1/4W
R352	1-249-425-11	CARBON	4.7K	5%	1/4W
R354	1-249-425-11	CARBON	4.7K	5%	1/4W
R355	1-249-425-11	CARBON	4.7K	5%	1/4W
R356	1-249-425-11	CARBON	4.7K	5%	1/4W
R401	1-249-429-11	CARBON	10K	5%	1/4W
R402	1-249-425-11	CARBON	4.7K	5%	1/4W
R404	1-249-425-11	CARBON	4.7K	5%	1/4W
R405	1-249-425-11	CARBON	4.7K	5%	1/4W
R406	1-249-425-11	CARBON	4.7K	5%	1/4W
R451	1-249-429-11	CARBON	10K	5%	1/4W
R452	1-249-425-11	CARBON	4.7K	5%	1/4W
R454	1-249-425-11	CARBON	4.7K	5%	1/4W
R455	1-249-425-11	CARBON	4.7K	5%	1/4W
R456	1-249-425-11	CARBON	4.7K	5%	1/4W
R501	1-249-441-11	CARBON	100K	5%	1/4W
R502	1-249-417-11	CARBON	1K	5%	1/4W
R503	1-215-455-00	METAL	27K	1%	1/6W
R504	1-249-417-11	CARBON	1K	5%	1/4W
R505	1-249-433-11	CARBON	22K	5%	1/4W
R506	1-249-433-11	CARBON	22K	5%	1/4W
R507	1-249-433-11	CARBON	22K	5%	1/4W
R521	1-249-425-11	CARBON	4.7K	5%	1/4W
R522	1-247-848-11	CARBON	5.1K	5%	1/4W
R523	1-247-858-11	CARBON	13K	5%	1/4W
R524	1-249-441-11	CARBON	100K	5%	1/4W
R526	1-247-852-11	CARBON	7.5K	5%	1/4W
R527	1-249-429-11	CARBON	10K	5%	1/4W
R528	1-249-429-11	CARBON	10K	5%	1/4W
R529	1-249-437-11	CARBON	47K	5%	1/4W
R530	1-249-437-11	CARBON	47K	5%	1/4W
R531	1-249-389-11	CARBON	4.7	5%	1/4W
R532	1-249-389-11	CARBON	4.7	5%	1/4W

Ref.No.	Part No.	Description
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R533	1-249-393-11	CARBON	10	5%	1/4W
R541	1-249-425-11	CARBON	4.7K	5%	1/4W
R542	1-249-426-11	CARBON	5.6K	5%	1/4W
R543	1-249-431-11	CARBON	15K	5%	1/4W
R544	1-249-441-11	CARBON	100K	5%	1/4W
R545	1-249-425-11	CARBON	4.7K	5%	1/4W
R546	1-249-426-11	CARBON	5.6K	5%	1/4W
R547	1-249-429-11	CARBON	10K	5%	1/4W
R548	1-249-429-11	CARBON	10K	5%	1/4W
R549	1-249-437-11	CARBON	47K	5%	1/4W
R550	1-249-437-11	CARBON	47K	5%	1/4W
R551	1-249-389-11	CARBON	4.7	5%	1/4W
R552	1-249-389-11	CARBON	4.7	5%	1/4W
R553	1-249-393-11	CARBON	10	5%	1/4W
R561	1-249-409-11	CARBON	220	5%	1/4W
R562	1-249-433-11	CARBON	22K	5%	1/4W
R581	1-247-887-00	CARBON	220K	5%	1/4W
R582	1-249-425-11	CARBON	4.7K	5%	1/4W
R583	1-249-441-11	CARBON	100K	5%	1/4W
R584	1-249-428-11	CARBON	8.2K	5%	1/4W
R585	1-249-441-11	CARBON	100K	5%	1/4W
R586	1-249-423-11	CARBON	3.3K	5%	1/4W
R587	1-249-421-11	CARBON	2.2K	5%	1/4W
R588	1-249-441-11	CARBON	100K	5%	1/4W
R601	1-249-417-11	CARBON	1K	5%	1/4W
R602	1-249-441-11	CARBON	100K	5%	1/4W
R603	1-247-864-11	CARBON	24K	5%	1/4W
R604	1-249-433-11	CARBON	22K	5%	1/4W
R621	1-249-436-11	CARBON	39K	5%	1/4W
R622	1-247-866-11	CARBON	30K	5%	1/4W
R623	1-249-439-11	CARBON	68K	5%	1/4W
R624	1-247-883-00	CARBON	150K	5%	1/4W
R625	1-249-438-11	CARBON	56K	5%	1/4W
R626	1-249-438-11	CARBON	56K	5%	1/4W
R631	1-249-438-11	CARBON	56K	5%	1/4W
R632	1-249-436-11	CARBON	39K	5%	1/4W
R633	1-249-439-11	CARBON	68K	5%	1/4W
R634	1-247-883-00	CARBON	150K	5%	1/4W
R635	1-249-438-11	CARBON	56K	5%	1/4W
R636	1-247-887-00	CARBON	220K	5%	1/4W
R641	1-249-437-11	CARBON	47K	5%	1/4W
R642	1-249-436-11	CARBON	39K	5%	1/4W
R643	1-249-435-11	CARBON	33K	5%	1/4W
R644	1-247-882-11	CARBON	130K	5%	1/4W
R645	1-249-438-11	CARBON	56K	5%	1/4W
R646	1-247-891-00	CARBON	330K	5%	1/4W
R651	1-249-417-11	CARBON	1K	5%	1/4W
R652	1-249-441-11	CARBON	100K	5%	1/4W
R653	1-247-864-11	CARBON	24K	5%	1/4W
R655	1-247-881-00	CARBON	120K	5%	1/4W
R656	1-249-433-11	CARBON	22K	5%	1/4W
R657	1-249-425-11	CARBON	4.7K	5%	1/4W
R662	1-249-436-11	CARBON	39K	5%	1/4W
R663	1-247-866-11	CARBON	30K	5%	1/4W
R664	1-249-439-11	CARBON	68K	5%	1/4W
R665	1-247-883-00	CARBON	150K	5%	1/4W
R666	1-249-438-11	CARBON	56K	5%	1/4W

Ref.No.	Part No.	Description			
R667	1-249-438-11	CARBON	56K	5%	1/4W
R668	1-249-438-11	CARBON	56K	5%	1/4W
R669	1-249-436-11	CARBON	39K	5%	1/4W
R670	1-249-440-11	CARBON	82K	5%	1/4W
R671	1-247-885-00	CARBON	180K	5%	1/4W
R672	1-249-438-11	CARBON	56K	5%	1/4W
R673	1-247-887-00	CARBON	220K	5%	1/4W
R674	1-249-437-11	CARBON	47K	5%	1/4W
R675	1-247-870-11	CARBON	43K	5%	1/4W
R676	1-249-436-11	CARBON	39K	5%	1/4W
R677	1-247-883-00	CARBON	150K	5%	1/4W
R678	1-249-438-11	CARBON	56K	5%	1/4W
R679	1-247-891-00	CARBON	330K	5%	1/4W
R681	1-247-860-11	CARBON	16K	5%	1/4W
R682	1-247-868-11	CARBON	36K	5%	1/4W
R683	1-249-430-11	CARBON	12K	5%	1/4W
R684	1-249-434-11	CARBON	27K	5%	1/4W
R685	1-249-439-11	CARBON	68K	5%	1/4W
R686	1-247-883-00	CARBON	150K	5%	1/4W
R687	1-247-866-11	CARBON	30K	5%	1/4W
R688	1-247-872-11	CARBON	51K	5%	1/4W
R689	1-249-430-11	CARBON	12K	5%	1/4W
R690	1-249-433-11	CARBON	22K	5%	1/4W
R691	1-249-439-11	CARBON	68K	5%	1/4W
R692	1-247-885-00	CARBON	180K	5%	1/4W
R693	1-249-434-11	CARBON	27K	5%	1/4W
R694	1-249-438-11	CARBON	56K	5%	1/4W
R695	1-247-856-00	CARBON	11K	5%	1/4W
R696	1-249-430-11	CARBON	12K	5%	1/4W
R697	1-249-437-11	CARBON	47K	5%	1/4W
R698	1-247-885-00	CARBON	180K	5%	1/4W
R701	1-249-433-11	CARBON	22K	5%	1/4W
R702	1-249-419-11	CARBON	1.5K	5%	1/4W
R703	1-219-134-11	FUSIBLE	0.1	10%	1/4W
R704	1-219-136-11	FUSIBLE	0.22	10%	1/4W
R705	1-249-422-11	CARBON	2.7K	5%	1/4W
R706	1-249-421-11	CARBON	2.2K	5%	1/4W
R707	1-249-421-11	CARBON	2.2K	5%	1/4W
R708	1-249-430-11	CARBON	12K	5%	1/4W
R709	1-247-856-00	CARBON	11K	5%	1/4W
R710	1-249-436-11	CARBON	39K	5%	1/4W
R751	1-249-433-11	CARBON	22K	5%	1/4W
R752	1-249-421-11	CARBON	2.2K	5%	1/4W
R753	1-249-421-11	CARBON	2.2K	5%	1/4W
R754	1-249-421-11	CARBON	2.2K	5%	1/4W
R755	1-249-421-11	CARBON	2.2K	5%	1/4W
R756	1-249-417-11	CARBON	1K	5%	1/4W
R757	1-249-417-11	CARBON	1K	5%	1/4W
R758	1-249-417-11	CARBON	1K	5%	1/4W
R759	1-249-415-11	CARBON	680	5%	1/4W
R760	1-249-422-11	CARBON	2.7K	5%	1/4W
R761	1-249-424-11	CARBON	3.9K	5%	1/4W
R762	1-249-423-11	CARBON	3.3K	5%	1/4W
R801	1-249-405-11	CARBON	100	5%	1/4W
R802	1-249-405-11	CARBON	100	5%	1/4W
R803	1-249-405-11	CARBON	100	5%	1/4W
R804	1-249-405-11	CARBON	100	5%	1/4W

Ref.No.	Part No.	Description			
R805	1-249-405-11	CARBON	100	5%	1/4W
R806	1-249-421-11	CARBON	2.2K	5%	1/4W
R807	1-249-421-11	CARBON	2.2K	5%	1/4W
R808	1-249-421-11	CARBON	2.2K	5%	1/4W
R809	1-249-421-11	CARBON	2.2K	5%	1/4W
R810	1-249-421-11	CARBON	2.2K	5%	1/4W
R811	1-249-425-11	CARBON	4.7K	5%	1/4W
R812	1-249-433-11	CARBON	22K	5%	1/4W
R813	1-247-903-00	CARBON	1M	5%	1/4W
R814	1-249-425-11	CARBON	4.7K	5%	1/4W
R815	1-249-433-11	CARBON	22K	5%	1/4W
R816	1-249-433-11	CARBON	22K	5%	1/4W
R817	1-249-424-11	CARBON	3.9K	5%	1/4W
R818	1-249-433-11	CARBON	22K	5%	1/4W
R819	1-249-433-11	CARBON	22K	5%	1/4W
R820	1-249-429-11	CARBON	10K	5%	1/4W
R821	1-249-441-11	CARBON	100K	5%	1/4W
R822	1-249-417-11	CARBON	1K	5%	1/4W
R823	1-249-437-11	CARBON	47K	5%	1/4W
R824	1-249-420-11	CARBON	1.8K	5%	1/4W
R825	1-249-417-11	CARBON	1K	5%	1/4W
R826	1-249-429-11	CARBON	10K	5%	1/4W
R827	1-249-429-11	CARBON	10K	5%	1/4W
R828	1-249-415-11	CARBON	680	5%	1/4W
R829	1-247-727-11	CARBON	10	5%	1/2W
R830	1-249-410-11	CARBON	270	5%	1/4W
R831	1-249-429-11	CARBON	10K	5%	1/4W
R832	1-249-433-11	CARBON	22K	5%	1/4W
R833	1-249-429-11	CARBON	10K	5%	1/4W
R834	1-249-421-11	CARBON	2.2K	5%	1/4W
R835	1-249-429-11	CARBON	10K	5%	1/4W
R836	1-249-417-11	CARBON	1K	5%	1/4W
R837	1-249-412-11	CARBON	390	5%	1/4W
R841	1-249-429-11	CARBON	10K	5%	1/4W
R842	1-249-433-11	CARBON	22K	5%	1/4W
R843	1-249-429-11	CARBON	10K	5%	1/4W
R844	1-249-421-11	CARBON	2.2K	5%	1/4W
R845	1-249-429-11	CARBON	10K	5%	1/4W
R846	1-249-417-11	CARBON	1K	5%	1/4W
R847	1-249-412-11	CARBON	390	5%	1/4W
R851	1-247-903-00	CARBON	1M	5%	1/4W
R852	1-249-425-11	CARBON	4.7K	5%	1/4W
R853	1-249-425-11	CARBON	4.7K	5%	1/4W
R854	1-249-425-11	CARBON	4.7K	5%	1/4W
R855	1-249-425-11	CARBON	4.7K	5%	1/4W
R856	1-249-425-11	CARBON	4.7K	5%	1/4W
R857	1-249-425-11	CARBON	4.7K	5%	1/4W
R858	1-249-425-11	CARBON	4.7K	5%	1/4W
R859	1-249-425-11	CARBON	4.7K	5%	1/4W
R861	1-249-436-11	CARBON	39K	5%	1/4W
R862	1-249-436-11	CARBON	39K	5%	1/4W
R863	1-247-895-00	CARBON	470K	5%	1/4W
R864	1-247-895-00	CARBON	470K	5%	1/4W
R865	1-249-436-11	CARBON	39K	5%	1/4W
R866	1-249-436-11	CARBON	39K	5%	1/4W
R867	1-247-895-00	CARBON	470K	5%	1/4W
R868	1-247-895-00	CARBON	470K	5%	1/4W

Ref.No.	Part No.	Description			
R869	1-249-429-11	CARBON	10K	5%	1/4W
R871	1-249-433-11	CARBON	22K	5%	1/4W
R872	1-249-434-11	CARBON	27K	5%	1/4W
R873	1-249-411-11	CARBON	330	5%	1/4W
R874	1-247-830-11	CARBON	910	5%	1/4W
R875	1-249-418-11	CARBON	1.2K	5%	1/4W
R876	1-249-417-11	CARBON	1K	5%	1/4W
R877 Δ	1-249-482-11	CARBON	4.7	5%	1/2W F
R878	1-249-421-11	CARBON	2.2K	5%	1/4W
R879	1-249-419-11	CARBON	1.5K	5%	1/4W
R880	1-249-417-11	CARBON	1K	5%	1/4W
R881 Δ	1-249-482-11	CARBON	4.7	5%	1/2W F
R882	1-249-433-11	CARBON	22K	5%	1/4W
R883	1-249-434-11	CARBON	27K	5%	1/4W
R884	1-249-411-11	CARBON	330	5%	1/4W
R885	1-247-830-11	CARBON	910	5%	1/4W
R886	1-249-418-11	CARBON	1.2K	5%	1/4W
R887	1-249-417-11	CARBON	1K	5%	1/4W
R888 Δ	1-249-482-11	CARBON	4.7	5%	1/2W F
R889	1-249-421-11	CARBON	2.2K	5%	1/4W
R890	1-249-419-11	CARBON	1.5K	5%	1/4W
R891	1-249-417-11	CARBON	1K	5%	1/4W
R892 Δ	1-249-482-11	CARBON	4.7	5%	1/2W F
R893	1-249-433-11	CARBON	22K	5%	1/4W
R894	1-249-393-11	(Canadian)...CARBON	10	5%	1/4W
R895	1-249-429-11	(Canadian)...CARBON	10K	5%	1/4W
R896	1-249-429-11	(Canadian)...CARBON	10K	5%	1/4W
R897	1-249-405-11	(Canadian)...CARBON	100	5%	1/4W
R898	1-249-429-11	(Canadian)...CARBON	10K	5%	1/4W
R899	1-249-429-11	(Canadian)...CARBON	10K	5%	1/4W
R901	1-249-411-11	CARBON	330	5%	1/4W
R902	1-249-411-11	CARBON	330	5%	1/4W
R903	1-249-433-11	CARBON	22K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W
R905	1-247-903-00	CARBON	1M	5%	1/4W
R951	1-249-407-11	CARBON	150	5%	1/4W
R952	1-249-409-11	CARBON	220	5%	1/4W
R953	1-249-411-11	CARBON	330	5%	1/4W
R954	1-249-421-11	CARBON	2.2K	5%	1/4W
R955	1-249-420-11	CARBON	1.8K	5%	1/4W
R961	1-249-407-11	CARBON	150	5%	1/4W
R971	1-249-407-11	CARBON	150	5%	1/4W
R972	1-249-409-11	CARBON	220	5%	1/4W
R973	1-249-411-11	CARBON	330	5%	1/4W
R974	1-249-413-11	CARBON	470	5%	1/4W
R975	1-249-415-11	CARBON	680	5%	1/4W
R976	1-249-417-11	CARBON	1K	5%	1/4W
R977	1-249-420-11	CARBON	1.8K	5%	1/4W
R981	1-249-407-11	CARBON	150	5%	1/4W
R982	1-249-409-11	CARBON	220	5%	1/4W
R983	1-249-411-11	CARBON	330	5%	1/4W
R984	1-249-413-11	CARBON	470	5%	1/4W
R985	1-249-415-11	CARBON	680	5%	1/4W
R986	1-249-417-11	CARBON	1K	5%	1/4W
R987	1-249-420-11	CARBON	1.8K	5%	1/4W
R988	1-249-424-11	CARBON	3.9K	5%	1/4W
R991	1-249-407-11	CARBON	150	5%	1/4W

Ref.No.	Part No.	Description			
R992	1-249-409-11	CARBON	220	5%	1/4W
R993	1-249-411-11	CARBON	330	5%	1/4W
R994	1-249-413-11	CARBON	470	5%	1/4W
R995	1-249-415-11	CARBON	680	5%	1/4W
R996	1-249-417-11	CARBON	1K	5%	1/4W
R997	1-249-420-11	CARBON	1.8K	5%	1/4W
R998	1-249-424-11	CARBON	3.9K	5%	1/4W
R1001	1-249-408-11	CARBON	180	5%	1/4W
R1002	1-249-408-11	CARBON	180	5%	1/4W
R1051	1-249-414-11	CARBON	560	5%	1/4W
RV121	1-237-461-11	RES, ADJ, CARBON 50K (A.BIAS)			
RV131	1-237-457-21	RES, ADJ, CARBON 2K (PB LEVEL L)			
RV141	1-237-461-11	RES, ADJ, CARBON 50K (B.BIAS)			
RV151	1-237-457-21	RES, ADJ, CARBON 2K (PB LEVEL L)			
RV221	1-237-461-11	RES, ADJ, CARBON 50K (A.BIAS)			
RV231	1-237-457-21	RES, ADJ, CARBON 2K (PB LEVEL R)			
RV241	1-237-461-11	RES, ADJ, CARBON 50K (B.BIAS)			
RV251	1-237-457-21	RES, ADJ, CARBON 2K (PB LEVEL R)			
RV301	1-230-496-11	RES, ADJ, CARBON 10K (A.REC LEVEL)			
RV351	1-230-496-11	RES, ADJ, CARBON 10K (B.REC LEVEL)			
RV401	1-230-496-11	RES, ADJ, CARBON 10K (A.REC LEVEL)			
RV451	1-230-496-11	RES, ADJ, CARBON 10K (B.REC LEVEL)			
RV541	1-238-952-11	RES, VAR, CARBON 5K (BIAS)			
RV561	1-238-908-11	RES, VAR, CARBON 20K/50K/50K (REC LEVEL)			
RV562	1-238-953-11	RES, VAR, CARBON 50K/50K (BALANCE)			
RV571	1-238-085-11	REA, VAR, CARBON 20K/20K (PHONE LEVEL)			
RV831	1-237-461-11	RES, ADJ, CARBON 50K (B.QUICK)			
RV841	1-237-461-11	RES, ADJ, CARBON 50K (A.QUICK)			
RV871	1-237-459-11	RES, ADJ, CARBON 10K (A.HIGH)			
RV872	1-237-458-21	RES, ADJ, CARBON 5K (A.NORMAL)			
RV881	1-237-459-11	RES, ADJ, CARBON 10K (B.HIGH)			
RV882	1-237-458-21	RES, ADJ, CARBON 5K (B.NOMAL)			
RY531	1-515-683-11	RELAY			
RY551	1-515-683-11	RELAY			
S901	1-571-305-11	SWITCH, PUSH (1 KEY)(POWER)			
S951	1-554-303-21	SWITCH, KEY BOARD (BLANK SKIP)			
S952	1-554-303-21	SWITCH, KEY BOARD (A.PAUSE)			
S953	1-554-303-21	SWITCH, KEY BOARD (AUTO REC LEVEL)			
S954	1-554-303-21	SWITCH, KEY BOARD (FADER)			
S955	1-571-520-11	SWITCH, SLIDE (DOLBY NR)			
S961	1-571-520-11	SWITCH, SLIDE (TIMER)			
S971	1-554-303-21	SWITCH, KEY BOARD (REC A+B)			
S972	1-554-303-21	SWITCH, KEY BOARD (HIGH DUB)			
S973	1-554-303-21	SWITCH, KEY BOARD (NOR DUB)			
S974	1-554-303-21	SWITCH, KEY BOARD (RESET)			
S975	1-554-303-21	SWITCH, KEY BOARD (MEMORY)			
S976	1-554-303-21	SWITCH, KEY BOARD (COUNT A/B)			
S977	1-571-520-11	SWITCH, SLIDE (DIRECTION)			
S981	1-554-303-21	SWITCH, KEY BOARD (A.EJECT)			
S982	1-554-303-21	SWITCH, KEY BOARD (A.STOP)			
S983	1-554-303-21	SWITCH, KEY BOARD (A.FWD)			
S984	1-554-303-21	SWITCH, KEY BOARD (A.REV)			
S985	1-554-303-21	SWITCH, KEY BOARD (A.PAUSE)			
S986	1-554-303-21	SWITCH, KEY BOARD (A.REC MUTE)			
S987	1-554-303-21	SWITCH, KEY BOARD (B.REW)			
S988	1-554-303-21	SWITCH, KEY BOARD (B.FF)			
S989	1-554-303-21	SWITCH, KEY BOARD (B.REC)			
S991	1-554-303-21	SWITCH, KEY BOARD (B.EJECT)			

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.

Ref.No.	Part No.	Description
S992	1-554-303-21	SWITCH, KEY BOARD (B.STOP)
S993	1-554-303-21	SWITCH, KEY BOARD (B.FWD)
S994	1-554-303-21	SWITCH, KEY BOARD (B.REV)
S995	1-554-303-21	SWITCH, KEY BOARD (B.PAUSE)
S996	1-554-303-21	SWITCH, KEY BOARD (B.REC MUTE)
S997	1-554-303-21	SWITCH, KEY BOARD (A.REW)
S998	1-554-303-21	SWITCH, KEY BOARD (A.FF)
S999	1-554-303-21	SWITCH, KEY BOARD (A.REW)
S1001	1-466-237-11	ENCODER, ROTARY
S1002	1-570-953-11	SWITCH, PUSH (1 KEY)(DOOR)
S1003	1-571-958-11	SWITCH, PUSH (1 KEY)(CLOSE)
S1004	1-572-126-11	SWITCH, PUSH (1 KEY)(OPEN)
S1005	1-572-125-11	SWITCH, LEAF (FWD)
S1006	1-572-202-11	SWITCH, LEAF (HALF)
S1007	1-572-125-11	SWITCH, LEAF (METAL)
S1008	1-572-125-11	SWITCH, LEAF (70US)
S1009	1-572-125-11	SWITCH, LEAF (REV)
T1	△.1-449-944-11	(Canadian)...TRANSFORMER, POWER
T1	△.1-449-945-11	(AEP,UK,WG)...TRANSFORMER, POWER
T1	△.1-449-946-11	(E).....TRANSFORMER, POWER
T121	1-433-335-11	TRANSFORMER, BIAS OSCILLATION
T141	1-433-335-11	TRANSFORMER, BIAS OSCILLATION
T221	1-433-335-11	TRANSFORMER, BIAS OSCILLATION
T241	1-433-335-11	TRANSFORMER, BIAS OSCILLATION
T521	1-433-336-11	TRANSFORMER, BIAS OSCILLATION
T541	1-433-336-11	TRANSFORMER, BIAS OSCILLATION
TB1001	*1-569-066-11	PIN, CONNECTOR 5P
TP521	*1-564-506-11	PLUG, CONNECTOR 3P
TP541	*1-564-506-11	PLUG, CONNECTOR 3P
TP801	*1-564-505-11	PLUG, CONNECTOR 2P
TP802	*1-564-505-11	PLUG, CONNECTOR 2P
TP803	*1-564-505-11	PLUG, CONNECTOR 2P
X801	1-577-358-21	VIBRATOR, CERAMIC
X802	1-577-358-21	VIBRATOR, CERAMIC
X901	1-577-359-21	VIBRATOR, CERAMIC
VS901	△.1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE

ACCESSORY & PACKING MATERIAL

1-465-368-11	(EXCEPT Canadian)...COMMANDER, REMOTE
1-559-533-11	CORD, CONNECTION (RM-J901)
2-181-754-01	(EXCEPT Canadian)...CCOVER, BATTERY
*3-350-464-21	INDIVIDUAL CARTON
*3-354-913-01	CUSHION
3-751-439-11	(EXCEPT WG)...MANUAL, INSTRUCTION
3-751-439-41	(AEP,WG).....MANUAL, INSTRUCTION

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-WR820

SONY[®] SERVICE MANUAL

*Canadian Model
AEP Model
UK Model
E Model*

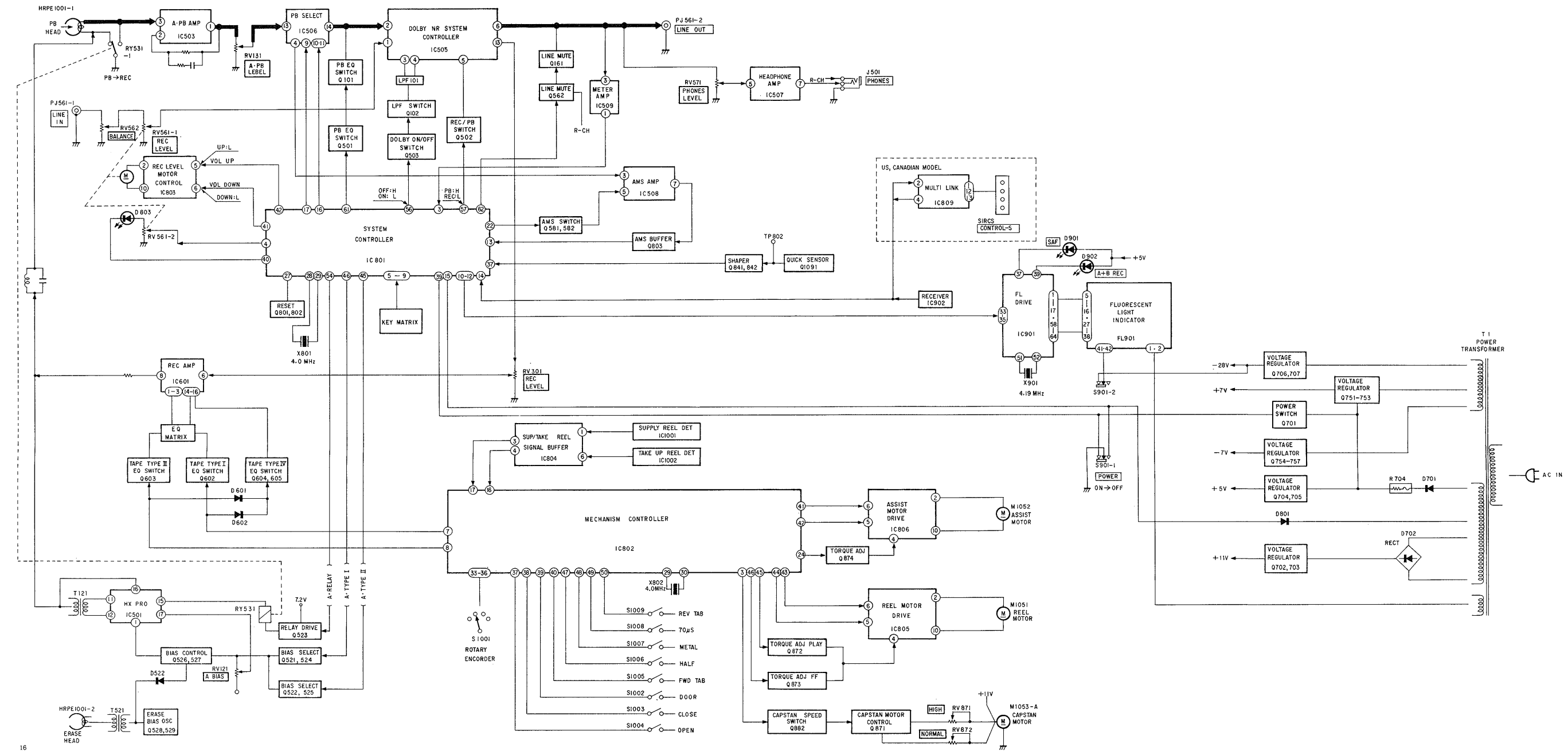
SUPPLEMENT-1

File this supplement with the service manual.

Subject : Block Diagram.

4-6. BLOCK DIAGRAM

For circuits of decks A (R) and B (L and R), see the circuit of deck A (L).



TC-WR820

SONY[®] SERVICE MANUAL

*Canadian Model
AEP Model
UK Model
E Model*

CORRECTION-1

Correct your service manual as shown below.

____ (Under line) : indicates corrected portion.

Page	INCORRECT			CORRECT		
	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
30	552	X-3356-642-1	FLYWHEEL (R FWD) ASSY	552	<u>X-3356-643-1</u>	<u>FLYWHEEL (R REV) ASSY</u>
30	553	X-3356-643-1	FLYWHEEL (R REV) ASSY	553	<u>X-3356-642-1</u>	<u>FLYWHEEL (R FWD) ASSY</u>

(RPC-96006)