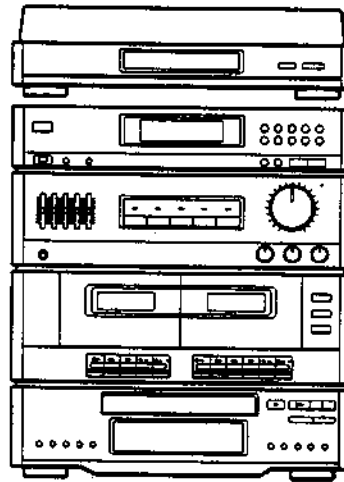


LBT-D117CD

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model*



- LBT-D117CD is composed of following models. As for the service manual it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR LBT-D117CD

STEREO DECK RECEIVER	HCD-D117
TURNTABLE	PS-LX49P

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

ACCESSORY & PACKING MATERIAL

<u>Part No.</u>	<u>Description</u>
1-501-374-11	ANTENNA, LOOP (AM)
3-754-667-11	MANUAL, INSTRUCTION (ENGLISH)(UK)
3-754-667-21	MANUAL, INSTRUCTION (ENGLISH)(US,Canadian)
3-754-667-31	MANUAL, INSTRUCTION (FRENCH)(Canadian)
3-754-667-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
3-754-667-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT)
3-754-669-61	MANUAL, INSTRUCTION (ENGLISH, GERMAN, POLAND, RUSSIAN) (East European)
* 4-950-627-01	INDIVIDUAL CARTON (AEP)
* 4-950-629-01	INDIVIDUAL CARTON (East European)
* 4-950-630-01	INDIVIDUAL CARTON (UK)
* 4-950-775-01	INDIVIDUAL CARTON (US, Canadian)
1-501-369-11	ANTENNA (FM)

IT : Italian model



9-957-045-11

SPECIFICATIONS

Power requirements	120V AC, 60Hz (US, Canadian) 220 — 230 V AC, 50/60Hz (AEP) 240V AC, 50Hz (UK)
Power consumption	75 W (US, Canadian, AEP) 150W (UK)
Weight	Approx. 8.6 kg (18 lb 15 oz)
Dimensions	Approx. 355 × 380 × 325 mm (14 × 15 × 12 7/8 inches) (w/h/d, including projections)

Supplied accessories

- 45-rpm adaptor (1)
- Remote commander RM-S171 (1)
- FM wire antenna (1) (except German model)
- AM loop antenna (1)
- Batteries Sony SUM-3 (NS) (2)

Design and Specifications subject to change without notice.

**COMPACT HiFi
STEREO SYSTEM**
SONY®

Sony Corporation
Audio Group

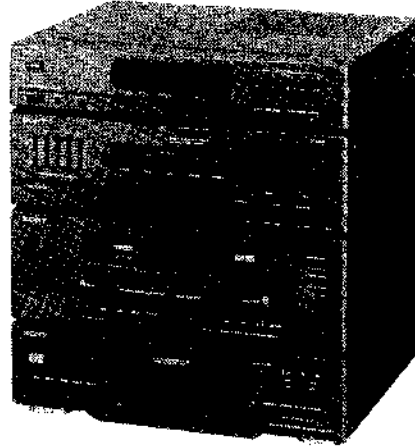
English
92B1891-1
Printed in Japan
© 1992.2

Published by Customer Relations and Service Group

HCD-D117

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
East European Model
UK Model*



• HCD-D117 is the
STEREO DECK RECEIVER
in LBT-D117CD.

SPECIFICATIONS


Tuner System	FM stereo FM/AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 to 108 MHz
Antenna	75 ohms unbalanced
Intermediate frequency	10.7 MHz
MW/LW tuner section	
Tuning range	MW: 530 to 1,710 kHz (US, Canadian model) MW: 532 to 1,611 kHz (IT model) MW: 531 to 1,602 kHz (other models) LW: 153 to 279 kHz (other models) LW: 144 to 288 kHz (IT model)
Antenna	AM loop antenna External antenna terminal
Intermediate frequency	450 kHz
Amplifier	
DIN power output	20 W + 20 W (6 ohms, at 1 kHz)
Continuous RMS power output	23 W + 23 W (6 ohms, at 1 kHz, 5% THD)
Music power output	40 W + 40 W (6 ohms)

Input	Jack type	Sensitivity	Impedance
VIDEO IN	Phono	300 mV	47 kohms
PHONO IN	Phono	3 mV	47 kohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response VIDEO: 15 Hz to 50 kHz ± 0 dB -3 dB

Cassette deck	
Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF With Type II cassette (Sony UX-S) 40 Hz to 14 kHz (± 3 dB) With Type I cassette (Sony HF-S) 40 Hz to 13 kHz (± 3 dB)

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	HST-D107
Tape Transport Mechanism Type	TCM-180VW-H7
Model Name Using Similar Mechanism	HCD-D115
CD Mechanism Type	CDM14L-5BD1
Base Unit Name	BU-5BD1

Wow and flutter	W.PEAK $\pm 0.2\%$ (DIN)
Compact disc player	
Frequency response	2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio	More than 93 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.008% (1 kHz)
Channel separation	More than 90 dB (1 kHz) 120 V AC, 60 Hz (US Canadian model) 220-230 V AC, 50/60 Hz (AEP, IT model)

General	
Power requirements	240 V AC, 50 Hz
Power consumption	150 W (UK model) 75 W (other models)
Weight	Approx. 8.6 kg (18 lb 15oz)
Dimensions	Approx. 355 × 380 × 325 mm (14 × 15 × 12 ⁷ / ₁₆ inches) (w/h/d, including projections)

Supplied accessories	
45-rpm adaptor	(1)
Remote commander RM-S171	(1)
FM wire antenna	(1)
AM loop antenna	(1)
Batteries Sony SUM-3 (NS)	(2)

Design and specifications subject to change without notice.

COMPACT HiFi STEREO SYSTEM
SONY®

SAFETY CHECK-OUT

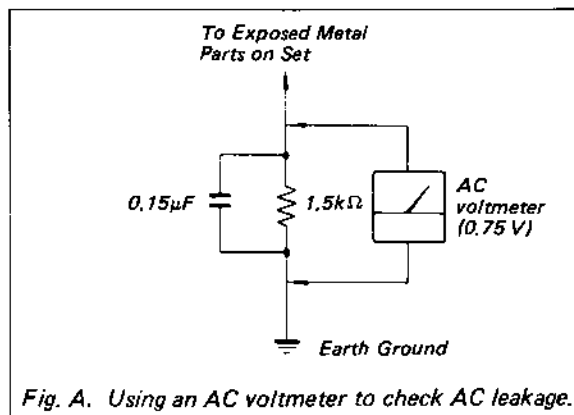
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

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

LEAKAGE TEST

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

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



SAFETY-RELATED COMPONENT WARNING!!

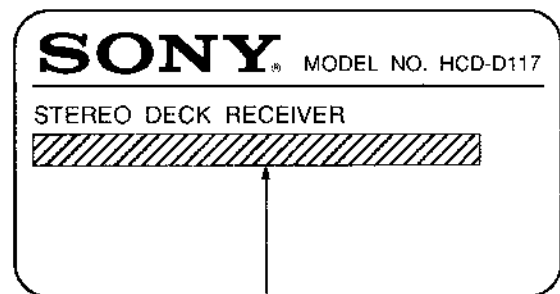
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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MODEL IDENTIFICATION

— Model Number Portion —



US, Canadian model : AC : 120 V ~ 60Hz
 AEP, Germany, Italian, East European model : AC : 220-230V ~ 50/60Hz
 UK model : AC : 240V ~ 50Hz

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.

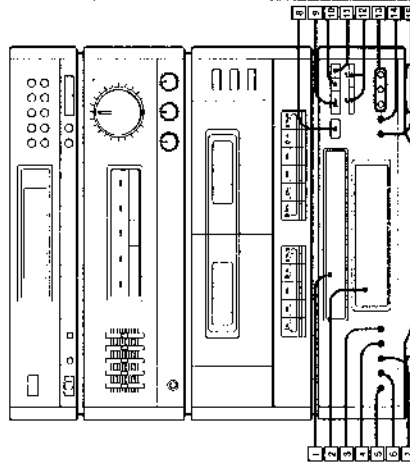
SECTION 1
GENERAL

This section is extracted
from instruction manual.

Location of
Controls

Compact Disc Player

- 1 Disc Tray
 - 2 Display window
 - 3 CLEAR (program clear) button (20)
 - 4 CHECK (program check) button (20)
 - 5 TIME out/in (18)
 - 6 REPEAT button (22)
 - 7 FACE button (26)
 - 8 OPEN/CLOSE button (15)
 - 9 (play) button (15)
 - 10 (stop) button (15)
 - 11 (AMS*) buttons (17)
 - 12 PLAY/MODE button
 - 13 PROGRAM button (19)
 - 14 SHUFFLE button (18)
 - 15 CONTINUE button (19)
 - 16 MUSIC SCAN button (21)
 - 17 F01 button (24, 26)
- * AMS is the abbreviation of Automatic Music Sensing



Location of
Controls

Refer to the pages indicated in () for details.

Tuner

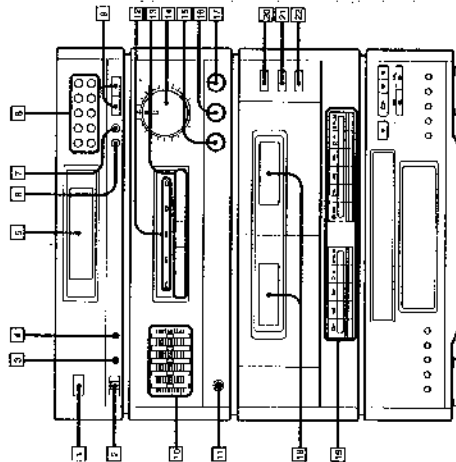
- 1 POWER switch (6)
- 2 Remote sensor
- 3 MEMORY button (8)
- 4 ST/M/T/P button (8)
- 5 Display window
- 6 SPLIT button (10)
- 7 BAND SELECT button (9)
- 8 Buttons for aiming station frequencies (10)
- 9 DUAL MODE TUNING buttons (8, 10)

Amplifier

- 1 GRAPHIC EQUALIZER controls (7)
- 2 HEADPHONES jack
- 3 Function indicators
- 4 Function selectors
- 5 VIDEO/TAPE/CD/TUNER/PHONE
- 6 VOLUME control (7)
- 7 SURROUND control (7)
- 8 D9FB (dynamic bass feedback) control (7)
- 9 BALANCE control (7)

Cassette Deck

- 1 Cassette holders
- 2 Tape operation buttons (11)
- 3 Leftward fast winding
- 4 Rightward fast winding
- 5 Forward play
- 6 Stop/eject
- 7 PAUSE/Pause
- 8 RLC-Record
- 9 TAPE SELECT button (11, 12, 14)
- 10 DUBBING SPEED button (14)
- 11 DOLBY NR (noise reduction) switch (11, 12)

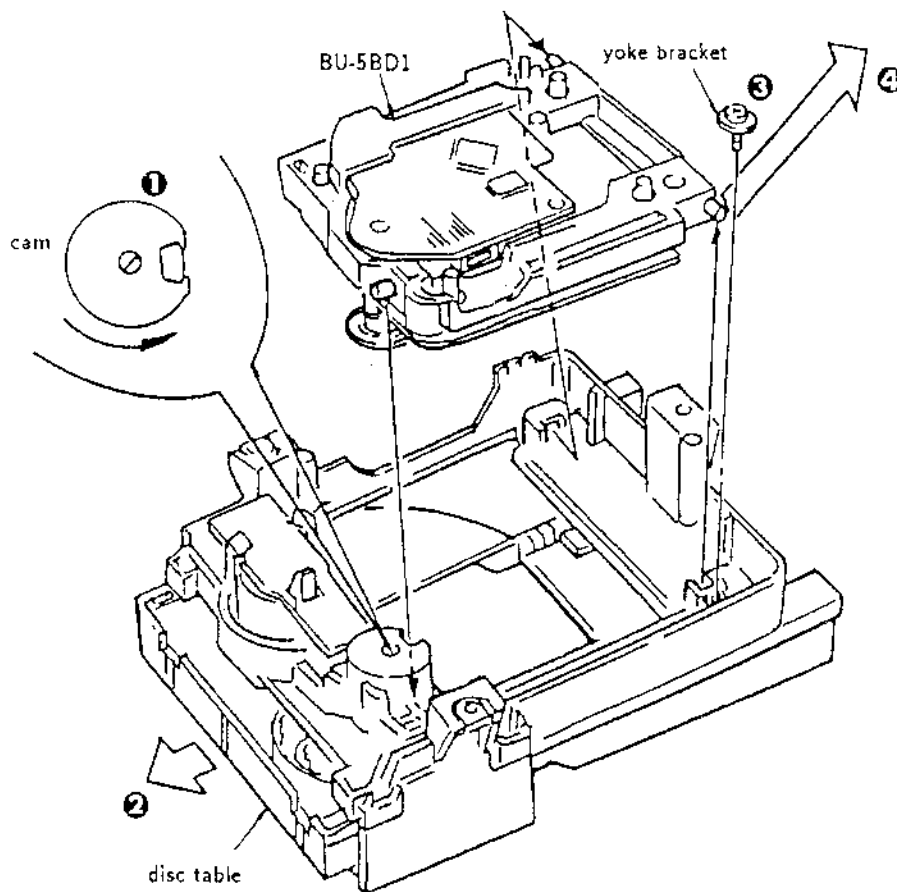


SECTION 2 DISASSEMBLY OF BASE UNIT

Note :

Follow the disassembly procedure in the numerical order given.

- ❶ Turn the cam to the direction of arrow (Counter clock wise) by minus screw driver.
- ❷ Take off the disc table.
- ❸ Remove the yoke bracket.
- ❹ Remove the MD (BU-5BD1) to the direction of arrow.



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

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

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

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30--70g·cm (0.42--0.97oz·inch)
FWD Back tension	CQ-102C	1.5--5.5g·cm (0.020--0.076oz·inch)
FF, REW	CQ-201B	63g·cm or more (0.87oz·inch)

3-2. ELECTRICAL ADJUSTMENTS

0dB = 0.775V (AF)
 0dB = 0.1μV (RF)

CASSETTE DECK SECTION

- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- 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
 TAPE SELECT switch: TYPE 1

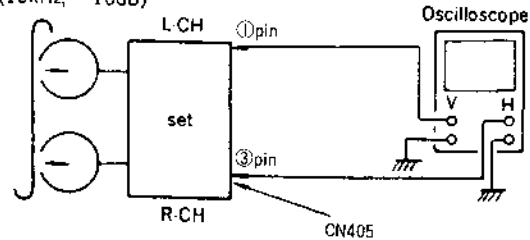
Type	Signal	Used for
P-4 A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

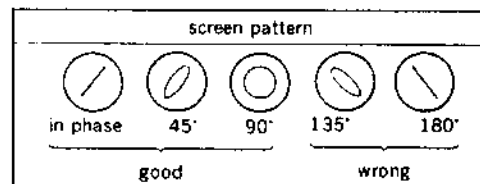
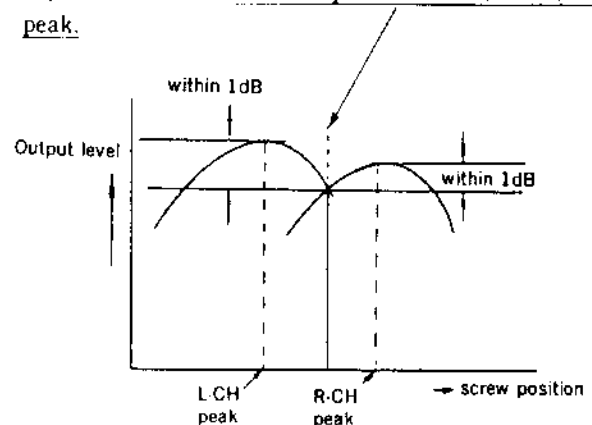
Note: Perform this adjustments for both decks.

Procedure:

- Mode: FWD playback
 test tape
 P-4-A100
 (10kHz, -10dB)

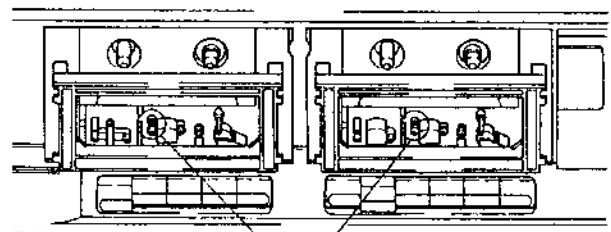


- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



- After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location:

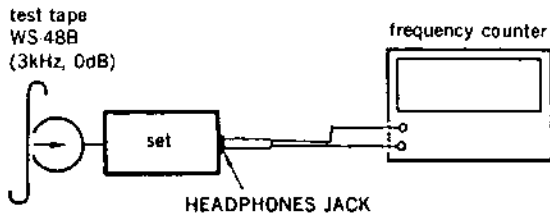


Adjustment screw
 REC/PB head (deck B)
 or PB head (deck A)

Tape Speed Adjustment

Procedure :

Mode : playback



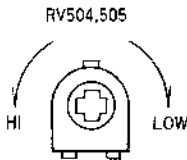
- High speed adjustment

1. Short pin CN407. Then at HIGH speed mode.
2. Adjust RV504 so that the frequency counter reads 6000 ± 20 Hz.
(Must be first Adjustment B deck)

- NORMAL speed adjustment

1. Remove the short pin from CN407. Then at NORMAL speed mode.
2. Adjust RV505 so that the frequency counter reads 3000 ± 10 Hz.

Adjustment Location: TC MAIN board

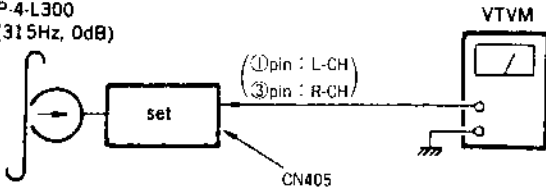


Playback Level Adjustment

Procedure :

Mode : FWD playback

test tape
P-4-L300
(315Hz, 0dB)



DECK-A side RV400(L-CH), RV500(R-CH)
DECK-B side RV401(L-CH), RV501(R-CH)
so that the limits below are satisfied.

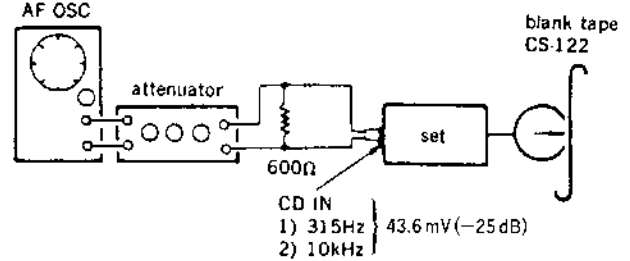
Adjustable limits :

CN405 level: $461.6 - 411.4$ mV (-4.5 - -5.5 dB)
level difference between the channels : within 1.0dB
(See page 6 for Adjustment Location)

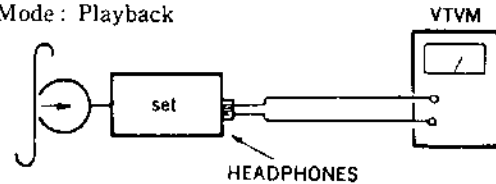
Record BIAS Current Adjustment

Procedure :

1. Mode : record



2. Mode : Playback



- (1) Supply a 43.6 mV (-25dB) signal (315Hz) from the CD IN. Adjust the VOLUME control so that a 24.5 mV (-30dB) signal is output to the headphones terminal.
- (2) Insert alignment tape CS-122 into deck B and put the set into the REC mode.
- (3) Adjust the signal frequency to 10kHz.
- (4) Put the set into the PB mode and adjust RV403(L CH) and RV503(R CH) in the REC mode so that the level difference between 315Hz and 10kHz is within 0 ± 0.5 dB.
- (5) Repeatedly put the set into the REC and PB modes two to four times and adjust the bias.

Adjustable limits :

The HEADPHONES level of 10kHz signal relative to that of 315Hz : 0 dB ± 0.5 dB

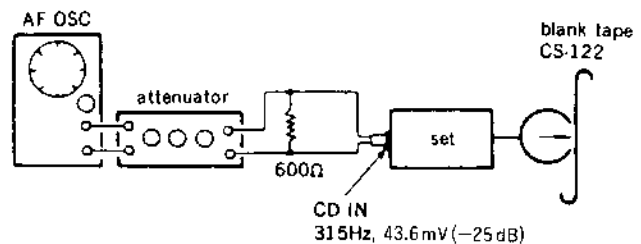
Record Level Adjustment

Setting :

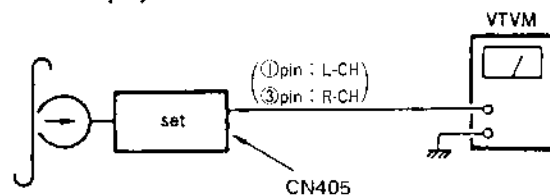
TAPE SELECT : TYPE I

Procedure :

1. Mode : record



2. Mode : playback



- Supply a 43.6mV (-25dB) signal (315Hz) from the CD terminal.
- Insert alignment tape CS-122 into deck B and record the signal. Then playback the recorded portion of the tape and adjust RV402(L-CH) and RV502(R-CH) so that the 43.6mV (-25dB) signal output is obtained at CN405 terminal.

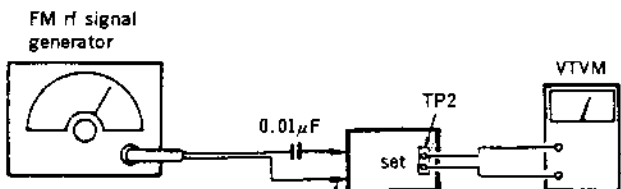
Adjustable limits :

CN405 level : 46.2 - 41.1mV (- 24.5 - - 25.5dB)

TUNER SECTION

As FM FRONT-END FE301 is difficult to repair if faulty, replace it with new one.

FM NULL Adjustment



Carrier frequency : 98MHz
 Output level : 1mV(60dBμ) FM ANTENNA terminal(75Ω)
 Modulation : 1kHz, 75kHz deviation

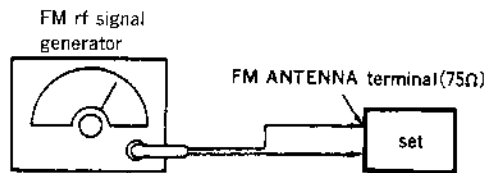
Procedure :

- Tune the set to 98 MHz.
- Adjust T301 for 0V reading on the VTVM.

FM Tuned Level Adjustment

Setting:

STEREO/MUTE : OFF

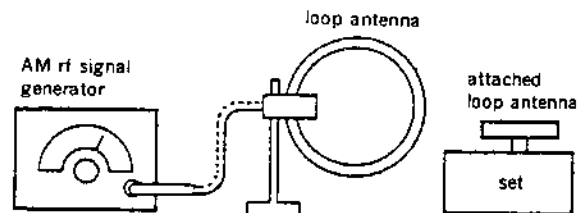


Carrier frequency : 98MHz
 Output level : 0.018mV(25dBμ)
 Modulation : 1kHz, 75kHz deviation

Procedure :

- Tune the set to 98 MHz.
- Adjust RV302 to the point where "TUNED" sign on FL601 just turns light.

• AM SECTION



Carrier frequency : 216kHz
 Modulation : 400Hz, 30% modulation

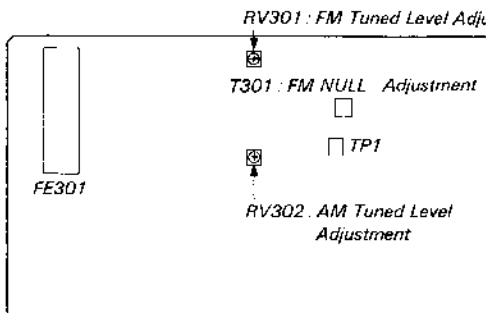
AM Tuned Level Adjustment

• AM BAND

- Set loop antenna input level to 2.5mV (50 dBμ/m) and no signal tuned light should not on.
- Tune the set to 1490kHz.
- Adjust RV301 to the point where "TUNED" sign on FL601 just turns light.

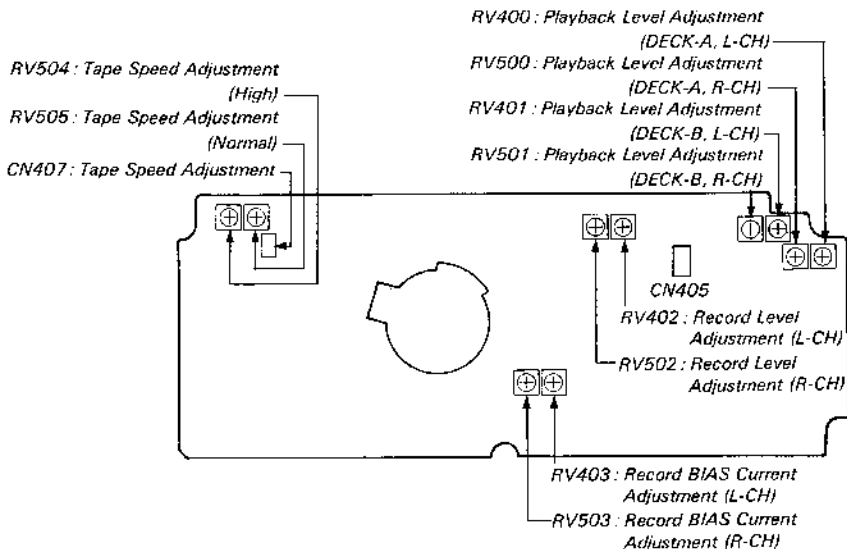
Adjustment Location :

MAIN BOARD (Component side)



Adjustment Location :

TC MAIN BOARD (Component side)



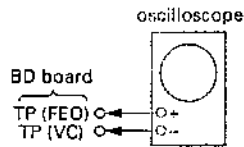
3-3. ELECTRICAL BLOCK CHECKING

CD SECTION

Note :

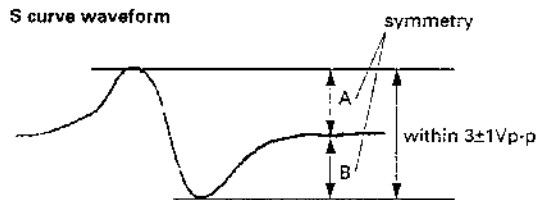
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :

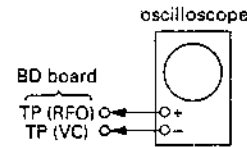
1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3\pm 1Vp-p$.



5. After check, remove the lead wire connected in step 2.

- Note :**
- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

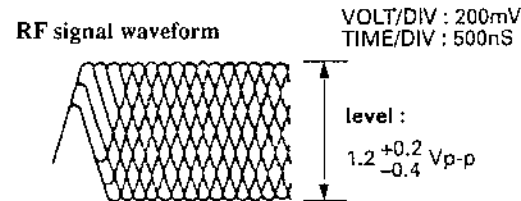


Procedure :

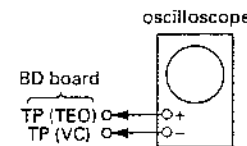
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.



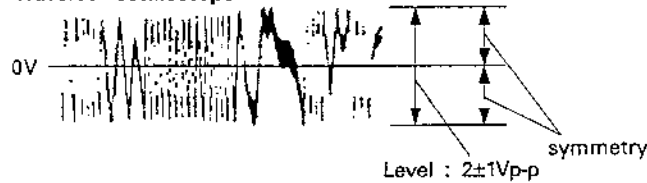
E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

Traverse oscilloscope

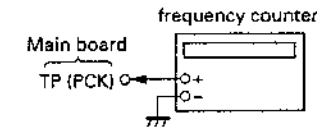


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PCK) with lead wire.



2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

Focus/Tracking Gain

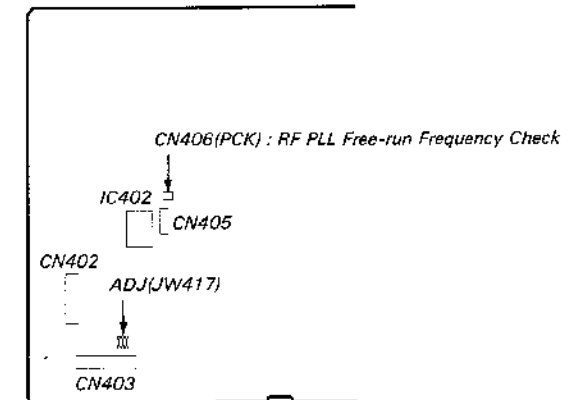
This gain has a margin, so even if it is slightly off.

There is no problem.

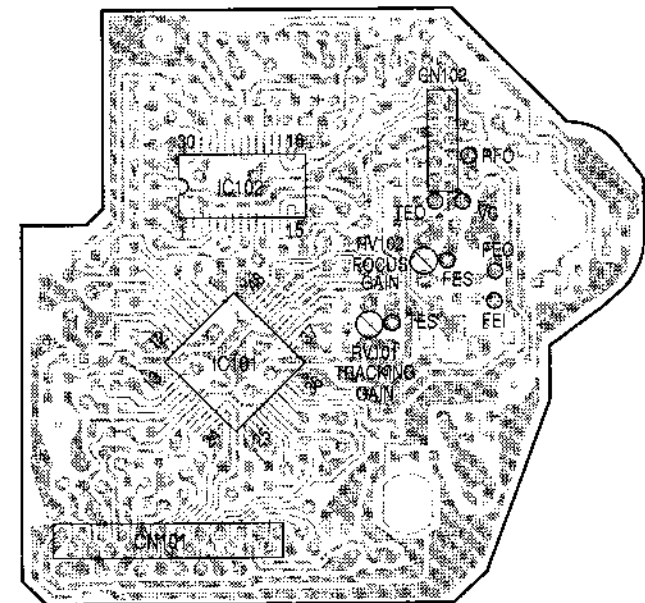
Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

[MAIN BOARD] – Component Side –



[BD BOARD] – Conductor Side –

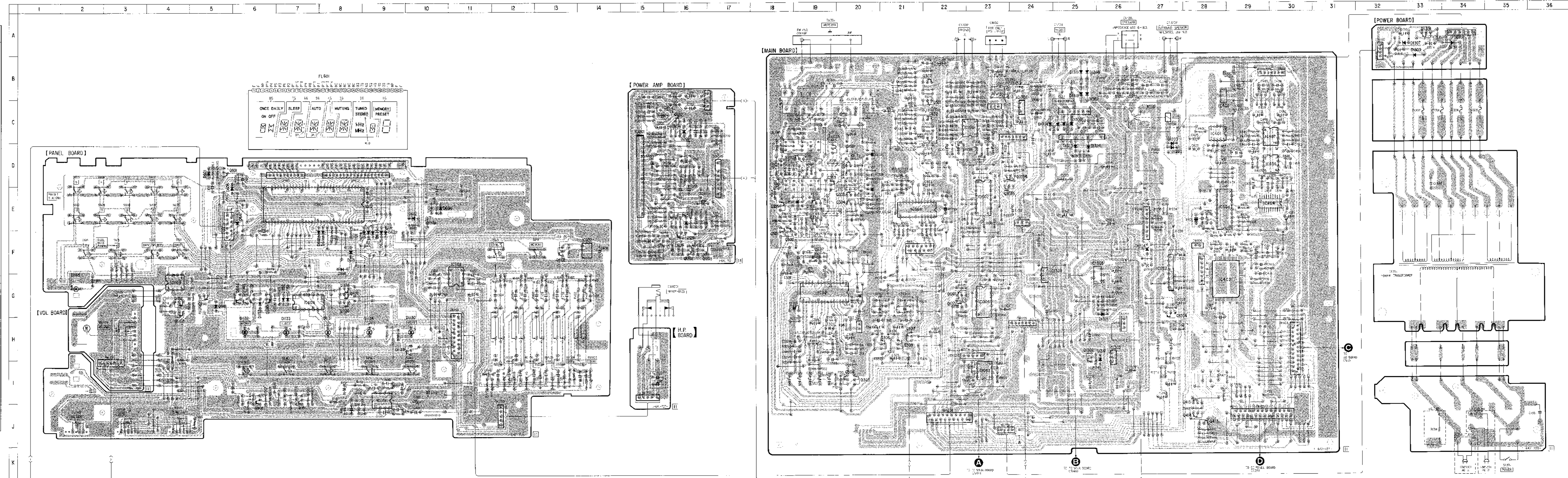


● Semiconductor Location

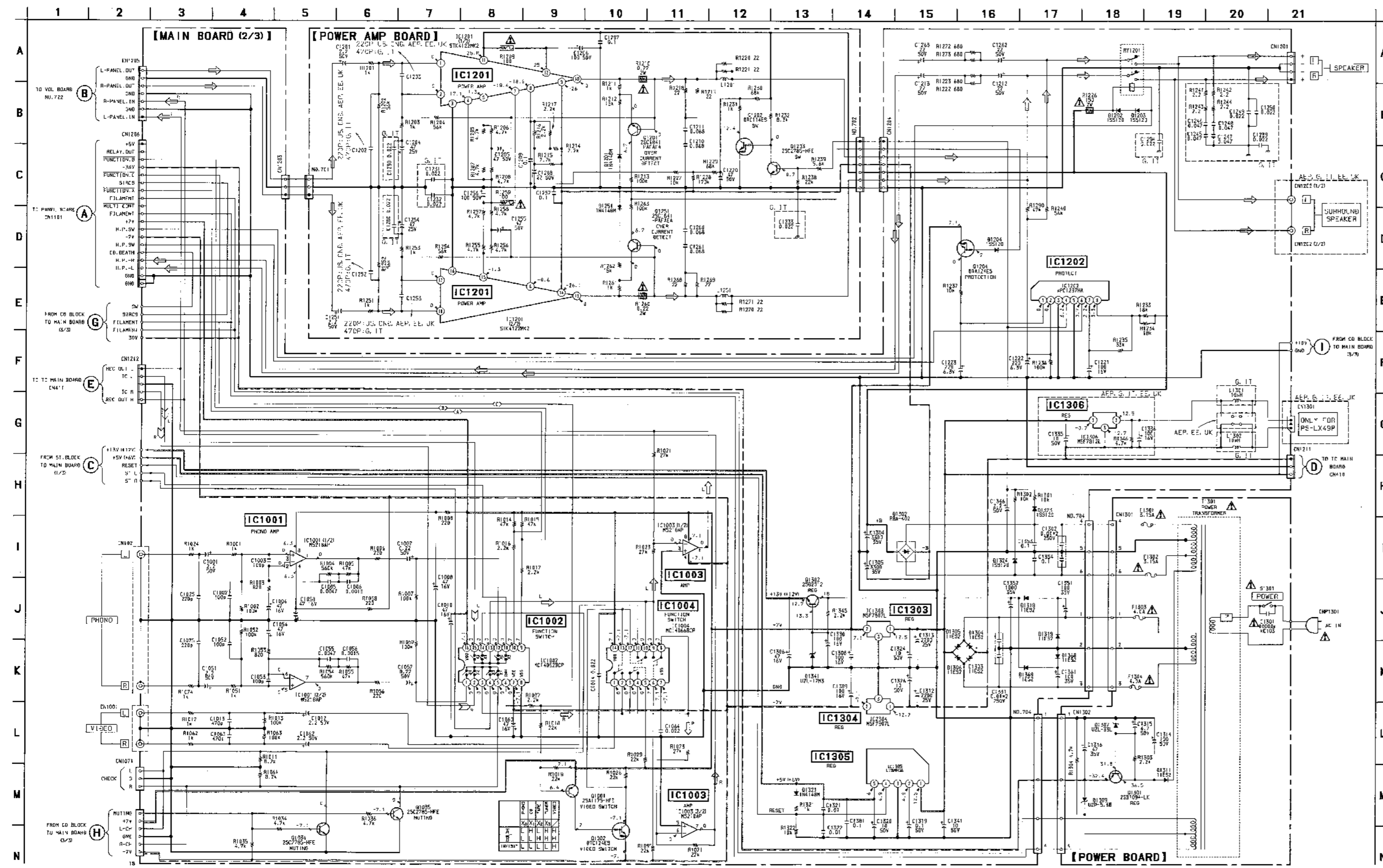
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D351	E-18	IC301	G-19	Q522	C-22
D601	D-5	IC401	C-28	Q531	D-22
D602	E-10	IC402	G-28	Q532	C-22
D603	D-5	IC404	E-30	Q601	D-5
D604	E-10	IC406	D-30	Q602	F-13
D611	F-8	IC407	C-30	Q1001	G-22
D612	F-8	IC501	E-21	Q1002	G-22
D613	F-8	IC601	E-8	Q1034	D-24
D614	F-8	IC602	F-14	Q1035	E-23
D618	G-5	IC1001	C-23	Q1101	I-8
D621	F-9	IC1002	E-23	Q1102	H-4
D624	F-9	IC1003	I-23	Q1121	G-8
D625	F-9	IC1004	G-23	Q1122	G-6
D636	F-9	IC1101	I-9	Q1136	G-8
D641	E-6	IC1102	F-11	Q1138	G-8
D1130	H-10	IC1103	G-4	Q1139	H-9
D1131	H-8	IC1104	G-7	Q1141	G-5
D1132	H-6	IC1201	C-15	Q1143	G-6
D1133	H-7	IC1202	F-27	Q1144	G-6
D1134	H-9	IC1303	H-26	Q1145	G-6
D1145	G-2	IC1304	G-25	Q1151	I-7
D1151	G-7	IC1305	F-25	Q1152	G-4
D1152	G-7	IC1306	C-24	Q1201	C-16
D1153	G-6			Q1202	F-16
D1201	C-16	Q301	D-20	Q1203	F-16
D1202	D-27	Q302	D-20	Q1204	H-27
D1203	C-27	Q303	E-20	Q1251	F-16
D1204	F-27	Q304	E-20	Q1301	A-33
D1251	E-16	Q305	I-20	Q1302	H-25
D1302	C-26	Q306	I-20	Q1303	C-25
D1303	C-25	Q307	H-21	Q1304	C-24
D1304	C-24	Q308	H-21		
D1305	C-25	Q309	H-21		
D1306	C-25	Q351	D-19		
D1307	A-33	Q352	C-19		
D1309	A-33	Q353	D-19		
D1311	A-34	Q354	E-19		
D1318	B-25	Q355	E-18		
D1319	B-25	Q356	E-19		
D1321	H-26	Q413	J-28		
D1323	D-25	Q414	J-28		
D1324	D-25	Q415	J-28		
D1341	H-26	Q501	F-18		
D1368	B-25	Q502	F-18		
D1369	B-25	Q521	C-22		

Note:
● : parts extracted from the component side.

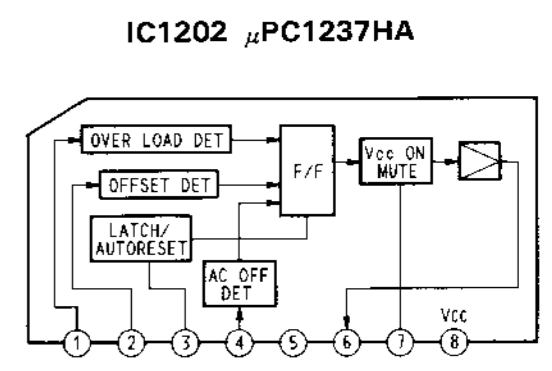
CND: Canadian
G: Germany
IT: Italian
EE: East European



4-2. SCHEMATIC DIAGRAMS -AUDIO Section-



IC Block Diagrams



- Note:**
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
 - Δ : internal component.
 - \square : nonflammable resistor.
 - \square : fusible resistor.
 - \square : printed resistor.

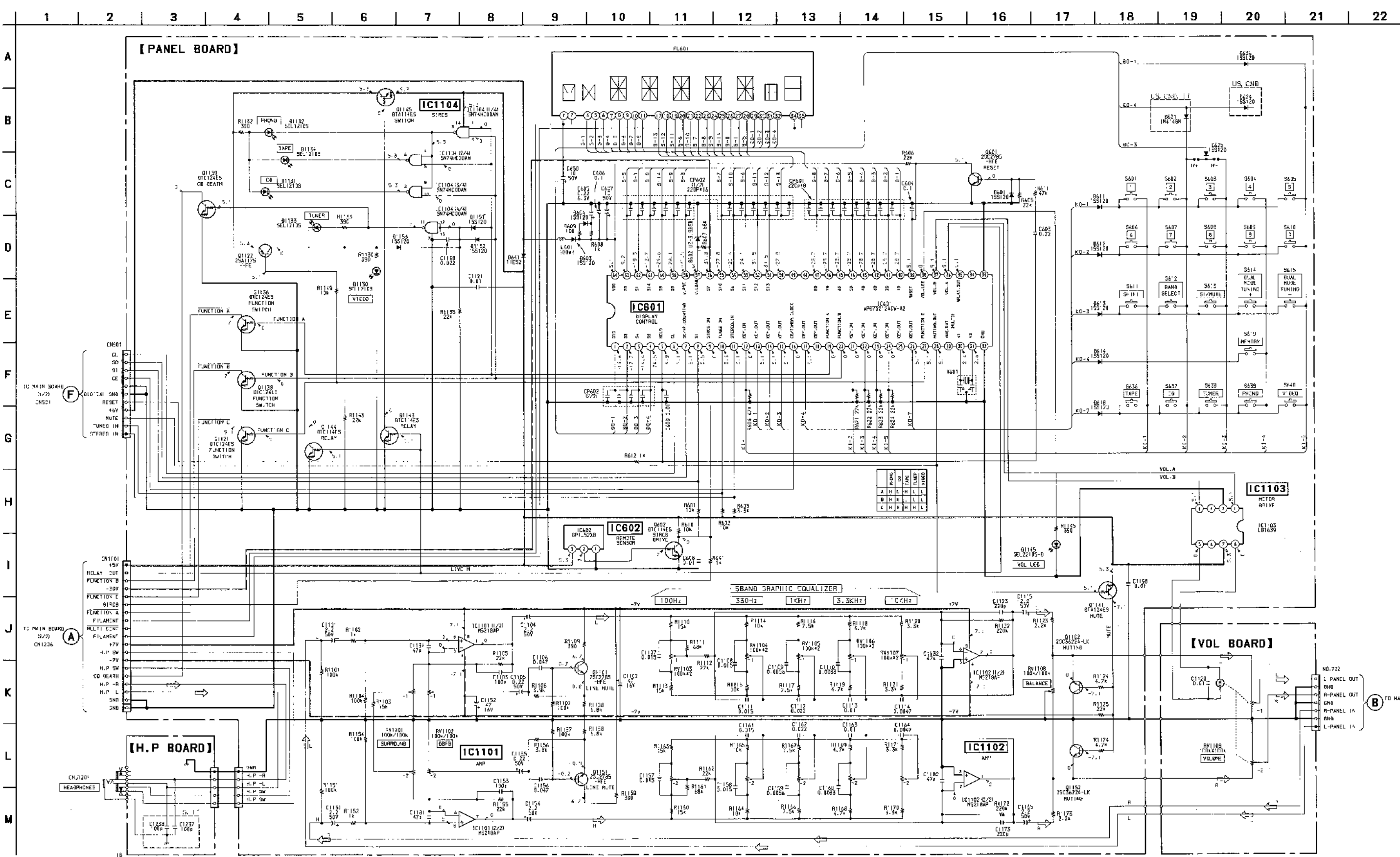
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

- \square : B+ Line
 - \square : B- Line
 - \square : adjustment for repair.
 - Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions
 - Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
 - Signal path
 - \rightarrow : FM \rightarrow : PB (DECK A)
- CND: Canadian
G: Germany
IT: Italian
EE: East European

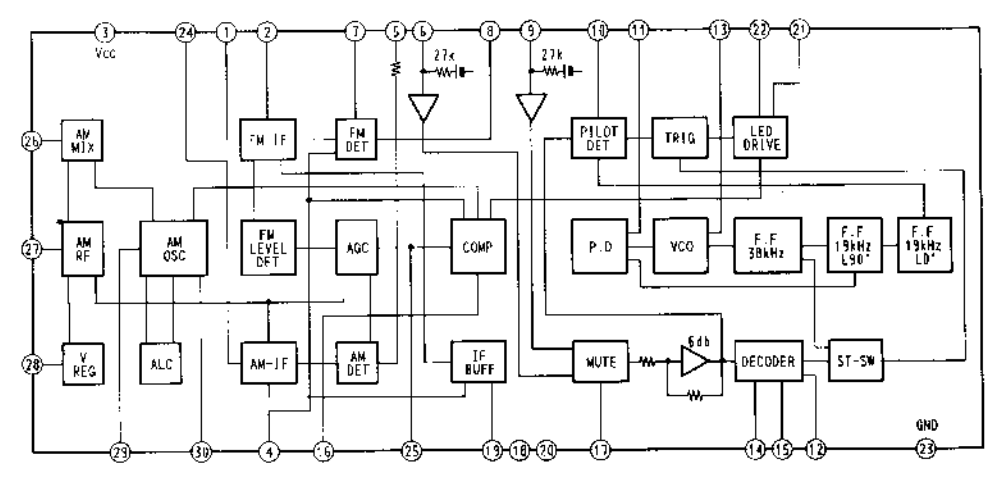
4-3. SCHEMATIC DIAGRAMS -PANEL Section-

• See page 17 for note.

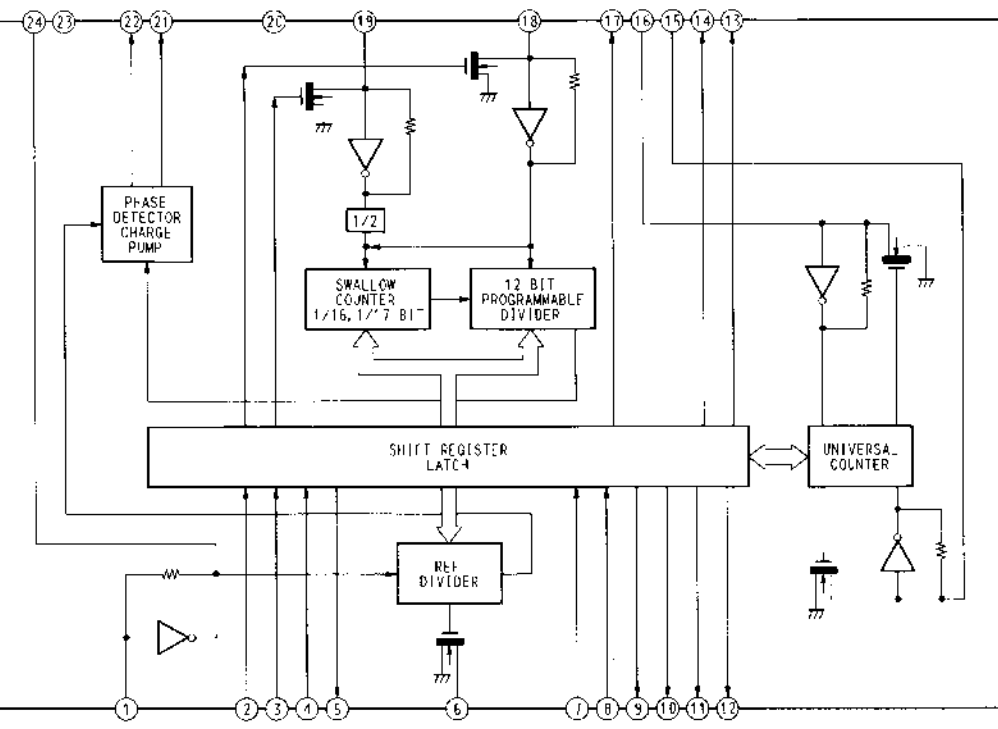


• IC Block Diagrams

IC301 LA1851N

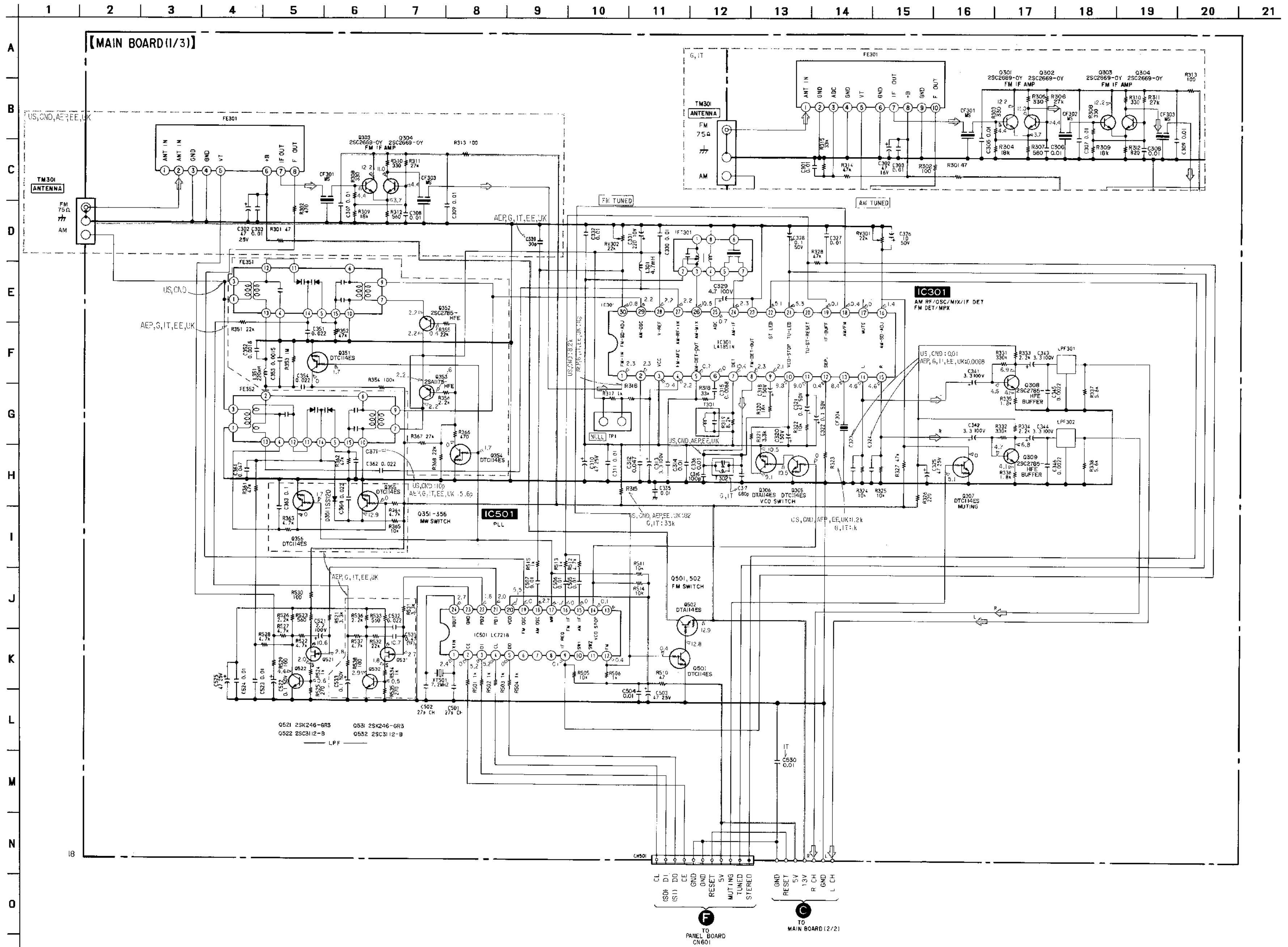


IC501 LC7218

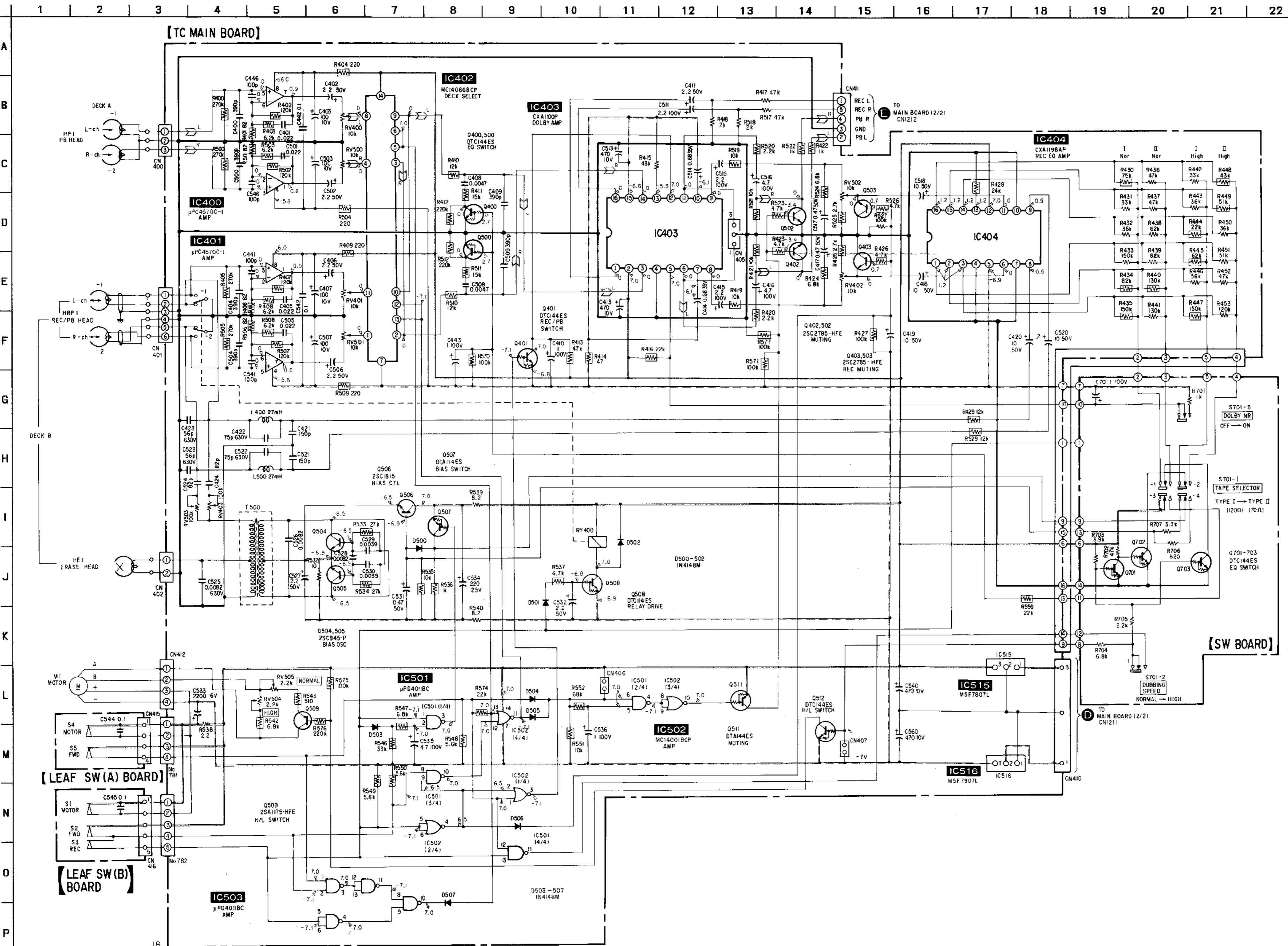


4-4. SCHEMATIC DIAGRAMS -TUNER Section-

• See page 17 for note.

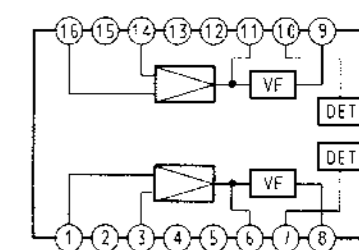


• See page 17 for note.

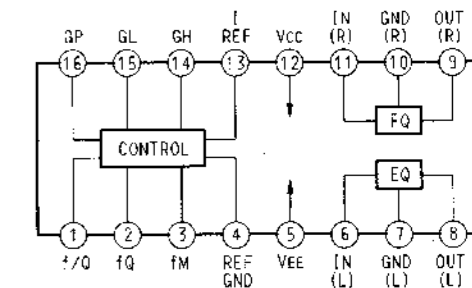


• IC Block Diagrams

IC403 CXA1100AP



IC404 CXA1198AP

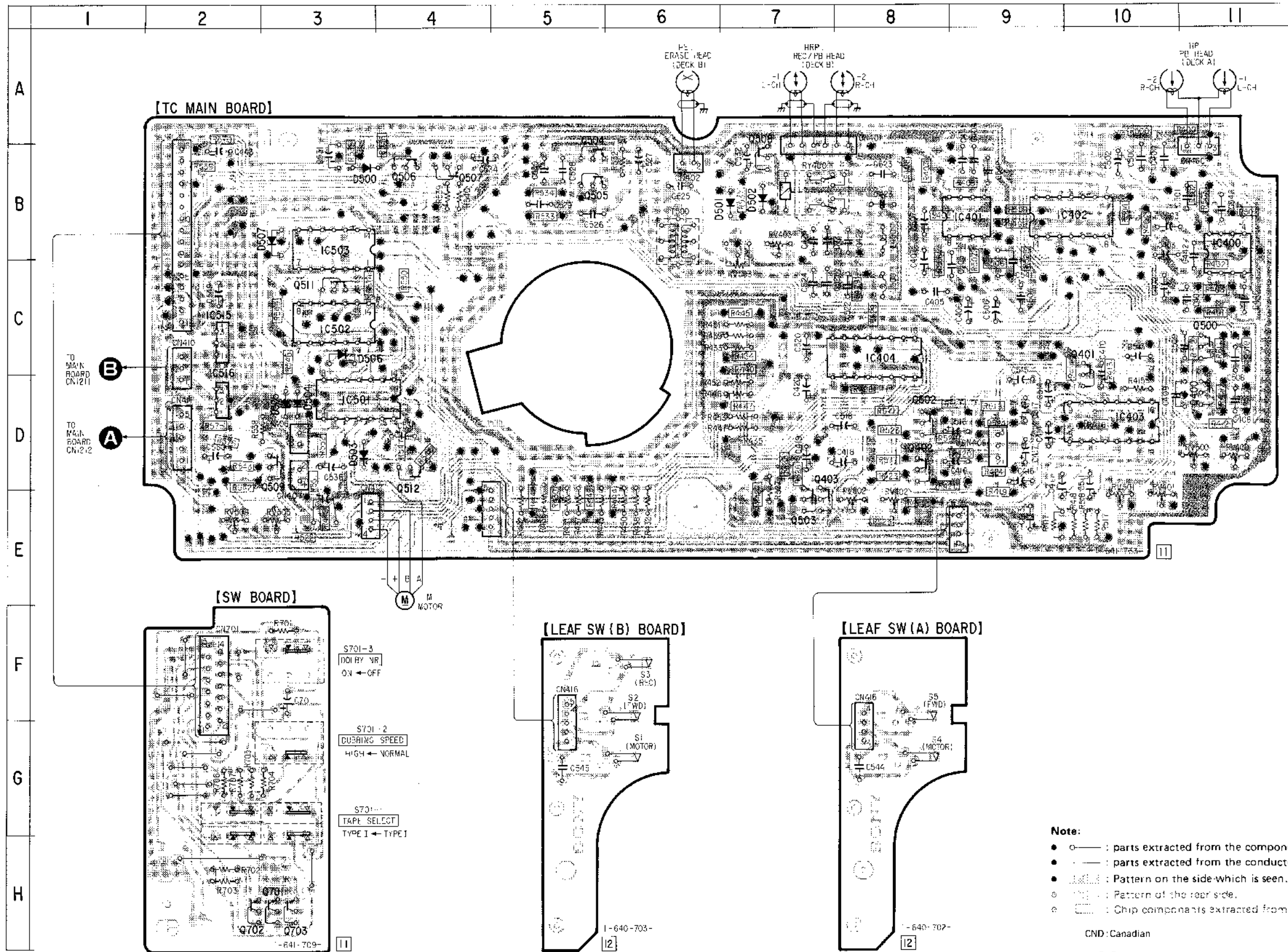


4-6. PRINTED WIRING BOARDS -TC Section-

• See page 34 for circuit boards location and semiconductor lead layouts.

● Semiconductor Location

Ref. No.	Location
D500	B-3
D501	B-7
D502	B-7
D503	D-3
D504	D-3
D505	D-3
D506	C-3
D507	B-3
IC400	B-11
IC401	B-9
IC402	B-10
IC403	D-10
IC404	C-8
IC501	D-3
IC502	C-3
IC503	B-3
IC515	C-2
IC516	D-2
Q400	D-11
Q401	C-10
Q402	D-8
Q403	E-7
Q500	C-11
Q502	D-8
Q503	E-7
Q504	B-5
Q505	B-5
Q506	B-4
Q507	B-4
Q508	B-8
Q509	D-3
Q511	C-3
Q512	D-4
Q701	H-3
Q702	H-2
Q703	H-3



Note:
 ● ○ — : parts extracted from the component side.
 ● ○ — : parts extracted from the conductor side.
 ● ○ — : Pattern on the side which is seen.
 ● ○ — : Pattern of the rear side.
 ● ○ — : Chip components extracted from the rear side.

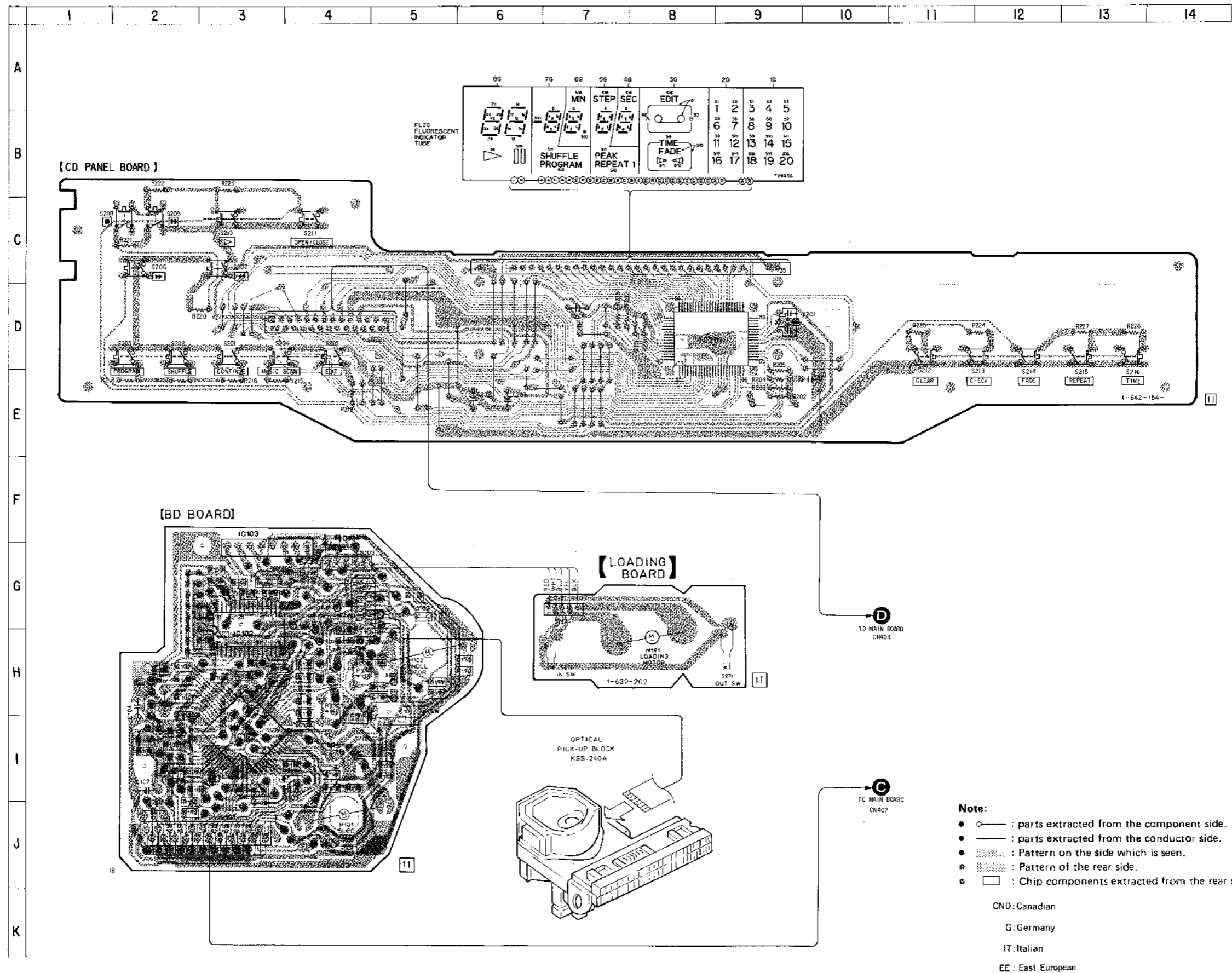
CND: Canadian
 G: Germany
 IT: Italian
 EE: East European

4-7. PRINTED WIRING BOARDS -CD Section-

• See page 34 for circuit boards location and semiconductor lead layouts.

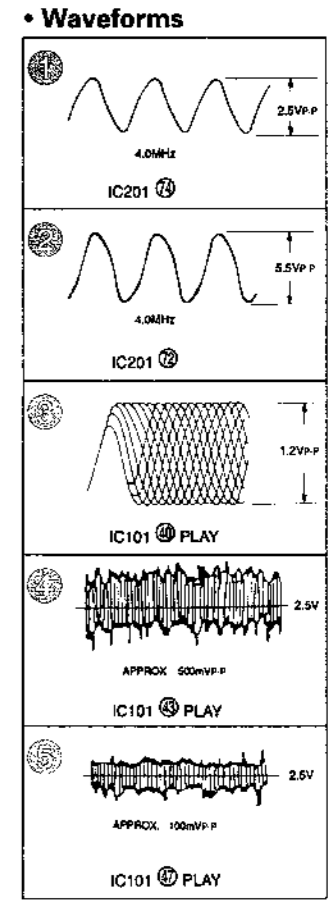
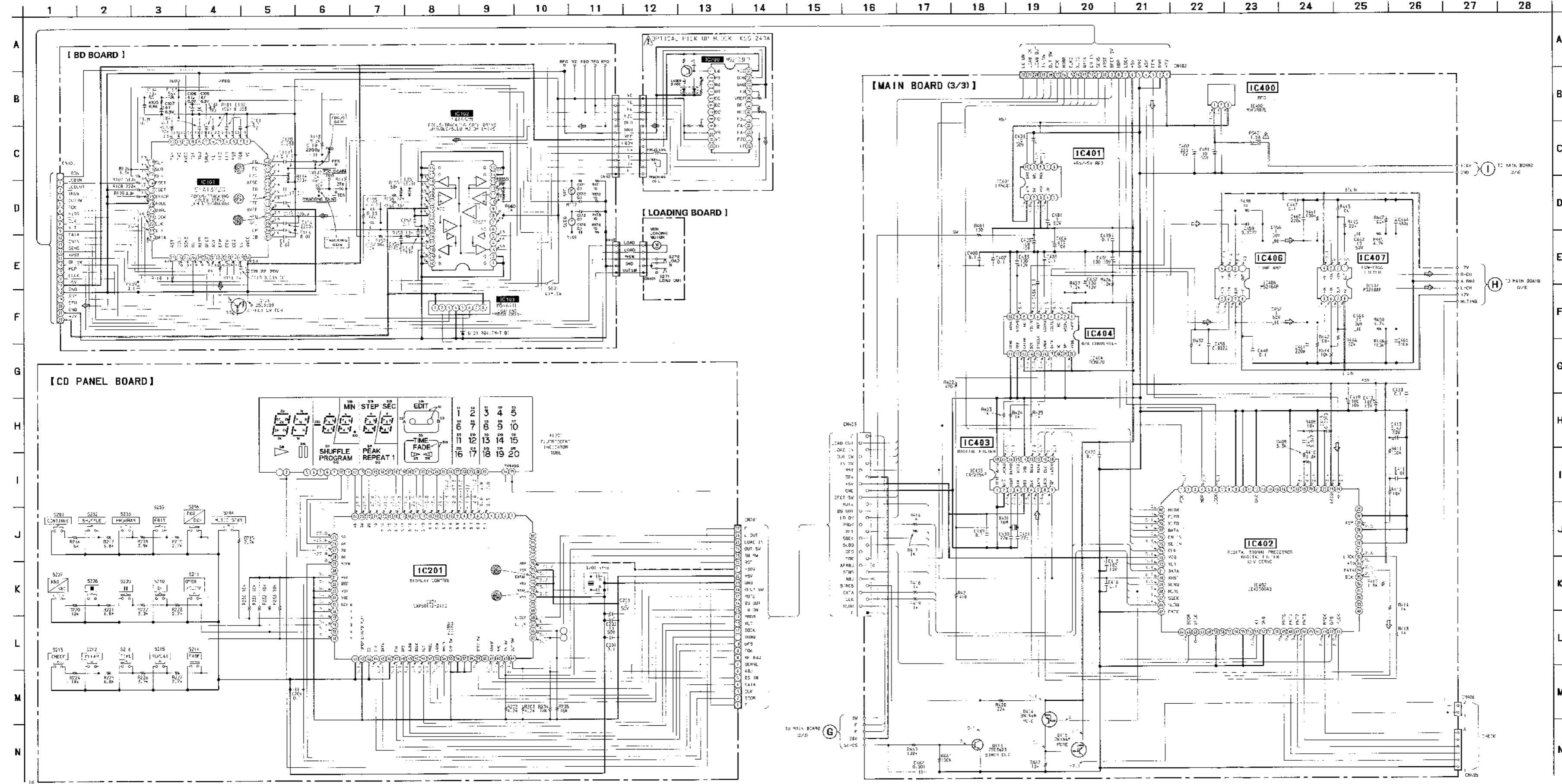
● Semiconductor Location

Ref. No.	Location
D101	F-4
IC101	I-3
IC102	H-3
IC103	F-3
IC201	D-8
Q101	I-4

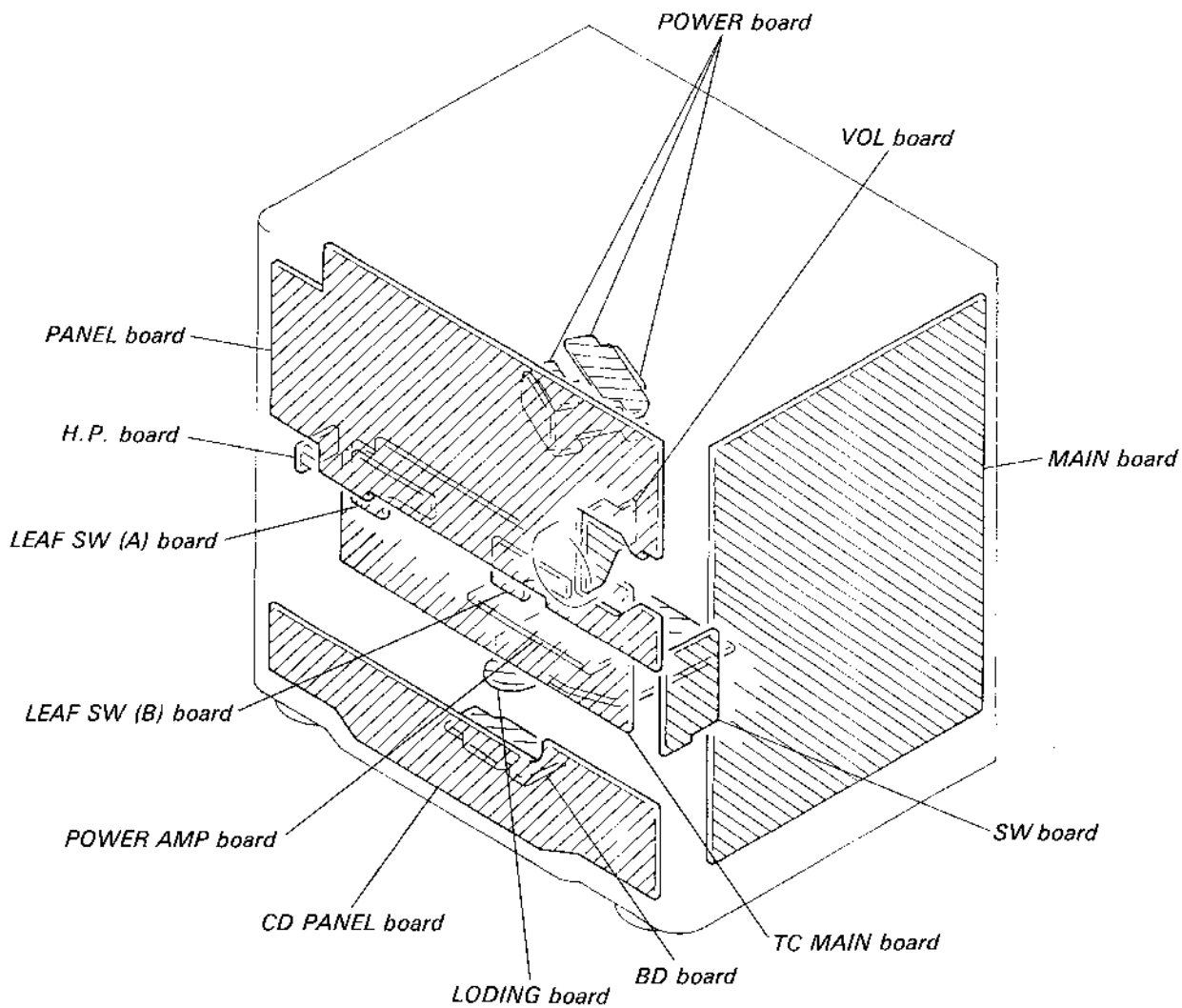


4-8. SCHEMATIC DIAGRAMS -CD Section-

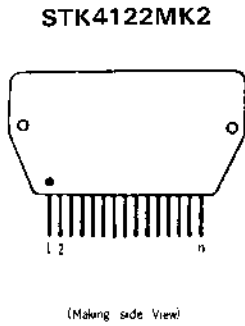
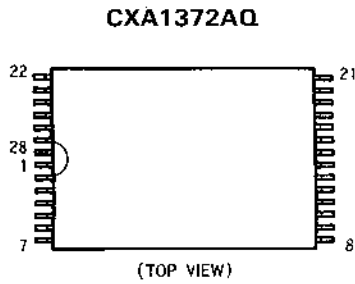
• See page 17 for note.



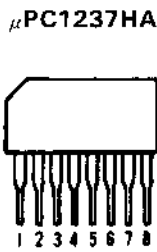
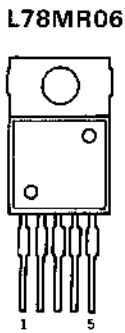
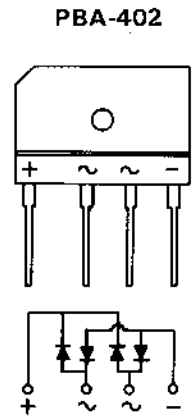
4-9. CIRCUIT BOARDS LOCATION



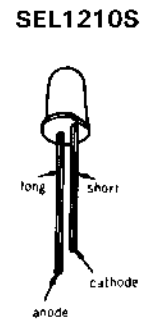
4-10. SEMICONDUCTOR LEAD LAYOUTS



2SC2669-0Y
2SC3623A-LK
DTA114ES
DTA124ES
DTA144ES
DTC114ES
DTC124ES
DTC144ES



2SC3112-B
2SC3623A-LK
2SC945-P



2SA1175-HFE
2SC2785-HFE

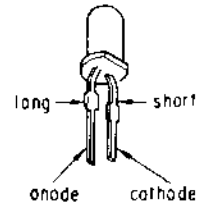


2SK246-GR3

SEL2210S-D



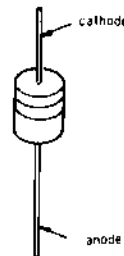
2SB1094-LK
2SC1815-Y
2SD2012



M5F7807L
M5F7812L
M5F7907L



11ES2
1SS120
UZ-3.9BSB
UZL-12M3
UZL-33L
UZP-5.6B



2SC1841-PAFAEA



SECTION 5 EXPLODED VIEWS

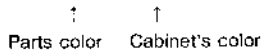
NOTE:

• -XX, -X mean standardized parts, so they may have some differences from the original one

• Color Indication of Appearance Parts

Example:

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

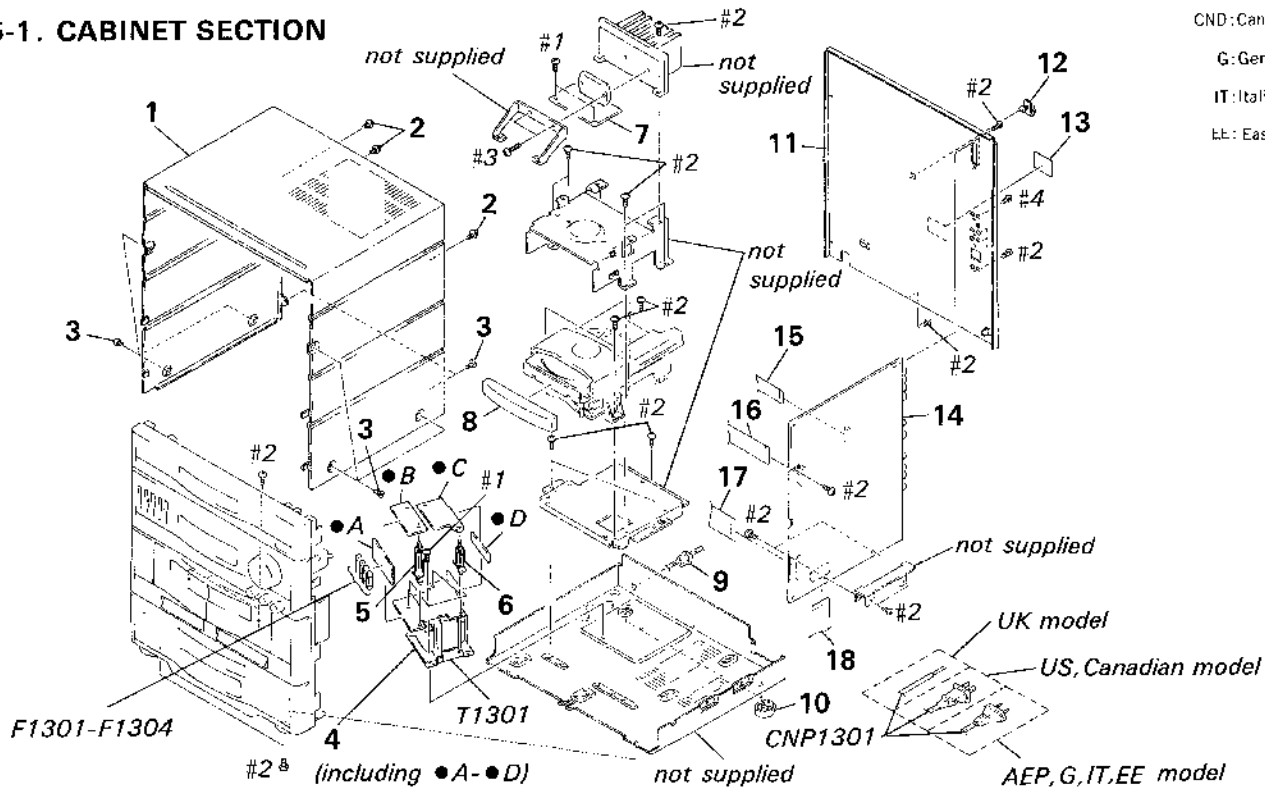


- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

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. CABINET SECTION

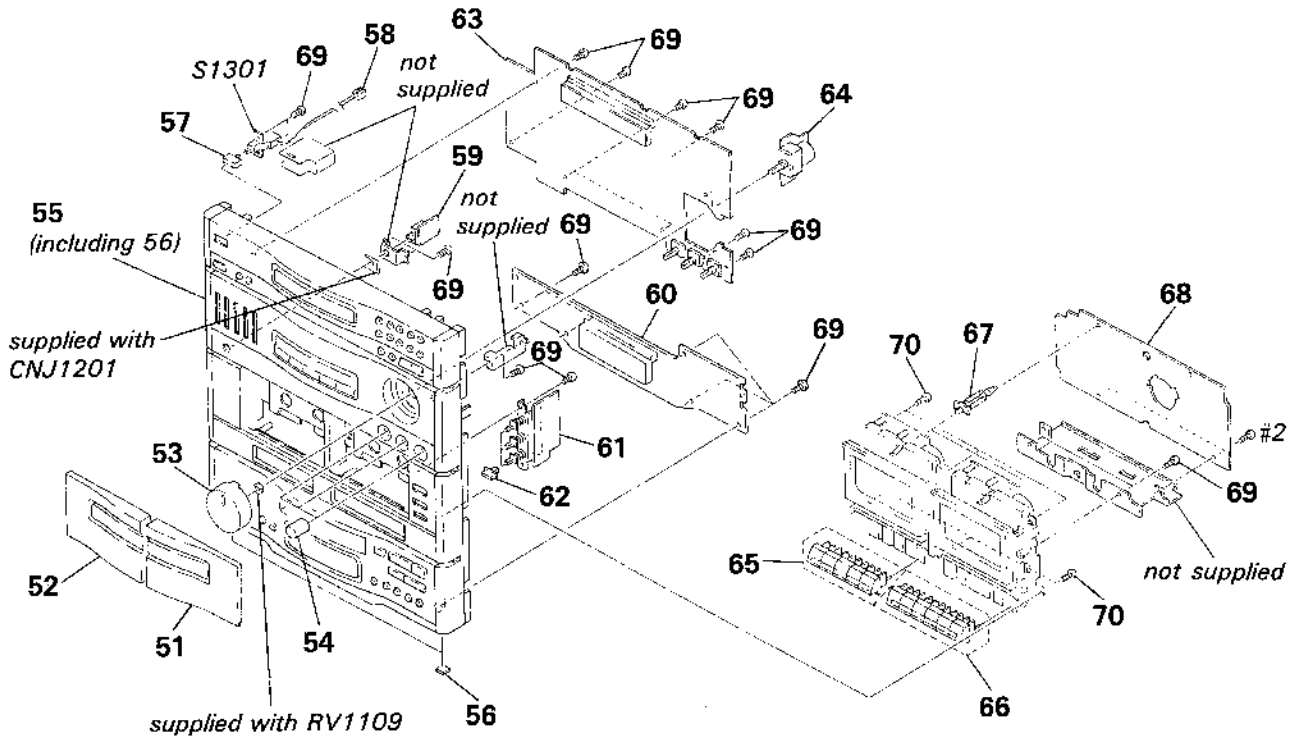


CND: Canadian
G: Germany
IT: Italian
EE: East European

Ref. No.	Part No.	Description	Remark
* 1	4-943-170-32	CASE (CND, AEP, G, EE, UK)	
* 1	4-943-170-62	CASE (US, IT)	
2	4-929-973-01	SCREW (CASE, 3 POINT)	
3	3-363-099-01	SCREW (CASE +3XB TP2)	
* 4	1-642-220-11	POWER BOARD	
* 5	4-924-098-81	HOLDER, PC BOARD (AEP, G, IT, EE, UK)	
* 5	4-943-687-21	HOLDER, PC BOARD (US, CND)	
* 6	4-924-098-31	HOLDER, PC BOARD (AEP, G, IT, EE, UK)	
* 6	4-943-687-11	HOLDER, PC BOARD (US, CND)	
* 7	A-4347-068-A	POWER AMP BOARD, COMPLETE (AEP, EE, UK)	
* 7	A-4347-366-A	POWER AMP BOARD, COMPLETE (G, IT)	
* 7	A-4347-531-A	POWER AMP BOARD, COMPLETE (US, CND)	
8	4-948-253-01	PANEL, LOADING (CND, AEP, G, EE, UK)	
8	4-948-253-11	PANEL, LOADING (US, IT)	
* 9	3-703-244-00	BUSHING (2104), CORD	
10	X-4941-228-1	FOOT ASSY	
* 11	4-948-285-01	PANEL, BACK (UK)	
* 11	4-948-285-21	PANEL, BACK (US)	
* 11	4-948-285-31	PANEL, BACK (CND)	
* 11	4-948-285-51	PANEL, BACK (AEP)	
* 11	4-948-285-61	PANEL, BACK (IT)	
* 11	4-948-285-81	PANEL, BACK (G)	
* 11	4-948-285-91	PANEL, BACK (EE)	
* 12	4-948-235-01	HOOK	

Ref. No.	Part No.	Description	Remark
* 13	4-941-548-01	LABEL, CLASS 1 (AEP, G, UK, EE, IT)	
* 14	A-4347-065-A	MAIN BOARD, COMPLETE (AEP, UK)	
* 14	A-4347-362-A	MAIN BOARD, COMPLETE (G, IT)	
* 14	A-4347-521-A	MAIN BOARD, COMPLETE (US, CND)	
* 14	A-4347-896-A	MAIN BOARD, COMPLETE (EE)	
15	1-590-459-11	WIRE, FLAT TYPE (11 CORE)	
16	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
17	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
18	1-590-901-11	WIRE, FLAT TYPE (22 CORE)	
	CNP13011-575-651-61	CORD, POWER (AEP, G, IT, EE)	
	CNP13011-575-652-21	CORD, POWER (UK)	
	CNP13011-690-609-11	CORD, POWER (US, CND)	
	F1301	1-532-237-00 FUSE, TIME LAG (T3, 15A) (AEP, G, IT, EE, UK)	
	F1301	1-576-107-11 FUSE (T3, 15A) (US, CND)	
	F1302	1-532-237-00 FUSE, TIME LAG (T3, 15A) (AEP, G, IT, EE, UK)	
	F1302	1-576-107-11 FUSE (T3, 15A) (US, CND)	
	F1303	1-532-350-00 FUSE, TIME LAG (T4, 0A) (AEP, G, IT, EE, UK)	
	F1303	1-576-108-11 FUSE (T4, 0A) (US, CND)	
	F1304	1-532-350-00 FUSE, TIME LAG (T4, 0A) (AEP, G, IT, EE, UK)	
	F1304	1-576-108-11 FUSE (T4, 0A) (US, CND)	
	T1301	1-450-595-11 TRANSFORMER, POWER (AEP, G, IT, EE)	
	T1301	1-450-783-11 TRANSFORMER, POWER (UK)	
	T1301	1-450-817-11 TRANSFORMER, POWER (US)	
	T1301	1-450-818-11 TRANSFORMER, POWER (CND)	

5-2. FRONT PANEL SECTION

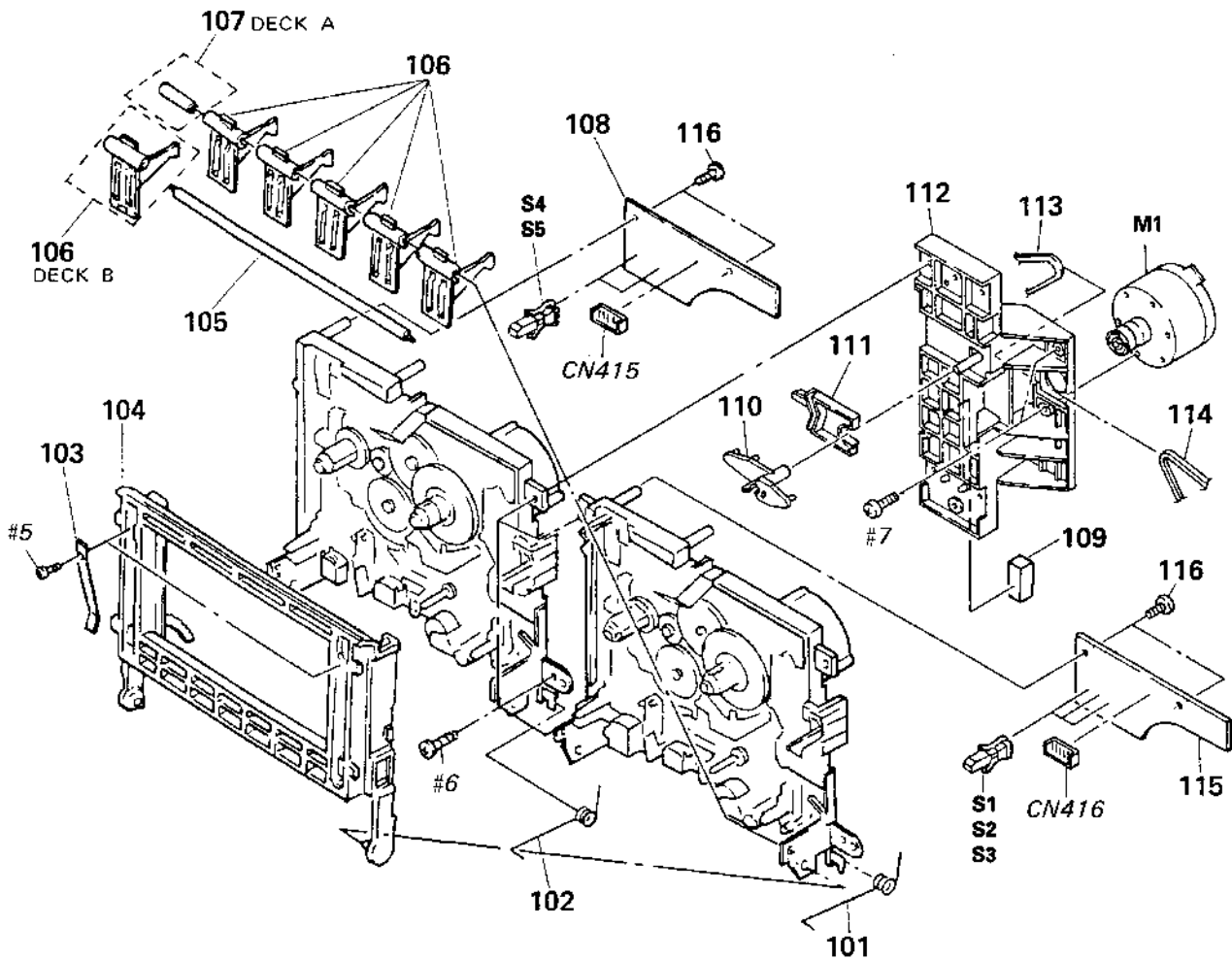


Ref. No.	Part No.	Description	Remark
51	A-4325-347-A	LID (B) ASSY, CASSETTE (CND, AEP, G, EE, UK)	
51	A-4325-423-A	LID (B) ASSY, CASSETTE (US, IT)	
52	A-4325-346-A	LID (A) ASSY, CASSETTE (CND, AEP, G, EE, UK)	
52	A-4325-422-A	LID (A) ASSY, CASSETTE (US, IT)	
53	A-4323-382-A	KNOB (VO) ASSY	
54	4-948-270-01	KNOB (DSB)	
55	A-4325-407-A	PANEL ASSY, FRONT (AEP, G, EE, UK)	
55	A-4325-519-A	PANEL ASSY, FRONT (IT)	
55	A-4325-548-A	PANEL ASSY, FRONT (CND)	
55	A-4325-558-A	PANEL ASSY, FRONT (US)	
56	4-948-236-01	CUSHION (107)	
57	4-930-783-11	BUTTON (PO)	
58	1-690-708-11	CORD (WITH CONNECTOR)	
* 59	1-641-707-11	H. P. BOARD	
* 60	A-4347-069-A	CD PANEL BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
* 61	1-641-709-11	SW BOARD	
62	4-948-257-01	BUTTON (DDT)	
* 63	A-4347-061-A	PANEL BOARD, COMPLETE (AEP, G, UK)	
* 63	A-4347-360-A	PANEL BOARD, COMPLETE (IT)	
* 63	A-4347-519-A	PANEL BOARD, COMPLETE (US, CND)	
* 63	A-4347-894-A	PANEL BOARD, COMPLETE (EE)	
* 64	1-641-706-11	VOL BOARD	
65	4-948-258-01	BUTTON (MD-A)	
66	4-948-259-01	BUTTON (MD-B)	
* 67	4-924-098-31	HOLDER, PC BOARD	
* 68	A-4345-901-A	TC MAIN BOARD, COMPLETE (US, AEP, G, IT, EE, UK)	
* 68	A-4347-525-A	TC MAIN BOARD, COMPLETE (CND)	
69	4-928-635-01	SCREW, +8V (2.6X8) TAPPING	
70	4-928-635-21	SCREW, +8V (2.6X10) TAPPING	
⚠ S1301	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	

<p>The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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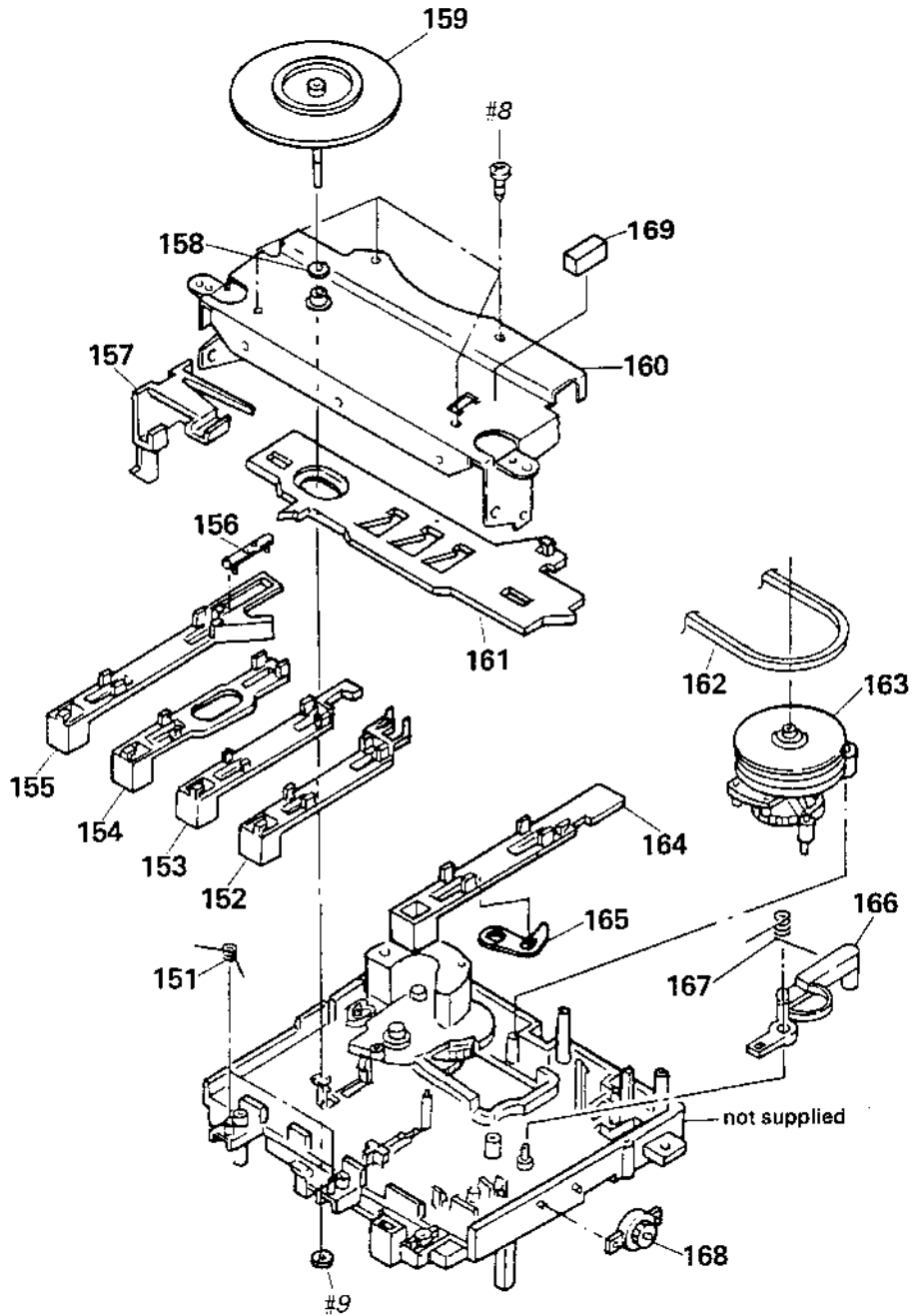
5-3. MECHANISM DECK SECTION-1
(TCM-180VW-H7)



Ref. No.	Part No.	Description	Remark
101	3-358-287-01	SPRING (LOADING A). TORSION	
102	3-358-229-01	SPRING (LOADING). TORSION	
103	3-358-209-01	SPRING (CASSETTE HOLDER). LEAF	
104	3-358-266-02	HOLDER, CASSETTE	
105	3-371-917-01	SHAFT (BUTTON SHAFT 4)	
106	3-369-335-01	LEVER (BUTTON BASE F)	
* 107	3-358-216-01	COLLAR (DECK A)	
* 108	1-640-702-12	LEAF SW (A) BOARD	
* 109	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
110	3-358-203-01	LEVER (TRIGGER)	
111	3-358-202-01	SLIDER (TRIGGER)	
* 112	3-363-930-01	BRACKET (JOINT BASE)	

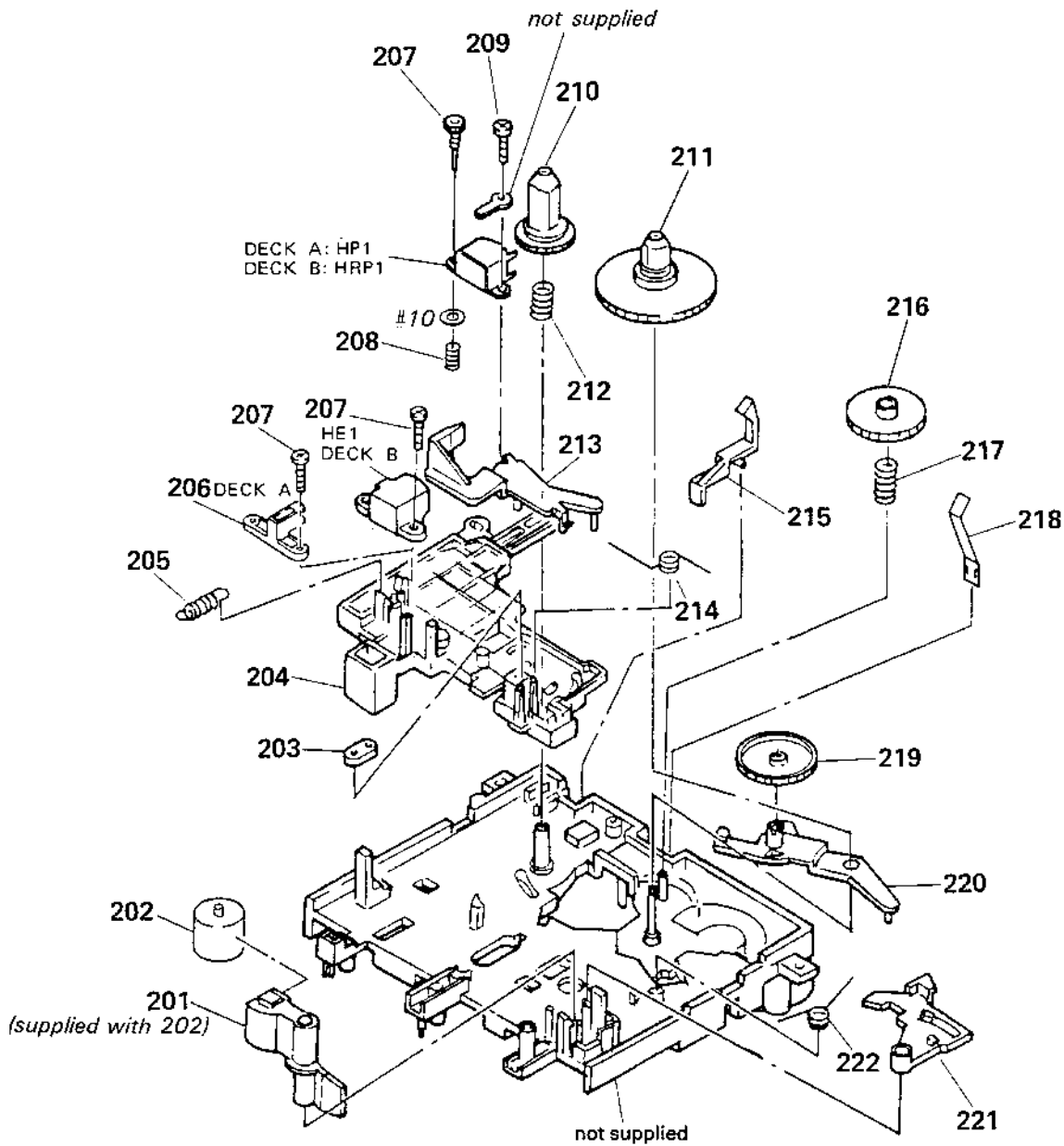
Ref. No.	Part No.	Description	Remark
113	3-358-230-01	BELT (A1)	
114	3-364-777-01	BELT (WH)	
* 115	1-640-703-12	LEAF SW (B) BOARD	
116	4-928-635-01	SCREW +BV (2.6X8) TAPPING	
* CN415	1-568-942-11	PIN, CONNECTOR 4P	
* CN416	1-568-943-11	PIN, CONNECTOR 5P	
M1	X-3362-377-1	MOTOR (WH) ASSY	
S1	1-571-736-11	SWITCH, LEAF (MOTOR)	
S2	1-571-736-11	SWITCH, LEAF (FWD)	
S3	1-571-736-11	SWITCH, LEAF (REC)	
S4	1-571-736-11	SWITCH, LEAF (MOTOR)	
S5	1-571-736-11	SWITCH, LEAF (FWD)	

5-4. MECHANISM DECK SECTION-2
(TCM-180VW-H7)



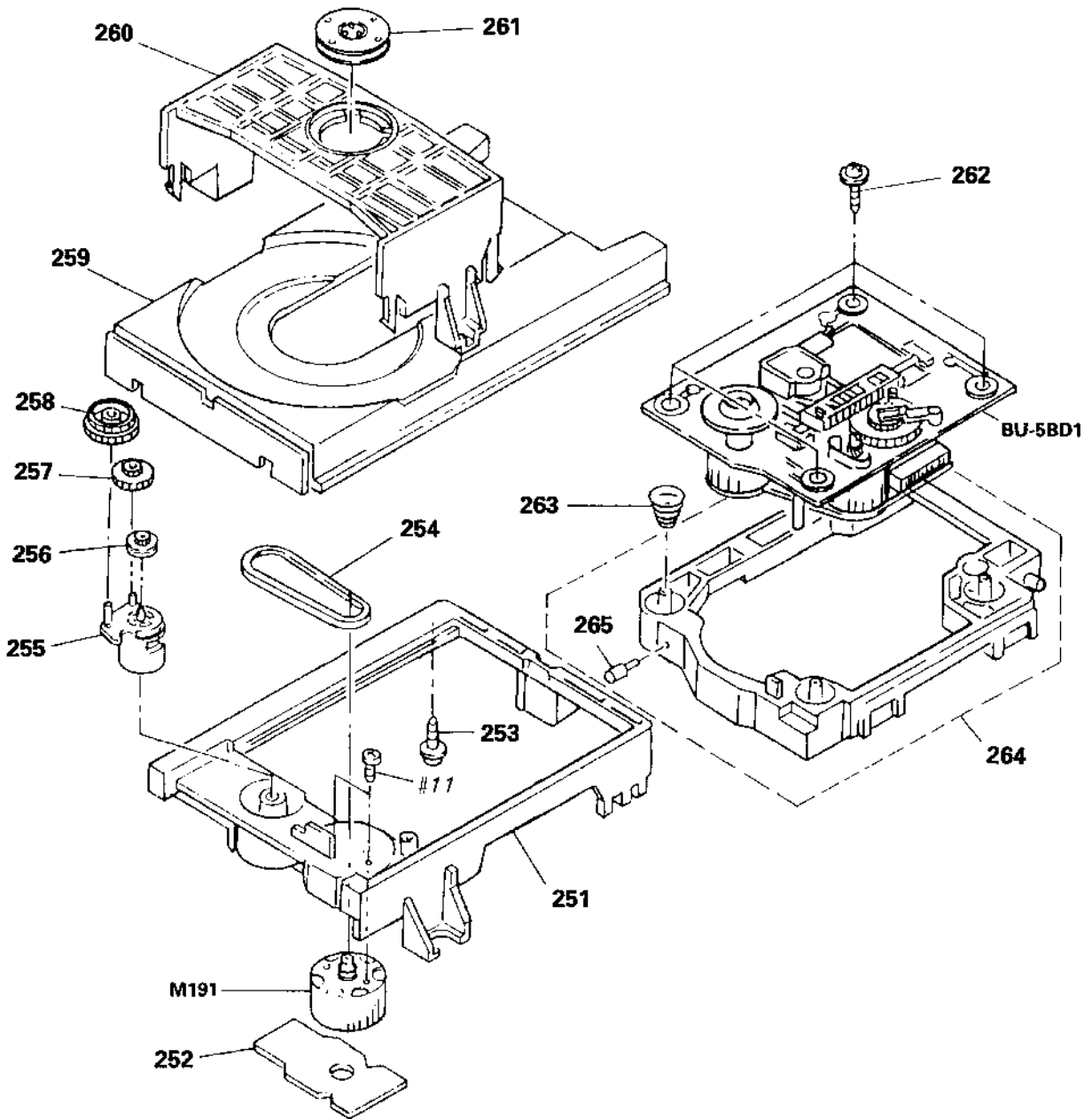
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-358-232-01	SPRING (S-P F-R), TORSION		* 161	3-358-249-01	SLIDER (LOCK PLATE)	
152	3-358-258-01	SLIDER (REW)		162	3-358-230-01	BELT (A1)	
153	3-358-257-01	SLIDER (FF)		163	X-3358-202-1	LEVER (FR ARM) ASSY	
154	3-358-256-01	SLIDER (STOP/EJECT)		164	3-358-259-01	SLIDER (REC) (DECK B)	
155	3-358-260-01	SLIDER (PAUSE)		* 165	3-358-204-01	LEVER (REC SAFETY) (DECK B)	
* 156	3-358-226-01	LEVER (PAUSE LEVER)		166	3-358-286-01	LEVER (MOTOR LEVER)	
* 157	3-358-261-02	SLIDER (HOLDER LOCK)		167	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
158	3-701-437-01	WASHER		167	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
159	X-3358-205-1	FLYWHEEL (A) ASSY (DECK A)		168	3-319-224-41	DAMPER, SMALL	
159	X-3358-206-1	FLYWHEEL (B) ASSY (DECK B)		* 169	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
* 160	X-3358-208-1	BRACKET (B) ASSY					

5-5. MECHANISM DECK SECTION-3
(TCM-180VW-H7)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	X-3358-204-1	LEVER (PINCH LEVER) ASSY		214	3-358-228-01	SPRING, TORSION	
202	3-578-143-11	PINCH ROLLER		* 215	3-358-255-01	LEVER (GB LEVER)	
* 203	3-358-215-01	BUSHING (WIRE KIT RETAINER)		* 216	3-358-224-01	GEAR (FF GEAR)	
204	3-358-265-01	SLIDER (HEAD PC BOARD A)		217	3-358-207-01	SPRING (FF GEAR), COMPRESSION	
205	3-358-217-01	SPRING, TENSION		218	3-358-227-01	SPRING, LEAF	
* 206	3-363-931-01	GUIDE, TAPE (DECK A)		* 219	3-358-284-01	GEAR (TU GEAR)	
207	3-358-288-11	SCREW (T), AZIMUTH		* 220	3-358-252-01	LEVER (TU ARM)	
208	3-358-234-01	SPRING (AZIMUTH), COMPRESSION		* 221	3-358-253-01	LEVER (SHUT-OFF LEVER)	
209	3-358-288-01	SCREW (T), AZIMUTH		222	3-358-243-01	SPRING (TU-SHUT), TORSION	
210	3-358-248-01	GEAR (SUPPLY REEL)		HE1	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
211	X-3358-203-1	TABLE (T) ASSY, REEL		HP1	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
212	3-358-208-01	SPRING (SUPPLY), COMPRESSION		HRP1	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
* 213	3-358-251-01	LEVER (TENSION DETECTION ARM)					

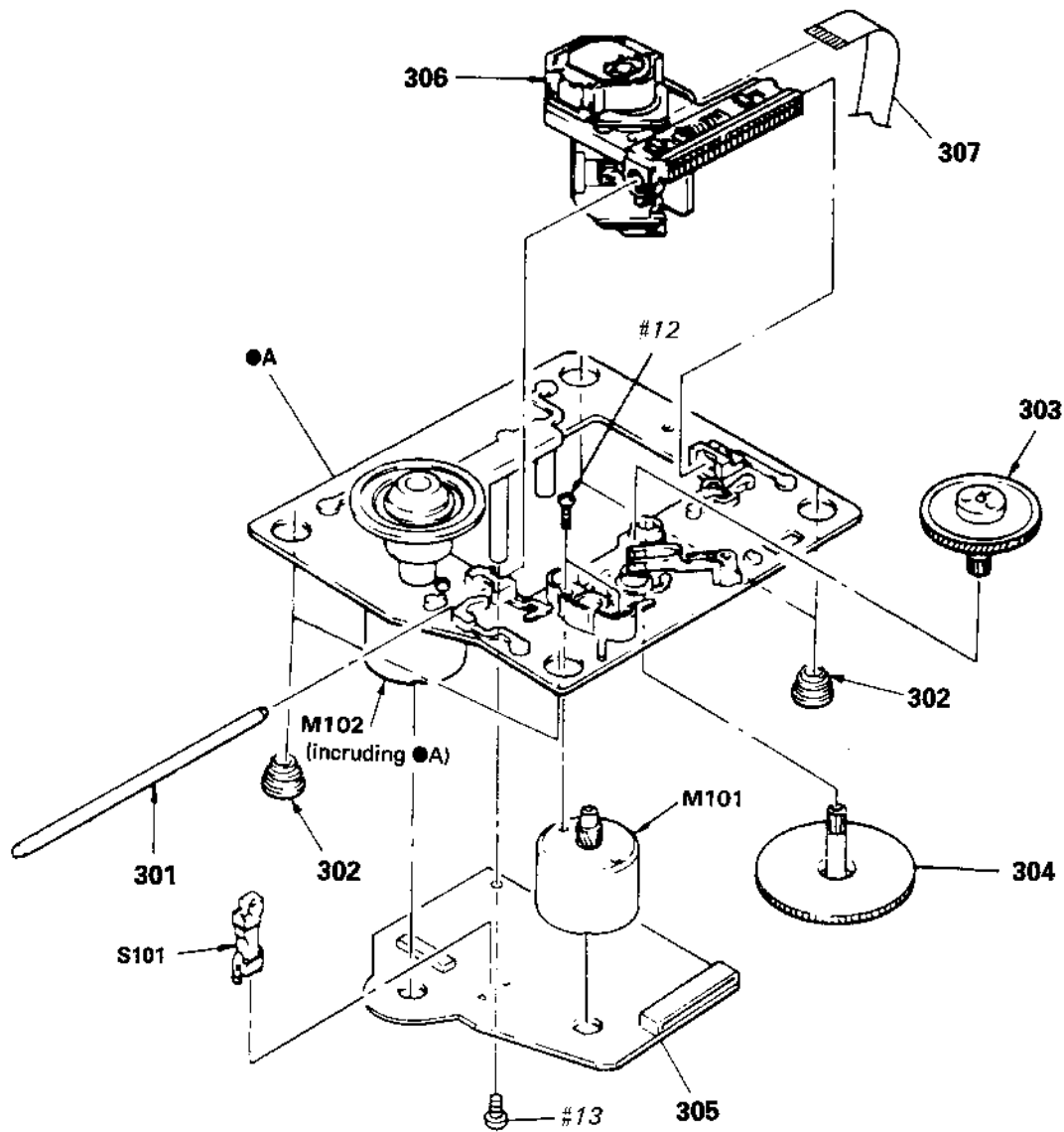
5-6. CD MECHANISM SECTION



Ref. No.	Part No.	Description	Remark
251	4-933-111-01	CHASSIS (MD)	
252	* 1-632-202-11	LOADING BOARD	
253	* 4-917-583-21	BRACKET, YOKE	
254	4-927-649-01	BELT	
255	4-933-109-01	CAM	
256	4-927-651-01	PULLEY (S)	
257	4-927-628-01	GEAR (C)	
258	4-933-107-01	GEAR (PL)	

Ref. No.	Part No.	Description	Remark
259	4-949-336-01	TABLE, DISK	
260	4-933-110-01	HOLDER (MG)	
261	* 1-452-538-11	MAGNET	
262	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
263	4-917-541-01	SPRING (B)	
264	4-933-129-04	HOLDER (BU)	
265	4-933-108-01	SHAFT (CAM)	
M191	A-4604-363-A	MOTOR (L) ASSY	

5-7. OPTICAL PICK-UP BLOCK SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	4-917-565-01	SHAFT, SLED		▲ 306	8-848-144-11	DEVICE, OPTICAL KSS-240A	
302	4-933-126-01	INSULATOR (A)		307	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
303	4-917-567-01	GEAR (M)		M101	X-4917-504-1	MOTOR ASSY (SLED)	
304	4-917-564-01	GEAR (P), FLATNESS		M102	X-4917-523-3	MOTOR ASSY (SPINDLE)	
305	A-4617-161-A	BD BOARD, COMPLETE		S101	1-572-085-11	SWITCH, LEAF	

<p>The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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SECTION 6 ELECTRICAL PARTS LIST

BD

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 differences from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable

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

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

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.

CND: Canadian

G: Germany

IT: Italian

E: East European

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4617-161-A	BD BOARD, COMPLETE *****				< CONNECTOR >	
		< CAPACITOR >		CN101	1-568-796-11	SOCKET, CONNECTOR 22P	
				CN102	1-568-795-11	SOCKET, CONNECTOR 12P	
				CN103	1-564-721-11	PIN, CONNECTOR (SMALL TYPE) 5P	
C101	1-163-038-00	CERAMIC	0.1uF 25V			< DIODE >	
C102	1-163-989-11	CERAMIC	0.033uF 10% 25V				
C103	1-126-163-11	ELECT	4.7uF 20% 50V				
C104	1-163-038-00	CERAMIC	0.1uF 25V	D101	8-719-021-25	DIODE UZM4.7X	
C105	1-126-154-11	ELECT	47uF 20% 6.3V			< IC >	
				IC101	8-752-053-73	IC CXA1372AQ	
C106	1-126-154-11	ELECT	47uF 20% 6.3V	IC102	8-759-822-36	IC LA6532M	
C107	1-126-154-11	ELECT	47uF 20% 6.3V	IC103	8-759-633-65	IC M54641L	
C108	1-163-038-00	CERAMIC	0.1uF 25V			< JACK >	
C109	1-163-038-00	CERAMIC	0.1uF 25V	J101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C110	1-163-989-11	CERAMIC	0.033uF 10% 25V	J102	1-216-295-00	METAL GLAZE 0 5% 1/10W	
						< TRANSISTOR >	
C111	1-131-367-00	TANTALUM	22uF 20% 20V	Q101	8-729-901-01	TRANSISTOR DTC144EK	
C112	1-164-232-11	CERAMIC	0.01uF 10% 50V			< RESISTOR >	
C113	1-164-232-11	CERAMIC	0.01uF 10% 50V	R101	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
C114	1-164-161-11	CERAMIC	0.0022uF 10% 100V	R102	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
C115	1-164-161-11	CERAMIC	0.0022uF 10% 100V	R103	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
				R104	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
C117	1-163-038-00	CERAMIC	0.1uF 25V	R105	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
C118	1-163-038-00	CERAMIC	0.1uF 25V				
C119	1-164-161-11	CERAMIC	0.0022uF 10% 100V	R106	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
C120	1-163-989-11	CERAMIC	0.033uF 10% 25V	R107	1-216-114-00	METAL GLAZE 510K 5% 1/10W	
C151	1-163-019-00	CERAMIC	0.0068uF 10% 50V	R108	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
				R109	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
C152	1-163-038-00	CERAMIC	0.1uF 25V	R110	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C153	1-163-006-11	CERAMIC	560pF 10% 50V				
C154	1-164-161-11	CERAMIC	0.0022uF 10% 100V	R111	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C155	1-163-023-00	CERAMIC	0.015uF 10% 50V				
C171	1-163-038-00	CERAMIC	0.1uF 25V				
C172	1-163-038-00	CERAMIC	0.1uF 25V				
C173	1-163-038-00	CERAMIC	0.1uF 25V				
C174	1-163-038-00	CERAMIC	0.1uF 25V				

BD **CD PANEL** **H.P.**

Ref. No.	Part No.	Description	Remark
R112	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R113	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R114	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R152	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R153	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R154	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R155	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R156	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R157	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R158	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R159	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R160	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R171	1-216-001-00	METAL GLAZE	10 5% 1/10W
R172	1-216-001-00	METAL GLAZE	10 5% 1/10W
R173	1-216-001-00	METAL GLAZE	10 5% 1/10W
R174	1-216-001-00	METAL GLAZE	10 5% 1/10W
< VARIABLE RESISTOR >			
RV101	1-238-016-11	RES. ADJ. CARBON	10K
RV102	1-238-016-11	RES. ADJ. CARBON	10K
< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF	

*	A-4347-069-A	CD PANEL BOARD, COMPLETE	

*	4-921-941-01	CUSHION (FL)	
*	4-942-301-01	HOLDER, FL TUBE	
< CAPACITOR >			
C201	1-164-159-11	CERAMIC	0.1uF 50V
C202	1-124-261-00	ELECT	10uF 20% 50V
C203	1-124-261-00	ELECT	10uF 20% 50V
C204	1-164-159-11	CERAMIC	0.1uF 50V
< CONNECTOR >			
* CN201	1-568-869-11	SOCKET, CONNECTOR	27P
< FILTER >			
FL201	1-519-611-21	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC201	8-752-832-30	IC	CXP50112-241Q
< RESISTOR >			
R202	1-249-425-11	CARBON	4.7K 5% 1/4W

Ref. No.	Part No.	Description	Remark
R203	1-249-425-11	CARBON	4.7K 5% 1/4W
R204	1-249-432-11	CARBON	18K 5% 1/4W
R205	1-249-432-11	CARBON	18K 5% 1/4W
R215	1-249-422-11	CARBON	2.7K 5% 1/4W
R216	1-249-432-11	CARBON	18K 5% 1/4W
R217	1-249-427-11	CARBON	6.8K 5% 1/4W
R218	1-249-424-11	CARBON	3.9K 5% 1/4W
R219	1-249-422-11	CARBON	2.7K 5% 1/4W
R220	1-249-432-11	CARBON	18K 5% 1/4W
R221	1-249-427-11	CARBON	6.8K 5% 1/4W
R222	1-249-424-11	CARBON	3.9K 5% 1/4W
R223	1-249-422-11	CARBON	2.7K 5% 1/4W
R224	1-249-432-11	CARBON	18K 5% 1/4W
R225	1-249-427-11	CARBON	6.8K 5% 1/4W
R226	1-249-424-11	CARBON	3.9K 5% 1/4W
R227	1-249-422-11	CARBON	2.7K 5% 1/4W
R230	1-249-429-11	CARBON	10K 5% 1/4W
R231	1-249-429-11	CARBON	10K 5% 1/4W
R232	1-249-429-11	CARBON	10K 5% 1/4W
R233	1-249-429-11	CARBON	10K 5% 1/4W
< SWITCH >			
S201	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S202	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S203	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S204	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)	
S205	1-554-303-21	SWITCH, TACTILE (EDIT)	
S206	1-554-303-21	SWITCH, TACTILE (▶▶)	
S207	1-554-303-21	SWITCH, TACTILE (◀◀)	
S208	1-554-303-21	SWITCH, TACTILE (■)	
S209	1-554-303-21	SWITCH, TACTILE (▣)	
S210	1-554-303-21	SWITCH, TACTILE (▶)	
S211	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE)	
S212	1-554-303-21	SWITCH, TACTILE (CLEAR)	
S213	1-554-303-21	SWITCH, TACTILE (CHECK)	
S214	1-554-303-21	SWITCH, TACTILE (FADE)	
S215	1-554-303-21	SWITCH, TACTILE (REPEAT)	
S216	1-554-303-21	SWITCH, TACTILE (TIME)	
< CRYSTAL >			
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

*	1-641-707-11	H. P. BOARD	

< CAPACITOR >			
C1237	1-162-282-31	CERAMIC	100PF 10% 50V (G. IT)

H.P.

LEAF SW(A)

LEAF SW(B)

LOADING

MAIN

Ref. No.	Part No.	Description	Remark
G1238	1-162-282-31	CERAMIC 100PF 10% 50V (G. IT)	
< CONNECTOR >			
GNJ12011-691-003-21 JACK, LARGE TYPE			

1-640-702-12 LEAF SW (A) BOARD			

< CAPACITOR >			
C544	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
* CN415	1-568-942-11	PIN, CONNECTOR 4P	
< SWITCH >			
S4	1-571-736-11	SWITCH, LEAF (MOTOR)	
S5	1-571-736-11	SWITCH, LEAF (FWD)	

1-640-703-12 LEAF SW (B) BOARD			

< CAPACITOR >			
C545	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
* CN416	1-568-943-11	PIN, CONNECTOR 5P	
< SWITCH >			
S1	1-571-736-11	SWITCH, LEAF (MOTOR)	
S2	1-571-736-11	SWITCH, LEAF (FWD)	
S3	1-571-736-11	SWITCH, LEAF (REC)	

* 1-632-202-11	LOADING BOARD		

< CONNECTOR >			
* CN301	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P	
< SWITCH >			
S271	1-572-086-11	SWITCH, LEAF	
S272	1-572-086-11	SWITCH, LEAF	

* A-4347-065-A	MAIN BOARD, COMPLETE (AEP, UK)		
* A-4347-362-A	MAIN BOARD, COMPLETE (G. IT)		
* A-4347-521-A	MAIN BOARD, COMPLETE (US. CND)		

Ref. No.	Part No.	Description	Remark
*	A-4347-896-A	MAIN BOARD, COMPLETE (EE)	*****
*	4-942-204-01	PLATE, GROUND	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
< CAPACITOR >			
C301	1-161-379-00	CERAMIC 0.01uF 20% 25V (G. IT)	
C302	1-124-477-11	ELECT 47uF 20% 25V	
C303	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C305	1-161-379-00	CERAMIC 0.01uF 20% 25V (G. IT)	
C306	1-161-379-00	CERAMIC 0.01uF 20% 25V (G. IT)	
C307	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C308	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C309	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C310	1-124-477-11	ELECT 47uF 20% 25V	
C311	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C312	1-101-006-00	CERAMIC 0.047uF 50V	
C313	1-123-382-00	ELECT 3.3uF 20% 100V	
C314	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C315	1-161-329-00	CERAMIC 0.0068uF 30% 16V	
C316	1-162-282-31	CERAMIC 100PF 10% 50V	
C317	1-162-292-31	CERAMIC 680PF 10% 50V (G. IT)	
C318	1-124-903-11	ELECT 1uF 20% 50V	
C320	1-124-903-11	ELECT 1uF 20% 50V	
C321	1-124-902-00	ELECT 0.47uF 20% 50V	
C322	1-124-463-00	ELECT 0.1uF 20% 50V	
C323	1-161-379-00	CERAMIC 0.01uF 20% 25V (US. CND)	
C323	1-161-329-00	CERAMIC 0.0068uF 30% 16V (AEP, G. IT, EE, UK)	
C324	1-161-379-00	CERAMIC 0.01uF 20% 25V (US. CND)	
C324	1-161-329-00	CERAMIC 0.0068uF 30% 16V (AEP, G. IT, EE, UK)	
C325	1-124-477-11	ELECT 47uF 20% 25V	
C326	1-124-907-11	ELECT 10uF 20% 50V	
C327	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C328	1-124-463-00	ELECT 0.1uF 20% 50V	
C329	1-124-927-11	ELECT 4.7uF 20% 100V	
C330	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C331	1-126-176-11	ELECT 220uF 20% 10V	
C332	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C335	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C336	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C339	1-162-210-31	CERAMIC 30PF 5% 50V (AEP, G. IT, EE, UK)	
C341	1-123-382-00	ELECT 3.3uF 20% 100V	
C342	1-123-382-00	ELECT 3.3uF 20% 100V	
C343	1-123-382-00	ELECT 3.3uF 20% 100V	
C344	1-123-382-00	ELECT 3.3uF 20% 100V	
C345	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C346	1-161-375-00	CERAMIC 0.0022uF 20% 50V	

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C351	1-161-494-00	CERAMIC	0.022uF 25V (AEP, G, IT, EE, UK)	C501	1-102-961-00	CERAMIC	27PF 5% 50V
C352	1-102-120-00	CERAMIC	0.0018uF 10% 50V (AEP, G, IT, EE, UK)	C502	1-102-961-00	CERAMIC	27PF 5% 50V
C353	1-161-374-11	CERAMIC	0.0015uF 20% 50V (AEP, G, IT, EE, UK)	C503	1-124-477-11	ELECT	47uF 20% 25V
C354	1-161-494-00	CERAMIC	0.022uF 25V (AEP, G, IT, EE, UK)	C504	1-161-379-00	CERAMIC	0.01uF 20% 25V
C361	1-164-098-11	CERAMIC	0.047uF 12V	C505	1-161-379-00	CERAMIC	0.01uF 20% 25V
C362	1-161-494-00	CERAMIC	0.022uF 25V	C506	1-161-379-00	CERAMIC	0.01uF 20% 25V
C363	1-164-159-11	CERAMIC	0.1uF 50V (AEP, G, IT, EE, UK)	C507	1-161-379-00	CERAMIC	0.01uF 20% 25V
C364	1-161-494-00	CERAMIC	0.022uF 25V (AEP, G, IT, EE, UK)	C521	1-124-925-11	ELECT	2.2uF 20% 100V
C371	1-162-199-31	CERAMIC	10PF 5% 50V (US, CND)	C522	1-124-463-00	ELECT	0.1uF 20% 50V
C371	1-162-196-31	CERAMIC	5.6PF 10% 50V (AEP, G, IT, EE, UK)	C523	1-161-379-00	CERAMIC	0.01uF 20% 25V
C401	1-124-907-11	ELECT	10uF 20% 50V	C524	1-161-379-00	CERAMIC	0.01uF 20% 25V
C402	1-126-176-11	ELECT	220uF 20% 10V	C525	1-124-477-11	ELECT	47uF 20% 25V (US, CND, AEP, G, IT, UK)
C403	1-124-907-11	ELECT	10uF 20% 50V	C525	1-126-101-11	ELECT	100uF 20% 16V (EE)
C404	1-124-903-11	ELECT	1uF 20% 50V	C530	1-161-379-00	CERAMIC	0.01uF 20% 25V (G, IT)
C405	1-124-443-00	ELECT	100uF 20% 10V	C531	1-136-173-00	FILM	0.47uF 5% 50V (AEP, G, IT, EE, UK)
C406	1-124-472-11	ELECT	470uF 20% 10V	C532	1-161-494-00	CERAMIC	0.022uF 25V (AEP, G, IT, EE, UK)
C407	1-164-159-11	CERAMIC	0.1uF 50V	C533	1-124-463-00	ELECT	0.1uF 20% 50V (AEP, G, IT, EE, UK)
C408	1-164-159-11	CERAMIC	0.1uF 50V	C1001	1-124-925-11	ELECT	2.2uF 20% 100V
C410	1-124-902-00	ELECT	0.47uF 20% 50V	C1002	1-162-282-31	CERAMIC	100PF 10% 50V
C411	1-136-153-00	FILM	0.01uF 5% 50V	C1003	1-162-282-31	CERAMIC	100PF 10% 50V
C412	1-124-443-00	ELECT	100uF 20% 10V	C1004	1-124-477-11	ELECT	47uF 20% 25V
C413	1-161-374-11	CERAMIC	0.0015uF 20% 50V	C1005	1-161-377-00	CERAMIC	0.0047uF 20% 16V
C414	1-136-161-00	FILM	0.047uF 5% 50V	C1006	1-161-374-11	CERAMIC	0.0015uF 20% 50V
C415	1-124-443-00	ELECT	100uF 20% 10V	C1007	1-124-464-11	ELECT	0.22uF 20% 50V
C416	1-164-159-11	CERAMIC	0.1uF 50V	C1008	1-124-477-11	ELECT	47uF 20% 25V
C418	1-124-443-00	ELECT	100uF 20% 10V	C1010	1-124-477-11	ELECT	47uF 20% 25V
C419	1-164-159-11	CERAMIC	0.1uF 50V	C1012	1-124-925-11	ELECT	2.2uF 20% 100V
C420	1-164-159-11	CERAMIC	0.1uF 50V	C1013	1-162-290-31	CERAMIC	470PF 10% 50V
C430	1-162-207-31	CERAMIC	22PF 5% 50V	C1014	1-161-494-00	CERAMIC	0.022uF 25V
C431	1-162-207-31	CERAMIC	22PF 5% 50V	C1025	1-162-286-31	CERAMIC	220PF 10% 50V
C432	1-124-443-00	ELECT	100uF 20% 10V	C1051	1-124-925-11	ELECT	2.2uF 20% 100V
C433	1-124-443-00	ELECT	100uF 20% 10V	C1052	1-162-282-31	CERAMIC	100PF 10% 50V
C434	1-164-159-11	CERAMIC	0.1uF 50V	C1053	1-162-282-31	CERAMIC	100PF 10% 50V
C435	1-164-159-11	CERAMIC	0.1uF 50V	C1054	1-124-477-11	ELECT	47uF 20% 25V
C436	1-124-443-00	ELECT	100uF 20% 10V	C1055	1-161-377-00	CERAMIC	0.0047uF 20% 16V
C439	1-164-159-11	CERAMIC	0.1uF 50V	C1056	1-161-374-11	CERAMIC	0.0015uF 20% 50V
C447	1-164-159-11	CERAMIC	0.1uF 50V	C1057	1-124-464-11	ELECT	0.22uF 20% 50V
C448	1-164-159-11	CERAMIC	0.1uF 50V	C1058	1-124-477-11	ELECT	47uF 20% 25V
C456	1-124-903-11	ELECT	1uF 20% 50V	C1060	1-124-477-11	ELECT	47uF 20% 25V
C457	1-124-903-11	ELECT	1uF 20% 50V	C1062	1-124-925-11	ELECT	2.2uF 20% 100V
C458	1-130-475-00	MYLAR	0.0022uF 5% 50V	C1063	1-162-290-31	CERAMIC	470PF 10% 50V
C459	1-130-475-00	MYLAR	0.0022uF 5% 50V	C1064	1-161-494-00	CERAMIC	0.022uF 25V
C460	1-162-286-31	CERAMIC	220PF 10% 50V	C1075	1-162-286-31	CERAMIC	220PF 10% 50V
C461	1-162-286-31	CERAMIC	220PF 10% 50V	C1212	1-126-233-11	ELECT	22uF 20% 50V
C462	1-124-907-11	ELECT	10uF 20% 50V	C1213	1-126-233-11	ELECT	22uF 20% 50V
C463	1-124-907-11	ELECT	10uF 20% 50V	C1221	1-126-101-11	ELECT	100uF 20% 16V
C464	1-162-288-31	CERAMIC	330PF 10% 50V	C1222	1-126-176-11	ELECT	220uF 20% 10V
C465	1-162-288-31	CERAMIC	330PF 10% 50V	C1223	1-126-176-11	ELECT	220uF 20% 10V
C467	1-162-294-31	CERAMIC	0.001uF 10% 50V	C1245	1-101-006-00	CERAMIC	0.047uF 50V (G, IT)

Ref. No.	Part No.	Description	Remark
C1246	1-101-006-00	CERAMIC	0.047uF 50V (G, IT)
C1247	1-101-006-00	CERAMIC	0.047uF 50V (G, IT)
C1248	1-101-006-00	CERAMIC	0.047uF 50V (G, IT)
C1249	1-161-494-00	CERAMIC	0.022uF 25V (G, IT)
C1250	1-161-494-00	CERAMIC	0.022uF 25V (G, IT)
C1262	1-126-233-11	ELECT	22uF 20% 50V
C1263	1-126-233-11	ELECT	22uF 20% 50V
C1294	1-161-494-00	CERAMIC	0.022uF 25V (G, IT)
C1302	1-102-394-11	CERAMIC	0.01uF 250V
C1304	1-126-413-11	ELECT	3300uF 20% 35V
C1305	1-126-413-11	ELECT	3300uF 20% 35V
C1306	1-124-477-11	ELECT	47uF 20% 25V
C1308	1-126-101-11	ELECT	100uF 20% 16V
C1309	1-126-101-11	ELECT	100uF 20% 16V
C1312	1-124-563-11	ELECT	2200uF 20% 25V
C1313	1-126-946-11	ELECT	6800uF 20% 25V
C1319	1-124-463-00	ELECT	0.1uF 20% 50V
C1320	1-124-907-11	ELECT	10uF 20% 50V
C1321	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1322	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1324	1-124-907-11	ELECT	10uF 20% 50V
C1326	1-124-907-11	ELECT	10uF 20% 50V
C1330	1-126-101-11	ELECT	100uF 20% 16V
C1331	1-102-394-11	CERAMIC	0.01uF 250V
C1335	1-124-907-11	ELECT	10uF 20% 50V (AEP, G, IT, EE, UK)
C1336	1-126-101-11	ELECT	100uF 20% 16V (AEP, G, IT, EE, UK)
C1341	1-124-907-11	ELECT	10uF 20% 50V
C1346	1-124-925-11	ELECT	2.2uF 20% 100V
C1351	1-124-122-11	ELECT	100uF 20% 50V
C1352	1-126-105-11	ELECT	1000uF 20% 35V
C1353	1-136-165-00	FILM	0.1uF 5% 50V
C1354	1-136-165-00	FILM	0.1uF 5% 50V
C1361	1-124-122-11	ELECT	100uF 20% 50V
C1381	1-136-165-91	FILM	0.1uF 5% 50V

< FILTER >

CF301	1-577-070-81	FILTER, CERAMIC (US, CND, AEP, EE, UK)
CF301	1-567-389-11	FILTER, CERAMIC (G, IT)
CF303	1-577-070-81	FILTER, CERAMIC (US, CND, AEP, EE, UK)
CF303	1-567-389-11	FILTER, CERAMIC (G, IT)
CF304	1-577-075-11	OSCILLATOR, CERAMIC

< CONNECTOR >

* CN402	1-568-822-11	SOCKET, CONNECTOR 22P
* CN403	1-568-842-11	SOCKET, CONNECTOR 27P
* CN405	1-560-064-00	PIN, CONNECTOR 6P
* CN406	1-560-060-00	PIN, CONNECTOR 2P
* CN501	1-568-830-11	SOCKET, CONNECTOR 11P

Ref. No.	Part No.	Description	Remark
* CN1001	1-580-691-11	JACK, PIN 2P	
* CN1002	1-580-691-11	JACK, PIN 2P	
* CN1201	1-537-327-11	TERMINAL BOARD	
CN1202	1-569-130-11	JACK, PIN 2P (AEP, G, IT, EE, UK)	
* CN1203	1-564-506-11	PLUG, CONNECTOR 3P	
* CN1204	1-564-510-11	PLUG, CONNECTOR 7P	
* CN1205	1-568-934-11	PIN, CONNECTOR 7P	
CN1206	1-568-802-11	SOCKET, CONNECTOR 19P	
* CN1211	1-564-506-11	PLUG, CONNECTOR 3P	
* CN1212	1-564-508-11	PLUG, CONNECTOR 5P	
* CN1301	1-566-210-11	PIN, CONNECTOR 3P (AEP, G, IT, EE, UK)	

< DIODE >

D351	8-719-912-20	DIODE 1SS120 (AEP, G, IT, EE, UK)
D1202	8-719-912-20	DIODE 1SS120
D1203	8-719-912-20	DIODE 1SS120
D1204	8-719-912-20	DIODE 1SS120
D1302	8-719-312-09	DIODE RBA-402
D1303	8-719-200-82	DIODE 11ES2
D1304	8-719-200-82	DIODE 11ES2
D1305	8-719-200-82	DIODE 11ES2
D1306	8-719-200-82	DIODE 11ES2
D1318	8-719-200-82	DIODE 11ES2
D1319	8-719-200-82	DIODE 11ES2
D1321	8-719-912-20	DIODE 1SS120
D1323	8-719-912-20	DIODE 1SS120
D1324	8-719-912-20	DIODE 1SS120
D1341	8-719-001-76	DIODE UZL-12M3
D1368	8-719-200-82	DIODE 11ES2
D1369	8-719-200-82	DIODE 11ES2

< FRONT END >

FE301	1-463-857-21	FRONT END (FM) (G, IT)
FE301	1-465-006-11	FRONT END (FM) (2 GANG) (US, CND, AEP, UK)
FE301	1-465-396-11	FRONT END (FM) (3 GANG) (EE)
FE351	1-236-463-11	ENCAPSULATED COMPONENT (AEP, G, IT, EE, UK)
FE352	1-239-260-11	ENCAPSULATED COMPONENT (US, CND)

FE352	1-239-261-11	ENCAPSULATED COMPONENT (AEP, G, IT, EE, UK)
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< IC >

IC301	8-759-821-45	IC LA1851N
IC400	8-759-604-86	IC M5F7807L
IC401	8-759-821-93	IC LA5601
IC402	8-752-337-26	IC CXD2500A0
IC403	8-752-337-09	IC CXD2554P
IC404	8-759-506-63	IC PCM67U
IC406	8-759-634-51	IC M5218AP
IC407	8-759-634-51	IC M5218AP

MAIN

Ref. No.	Part No.	Description	Remark
IC501	8-759-820-91	IC LC7218	
IC1001	8-759-634-51	IC M5218AP	
IC1002	8-759-000-48	IC MC14052BCP	
IC1003	8-759-634-51	IC M5218AP	
IC1004	8-759-000-49	IC MC14066BCP	
IC1202	8-759-111-68	IC uPC1237HA	
IC1303	8-759-604-86	IC M5F7807L	
IC1304	8-759-604-90	IC M5F7907L	
IC1305	8-759-820-13	IC L78MR06	
IC1306	8-759-231-58	IC M5F7812L (AEP, G, IT, EE, UK)	
< TRANSFORMER >			
I FT301	1-404-713-11	TRANSFORMER, IF	
< COIL >			
L301	1-410-686-11	INDUCTOR 1mH (US, CND)	
L301	1-407-500-00	INDUCTOR 4.7mH (AEP, G, IT, EE, UK)	
L351	1-410-525-11	INDUCTOR 220uH (AEP, G, IT, EE, UK)	
L1301	1-408-117-00	INDUCTOR 10uH (G, IT)	
L1302	1-408-117-00	INDUCTOR 10uH (G, IT)	
< FILTER >			
L PF301	1-235-164-00	FILTER, LOW PASS	
L PF301	1-235-164-31	FILTER, LOW PASS	
L PF302	1-235-164-00	FILTER, LOW PASS	
L PF302	1-235-164-31	FILTER, LOW PASS	
< IC LINK >			
△ PS401	1-532-675-00	LINK, IC 1.5A	
< TRANSISTOR >			
Q301	8-729-230-99	TRANSISTOR 2SC2669-0Y (G, IT)	
Q302	8-729-230-99	TRANSISTOR 2SC2669-0Y (G, IT)	
Q303	8-729-230-99	TRANSISTOR 2SC2669-0Y	
Q304	8-729-230-99	TRANSISTOR 2SC2669-0Y	
Q305	8-729-900-80	TRANSISTOR DTC114ES	
Q306	8-729-900-61	TRANSISTOR DTA114ES	
Q307	8-729-900-80	TRANSISTOR DTC114ES	
Q308	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q309	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q351	8-729-900-80	TRANSISTOR DTC114ES (AEP, G, IT, EE, UK)	
Q352	8-729-119-78	TRANSISTOR 2SC2785-HFE (AEP, G, IT, EE, UK)	
Q353	8-729-119-76	TRANSISTOR 2SA1175-HFE (AEP, G, IT, EE, UK)	
Q354	8-729-900-80	TRANSISTOR DTC114ES (AEP, G, IT, EE, UK)	
Q355	8-729-900-80	TRANSISTOR DTC114ES (AEP, G, IT, EE, UK)	
Q356	8-729-900-80	TRANSISTOR DTC114ES (AEP, G, IT, EE, UK)	
Q413	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q414	8-729-900-61	TRANSISTOR DTA114ES	

Ref. No.	Part No.	Description	Remark
Q415	8-729-900-61	TRANSISTOR DTA114ES	
Q501	8-729-900-80	TRANSISTOR DTC114ES	
Q502	8-729-900-61	TRANSISTOR DTA114ES	
Q521	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q522	8-729-201-84	TRANSISTOR 2SC3112-B	
Q531	8-729-202-67	TRANSISTOR 2SK246-GR3 (AEP, G, IT, EE, UK)	
Q532	8-729-201-84	TRANSISTOR 2SC3112-B (AEP, G, IT, EE, UK)	
Q1001	8-729-11 TRANSISTOR	2SA1175-HFE	
Q1002	8-729-900-36	TRANSISTOR DTC124ES	
Q1034	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1035	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1204	8-729-900-63	TRANSISTOR DTA124ES	
Q1302	8-729-209-15	TRANSISTOR 2SD2012	
< RESISTOR >			
R301	1-249-401-11	CARBON 47 5% 1/4W	
R302	1-249-413-11	CARBON 470 5% 1/4W (US, CND, AEP, EE, UK)	
R302	1-249-405-11	CARBON 100 5% 1/4W (G, IT)	
R303	1-249-411-11	CARBON 330 5% 1/4W (G, IT)	
R304	1-249-432-11	CARBON 18K 5% 1/4W (G, IT)	
R305	1-249-411-11	CARBON 330 5% 1/4W (G, IT)	
R306	1-249-434-11	CARBON 27K 5% 1/4W (G, IT)	
R307	1-249-414-11	CARBON 560 5% 1/4W (G, IT)	
R308	1-249-411-11	CARBON 330 5% 1/4W	
R309	1-249-432-11	CARBON 18K 5% 1/4W	
R310	1-249-411-11	CARBON 330 5% 1/4W	
R311	1-249-434-11	CARBON 27K 5% 1/4W	
R312	1-249-414-11	CARBON 560 5% 1/4W	
R313	1-249-405-11	CARBON 100 5% 1/4W	
R314	1-249-437-11	CARBON 47K 5% 1/4W (G, IT)	
R315	1-249-404-00	CARBON 82 5% 1/4W	
R315	1-249-435-11	CARBON 33K 5% 1/4W (G, IT)	
R316	1-249-428-11	CARBON 8.2K 5% 1/4W (US, CND)	
R316	1-249-429-11	CARBON 10K 5% 1/4W (AEP, G, IT, EE, UK)	
R317	1-249-417-11	CARBON 1K 5% 1/4W	
R318	1-249-435-11	CARBON 33K 5% 1/4W	
R319	1-249-428-11	CARBON 8.2K 5% 1/4W	
R320	1-249-432-11	CARBON 18K 5% 1/4W	
R321	1-249-423-11	CARBON 3.3K 5% 1/4W	
R322	1-249-429-11	CARBON 10K 5% 1/4W	
R323	1-249-418-11	CARBON 1.2K 5% 1/4W (US, CND, AEP, EE, UK)	
R323	1-249-417-11	CARBON 1K 5% 1/4W (G, IT)	
R324	1-249-429-11	CARBON 10K 5% 1/4W	
R325	1-249-429-11	CARBON 10K 5% 1/4W	
R326	1-249-409-11	CARBON 220 5% 1/4W	
R327	1-249-437-11	CARBON 47K 5% 1/4W	
R328	1-249-437-11	CARBON 47K 5% 1/4W	
R331	1-247-891-00	CARBON 330K 5% 1/4W	
R332	1-247-891-00	CARBON 330K 5% 1/4W	

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.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R333	1-249-421-11	CARBON	2. 2K 5% 1/4W	R446	1-249-435-11	CARBON	33K 5% 1/4W
R334	1-249-421-11	CARBON	2. 2K 5% 1/4W	R447	1-249-441-11	CARBON	100K 5% 1/4W
R335	1-249-420-11	CARBON	1. 8K 5% 1/4W	R448	1-249-441-11	CARBON	100K 5% 1/4W
R336	1-249-420-11	CARBON	1. 8K 5% 1/4W	R449	1-249-425-11	CARBON	4. 7K 5% 1/4W
R337	1-249-426-11	CARBON	5. 6K 5% 1/4W	R450	1-249-425-11	CARBON	4. 7K 5% 1/4W
R338	1-249-426-11	CARBON	5. 6K 5% 1/4W	R460	1-249-441-11	CARBON	100K 5% 1/4W
R351	1-249-433-11	CARBON	22K 5% 1/4W (AEP, G, IT, EE, UK)	R461	1-249-441-11	CARBON	100K 5% 1/4W
R352	1-249-437-11	CARBON	47K 5% 1/4W (AEP, G, IT, EE, UK)	R467	1-249-429-11	CARBON	10K 5% 1/4W
R353	1-247-903-00	CARBON	1M 5% 1/4W (AEP, G, IT, EE, UK)	R501	1-249-417-11	CARBON	1K 5% 1/4W
R354	1-249-441-11	CARBON	100K 5% 1/4W (AEP, G, IT, EE, UK)	R502	1-249-417-11	CARBON	1K 5% 1/4W
R355	1-249-433-11	CARBON	22K 5% 1/4W (AEP, G, IT, EE, UK)	R503	1-249-417-11	CARBON	1K 5% 1/4W
R356	1-249-421-11	CARBON	2. 2K 5% 1/4W (AEP, G, IT, EE, UK)	R504	1-249-417-11	CARBON	1K 5% 1/4W
R361	1-249-437-11	CARBON	47K 5% 1/4W	R505	1-249-429-11	CARBON	10K 5% 1/4W
R362	1-249-437-11	CARBON	47K 5% 1/4W	R506	1-249-417-11	CARBON	1K 5% 1/4W
R363	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, G, IT, EE, UK)	R510	1-249-401-11	CARBON	47 5% 1/4W
R364	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, G, IT, EE, UK)	R511	1-249-429-11	CARBON	10K 5% 1/4W
R365	1-249-429-11	CARBON	10K 5% 1/4W (AEP, G, IT, EE, UK)	R512	1-249-425-11	CARBON	4. 7K 5% 1/4W
R366	1-249-413-11	CARBON	470 5% 1/4W (AEP, G, IT, EE, UK)	R513	1-249-417-11	CARBON	1K 5% 1/4W
R367	1-249-434-11	CARBON	27K 5% 1/4W (AEP, G, IT, EE, UK)	R514	1-249-429-11	CARBON	10K 5% 1/4W
R368	1-249-433-11	CARBON	22K 5% 1/4W (AEP, G, IT, EE, UK)	R515	1-249-417-11	CARBON	1K 5% 1/4W
R401	1-249-405-11	CARBON	100 5% 1/4W	R521	1-249-423-11	CARBON	3. 3K 5% 1/4W
R408	1-249-429-11	CARBON	10K 5% 1/4W	R522	1-249-425-11	CARBON	4. 7K 5% 1/4W
R409	1-249-423-11	CARBON	3. 3K 5% 1/4W	R523	1-249-414-11	CARBON	560 5% 1/4W
R410	1-249-423-11	CARBON	3. 3K 5% 1/4W	R524	1-249-417-11	CARBON	1K 5% 1/4W
R411	1-249-441-11	CARBON	100K 5% 1/4W	R525	1-249-410-11	CARBON	270 5% 1/4W
R412	1-249-429-11	CARBON	10K 5% 1/4W	R526	1-249-421-11	CARBON	2. 2K 5% 1/4W
R413	1-249-417-11	CARBON	1K 5% 1/4W	R527	1-249-425-11	CARBON	4. 7K 5% 1/4W
R414	1-249-417-11	CARBON	1K 5% 1/4W	R528	1-249-425-11	CARBON	4. 7K 5% 1/4W
R415	1-249-420-11	CARBON	1. 8K 5% 1/4W	R529	1-249-405-11	CARBON	100 5% 1/4W
R416	1-249-417-11	CARBON	1K 5% 1/4W	R530	1-249-405-11	CARBON	100 5% 1/4W
R417	1-249-417-11	CARBON	1K 5% 1/4W	R531	1-249-423-11	CARBON	3. 3K 5% 1/4W (AEP, G, IT, EE, UK)
R418	1-249-417-11	CARBON	1K 5% 1/4W	R532	1-249-433-11	CARBON	22K 5% 1/4W (AEP, G, IT, EE, UK)
R419	1-249-417-11	CARBON	1K 5% 1/4W	R533	1-249-414-11	CARBON	560 5% 1/4W (AEP, G, IT, EE, UK)
R420	1-249-433-11	CARBON	22K 5% 1/4W	R534	1-249-417-11	CARBON	1K 5% 1/4W (AEP, G, IT, EE, UK)
R421	1-249-413-11	CARBON	470 5% 1/4W	R535	1-249-410-11	CARBON	270 5% 1/4W (AEP, G, IT, EE, UK)
R422	1-249-413-11	CARBON	470 5% 1/4W	R536	1-249-421-11	CARBON	2. 2K 5% 1/4W (AEP, G, IT, EE, UK)
R423	1-249-417-11	CARBON	1K 5% 1/4W	R537	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, G, IT, EE, UK)
R424	1-249-417-11	CARBON	1K 5% 1/4W	R538	1-249-405-11	CARBON	100 5% 1/4W (AEP, EE, UK)
R425	1-249-417-11	CARBON	1K 5% 1/4W	R1001	1-249-417-11	CARBON	1K 5% 1/4W
R426	1-249-418-11	CARBON	1. 2K 5% 1/4W	R1002	1-249-441-11	CARBON	100K 5% 1/4W
R427	1-249-418-11	CARBON	1. 2K 5% 1/4W	R1003	1-249-416-11	CARBON	820 5% 1/4W
R437	1-249-417-11	CARBON	1K 5% 1/4W	R1004	1-247-897-11	CARBON	560K 5% 1/4W
R438	1-249-417-11	CARBON	1K 5% 1/4W	R1005	1-249-437-11	CARBON	47K 5% 1/4W
R441	1-249-441-11	CARBON	100K 5% 1/4W	R1006	1-249-409-11	CARBON	220 5% 1/4W
R442	1-249-441-11	CARBON	100K 5% 1/4W	R1007	1-249-441-11	CARBON	100K 5% 1/4W
R443	1-249-429-11	CARBON	10K 5% 1/4W	R1008	1-249-409-11	CARBON	220 5% 1/4W
R444	1-249-429-11	CARBON	10K 5% 1/4W	R1011	1-249-441-11	CARBON	100K 5% 1/4W
R445	1-249-435-11	CARBON	33K 5% 1/4W	R1012	1-249-417-11	CARBON	1K 5% 1/4W

MAIN

PANEL

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R1013	1-249-441-11	CARBON	100K	5%	1/4W	R1321	1-249-417-11	CARBON	1K	5%	1/4W
R1014	1-249-437-11	CARBON	47K	5%	1/4W	R1322	1-249-429-11	CARBON	10K	5%	1/4W
R1015	1-249-437-11	CARBON	47K	5%	1/4W	R1345	1-249-421-11	CARBON	2.2K	5%	1/4W
R1016	1-249-421-11	CARBON	2.2K	5%	1/4W	R1346	1-249-425-11	CARBON	4.7K	5%	1/4W (AEP, G, IT, EE, UK)
R1017	1-249-421-11	CARBON	2.2K	5%	1/4W			< VARIABLE RESISTOR >			
R1018	1-249-433-11	CARBON	22K	5%	1/4W	RV301	1-238-601-11	RES, ADJ, CARBON	22K		
R1019	1-249-433-11	CARBON	22K	5%	1/4W	RV302	1-238-601-11	RES, ADJ, CARBON	22K		
R1021	1-249-434-11	CARBON	27K	5%	1/4W			< RELAY >			
R1023	1-249-434-11	CARBON	27K	5%	1/4W	RY1201	1-515-533-11	RELAY			
R1024	1-249-417-11	CARBON	1K	5%	1/4W			< TRANSFORMER >			
R1026	1-249-433-11	CARBON	22K	5%	1/4W	T301	1-404-807-11	TRANSFORMER, DISCRIMINATOR			
R1029	1-249-433-11	CARBON	22K	5%	1/4W	T302	1-235-126-00	ENCAPSULATED COMPONENT (G, IT)			
R1034	1-249-425-11	CARBON	4.7K	5%	1/4W			< TERMINAL BOARD >			
R1035	1-249-437-11	CARBON	47K	5%	1/4W	* TM301	1-537-264-11	TERMINAL BOARD (US, CND)			
R1036	1-249-425-11	CARBON	4.7K	5%	1/4W	* TM301	1-537-288-11	TERMINAL BOARD (PAL) (AEP, G, IT, EE, UK)			
R1037	1-249-421-11	CARBON	2.2K	5%	1/4W			< TEST PIN >			
R1051	1-249-417-11	CARBON	1K	5%	1/4W	* TP1	1-560-060-00	PIN, CONNECTOR 2P			
R1052	1-249-441-11	CARBON	100K	5%	1/4W			< CRYSTAL >			
R1053	1-249-416-11	CARBON	820	5%	1/4W	X401	1-567-908-11	VIBRATOR, CRYSTAL (16MHZ)			
R1054	1-247-897-11	CARBON	560K	5%	1/4W			< CRYSTAL >			
R1055	1-249-437-11	CARBON	47K	5%	1/4W	XT501	1-577-126-11	VIBRATOR, CRYSTAL (7.5MHZ)			
R1056	1-249-409-11	CARBON	220	5%	1/4W	XT501	1-579-383-11	VIBRATOR, CRYSTAL			
R1057	1-249-441-11	CARBON	100K	5%	1/4W	*****					
R1058	1-249-409-11	CARBON	220	5%	1/4W	* A-4347-061-A	PANEL BOARD, COMPLETE (AEP, G, UK)				
R1061	1-249-441-11	CARBON	100K	5%	1/4W	* A-4347-360-A	PANEL BOARD, COMPLETE (IT)				
R1062	1-249-417-11	CARBON	1K	5%	1/4W	* A-4347-519-A	PANEL BOARD, COMPLETE (US, CND)				
R1063	1-249-441-11	CARBON	100K	5%	1/4W	* A-4347-894-A	PANEL BOARD, COMPLETE (EE)				
R1071	1-249-434-11	CARBON	27K	5%	1/4W	*****					
R1073	1-249-434-11	CARBON	27K	5%	1/4W	* 4-930-781-11	HOLDER (V0), LED				
R1074	1-249-417-11	CARBON	1K	5%	1/4W	* 4-942-301-01	HOLDER, FL TUBE				
R1095	1-249-433-11	CARBON	22K	5%	1/4W	* 4-948-247-01	HOLDER (FU), LED				
R1222	1-249-415-11	CARBON	680	5%	1/4W	* 4-949-935-01	CUSHION (FL)				
R1223	1-249-415-11	CARBON	680	5%	1/4W			< CAPACITOR >			
R1226	1-215-887-00	METAL OXIDE	150	5%	2W F	C603	1-136-169-00	FILM	0.22uF	5%	50V
R1233	1-249-432-11	CARBON	18K	5%	1/4W	C604	1-164-159-11	CERAMIC	0.1uF		50V
R1234	1-249-432-11	CARBON	18K	5%	1/4W	C605	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
R1235	1-249-435-11	CARBON	33K	5%	1/4W	C606	1-164-159-11	CERAMIC	0.1uF		50V
R1236	1-249-441-11	CARBON	100K	5%	1/4W	C607	1-124-907-11	ELECT	10uF	20%	50V
R1237	1-249-429-11	CARBON	10K	5%	1/4W						
R1240	1-249-438-11	CARBON	56K	5%	1/4W						
R1241	1-249-385-11	CARBON	2.2	5%	1/6W (G, IT)						
R1242	1-249-385-11	CARBON	2.2	5%	1/6W (G, IT)						
R1243	1-249-385-11	CARBON	2.2	5%	1/6W (G, IT)						
R1244	1-249-385-11	CARBON	2.2	5%	1/6W (G, IT)						
R1272	1-249-415-11	CARBON	680	5%	1/4W						
R1273	1-249-415-11	CARBON	680	5%	1/4W						
R1290	1-249-437-11	CARBON	47K	5%	1/4W						
R1301	1-249-429-11	CARBON	10K	5%	1/4W						
R1302	1-249-429-11	CARBON	10K	5%	1/4W						

PANEL

Ref. No.	Part No.	Description	Remark
C608	1-161-379-00	CERAMIC	0.01uF 20% 25V
C609	1-161-379-00	CERAMIC	0.01uF 20% 25V
C650	1-124-907-11	ELECT	10uF 20% 50V
C1101	1-124-257-00	ELECT	2.2uF 20% 50V
C1102	1-124-589-11	ELECT	47uF 20% 16V
C1103	1-162-282-31	CERAMIC	100PF 10% 50V
C1104	1-124-257-00	ELECT	2.2uF 20% 50V
C1105	1-124-464-11	ELECT	0.22uF 20% 50V
C1106	1-136-161-00	FILM	0.047uF 5% 50V
C1107	1-136-155-00	FILM	0.015uF 5% 50V
C1108	1-136-155-00	FILM	0.015uF 5% 50V
C1109	1-130-480-00	MYLAR	0.0056uF 5% 50V
C1110	1-161-327-00	CERAMIC	0.0033uF 20% 16V
C1111	1-136-155-00	FILM	0.015uF 5% 50V
C1112	1-136-157-00	FILM	0.022uF 5% 50V
C1113	1-136-153-00	FILM	0.01uF 5% 50V
C1114	1-161-377-00	CERAMIC	0.0047uF 20% 16V
C1115	1-124-257-00	ELECT	2.2uF 20% 50V
C1121	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1123	1-162-286-31	CERAMIC	220PF 10% 50V
C1131	1-162-215-31	CERAMIC	47PF 5% 50V
C1132	1-162-215-31	CERAMIC	47PF 5% 50V
C1151	1-124-257-00	ELECT	2.2uF 20% 50V
C1152	1-124-589-11	ELECT	47uF 20% 16V
C1153	1-162-282-31	CERAMIC	100PF 10% 50V
C1154	1-124-257-00	ELECT	2.2uF 20% 50V
C1155	1-124-464-11	ELECT	0.22uF 20% 50V
C1156	1-136-161-00	FILM	0.047uF 5% 50V
C1157	1-136-155-00	FILM	0.015uF 5% 50V
C1158	1-136-155-00	FILM	0.015uF 5% 50V
C1159	1-130-480-00	MYLAR	0.0056uF 5% 50V
C1160	1-161-327-00	CERAMIC	0.0033uF 20% 16V
C1161	1-136-155-00	FILM	0.015uF 5% 50V
C1162	1-136-157-00	FILM	0.022uF 5% 50V
C1163	1-136-153-00	FILM	0.01uF 5% 50V
C1164	1-161-377-00	CERAMIC	0.0047uF 20% 16V
C1165	1-124-257-00	ELECT	2.2uF 20% 50V
C1173	1-162-286-31	CERAMIC	220PF 10% 50V
C1181	1-162-215-31	CERAMIC	47PF 5% 50V
C1182	1-162-215-31	CERAMIC	47PF 5% 50V
C1197	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1198	1-161-494-00	CERAMIC	0.022uF 25V

< CONNECTOR >

- * CN601 1-568-830-11 SOCKET, CONNECTOR 11P
 CN1101 1-568-802-11 SOCKET, CONNECTOR 19P

Ref. No.	Part No.	Description	Remark
< DIODE >			
D601	8-719-912-20	DIODE	1SS120
D602	8-719-010-26	DIODE	UZ-3.9BSB
D603	8-719-912-20	DIODE	1SS120
D604	8-719-912-20	DIODE	1SS120
D611	8-719-912-20	DIODE	1SS120
D612	8-719-912-20	DIODE	1SS120
D613	8-719-912-20	DIODE	1SS120
D614	8-719-912-20	DIODE	1SS120
D618	8-719-912-20	DIODE	1SS120
D621	8-719-912-20	DIODE	1SS120 (US, CND, IT)
D622	8-719-912-20	DIODE	1SS120 (EE)
D624	8-719-912-20	DIODE	1SS120 (US, CND, EE)
D625	8-719-912-20	DIODE	1SS120
D636	8-719-912-20	DIODE	1SS120
D641	8-719-200-82	DIODE	11ES2
D1130	8-719-302-45	LED	SEL1210S (VIDEO)
D1131	8-719-302-45	LED	SEL1210S (CD)
D1132	8-719-302-45	LED	SEL1210S (PHONO)
D1133	8-719-302-45	LED	SEL1210S (TUNER)
D1134	8-719-302-45	LED	SEL1210S (TAPE)
D1145	8-719-301-39	LED	SEL2210S-D (VOLUME)
D1151	8-719-912-20	DIODE	1SS120
D1152	8-719-912-20	DIODE	1SS120
D1153	8-719-912-20	DIODE	1SS120
< FILTER >			
FL601	1-519-711-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC601	8-759-053-97	IC	uPD75212ACW-A21
IC602	8-749-920-83	IC	GP1U52XB
IC1101	8-759-634-51	IC	M5218AP
IC1102	8-759-634-51	IC	M5218AP
IC1103	8-759-820-62	IC	LB1639
IC1104	8-759-916-12	IC	SN74HC00AN
< COIL >			
L601	1-410-521-11	INDUCTOR	100uH
< TRANSISTOR >			
Q601	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q602	8-729-900-80	TRANSISTOR	DTC114ES
Q1101	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1102	8-729-141-26	TRANSISTOR	2SC3622A-LK
Q1121	8-729-900-36	TRANSISTOR	DTC124ES
Q1122	8-729-919-76	TRANSISTOR	2SA1175-HFE

PANEL

Ref. No.	Part No.	Description	Remark
Q1136	8-729-900-36	TRANSISTOR DTC124ES	
Q1138	8-729-900-36	TRANSISTOR DTC124ES	
Q1139	8-729-900-36	TRANSISTOR DTC124ES	
Q1141	8-729-900-63	TRANSISTOR DTA124ES	
Q1143	8-729-900-80	TRANSISTOR DTC114ES	
Q1144	8-729-900-80	TRANSISTOR DTC114ES	
Q1145	8-729-900-61	TRANSISTOR DTA114ES	
Q1151	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1152	8-729-141-26	TRANSISTOR 2SC3622A-LK	
< RESISTOR >			
R601	1-249-429-11	CARBON 10K 5%	1/4W
R602	1-249-429-11	CARBON 10K 5%	1/4W
R603	1-249-423-11	CARBON 3.3K 5%	1/4W
R604	1-249-437-11	CARBON 47K 5%	1/4W
R605	1-249-433-11	CARBON 22K 5%	1/4W
R606	1-249-433-11	CARBON 22K 5%	1/4W
R607	1-249-439-11	CARBON 68K 5%	1/4W
R608	1-249-417-11	CARBON 1K 5%	1/4W
R609	1-249-405-11	CARBON 100 5%	1/4W
R610	1-249-429-11	CARBON 10K 5%	1/4W
R611	1-249-437-11	CARBON 47K 5%	1/4W
R612	1-249-417-11	CARBON 1K 5%	1/4W
R621	1-249-433-11	CARBON 22K 5%	1/4W
R622	1-249-433-11	CARBON 22K 5%	1/4W
R623	1-249-433-11	CARBON 22K 5%	1/4W
R624	1-249-433-11	CARBON 22K 5%	1/4W
R641	1-249-417-11	CARBON 1K 5%	1/4W
R1101	1-249-441-11	CARBON 100K 5%	1/4W
R1102	1-249-417-11	CARBON 1K 5%	1/4W
R1103	1-249-431-11	CARBON 15K 5%	1/4W
R1104	1-249-441-11	CARBON 100K 5%	1/4W
R1105	1-249-433-11	CARBON 22K 5%	1/4W
R1106	1-249-424-11	CARBON 3.9K 5%	1/4W
R1107	1-249-441-11	CARBON 100K 5%	1/4W
R1108	1-249-427-11	CARBON 6.8K 5%	1/4W
R1109	1-249-412-11	CARBON 390 5%	1/4W
R1110	1-249-431-11	CARBON 15K 5%	1/4W
R1111	1-249-439-11	CARBON 68K 5%	1/4W
R1112	1-249-433-11	CARBON 22K 5%	1/4W
R1113	1-249-431-11	CARBON 15K 5%	1/4W
R1114	1-249-429-11	CARBON 10K 5%	1/4W
R1115	1-249-429-11	CARBON 10K 5%	1/4W
R1116	1-247-852-11	CARBON 7.5K 5%	1/4W
R1117	1-247-852-11	CARBON 7.5K 5%	1/4W
R1118	1-249-425-11	CARBON 4.7K 5%	1/4W
R1119	1-249-425-11	CARBON 4.7K 5%	1/4W
R1120	1-249-423-11	CARBON 3.3K 5%	1/4W
R1121	1-249-423-11	CARBON 3.3K 5%	1/4W

Ref. No.	Part No.	Description	Remark
R1122	1-247-887-00	CARBON 220K 5%	1/4W
R1123	1-249-421-11	CARBON 2.2K 5%	1/4W
R1124	1-249-425-11	CARBON 4.7K 5%	1/4W
R1125	1-249-433-11	CARBON 22K 5%	1/4W
R1130	1-249-412-11	CARBON 390 5%	1/4W
R1132	1-249-412-11	CARBON 390 5%	1/4W
R1133	1-249-412-11	CARBON 390 5%	1/4W
R1135	1-249-433-11	CARBON 22K 5%	1/4W
R1143	1-249-433-11	CARBON 22K 5%	1/4W
R1145	1-249-412-11	CARBON 390 5%	1/4W
R1149	1-249-429-11	CARBON 10K 5%	1/4W
R1151	1-249-441-11	CARBON 100K 5%	1/4W
R1152	1-249-417-11	CARBON 1K 5%	1/4W
R1154	1-249-441-11	CARBON 100K 5%	1/4W
R1155	1-249-433-11	CARBON 22K 5%	1/4W
R1156	1-249-424-11	CARBON 3.9K 5%	1/4W
R1157	1-249-441-11	CARBON 100K 5%	1/4W
R1158	1-249-427-11	CARBON 6.8K 5%	1/4W
R1159	1-249-412-11	CARBON 390 5%	1/4W
R1160	1-249-431-11	CARBON 15K 5%	1/4W
R1161	1-249-439-11	CARBON 68K 5%	1/4W
R1162	1-249-433-11	CARBON 22K 5%	1/4W
R1163	1-249-431-11	CARBON 15K 5%	1/4W
R1164	1-249-429-11	CARBON 10K 5%	1/4W
R1165	1-249-429-11	CARBON 10K 5%	1/4W
R1166	1-247-852-11	CARBON 7.5K 5%	1/4W
R1167	1-247-852-11	CARBON 7.5K 5%	1/4W
R1168	1-249-425-11	CARBON 4.7K 5%	1/4W
R1169	1-249-425-11	CARBON 4.7K 5%	1/4W
R1170	1-249-423-11	CARBON 3.3K 5%	1/4W
R1171	1-249-423-11	CARBON 3.3K 5%	1/4W
R1172	1-247-887-00	CARBON 220K 5%	1/4W
R1173	1-249-421-11	CARBON 2.2K 5%	1/4W
R1174	1-249-425-11	CARBON 4.7K 5%	1/4W
< VARIABLE RESISTOR >			
RV1101	1-241-353-11	RES. VAR. CARBON 100K/100K	(SURROUND)
RV1102	1-241-353-11	RES. VAR. CARBON 100K/100K	(CBFB)
RV1103	1-241-351-11	RES. VAR. SLIDE 100K/100K	(100Hz)
RV1104	1-241-351-11	RES. VAR. SLIDE 100K/100K	(330Hz)
RV1105	1-241-351-11	RES. VAR. SLIDE 100K/100K	(1KHz)
RV1106	1-241-351-11	RES. VAR. SLIDE 100K/100K	(3.3KHz)
RV1107	1-241-351-11	RES. VAR. SLIDE 100K/100K	(10KHz)
RV1108	1-241-352-11	RES. VAR. CARBON 100K/100K	(BALANCE)
< SWITCH >			
S601	1-554-303-21	SWITCH. TACTILE (1)	
S602	1-554-303-21	SWITCH. TACTILE (2)	

PANEL

POWER AMP

Ref. No.	Part No.	Description	Remark
S603	1-554-303-21	SWITCH, TACTILE (3)	
S604	1-554-303-21	SWITCH, TACTILE (4)	
S605	1-554-303-21	SWITCH, TACTILE (5)	
S606	1-554-303-21	SWITCH, TACTILE (6)	
S607	1-554-303-21	SWITCH, TACTILE (7)	
S608	1-554-303-21	SWITCH, TACTILE (8)	
S609	1-554-303-21	SWITCH, TACTILE (9)	
S610	1-554-303-21	SWITCH, TACTILE (0)	
S611	1-554-303-21	SWITCH, TACTILE (SHIFT)	
S612	1-554-303-21	SWITCH, TACTILE (BAND SELECT)	
S613	1-554-303-21	SWITCH, TACTILE (ST/MUTE)	
S614	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING +)	
S615	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING -)	
S619	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S636	1-554-303-21	SWITCH, TACTILE (TAPE)	
S637	1-554-303-21	SWITCH, TACTILE (CD)	
S638	1-554-303-21	SWITCH, TACTILE (TUNER)	
S639	1-554-303-21	SWITCH, TACTILE (PHONO)	
S640	1-554-303-21	SWITCH, TACTILE (VIDEO)	
< CRYSTAL >			
X601	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)	

*	A-4347-068-A	POWER AMP BOARD, COMPLETE (AEP, EE, UK)	
*	A-4347-366-A	POWER AMP BOARD, COMPLETE (G, IT)	
*	A-4347-531-A	POWER AMP BOARD, COMPLETE (US, CND)	

< CAPACITOR >			
C1201	1-124-257-00	ELECT 2.2uF 20% 50V	
C1202	1-162-286-31	CERAMIC 220PF 10% 50V (US, CND, AEP, EE, UK)	
C1202	1-162-290-31	CERAMIC 470PF 10% 50V (G, IT)	
C1203	1-162-286-31	CERAMIC 220PF 10% 50V (US, CND, AEP, EE, UK)	
C1203	1-162-290-31	CERAMIC 470PF 10% 50V (G, IT)	
C1204	1-124-910-11	ELECT 47uF 20% 50V (US, CND)	
C1204	1-124-477-11	ELECT 47uF 20% 25V (AEP, G, IT, EE, UK)	
C1205	1-126-233-11	ELECT 22uF 20% 50V (US, CND)	
C1205	1-124-910-11	ELECT 47uF 20% 50V (AEP, G, IT, EE, UK)	
C1206	1-124-122-11	ELECT 100uF 20% 50V	
C1207	1-136-165-00	FILM 0.1uF 5% 50V	
C1208	1-126-233-11	ELECT 22uF 20% 50V	
C1209	1-136-165-00	FILM 0.1uF 5% 50V	
C1210	1-136-163-00	FILM 0.068uF 5% 50V	
C1211	1-136-163-00	FILM 0.068uF 5% 50V	
C1220	1-124-910-11	ELECT 47uF 20% 50V	
C1230	1-161-494-00	CERAMIC 0.022uF 25V (G, IT)	
C1231	1-161-494-00	CERAMIC 0.022uF 25V (G, IT)	
C1232	1-161-494-00	CERAMIC 0.022uF 25V (G, IT)	

Ref. No.	Part No.	Description	Remark
C1233	1-161-494-00	CERAMIC 0.022uF 25V (G, IT)	
C1251	1-124-257-00	ELECT 2.2uF 20% 50V	
C1252	1-162-286-31	CERAMIC 220PF 10% 50V (US, CND, AEP, EE, UK)	
C1252	1-162-290-31	CERAMIC 470PF 10% 50V (G, IT)	
C1253	1-162-286-31	CERAMIC 220PF 10% 50V (US, CND, AEP, EE, UK)	
C1253	1-162-290-31	CERAMIC 470PF 10% 50V (G, IT)	
C1254	1-124-910-11	ELECT 47uF 20% 50V (US, CND)	
C1254	1-124-477-11	ELECT 47uF 20% 25V (AEP, G, IT, EE, UK)	
C1255	1-126-233-11	ELECT 22uF 20% 50V (US, CND)	
C1255	1-124-910-11	ELECT 47uF 20% 50V (AEP, G, IT, EE, UK)	
C1256	1-124-122-11	ELECT 100uF 20% 50V	
C1257	1-136-165-00	FILM 0.1uF 5% 50V	
C1260	1-136-163-00	FILM 0.068uF 5% 50V	
C1261	1-136-163-00	FILM 0.068uF 5% 50V	
C1280	1-161-494-00	CERAMIC 0.022uF 25V (G, IT)	
< DIODE >			
D1201	8-719-912-20	DIODE 1SS120	
D1251	8-719-912-20	DIODE 1SS120	
< IC >			
IC1201	8-749-920-19	IC STK4122MK2	
< COIL >			
L1201	1-420-872-00	COIL, AIR CORE	
L1251	1-420-872-00	COIL, AIR CORE	
< TRANSISTOR >			
Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q1202	8-729-900-80	TRANSISTOR DTC114ES	
Q1203	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAFA	
< RESISTOR >			
R1201	1-249-417-11	CARBON 1K 5% 1/4W	
R1202	1-249-438-11	CARBON 56K 5% 1/4W	
R1203	1-249-417-11	CARBON 1K 5% 1/4W	
R1204	1-249-438-11	CARBON 56K 5% 1/4W	
R1205	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1206	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1207	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1208	1-249-425-11	CARBON 4.7K 5% 1/4W	
Δ R1209	1-212-881-11	FUSIBLE 1C0 5% 1/4W F	
Δ R1210	1-217-151-00	RES, METAL PLATE 0.22	
R1211	1-249-417-11	CARBON 1K 5% 1/4W	
R1212	1-249-431-11	CARBON 15K 5% 1/4W	
R1213	1-249-441-11	CARBON 100K 5% 1/4W	
R1214	1-249-421-11	CARBON 2.2K 5% 1/4W	

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

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POWER AMP

POWER

SW

Ref. No.	Part No.	Description			Remark
R1215	1-249-421-11	CARBON	2.2K	5%	1/4W
R1216	1-249-421-11	CARBON	2.2K	5%	1/4W
R1217	1-249-421-11	CARBON	2.2K	5%	1/4W
R1218	1-249-397-11	CARBON	22	5%	1/4W
R1219	1-249-397-11	CARBON	22	5%	1/4W
R1220	1-249-397-11	CARBON	22	5%	1/4W
R1221	1-249-397-11	CARBON	22	5%	1/4W
R1227	1-249-429-11	CARBON	10K	5%	1/4W
R1228	1-247-881-00	CARBON	120K	5%	1/4W
R1229	1-249-439-11	CARBON	68K	5%	1/4W
R1230	1-249-439-11	CARBON	68K	5%	1/4W
R1231	1-249-417-11	CARBON	1K	5%	1/4W
R1232	1-249-428-11	CARBON	8.2K	5%	1/4W
R1238	1-249-433-11	CARBON	22K	5%	1/4W
R1239	1-249-426-11	CARBON	5.6K	5%	1/4W
R1251	1-249-417-11	CARBON	1K	5%	1/4W
R1252	1-249-438-11	CARBON	56K	5%	1/4W
R1253	1-249-417-11	CARBON	1K	5%	1/4W
R1254	1-249-438-11	CARBON	56K	5%	1/4W
R1255	1-249-425-11	CARBON	4.7K	5%	1/4W
R1256	1-249-425-11	CARBON	4.7K	5%	1/4W
R1257	1-249-425-11	CARBON	4.7K	5%	1/4W
R1258	1-249-425-11	CARBON	4.7K	5%	1/4W
△ R1259	1-212-881-11	FUSIBLE	100	5%	1/4W F
△ R1250	1-217-151-00	RES. METAL PLATE			0.22
R1261	1-249-417-11	CARBON	1K	5%	1/4W
R1262	1-249-431-11	CARBON	15K	5%	1/4W
R1263	1-249-441-11	CARBON	100K	5%	1/4W
R1268	1-249-397-11	CARBON	22	5%	1/4W
R1269	1-249-397-11	CARBON	22	5%	1/4W
R1270	1-249-397-11	CARBON	22	5%	1/4W
R1271	1-249-397-11	CARBON	22	5%	1/4W

*	1-642-220-11	POWER BOARD			

	1-533-217-31	HOLDER, FUSE			
*	1-564-321-00	PIN. CONNECTOR 2P			
		< CAPACITOR >			
C1301	1-161-744-00	CERAMIC	0.01uF		400V
C1314	1-124-122-11	ELECT	100uF	20%	50V
C1315	1-124-927-11	ELECT	4.7uF	20%	100V
C1316	1-124-910-11	ELECT	47uF	20%	50V
C1348	1-164-159-11	CERAMIC	0.1uF		50V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
* CN1301	1-564-509-11	PLUG, CONNECTOR 6P			
CN1302	1-506-469-11	CONNECTOR 4P, MALE			
* CN1350	1-580-230-11	PIN. CONNECTOR (PC BOARD) 3P			
		< DIODE >			
D1307	8-719-002-60	DIODE UZL-33L			
D1309	8-719-014-66	DIODE UZP-5.6B			
D1311	8-719-200-82	DIODE 11ES2			
		< FUSE >			
△ F1301	1-532-237-00	FUSE, TIME LAG (T3.15A) (AEP, G. IT, EE, UK)			
△ F1301	1-576-107-11	FUSE (T3.15A) (US, CND)			
△ F1302	1-532-237-00	FUSE, TIME LAG (T3.15A) (AEP, G. IT, EE, UK)			
△ F1302	1-576-107-11	FUSE (T3.15A) (US, CND)			
△ F1303	1-532-350-00	FUSE, TIME LAG (T4.0A) (AEP, G. IT, EE, UK)			
△ F1303	1-576-108-11	FUSE (T4.0A) (US, CND)			
△ F1304	1-532-350-00	FUSE, TIME LAG (T4.0A) (AEP, G. IT, EE, UK)			
△ F1304	1-576-108-11	FUSE (T4.0A) (US, CND)			
		< TRANSISTOR >			
Q1301	8-729-141-83	TRANSISTOR 2SB1094-LK			
		< RESISTOR >			
R1303	1-249-421-11	CARBON	2.2K	5%	1/4W
R1304	1-249-425-11	CARBON	4.7K	5%	1/4W
R1391	1-202-725-00	SOLID	3.3M	10%	1/2W (US, CND)

*	1-641-709-11	SW BOARD			

		< CAPACITOR >			
C701	1-124-903-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
* CNJ701	1-568-834-11	SOCKET, CONNECTOR 15P			
		< TRANSISTOR >			
Q701	8-729-900-89	TRANSISTOR DTC144ES			
Q702	8-729-900-89	TRANSISTOR DTC144ES			
Q703	8-729-900-89	TRANSISTOR DTC144ES			
		< RESISTOR >			
R701	1-249-417-11	CARBON	1K	5%	1/4W
R702	1-249-437-11	CARBON	47K	5%	1/4W
R703	1-249-424-11	CARBON	3.9K	5%	1/4W
R704	1-249-427-11	CARBON	6.8K	5%	1/4W

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SW TC MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R705	1-249-421-11	CARBON	2.2K	5%	1/4W	C503	1-124-443-00	ELECT	100uF	20%	10V
R706	1-249-416-11	CARBON	820	5%	1/4W	C504	1-162-289-31	CERAMIC	390PF	10%	50V
R707	1-249-423-11	CARBON	3.3K	5%	1/4W	C505	1-136-157-00	FILM	0.022uF	5%	50V
						C506	1-124-767-00	ELECT	2.2uF	20%	50V
		< SWITCH >				C507	1-124-443-00	ELECT	100uF	20%	10V
S701	1-572-994-11	SWITCH, PUSH (3 KEY) (TAPE SELECT/DUBBING SPEED/DOLBY NR)				C508	1-130-479-00	MYLAR	0.0047uF	5%	50V
*****						C509	1-162-289-31	CERAMIC	390PF	10%	50V
*	A-4345-901-A	TC MAIN BOARD, COMPLETE (US, AEP, G, IT, EE, UK)				C511	1-124-925-11	ELECT	2.2uF	20%	100V
*	A-4347-525-A	TC MAIN BOARD, COMPLETE (CND) *****				C513	1-124-472-11	ELECT	470uF	20%	10V
	1-535-995-11	JUMPER, FILM (WITH TERMINAL)				C514	1-131-587-11	TANTALUM	0.68uF	5%	35V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S				C515	1-124-257-00	ELECT	2.2uF	20%	50V
		< CAPACITOR >				C516	1-126-163-11	ELECT	4.7uF	20%	50V
C400	1-162-289-31	CERAMIC	390PF	10%	50V	C517	1-124-465-00	ELECT	0.47uF	20%	50V
C401	1-136-157-00	FILM	0.022uF	5%	50V	C518	1-124-907-11	ELECT	10uF	20%	50V
C402	1-124-767-00	ELECT	2.2uF	20%	50V	C520	1-124-907-11	ELECT	10uF	20%	50V
C403	1-124-443-00	ELECT	100uF	20%	10V	C521	1-162-284-31	CERAMIC	150PF	10%	50V
C404	1-162-289-31	CERAMIC	390PF	10%	50V	C522	1-136-273-91	FILM	75PF	5%	630V
C405	1-136-157-00	FILM	0.022uF	5%	50V	C523	1-136-271-00	FILM	56PF	5%	630V
C406	1-124-767-00	ELECT	2.2uF	20%	50V	C524	1-162-280-31	CERAMIC	82PF	10%	50V
C407	1-124-443-00	ELECT	100uF	20%	10V	C525	1-136-562-11	FILM	0.0082uF	5%	630V
C408	1-130-479-00	MYLAR	0.0047uF	5%	50V	C526	1-130-482-00	MYLAR	0.0082uF	5%	50V
C409	1-162-289-31	CERAMIC	390PF	10%	50V	C527	1-124-925-11	ELECT	2.2uF	20%	100V
C410	1-124-903-11	ELECT	1uF	20%	50V	C528	1-130-482-00	MYLAR	0.0082uF	5%	50V
C411	1-124-925-11	ELECT	2.2uF	20%	100V	C529	1-130-478-00	MYLAR	0.0039uF	5%	50V
C413	1-124-472-11	ELECT	470uF	20%	10V	C530	1-130-478-00	MYLAR	0.0039uF	5%	50V
C414	1-131-587-11	TANTALUM	0.68uF	5%	35V	C531	1-124-902-00	ELECT	0.47uF	20%	50V
C415	1-124-257-00	ELECT	2.2uF	20%	50V	C532	1-124-925-11	ELECT	2.2uF	20%	100V
C416	1-126-163-11	ELECT	4.7uF	20%	50V	C533	1-124-556-11	ELECT	2200uF	20%	16V
C417	1-124-465-00	ELECT	0.47uF	20%	50V	C534	1-124-120-11	ELECT	220uF	20%	25V
C418	1-124-907-11	ELECT	10uF	20%	50V	C535	1-124-927-11	ELECT	4.7uF	20%	100V
C419	1-124-907-11	ELECT	10uF	20%	50V	C536	1-124-903-11	ELECT	1uF	20%	50V
C420	1-124-907-11	ELECT	10uF	20%	50V	C540	1-124-472-11	ELECT	470uF	20%	10V
C421	1-162-284-31	CERAMIC	150PF	10%	50V	C541	1-162-282-31	CERAMIC	100PF	10%	50V
C422	1-136-273-91	FILM	75PF	5%	630V	C542	1-164-159-11	CERAMIC	0.1uF		50V
C423	1-136-271-00	FILM	56PF	5%	630V	C546	1-162-282-31	CERAMIC	100PF	10%	50V
C424	1-162-280-31	CERAMIC	82PF	10%	50V	C560	1-124-472-11	ELECT	470uF	20%	10V
C441	1-162-282-31	CERAMIC	100PF	10%	50V						
C442	1-164-159-11	CERAMIC	0.1uF		50V						
C443	1-124-903-11	ELECT	1uF	20%	50V						
C446	1-162-282-31	CERAMIC	100PF	10%	50V						
C500	1-162-289-31	CERAMIC	390PF	10%	50V						
C501	1-136-157-00	FILM	0.022uF	5%	50V						
C502	1-124-767-00	ELECT	2.2uF	20%	50V						
		< CONNECTOR >				* CN400	1-564-506-11	PLUG, CONNECTOR 3P			
						* CN401	1-564-509-11	PLUG, CONNECTOR 6P			
						* CN402	1-564-505-11	PLUG, CONNECTOR 2P			
						* CN405	1-560-061-00	PIN, CONNECTOR 3P			
						* CN407	1-560-060-00	PIN, CONNECTOR 2P			
						* CN410	1-564-506-11	PLUG, CONNECTOR 3P			
						* CN411	1-564-508-11	PLUG, CONNECTOR 5P			
						* CN412	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			

TC MAIN	VOL
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< DIODE >							
D500	8-719-912-20	DIODE 1SS120		R433	1-247-883-00	CARBON 150K 5% 1/4W	
D501	8-719-912-20	DIODE 1SS120		R436	1-249-437-11	CARBON 47K 5% 1/4W	
D502	8-719-912-20	DIODE 1SS120		R437	1-249-437-11	CARBON 47K 5% 1/4W	
D503	8-719-912-20	DIODE 1SS120		R438	1-247-874-11	CARBON 62K 5% 1/4W	
D504	8-719-912-20	DIODE 1SS120		R439	1-249-440-11	CARBON 82K 5% 1/4W	
D505	8-719-912-20	DIODE 1SS120		R441	1-247-882-11	CARBON 130K 5% 1/4W	
D506	8-719-912-20	DIODE 1SS120		R442	1-249-435-11	CARBON 33K 5% 1/4W	
D507	8-719-912-20	DIODE 1SS120		R443	1-247-868-11	CARBON 36K 5% 1/4W	
< IC >							
IC400	8-759-111-44	IC uPC4570C-1		R446	1-249-438-11	CARBON 56K 5% 1/4W	
IC401	8-759-111-44	IC uPC4570C-1		R450	1-247-868-11	CARBON 36K 5% 1/4W	
IC402	8-759-000-49	IC MC14066BCP		R451	1-247-872-11	CARBON 51K 5% 1/4W	
IC403	8-752-057-21	IC CXA1100P		R452	1-249-437-11	CARBON 47K 5% 1/4W	
IC404	8-752-038-02	IC CXA1198AP		R453	1-247-881-00	CARBON 120K 5% 1/4W	
IC501	8-759-140-11	IC uPD4011BC		R517	1-249-437-11	CARBON 47K 5% 1/4W	
IC502	8-759-040-01	IC MC14001BCP		R518	1-247-838-00	CARBON 2K 5% 1/4W	
IC503	8-759-140-11	IC uPD4011BC		R527	1-249-441-11	CARBON 100K 5% 1/4W	
IC515	8-759-604-86	IC M5F7807L		R532	1-249-393-11	CARBON 10 5% 1/4W	
IC516	8-759-604-90	IC M5F7907L		R538	1-249-385-11	CARBON 2.2 5% 1/8W	
				R539	1-249-392-11	CARBON 8.2 5% 1/4W	
				R540	1-249-392-11	CARBON 8.2 5% 1/4W	
				< VARIABLE RESISTOR >			
				RV400	1-230-496-11	RES. ADJ. CARBON 10K	
				RV401	1-230-496-11	RES. ADJ. CARBON 10K	
L400	1-410-780-11	INDUCTOR 27mH		RV402	1-230-496-11	RES. ADJ. CARBON 10K	
L500	1-410-780-11	INDUCTOR 27mH		RV403	1-230-499-11	RES. ADJ. CARBON 100K	
				RV500	1-230-496-11	RES. ADJ. CARBON 10K	
< TRANSISTOR >				RV501	1-230-496-11	RES. ADJ. CARBON 10K	
Q400	8-729-900-89	TRANSISTOR DTC144ES		RV502	1-230-496-11	RES. ADJ. CARBON 10K	
Q401	8-729-900-89	TRANSISTOR DTC144ES		RV503	1-230-499-11	RES. ADJ. CARBON 100K	
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE		RV504	1-230-495-11	RES. ADJ. CARBON 2.2K	
Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE		RV505	1-230-495-11	RES. ADJ. CARBON 2.2K	
Q500	8-729-900-89	TRANSISTOR DTC144ES		< RELAY >			
Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE		RY400	1-515-614-11	RELAY	
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE		< TRANSFORMER >			
Q504	8-729-194-57	TRANSISTOR 2SC945-P		T500	1-433-349-11	TRANSFORMER, BIAS OSCILLATION	
Q505	8-729-194-57	TRANSISTOR 2SC945-P		*****			
Q506	8-729-281-52	TRANSISTOR 2SC1815-Y		* 1-641-706-11	VOL BOARD		
Q507	8-729-900-61	TRANSISTOR DTA114ES		*****			
Q508	8-729-900-80	TRANSISTOR DTC114ES		< CAPACITOR >			
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE		C1120	1-161-379-00	CERAMIC 0.01uF 20% 25V	
Q511	8-729-900-65	TRANSISTOR DTA144ES		< VARIABLE RESISTOR >			
Q512	8-729-900-89	TRANSISTOR DTC144ES		RV1109	1-241-350-11	RES. VAR. CARBON 100K/100K (VOLUME)	

R415	1-215-460-00	METAL 43K 1% 1/6W					
R417	1-249-437-11	CARBON 47K 5% 1/4W					
R418	1-247-838-00	CARBON 2K 5% 1/4W					
R431	1-249-435-11	CARBON 33K 5% 1/4W					
R432	1-247-868-11	CARBON 36K 5% 1/4W					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
15	1-590-459-11	WIRE, FLAT TYPE (11 CORE)	
16	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
17	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
18	1-590-901-11	WIRE, FLAT TYPE (22 CORE)	
△306	8-848-144-11	DEVICE, OPTICAL KSS-240A	
△CNP13011	575-651-61	CORD. POWER (AEP, G, IT, EE)	
△CNP13011	575-652-61	CORD. POWER (UK)	
△CNP13011	690-609-11	CORD. POWER (US, CND)	
HE1	1-543-873-11	HEAD, MAGNETIC (ERASE) (DECK B)	
HP1	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
HRP1	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
M1	X-3362-377-1	MOTOR (WH) ASSY	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-3	MOTOR ASSY (SPINDLE)	
M191	A-4604-363-A	MOTOR (L) ASSY	
△S1301	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	
△T1301	1-450-595-11	TRANSFORMER, POWER (AEP, G, IT, EE)	
△T1301	1-450-783-11	TRANSFORMER, POWER (UK)	
△T1301	1-450-817-11	TRANSFORMER, POWER (US)	
△T1301	1-450-818-11	TRANSFORMER, POWER (CND)	

ACCESSORIES & PACKING MATERIALS

	1-465-962-11	COMMANDER (STANDARD TYPE) (RM-S171)	
	1-501-369-11	ANTENNA, LEAD	
	1-501-374-11	ANTENNA, LOOP	
*	3-376-136-01	CUSHION (HALF)	
	3-754-667-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)	
	3-754-667-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT)	
	4-921-934-01	SHEET, PROTECTION	
	4-948-236-01	CUSHION (UK)	
*	4-949-428-11	CUSHION (US, CND, AEP, G, IT)	
*	4-950-626-01	INDIVIDUAL CARTON (AEP, IT)	

HARDWARE LIST

#1	7-682-547-04	SCREW +BVIT 3X6 (S)
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3
#4	7-621-849-00	SCREW, TAPPING
#5	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT
#6	7-685-135-19	SCREW +BTP 2.6X10 TYPE2 N-S
#7	7-621-775-20	SCREW +8 2.6X5
#8	7-685-133-19	SCREW +P 2.6X6 TYPE2
#9	7-623-921-01	RING, RETAINING, CAPSTAN

Ref. No.	Part No.	Description	Remark
#10	7-688-001-01	W 2. SMALL	
#11	7-621-775-10	SCREW +8 2.6X4	
#12	7-621-255-15	SCREW +P 2X3	
#13	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	

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.

PS-LX49/LX49P

SERVICE MANUAL

US Model
PS-LX49/LX49P

Italian Model
PS-LX49

E Model
PS-LX49P

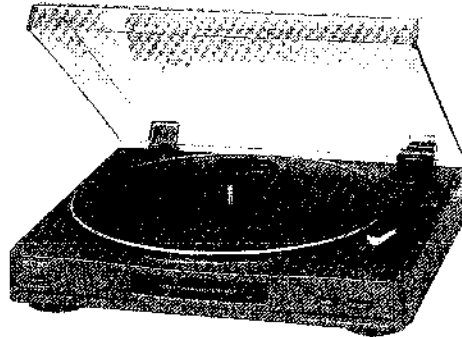


Photo : PS-LX49

SPECIFICATIONS

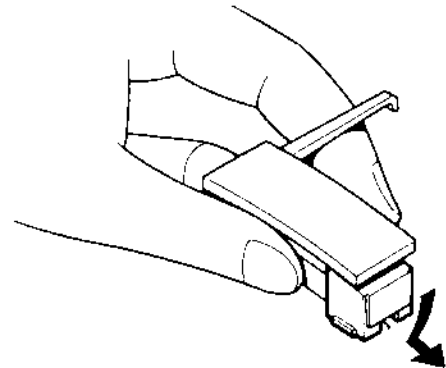
Turntable	
Platter	30cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 1/3 rpm/45 rpm switchable
Wow and flutter	0.25%(WRMS)
Signal-to-noise ratio	45dB (DIN-B)
Automatic system	Return, reject
Tonearm	
Type	Dynamically balanced
Pivot-to-stylus length	203 mm (8 in.)
Overall arm length	235 mm (9 1/4 in.)
Cartridge	
Type	Moving magnet type
Frequency response	20 Hz-20kHz
Stylus	CN-234
General	
Dimensions	355x97x342 mm(w/h/d) (14x3 5/6x13 1/2 inches)
Weight	Approx. 2.6kg (5 lb 12 oz)
Power requirements	220V AC50Hz (PS-LX49) 12V DC (PS-LX49P)
Power consumption	2W
Accessory supplied	45-rpm adaptor (1)
Optional accessories	Replacement stylus CN-234 Stat spray XP-C10 Cleaner XP-C1, XP-C2

Design and specifications subject to change without notice.

Note

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

REPLACING THE STYLUS



Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An CN-234 replacement stylus is available at your Sony dealer.

Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.

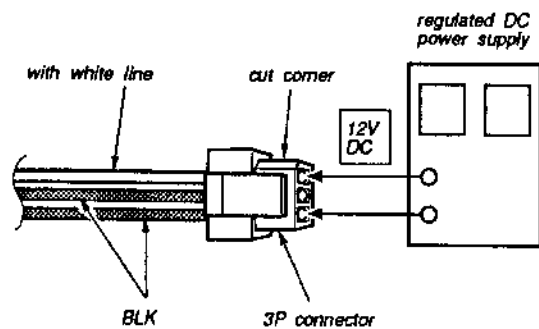
STEREO TURNTABLE SYSTEM
SONY®



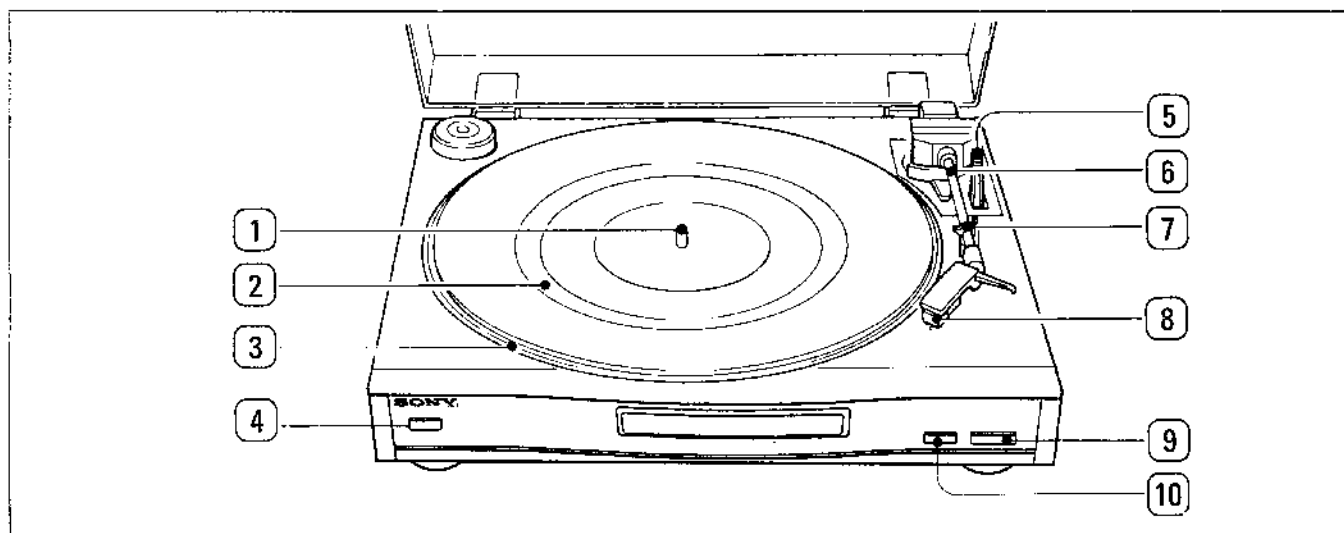
REPAIRING PRECAUTION

[To supply B+ voltage]

The power of this unit is fed from HST model. Because of this, connect the regulated power supply as illustrated right when this unit alone operates.

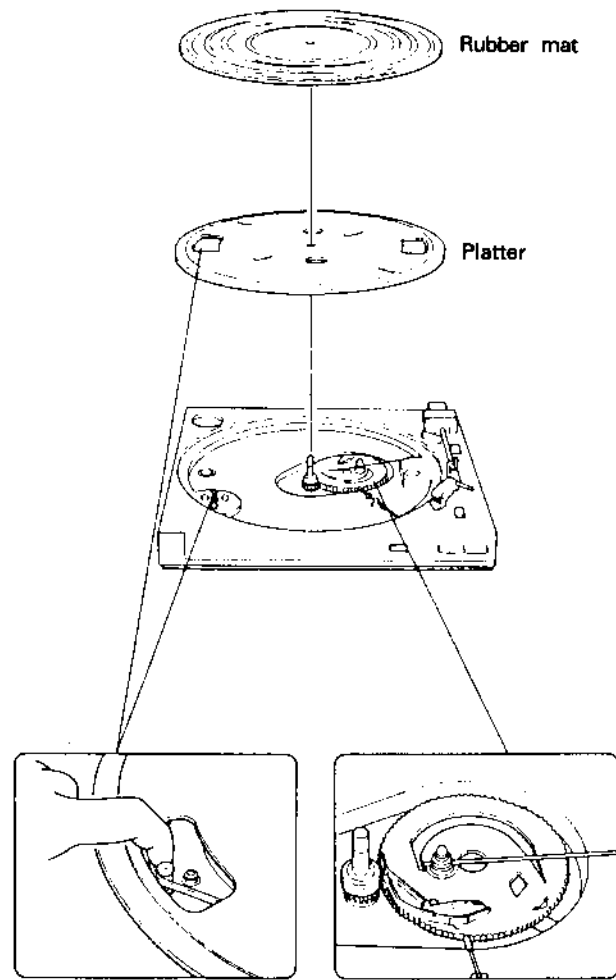


LOCATION AND FUNCTION OF CONTROLS



- 1 Center spindle
- 2 Rubber mat
- 3 Turntable platter
- 4 POWER switch (PS-LX49 only)
- 5 Cueing lever (▼ / ▼)
- 6 Tonearm
- 7 Arm rest
- 8 Cartridge
- 9 REJECT button
- 10 SPEED select button
Allows selection of 45rpm or 33rpm turntable speed.

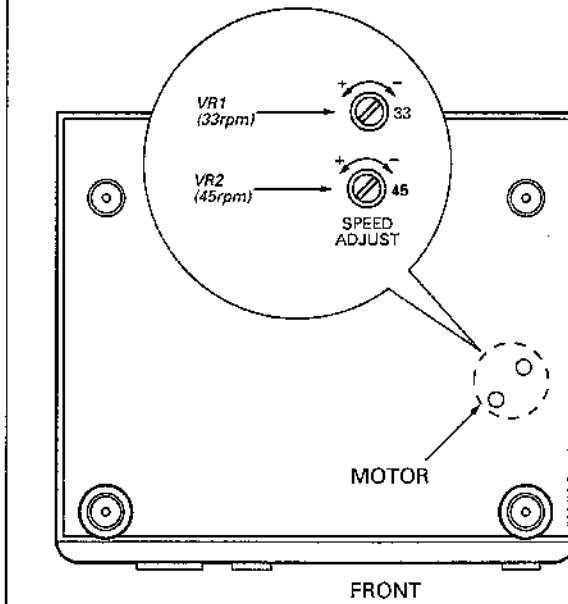
TURNTABLE ASSEMBLY



Hook the belt on the motor pulley.
If the belt is removed from the platter, replace it with the glossy side outward.

Speed Adjustment

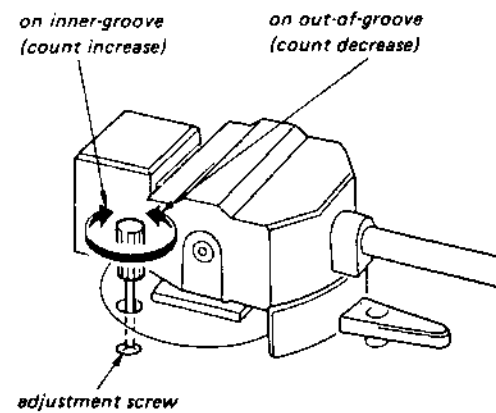
- Note: Be sure to perform 45rpm adjustment before 33rpm.
1. Place a stroboscope board on the turntable sheet.
Press the START button.
Adjust VR2 so that the striped pattern of stroboscope board is stationary.
 2. Set the SPEED switch to 45.
Adjust VR1 in the same way.



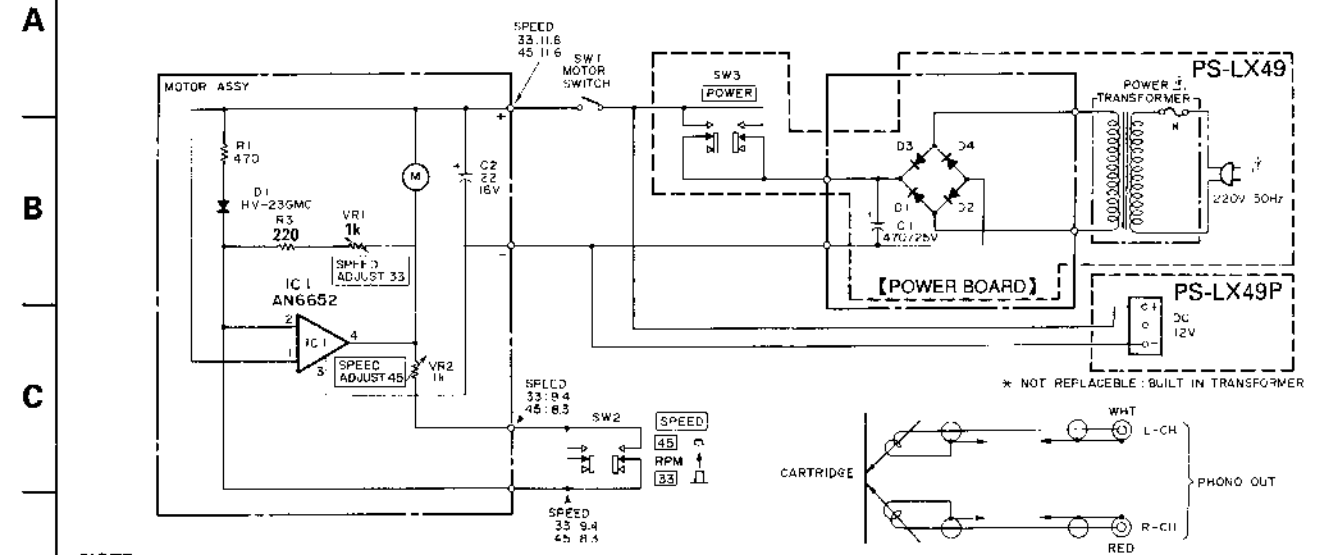
Stylus Drop-point Adjustment

1. Place a test record (YFSC-16) on the turntable sheet.
2. Set the SPEED switch to 33.
3. Press the START button.
4. By using a screwdriver, turn the adjustment screw so that the stylus tip drops on the record at the 7-17 counts position.
5. Move the arm to return detecting groove and confirm that the auto-return operation is started normally.

Note: The proper adjustment for a 30cm record is also correct for a 17cm record.
when turning adjustment screw, put the arm on the arm rest.



SCHEMATIC DIAGRAM



NOTE:

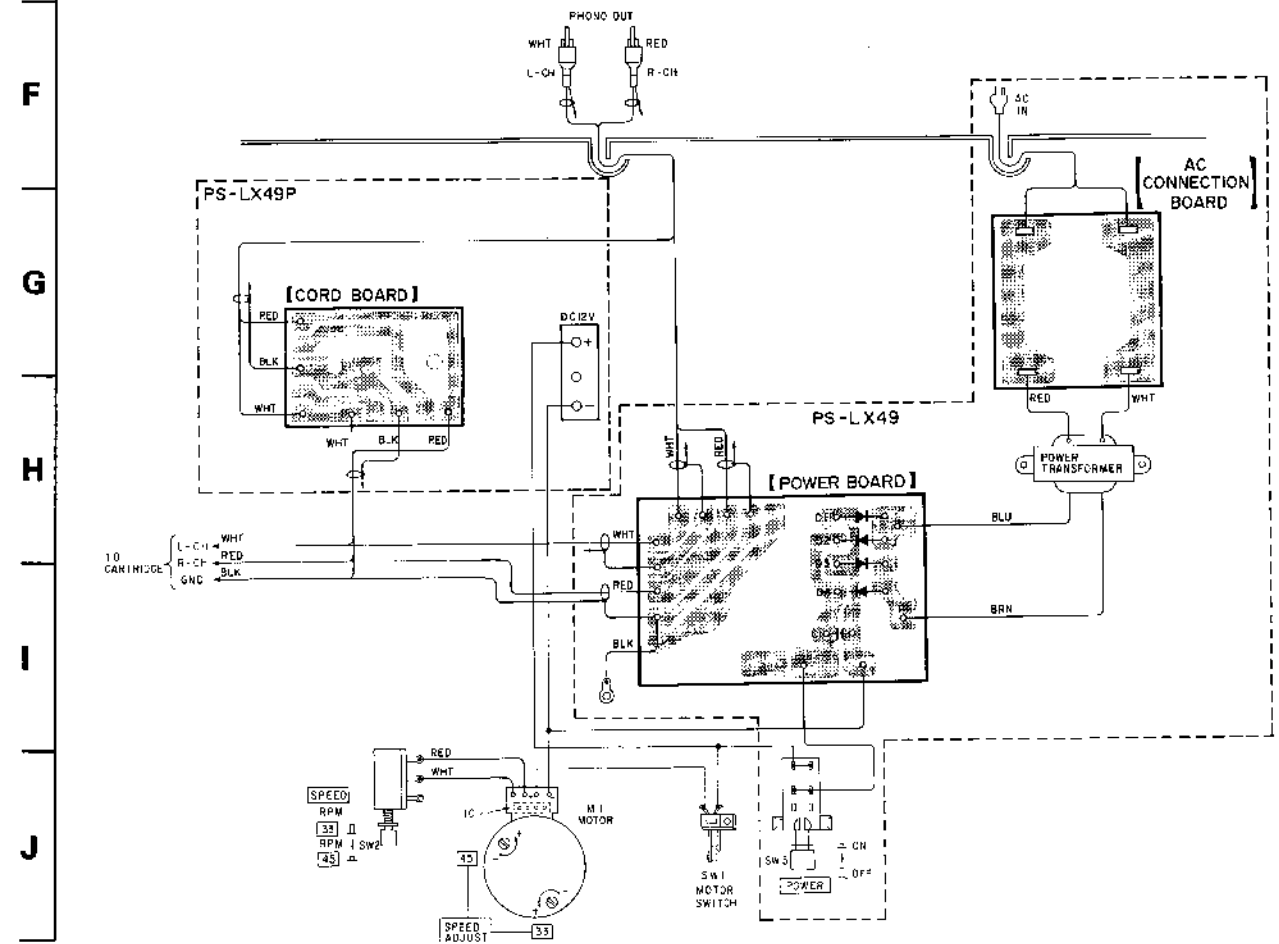
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

Switches:

Ref.No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF

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

WIRING DIAGRAM



EXPLODED VIEW

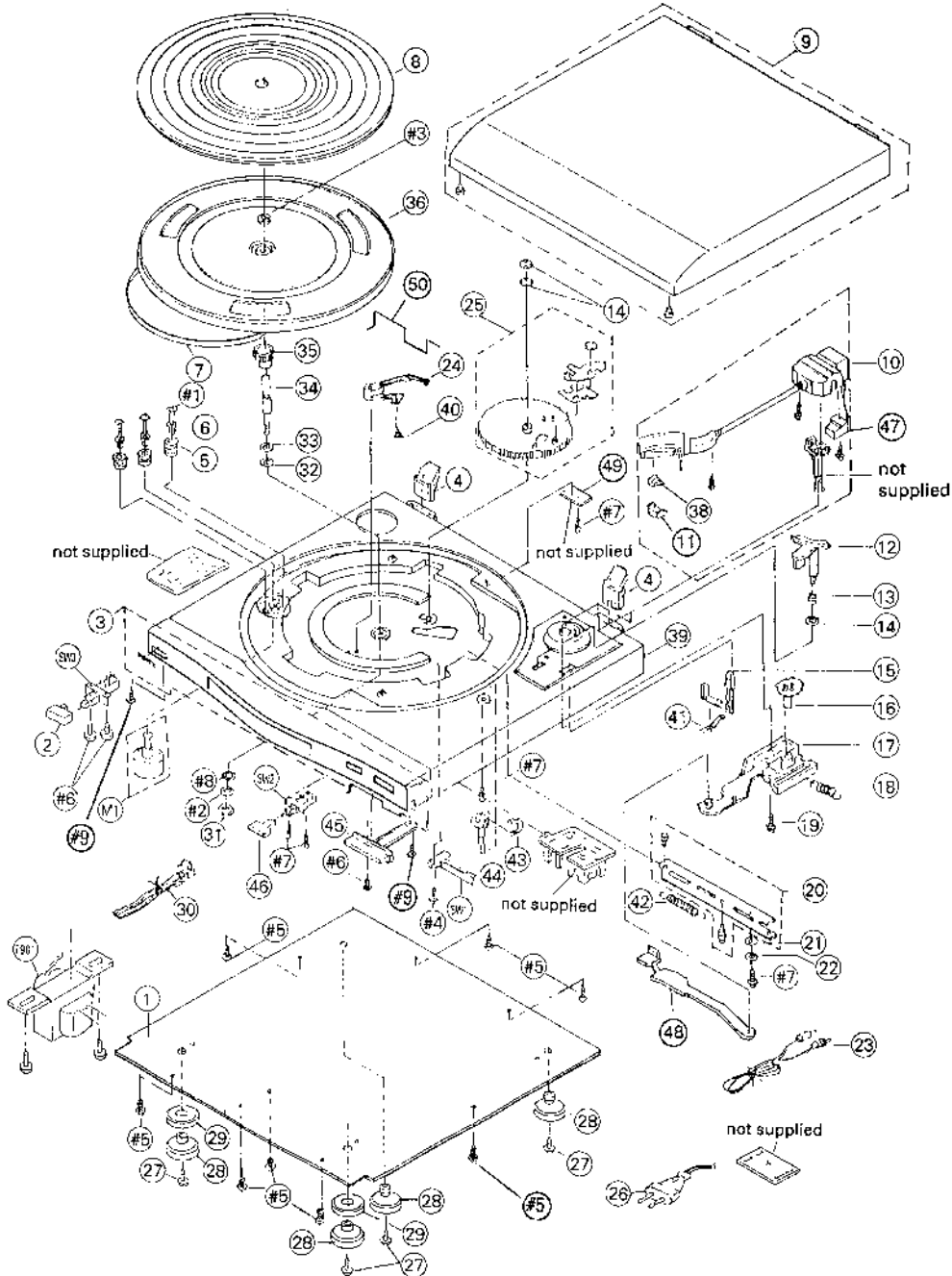
NOTE:

- -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.

- 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.

- Screw(# mark) list is given in the last of this parts list.

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



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-950-488-01	BUTTON BOARD		5	4-947-505-01	CUSHION MOTOR	
2	4-950-507-01	KNOB POWER (49:US, IT)		6	4-947-504-01	COLLAR	
3	A-4660-136-A	PANEL (G) ASSY, FRONT (49P:US, E)		7	4-947-503-01	BELT	
3	A-4660-144-A	PANEL (B) ASSY, FRONT (49:US, IT)		8	4-947-539-01	RUBBER MAT	
4	4-947-476-01	HINGE		9	A-4604-946-A	COVER ASSY, DUST	

PS-LX49/LX49P

Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
10	A-4604-940-A	ARM ASSY, TONE		29	4-950-489-01	FOOT RING (49:US/49P:US, E)	
11	4-948-095-01	COVER CARTRIDGE		30	1-696-145-11	DC CORD (PS-LX49P)	
12	4-947-466-01	TONE ARM ELEVATOR		31	4-947-510-01	NUT	
13	4-947-467-01	SPRING (6)		32	3-451-162-01	WASHER (56)	
14	4-947-514-01	4MM CS RING		33	3-701-445-21	WASHER	
15	4-947-468-01	LEVER, CUEING		34	4-947-498-01	STELL BALL	
16	4-947-470-01	ADJUST CAM		35	4-947-497-01	GEAR	
* 17	4-947-471-01	LINK, RETURN		36	4-947-494-01	TURNTABLE PLATTER	
18	4-947-472-01	SPRING (9-1)		38	4-951-290-01	STYLUS (CN-234)	
19	4-948-097-01	SCREW (68)		39	4-947-475-01	MAIN CABINET (G) (49P:US, E)	
20	A-4604-947-A	RETURN ASSY, LEVER		39	4-950-487-01	MAIN CABINET (B) (49:US, IT)	
21	3-659-350-01	WASHER		40	4-947-496-01	SPRING (34)	
22	4-890-173-01	WASHER		* 41	4-947-477-01	SPRING SHEET	
23	1-696-142-11	PHONO CORD		42	4-947-485-01	SPRING (22)	
24	4-947-495-01	WIPER REJECT		43	4-947-490-01	ARM CLIP	
25	A-4604-916-A	GEAR ASSY, SPUR		44	4-947-491-01	ARM REST	
26	1-696-382-11	CORD AC (PS-LX49) (US)		45	4-950-485-01	KNOB RETURN	
26	1-696-383-11	CORD AC (PS-LX49) (IT)		46	4-950-486-01	KNOB SPEED	
27	4-950-497-01	FOOT SEAT		47	4-947-464-01	COUNTER WEIGHT	
28	4-950-490-01	PLASTIC STAND		* 48	4-947-487-01	RETURN LINK	
				49	1-644-410-11	P.C BOARD (PS-LX49P)	
				50	4-948-101-01	SPRING (38)	

ELECTRICAL PARTS LIST

NOTE:

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

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

• 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
MF : μ F, PF : μ μ F
- COILS
MMH : mH, uH : μ H

Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
23	1-696-142-11	PHONO CORD		* 49	1-644-410-11	P.C BOARD (PS-LX49P)	
26	1-696-382-11	CORD AC (PS-LX49) (US)					
26	1-696-383-11	CORD AC (PS-LX49) (IT)					
30	1-696-145-11	DC CORD (PS-LX49P)					
* 49	1-644-410-11	P.C BOARD (PS-LX49P)					
M1	A-4604-945-A	MOTOR ASSY					
SW1	1-692-186-11	SWITCH (MOTOR SW)					
SW2	1-692-187-11	PUSH SWITCH (SPEED SW)					
SW3	1-692-211-11	SWITCH (POWER) (PS-LX49)					
Δ T901	1-450-986-11	TRANSFORMER (PS-LX49) (US)					
Δ T901	1-450-987-11	TRANSFORMER (PS-LX49) (IT)					

ACCESSORIES & PACKING MATERIALS							

	3-754-840-21	MANUAL, INSTRUCTION (English) (US)					
	3-754-840-41	MANUAL, INSTRUCTION (German, Dutch, Swedish, Italian) (Italian)					

- * 49 4-947-532-01 SNOW BOX (L)
- * 49 4-947-533-01 SNOW BOX (R)

HARDWARE LIST

- #1 7-621-773-87 SCREW (64)
- #2 7-623-210-22 WASHER (57)
- #3 7-624-110-04 6MM E RING
- #4 7-685-105-01 SCREW (59)
- #5 7-685-147-21 SCREW (70)
- #6 7-685-646-79 SCREW (62)
- #7 7-685-647-79 SCREW (58)
- #8 7-688-005-01 WASHER (69)
- #9 7-685-146-21 SCREW (60)

Sony Corporation

Audio Group

- 6 -

9-956-955-11

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PS-LX49/LX49P

SONY SERVICE MANUAL


US Model
PS-LX49/LX49P

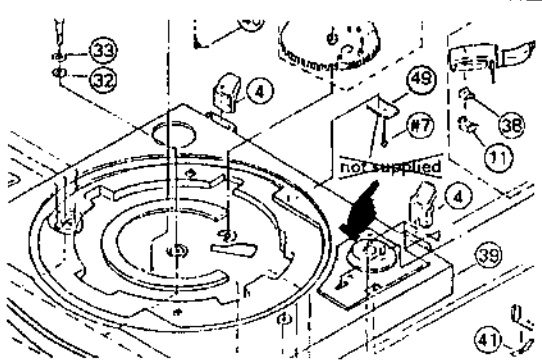
Italian Model
PS-LX49

E Model
PS-LX49P

CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
6	49	1-644-410-11	P.C BOARD (PS-LX49P)	* 1-644-410-11	CORD BOARD (PS-LX49P)
	49			* 1-652-482-11	PHONO BOARD (PS-LX49)
5					

Schematic Diagram and Wiring Diagram

Page	Model	INCORRECT	CORRECT
4	PS-LX49	POWER BOARD	PHONO BOARD