

HST-D205

SERVICE MANUAL

*AEP Model
UK Model*



- HST-D205 are the STEREO DECK RECEIVER in LBT-D205/D205CD.

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

Model Name Using Similar Mechanism	HST-D105
Tape Transport Mechanism Type	DECK A TCM-180VW-H2
	DECK B TCM-180VW-H4

SPECIFICATIONS

Tuner System	FM stereo FM/AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 to 108 MHz
Antenna	75 ohms unbalanced 300 ohms balanced
Intermediate frequency	10.7 MHz
MW/LW tuner section	
Tuning range	MW: 522 to 1,611 kHz (Italian model) 531 to 1,602 kHz (AEP, UK, Germany models) LW: 144 to 288 kHz (Italian model) 153 to 279 kHz (AEP, UK, Germany models)
Antenna	AM loop antenna External antenna terminal
Intermediate frequency	450 kHz
Amplifier	
DIN power output	30 W + 30 W (6 ohms, at 1 kHz)
Continuous RMS power output	35 W + 35 W (6 ohms, at 1 kHz, 5% THD)
Music power output	60 W + 60 W (6 ohms)

Input	Jack type	Sensitivity	Impedance
PHONO IN	Phono	3 mV	47 kohms
CD IN	Phono	300 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 CD: 15 Hz to 50 kHz \pm_{-3}^{+0} 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)
Wow and flutter	$\pm 0.2\%$ (DIN)

General

Power requirements	220–230 V AC, 50/60 Hz (AEP, Germany, Italian models) 240 V AC, 50 Hz (UK model)
Power consumption	90 W
Weight	Approx. 7.8 kg
Dimensions	Approx. 355 × 377 × 320 mm (w/h/d, including projections)

— continued on next page —

COMPACT HI-FI STEREO SYSTEM
SONY[®]



Supplied accessories

- Remote commander RM-S130 (1)
- FM wire antenna (1)
- AM loop antenna (1)
- Batteries Sony SUM-3 (NS)(2)

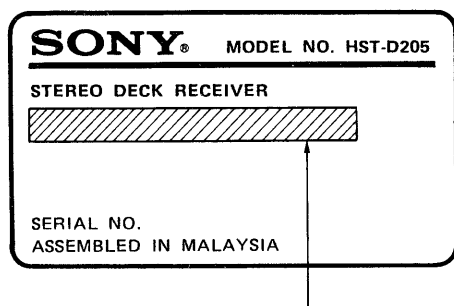
Design and specifications subject to change without notice.

Note

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

MODEL IDENTIFICATION

—Specification Label—





AEP, Germany, Italian Model: AC: 220V–230V~50/60Hz
 UK Model: AC: 240V~50Hz

TABLE OF CONTENTS

<u>Title</u>	<u>Section</u>	<u>Page</u>
SECTION 1. GENERAL		
1-1. Location of Controls		3
SECTION 2. ADJUSTMENTS		
2-1. Mechanical Adjustments		4
2-2. Electrical Adjustments		4
SECTION 3. DIAGRAMS		
3-1. Block Diagram		7
3-2. IC Block Diagrams		9
3-3. Semiconductor Lead Layouts		11
3-4. Circuit Boards Location		11
3-5. Printed Wiring Boards (TC Section)		13
3-6. Schematic Diagram (TC Section)		15
3-7. Schematic Diagram (Main Section)		19
3-8. Printed Wiring Boards (Main Section)		23
SECTION 4. EXPLODED VIEWS		
4-1. Cabinet Section		27
4-2. Front Panel Section		28
4-3. Mechanism Deck Section (1)		29
4-4. Mechanism Deck Section (2)		30
4-5. Mechanism Deck Section (3)		31
SECTION 5. ELECTRICAL PARTS LIST		
		32

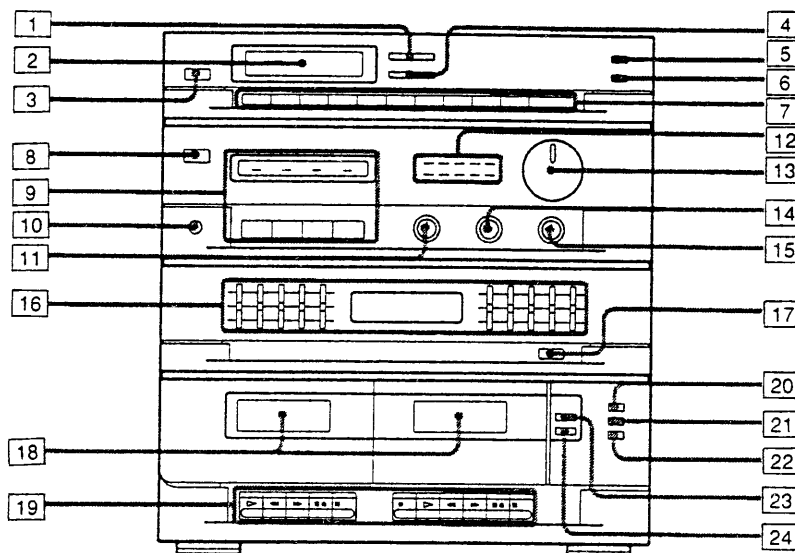
SAFETY-RELATED COMPONENT WARNING!!

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.

SECTION 1 GENERAL

This section is extracted from instruction manual.

1-1. LOCATION OF CONTROLS



Refer to the pages indicated in ● for details.

Tuner

- | | |
|---|---|
| 1 | BAND SELECTOR ● |
| 2 | Display window |
| 3 | Remote sensor |
| 4 | DUAL MODE TUNING buttons ● |
| 5 | MEMORY button ● |
| 6 | ST/MUTE button ● |
| 7 | Buttons for storing station frequencies ● |

Amplifier

- | | |
|----|--|
| 8 | POWER switch ● |
| 9 | Function selectors and indicators |
| 10 | HEADPHONES jack |
| 11 | SURROUND control ● |
| 12 | OUTPUT LEVEL METER ● |
| 13 | VOLUME control ● |
| 14 | DBFB (dynamic bass feedback) control ● |
| 15 | BALANCE control ● |

Graphic equalizer

- | | |
|----|------------------------------|
| 16 | GRAPHIC EQUALIZER controls ● |
| 17 | EQUALIZER switch ● |

Cassette deck

- | | |
|----|--------------------------------------|
| 18 | Cassette holders |
| 19 | Tape operation buttons ● |
| | ◀ Leftward fast winding |
| | ▶▶ Rightward fast winding |
| | ▶ Forward play |
| | ■▲ Stop/eject |
| | PAUSE |
| | ● REC (deck B only) |
| 20 | TAPE SELECTOR ● |
| 21 | DUBBING SPEED (NORMAL/HIGH) switch ● |
| 22 | DOLBY NR (noise reduction) switch ● |
| 23 | HIGH SPEED DUBBING, indicator |
| 24 | RECORD indicator |

SECTION 2 ADJUSTMENTS • Refer to page 6 for Adjustment Location.

2-1. MECHANICAL ADJUSTMENTS PRECAUTIONS

- 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)

2-2. ELECTRICAL ADJUSTMENTS PRECAUTIONS

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 I

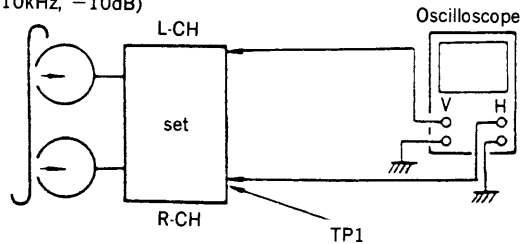
Type	Signal	Used for
P-4-A100	6.3kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

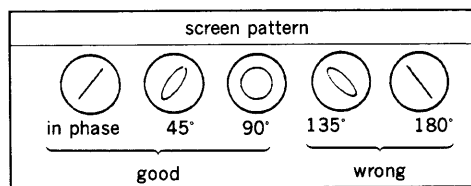
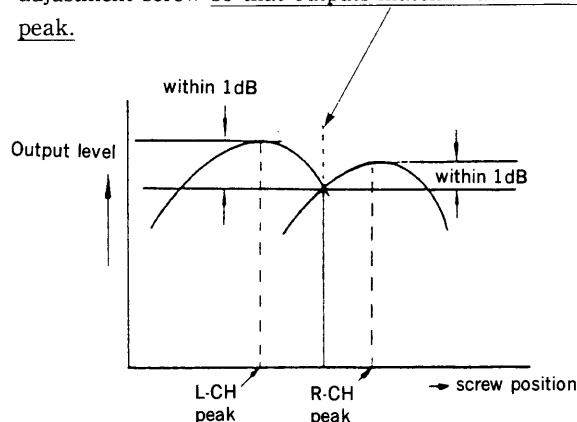
Note: Perform this adjustments for both decks.

Procedure :

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

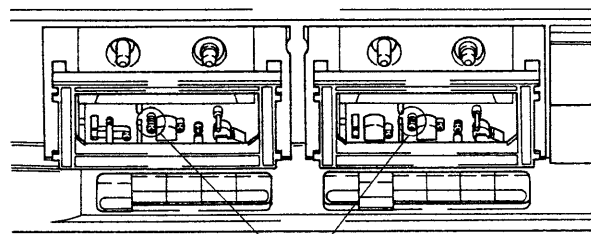


- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



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

Adjustment Location :

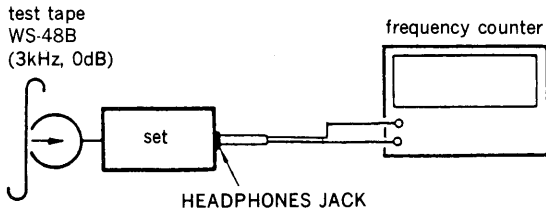


Adjustment screw
REC/PB head (deck B)
or PB head (deck A)

Tape Speed Adjustment

Procedure :

Mode : playback

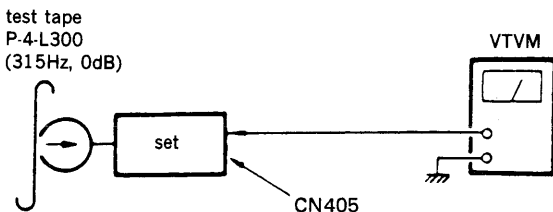


- High speed adjustment
 1. Short pin CN407. Then at HIGH speed mode.
 2. Adjust RV504 so that the frequency counter reads $6000 \pm 20\text{Hz}$.
(Must be first Adjustment B deck)
- NORMAL speed adjustment
 1. Remove the short pin from CN407. Then at NORMAL speed mode.
 2. Adjust RV505 so that the frequency counter reads $3000 \pm 10\text{Hz}$.
(See page 6 for Adjustment Location)

Playback Level Adjustment

Procedure :

Mode : FWD playback



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.

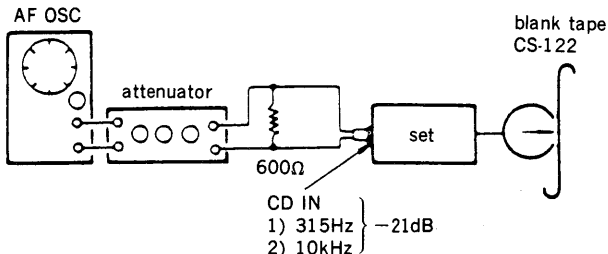
Adjustable limits :

CN405 level: $-5.0\text{dB} \pm 0.5$
level difference between the channels: within 1.0dB
(See page 6 for Adjustment Location)

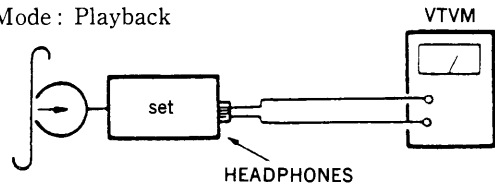
Record BIAS Current Adjustment

Procedure :

1. Mode : record



2. Mode : Playback



- (1) Supply a -21dB signal (315Hz) from the CD IN. Adjust the VOLUME control so that a -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 $0 \pm 0.5\text{dB}$.
- (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: $0\text{dB} \pm 0.5\text{dB}$
(See page 6 for Adjustment Location)

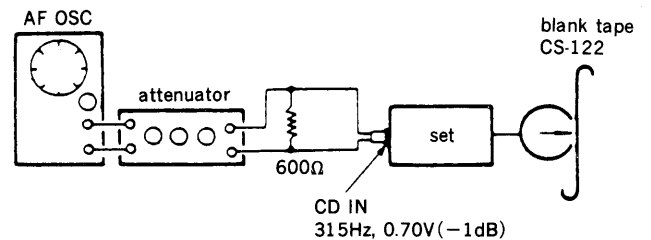
Record Level Adjustment

Setting :

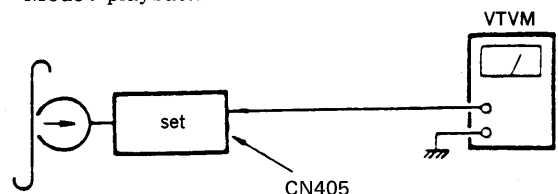
TAPE SELECT : TYPE I

Procedure :

1. Mode : record



2. Mode : playback



- Supply a -22.7dB 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 -25.0dB signal output is obtained at TP1 terminal.

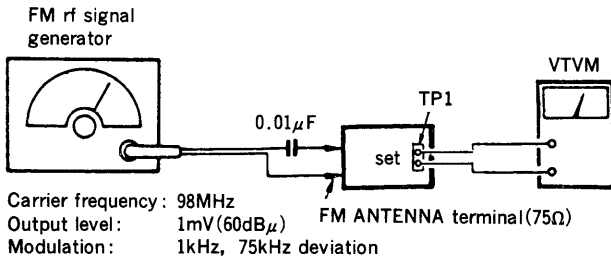
Adjustable limits :

HEADPHONES level : $-25.0\text{dB} + 0.5\text{dB}$

TUNER SECTION

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

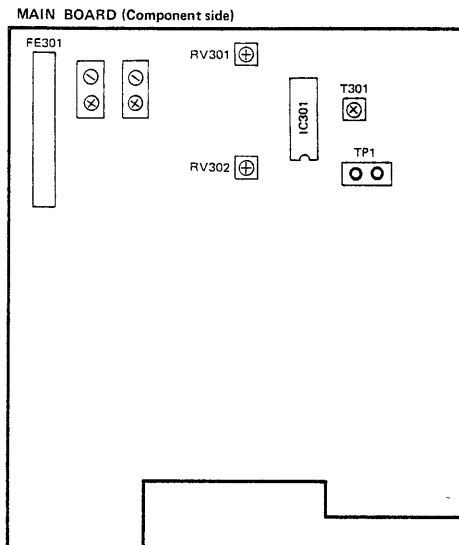
FM NULL Adjustment



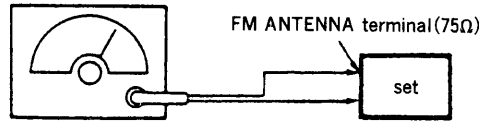
Procedure :

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

Adjustment Location :



FM Tuned Level Adjustment

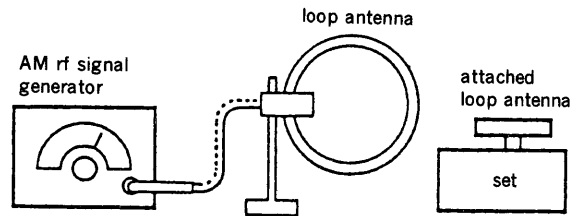


Carrier frequency : 98MHz
Output level : 0.018mV (25dB μ)
Modulation : 1kHz, 75kHz deviation

Procedure :

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

• AM SECTION

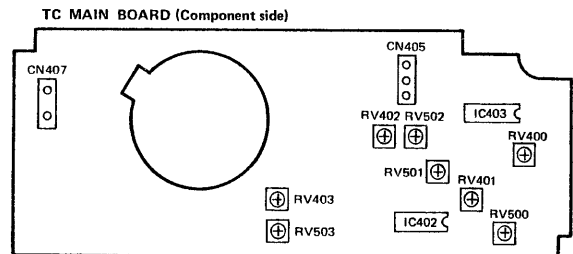


Carrier frequency : 216kHz
Modulation : 400Hz, 30% modulation

AM Tuned Level Adjustment

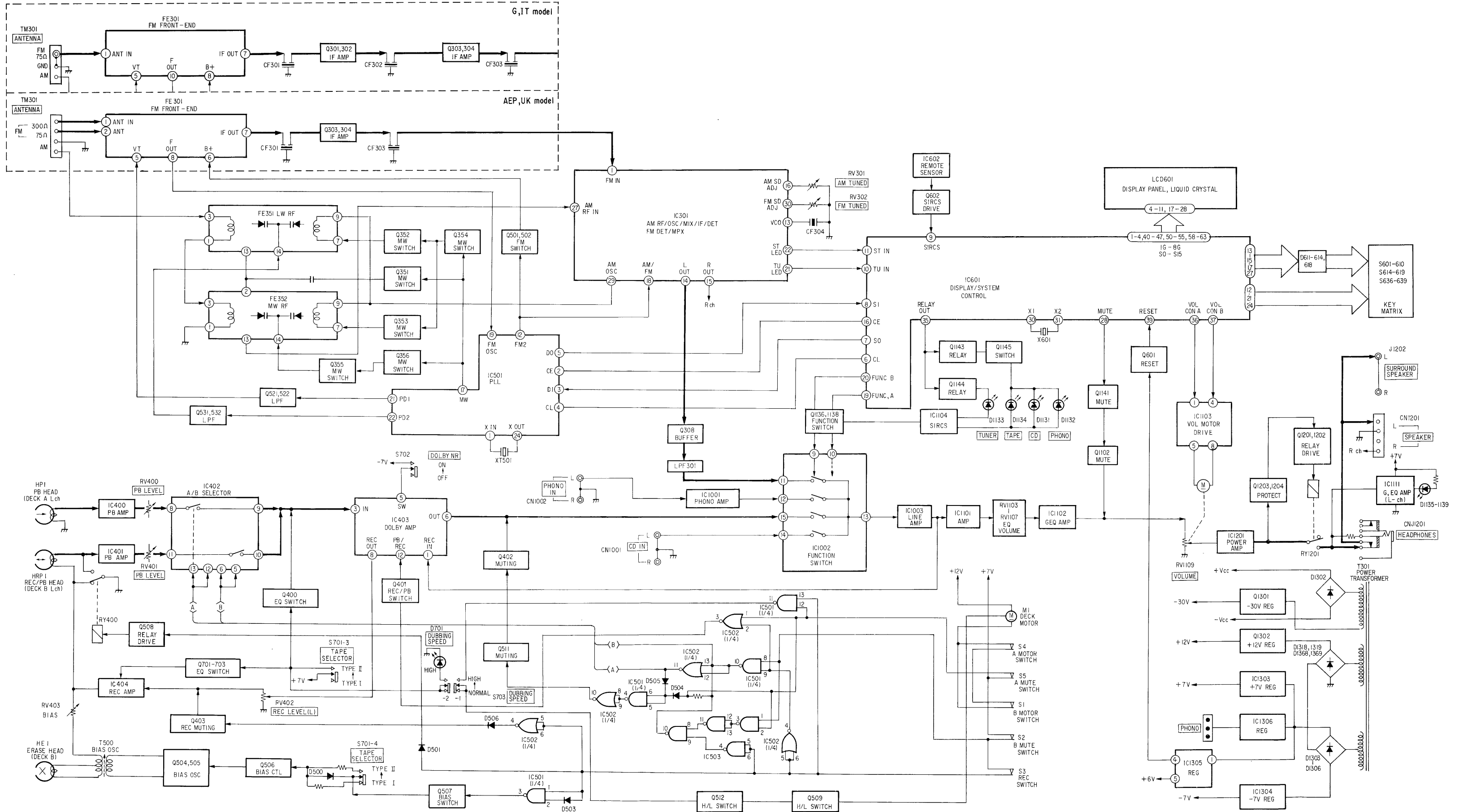
• LW BAND

- Set loop antenna input level to 2.5 mV (50 dB μ /m) and no signal tuned light should not on.
- Tune the set to 216 kHz.
- Adjust RV301 to the point where "TUNED" sign on FL601 just turns light.



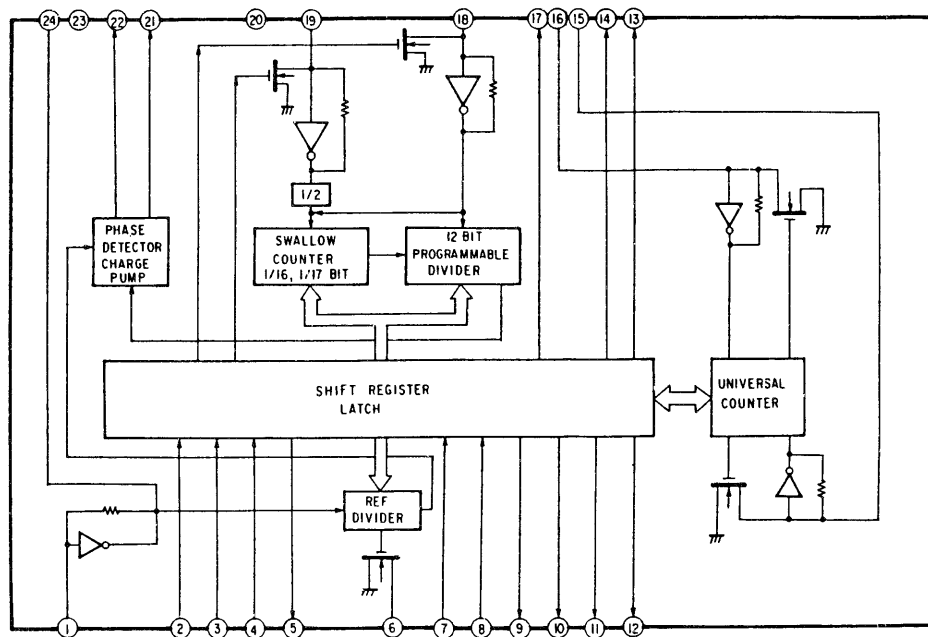
SECTION 3 DIAGRAMS

3-1. BLOCK DIAGRAM

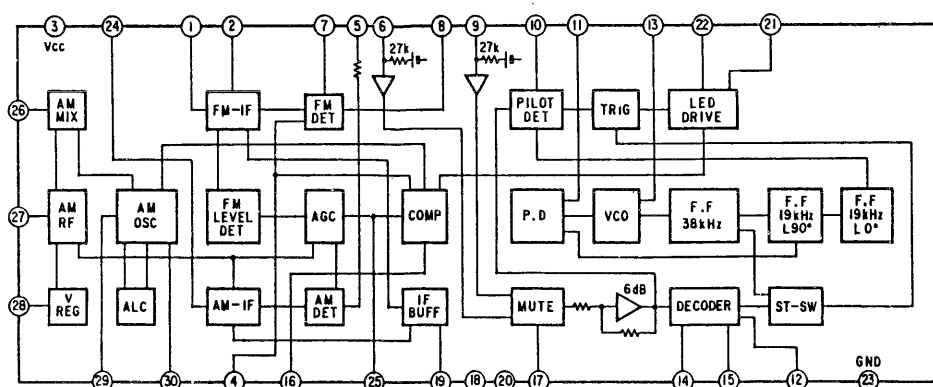


3.2. IC BLOCK DIAGRAMS

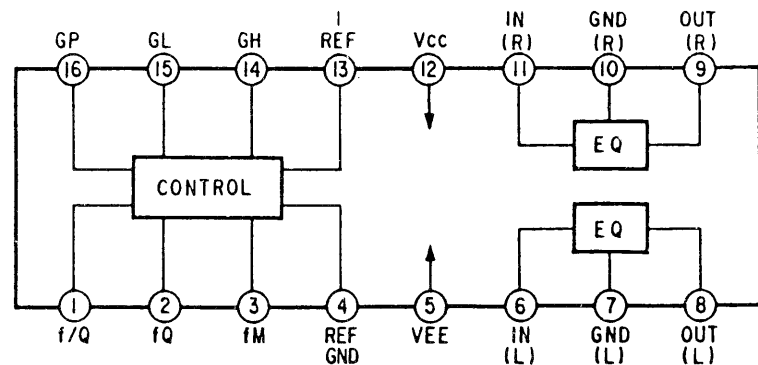
• IC501 LC7218



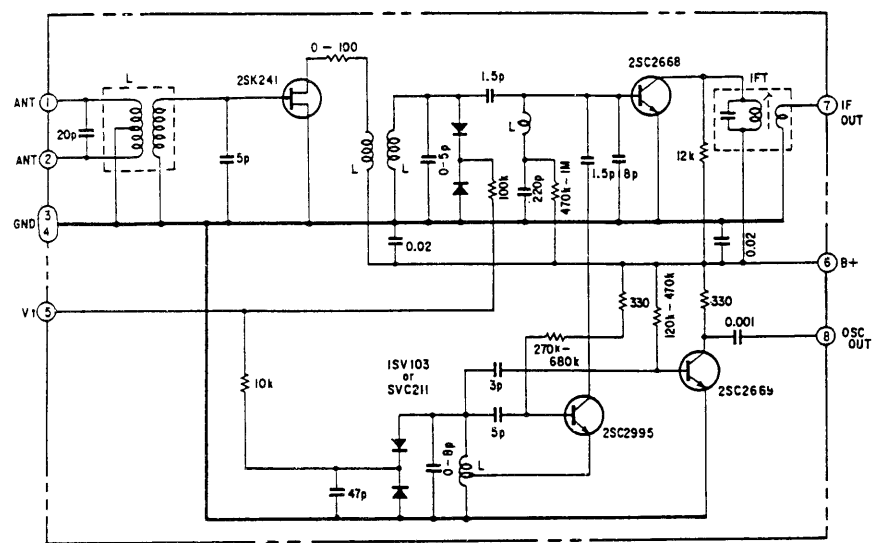
• IC301 LA1851N



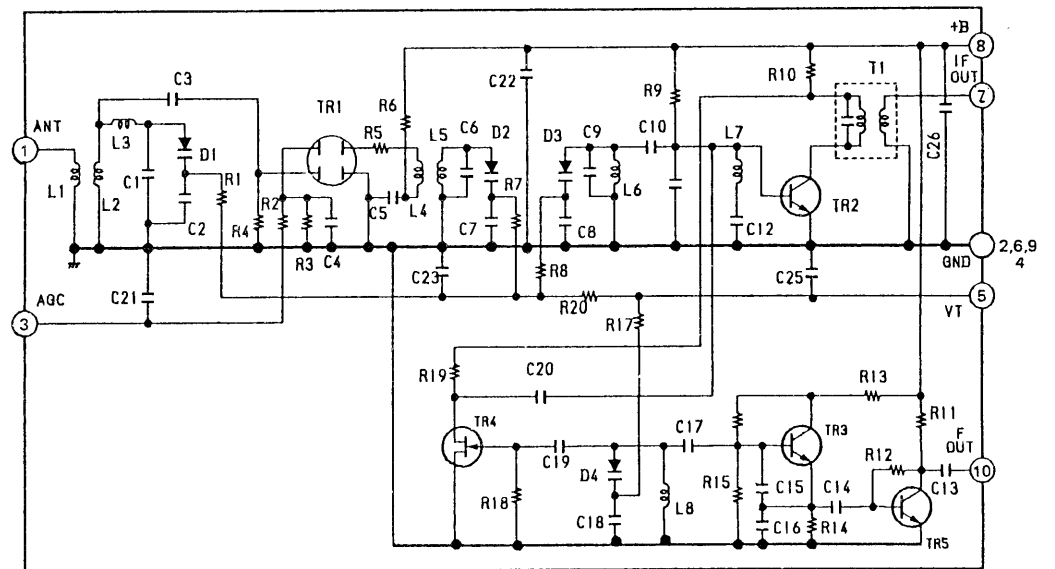
• IC404 CXA1198AP



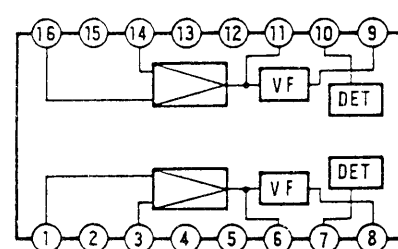
• FM FRONT-END (FE 301) AEP, UK model



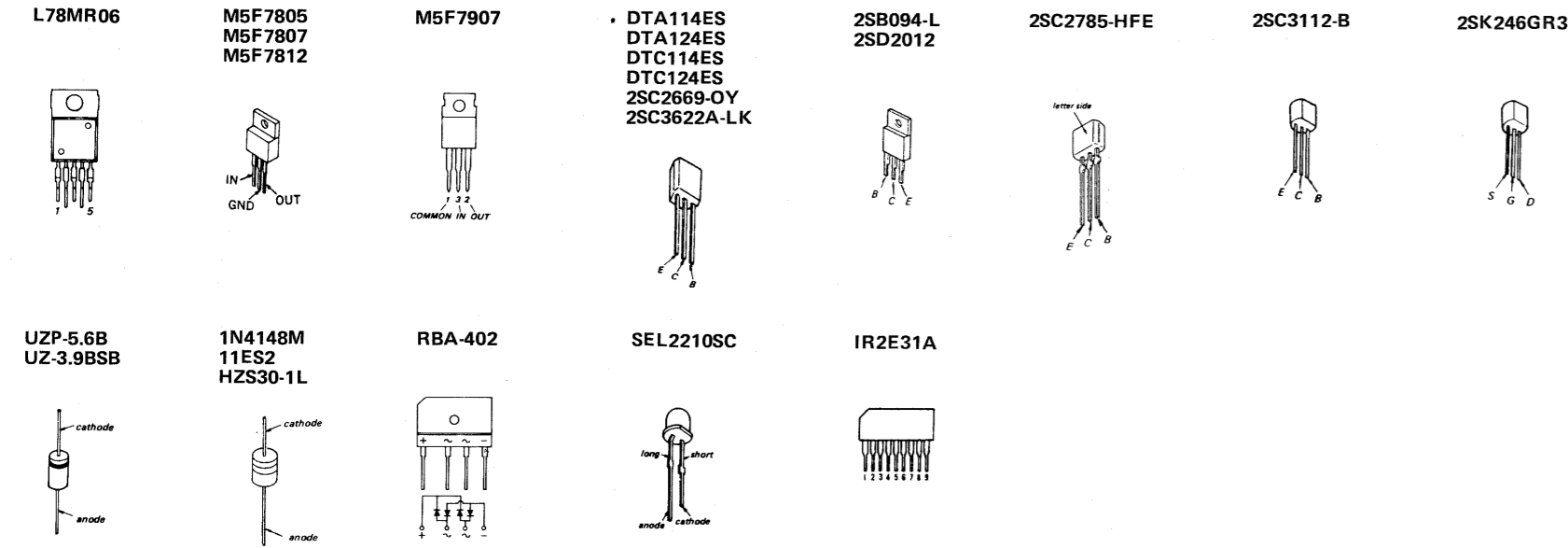
G, IT model



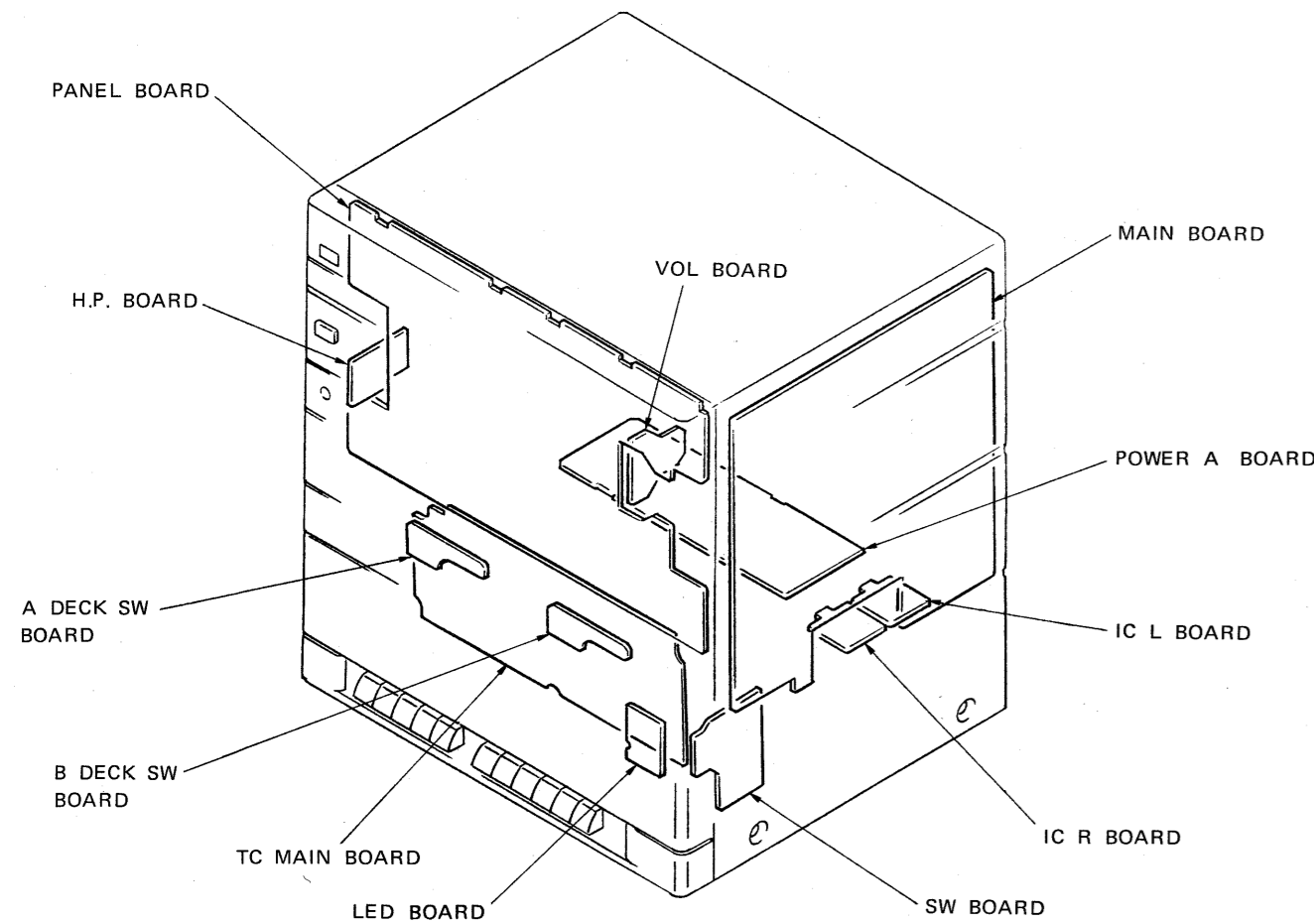
• IC403 CXA1100P



3-3. SEMICONDUCTOR LEAD LAYOUTS



3-4. CIRCUIT BOARDS LOCATION

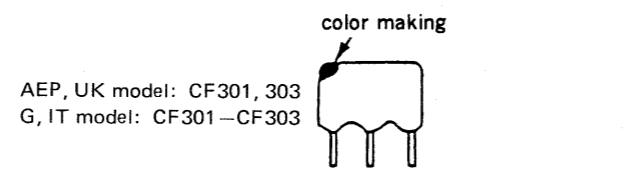


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D500	C-6	IC516	C-2
D501	C-6		
D502	B-7	Q400	D-10
D503	D-4	Q401	C-10
D504	D-2	Q402	D-8
D505	C-2	Q403	D-8
D506	D-3	Q500	D-10
D507	D-3	Q502	D-8
		Q503	D-8
IC400	B-10	Q504	B-5
IC401	B-8	Q505	B-5
IC402	B-9	Q506	B-4
IC403	D-10	Q507	B-6
IC404	C-7	Q508	C-7
IC501	D-3	Q509	D-2
IC502	C-3	Q511	C-3
IC503	B-3	Q512	D-2
IC515	C-2		

Note on Ceramic Filter Replacement.

This set employs two or three ceramic filters (CF301 - CF303) which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by jumpers (*A, *B) is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.



Color mark	Ceramic filter Center frequency (MHz)	Mount		FM intermediate frequency (MHz)
		IF-50K * B	IF+50K * A	
White	10.750	×	○	10.750
Red	10.700	×	×	10.700
Black	10.650	○	×	10.650

FM intermediate frequency is determined by the three types as shown above. Ceramic filters of same center frequency, i. e. of same color coding, should be used for CF301 - 303.

When replacing the ceramic filters, perform the FM Di-discriminator Adjustment.

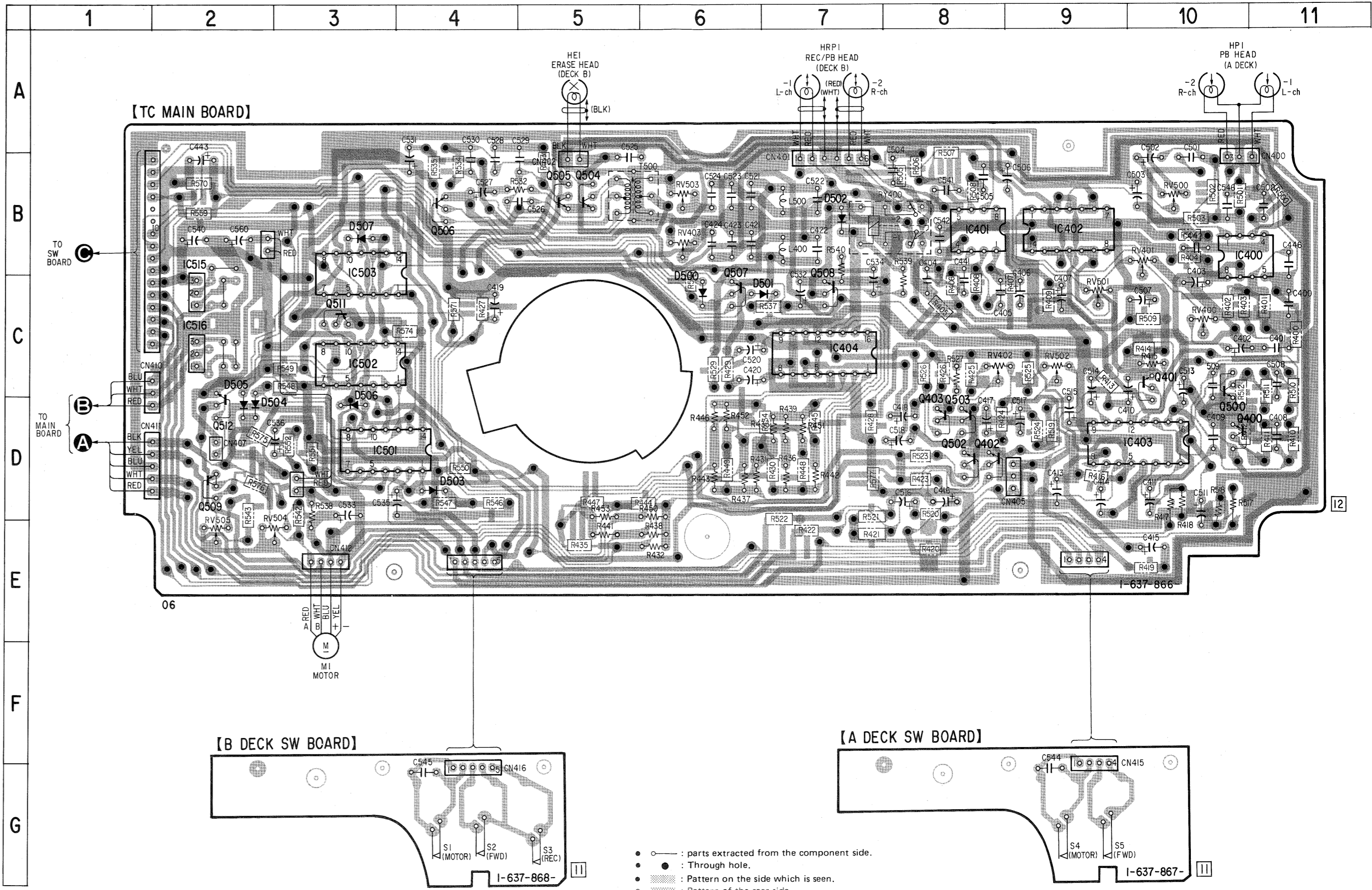
Note:

- 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.
- \sim : fusible resistor.

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

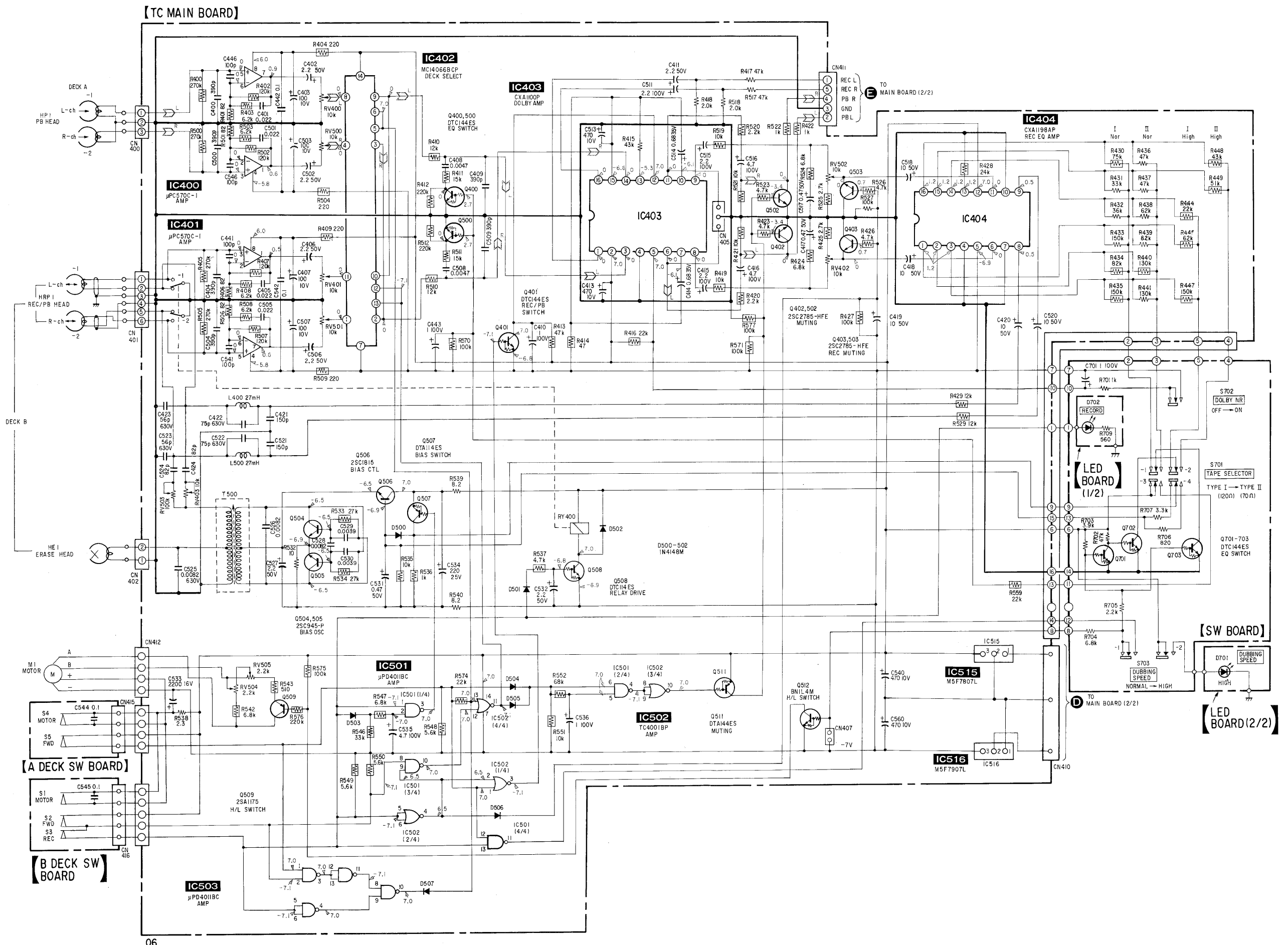
- : Connected
- ×: not Connected
- : B+ Line
- : B- Line
- - - : adjustment for repair.
- : Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
- : Voltages are taken with a VOM (Input Impedance 10M Ω).
- : Voltage variations may be noted due to normal production tolerances.
- : Signal path.
- ⇒: FM ⇨: PB (DECK A)

3-5. PRINTED WIRING BOARDS -TC SECTION-



- : parts extracted from the component side.
- : Through hole.
- : Pattern on the side which is seen.
- : Pattern of the rear side.
- : Resistor components printed on the rear side.

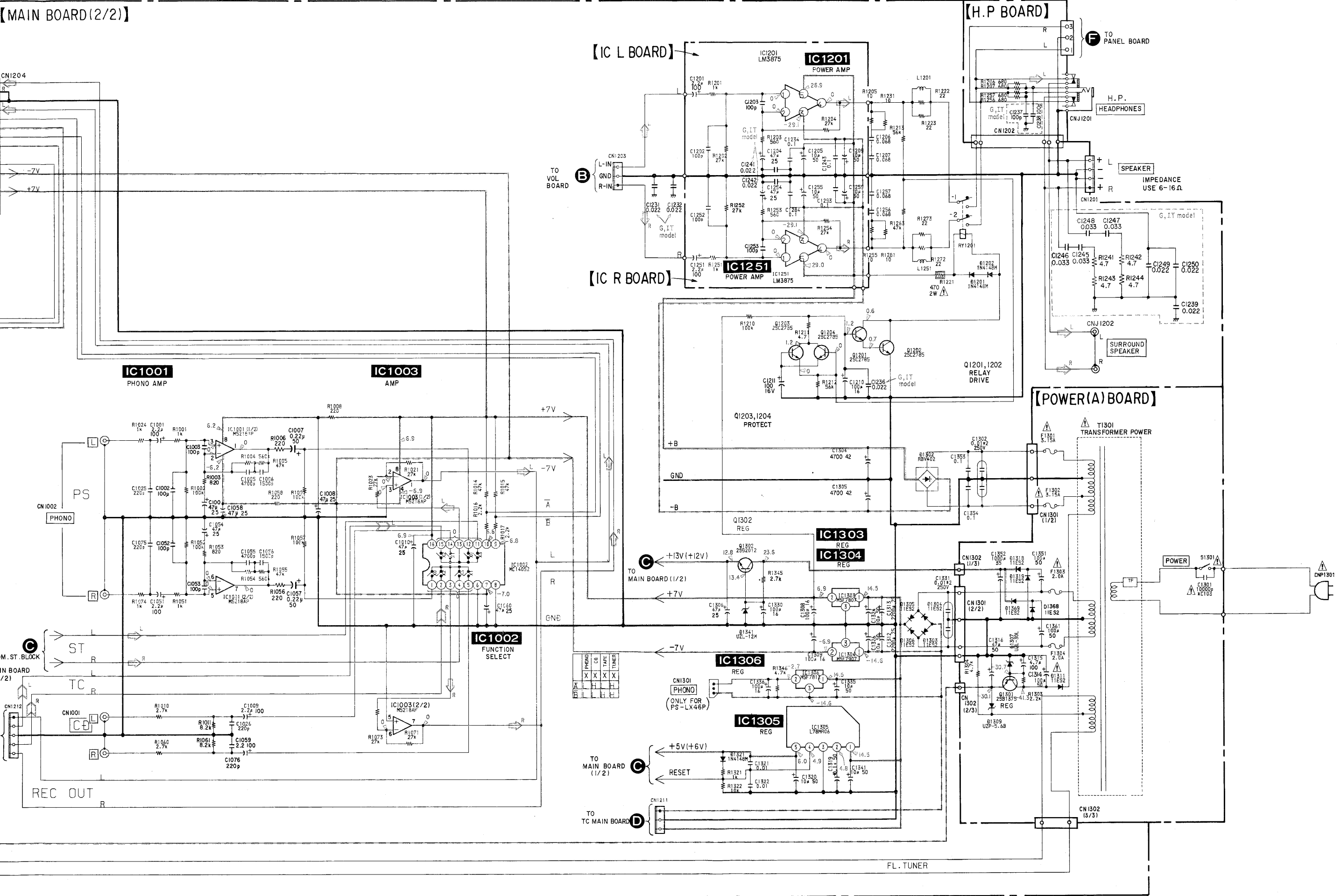
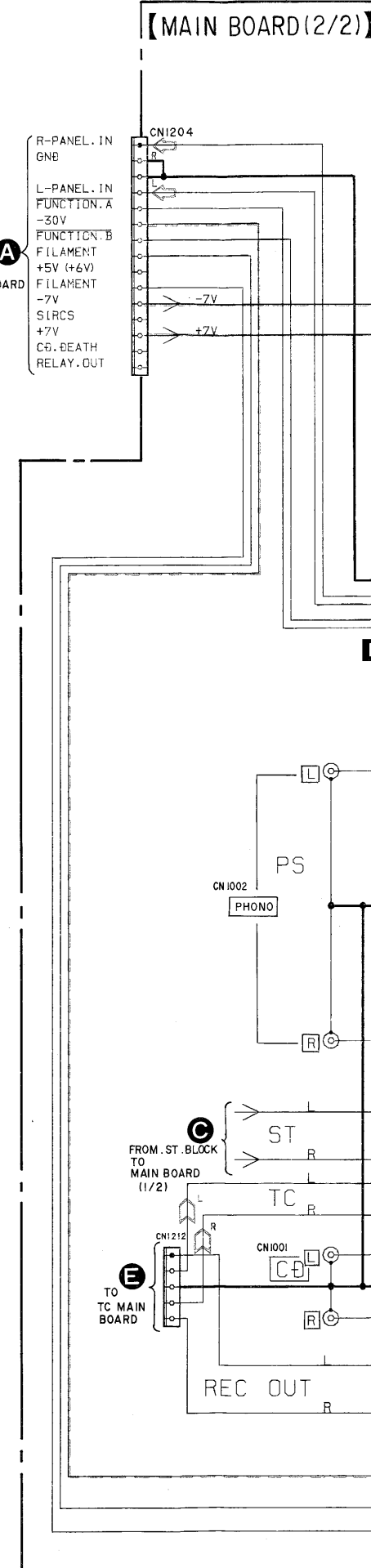
3-6. SCHEMATIC DIAGRAM -TC SECTION- See page 12 for note.



R-PANEL IN GND
L-PANEL IN FUNCTION, A -30V
FUNCTION B FILAMENT +5V (+6V)
FILAMENT -7V
S1 RC5 +7V
C.G. BEATH RELAY, OUT

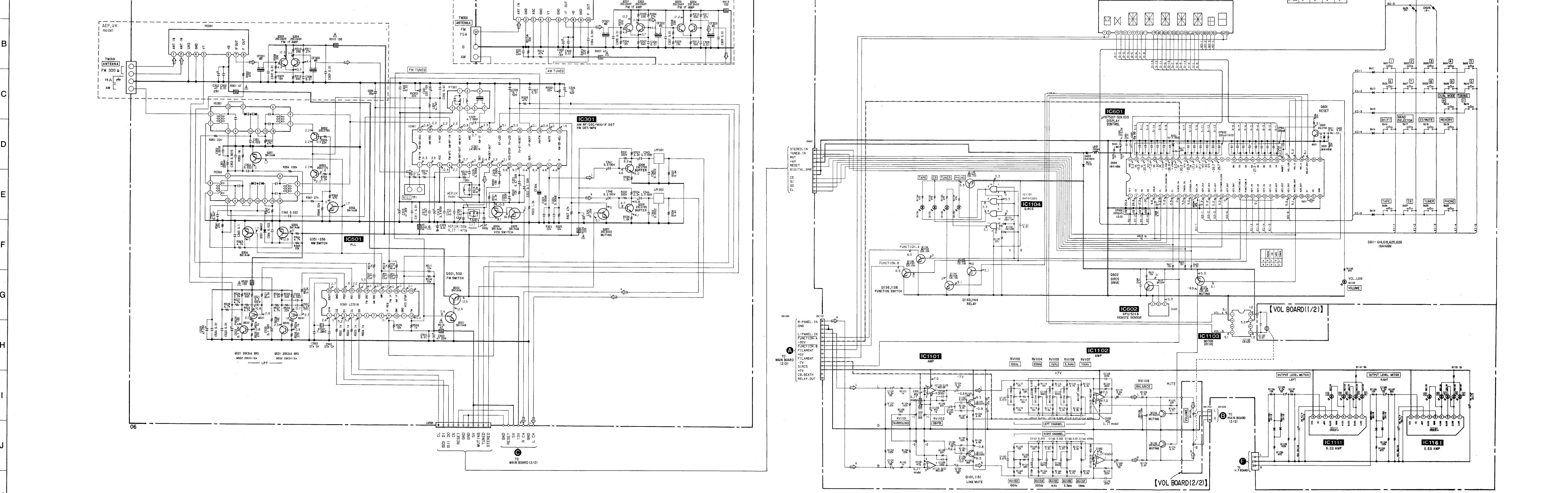
TO PANEL BOARD
TO MAIN BOARD (1/2)
TO MAIN BOARD (2/2)

TO MAIN BOARD (1/2)
TO TC MAIN BOARD

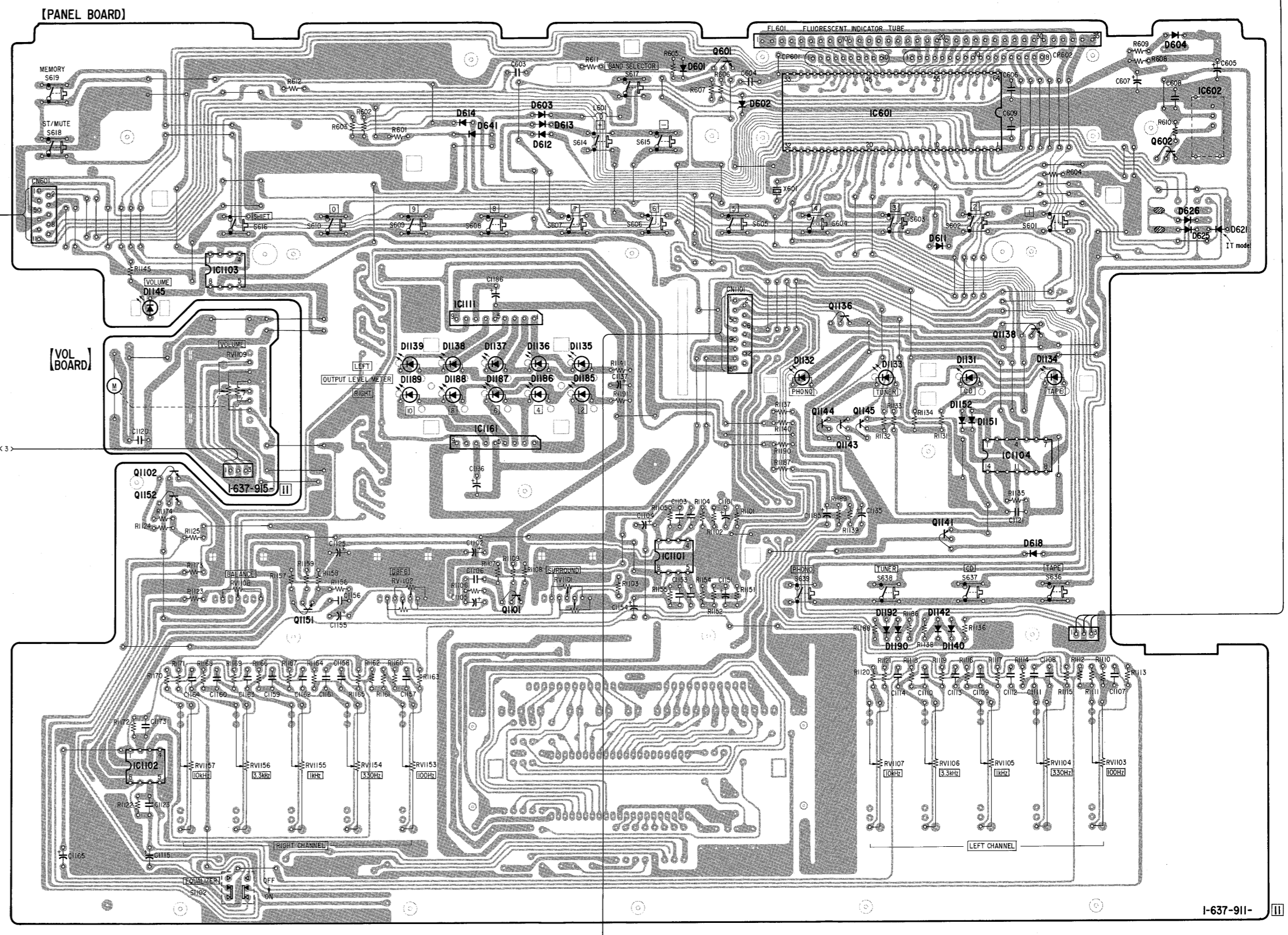
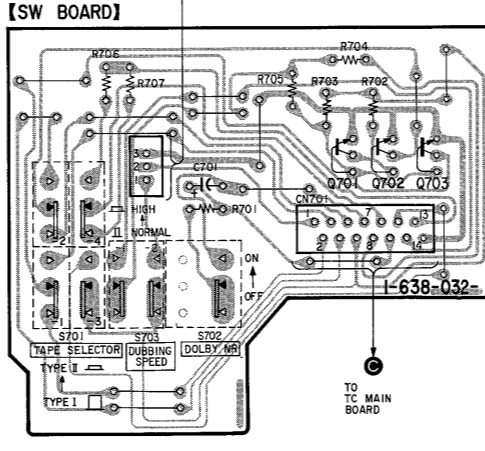
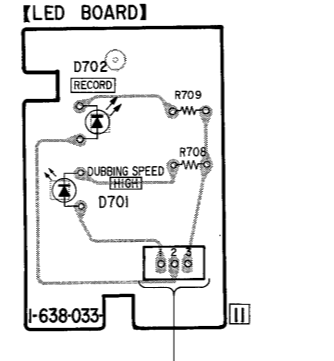
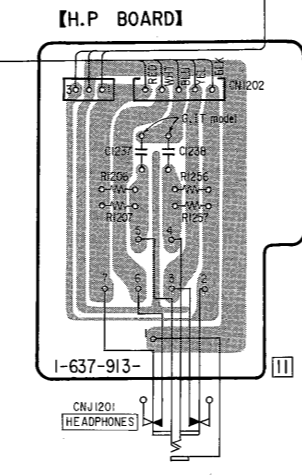
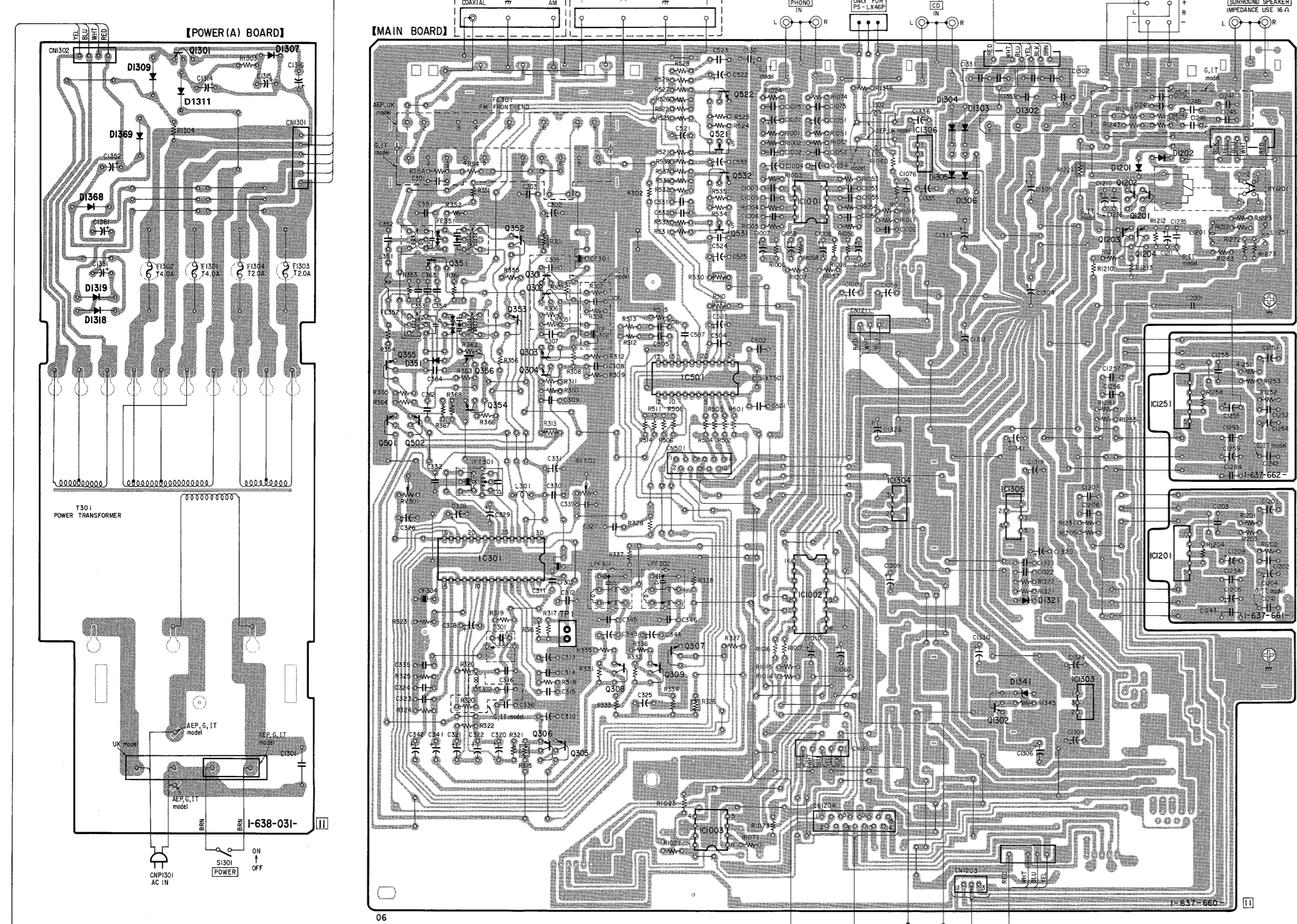


3-7. SCHEMATIC DIAGRAM
-MAIN SECTION-

● See page 12 for note.



3-8. PRINTED WIRING BOARDS
—MAIN SECTION—



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D351	E-5	IC1001	C-9
D601	B-26	IC1002	G-9
D602	B-26	IC1003	J-8
D603	B-24	IC1101	G-25
D604	B-31	IC1102	I-20
D611	D-28	IC1103	D-21
D612	C-24	IC1104	F-29
D613	B-24	IC1111	D-23
D614	B-23	IC1161	F-23
D618	G-29	IC1201	G-13
D621	D-31	IC1251	E-13
D625	D-31	IC1303	H-12
D626	C-31	IC1304	F-10
D641	B-23	IC1305	F-11
D701	F-17	IC1306	C-10
D702	F-16		
D1131	E-28	Q301	D-6
D1132	E-27	Q302	D-6
D1133	E-28	Q303	E-5
D1134	E-29	Q304	E-5
D1135	E-24	Q305	I-7
D1136	E-24	Q306	I-6
D1137	E-23	Q307	H-8
D1138	E-23	Q308	H-7
D1139	E-23	Q309	H-8
D1140	H-28	Q351	D-5
D1142	H-28	Q352	D-6
D1145	D-20	Q353	D-6
D1151	F-29	Q354	E-5
D1152	E-28	Q355	E-5
D1185	E-24	Q356	E-5
D1186	E-24	Q501	F-5
D1187	E-23	Q502	F-5
D1188	E-23	Q521	C-8
D1189	E-23	Q522	B-8
D1190	H-28	Q531	D-8
D1192	H-28	Q532	C-8
D1201	C-13	Q601	B-26
D1202	C-13	Q602	C-30
D1302	C-11	Q701	I-17
D1303	B-11	Q702	I-17
D1304	B-11	Q703	I-18
D1305	C-11	Q1101	G-24
D1306	C-11	Q1102	F-20
D1307	B-4	Q1136	D-27
D1309	B-2	Q1138	E-29
D1311	B-3	Q1141	G-28
D1318	D-2	Q1143	F-27
D1319	D-2	Q1144	E-27
D1321	G-12	Q1145	E-27
D1341	H-11	Q1151	H-21
D1368	C-2	Q1152	F-20
D1369	B-2	Q1201	C-13
		Q1202	C-13
IC301	G-6	Q1203	D-12
IC501	E-8	Q1204	D-13
IC601	B-27	Q1301	B-3
IC602	B-31	Q1302	I-11

• ○ : parts extracted from the component side.

SECTION 4 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)

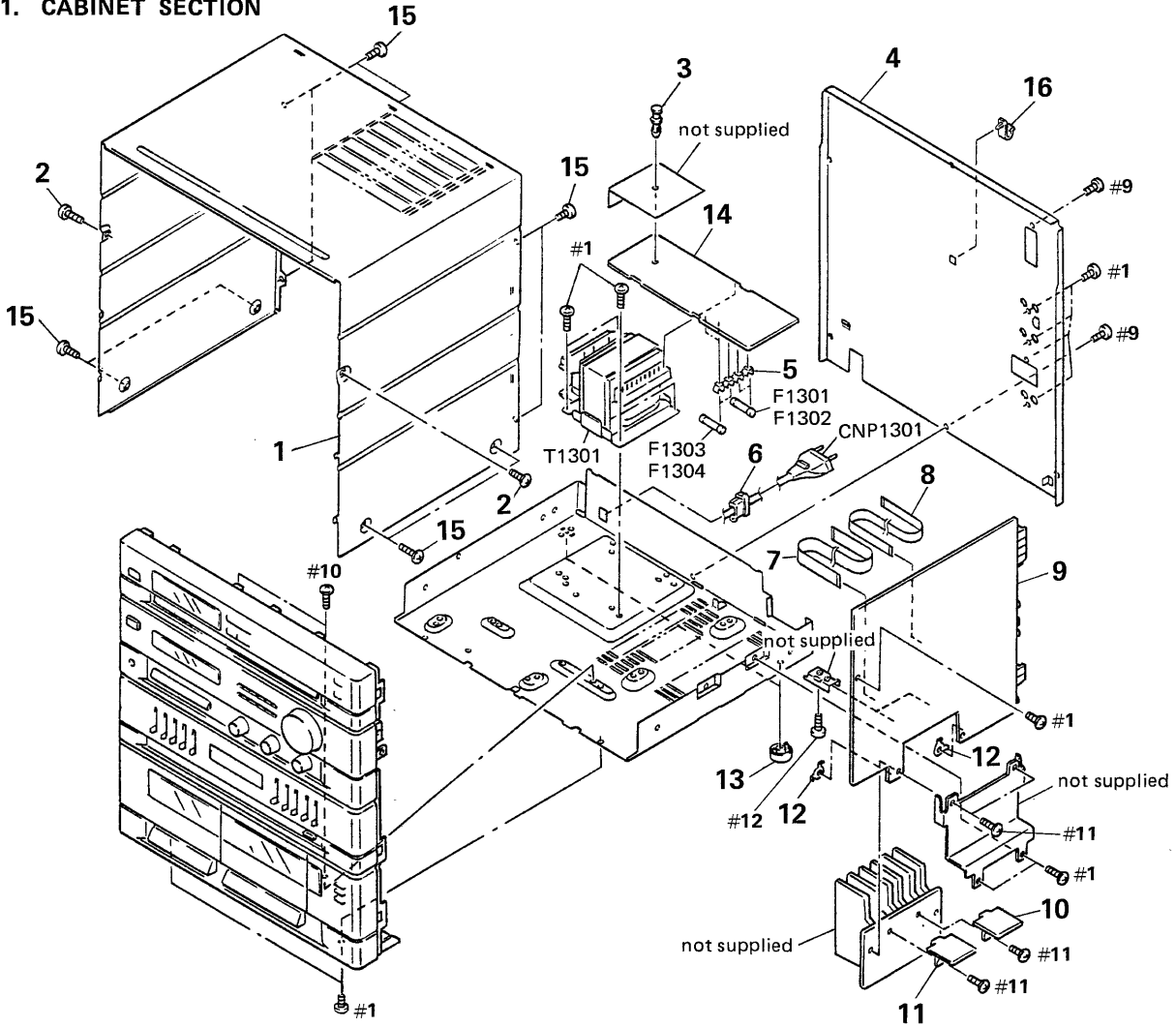
↑
Parts
color

↑
Cabinet's
color

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

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

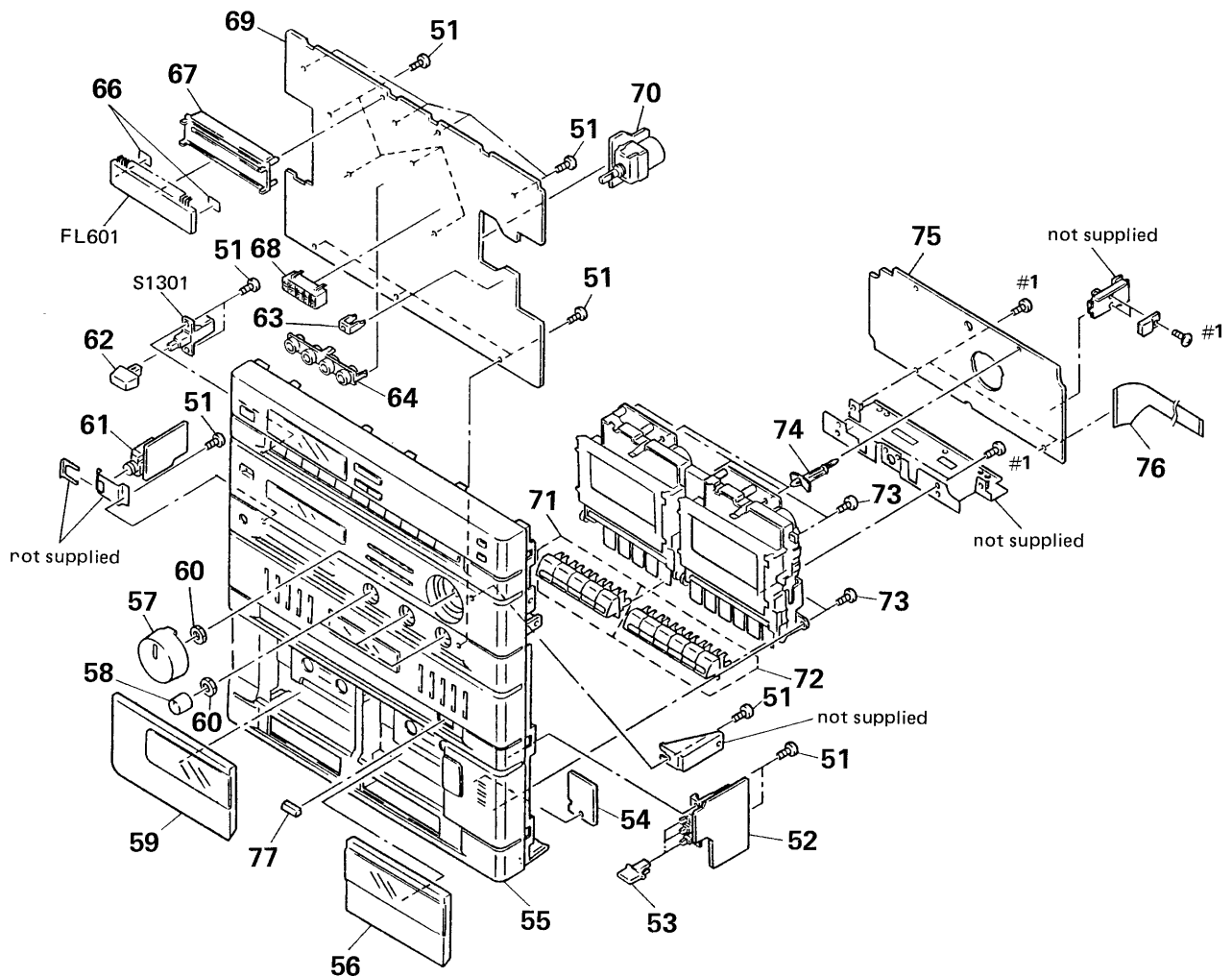
4-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	* 4-943-170-11	CASE (AEP, UK, G)	
1	* 4-943-170-52	CASE (IT)	
2	3-363-099-01	SCREW (CASE +3X8 TP2)	
3	4-812-134-11	RIVET NYLON, 3. 5	
4	* 4-943-137-33	PANEL, BACK (IT)	
4	* 4-943-137-43	PANEL, BACK (G)	
4	* 4-943-137-21	PANEL, BACK (UK)	
4	* 4-943-137-11	PANEL, BACK (AEP)	
5	1-533-217-31	HOLDER, FUSE	
6	* 3-703-244-00	BUSHING (2104), CORD	
7	1-575-906-11	WIRE, FLAT TYPE	
8	1-590-459-11	WIRE, FLAT TYPE	
9	* A-4341-481-A	MAIN BOARD, COMPLETE (AEP, UK)	
9	* A-4345-010-A	MAIN BOARD, COMPLETE (G, IT)	



Ref. No.	Part No.	Description	Remark
10	* 1-637-661-11	IC L BOARD	
11	* 1-637-662-11	IC R BOARD	
12	* 3-346-266-12	PLATE, GROUND	
13	X-4941-228-1	FOOT ASSY	
14	* 1-638-031-11	POWER A BOARD	
15	4-929-973-00	SCREW (CASE)	
16	* 2-379-614-01	HOOK	
CNP1301	1-556-035-00	CORD, POWER (UK)	
CNP1301	1-555-750-00	CORD, POWER (AEP, G, IT)	
F1301	1-532-350-00	FUSE (4. 0A)	
F1302	1-532-350-00	FUSE (4. 0A)	
F1303	1-532-388-51	FUSE (2. 0A)	
F1304	1-532-388-51	FUSE (2. 0A)	
T1301	1-450-315-11	TRANSFORMER, POWER	

4-2. FRONT PANEL SECTION

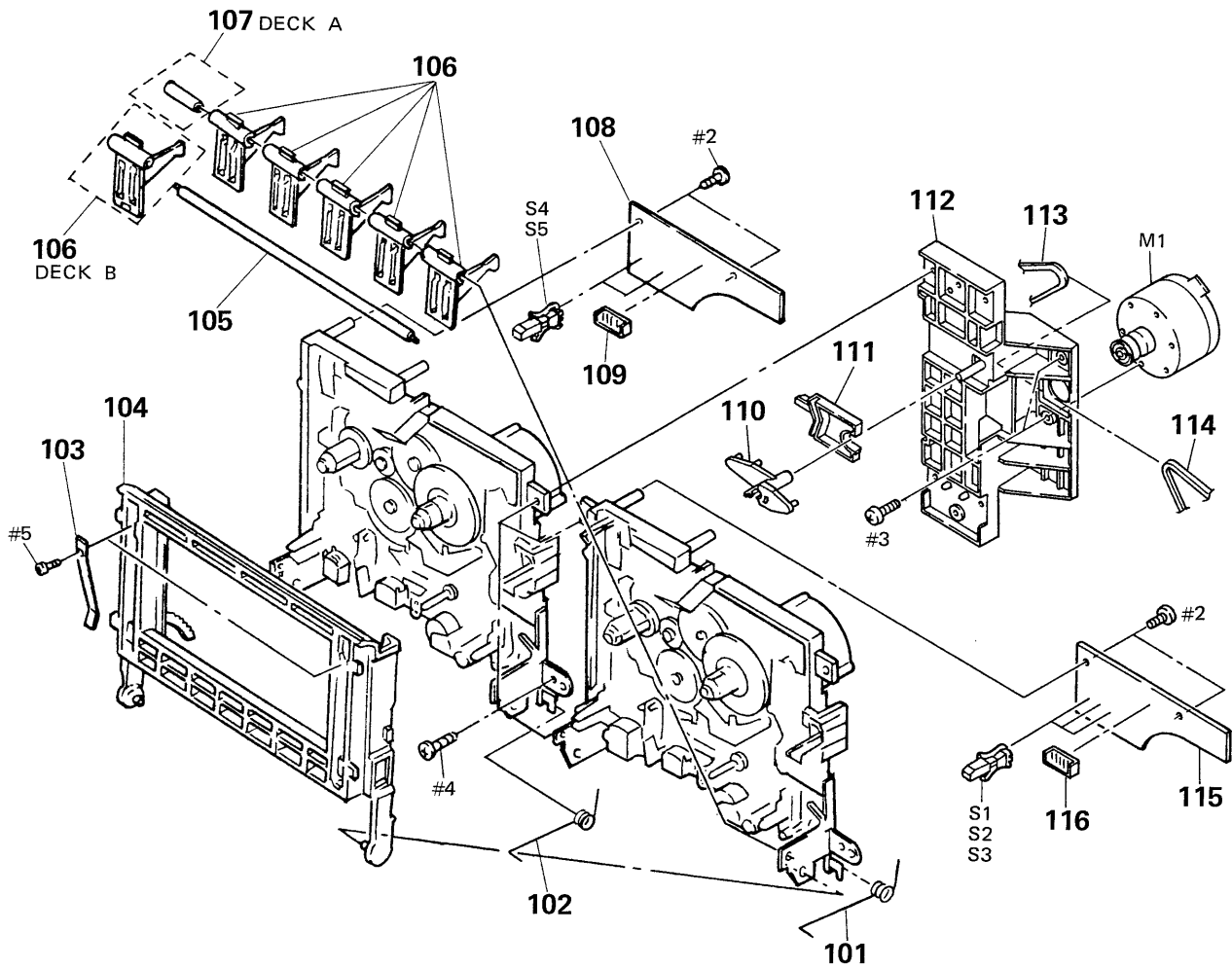


Ref. No.	Part No.	Description	Remark
51	4-928-635-21	SCREW +BV (2.6X10) TAPPING	
52	* 1-638-032-11	SW BOARD	
53	4-942-297-01	BUTTON (TC)	
54	* 1-638-033-11	LED BOARD	
55	A-4323-795-A	PANEL ASSY. FRONT (AEP, UK, G)	
55	A-4323-972-A	PANEL ASSY. FRONT (IT)	
56	A-4323-964-A	LID (B) ASSY. CASSETTE (IT)	
56	A-4323-779-A	LID (B) ASSY. CASSETTE (AEP, UK, G)	
57	A-4323-382-A	KNOB (VO) ASSY	
58	4-942-282-01	KNOB (B)	
59	A-4323-963-A	LID (A) ASSY. CASSETTE (IT)	
59	A-4323-778-A	LID (A) ASSY. CASSETTE (AEP, UK, G)	
60	3-701-748-00	CLAMP	
61	* 1-637-913-11	H.P BOARD	
62	4-930-783-11	BUTTON (PO)	
63	* 4-930-781-11	HOLDER (VO), LED	
64	* 4-942-285-01	HOLDER (FU), LED	

Ref. No.	Part No.	Description	Remark
66	* 4-921-941-01	CUSHION (FL)	
67	* 4-942-301-01	HOLDER, FL TUBE	
68	* 4-943-167-01	HOLDER (10 GANG), LED	
69	* A-4345-014-A	PANEL BOARD, COMPLETE (IT)	
69	* A-4341-998-A	PANEL BOARD, COMPLETE (G)	
69	* A-4341-485-A	PANEL BOARD, COMPLETE (AEP, UK)	
70	* 1-637-915-11	VOL BOARD	
71	4-942-293-01	BUTTON (MD-A)	
72	4-942-294-01	BUTTON (MD-B)	
73	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
74	* 4-924-098-31	HOLDER, PC BOARD	
75	* A-2006-377-A	MAIN TC BOARD, COMPLETE	
76	1-535-888-11	JUMPER, FILM (WITH TERMINAL)	
77	4-943-168-01	KNOB (EQ)	
FL601	1-519-595-21	INDICATOR TUBE, FLUORESCENT	
S1301	⚠ 1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	

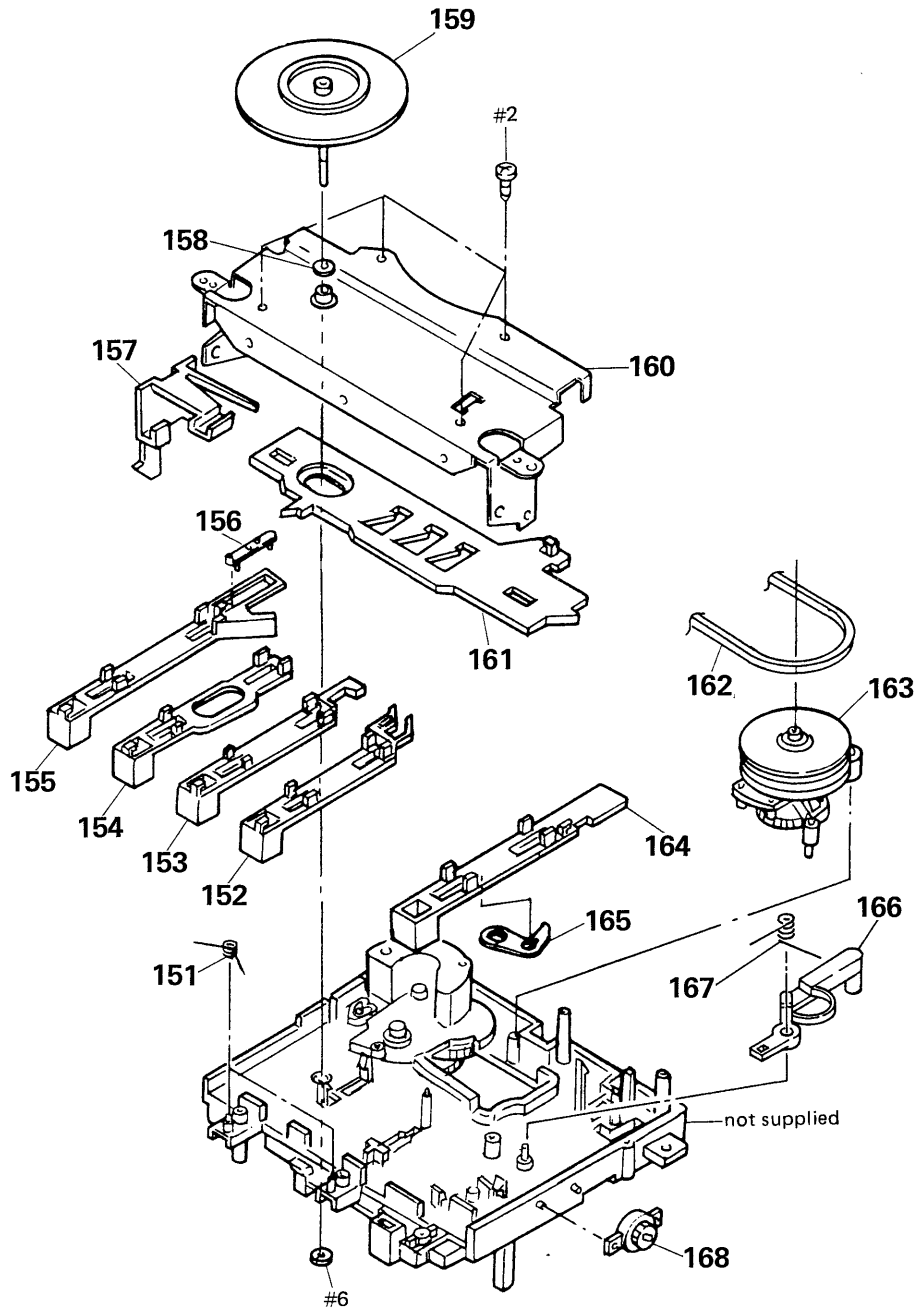
Note: The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

4-3. MECHANISM DECK SECTION (1)
 (TCM-180VW-H2)
 (TCM-180VW-H4)



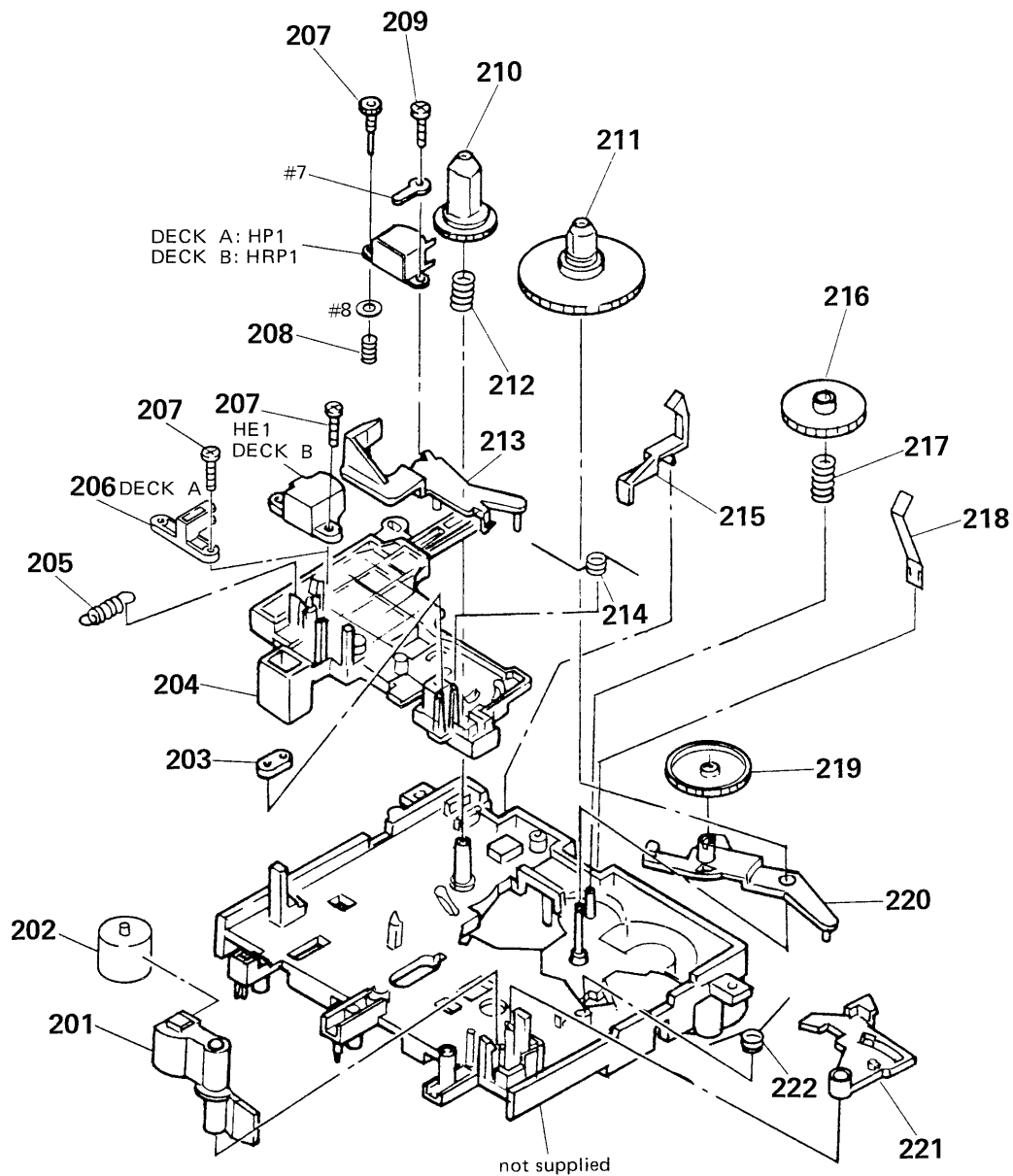
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-358-287-01	SPRING (LOADING A), TORSION		112	* 3-363-930-01	BRACKET (JOINT BASE)	
102	3-358-229-01	SPRING (LOADING), TORSION		113	3-358-230-01	BELT (A1)	
103	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF		114	3-364-777-01	BELT (WH)	
104	3-358-266-02	HOLDER, CASSETTE		115	* 1-637-868-11	PC BOARD, B DECK SW	
105	3-358-242-01	SHAFT (BUTTON SHAFT)		116	* 1-568-943-11	PIN, CONNECTOR 5P (CN416)	
106	3-358-210-01	LEVER (BUTTON BASE C)		M1	X-3362-377-1	MOTOR (WH) ASSY	
107	* 3-358-216-01	COLLAR		S1	1-571-736-11	SWITCH LEAF (MOTOR)	
108	* 1-637-867-11	PC BOARD, A DECK SW		S2	1-571-736-11	SWITCH LEAF (FWD)	
109	* 1-568-942-11	PIN, CONNECTOR 4P (CN415)		S3	1-571-736-11	SWITCH LEAF (REC)	
110	3-358-203-01	LEVER (TRIGGER)		S4	1-571-736-11	SWITCH LEAF (MOTOR)	
111	3-358-202-01	SLIDER (TRIGGER)		S5	1-571-736-11	SWITCH LEAF (FWD)	

4-4. MECHANISM DECK SECTION (2)
 (TCM-180VW-H2)
 (TCM-180VW-H4)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-358-232-01	SPRING (S-P F-R), TORSION		160	* X-3358-208-1	BRACKET (B) ASSY	
152	3-358-258-01	SLIDER (REW)		161	* 3-358-249-01	SLIDER (LOCK PLATE)	
153	3-358-257-01	SLIDER (FF)		162	3-358-230-01	BELT (A1)	
154	3-358-256-01	SLIDER (STOP/EJECT)		163	X-3358-202-1	LEVER (FR ARM) ASSY	
155	3-358-260-01	SLIDER (PAUSE)		164	3-358-259-01	SLIDER (REC)	
156	* 3-358-226-01	LEVER (PAUSE LEVER)		165	* 3-358-204-01	LEVER (REC SAFETY)	
157	* 3-358-261-02	SLIDER (HOLDER LOCK)		166	3-358-286-01	LEVER (MOTOR LEVER)	
158	3-701-437-01	WASHER		167	3-358-214-01	SPRING (LOCK), TORSION..... (DECK A)	
159	X-3358-205-1	FLYWHEEL (A) ASSY... (DECK A)		167	3-358-233-01	SPRING (REC-LOCK), TORSION... (DECK B)	
159	X-3358-206-1	FLYWHEEL (B) ASSY... (DECK B)		168	3-319-224-31	DAMPER, SMALL	

4-5. MECHANISM DECK SECTION (3)
 (TCM-180VW-H2)
 (TCM-180VW-H4)



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

A DECK SW

B DECK SW

MAIN

IC L

IC R

SECTION 5 ELECTRICAL PARTS LIST

NOTE:

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

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

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

Ref. No.	Part No.	Description	Remark
	* 1-637-867-11	A DECK SW 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)	

	* 1-637-868-11	B DECK SW 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)	

Ref. No.	Part No.	Description	Remark
	* A-4341-481-A	MAIN BOARD, COMPLETE (AEP, UK)	
	* A-4345-010-A	MAIN BOARD, COMPLETE (G, IT) *****	
	* 1-637-661-11	IC L BOARD	
	* 1-637-662-11	IC R BOARD	
	* 3-346-266-12	PLATE, GROUND	
	4-352-844-01	PIN, LEAD, COATING	
	7-682-548-04	SCREW +BVTT 3X8 (S)	
		< CAPACITOR >	
C301	1-161-379-00	CERAMIC 0.01uF	30% 16V (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	30% 16V (G, IT)
C306	1-161-379-00	CERAMIC 0.01uF	30% 16V (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 (AEP, UK)
C316	1-162-290-31	CERAMIC 470PF	10% 50V (G, IT)
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

IC L	IC R	MAIN
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Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C322	1-124-463-00	ELECT	0. 1uF	20%	50V	C1005	1-161-377-00	CERAMIC	0. 0047uF	20%	16V
C323	1-161-329-00	CERAMIC	0. 0068uF	30%	16V	C1006	1-161-374-11	CERAMIC	0. 0015uF	20%	50V
C324	1-161-329-00	CERAMIC	0. 0068uF	30%	16V	C1007	1-124-464-11	ELECT	0. 22uF	20%	50V
C325	1-124-477-11	ELECT	47uF	20%	25V	C1008	1-124-477-11	ELECT	47uF	20%	25V
C326	1-124-907-11	ELECT	10uF	20%	50V	C1009	1-124-925-11	ELECT	2. 2uF	20%	100V
C327	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1010	1-124-477-11	ELECT	47uF	20%	25V
C328	1-124-463-00	ELECT	0. 1uF	20%	50V	C1022	1-124-925-11	ELECT	2. 2uF	20%	100V (G, IT)
C329	1-124-927-11	ELECT	4. 7uF	20%	100V	C1025	1-162-286-31	CERAMIC	220PF	10%	50V
C330	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1026	1-162-286-31	CERAMIC	220PF	10%	50V
C331	1-126-176-11	ELECT	220uF	20%	10V	C1051	1-124-925-11	ELECT	2. 2uF	20%	100V
C332	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1052	1-162-282-31	CERAMIC	100PF	10%	50V
C333	1-161-379-00	CERAMIC	0. 01uF	30%	16V (G, IT)	C1053	1-162-282-31	CERAMIC	100PF	10%	50V
C335	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1054	1-124-477-11	ELECT	47uF	20%	25V
C336	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1055	1-161-377-00	CERAMIC	0. 0047uF	20%	16V
C339	1-162-210-31	CERAMIC	30PF	5%	50V	C1056	1-161-374-11	CERAMIC	0. 0015uF	20%	50V
C341	1-123-382-00	ELECT	3. 3uF	20%	100V	C1057	1-124-464-11	ELECT	0. 22uF	20%	50V
C342	1-123-382-00	ELECT	3. 3uF	20%	100V	C1058	1-124-477-11	ELECT	47uF	20%	25V
C343	1-123-382-00	ELECT	3. 3uF	20%	100V	C1059	1-124-925-11	ELECT	2. 2uF	20%	100V
C344	1-123-382-00	ELECT	3. 3uF	20%	100V	C1060	1-124-477-11	ELECT	47uF	20%	25V
C345	1-161-375-00	CERAMIC	0. 0022uF	20%	50V	C1072	1-124-925-11	ELECT	22uF	20%	100V (G, IT)
C346	1-161-375-00	CERAMIC	0. 0022uF	20%	50V	C1075	1-162-286-31	CERAMIC	220PF	10%	50V
C351	1-161-494-00	CERAMIC	0. 022uF		25V	C1076	1-162-286-31	CERAMIC	220PF	10%	50V
C352	1-102-120-00	CERAMIC	0. 0018uF	10%	50V	C1201	1-124-925-11	ELECT	2. 2uF	20%	100V
C353	1-161-374-11	CERAMIC	0. 0015uF	20%	50V	C1202	1-162-282-31	CERAMIC	100PF	10%	50V
C354	1-161-494-00	CERAMIC	0. 022uF		25V	C1203	1-162-282-31	CERAMIC	100PF	10%	50V
C361	1-164-098-11	CERAMIC	0. 047uF		12V	C1204	1-124-477-11	ELECT	47uF	20%	25V
C362	1-161-494-00	CERAMIC	0. 022uF		25V	C1205	1-124-907-11	ELECT	10uF	20%	50V
C363	1-164-159-11	CERAMIC	0. 1uF		50V	C1206	1-136-163-00	FILM	0. 068uF	5%	50V
C364	1-161-494-00	CERAMIC	0. 022uF		25V	C1207	1-136-163-00	FILM	0. 068uF	5%	50V
C501	1-102-961-00	CERAMIC	27PF	5%	50V	C1209	1-124-907-11	ELECT	10uF	20%	50V
C502	1-102-961-00	CERAMIC	27PF	5%	50V	C1210	1-126-101-11	ELECT	100uF	20%	16V
C503	1-124-477-11	ELECT	47uF	20%	25V	C1211	1-126-101-11	ELECT	100uF	20%	16V
C504	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1231	1-161-494-00	CERAMIC	0. 022uF		25V (G, IT)
C505	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1234	1-136-165-00	FILM	0. 1uF	5%	50V
C506	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1235	1-161-494-00	CERAMIC	0. 022uF		25V (G, IT)
C507	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1236	1-161-494-00	CERAMIC	0. 022uF		25V (G, IT)
C521	1-124-925-11	ELECT	2. 2uF	20%	100V	C1241	1-161-494-00	CERAMIC	0. 022uF		25V (G, IT)
C522	1-124-463-00	ELECT	0. 1uF	20%	50V	C1242	1-161-494-00	CERAMIC	0. 022uF		25V (G, IT)
C523	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1243	1-136-165-00	FILM	0. 1uF	5%	50V
C524	1-161-379-00	CERAMIC	0. 01uF	20%	25V	C1245	1-101-006-00	CERAMIC	0. 047uF		50V (G, IT)
C525	1-124-477-11	ELECT	47uF	20%	25V	C1246	1-101-006-00	CERAMIC	0. 047uF		50V (G, IT)
C530	1-161-379-00	CERAMIC	0. 01uF	30%	16V (G, IT)	C1247	1-101-006-00	CERAMIC	0. 047uF		50V (G, IT)
C531	1-136-173-00	FILM	0. 47uF	5%	50V	C1248	1-101-006-00	CERAMIC	0. 047uF		50V (G, IT)
C532	1-161-494-00	CERAMIC	0. 022uF		25V	C1249	1-161-494-00	CERAMIC	0. 022uF		25V (G, IT)
C533	1-124-463-00	ELECT	0. 1uF	20%	50V	C1250	1-161-494-00	CERAMIC	0. 022uF		25V (G, IT)
C1001	1-124-925-11	ELECT	2. 2uF	20%	100V	C1251	1-124-925-11	ELECT	2. 2uF	20%	100V
C1002	1-162-282-31	CERAMIC	100PF	10%	50V	C1252	1-162-282-31	CERAMIC	100PF	10%	50V
C1003	1-162-282-31	CERAMIC	100PF	10%	50V	C1253	1-162-282-31	CERAMIC	100PF	10%	50V
C1004	1-124-477-11	ELECT	47uF	20%	25V	C1254	1-124-477-11	ELECT	47uF	20%	25V

MAIN

IC L

IC R

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description	Remark
C1255	1-124-907-11	ELECT	10uF	20% 50V			< DIODE >	
C1256	1-136-163-00	FILM	0.068uF	5% 50V				
C1257	1-136-163-00	FILM	0.068uF	5% 50V				
C1259	1-124-907-11	ELECT	10uF	20% 50V				
C1284	1-136-165-00	FILM	0.1uF	5% 50V				
C1293	1-136-165-00	FILM	0.1uF	5% 50V				
C1295	1-101-005-00	CERAMIC	0.022uF	50V (G, IT)				
C1296	1-161-494-00	CERAMIC	0.022uF	25V (G, IT)				
C1297	1-161-494-00	CERAMIC	0.022uF	25V (G, IT)				
C1302	1-102-394-11	CERAMIC	0.01uF	250V				
C1304	1-126-224-11	ELECT	4700uF	20% 42V				
C1305	1-126-224-11	ELECT	4700uF	20% 42V				
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	1-124-563-11	ELECT	2200uF	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				
C1336	1-126-101-11	ELECT	100uF	20% 16V				
C1341	1-124-907-11	ELECT	10uF	20% 50V				
C1353	1-136-165-00	FILM	0.1uF	5% 50V				
C1354	1-136-165-00	FILM	0.1uF	5% 50V				
		< FILTER >						
CF301	1-567-389-11	FILTER, CERAMIC						
CF302	1-567-389-11	FILTER, CERAMIC (G, IT)						
CF303	1-567-389-11	FILTER, CERAMIC						
CF304	1-577-075-11	OSCILLATOR, CERAMIC						
		< CONNECTOR >						
CN501	* 1-568-830-11	SOCKET, CONNECTOR 11P						
CN1001	* 1-580-691-11	JACK, PIN 2P (CD)						
CN1002	* 1-580-691-11	JACK, PIN 2P (PHONO)						
CN1201	* 1-537-326-11	TERMINAL BOARD (SPEAKER) (AEP, UK)						
CN1201	* 1-537-327-11	TERMINAL BOARD (SPEAKER) (G, IT)						
CN1202	* 1-569-130-11	JACK, PIN 2P (SURROUND SPEAKER)						
CN1203	* 1-568-952-11	PIN, CONNECTOR 3P						
CN1204	* 1-568-834-11	SOCKET, CONNECTOR 15P						
CN1211	* 1-564-506-11	PLUG, CONNECTOR 3P						
CN1212	* 1-564-508-11	PLUG, CONNECTOR 5P						
CN1301	* 1-566-210-11	PIN, CONNECTOR 3P (PHONO)						
D351	8-719-987-63	DIODE 1N4148M						
D1201	8-719-987-63	DIODE 1N4148M						
D1202	8-719-987-63	DIODE 1N4148M						
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						
D1321	8-719-987-63	DIODE 1N4148M						
D1341	8-719-001-76	DIODE UZL-12M3						
		< FRONT END >						
FE301	1-463-857-21	FRONT END (FM) (G, IT)						
FE301	1-465-006-11	FRONT END (FM) (2 GANG) (AEP, UK)						
FE351	1-236-463-11	ENCAPSULATED COMPONENT						
FE352	1-236-462-11	ENCAPSULATED COMPONENT						
		< IC >						
IC301	8-759-821-45	IC LA1851N						
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						
IC1201	8-759-323-30	IC LM3875						
IC1251	8-759-323-30	IC LM3875						
IC1303	8-759-604-86	IC M5F7807L						
IC1304	8-759-604-90	IC M5F7907L						
IC1305	8-759-820-13	IC L78MR06						
IC1306	8-759-604-33	IC M5F7812L						
		< TRANSFORMER >						
IFT301	1-404-713-11	TRANSFORMER, IF						
		< COIL >						
L301	1-407-500-00	INDUCTOR	4.7mH					
L351	1-410-524-41	INDUCTOR	220uH					
L1201	* 1-420-872-00	COIL, AIR CORE						
L1251	* 1-420-872-00	COIL, AIR CORE						
L1301	1-408-117-00	INDUCTOR, MICRO (G, IT)						
L1302	1-408-117-00	INDUCTOR, MICRO (G, IT)						
		< FILTER >						
LPF301	1-235-164-00	FILTER, LOW PASS						
LPF302	1-235-164-00	FILTER, LOW PASS						

IC L

IC R

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< TRANSISTOR >							
Q301	8-729-230-99	TRANSISTOR 2SC2669-0Y (G, IT)		R316	1-249-429-11	CARBON 10K 5%	1/4W
Q302	8-729-230-99	TRANSISTOR 2SC2669-0Y (G, IT)		R317	1-249-417-11	CARBON 1K 5%	1/4W
Q303	8-729-230-99	TRANSISTOR 2SC2669-0Y		R318	1-249-435-11	CARBON 33K 5%	1/4W
Q304	8-729-230-99	TRANSISTOR 2SC2669-0Y		R319	1-249-428-11	CARBON 8.2K 5%	1/4W
Q305	8-729-900-80	TRANSISTOR DTC114ES		R320	1-249-432-11	CARBON 18K 5%	1/4W
Q306	8-729-900-61	TRANSISTOR DTA114ES		R321	1-249-423-11	CARBON 3.3K 5%	1/4W
Q307	8-729-900-80	TRANSISTOR DTC114ES		R322	1-249-429-11	CARBON 10K 5%	1/4W
Q308	8-729-119-78	TRANSISTOR 2SC2785-HFE		R323	1-249-417-11	CARBON 1K 5%	1/4W (G, IT)
Q309	8-729-119-78	TRANSISTOR 2SC2785-HFE		R323	1-249-418-11	CARBON 1.2K 5%	1/4W (AEP, UK)
Q351	8-729-900-80	TRANSISTOR DTC114ES		R324	1-249-429-11	CARBON 10K 5%	1/4W
Q352	8-729-119-78	TRANSISTOR 2SC2785-HFE		R325	1-249-429-11	CARBON 10K 5%	1/4W
Q353	8-729-119-76	TRANSISTOR 2SA1175-HFE		R326	△ 1-249-409-11	CARBON 220 5%	1/4W
Q354	8-729-900-80	TRANSISTOR DTC114ES		R327	1-249-437-11	CARBON 47K 5%	1/4W
Q355	8-729-900-80	TRANSISTOR DTC114ES		R328	1-249-437-11	CARBON 47K 5%	1/4W
Q356	8-729-900-80	TRANSISTOR DTC114ES		R331	1-247-891-00	CARBON 330K 5%	1/4W
Q501	8-729-900-80	TRANSISTOR DTC114ES		R332	1-247-891-00	CARBON 330K 5%	1/4W
Q502	8-729-900-61	TRANSISTOR DTA114ES		R333	1-249-421-11	CARBON 2.2K 5%	1/4W
Q521	8-729-202-67	TRANSISTOR 2SK246-GR3		R334	1-249-421-11	CARBON 2.2K 5%	1/4W
Q522	8-729-201-84	TRANSISTOR 2SC3112-B		R335	1-249-420-11	CARBON 1.8K 5%	1/4W
Q531	8-729-202-67	TRANSISTOR 2SK246-GR3		R336	1-249-420-11	CARBON 1.8K 5%	1/4W
Q532	8-729-201-84	TRANSISTOR 2SC3112-B		R337	1-249-426-11	CARBON 5.6K 5%	1/4W
Q1201	8-729-119-78	TRANSISTOR 2SC2785-HFE		R338	1-249-426-11	CARBON 5.6K 5%	1/4W
Q1202	8-729-119-78	TRANSISTOR 2SC2785-HFE		R351	1-249-433-11	CARBON 22K 5%	1/4W
Q1203	8-729-119-78	TRANSISTOR 2SC2785-HFE		R352	1-249-437-11	CARBON 47K 5%	1/4W
Q1204	8-729-119-78	TRANSISTOR 2SC2785-HFE		R353	1-247-903-00	CARBON 1M 5%	1/4W
Q1302	8-729-209-15	TRANSISTOR 2SD2012		R354	1-249-441-11	CARBON 100K 5%	1/4W
< RESISTOR >							
R301	△ 1-249-401-11	CARBON 47 5%	1/4W	R362	1-249-437-11	CARBON 47K 5%	1/4W
R302	1-249-413-11	CARBON 470 5%	1/4W	R363	1-249-425-11	CARBON 4.7K 5%	1/4W
R303	1-249-411-11	CARBON 330 5%	1/4W (G, IT)	R364	1-249-425-11	CARBON 4.7K 5%	1/4W
R304	1-249-432-11	CARBON 18K 5%	1/4W (G, IT)	R365	1-249-429-11	CARBON 10K 5%	1/4W
R305	1-249-411-11	CARBON 330 5%	1/4W (G, IT)	R366	1-249-413-11	CARBON 470 5%	1/4W
R306	1-249-434-11	CARBON 27K 5%	1/4W (G, IT)	R367	1-249-434-11	CARBON 27K 5%	1/4W
R307	1-249-414-11	CARBON 560 5%	1/4W (G, IT)	R368	1-249-433-11	CARBON 22K 5%	1/4W
R308	1-249-411-11	CARBON 330 5%	1/4W	R501	1-249-417-11	CARBON 1K 5%	1/4W
R309	1-249-432-11	CARBON 18K 5%	1/4W	R502	1-249-417-11	CARBON 1K 5%	1/4W
R310	1-249-411-11	CARBON 330 5%	1/4W	R503	1-249-417-11	CARBON 1K 5%	1/4W
R311	1-249-434-11	CARBON 27K 5%	1/4W	R504	1-249-417-11	CARBON 1K 5%	1/4W
R312	1-249-414-11	CARBON 560 5%	1/4W (AEP, UK)	R505	1-249-429-11	CARBON 10K 5%	1/4W
R312	1-249-416-11	CARBON 820 5%	1/4W (G, IT)	R506	1-249-417-11	CARBON 1K 5%	1/4W
R313	△ 1-249-405-11	CARBON 100 5%	1/4W	R510	△ 1-249-401-11	CARBON 47 5%	1/4W
R314	1-249-437-11	CARBON 47K 5%	1/4W (G, IT)	R511	1-249-429-11	CARBON 10K 5%	1/4W
R315	△ 1-249-404-00	CARBON 82 5%	1/4W	R512	1-249-425-11	CARBON 4.7K 5%	1/4W
R315A	1-249-435-11	CARBON 33K 5%	1/4W (G, IT)	R513	1-249-417-11	CARBON 1K 5%	1/4W
				R514	1-249-429-11	CARBON 10K 5%	1/4W
				R515	1-249-417-11	CARBON 1K 5%	1/4W



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

MAIN

IC L

IC R

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark
R521	1-249-423-11	CARBON	3. 3K	5% 1/4W	R1202	1-249-434-11	CARBON	27K	5% 1/4W
R522	1-249-425-11	CARBON	4. 7K	5% 1/4W	R1203	1-249-414-11	CARBON	560	5% 1/4W
R523	1-249-414-11	CARBON	560	5% 1/4W	R1204	1-249-434-11	CARBON	27K	5% 1/4W
R524	1-249-417-11	CARBON	1K	5% 1/4W	R1205	1-249-393-11	CARBON	10	5% 1/4W
R525	1-249-410-11	CARBON	270	5% 1/4W	R1210	1-249-441-11	CARBON	100K	5% 1/4W
R526	1-249-421-11	CARBON	2. 2K	5% 1/4W	R1211	1-249-389-11	CARBON	4. 7	5% 1/4W
R527	1-249-425-11	CARBON	4. 7K	5% 1/4W	R1212	1-249-438-11	CARBON	56K	5% 1/4W
R528	1-249-425-11	CARBON	4. 7K	5% 1/4W	R1213	1-249-438-11	CARBON	56K	5% 1/4W
R529	1-249-405-11	CARBON	100	5% 1/4W	R1221	1-215-890-11	METAL OXIDE	470	5% 2W F
R530	△ 1-249-405-11	CARBON	100	5% 1/4W	R1222	1-249-397-11	CARBON	22	5% 1/4W
R531	1-249-423-11	CARBON	3. 3K	5% 1/4W	R1223	1-249-397-11	CARBON	22	5% 1/4W
R532	1-249-433-11	CARBON	22K	5% 1/4W	R1231	1-249-393-11	CARBON	10	5% 1/4W
R533	1-249-414-11	CARBON	560	5% 1/4W	R1241	1-249-385-11	CARBON	2. 2	5% 1/4W (G. IT)
R534	1-249-417-11	CARBON	1K	5% 1/4W	R1242	1-249-385-11	CARBON	2. 2	5% 1/4W (G. IT)
R535	1-249-410-11	CARBON	270	5% 1/4W	R1243	1-249-385-11	CARBON	2. 2	5% 1/4W (G. IT)
R536	1-249-421-11	CARBON	2. 2K	5% 1/4W	R1244	1-249-385-11	CARBON	2. 2	5% 1/4W (G. IT)
R537	1-249-425-11	CARBON	4. 7K	5% 1/4W	R1251	1-249-417-11	CARBON	1K	5% 1/4W
R538	1-249-405-11	CARBON	100	5% 1/4W	R1252	1-249-434-11	CARBON	27K	5% 1/4W
R1001	1-249-417-11	CARBON	1K	5% 1/4W	R1253	1-249-414-11	CARBON	560	5% 1/4W
R1002	1-249-441-11	CARBON	100K	5% 1/4W	R1254	1-249-434-11	CARBON	27K	5% 1/4W
R1003	1-249-416-11	CARBON	820	5% 1/4W	R1255	1-249-393-11	CARBON	10	5% 1/4W
R1004	1-247-897-11	CARBON	560K	5% 1/4W	R1263	1-249-437-11	CARBON	47K	5% 1/4W
R1005	1-249-437-11	CARBON	47K	5% 1/4W	R1272	1-249-397-11	CARBON	22	5% 1/4W
R1006	1-249-409-11	CARBON	220	5% 1/4W	R1273	1-249-397-11	CARBON	22	5% 1/4W
R1007	1-249-441-11	CARBON	100K	5% 1/4W	R1281	1-249-393-11	CARBON	10	5% 1/4W
R1008	1-249-409-11	CARBON	220	5% 1/4W	R1321	1-249-417-11	CARBON	1K	5% 1/4W
R1010	1-249-422-11	CARBON	2. 7K	5% 1/4W	R1322	1-249-429-11	CARBON	10K	5% 1/4W
R1011	1-249-428-11	CARBON	8. 2K	5% 1/4W	R1345	1-249-422-11	CARBON	2. 7K	5% 1/4W
R1014	1-249-437-11	CARBON	47K	5% 1/4W	R1346	1-249-425-11	CARBON	4. 7K	5% 1/4W
R1015	1-249-437-11	CARBON	47K	5% 1/4W					< VARIABLE RESISTOR >
R1016	1-249-421-11	CARBON	2. 2K	5% 1/4W	RV301	1-238-601-11	RES. ADJ. CARBON.	22K	
R1017	1-249-421-11	CARBON	2. 2K	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	RV1201	1-515-533-11	RELAY		
R1024	1-249-417-11	CARBON	1K	5% 1/4W					< TRANSFORMER >
R1051	1-249-417-11	CARBON	1K	5% 1/4W	T301	1-404-807-11	TRANSFORMER. DISCRIMINATOR		
R1052	1-249-441-11	CARBON	100K	5% 1/4W	T302	1-235-126-00	ENCAPSULATED COMPONENT (G. IT)		
R1053	1-249-416-11	CARBON	820	5% 1/4W					< CONNECTOR >
R1054	1-247-897-11	CARBON	560K	5% 1/4W	TM301	* 1-537-264-11	TERMINAL BOARD (ANTENNA) (AEP, UK)		
R1055	1-249-437-11	CARBON	47K	5% 1/4W	TM301	* 1-537-288-11	TERMINAL BOARD (ANTENNA) (G. IT)		
R1056	1-249-409-11	CARBON	220	5% 1/4W	TP1	* 1-560-060-00	PIN. CONNECTOR 2P		
R1057	1-249-441-11	CARBON	100K	5% 1/4W					
R1058	1-249-409-11	CARBON	220	5% 1/4W					
R1060	1-249-422-11	CARBON	2. 7K	5% 1/4W					
R1061	1-249-428-11	CARBON	8. 2K	5% 1/4W					
R1071	1-249-434-11	CARBON	27K	5% 1/4W					
R1073	1-249-434-11	CARBON	27K	5% 1/4W					
R1074	1-249-417-11	CARBON	1K	5% 1/4W					
R1201	1-249-417-11	CARBON	1K	5% 1/4W					

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

MAIN TC

IC L

IC R

MAIN

Ref. No.	Part No.	Description	Remark
		< CRYSTAL >	
XT501	1-577-126-11	VIBRATOR, CRYSTAL (7.2MHz)	

* A-2006-377-A MAIN TC BOARD, COMPLETE			

		1-535-888-11 JUMPER, FILM (WITH TERMINAL)	
		7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S	
		< CAPACITOR >	
C400	1-162-289-31	CERAMIC 390PF 10% 50V	
C401	1-136-157-00	FILM 0.022uF 5% 50V	
C402	1-124-767-00	ELECT 2.2uF 20% 50V	
C403	1-124-443-00	ELECT 100uF 20% 10V	
C404	1-162-289-31	CERAMIC 390PF 10% 50V	
C405	1-136-157-00	FILM 0.022uF 5% 50V	
C406	1-124-767-00	ELECT 2.2uF 20% 50V	
C407	1-124-443-00	ELECT 100uF 20% 10V	
C408	1-130-479-00	MYLAR 0.0047uF 5% 50V	
C409	1-162-289-31	CERAMIC 390PF 10% 50V	
C410	1-124-903-11	ELECT 1uF 20% 50V	
C411	1-124-925-11	ELECT 2.2uF 20% 100V	
C413	1-124-472-11	ELECT 470uF 20% 10V	
C414	1-131-587-11	TANTALUM 0.68uF 10% 35V	
C415	1-124-925-11	ELECT 2.2uF 20% 100V	
C416	1-124-927-11	ELECT 4.7uF 20% 100V	
C417	1-124-902-00	ELECT 0.47uF 20% 50V	
C418	1-124-907-11	ELECT 10uF 20% 50V	
C419	1-124-907-11	ELECT 10uF 20% 50V	
C420	1-124-907-11	ELECT 10uF 20% 50V	
C421	1-162-284-31	CERAMIC 150PF 10% 50V	
C422	1-136-273-91	FILM 75PF 5% 630V	
C423	1-136-271-00	FILM 56PF 5% 630V	
C424	1-162-280-31	CERAMIC 82PF 10% 50V	
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	
C503	1-124-443-00	ELECT 100uF 20% 10V	
C504	1-162-289-31	CERAMIC 390PF 10% 50V	
C505	1-136-157-00	FILM 0.022uF 5% 50V	
C506	1-124-767-00	ELECT 2.2uF 20% 50V	

Ref. No.	Part No.	Description	Remark
C507	1-124-443-00	ELECT 100uF 20% 10V	
C508	1-130-479-00	MYLAR 0.0047uF 5% 50V	
C509	1-162-289-31	CERAMIC 390PF 10% 50V	
C511	1-124-925-11	ELECT 2.2uF 20% 100V	
C513	1-124-472-11	ELECT 470uF 20% 10V	
C514	1-131-587-11	TANTALUM 0.68uF 10% 35V	
C515	1-124-925-11	ELECT 2.2uF 20% 100V	
C516	1-124-927-11	ELECT 4.7uF 20% 100V	
C517	1-124-902-00	ELECT 0.47uF 20% 50V	
C518	1-124-907-11	ELECT 10uF 20% 50V	
C520	1-124-907-11	ELECT 10uF 20% 50V	
C521	1-162-284-31	CERAMIC 150PF 10% 50V	
C522	1-136-273-91	FILM 75PF 5% 630V	
C523	1-136-271-00	FILM 56PF 5% 630V	
C524	1-162-280-31	CERAMIC 82PF 10% 50V	
C525	1-136-562-11	FILM 0.0082uF 5% 630V	
C526	1-130-482-00	MYLAR 0.0082uF 5% 50V	
C527	1-124-925-11	ELECT 2.2uF 20% 100V	
C528	1-130-482-00	MYLAR 0.0082uF 5% 50V	
C529	1-130-478-00	MYLAR 0.0039uF 5% 50V	
C530	1-130-478-00	MYLAR 0.0039uF 5% 50V	
C531	1-124-902-00	ELECT 0.47uF 20% 50V	
C532	1-124-925-11	ELECT 2.2uF 20% 100V	
C533	1-124-556-11	ELECT 2200uF 20% 16V	
C534	1-124-120-11	ELECT 220uF 20% 25V	
C535	1-124-927-11	ELECT 4.7uF 20% 100V	
C536	1-124-903-11	ELECT 1uF 20% 50V	
C540	1-124-472-11	ELECT 470uF 20% 10V	
C541	1-162-282-31	CERAMIC 100PF 10% 50V	
C542	1-164-159-11	CERAMIC 0.1uF 50V	
C546	1-162-282-31	CERAMIC 100PF 10% 50V	
C560	1-124-472-11	ELECT 470uF 20% 10V	
		< 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	
		< DIODE >	
D500	8-719-987-63	DIODE 1N4148M	
D501	8-719-987-63	DIODE 1N4148M	
D502	8-719-987-63	DIODE 1N4148M	
D503	8-719-987-63	DIODE 1N4148M	
D504	8-719-987-63	DIODE 1N4148M	

MAIN TC

PANEL

H.P

VOL

Ref. No.	Part No.	Description	Remark
D505	8-719-987-63	DIODE 1N4148M	
D506	8-719-987-63	DIODE 1N4148M	
D507	8-719-987-63	DIODE 1N4148M	
< IC >			
IC400	8-759-111-44	IC uPC4570C-1	
IC401	8-759-111-44	IC uPC4570C-1	
IC402	8-759-000-49	IC MC14066BCP	
IC403	8-752-031-67	IC CXA1100P	
IC404	8-752-038-02	IC CXA1198AP	
IC501	8-759-140-11	IC uPD40118C	
IC502	8-759-240-01	IC TC4001BP	
IC503	8-759-140-11	IC uPD40118C	
IC515	8-759-604-86	IC M5F7807L	
IC516	8-759-604-90	IC M5F7907L	
< COIL >			
L400	1-410-780-11	INDUCTOR 27mH	
L500	1-410-780-11	INDUCTOR 27mH	
< TRANSISTOR >			
Q400	8-729-900-89	TRANSISTOR DTC144ES	
Q401	8-729-900-89	TRANSISTOR DTC144ES	
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q500	8-729-900-89	TRANSISTOR DTC144ES	
Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q504	8-729-194-57	TRANSISTOR 2SC945-P	
Q505	8-729-194-57	TRANSISTOR 2SC945-P	
Q506	8-729-281-52	TRANSISTOR 2SC1815-Y	
Q507	8-729-900-61	TRANSISTOR DTA114ES	
Q508	8-729-900-80	TRANSISTOR DTC114ES	
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q511	8-729-900-65	TRANSISTOR DTA114ES	
Q512	8-729-900-89	TRANSISTOR DTC144ES	
< RESISTOR >			
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	
R433	1-247-883-00	CARBON 150K 5% 1/4W	
R436	1-249-437-11	CARBON 47K 5% 1/4W	
R437	1-249-437-11	CARBON 47K 5% 1/4W	
R438	1-247-874-11	CARBON 62K 5% 1/4W	
R439	1-249-440-11	CARBON 82K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R441	1-247-882-11	CARBON 130K 5% 1/4W	
R442	1-249-435-11	CARBON 33K 5% 1/4W	
R443	1-247-868-11	CARBON 36K 5% 1/4W	
R446	1-249-438-11	CARBON 56K 5% 1/4W	
R450	1-247-868-11	CARBON 36K 5% 1/4W	
R451	1-247-872-11	CARBON 51K 5% 1/4W	
R452	1-249-437-11	CARBON 47K 5% 1/4W	
R453	1-247-881-00	CARBON 120K 5% 1/4W	
R517	1-249-437-11	CARBON 47K 5% 1/4W	
R518	1-247-838-00	CARBON 2K 5% 1/4W	
R527	1-249-441-11	CARBON 100K 5% 1/4W	
R532	1-249-393-11	CARBON 10 5% 1/4W	
R538	1-249-385-11	CARBON 2.2 5% 1/6W	
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	1-238-600-11	RES. ADJ. CARBON 10K	
RV401	1-238-600-11	RES. ADJ. CARBON 10K	
RV402	1-238-600-11	RES. ADJ. CARBON 10K	
RV403	1-238-603-11	RES. ADJ. CARBON 100K	
RV500	1-238-600-11	RES. ADJ. CARBON 10K	
RV501	1-238-600-11	RES. ADJ. CARBON 10K	
RV502	1-238-600-11	RES. ADJ. CARBON 10K	
RV503	1-238-603-11	RES. ADJ. CARBON 100K	
RV504	1-238-598-11	RES. ADJ. CARBON 2.2K	
RV505	1-238-598-11	RES. ADJ. CARBON 2.2K	
< RELAY >			
RY400	1-515-614-11	RELAY	
< TRANSFORMER >			
T500	1-433-349-11	TRANSFORMER, BIAS OSCILLATION	

* A-4341-485-A PANEL BOARD, COMPLETE (AEP, UK)			
* A-4341-998-A PANEL BOARD, COMPLETE (G)			
* A-4345-014-A PANEL BOARD, COMPLETE (IT)			

* 1-637-913-11 H. P. BOARD			
* 1-637-915-11 VOL BOARD			
* 4-921-941-01 CUSHION (FL)			
* 4-930-781-11 HOLDER (VO), LED			
* 4-942-285-01 HOLDER (FU), LED			
* 4-942-301-01 HOLDER, FL TUBE			
* 4-943-167-01 HOLDER (10 GANG), LED			

VOL

H.P

PANEL

Ref. No.	Part No.	Description	Remark		
< CAPACITOR >					
C603	1-136-169-00	FILM	0.22uF	5%	50V
C604	1-161-379-00	CERAMIC	0.01uF	20%	25V
C605	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C606	1-161-379-00	CERAMIC	0.01uF	20%	25V
C607	1-124-907-11	ELECT	10uF	20%	50V
C608	1-161-379-00	CERAMIC	0.01uF	20%	25V
C609	1-161-379-00	CERAMIC	0.01uF	20%	25V
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
C1120	1-161-379-00	CERAMIC	0.01uF	20%	25V
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	50%	50V (G. IT)
C1132	1-162-215-31	CERAMIC	47PF	50%	50V (G. IT)
C1135	1-124-257-00	ELECT	2.2uF	20%	50V
C1136	1-126-163-11	ELECT	4.7uF	20%	50V
C1137	1-124-589-11	ELECT	47uF	20%	16V
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

Ref. No.	Part No.	Description	Remark		
C1181	1-162-215-31	CERAMIC	47PF	50%	50V (G. IT)
C1182	1-162-215-31	CERAMIC	47PF	50%	50V (G. IT)
C1185	1-124-257-00	ELECT	2.2uF	20%	50V
C1186	1-126-163-11	ELECT	4.7uF	20%	50V
C1237	1-162-282-31	CERAMIC	100PF	10%	50V (G. IT)
C1238	1-162-282-31	CERAMIC	100PF	10%	50V (G. IT)

< CONNECTOR >

CN601	* 1-568-830-11	SOCKET, CONNECTOR 11P
CN1101	* 1-568-834-11	SOCKET, CONNECTOR 15P
CN1202	* 1-564-520-11	PLUG, CONNECTOR 5P
CNJ1201	1-569-113-11	JACK, LARGE TYPE (HEADPHONES)

< DIODE >

D601	8-719-987-63	DIODE 1N4148M
D602	8-719-010-26	DIODE UZ-3.9BSB
D603	8-719-987-63	DIODE 1N4148M
D604	8-719-987-63	DIODE 1N4148M
D611	8-719-987-63	DIODE 1N4148M
D612	8-719-987-63	DIODE 1N4148M
D613	8-719-987-63	DIODE 1N4148M
D614	8-719-987-63	DIODE 1N4148M
D618	8-719-987-63	DIODE 1N4148M
D621	8-719-987-63	DIODE 1N4148M (IT)
D625	8-719-987-63	DIODE 1N4148M
D626	8-719-987-63	DIODE 1N4148M
D641	8-719-200-82	DIODE 1N4148M
D1131	8-719-301-38	DIODE SEL2210S-C
D1132	8-719-301-38	DIODE SEL2210S-C
D1133	8-719-301-38	DIODE SEL2210S-C
D1134	8-719-301-38	DIODE SEL2210S-C
D1135	8-719-301-38	DIODE SEL2210S-C
D1136	8-719-301-38	DIODE SEL2210S-C
D1137	8-719-301-38	DIODE SEL2210S-C
D1138	8-719-301-38	DIODE SEL2210S-C
D1139	8-719-301-38	DIODE SEL2210S-C
D1140	8-719-987-63	DIODE 1N4148M
D1142	8-719-987-63	DIODE 1N4148M
D1145	8-719-301-38	DIODE SEL2210S-C
D1151	8-719-987-63	DIODE 1N4148M
D1152	8-719-987-63	DIODE 1N4148M
D1185	8-719-301-38	DIODE SEL2210S-C
D1186	8-719-301-38	DIODE SEL2210S-C
D1187	8-719-301-38	DIODE SEL2210S-C
D1188	8-719-301-38	DIODE SEL2210S-C
D1189	8-719-301-38	DIODE SEL2210S-C
D1190	8-719-987-63	DIODE 1N4148M
D1192	8-719-987-63	DIODE 1N4148M

PANEL

H.P

VOL

Ref. No.	Part No.	Description	Remark
		< FLUORESCENT INDICATOR TUBE >	
FL601	1-519-595-21	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC601	8-759-154-08	IC uPD75212ACW-276	
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	
IC1111	8-759-917-42	IC IR2E31A	
IC1161	8-759-917-42	IC IR2E31A	
		< 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	
Q1136	8-729-900-36	TRANSISTOR DTC124ES	
Q1138	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	1-249-421-11	CARBON 2.2K 5%	1/4W
R612	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

Ref. No.	Part No.	Description	Remark
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
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
R1131	1-249-413-11	CARBON 470 5%	1/4W
R1132	1-249-413-11	CARBON 470 5%	1/4W
R1133	1-249-413-11	CARBON 470 5%	1/4W
R1134	1-249-413-11	CARBON 470 5%	1/4W
R1135	1-249-433-11	CARBON 22K 5%	1/4W
R1136	1-249-422-11	CARBON 2.7K 5%	1/4W
R1137	1-249-435-11	CARBON 33K 5%	1/4W
R1138	1-249-413-11	CARBON 470 5%	1/4W
R1139	1-249-441-11	CARBON 100K 5%	1/4W
R1140	1-249-429-11	CARBON 10K 5%	1/4W
R1141	1-249-402-11	CARBON 56 5%	1/4W
R1145	1-249-413-11	CARBON 470 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

LED	SW	POWER A	VOL	H.P	PANEL
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Ref. No.	Part No.	Description	Remark
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
R1186	1-249-422-11	CARBON 2.7K 5%	1/4W
R1187	1-249-435-11	CARBON 33K 5%	1/4W
R1188	1-249-413-11	CARBON 470 5%	1/4W
R1189	1-249-441-11	CARBON 100K 5%	1/4W
R1190	1-249-429-11	CARBON 10K 5%	1/4W
R1191	1-249-402-11	CARBON 56 5%	1/4W
R1206	1-249-415-11	CARBON 680 5%	1/4W
R1207	1-249-415-11	CARBON 680 5%	1/4W
R1256	1-249-415-11	CARBON 680 5%	1/4W
R1257	1-249-415-11	CARBON 680 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 (DBFB)	
RV1103	1-241-356-11	RES. VAR. SLIDE 100K (100Hz L-CH)	
RV1104	1-241-356-11	RES. VAR. SLIDE 100K (330Hz L-CH)	
RV1105	1-241-356-11	RES. VAR. SLIDE 100K (1kHz L-CH)	
RV1106	1-241-356-11	RES. VAR. SLIDE 100K (3.3kHz L-CH)	
RV1107	1-241-356-11	RES. VAR. SLIDE 100K (10kHz L-CH)	
RV1108	1-241-352-11	RES. VAR. CARBON 100K/100K (BALANCE)	
RV1109	1-241-350-11	RES. VAR. CARBON 100K/100K (VOLUME)	
RV1153	1-241-356-11	RES. VAR. SLIDE 100K (100Hz R-CH)	
RV1154	1-241-356-11	RES. VAR. SLIDE 100K (330Hz R-CH)	
RV1155	1-241-356-11	RES. VAR. SLIDE 100K (1kHz R-CH)	
RV1156	1-241-356-11	RES. VAR. SLIDE 100K (3.3kHz R-CH)	
RV1157	1-241-356-11	RES. VAR. SLIDE 100K (10kHz R-CH)	
< SWITCH >			
S601	1-554-303-21	SWITCH, TACTILE (1)	
S602	1-554-303-21	SWITCH, TACTILE (2)	
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)	

Ref. No.	Part No.	Description	Remark
S614	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING +)	
S615	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING -)	
S616	1-554-303-21	SWITCH, TACTILE (SHIFT)	
S617	1-554-303-21	SWITCH, TACTILE (BAND SELECTOR)	
S618	1-554-303-21	SWITCH, TACTILE (ST/MUTE)	
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)	
S1102	1-554-118-00	SWITCH, PUSH (1 KEY) (EQUALIZER)	
< CRYSTAL >			
X601	1-567-775-11	VIBRATOR, CERAMIC	

* 1-638-031-11 POWER A BOARD			

1-533-217-31 HOLDER, FUSE			
1-535-139-00 BASE POST 22MM(10MM PITCH) 2P (AEP, G, IT)			
* 1-535-141-00 BASE POST 22MM(10MM PITCH) 4P (UK)			
1-535-476-11 TERMINAL (AEP, G, IT)			
* 1-638-032-11 SW BOARD			
* 1-638-033-11 LED BOARD			
< CAPACITOR >			
C701	1-124-903-11	ELECT 1uF 20% 50V	
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	
C1351	1-124-122-11	ELECT 100uF 20% 50V	
C1352	1-126-105-11	ELECT 1000uF 20% 35V	
C1361	1-124-122-11	ELECT 100uF 20% 50V	
< CONNECTOR >			
CN1301	* 1-564-521-11	PLUG, CONNECTOR 6P	
CN1302	* 1-564-519-11	PLUG, CONNECTOR 4P	
CNJ701	* 1-568-833-11	SOCKET, CONNECTOR 14P	
< DIODE >			
D701	8-719-301-38	DIODE SEL2210S-C	
D702	8-719-301-38	DIODE SEL2210S-C	
D1307	8-719-934-21	DIODE HZS30-1L	
D1309	8-719-014-66	DIODE UZP-5.6B	
D1311	8-719-200-82	DIODE 11ES2	

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

POWER A SW LED

Ref. No.	Part No.	Description	Remark
D1318	8-719-200-82	DIODE 11ES2	
D1319	8-719-200-82	DIODE 11ES2	
D1368	8-719-200-82	DIODE 11ES2	
D1369	8-719-200-82	DIODE 11ES2	

< TRANSISTOR >

Q701	8-729-900-89	TRANSISTOR DTC144ES	
Q702	8-729-900-89	TRANSISTOR DTC144ES	
Q703	8-729-900-89	TRANSISTOR DTC144ES	
Q1301	8-729-111-67	TRANSISTOR 2SB1094-L	

< 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
R705	1-249-421-11	CARBON	2.2K	5%	1/4W
R706	1-249-416-11	CARBON	820	5%	1/4W
R707	1-249-423-11	CARBON	3.3K	5%	1/4W
R708	1-249-414-11	CARBON	560	5%	1/4W
R709	1-249-414-11	CARBON	560	5%	1/4W
R1303	1-249-421-11	CARBON	2.2K	5%	1/4W
R1304	1-249-425-11	CARBON	4.7K	5%	1/4W

< SWITCH >

S701	1-572-606-11	SWITCH, PUSH (3 KEY)	
S702		(TAPE SELECTOR/DOLBY NR/DUBBING SPEED)	
S703			

MISCELLANEOUS

5	1-533-217-31	HOLDER, FUSE	
7	1-575-906-11	WIRE, FLAT TYPE	
8	1-590-459-11	WIRE, FLAT TYPE	
76	1-535-888-11	JUMPER, FILM (WITH TERMINAL)	
C2001	1-101-005-00	CERAMIC	0.022uF 50V (G, IT)
CNP1301	△1-555-750-00	CORD, POWER (AEP, G, IT)	
CNP1301	△1-556-035-00	CORD, POWER (UK)	
F1301	△1-532-350-00	FUSE (4.0A)	
F1302	△1-532-350-00	FUSE (4.0A)	
F1303	△1-532-388-51	FUSE (2.0A)	
F1304	△1-532-388-51	FUSE (2.0A)	
FL601	1-519-595-21	INDICATOR TUBE, FLUORESCENT	
HE1	1-543-673-11	HEAD, MAGNETIC (ERASE)	
HP1	1-543-319-11	HEAD, MAGNETIC (REC/PB)	
HRP1			
S1301	△1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	
T1301	△1-450-315-11	TRANSFORMER, POWER	

Ref. No.	Part No.	Description	Remark
		ACCESSORY & PACKING MATERIAL	

1-465-358-21		REMOTE COMMANDER (RM-S130)	
1-501-374-11		ANTENNA, LOOP (AEP, IT)	
3-752-862-11		MANUAL, INSTRUCTION (AEP)(English, F, E, P)	
3-752-862-41		MANUAL, INSTRUCTION (AEP, G)(D, NL, S, I)	
3-752-862-61		MANUAL, INSTRUCTION (UK)(English)	
* 4-914-075-01		CUSHION (SP) (AEP, IT)	
4-921-934-01		SHEET, PROTECTION	
* 4-944-240-01		INDIVIDUAL CARTON (AEP)	

HARDWARE LIST

# 1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
# 2	7-685-133-19	SCREW +P 2.6X6 TYPE2
# 3	7-621-775-20	SCREW +B 2.6X5
# 4	7-685-135-19	SCREW +BTP 2.6X10 TYPE2 N-S
# 5	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT
# 6	7-623-921-01	RING, RETAINING, CAPSTAN
# 7	7-623-505-01	LUG, 2
# 8	7-688-001-01	W 2, SMALL
# 9	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#10	7-682-547-04	SCREW +BVTT 3X6 (S)
#11	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S
#12	7-682-548-04	SCREW +BVTT 3X8 (S)

F: FRENCH
E: SPANISH
P: PORTUGUESE
D: GERMAN
NL: DUTCH
S: SWEDISH
I: ITALIAN

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

HST-D205

SONY®
SERVICE MANUAL

AEP Model
UK Model

SUPPLEMENT-1

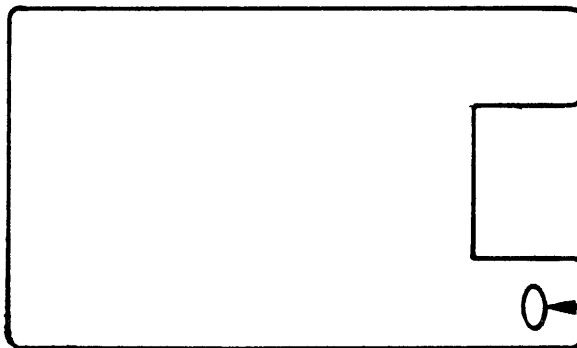
File this supplement with the service manual.

Subject: Precautions for Replacement of IC601 (μ PD7512ACW-276)

When replacing the IC601 on a PCB the part No. of which includes a number 11 at its end (as 1-637-911-□□), a new IC601 should be mounted according to the following procedure.

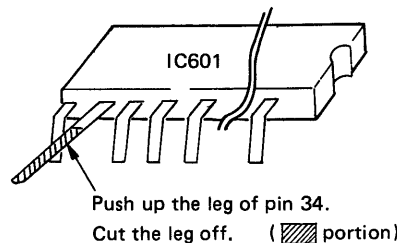
- Check the end number of the PCB.

[PANEL BOARD] (Conductor Side Pattern)



Check the No. at this place.

- Push up the leg of pin 34, and cut it off with nippers.



Push up the leg of pin 34.
Cut the leg off. (hatched portion)