

HCD-A490

SERVICE MANUAL

*AEP Model
UK Model*



HCD-A490 is the tuner, deck, CD and amplifier section in LBT-A490.

Photo : AEP model

CD SECTION	Model Name Using Similer Mechanism		HCD-A390
	CD Mechanism Type		CDM14-5BD13
	Base Unit Type		BU-5BD13
	Optical Pick-up Type		KSS-240A
DECK SECTION	Model Name Using Similer Mechanism		HCD-A390
	Tape Transport Mechanism Type	DECK-A	TCM-190RA12AL
		DECK-B	TCM-190RB53A

SPECIFICATIONS

Compact disc deck receiver (HCD-A490)

Tuner Section

System	FM stereo FM/AM superheterodyne tuner
FM tuner section	
Tuning range	EE, CIS model : 65 to 74 MHz 87.5 to 108 MHz Except EE, CIS model : 87.5 to 108 MHz
Antenna	75 ohms unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	G model : AM : 531 to 1,602 kHz IT model : AM : 522 to 1,611 kHz AEP, UK, EE, CIS, model : MW: 531 to 1,602 kHz LW: 153 to 279 kHz
Antenna	AM loop antenna External antenna terminal
Intermediate frequency	450 kHz

Amplifier Section

UK model :	
DIN power output	50 W + 50 W (6 ohms, at 1 kHz)
Continuous RMS power output	60 W + 60 W (6 ohms, at 1 kHz, 5% THD)
Music power output	90 W + 90 W (6 ohms)
Except UK model :	
DIN power output	40 W + 40 W (6 ohms, at 1 kHz)
Continuous RMS power output	45 W + 45 W (6 ohms, at 1 kHz, 5% THD)
Music power output	70 W + 70 W (6 ohms)

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

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

Frequency response 15 Hz to 50 kHz ± 0.3 dB

— Continued on next page —

COMPACT DISC DECK RECEVIER
SONY®

Cassette deck Section

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF With Sony Type II cassette 40 Hz to 14 kHz (± 3 dB) With Sony Type I cassette 40 Hz to 13 kHz (± 3 dB)
Wow and flutter	W. PEAK $\pm 0.2\%$ (DIN)

CD player Section

Laser	Semiconductor laser
Wavelength	780 – 790 nm
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)

General

Power requirements	Except UK model : 220 – 230 V AC, 50/60 Hz UK model : 240 V AC, 50Hz
Power consumption	Except UK model : 150 W UK model : 130 W
Mass	Approx. 11.3 kg (24 lb 15 oz)
Dimensions	Approx. 355 x 425 x 355 mm (14 x 16 $\frac{3}{4}$ x 14 inches) (w/h/d, including projections)

Supplied accessories

45-r/min adaptor	(1)
Remote commander RM-S421	(1)
FM wire antenna	(1)
(Except G model)	
AM loop antenna	(1)
Batteries Sony SUM-3 (NS)	(2)

Note

EE	: East European model
G	: German model
IT	: Italian model

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

Notes on chip component replacement

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

Flexible Circuit Board Repairing

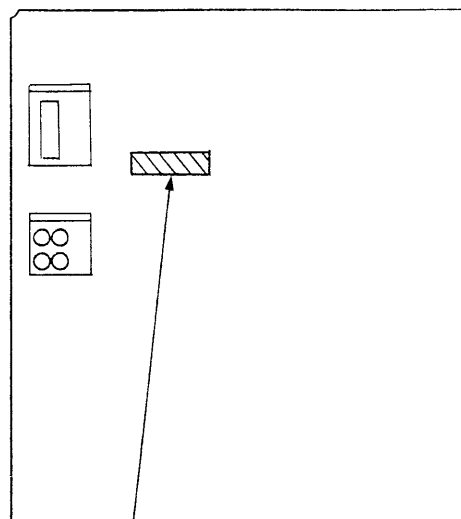
- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

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.

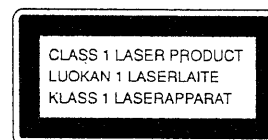
MODEL IDENTIFICATION

— BACK PANEL —



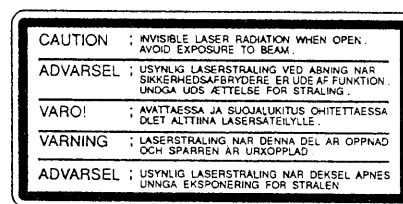
4-642-744-11	: AEP Model
4-642-744-21	: AEP Model
4-642-744-31	: AEP Model
4-642-744-41	: German Model
4-642-744-51	: Italian Model
4-642-744-61	: East European, CIS Model
4-642-744-71	: UK Model
4-642-744-81	: AEP Model

This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.



SECTION 1

SERVICING NOTE

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NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

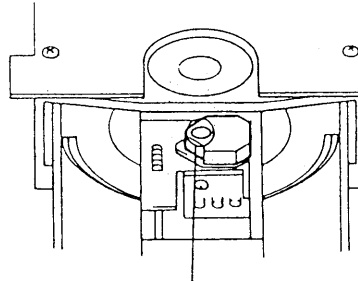
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

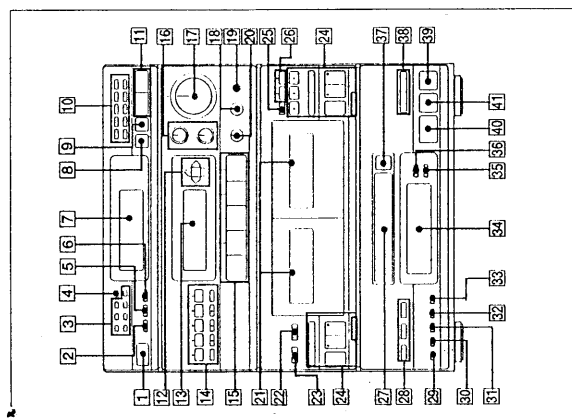
1. Make POWER switch on with no disc inserted and disc table closed.
2. Confirm that the following operation is performed while observing the objective lens.



- ① Confirm that laser beam is spread.
- ② Up and down motion of the objective lens. (3 times)

Location of Controls

Refer to the pages indicated in parentheses for details.



Compact Disc Deck Receiver HCD-A490

Tuner section

- 1 SYSTEM POWER switch (Page 5)
- 2 MEMORY button (Page 10)
- 3 Buttons for setting the clock and timer (Pages 6, 28, 29, 30)
- 4 DISPLAY button (Pages 11)
- 5 CHARACTER button (Page 11)
- 6 STEREO/MONO button (Page 9)
- 7 Display window
- 8 BAND button (Page 10)
- 9 SHIFT button (Page 10)
- 10 PRESET STATIONS numeric buttons (Pages 10, 11)
- 11 DUAL MODE TUNING +/- buttons (Pages 6, 9, 10, 11, 28, 29)

Amplifier section

- 12 CURSOR CONTROL buttons (Page 25)
- 13 SPECTRUM ANALYZER display (Page 26)
- 14 PRESET EQ/PERSONAL FILE buttons and indicators (Pages 24, 25, 26)
- 15 Function selectors and indicators
- 16 DBS LEVEL and DBS FREQUENCY controls (Page 7)
- 17 VOLUME control (Page 7)
- 18 BALANCE control (Page 7)
- 19 HEADPHONES jack (Page 7)
- 20 SURROUND control (Page 7)

Cassette deck section

- 21 Cassette holders
- 22 DIRECTION MODE selector (Pages 12, 14, 16)
- 23 DOLBY NR (noise reduction) switch (Pages 12, 14)
- 24 Tape operation buttons (Pages 12, 14, 15)
 - ◀ (AMS*) Leftward fast winding button
 - ▶ (AMS*) Rightward fast winding button
 - ▶ Forward play button and indicator
 - ◀ Reverse play button and indicator
 - Stop button
 - ▲ EJECT button
- 11 PAUSE button and indicator (deck B only)
- REC RECORD button and indicator (deck B only)
- REC MUTE button (deck B only)
- 25 CD SYNCHRO button (Page 21)
- 26 DUBBING SPEED (HIGH/NORMAL) buttons and indicators (Page 16)

Compact disc player section

- 27 Disc Tray
- 28 PLAY MODE buttons
 - CONTINUE button (Pages 19, 20, 23)
 - SHUFFLE button (Page 19)
 - PROGRAM button (Page 20, 22)
 - REPEAT button (Page 19)
 - FADE button (Page 24)
 - MUSIC SCAN button (Page 17)
 - EDIT button (Page 23)
- 34 Display window
- 35 CLEAR (program clear) button (Page 20)
- 36 CHECK (program check) button (Page 20)
- 37 OPEN/CLOSE button (Page 17)
- 38 ◀◀◀/▶▶▶ (AMS*) buttons (Page 16)
- 39 ■ (stop) button (Page 17)
- 40 ▶ (play) button (Page 17)
- 41 11 (pause) button (Page 17)

* AMS is the abbreviation of Automatic Music Sensor.

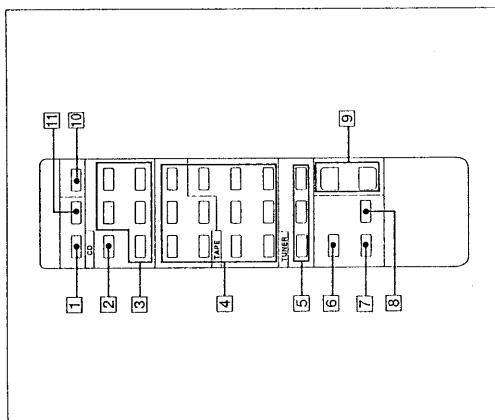
SECTION 2 GENERAL

This section is extracted from instruction manual.

Remote commander RM-S421

- 1 FUNCTION button
Each time this button is pressed, the function mode changes among VIDEO, TAPE, CD, TUNER and PHONO.
- 2 This button is inoperative with this unit.
- 3 CD operation buttons
 - ◀◀ / ▶▶ (AMS*) buttons, ▶ (play) button, 11 (pause) button, ■ (stop) button
- 4 TAPE DECK A and DECK B operation buttons
 - ◀◀ / ▶▶ (AMS*) buttons,
 - ▶ / ▶▶ (AMS*) buttons,
 - Stop buttons
- 5 DECK B only
 - Recording button,
 - 11 Pause button
- 6 Tuner operation buttons
 - SHIFT button
- 7 PRESET +/- buttons
These buttons are used to select the preset station number.
- 8 EQUALIZER button
 - SELECT 5 button
- 9 Each time the button is pressed, the preset equalization switches among 5 preset patterns (HALL, DANCE, VOCAL, POPPS and BGM).
- 8 P.FILE button
- 9 VOL (volume) +/- buttons
- 10 SYSTEM POWER button
- 11 SLEEP button

* AMS is the abbreviation of Automatic Music Sensor.



SECTION 3 MECHANICAL ADJUSTMENTS

PRECAUTION

- Clean the following parts with a denatured alcoholmoistened swab:

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

[Torque Measurement]

Torque	Torque Meter	Meter Reading
FWD	CQ-102C	30 to 65 g•cm 0.42 – 0.9 oz•inch
FWD Back Tension	CQ-102C	1 to 6 g•cm 0.014 – 0.08 oz•inch
REV	CQ-102RC	30 to 65 g•cm 0.42 – 0.9 oz•inch
REV Back Tension	CQ-102RC	1 to 6 g•cm 0.014 – 0.08 oz•inch
FF, REV	CQ-201B	70 to 120 g•cm 0.97 – 1.65 oz•inch

SECTION 4 ELECTRICAL ADJUSTMENTS

DECK SECTION

- The adjustment should be performed in the publication.
(Be sure to make playback adjustment at first.)
- The adjustment and measurement should be performed for both L-CH and R-CH.
 - Switch position
DOLBY NR switch: OFF

Test tape

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

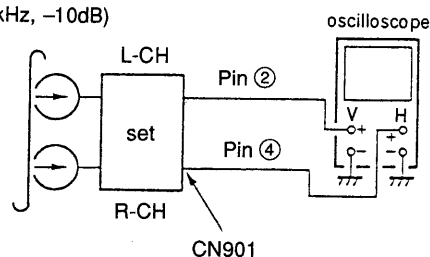
[Record/playback Head Azimuth Adjustment]

Deck A Deck B

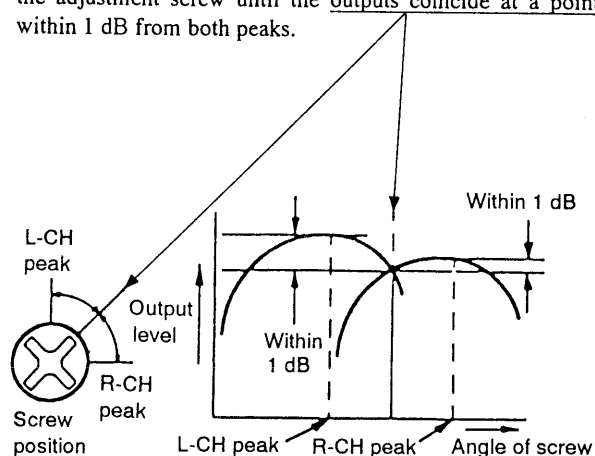
Procedure:

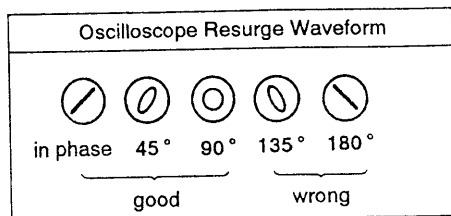
- FWD/REV: Playback mode

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



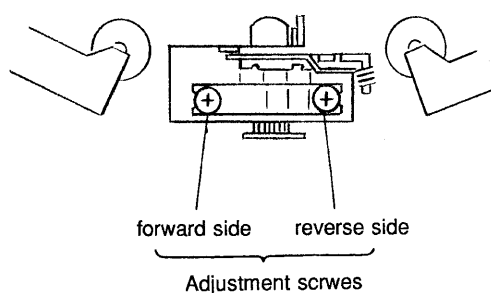
- Turn the adjustment screw and check where the output peaks are. If the peaks of L-CH and R-CH do not coincide, turn the adjustment screw until the outputs coincide at a point within 1 dB from both peaks.





3. Change the REV playback mode and repeat the steps 1 to 2.
4. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location: Record/playback head

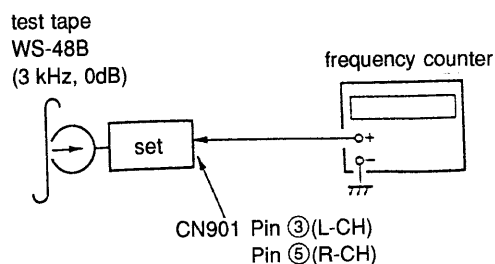


【Tape Speed Adjustment】 Deck A Deck B

Procedure:

- Adjust the high speed first, starting from Deck A and then Deck B.

— Playback Mode —



(High Speed Adjustment)

1. Short-circuit CN904 (MAIN TC BOARD) with the power off.
2. Set deck A into the FWD mode.
3. Turn on the power, press the High speed DUB switch, and set high speed playback.
4. Adjust deck A : RV72A (H) so that the reading of the frequency counter becomes the specified value.
5. Stop deck A.
6. Carry out steps 2 to 5 for deck B in the same way.
7. After adjusting, unshort-circuit CN904.

(Normal Speed Adjustment)

1. Set the FWD playback mode.
2. Adjust deck A: RV71A (L), deck B: RV71B (L) so that the reading of the frequency counter becomes the adjustment value.

Adjustment Values:

High Speed	6000 ± 30Hz
Normal Speed	3000 ± 15Hz

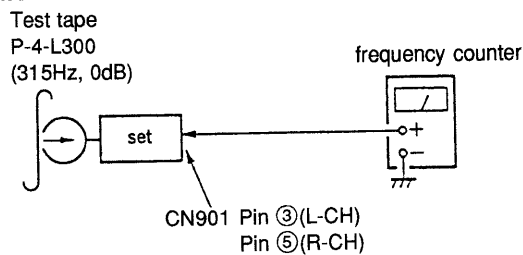
Adjust so that the difference between tape top and tape end is within 3%. Adjust so that the deviation between the speeds of deck A and deck B at the tape top is within 1.0%.

Adjustment Location: MD-A, B boards

【Playback Level Adjustment】 Deck A Deck B

Procedure:

— Playback Mode —



Adjust deck A: RV11A (L-CH), RV21A (R-CH), deck B: RV11B (L-CH), RV21B (R-CH) so that the output level is within the adjustment values specified.

Adjustment Level:

CN901 level: -7.5 dB ± 0.5 dB (0.31 to 0.35V)

Level Difference between Channels:

Within 1.0 dB

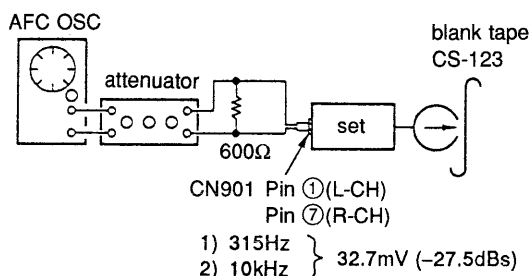
Check that the playback level does not change when playback and stop is repeated.

Adjustment Location: MD-A, B boards

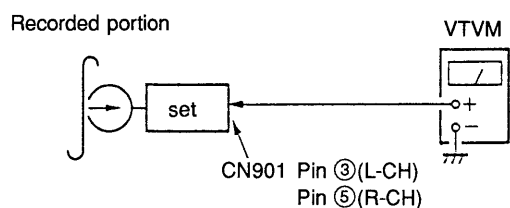
【Record Bias Adjustment】 Deck B

Procedure:

1. Record Mode



2. Playback Mode



Playback the signal recorded at step 1, and check that the adjustment value specified below is satisfied. If it is not, adjust RV12 (L-CH) and RV22 (R-CH), and repeat steps 1 and 2.

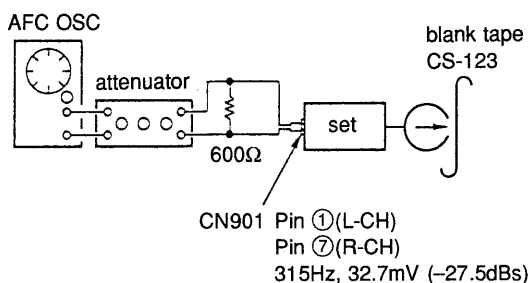
Adjustment Level: Playback output of 315 Hz to playback output of 10 kHz: -0.5 dBs to 0.5 dBs.

Adjustment Location: MD-B board

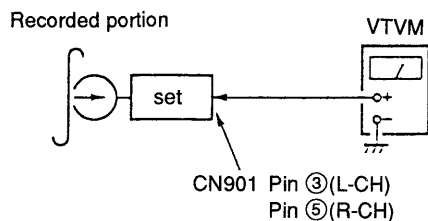
【Record Level Adjustment】 Deck B

Procedure:

1. Record Mode



2. Playback Mode



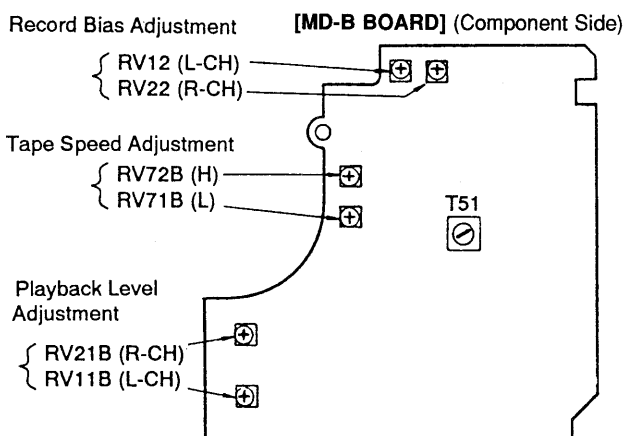
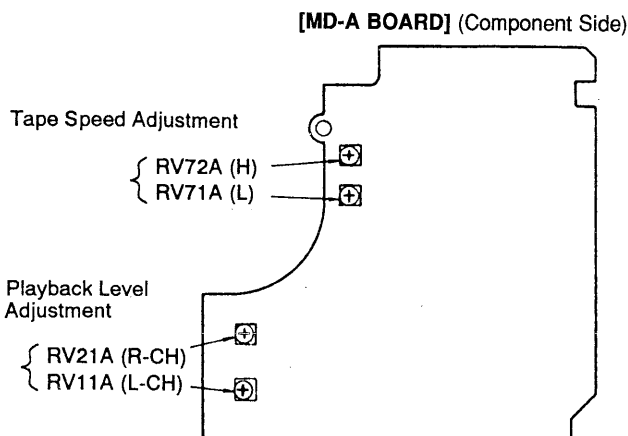
Playback the signal recorded at step 1, and check that the adjustment value specified below is satisfied. If it is not, adjust RV701 (L-CH) and RV801 (R-CH), and steps 1 and 2.

Adjustment Level:

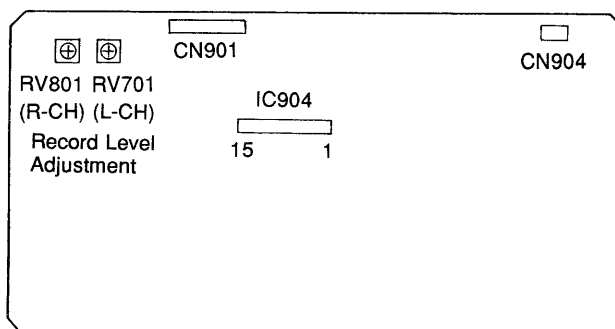
CN901 level: -27.0 dBs to -28.0 dBs (31 to 35 mV)

Adjustment Location: Main board

Adjustment Location:



【MAIN TC BOARD】 (Component Side)

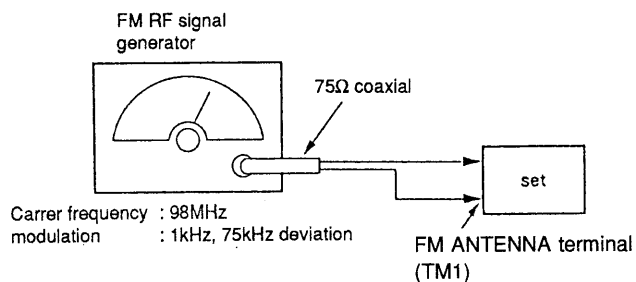


TUNER SECTION

Note : As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

FM SECTION ADJUSTMENTS

Setting:



FM Tuned Level Adjustment

Band : FM

Procedure :

1. Supply a $25 \pm 4\text{dB}\mu$ (EE, CIS), $30 \pm 4\text{dB}\mu$ (EXCEPT EE, CIS) 98MHz (EXCEPT EE, CIS), 70MHz (EE, CIS) signal from the ANTENNA terminal.
2. Tune the set to 98MHz (EXCEPT EE, CIS), 70MHz (EE, CIS).
3. Adjust RV2 so that the TUNED indicator goes on.

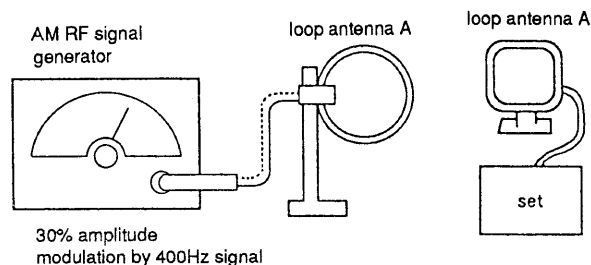
Adjustment Location: MAIN board

EE : East European model

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by trimmer capacitors.

AM SECTION ADJUSTMENTS

Setting:



AM Tuned Level Adjustment

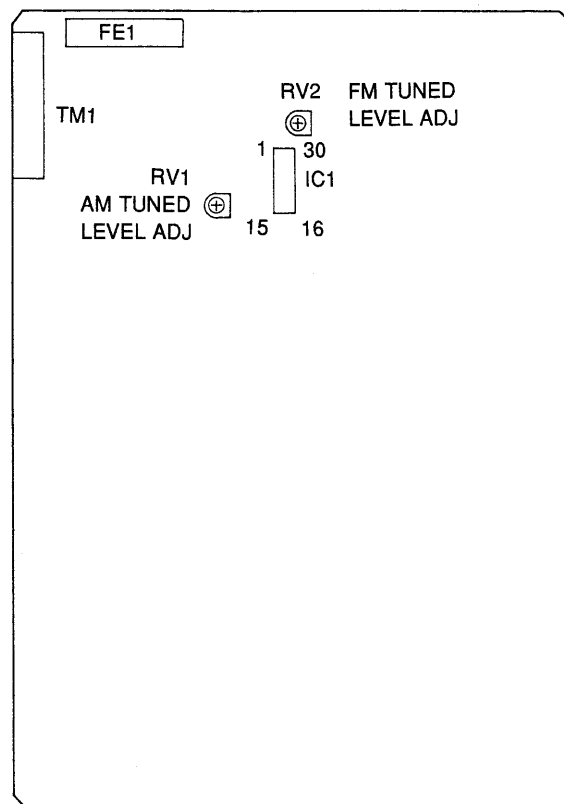
Band: AM

Procedure:

1. Set loop antenna input level to $94\text{dB}\mu/\text{m}$, 1050kHz and no signal tuned light should not on.
2. Tune the set to 1050kHz
3. Adjust RV1 so that the Voltage of IC1 ⑦ pin is set to low.

Adjustment Location : MAIN BOARD

[MAIN BOARD] (Component Side)



SUBCARRIER ADJUSTMENT (CIS Model only)

SWITCH POSITION		Function Selector : TUNER Band Selector : FM STEREO/MONO : MONO			
SIGNAL GENERATOR		69 MHz, 60 dB, FM modulated (MONO SIGNAL)			
STEP	TEST STAGE	FM TUNING FREQUENCY	SIGNAL GENERATOR	ADJUSTMENT	REMARKS
1	fo	69 MHz	1 kHz (10 kHz dev.)		The value in this state should be 0 dB (Vo).
2			31.25 kHz (10 kHz dev.)	L1701	Adjust for maximal output.
3	Q			RV1701	Indication is +14 dB against Vo.

VCO FREQUENCY ADJUSTMENT

SWITCH POSITION		STEREO/MONO : STEREO		
SIGNAL GENERATOR		69 MHz, 60 dB, FM modulated (MONO SIGNAL)		
	FM TUNING FREQUENCY	ADJUSTMENT	REMARKS	
	69 MHz	RV1702	Adjust for 31.25kHz $\pm$ 50 Hz.	

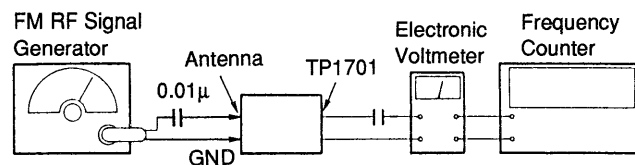


Fig. 1 SUBCARRIER

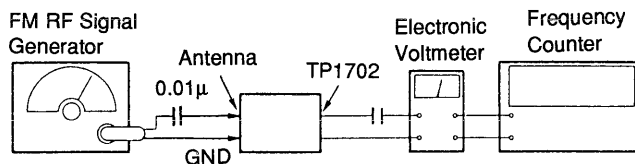
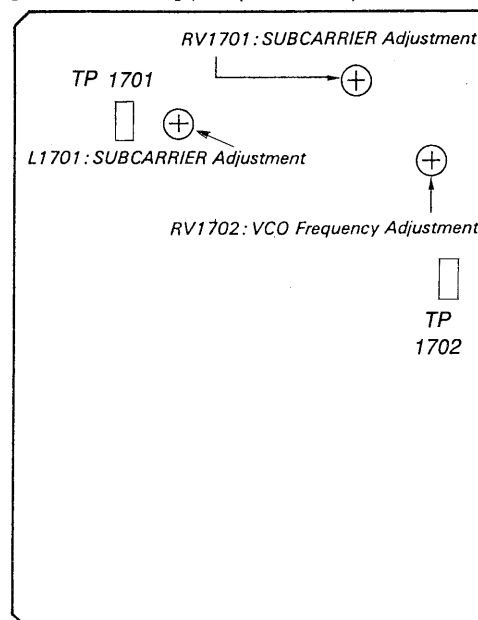


Fig. 2 VCO FREQUENCY

[POLAR BOARD] (Component Side)

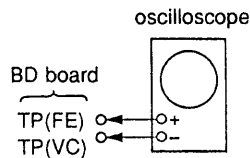


CD SECTION

Note :

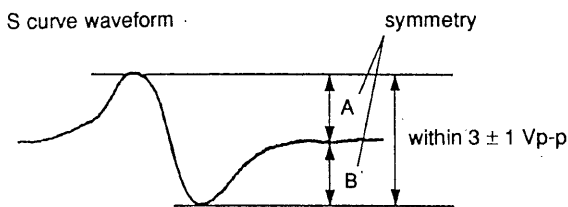
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ impedance.
4. Clean an object lens by an applicator with neutral detergent when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

S Curve Check



Procedure :

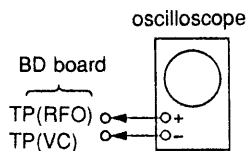
1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3 ± 1 Vp-p.



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

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

RF Level Check



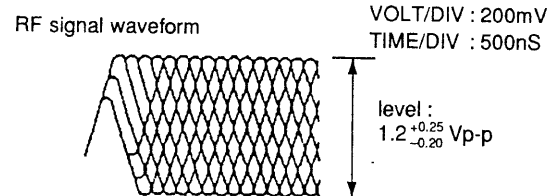
Procedure :

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turned Power switch on.

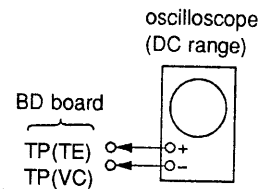
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

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

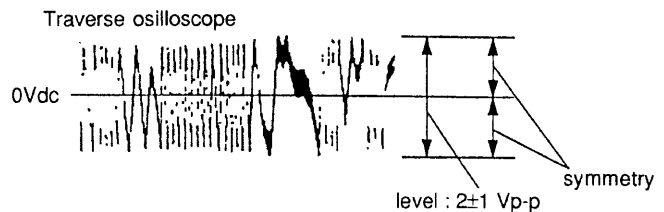


E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) on MAIN board to ground and TP(TEI) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turned 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 0Vdc, and check this level.

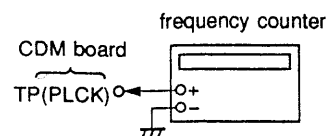


6. Remove the lead wire connected in step 1.

RF Free-run Frequency Check

Procedure :

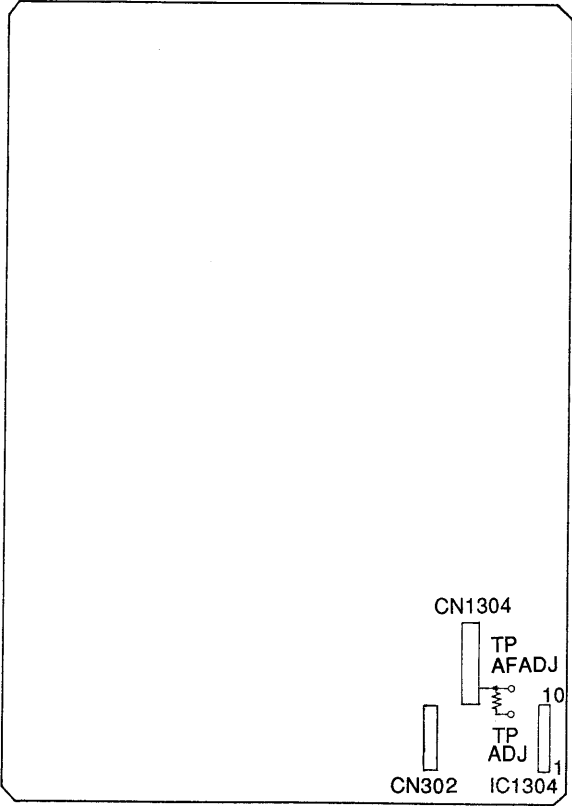
1. Connect frequency counter to test point (PLCK) with lead wire.



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

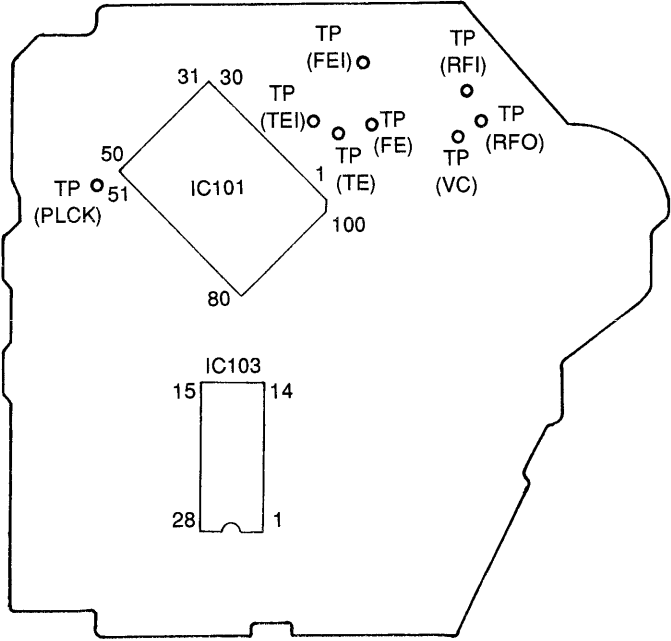
Adjustment Location :

[MAIN BOARD] (Component Side)



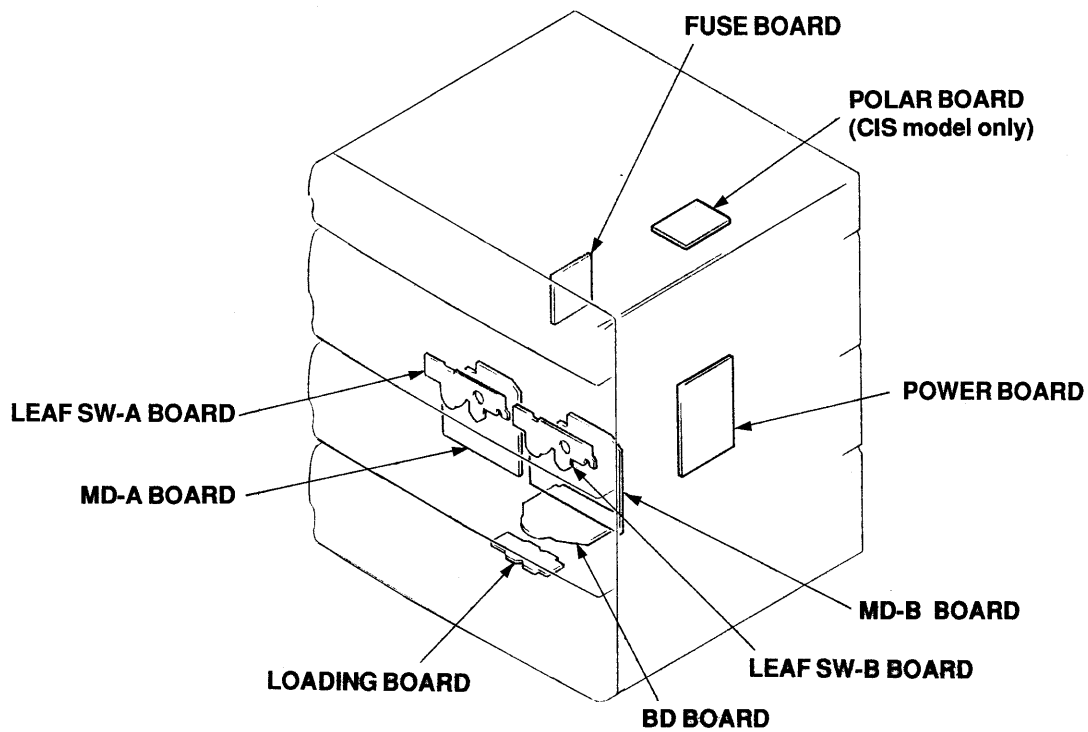
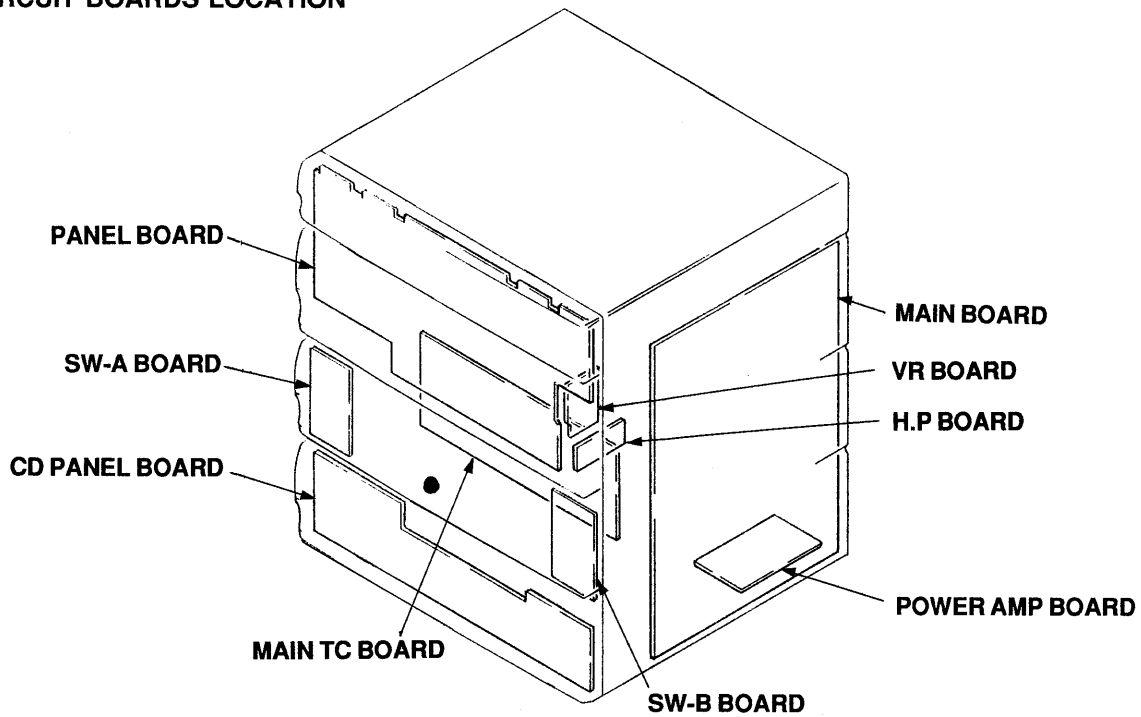
Adjustment Location :

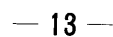
[BD BOARD] — Side A —



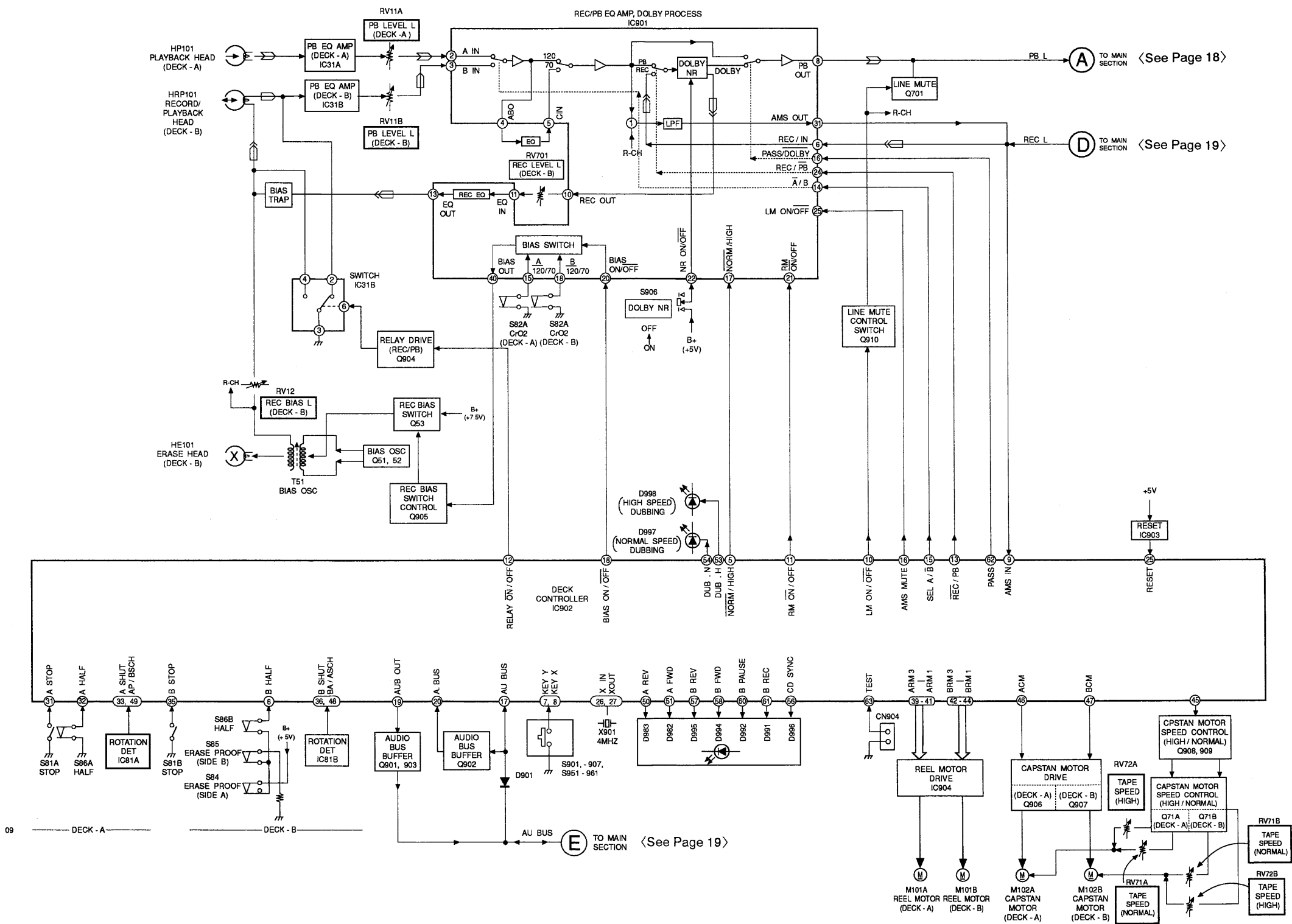
SECTION 5 DIAGRAMS

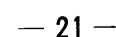
5-1. CIRCUIT BOARDS LOCATION





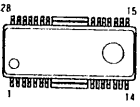
— DECK SECTION —



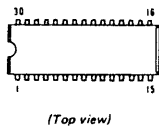


5-3. SEMICONDUCTOR LEAD LAYOUTS

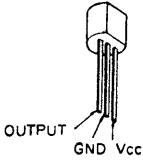
BA6392FP



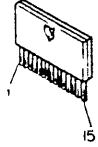
LA1835



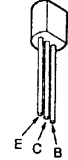
M51943BSL



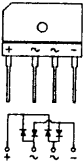
TA8242K



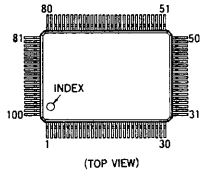
2SA1162-G
2SB1068-L
2SC1841-PAFAEA
2SC3112-B



D5SBA20F01



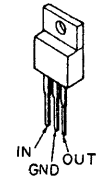
CXD2515Q



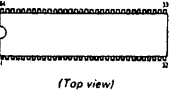
LA5602



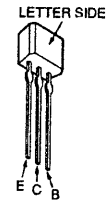
M5F7806L
M5F78M07L
M5F78M12
M5F79M07L



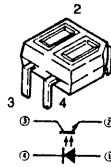
TMP47C1270AN-H227



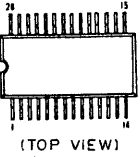
2SA1175-HFE



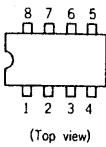
NJL5165K-B (H1)



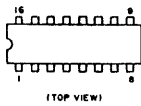
CXD2565AM



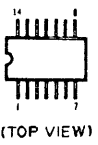
LB1639
M5218AP
UPC4558C



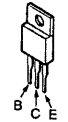
MC14052BCP
SAA6579
SN74HC139AN
UPD4053BC
XR1091DCP



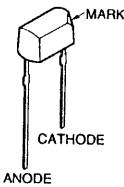
uPC1330GR



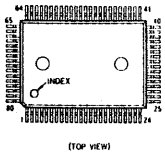
2SB1094-LK
2SD2012



SEL5221S-TH8C
SEL5421E-TH8C



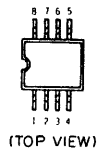
CXP82316-035Q
uPD78042GF056-3B9
uPD78043GF-079-3B9



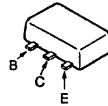
LB1641
UPC1237HA



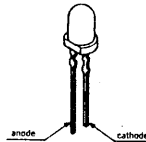
UPC4570G2



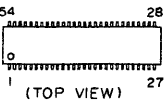
2SC2001TP-K1K2
2SD1616A-K



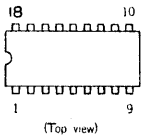
SEL5421E-TH8C
SEL5821A-TH8C



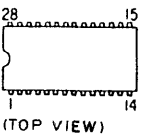
HA12171NT
M5289P



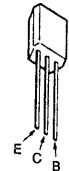
LC7073



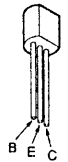
NJU7305L



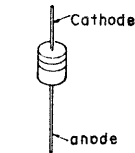
DTA144ES
DTA124ES
DTC144ES
DTC124ES
2SC2603-EF
2SC26690Y
2SC3622A-LK
2SC403SP-51



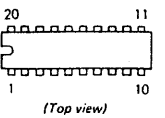
2SC3112-B



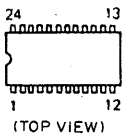
UZ-4.7BSB
UZL-11M1
UZL-33L
UZP-5.6B



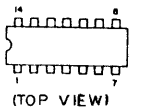
IR3R42



LC7218



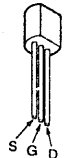
SN74HCU04AN



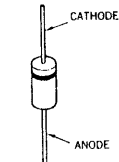
DTC114ES



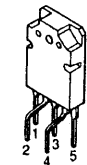
2SK246-GR3



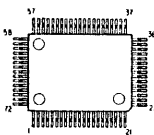
1N4148M
11EQS04
11ES2



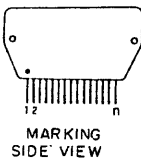
L78MR06
L78LR05D



M50964-261FP



STK-4152MK2K
STK-4162MK2

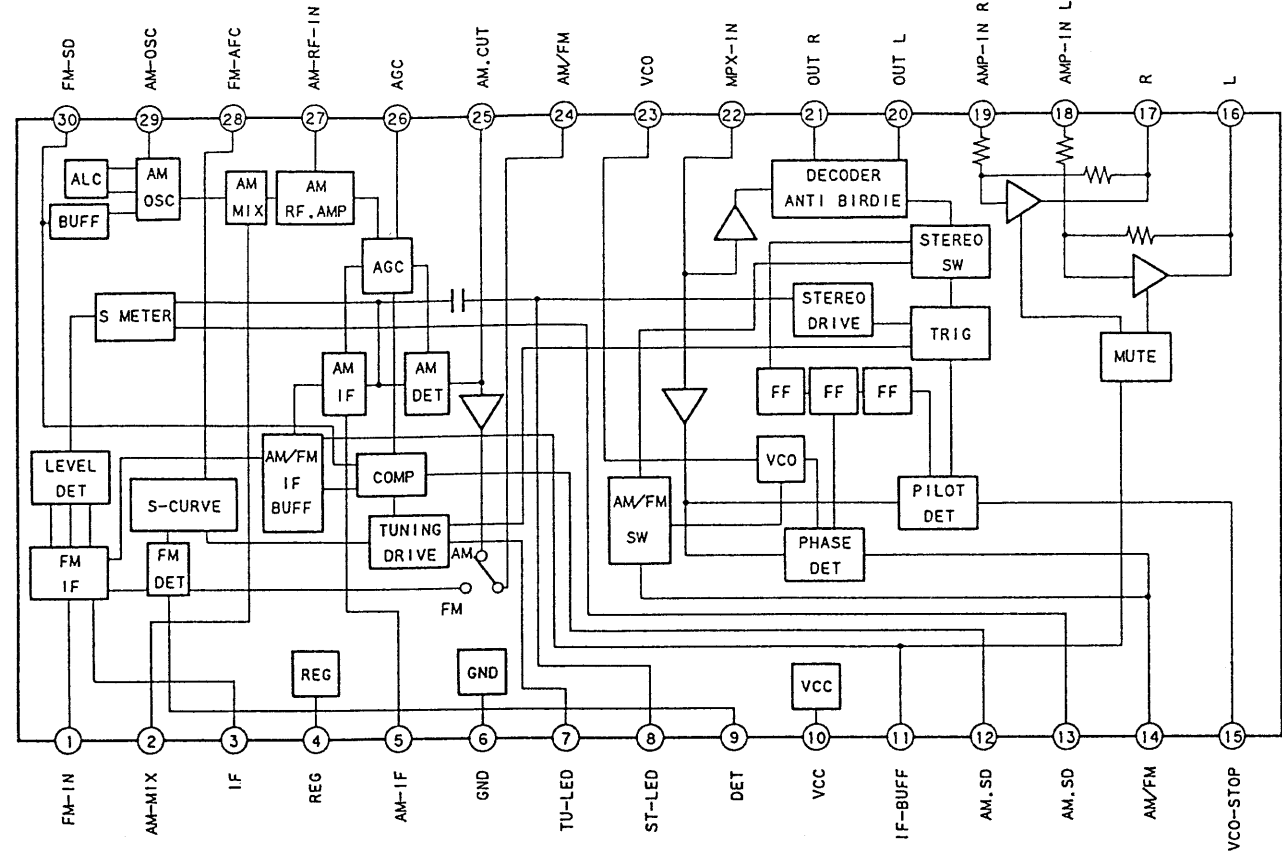


5-4. IC BLOCK DIAGRAMS

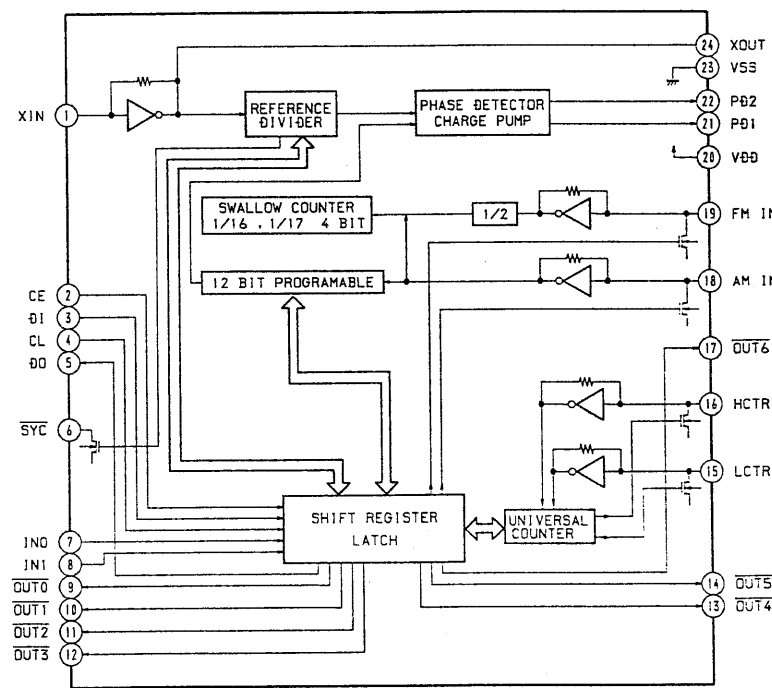
— TUNER SECTION —

• IC Block Diagrams.

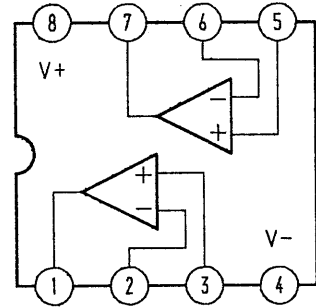
IC1 LA1835



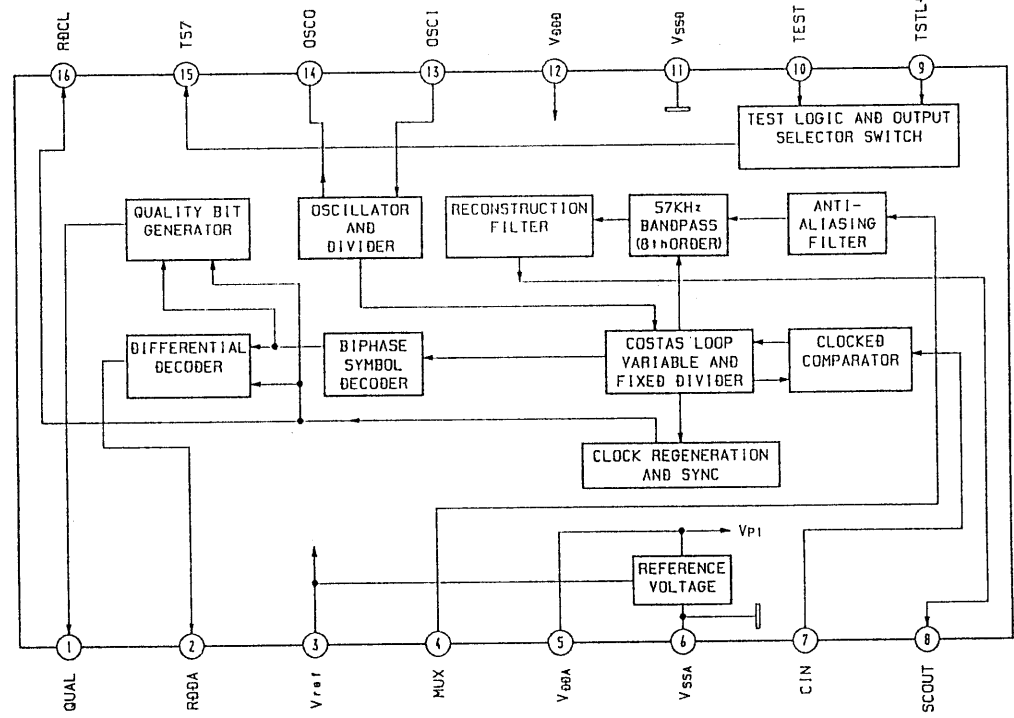
IC51 LC7218



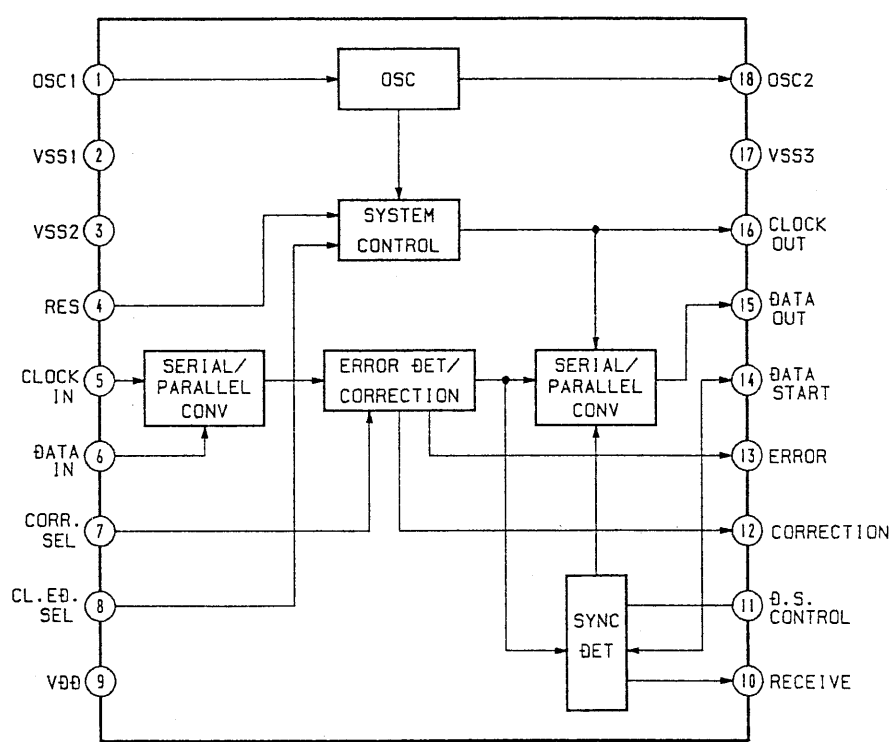
IC81 RC4558P



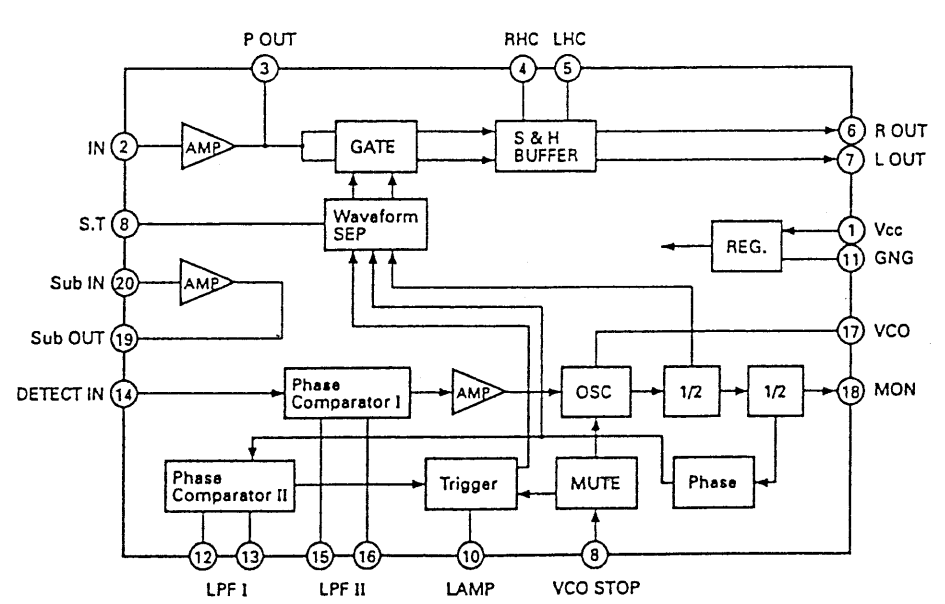
IC82 SAA6579



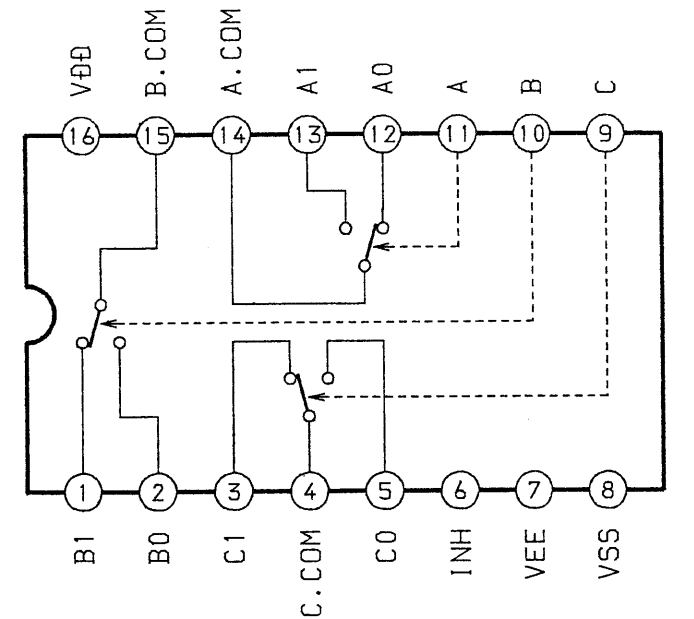
IC83 LC7073



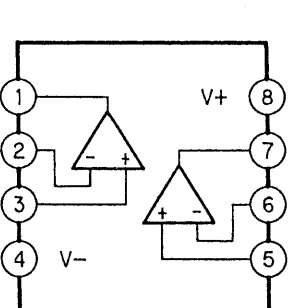
IC1701 IR3R42



IC1703 MC14053BCP

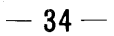


IC1702 M5218AP



— 32 —

- 33 —



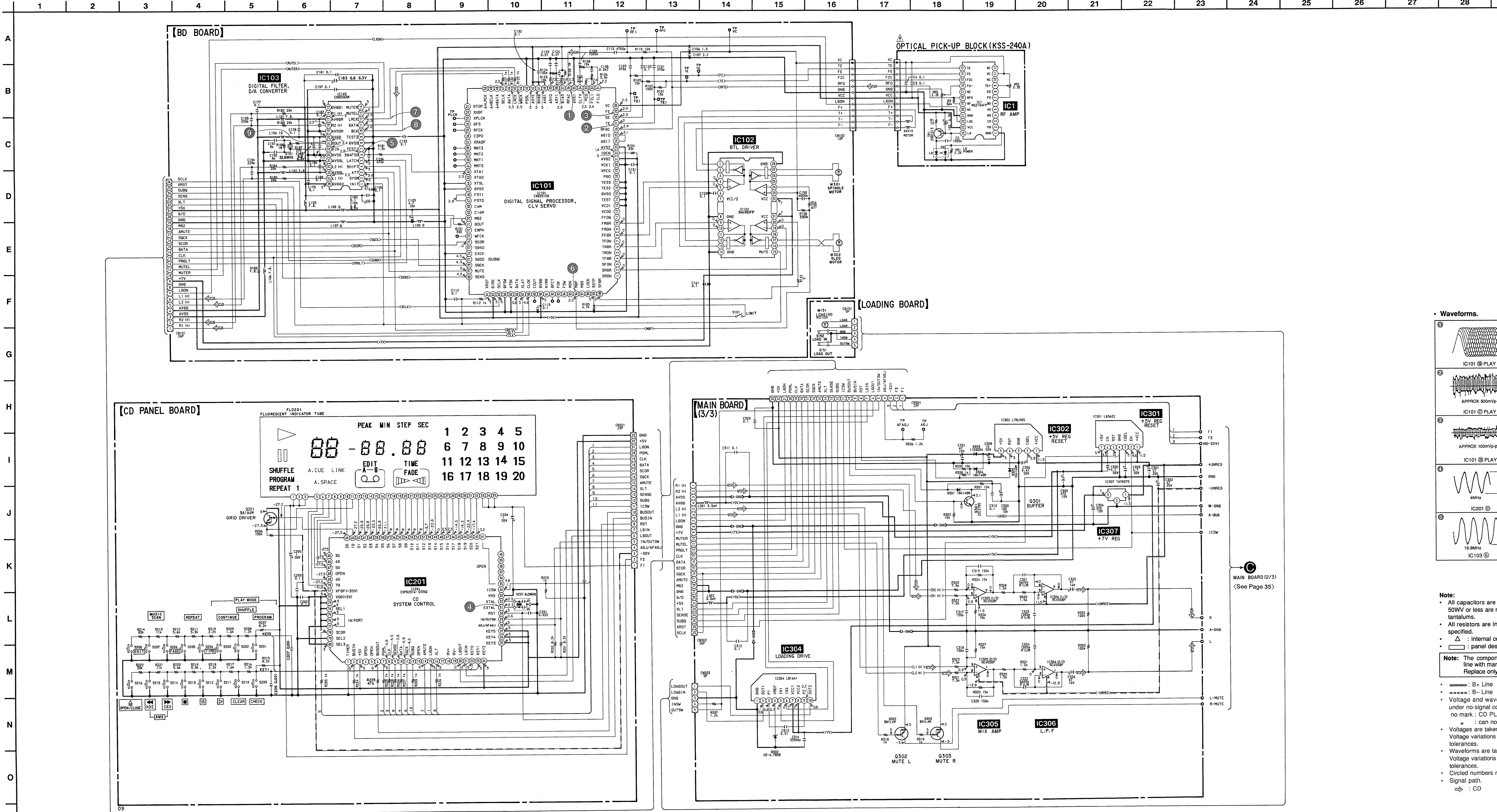
Note:

- — : parts extracted from the component side.
- : Pattern from the side which enable seeing.
- G : German model.
- IT : Italian model.
- EE : East European model.

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	D-2	D1375	F-8	IC1703	D-23
D2	D-3	D1601	J-20		
D3	D-3	D1602	J-17	Q1	E-3
D301	J-13	D1603	J-17	Q2	E-3
D302	J-14	D1604	J-16	Q3	C-4
D303	C-13	D1605	J-17	Q4	D-4
D304	C-13	D1606	I-19	Q5	B-4
D305	C-13	D1611	I-20	Q6	B-4
D1201	E-18	D1612	J-19	Q7	B-4
D1202	B-16	D1613	J-17	Q8	B-4
D1203	A-12	D1701	D-22	Q55	D-2
D1251	B-18	D1702	E-24	Q61	C-2
D1301	C-11	D1703	F-23	Q62	B-2
D1304	C-9	D1704	D-25	Q71	C-3
D1305	C-8	D1705	F-23	Q72	B-3
D1306	C-8			Q301	J-13
D1307	C-8	IC1	F-4	Q302	C-14
D1313	E-7	IC51	F-2	Q303	C-14
D1314	D-8	IC81	I-4	Q1031	G-7
D1315	E-8	IC82	I-3	Q1081	E-7
D1316	D-7	IC83	I-2	Q1201	H-18
D1317	D-9	IC301	E-13	Q1251	B-18
D1318	D-9	IC302	D-13	Q1341	G-12
D1319	F-9	IC304	J-14	Q1370	G-8
D1320	F-9	IC305	B-14	Q1371	G-8
D1321	D-12	IC306	B-14	Q1611	I-19
D1322	D-11	IC307	E-13	Q1621	J-21
D1323	C-11	IC1001	C-6	Q1701	D-24
D1324	D-12	IC1002	E-6	Q1702	D-23
D1325	D-11	IC1003	G-6	Q1703	E-23
D1326	C-11	IC1004	H-6	Q1704	E-23
D1331	D-7	IC1005	H-10	Q1705	F-24
D1333	E-7	IC1006	I-10		
D1335	H-9	IC1056	G-10		
D1336	H-9	IC1201	B-19		
D1337	D-8	IC1301	D-8		
D1341	G-12	IC1302	D-9		
D1342	C-12	IC1303	D-7		
D1343	C-12	IC1304	A-8		
D1371	D-10	IC1341	G-13		
D1372	D-10	IC1601	J-19		
D1373	D-10	IC1701	C-24		
D1374	D-10	IC1702	C-25		

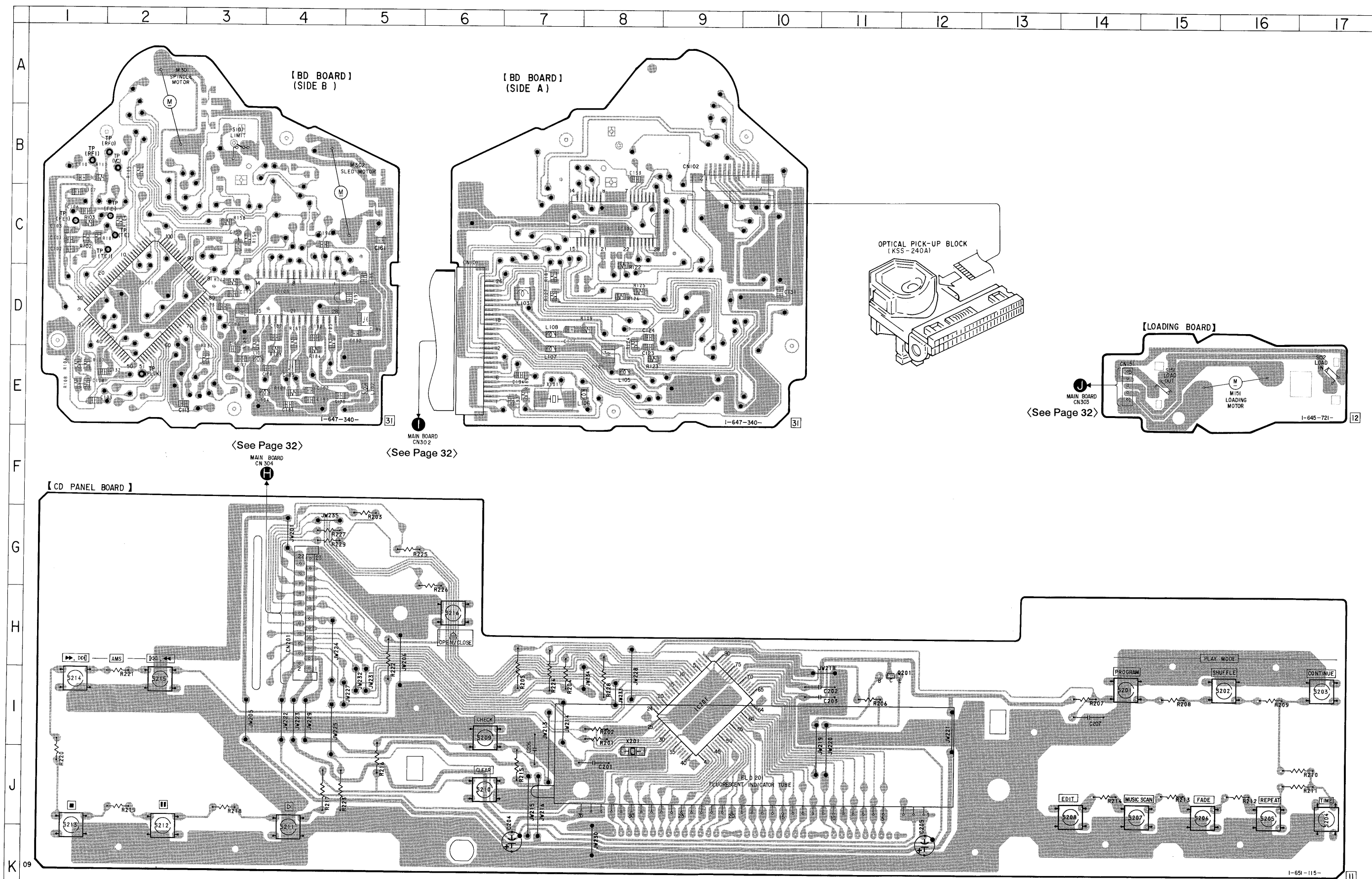


- Refer to page 31 for Printed Wiring Boards. (Main Board)
- See pages 45, 46 for IC Block Diagrams.
- See pages 70 to 73 for IC Pin Functions.



5-9. PRINTED WIRING BOARDS — CD SECTION —

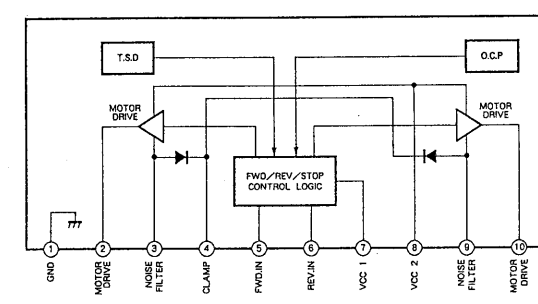
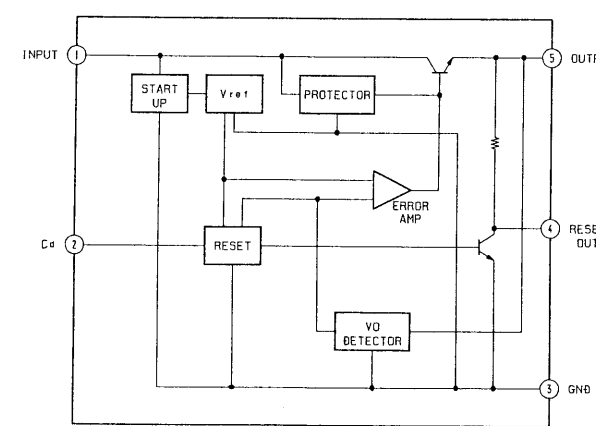
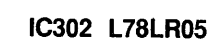
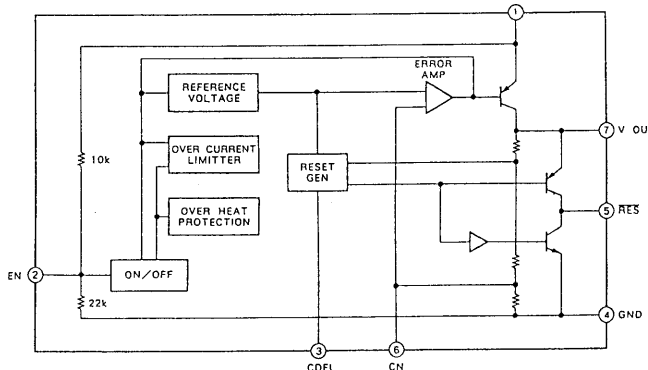
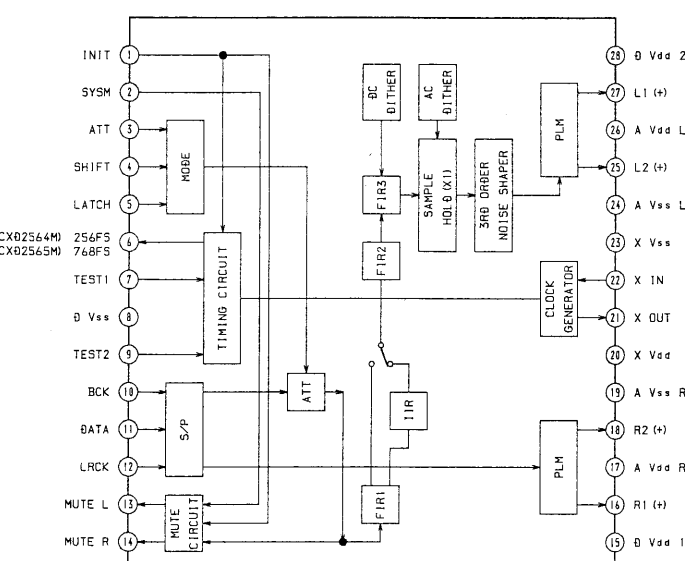
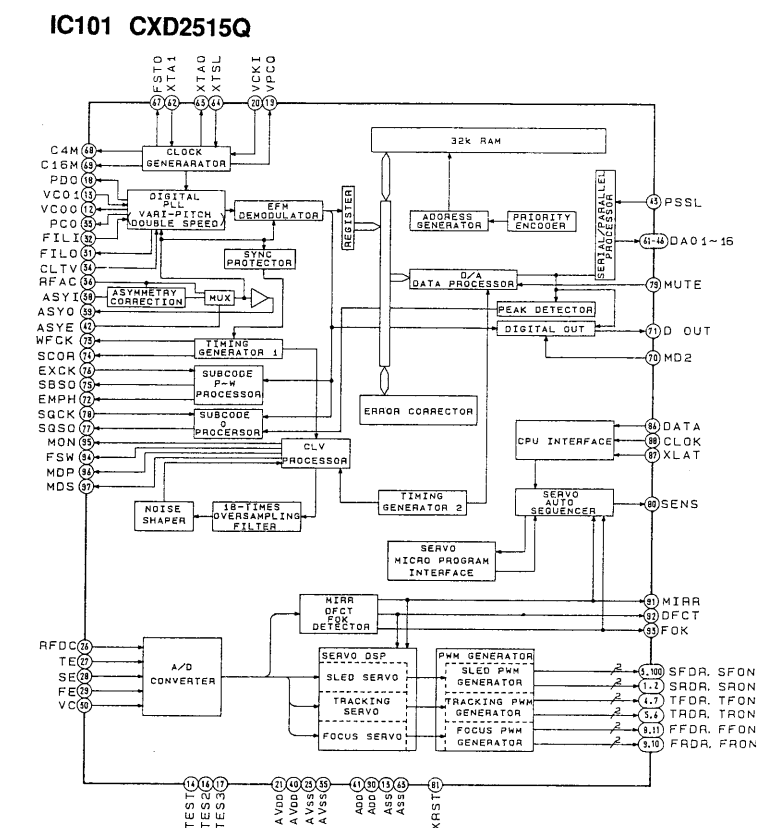
- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.



- **Semiconductor Location**

Ref. No.	Location
IC101	D-2
IC102	C-8
IC103	D-4
IC201	I-9
Q201	I-12

- **IC Block Diagrams.**



Note:

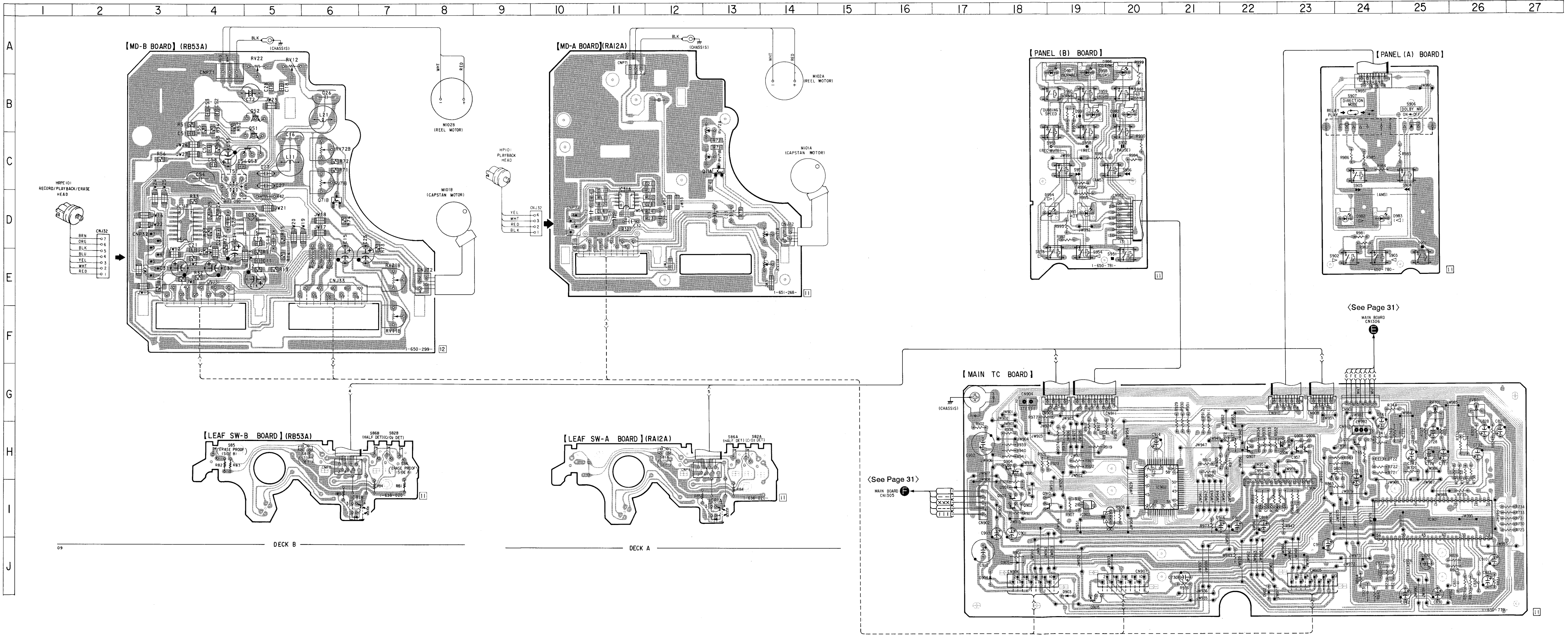
- : parts extracted from the component side.
- : Through hole.
- : Pattern from the side which enable seeing.
(The other layer's patterns are not indicated.)

5-10. PRINTED WIRING BOARDS — DECK SECTION —
• See page 12 for Circuit Boards Location.
• See pages 22, 23 for Semiconductor Lead Layouts.

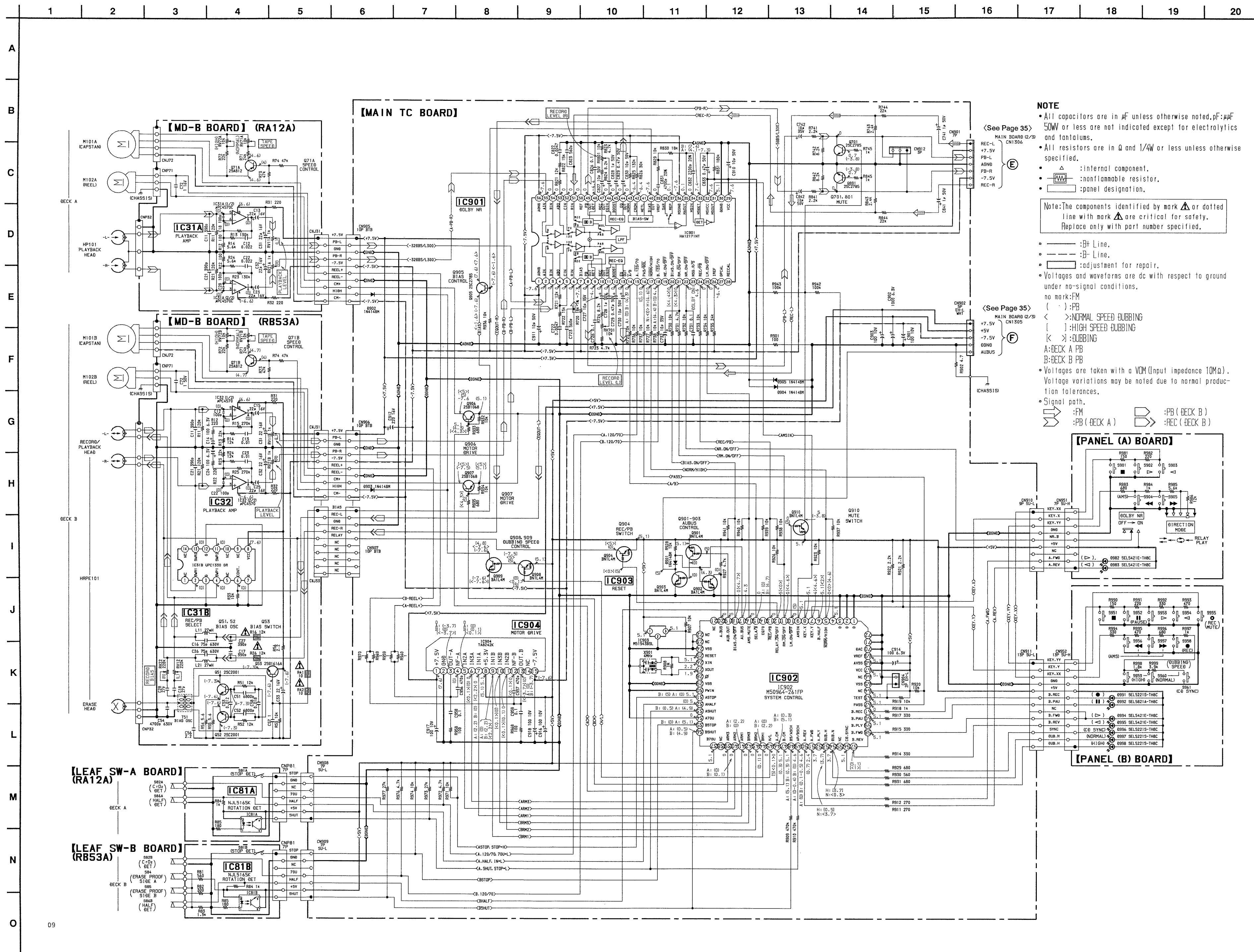
• Semiconductor Location

Ref. No.	Location
D901	I-18
D902	K-22
D903	K-19
D904	J-17
D905	J-18
D982	D-24
D983	D-24
D991	B-19
D992	B-20
D994	D-19
D995	D-19
D997	B-19
D998	B-19
IC31A	D-11
IC31B	C-3
IC32	D-5
IC81A	I-13
IC81B	I-6
IC901	I-25
IC902	I-20
IC903	I-19
IC904	I-23
Q51	C-5
Q52	B-5
Q53	C-5
Q71A	C-13
Q71B	D-6
Q701	H-24
Q801	H-23
Q901	H-18
Q902	I-18
Q903	I-18
Q904	H-18
Q905	K-19
Q906	H-22
Q907	H-22
Q908	H-23
Q909	H-23
Q910	I-18

Note:
• ○ : parts extracted from the component side.
• □ : indicates side identified with part number.
• ■ : Pattern from the side which enable seeing.



5-11. SCHEMATIC DIAGRAM — DECK SECTION —
 • See pages for 78, 79 IC Pin Functions.



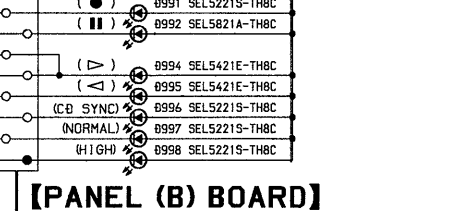
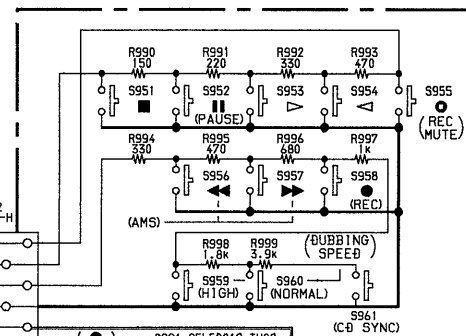
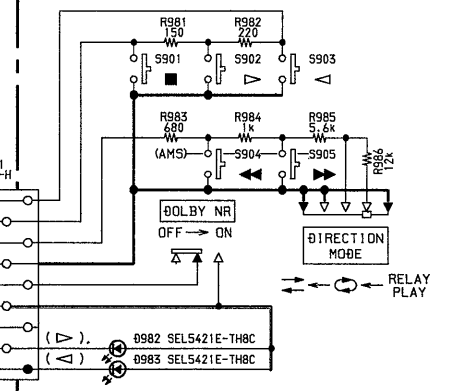
NOTE

- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\text{F} \times 10^{-6}$. 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- $\square$: nonflammable resistor.
- $\square$: panel designation.

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

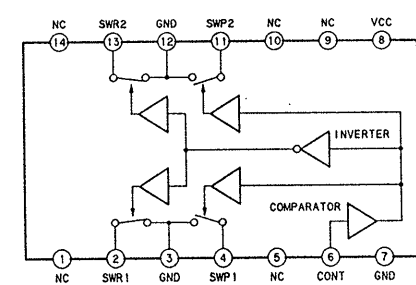
- --- : B+ Line.
- --- : B- Line.
- --- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- no mark: FM
- () : PB
- < > : NORMAL SPEED DUBBING
- [] : HIGH SPEED DUBBING
- < > : DUBBING
- A: DECK A PB
- B: DECK B PB
- Voltages are taken with a VOM (input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- --- : FM
- --- : PB (DECK A)
- --- : PB (DECK B)
- --- : REC (DECK B)

[PANEL (A) BOARD]

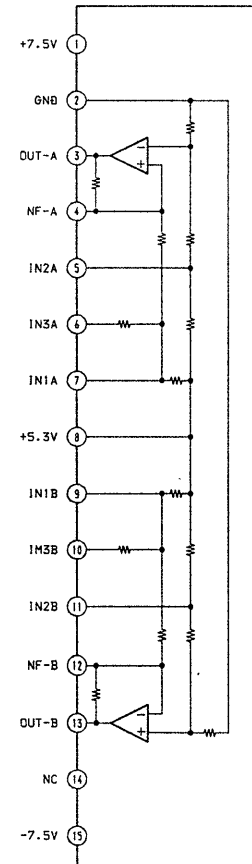


[PANEL (B) BOARD]

• IC Block Diagrams.

IC31B $\mu\text{PC1330GR}$ 

IC904 TA8242K



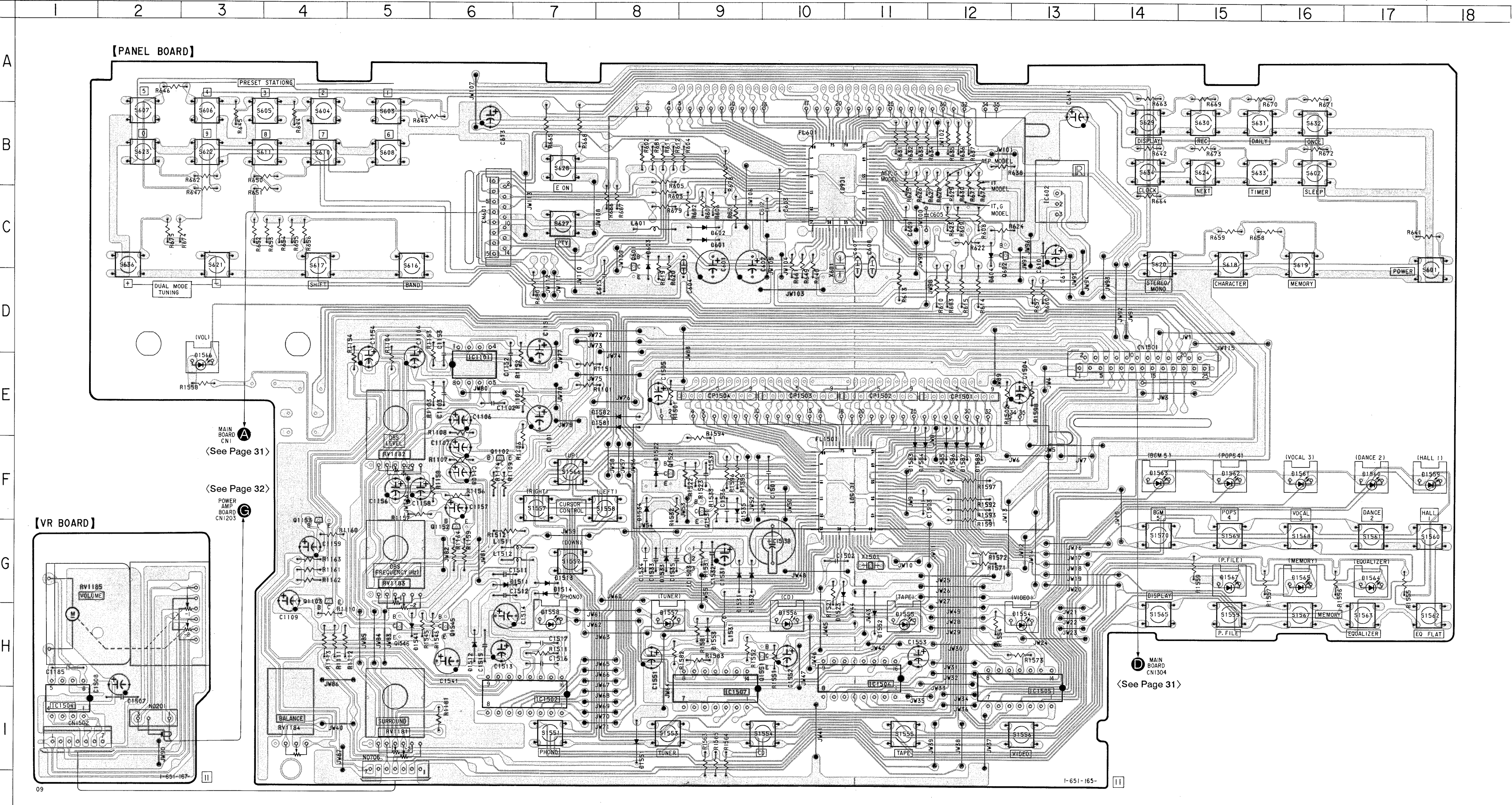
5-12. PRINTED WIRING BOARDS — PANEL (AEP, G, IT MODEL) SECTION —

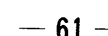
- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.

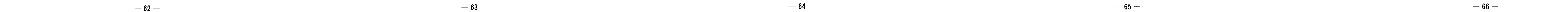
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D601	C-9	D1567	G-15
D602	C-9	D1581	E-8
D603	C-8	D1582	E-8
D604	C-12	D1583	F-11
D1511	G-6	D1584	F-11
D1512	H-6	D1585	F-12
D1513	G-7	D1586	F-12
D1514	G-7	D1587	F-12
D1522	F-8	D1589	F-12
D1523	G-10		
D1531	G-9	IC601	B-10
D1532	G-9	IC602	C-13
D1533	G-8	IC1101	E-6
D1534	F-8	IC1501	F-11
D1535	F-9	IC1502	I-7
D1541	H-5	IC1503	G-9
D1551	I-8	IC1504	I-1
D1552	H-11	IC1505	I-13
D1553	H-9	IC1506	H-11
D1554	H-13	IC1507	I-9
D1555	H-11		
D1556	H-10	Q601	C-8
D1557	H-8	Q602	C-12
D1558	H-7	Q1102	F-6
D1559	F-18	Q1103	G-4
D1560	F-17	Q1152	G-6
D1561	F-16	Q1153	G-4
D1562	F-15	Q1521	F-8
D1563	F-14	Q1531	F-9
D1564	G-17	Q1545	H-6
D1565	G-16	Q1546	H-5
D1566	E-3	Q1551	H-10

- Note:
- — : parts extracted from the component side.
 - — : Pattern from the side which enable seeing.
 - G : German model.
 - IT : Italian model.

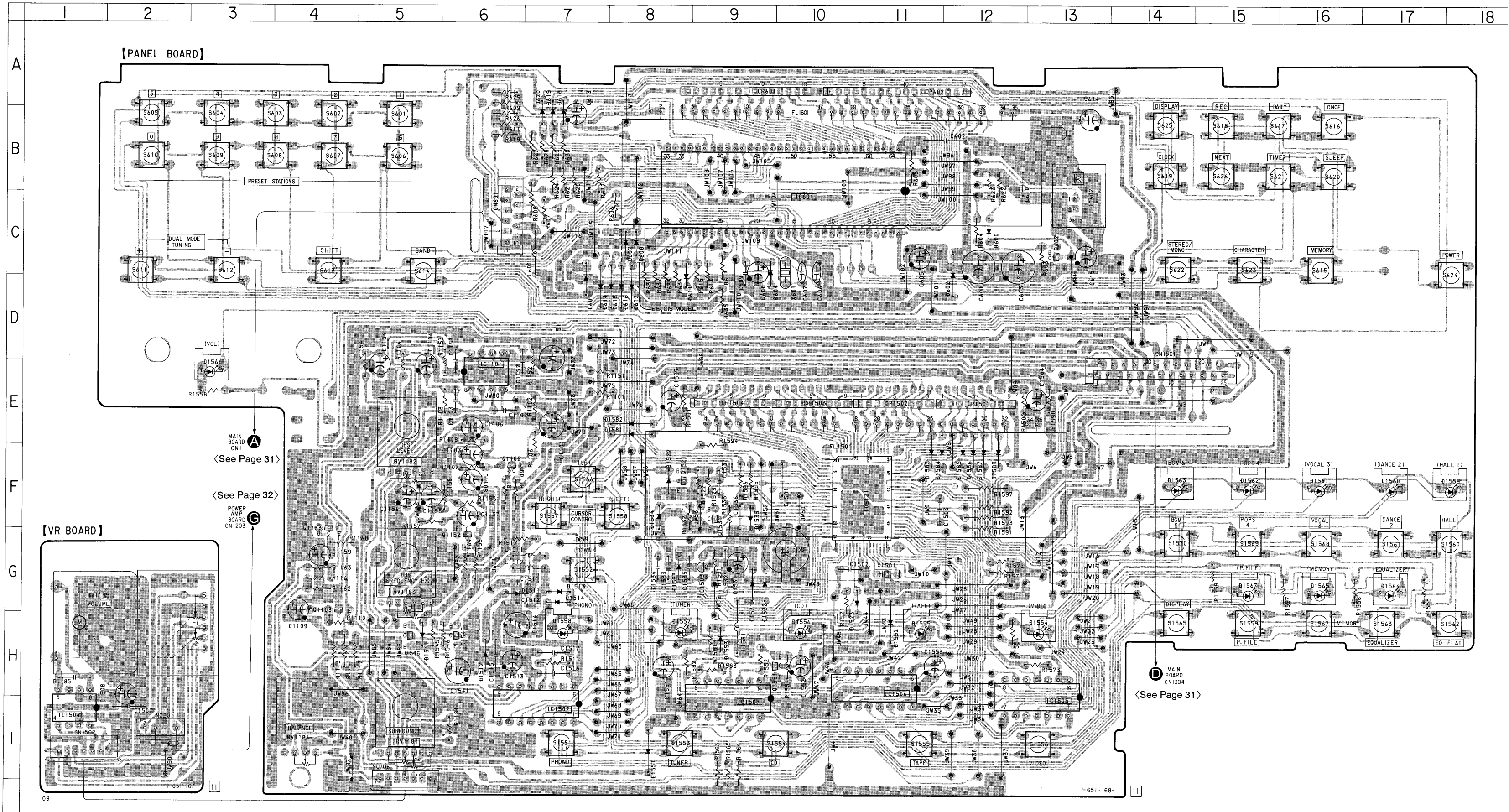






5-15. PRINTED WIRING BOARDS — PANEL (AEP, IT, G MODEL) SECTION —

- See page 12 for Circuit Boards Location.
- See pages 22, 23 for Semiconductor Lead Layouts.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D600	C-12	D1562	F-15
D601	D-7	D1563	F-14
D602	D-12	D1564	G-17
D604	D-9	D1565	G-16
D607	C-8	D1566	E-3
D608	C-8	D1567	G-15
D614	D-7	D1581	E-8
D615	D-8	D1582	E-8
D616	D-8	D1583	F-11
D617	D-8	D1584	F-11
D618	A-7	D1585	F-12
D619	A-7	D1586	F-12
D620	A-7	D1587	F-12
D1511	G-6	D1589	F-12
D1512	H-6		
D1513	G-7	IC602	C-13
D1514	G-7	IC1101	E-6
D1522	F-8	IC1501	F-11
D1523	G-10	IC1502	I-7
D1531	G-9	IC1503	G-9
D1532	G-9	IC1504	I-1
D1533	G-8	IC1505	I-13
D1534	F-8	IC1506	H-11
D1535	F-9	IC1507	I-9
D1541	H-5		
D1551	I-8	Q602	C-13
D1552	H-11	Q1102	F-6
D1553	H-9	Q1103	G-4
D1554	H-13	Q1152	G-6
D1555	H-11	Q1153	G-4
D1556	H-10	Q1521	F-8
D1557	H-8	Q1531	F-9
D1558	H-7	Q1545	H-6
D1559	F-18	Q1546	H-5
D1560	F-17	Q1551	H-10
D1561	F-16		

Note:

- : parts extracted from the component side.
- : Pattern from the side which enable seeing.
- EE : East European model.

5-16. IC PIN FUNCTIONS

• IC101 (CXD2515Q)

No.	Pin Name	I/O	Description
1	SRON	O	Sled drive output
2	SRDR	O	Sled drive output
3	SFON	O	Sled drive output
4	TFDR	O	Tracking drive output
5	TRON	O	Tracking drive output
6	TRDR	O	Tracking drive output
7	TFON	O	Tracking drive output
8	FFDR	O	Focus drive output
9	FRON	O	Focus drive output
10	FRDR	O	Focus drive output
11	FFON	O	Focus drive output
12	VCOO	O	VCO output for analog EFM PLL
13	VCOI	I	VCO output for analog EFM PLL
14	TEST	I	TEST pin connected normally to GND
15	DVss	—	Digital GND
16	TES2	I	TEST pin connected normally to GND
17	TES3	I	TEST pin connected normally to GND
18	PDO	O	Charge-pump output for analog EFM PLL
19	VPCO	O	Charge-pump output for variable pitch PLL
20	VCKI	I	Clock input from variable pitch external VCO
21	AVD2	—	Analog power supply
22	IGEN	I	Power supply pin for operational amplifiers
23	AVS2	—	Analog GND
24	ADII	I	Input pin for A/D converter
25	ADIO	O	Operational amplifier output pin
26	RFDC	I	RF signal input
27	TE	I	Tracking error signal input
28	SE	I	Sled error signal input
29	FE	I	Focus error signal input
30	VC	I	Center voltage input pin
31	FILO	O	Filter output for master PLL
32	FILI	I	Filter input for master PLL
33	PCO	O	Charge-pump output for master PLL
34	CLTV	I	Control voltage input for master VCO
35	AVS1	—	Analog GND
36	RFAC	I	EFM signal input
37	BIAS	I	Asymmetry circuit constant current input
38	ASYI	I	Asymmetry compare voltage input
39	ASYO	O	EFM full swing output
40	AVD1	—	Analog power supply
41	DVDD	—	Digital power supply
42	ASYE	I	Asymmetry circuit ON/OFF
43	PSSL	I	Audio data output mode selection input
44	WDCK	O	48-bit slot D/A interface. Word clock

No.	Pin Name	I/O	Description
45	LRCK	O	48-bit slot D/A interface, LR clock
46	DATA	O	DA 16 output when PSSL = 1. 48-bit slot serial data when PSSL = 0
47	BCLK	O	DA 15 output when PSSL = 1. 48-bit slot data when PSSL = 0
48	64DATA	O	DA 14 output when PSSL = 1. 64-bit slot data when PSSL = 0
49	64BCLK	O	DA 13 output when PSSL = 1. 64-bit slot data when PSSL = 0
50	64LRCK	O	DA 12 output when PSSL = 1. 64-bit slot data when PSSL = 0
51	GTOP	O	DA 11 output when PSSL = 1. GTOP output when PSSL = 0
52	XUGF	O	DA 10 output when PSSL = 1. XUGF output when PSSL = 0
53	XPLCK	O	DA 09 output when PSSL = 1. XPLCK output when PSSL = 0
54	GFS	O	DA 08 output when PSSL = 1. GFS output when PSSL = 0
55	PFCK	O	DA 07 output when PSSL = 1. RFCK output when PSSL = 0
56	C2PO	O	DA 06 output when PSSL = 1. C2PO output when PSSL = 0
57	XRAOF	O	DA 05 output when PSSL = 1. XRAOF output when PSSL = 0
58	MNT3	O	DA 04 output when PSSL = 1. MNT3 output when PSSL = 0
59	MNT2	O	DA 03 output when PSSL = 1. MNT2 output when PSSL = 0
60	MNT1	O	DA 02 output when PSSL = 1. MNT1 output when PSSL = 0
61	MNT0	O	DA 01 output when PSSL = 1. MNT0 output when PSSL = 0
62	XTAI	I	X'tal oscillator circuit input
63	XTAO	O	X'tal oscillator circuit output
64	XTSL	I	X'tal selection input pin
65	DVss	—	Digital GND
66	FSTI	I	2/3 divider output of pins 62,63
67	FSTO	O	2/3 divider output of pins 62,63
68	C4M	O	4.2336MHz output
69	C16M	O	16.9344MHz output
70	MD2	I	Digital-out ON/OFF control pin
71	DOUT	O	Digital-out output pin
72	EMPH	O	Playback disc output in emphasis mode
73	WFCK	O	WFCK output
74	SCOR	O	Sub-code sync output
75	SBSO	O	Sub-P through Sub-W serial output
76	EXCK	I	Clock input for SBS0 read-out
77	SUBQ	O	Sub-Q 80-bit output
78	SQCK	I	Clock input for SQS0 read-out
79	MUTE	I	Muting selection pin
80	SENS	O	SENS output
81	XRST	I	System reset
82	DIRC	I	Used in 1-track jump mode
83	SCLK	I	SENS serial data read-out clock
84	DFSW	I	DFCT selection pin
85	ATSK	I	Input pin for anti-shock
86	DATA	I	Serial data input, supplied from CPU
87	XLAT	I	Latch input, supplied from CPU
88	CLOK	I	Serial data transfer clock input, supplied from CPU

No.	Pin Name	I/O	Description
89	COUT	O	Numbers of track counted signal output
90	DV _{DD}	—	Digital power supply
91	MIRR	O	Mirror signal output
92	DFCT	O	Defect signal output
93	FOK	O	Focus OK output
94	FSW	O	Output to select spindle motor output filter
95	MON	O	Output to control ON/OFF of spindle motor
96	MDP	O	Output to control spindle motor servo
97	MDS	O	Output to control spindle motor servo
98	LOCK	O	GFS is sampled by 460Hz. H when GFS is H.
99	SSTP	I	Input signal to detect disc inner most track
100	SFDR	O	Sled drive output

• IC103 (CXD2565M)

No.	Pin Name	I/O	Description
1	INIT	I	Re-synchronizing at rise-up edge of this signal
2	SYSM	I	System muting input
3	ATT	I	Attenuation data input
4	SHIFT	I	Shift clock input
5	LATCH	I	Latch clock input
6	384FSO	O	384fs clock output
7	TEST1	I	Test pin. Fixed to "L" level during normal operation.
8	DV _{SS}	—	Digital GND
9	TEST2	I	Test pin. Fixed to "L" level during normal operation.
10	BCK	I	BCK input
11	DATA	I	Data input
12	LRCK	I	LRCK input
13	MUTEL	O	L-ch muting flag output
14	MUTER	O	R-ch muting flag output
15	DV _{DD1}	—	Digital power supply
16	R1 (+)	O	R-ch PLM output-1 (positive phase)
17	AV _{DDR}	—	L-ch analog power supply
18	R2 (+)	O	R-ch PLM output-2 (positive phase)
19	AV _{SSR}	—	L-ch analog GND
20	XV _{DD}	—	Master clock power supply
21	XOUT	O	X'tal oscillator output (33.8MHz)
22	XIN	I	X'tal oscillator input (33.8MHz)
23	XV _{SS}	—	Master clock GND
24	AV _{SSL}	—	L-ch analog GND
25	L2 (+)	O	L-ch PLM output-2 (positive phase)
26	AV _{DDL}	—	L-ch analog power supply
27	L1 (+)	O	L-ch PLM output-1 (positive phase)
28	DV _{DD2}	—	Digital power supply

• IC201 (CXP82316-035Q)

Pin No.	Pin Name	I/O	Function
1	TIMER	—	Connected to GND.
2	BUSIN	I	Audio bus input.
3	+5V	—	Connected to +5V.
4	OPEN	—	} Not used. (open)
5	OPEN	—	
6	BUS OUT	O	Audio bus output.
7	PGML	O	Latch signal output to digital filter (IC103).
8	CLK	O	Serial clock output.
9	SENSE	I	SENSE signal input.
10	DATA	O	Serial data output.
11	SQCK	O	Read out clock output for subcode Q data.
12	SUBQ	I	Subcode Q data input.
13	OPEN	—	Not used. (open)
14	AMUTE	O	Analog muting control signal output.
15	LDON	O	Optical pickup laser diode control output.
16	XLT	O	Serial data latch signal output.
17	—	—	Not used. (open)
18	RV+	O	Remote commander volume +.
19	RV—	O	Remote commander volume —.
20	LDOUT	O	} Loading motor control signal output.
21	LDIN	O	
22	KEY0	I	} Key input. (S201 to S216)
23	KEY1	I	
24 to 27	KEY2 to KEY5	—	Connected to +5V.
28	ADJ/AFADJ	—	ADJ, AFJ test pin.
29	IN/OUTSW	I	Loading IN/OUT switch input.
30	RST	I	Reset signal input.
31	EXTAL	I	Clock input. (4 MHz)
32	XTAL	O	Clock output. (4 MHz)
33	Vss	—	GND
34	ICSW	O	CD power supply control pin.
35 to 41	OPEN	—	Not used. (open)
42 to 62	SEG1 to SEG21	O	FL segment output.
63 to 67	1G to 5G	O	FL grid output.
68	OPEN	—	Not used. (open)
69	6G	O	} FL grid output.
70	7G	O	
71	VFDP (–30V)	—	–30V pin for FL display tube.
72	VDD (+5V)	—	} +5V pin.
73	—	—	
74	SEL1	—	} Connected to +5 V.
75	IN PORT	—	
76	IN PORT	—	
77	IN PORT	—	
78	SCOR	I	Read out timing signal input for subcode Q data.
79	SEL2	—	Connected to GND.
80	SEL3	—	Connected to +5 V.

• IC601 System Control (μ PD78043GF-079 (054)-3B9) (AEP, G, IT Model)

Pin No.	Pin Name	I/O	Function
1	T6	O	FL tube digit output
2	T5	O	
3	T4	O	
4	T3	O	
5	T2	O	
6	T1	O	
7	T0	O	
8	VDD	—	System power supply (+5V)
9	RDS CLOCK	I	RDS clock input
10	—	I	Not used. (Connected to GND)
11	RDS DATA	I	RDS data input
12	RDS RESET	O	RDS reset output
13	LATCH	O	PLL latch output
14	CLOCK	O	PLL clock output
15	DATA OUT	O	PLL data output
16	DATA IN	I	PLL data (IF count) input
17	RESET	I	System reset input
18	TUNED	I	Tuned (Auto stop) input
19	STEREO	I	Stereo input
20	A/D GND	—	Ground for A/D converter
21	—	I	Not used. (Connected to GND)
22	—	I	
23	—	I	
24	—	I	
25	—	I	
26	KEY IN	I	Key input
27	KEY IN	I	
28	KEY IN	I	
29	A/D +5V	—	Analog power supply for A/D converter (+5V)
30	A/D REF +5V	—	Reference voltage input for A/D converter (+5V)
31	—	I	Not used. (Connected to GND)
32	—	—	Not used. (open)
33	SYS GND	—	System ground terminal
34	X1	I	Main system clock (4.194304 MHz)
35	X2	O	Main system clock
36	RDS EON OUT	O	RDS EON output
37	F MONI	O	F monitor output (2048 Hz)
38	—	I	Not used. (Connected to GND)
39	—	I	
40	—	I	

Pin No.	Pin Name	I/O	Function
41	—	I	} Not used. (Connected to GND)
42	—	I	
43	CD BUSY	I	CD busy input
44	RDS START	I	RDS data start input
45	SIRCS	I	SIRCS input
46	AUB IN	I	AUB input
47	INTP0	I	Power failure detection input
48	GND	—	Internal connection (Connected to GND)
49	AUB OUT	O	AUB output
50	MUTING	O	Muting output (Tuner)
51	RELAY	O	Relay output (Power)
52	VDD	—	System power supply (+5V)
53	—	I	} Not used. (Connected to GND)
54	—	I	
55	—	I	
56	EON	I	Initial setting input (EON)
57	DIMMER	I	Initial setting input (EON active)
58	AUTO TUN	I	Initial setting input (AUTO TUN)
59	VERSION	I	} Initial setting input (the distination)
60	VERSION	I	
61	S15	O	} FL tube segment output
62	S14	O	
63	S13	O	
64	S12	O	
65	S11	O	
66	S10	O	
67	S9	O	
68	S8	O	
69	S7	O	
70	S6	O	
71	−30V	—	Negative power supply for the FL tube
72	S5	O	} FL tube segment output
73	S4	O	
74	S3	O	
75	S2	O	
76	S1	O	
77	S0	O	
78	T9	O	} FL tube digit output
79	T8	O	
80	T7	O	

• IC601 System Control (TMP47C1270AN-H227) (UK, EE, CIS Model)

Pin No.	Pin Name	I/O	Function
1	V _{KK}	—	–29V power supply for driving fluorescent display.
2	S15	O	Fluorescent display driving
3	S14	O	
4	S13	O	
5	S12	O	
6	S11	O	
7	S10	O	
8	S9	O	
9	S8	O	
10	S7	O	
11	S6	O	
12	S5	O	
13	S4	O	
14	K00	I	Key input
15	K01	I	
16	K02	I	
17	K03	I	
18	TEST	—	Test terminal
19	X IN	I	System clock (8.388608 Hz) connected to crystal oscillator.
20	X OUT	O	
21	RESET	I	System reset input
22	HOLD	I	
23	—	—	IF count NG (F monitor) output
24	R60	I	Key input
25	—	—	Not used
26	R62	I	Diode input
27	R63	I	
28	P10	O	Key output
29	P11	O	
30	P12	O	
31	P13	O	
32	GND	—	GND
33	P20	O	Key output
34	P21	O	
35	P22	O	
36	—	—	Not used
37	RELAY	O	RELAY output
38	MUTING	O	MUTING output
39	TUNED IN	I	TUNED input
40	STEREO IN	I	STEREO input

Pin No.	Pin Name	I/O	Function
41	SIRCS	I	SIRCS input
42	AUB OUT	O	Audio bus output
43	AUB IN	I	Audio bus input
44	CE	O	Chip select to tuner PLL IC (LC7218)
45	SI	I	Serial data from tuner PLL IC (LC7218)
46	SO	O	Serial data to tuner PLL IC (LC7218)
47	SCK	O	Serial clock to tuner PLL IC (LC7218)
48	—	—	} Not used
49	—	—	
50	1G	O	} Fluorescent display driving
51	2G	O	
52	3G	O	
53	4G	O	
54	5G	O	
55	6G	O	
56	7G	O	
57	8G	O	
58	9G	O	
59	10G	O	
60	S0	O	
61	S1	O	
62	S2	O	
63	S3	O	
64	VDD	—	+5V power supply

• IC902 Deck Controller (M50964-261FP)

Pin No.	Pin Name	I/O	Function																																				
1	G	—	} GND																																				
2	G	—																																					
3	G	—																																					
4	—	—	+5V																																				
5	NORM/HIGH	—	Tape speed “H”=High speed “L”=Normal speed																																				
6	B HALF	I	Deck B record prevention claw A, B detection input (Analog) <table><tr><td>Voltage (V)</td><td>1V</td><td>1.9V</td><td>2.8V</td><td>3.9V</td><td>5V</td></tr><tr><td>Half</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td></tr><tr><td>E. PROOF A</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td></tr><tr><td>E. PROOF B</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td></tr></table>	Voltage (V)	1V	1.9V	2.8V	3.9V	5V	Half	ON	ON	ON	ON	OFF	E. PROOF A	OFF	ON	OFF	ON	OFF	E. PROOF B	ON	ON	OFF	OFF	OFF												
Voltage (V)	1V	1.9V	2.8V	3.9V	5V																																		
Half	ON	ON	ON	ON	OFF																																		
E. PROOF A	OFF	ON	OFF	ON	OFF																																		
E. PROOF B	ON	ON	OFF	OFF	OFF																																		
7	KEY Y	I	KEY input <table><tr><td>Voltage (V)</td><td>0</td><td>0.3</td><td>0.7</td><td>1.2</td><td>1.7</td><td>2.3</td><td>2.8</td><td>3.4</td><td>4.0</td><td>4.5</td><td>5.0</td></tr><tr><td>KEY Y</td><td>B ■</td><td>B ■■</td><td>B ►</td><td>B ◀</td><td></td><td>A ◀◀</td><td>A ►►</td><td></td><td></td><td>RELAY</td><td>OFF</td></tr><tr><td>KEY X</td><td>A ■</td><td>A ►</td><td>A ◀</td><td>B ◀◀</td><td>B ►►</td><td>B ●</td><td>DUB</td><td></td><td>CD</td><td></td><td></td></tr></table>	Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0	KEY Y	B ■	B ■■	B ►	B ◀		A ◀◀	A ►►			RELAY	OFF	KEY X	A ■	A ►	A ◀	B ◀◀	B ►►	B ●	DUB		CD		
Voltage (V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.4	4.0	4.5	5.0																												
KEY Y	B ■	B ■■	B ►	B ◀		A ◀◀	A ►►			RELAY	OFF																												
KEY X	A ■	A ►	A ◀	B ◀◀	B ►►	B ●	DUB		CD																														
8	KEY X	I																																					
9	AMS IN	I	AMS signal input																																				
10	L MUTE	O	Line mute output																																				
11	R MUTE	O	Mute output																																				
12	RELAY (B MD)	O	REC/PB change relay output																																				
13	R/P	O	Dolby IC REC/PB select output																																				
14	EQ70	O	Playback EQ output for playing deck (Not used)																																				
15	SEL A/B	O	Dolby IC PB input Deck A/B select output																																				
16	AMS MUTE	O	AMS mute output																																				
17	AU BUS	I	AUDIO BUS input																																				
18	BIAS	O	Bias oscillation output																																				
19	AUB OUT	O	AUDIO BUS output																																				
20	A BUS	I	AUDIO BUS normal input																																				
21	NC	—	Not used																																				
22	NC	—	} GND																																				
23	NC	—																																					
24	Vss	—																																					
25	RESET	I	Microcomputer reset input																																				
26	XIN	I	Clock input (4 MHz)																																				
27	XOUT	O	Clock output (4 MHz)																																				
28	ϕ	O	Not used (open)																																				
29	Vss	—	} GND																																				
30	PW IN	I																																					
31	A STOP	I	Deck A STOP switch input																																				
32	A HALF	I	Deck A Half switch input																																				
33	A SHUT	I	Deck A Reel table signal input																																				
34	A70 U	I	GND																																				
35	B STOP	I	Deck B STOP switch input																																				

Pin No.	Pin Name	I/O	Function
36	B SHUT	I	Deck B Reel table signal input
37	B70 U	I	+5V
38	NC	—	Not used
39	ARM 3	O	Deck A Reel Motor control out
40	ARM 2	O	
41	ARM 1	O	
42	BRM 3	O	Deck B Reel Motor control out
43	BRM 2	O	
44	BRM 1	O	
45	H/L	O	Capstan motor speed select
46	A CM	O	A Capstan motor ON/OFF
47	B CM	O	B Capstan motor ON/OFF
48	BS/ASCH	I	Deck B Reel table/BS signal input
49	AP/BSCH	I	Deck A Reel table/AP signal input
50	A REV	O	Deck A RVS LED output
51	A FWD	O	Deck A FWD LED output
52	A PLAY	O	Deck B RVS/FWD LED control output (Not used)
53	DUB H	O	High Speed Dubbing LED output
54	DUB N	O	Normal Speed Dubbing LED output
55	NC	—	Not used
56	CD SYNC	O	Auto CD Synchro LED output
57	B REV	O	Deck B RVS LED output
58	B FWD	O	Deck B FWD LED output
59	B PLAY	O	Deck B RVS/FWD LED control output (Not used)
60	B PAUSE	O	Deck B PAUSE LED output
61	B REC	O	Deck B REC LED output
62	PASS	O	PASS amplifier switch output
63	TEST	I	Electrical adjustment test mode setting
64	NC	—	Not used
65	Vss	—	GND
66	NC	—	Not used
67	Vcc	—	POWER 5 ± 0.5V
68	AVss	—	Analog system GND
69	VREF	I	Analog system reference voltage input
70	DAC	—	GND
71	—	—	
72	—	—	

[TEST MODE]

When making pin ⑥ low (connect pin ① of CN904 to ground with jumper wire), following function operates.

1. Source monitor

Release the line mute while recording.

• IC1501 TA Control (μ PD78042GF-056-3B9)

Pin No.	Pin Name	I/O	Function
1	7G	O	FL tube digit output
2	6G	O	
3	5G	O	
4	4G	O	
5	3G	O	
6	2G	O	
7	1G	O	
8	VDD	—	Power supply pin (+5V)
9	K3	I	Key scan input
10	K2	I	
11	K1	I	
12	DBS	O	Not used. (open)
13	SURROUND	O	
14	AUB OUT	O	Audio bus output
15	CLK (GEQ)	O	Serial clock line (IC1005 NJU7305L) output
16	DAT (GEQ)	O	Serial data line (IC1005 NJU7305L) output
17	$\overline{\text{RES}}$	I	Reset. "L": reset
18	LINE MUT (OD)	O	Line mute output
19	MULTI (OD)	O	Multi plex ON/OFF. "L": on
20	AVss	I	Ground pin
21	*	I	Not used. (Connected to GND)
22	F7	I	Frequency for speana input
23	F6	I	
24	F5	I	
25	F4	I	
26	F3	I	
27	F2	I	
28	F1	I	
29	AVDD	—	Power supply pin (+5V)
30	AVREF	—	A/D reference voltage input
31	AUB IN	I	Audio bus input
32	*	—	Not used. (open)
33	Vss	—	Ground pin
34	X1	I	Connected to system clock (4.19 MHz) oscillator.
35	X2	O	
36	FNC-A	O	Function LED control output
37	FNC-B	O	
38	FNC-G	O	
39	SEL-A	O	Selection LED control output
40	SEL-B	O	

Pin No.	Pin Name	I/O	Function
41	SEL-G	O	Selection LED control output
42	MULTI	O	Multi plex LED output
43	VOL LED	O	Volume LED output
44	VOL UP	O	Volume up output
45	VOL DOWN	O	Volume down output
46	P FILE	O	P.file LED output
47	AC CUT IN	I	AC cut input
48	IC (Vss)	—	Not used. (Connected to GND)
49	C (OD)	O	} Function control output
50	B (OD)	O	
51	A (OD)	O	
52	VDD	—	Power supply pin (+5V)
53	MEMORY	O	Memory LED output
54	EFFECT	O	Equalizer LED output
55	#5	O	#5 LED output
56	SURROUND	I	Not used. (Connected to GND)
57	CS (GEQ)	O	CS line (IC1005 NJU7305L) output
58	(INPUT)	I	Not used. (Connected to GND)
59	S15	O	} FL tube segment output
60	S14	O	
61	S13	O	
62	S12	O	} FL tube segment output (key scan output)
63	S11	O	
64	S10	O	
65	S9	O	
66	S8	O	
67	S7	O	
68	S6	O	
69	S5	O	} FL tube segment output
70	S4	O	
71	V LOAD	—	Power supply pin (–33V) for pull down register
72	S3	O	} FL tube segment output
73	S2	O	
74	S1	O	
75	13G	O	} FL digit output
76	12G	O	
77	11G	O	
78	10G	O	
79	9G	O	
80	8G	O	

SECTION 6

EXPLODED VIEWS

NOTE:

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

- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) ... (RED)

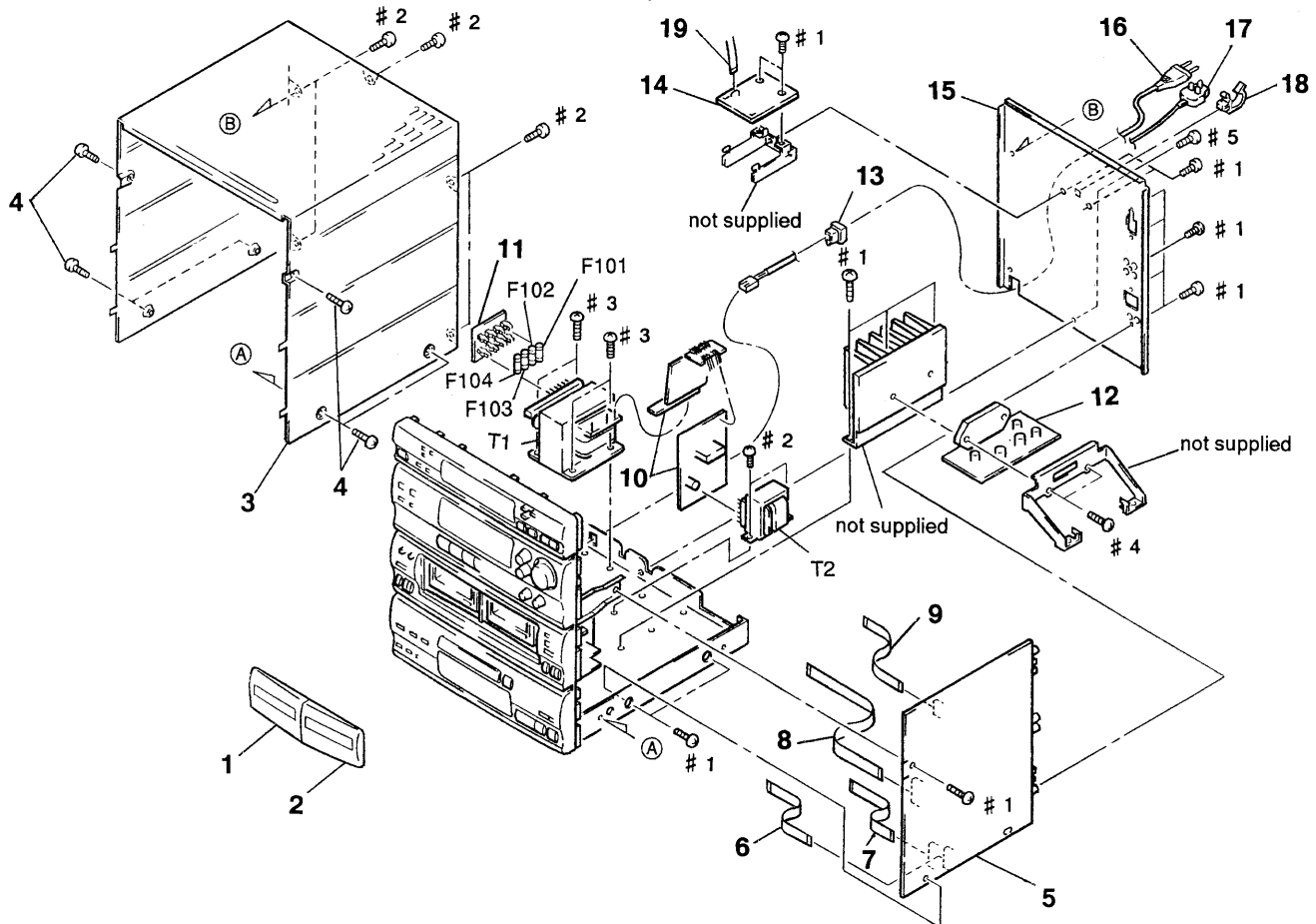
Parts color Cabinet's color

- XX, -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- G : German model
- IT : Italian model
- EE : East European model

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

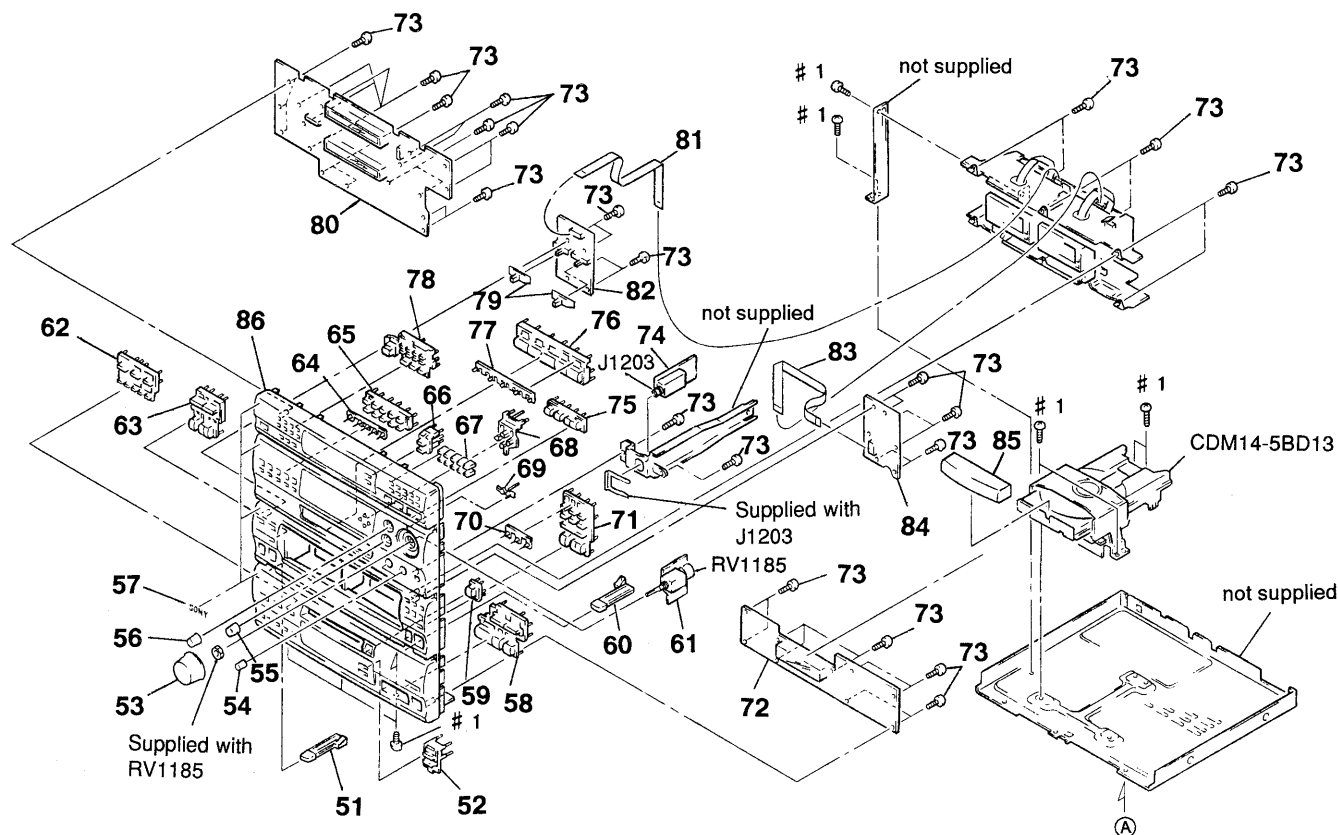
6-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	A-4353-635-A	LID (A) ASSY, CASSETTE	
2	A-4353-636-A	LID (B) ASSY, CASSETTE	
* 3	4-962-725-31	CASE	
4	3-363-099-01	SCREW (CASE 3 TP2)	
* 5	A-4369-161-A	MAIN BOARD, COMPLETE (UK)	
* 5	A-4369-300-A	MAIN BOARD, COMPLETE (AEP)	
* 5	A-4369-306-A	MAIN BOARD, COMPLETE (IT)	
* 5	A-4369-311-A	MAIN BOARD, COMPLETE (EE)	
* 5	A-4369-901-A	MAIN BOARD, COMPLETE (G)	
* 5	A-4369-905-A	MAIN BOARD, COMPLETE (CIS)	
6	1-765-176-11	WIRE (FLAT TYPE) (26 CORE)	
* 7	1-696-674-11	WIRE (FLAT TYPE) (23 CORE)	
8	1-690-824-11	WIRE (FLAT TYPE) (25 CORE)	
9	1-575-906-11	WIRE, FLAT TYPE (15 CORE) (AEP, G, IT)	
9	1-590-459-11	WIRE, FLAT TYPE (11 CORE) (UK, EE, CIS)	
* 10	A-4369-159-A	POWER BOARD, COMPLETE (UK)	
* 10	A-4369-172-A	POWER BOARD, COMPLETE (AEP, G, IT)	
* 10	A-4371-009-A	POWER BOARD, COMPLETE (EE, CIS)	
* 11	1-652-388-11	FUSE BOARD (AEP, G, IT)	
* 11	1-652-389-11	FUSE BOARD (UK, EE, CIS)	
* 12	A-4369-160-A	POWER AMP BOARD, COMPLETE (UK)	

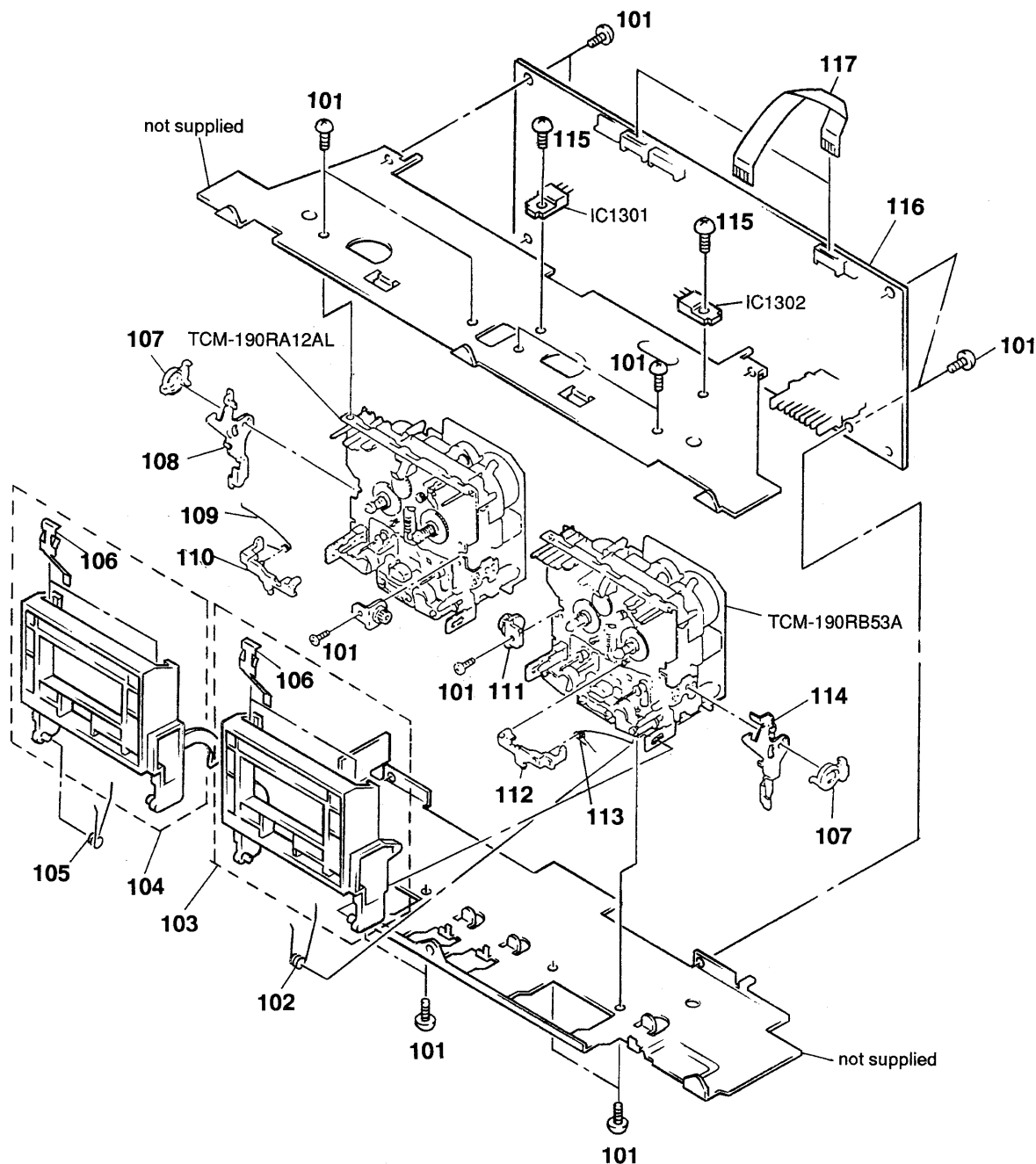
Ref. No.	Part No.	Description	Remark
* 12	A-4369-173-A	POWER AMP BOARD, COMPLETE (AEP, EE, CIS)	
* 12	A-4369-305-A	POWER AMP BOARD, COMPLETE (G, IT)	
* 13	3-703-244-00	BUSHING (2104), CORD	
* 14	A-4369-815-A	POLAR BOARD, COMPLETE (CIS)	
* 15	4-962-744-11	PANEL, BACK (AEP)	
* 15	4-962-744-41	PANEL, BACK (G)	
* 15	4-962-744-51	PANEL, BACK (IT)	
* 15	4-962-744-71	PANEL, BACK (UK)	
* 15	4-962-744-61	PANEL, BACK (EE, CIS)	
	1-575-651-11	CORD, POWER (AEP, G, IT, EE, CIS)	
	1-696-570-21	CORD, POWER (UK)	
* 18	4-949-235-11	HOOK	
19	1-690-590-31	WIRE (FLAT TYPE) (13 CORE) (CIS)	
	F101	1-532-286-00 FUSE (T2.5A)	
	F102	1-532-286-00 FUSE (T2.5A)	
	F103	1-532-299-00 FUSE (T5.0A)	
	F104	1-532-299-00 FUSE (T5.0A)	
	T1	1-423-927-11 TRANSFORMER, POWER (AEP, G, IT, EE, CIS)	
	T1	1-426-782-11 TRANSFORMER, POWER (UK)	
	T2	1-423-929-11 TRANSFORMER, POWER (SUB) (AEP, G, IT)	
	T2	1-423-930-11 TRANSFORMER, POWER (SUB) (UK, EE, CIS)	

6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-962-709-01	BUTTON (EJECT) (L)		* 72	A-4369-167-A	CD PANEL BOARD, COMPLETE (AEP, G, IT, EE, CIS)	
52	4-962-694-01	BUTTON (CC)		73	4-951-620-01	SCREW (2. 6X8), +BVTP	
53	4-955-635-11	KNOB (V)		* 74	1-651-166-11	H.P. BOARD	
54	4-955-744-01	KNOB (BA)					
55	4-962-703-11	KNOB (SUR)		75	4-962-661-11	BUTTON (BAND)	
56	4-962-703-41	KNOB (SUR)		76	4-962-681-11	BUTTON (FU)	
57	4-962-708-21	EMBLEM (4-A), SONY		77	4-962-680-11	INDICATOR (FU)	
58	4-962-667-31	BUTTON (CD)		78	4-962-689-01	BUTTON (TIMER)	
59	4-962-665-11	BUTTON (OPEN)		79	4-962-707-01	KNOB, SLIDE	
60	4-962-710-01	BUTTON (EJECT) (R)		* 80	A-4369-156-A	PANEL BOARD, COMPLETE (UK)	
* 61	1-651-167-11	VR BOARD		* 80	A-4369-169-A	PANEL BOARD, COMPLETE (AEP)	
62	4-962-693-01	BUTTON (PROG)		* 80	A-4369-303-A	PANEL BOARD, COMPLETE (IT)	
63	X-4944-378-1	DECK ASSY, BUTTON (A)		* 80	A-4369-309-A	PANEL BOARD, COMPLETE (EE)	
64	4-962-677-11	INDICATOR (SELECT 5)		* 80	A-4369-899-A	PANEL BOARD, COMPLETE (G)	
65	X-4944-523-1	BUTTON (EFFECT) ASSY		* 80	A-4369-903-A	PANEL BOARD, COMPLETE (CIS)	
66	4-962-690-01	BUTTON (RDS) (AEP, G, IT)		81	1-751-025-11	WIRE (FLAT TYPE) (9 CORE)	
67	4-962-676-11	BUTTON (PRESET)		* 82	1-650-780-11	PANEL (A) BOARD	
68	4-962-692-01	BUTTON (CURSOR)		83	1-751-210-11	WIRE (FLAT TYPE) (13 CORE)	
69	4-962-682-11	INDICATOR (VO)		* 84	1-650-781-11	PANEL (B) BOARD	
70	4-962-766-01	INDICATOR (DUB)					
71	X-4944-522-1	DECK ASSY, BUTTON (B)		85	4-962-674-11	PANEL, LOADING	
* 72	A-4369-154-A	CD PANEL BOARD, COMPLETE (UK)		86	X-4944-681-1	PANEL ASSY, FRONT (UK, EE, CIS)	
				86	X-4944-682-1	PANEL ASSY, FRONT (AEP, IT, G)	

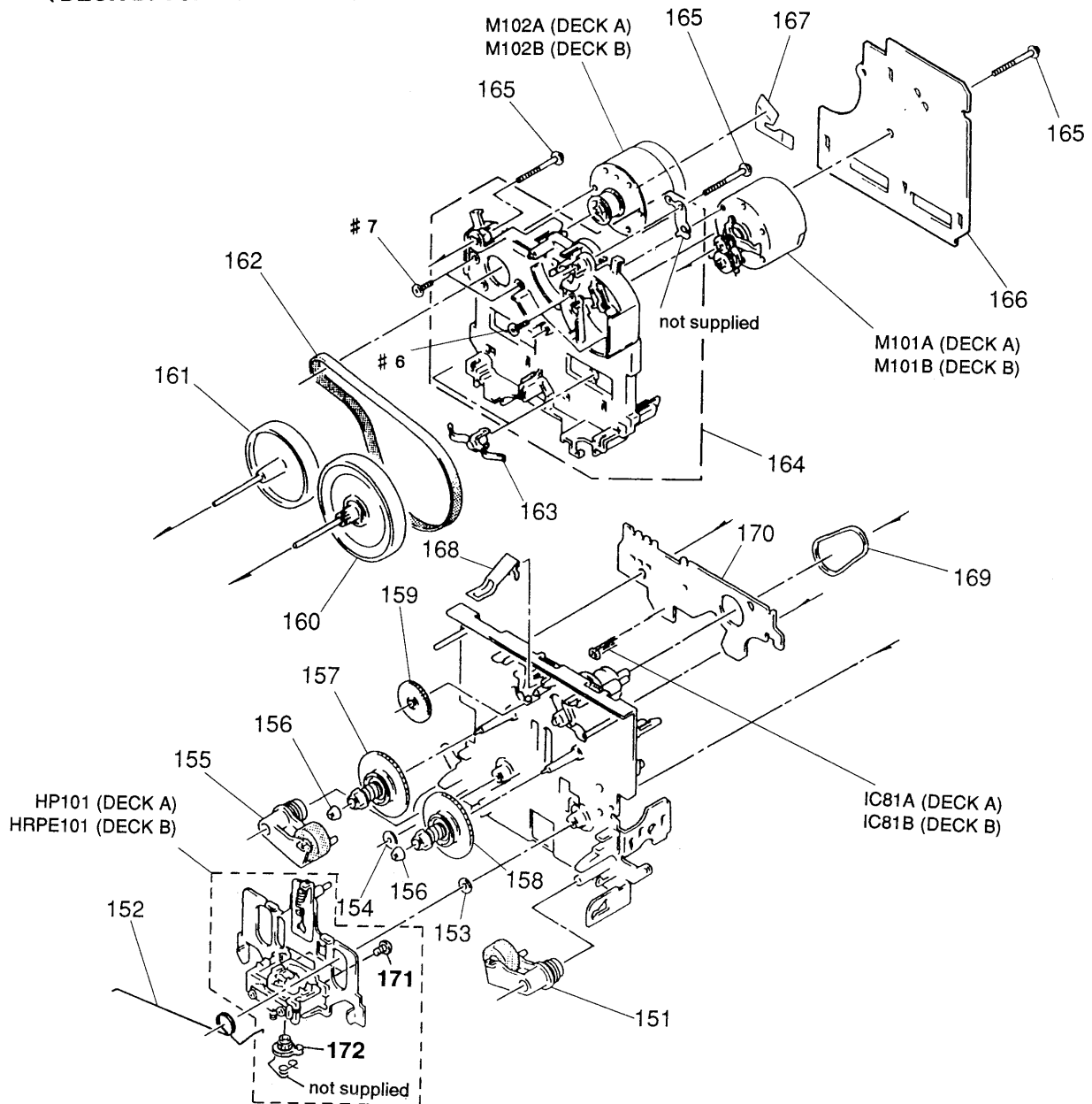
6-3. MECHANISM DECK CHASSIS SECTION



Ref.No.	Part No.	Description
101	4-928-635-01	SCREW, +BV (2.6X8) TAPPING
102	3-354-960-01	SPRING (LOADING R), TORSION
103	A-4325-164-A	HOLDER (R) ASSY, CASSETTE
104	A-4325-163-A	HOLDER (L) ASSY, CASSETTE
105	3-354-959-01	SPRING (LOADING L), TORSION
106	3-308-823-11	DETENT, CASSETTE
107	3-354-957-01	JOINT (LOCK LEVER)
* 108	3-354-953-01	LEVER (LOCK LEVER L)
109	3-354-961-01	SPRING (EJ SAFTY SPRING L)
110	3-354-955-01	LEVER (EJ SAFTY LEVER L)

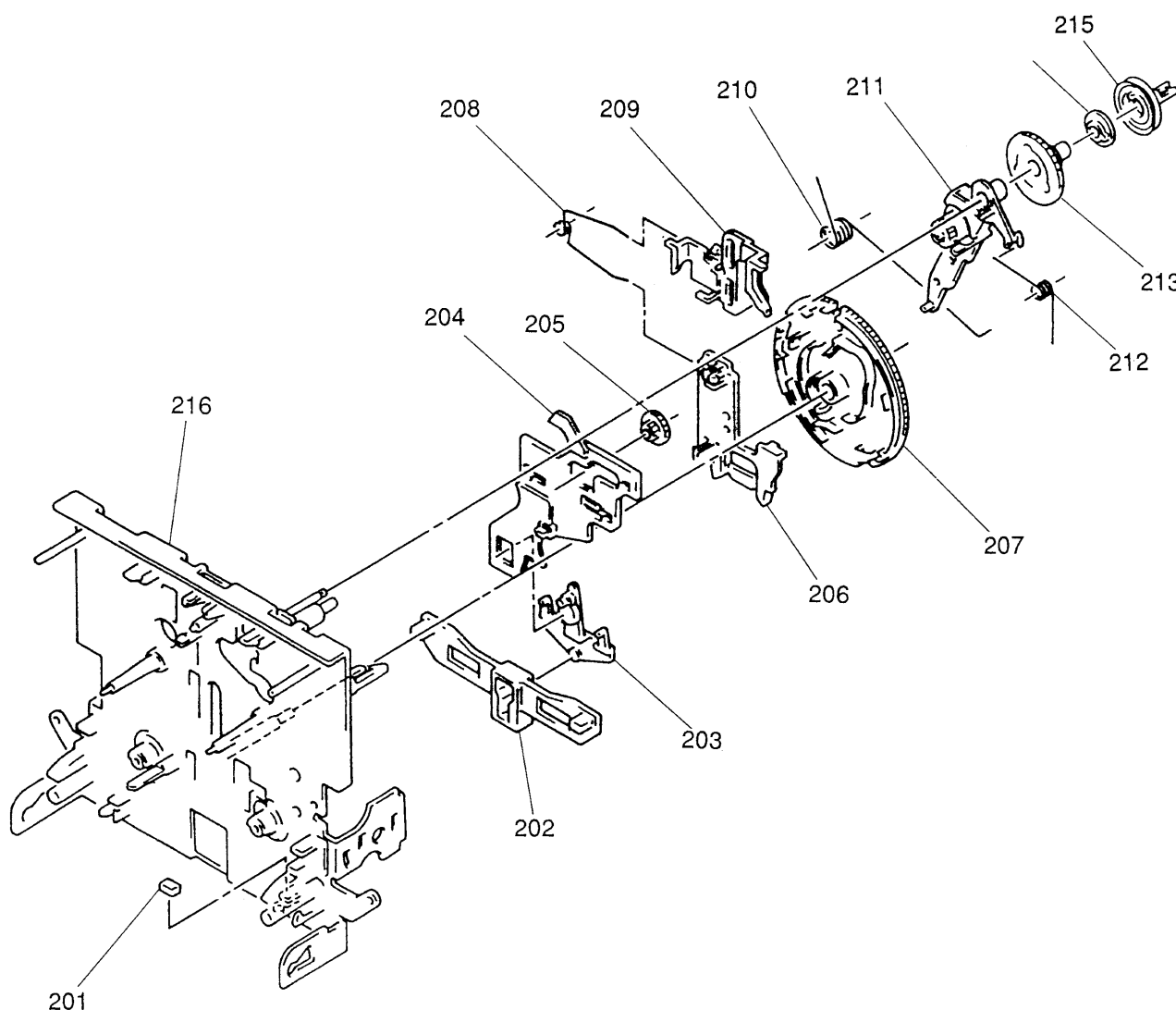
Remark	Ref.No.	Part No.	Description	Remark
	111	3-354-963-01	DAMPER	
	112	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
	113	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
	* 114	3-354-954-01	LEVER (LOCK LEVER R)	
	115	4-951-620-01	SCREW (2.6X8), +BVTP	
	* 116	A-4365-942-A	MAIN TC BOARD, COMPLETE (AEP, G, IT, EE, CIS)	
	* 116	A-4369-150-A	MAIN TC BOARD, COMPLETE (UK)	
	117	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
	IC1301	8-759-604-84	IC M5F7806L	
	IC1302	8-759-604-90	IC M5F7907L	

6-4. MECHANISM DECK SECTION-1
(DECK A: TCM-190RA12AL)
(DECK B: TCM-190RB53A)



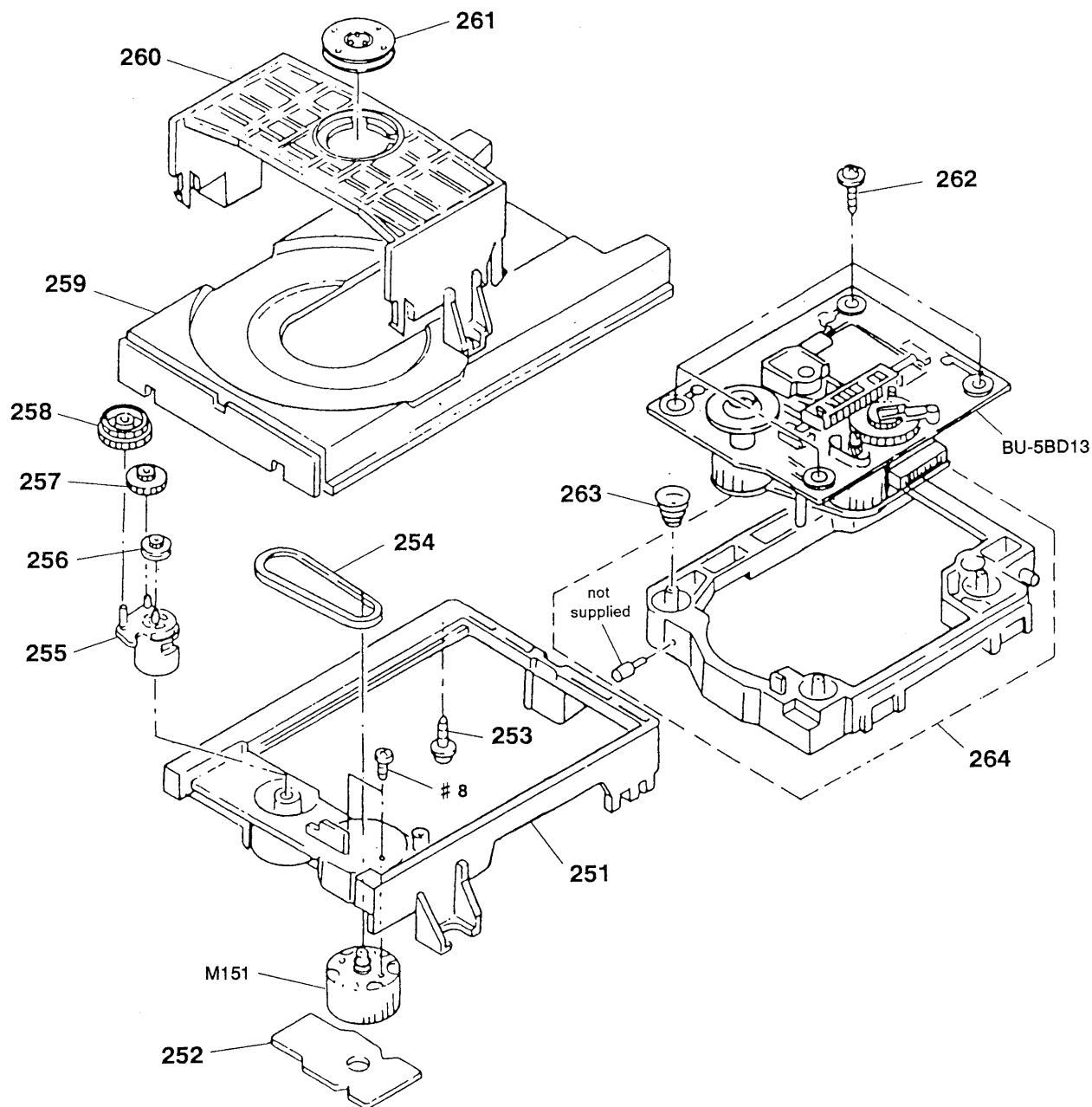
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	X-3366-047-1	LEVER (PINCH F) ASSY		* 166	A-2007-134-A	MD-B BOARD, COMPLETE (RB53A)	
152	3-907-362-01	SPRING, TORSION		167	1-638-983-11	MOTOR FLEXIBLE BOARD	
153	3-356-713-01	WASHER		168	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
154	3-356-714-01	WASHER		169	3-359-466-01	BELT (FR), SQUARE	
155	X-3366-048-1	LEVER (PINCH R) ASSY					
156	3-913-841-01	CAP (REEL)		* 170	1-638-020-11	LEAF SW-A BOARD (DECK A)	
157	X-3366-971-1	TABLE ASSY (B), REEL		* 170	1-638-020-11	LEAF SW-A BOARD (DECK B)	
158	X-3366-970-1	TABLE ASSY, REEL		171	3-388-848-01	SCREW (P2X6) (B TIGHT)	
159	3-359-424-01	GEAR (REV GEAR)		172	3-359-405-11	GEAR (CENTER)	
160	X-3367-629-1	FLYWHEEL (FWD) ASSY		HP101	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
161	X-3367-630-2	FLYWHEEL (REV) ASSY		HRPE101A	2003-930-A	BASE ASSY, HEAD (DECK B)	
162	3-359-417-01	BELT (FLAT), CAPSTAN		IC81A	8-749-924-10	PHOTO REFLECTOR NJ5165-B (DECK A)	
163	3-575-321-00	RETAINER, THRUST, CAPSTAN		IC81B	8-749-924-10	PHOTO REFLECTOR NJ5165-B (DECK B)	
164	3-359-436-11	BASE (THRUST RETAINER), FITTING		M101A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)	
165	3-359-414-01	SCREW (+PTPW 2X23)		M101B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)	
* 166	A-2006-623-A	MD-A BOARD, COMPLETE (RA12AL)		M102A	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)	
				M102B	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)	

6-5. MECHANISM DECK SECTION-2
(DECK A: TCM-190RA12AL)
(DECK B: TCM-190RB53A)



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
201	3-359-469-01	SPACER		209	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
* 202	3-359-425-01	SLIDER (REVERSE SLIDER)		210	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
203	3-359-426-01	LEVER (REVERSE LEVER)		211	X-3366-569-1	ARM ASSY, FR	
* 204	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)		212	3-359-453-01	SPRING (FR ARM), TORSION	
204	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)		213	3-359-419-11	GEAR (FR GEAR)	
205	3-359-448-01	GEAR (TRIGGER)		214	3-359-421-11	CLUTCH (REEL DISK)	
* 206	3-359-427-01	SLIDER (LEVERSE SLIDER)		215	3-359-418-11	PULLEY (FR PULLEY)	
207	3-359-420-01	GEAR (CAM GEAR)		216	X-3359-415-1	CHASSIS ASSY, MECHANICAL (DECK A)	
208	3-359-454-01	SPRING, TORSION		216	X-3363-790-1	CHASSIS ASSY, MECHANICAL (DECK B)	
209	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)					

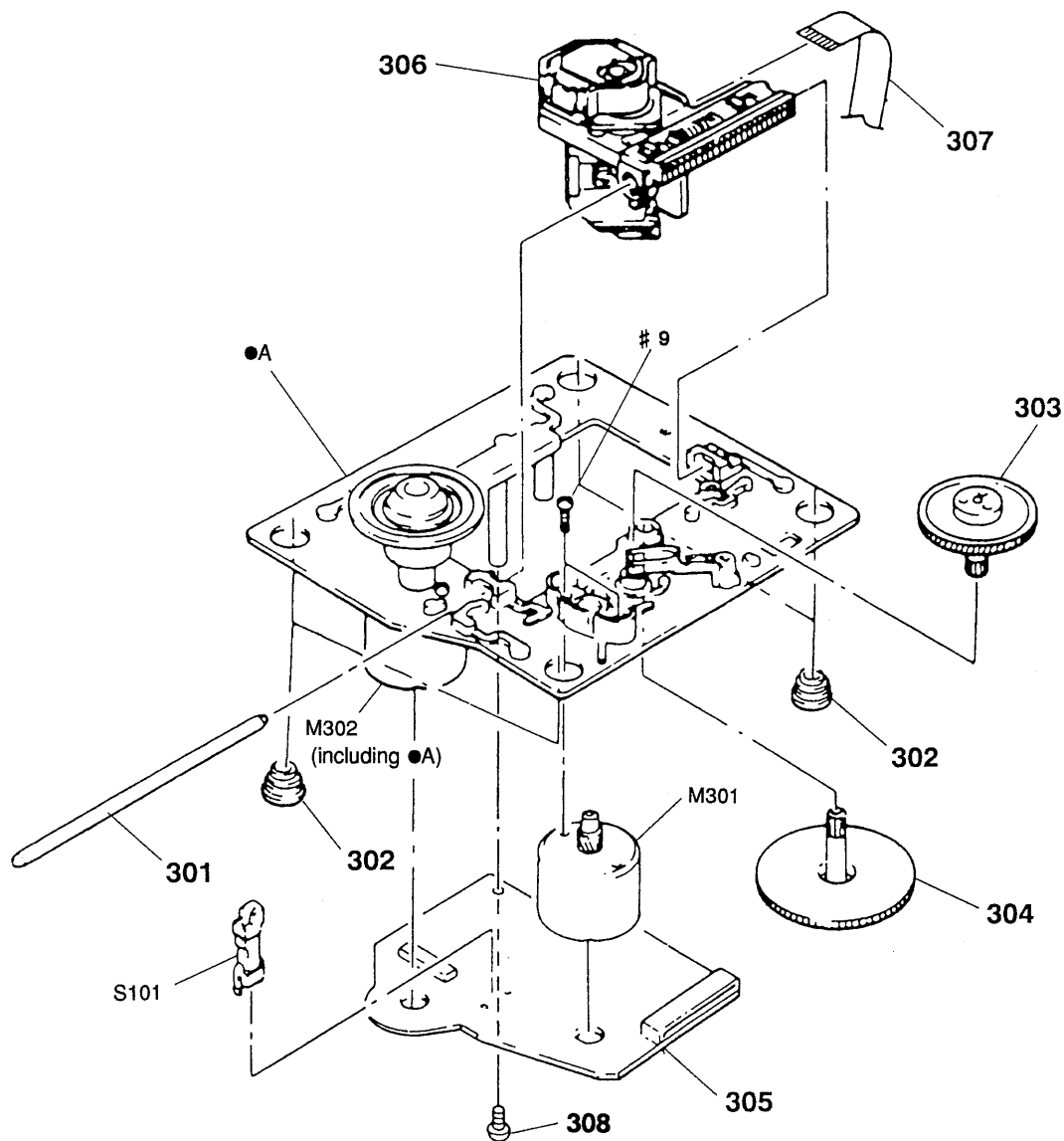
**6-6. CD MECHANISM SECTION
(CDM14-5BD13)**



Ref. No.	Part No.	Description
251	4-933-111-01	CHASSIS (MD)
* 252	1-645-721-11	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	4-933-112-01	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	4-959-996-01	SPRING (932), COMPRESSION	
264	4-933-129-01	HOLDER (BU)	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)	

6-7. OPTICAL PICK-UP BLOCK SECTION (BU-5BD13)



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

Ref. No.	Part No.	Description
301	4-917-565-01	SHAFT, SLED
302	4-951-940-01	INSULATOR (BU)
303	4-917-567-01	GEAR (M)
304	4-917-564-01	GEAR (P), FLATNESS
* 305	A-4673-064-A	BD BOARD, COMPLETE
 306	8-848-144-11	OPTICAL PICK-UP BLOCK (KSS-240A)

Remark	Ref. No.	Part No.	Description	Remark
	307	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
	308	4-951-620-01	SCREW (2.6X8), +BVTP	
	M301	X-4917-523-4	MOTOR ASSY (SPINDLE)	
	M302	X-4917-504-1	MOTOR ASSY (SLED)	
	S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

BD

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.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)

↑
Parts color

↑
Cabinet's color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- **RESISTORS**
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- **SEMICONDUCTORS**
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...
- **CAPACITORS**
uF : μ F
- **COILS**
uH : μ H
- G : German model
- IT : Italian model
- EE : East European model

Ref.No.	Part No.	Description				Remark	Ref.No.	Part No.	Description				Remark
*	A-4673-064-A	BD BOARD, COMPLETE							< CONNECTOR >				
		*****					* CN101	1-580-875-11	SOCKET, CONNECTOR (SMT) 26P				
		< CAPACITOR >					CN102	1-565-771-11	CONNECTOR, FPC (1.0MM) (ZIF) 12P				
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V				< IC >				
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V								
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V		IC101	8-752-361-90	IC	CXD2515Q			
C105	1-135-155-21	TANTALUM CHIP	4.7uF	10%	16V		IC102	8-759-176-09	IC	BA6392FP			
C106	1-164-346-11	CERAMIC CHIP	1uF		16V		IC103	8-752-367-61	IC	CXD2565AM			
C107	1-164-505-11	CERAMIC CHIP	2.2uF		16V				< COIL >				
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V		L101	1-414-234-11	INDUCTOR, FERRITE BEAD				
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V		L102	1-414-234-11	INDUCTOR, FERRITE BEAD				
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V		L103	1-414-234-11	INDUCTOR, FERRITE BEAD				
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V		L104	1-216-001-00	METAL CHIP	10	5%	1/10W	
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V		L105	1-216-295-00	METAL CHIP	0	5%	1/10W	
C113	1-163-038-00	CERAMIC CHIP	0.1uF		25V								
C123	1-164-232-11	CERAMIC CHIP	0.01uF		50V		L106	1-414-234-11	INDUCTOR, FERRITE BEAD				
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V		L107	1-216-295-00	METAL CHIP	0	5%	1/10W	
C131	1-163-038-00	CERAMIC CHIP	0.1uF		25V		L108	1-216-295-00	METAL CHIP	0	5%	1/10W	
C132	1-163-038-00	CERAMIC CHIP	0.1uF		25V				< MOTOR >				
C133	1-163-038-00	CERAMIC CHIP	0.1uF		25V		M301	X-4917-523-3	MOTOR ASSY (SPINDLE)				
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V		M302	X-4917-504-1	MOTOR ASSY (SLED)				
C159	1-164-019-00	CERAMIC CHIP	0.0068uF	10%	50V				< RESISTOR >				
C161	1-163-038-00	CERAMIC CHIP	0.1uF		25V								
C177	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R101	1-216-077-00	METAL CHIP	15K	5%	1/10W	
C178	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R102	1-216-097-00	METAL CHIP	100K	5%	1/10W	
C179	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R103	1-216-077-00	METAL CHIP	15K	5%	1/10W	
C181	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R104	1-216-085-00	METAL CHIP	33K	5%	1/10W	
C182	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R105	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
C183	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V		R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
C184	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V		R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
C185	1-135-156-21	TANTALUM CHIP	6.8uF	10%	10V		R108	1-216-073-00	METAL CHIP	10K	5%	1/10W	
C186	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R109	1-216-121-00	METAL CHIP	1M	5%	1/10W	
C187	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R110	1-216-025-00	METAL CHIP	100	5%	1/10W	
C188	1-163-038-00	CERAMIC CHIP	0.1uF		25V								
C191	1-163-091-00	CERAMIC CHIP	8PF		50V		R112	1-216-049-00	METAL CHIP	1K	5%	1/10W	
C192	1-163-091-00	CERAMIC CHIP	8PF		50V		R122	1-216-295-00	METAL CHIP	0	5%	1/10W	
C193	1-163-125-00	CERAMIC CHIP	220PF	5%	50V		R123	1-216-073-00	METAL CHIP	10K	5%	1/10W	
C194	1-163-125-00	CERAMIC CHIP	220PF	5%	50V		R124	1-216-097-00	METAL CHIP	100K	5%	1/10W	
C195	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R125	1-216-049-00	METAL CHIP	1K	5%	1/10W	
C196	1-163-005-11	CERAMIC CHIP	470PF	10%	50V		R126	1-216-049-00	METAL CHIP	1K	5%	1/10W	
C197	1-163-038-00	CERAMIC CHIP	0.1uF		25V		R127	1-216-049-00	METAL CHIP	1K	5%	1/10W	

BD CD PANEL

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R131	1-216-037-00	METAL CHIP	330 5% 1/10W	< RESISTOR >			
R158	1-216-111-00	METAL CHIP	390K 5% 1/10W	R201	1-249-428-11	CARBON	8.2K 5% 1/4W F
R159	1-216-101-00	METAL CHIP	150K 5% 1/10W	R202	1-249-428-11	CARBON	8.2K 5% 1/4W F
R181	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	R203	1-249-417-11	CARBON	1K 5% 1/4W F
R182	1-216-080-00	METAL CHIP	20K 5% 1/10W	R204	1-249-417-11	CARBON	1K 5% 1/4W F
R183	1-216-080-00	METAL CHIP	20K 5% 1/10W	R205	1-249-417-11	CARBON	1K 5% 1/4W F
R184	1-216-080-00	METAL CHIP	20K 5% 1/10W	R206	1-249-441-11	CARBON	100K 5% 1/4W
R185	1-216-080-00	METAL CHIP	20K 5% 1/10W	R207	1-249-428-11	CARBON	8.2K 5% 1/4W F
R187	1-216-035-00	METAL CHIP	270 5% 1/10W	R208	1-249-418-11	CARBON	1.2K 5% 1/4W F
R188	1-216-121-00	METAL CHIP	1M 5% 1/10W	R209	1-247-836-11	CARBON	1.6K 5% 1/4W
R189	1-414-234-11	INDUCTOR, FERRITE BEAD		R210	1-249-421-11	CARBON	2.2K 5% 1/4W F
< SWITCH >				R211	1-249-423-11	CARBON	3.3K 5% 1/4W F
S101	1-572-085-11	SWITCH, LEAF (LIMIT)		R212	1-249-426-11	CARBON	5.6K 5% 1/4W
< VIBRATOR >				R213	1-247-856-00	CARBON	11K 5% 1/4W
X101	1-579-904-11	VIBRATOR, CRYSTAL (33.8MHz)		R214	1-249-435-11	CARBON	33K 5% 1/4W
*****				R215	1-249-428-11	CARBON	8.2K 5% 1/4W F
*	A-4369-154-A	CD PANEL BOARD, COMPLETE (UK)		R216	1-249-418-11	CARBON	1.2K 5% 1/4W F
*****				R217	1-247-836-11	CARBON	1.6K 5% 1/4W
*	A-4369-167-A	CD PANEL BOARD, COMPLETE		R218	1-249-421-11	CARBON	2.2K 5% 1/4W F
*****				R219	1-249-423-11	CARBON	3.3K 5% 1/4W F
(AEP, IT, G, EE, CIS)				R220	1-249-426-11	CARBON	5.6K 5% 1/4W
*	4-949-935-21	CUSHION (FL)		R221	1-247-856-00	CARBON	11K 5% 1/4W
*	4-955-816-01	HOLDER (1F), FL TUBE		R222	1-249-435-11	CARBON	33K 5% 1/4W
< CAPACITOR >				R223	1-249-417-11	CARBON	1K 5% 1/4W F
C201	1-161-494-00	CERAMIC	0.022uF 25V	R224	1-249-417-11	CARBON	1K 5% 1/4W F
C202	1-164-159-11	CERAMIC	0.1uF 50V	R225	1-249-425-11	CARBON	4.7K 5% 1/4W F
C203	1-164-159-11	CERAMIC	0.1uF 50V	R226	1-249-417-11	CARBON	1K 5% 1/4W F
C204	1-124-903-11	ELECT	1uF 20% 50V	R227	1-249-417-11	CARBON	1K 5% 1/4W F
C205	1-124-903-11	ELECT	1uF 20% 50V	R228	1-249-417-11	CARBON	1K 5% 1/4W F
C206	1-162-294-31	CERAMIC	0.001uF 10% 50V	R229	1-249-417-11	CARBON	1K 5% 1/4W F
C207	1-162-294-31	CERAMIC	0.001uF 10% 50V	< SWITCH >			
< CONNECTOR >				S201	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
* CN201	1-568-839-11	SOCKET, CONNECTOR 23P		S202	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
< FLUORESCENT INDICATOR >				S203	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
FLD201	1-517-297-11	INDICATOR TUBE, FLUORESCENT		S204	1-554-303-21	SWITCH, TACTILE (TIME)	
< IC >				S205	1-554-303-21	SWITCH, TACTILE (REPEAT)	
IC201	8-752-852-17	IC CXP82316-035Q		S206	1-554-303-21	SWITCH, TACTILE (FADE)	
< TRANSISTOR >				S207	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)	
Q201	8-729-900-80	TRANSISTOR DTC114ES		S208	1-554-303-21	SWITCH, TACTILE (EDIT)	
				S209	1-554-303-21	SWITCH, TACTILE (CHECK)	
				S210	1-554-303-21	SWITCH, TACTILE (CLEAR)	
				S211	1-554-303-21	SWITCH, TACTILE (▷)	
				S212	1-554-303-21	SWITCH, TACTILE (■)	
				S213	1-554-303-21	SWITCH, TACTILE (■)	
				S214	1-554-303-21	SWITCH, TACTILE (▶▶ ▶▶▶)	
				S215	1-554-303-21	SWITCH, TACTILE (◀◀◀ ▶▶▶)	
				S216	1-554-303-21	SWITCH, TACTILE (△ OPEN/CLOSE)	

CD PANEL

FUSE

H.P

LEAF SW-A

LEAF SW-B

LOADING

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< VIBRATOR >					
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)		*	1-638-020-11	LEAF SW-B BOARD (RB53A)	
		*****				*****	
		< CONNECTOR >					
*	1-652-388-11	FUSE BOARD (AEP, IT, G)		* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
		*****				< IC >	
*	1-652-389-11	FUSE BOARD (UK, EE, CIS)		IC81B	8-749-924-10	IC PHOTO REFLECTOR NJL5165K-B(H1)	
		*****				< RESISTOR >	
		< FUSE >		R81	1-249-414-11	CARBON 560 5% 1/4W F	
△F101	1-532-286-00	FUSE, TIME-LAG (T2.5A)		R82	1-247-818-91	CARBON 300 5% 1/4W	
△F102	1-532-286-00	FUSE, TIME-LAG (T2.5A)		R83	1-247-834-11	CARBON 1.3K 5% 1/4W	
△F103	1-532-299-00	FUSE, TIME-LAG (T5.0A)		R84	1-249-417-11	CARBON 1K 5% 1/4W F	
△F104	1-532-299-00	FUSE, TIME-LAG (T5.0A)		R85	1-249-408-11	CARBON 180 5% 1/4W F	
		*****				< SWITCH >	
*	1-651-166-11	H. P BOARD		S81B	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
		*****		S82B	1-571-281-21	SWITCH, LEAF (CrO2 DET)	
		< CAPACITOR >		S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF, SIDE A)	
C1237	1-162-282-31	CERAMIC 100PF 10% 50V (IT, G)		S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF, SIDE B)	
C1238	1-162-282-31	CERAMIC 100PF 10% 50V (IT, G)		S86B	1-571-281-21	SWITCH, LEAF (HALF DET)	
		< JACK >				*****	
J1203	1-569-113-11	JACK, LARGE TYPE (HEADPHONES)			1-645-721-11	LOADING BOARD	
		*****				*****	
		< CONNECTOR >				< CONNECTOR >	
*	1-638-020-11	LEAF SW-A BOARD (RA12AL)		* CN151	1-568-943-11	PIN, CONNECTOR 5P	
		*****				< MOTOR >	
		< CONNECTOR >		M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)	
* CNP81	1-568-852-11	SOCKET, CONNECTOR 9P				< SWITCH >	
		< IC >		S151	1-572-086-11	SWITCH, LEAF (LOAD OUT)	
IC81A	8-749-924-10	PHOTO REFLECTOR NJL5165K-B(H1)		S152	1-572-086-11	SWITCH, LEAF (LOAD IN)	
		< RESISTOR >				*****	
R84	1-249-417-11	CARBON 1K 5% 1/4W F					
R85	1-249-408-11	CARBON 180 5% 1/4W F					
		< SWITCH >					
S81A	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)					
S82A	1-571-281-21	SWITCH, LEAF (CrO2 DET)					
S86A	1-571-281-21	SWITCH, LEAF (HALF DET)					

MAIN

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
*	A-4369-161-A	MAIN BOARD, COMPLETE (UK) *****		C25	1-161-327-00	CERAMIC 0.0033uF 30% 16V	
*	A-4369-306-A	MAIN BOARD, COMPLETE (IT) *****		C26	1-124-477-11	ELECT 47uF 20% 25V	
*	A-4369-300-A	MAIN BOARD, COMPLETE (AEP) *****		C27	1-126-962-11	ELECT 3.3uF 20% 50V	
*	A-4369-311-A	MAIN BOARD, COMPLETE (EE) *****		C28	1-161-494-00	CERAMIC 0.022uF 25V	
*	A-4369-901-A	MAIN BOARD, COMPLETE (G) *****		C29	1-124-907-11	ELECT 10uF 20% 50V	
*	A-4369-905-A	MAIN BOARD, COMPLETE (CIS) *****		C30	1-161-494-00	CERAMIC 0.022uF 25V	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		C31	1-101-005-00	CERAMIC 22000PF 50V	
	7-682-547-09	SCREW +BVTT 3X6 (S)		C32	1-162-196-31	CERAMIC 5.6PF 10% 50V	(AEP, UK, EE, CIS)
	< CAPACITOR >			C32	1-162-198-31	CERAMIC 8.2PF 10% 50V (IT, G)	
C1	1-161-379-00	CERAMIC 0.01uF 20% 25V		C33	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C2	1-124-477-11	ELECT 47uF 20% 25V		C34	1-164-159-11	CERAMIC 0.1uF 50V	(AEP, UK, EE, CIS)
C3	1-161-379-00	CERAMIC 0.01uF 20% 25V		C37	1-161-374-11	CERAMIC 0.0015uF 20% 50V	(AEP, UK, EE, CIS)
C4	1-164-159-11	CERAMIC 0.1uF 50V		C38	1-102-120-00	CERAMIC 0.0018uF 10% 50V	(AEP, UK, EE, CIS)
C5	1-161-379-00	CERAMIC 0.01uF 20% 25V (CIS)		C39	1-101-005-00	CERAMIC 22000PF 50V	(AEP, UK, EE, CIS)
C5	1-164-159-11	CERAMIC 0.1uF 50V	(EXCEPT CIS)	C45	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C6	1-161-379-00	CERAMIC 0.01uF 20% 25V		C46	1-162-294-31	CERAMIC 0.001uF 10% 50V (AEP)	
C7	1-126-934-11	ELECT 220uF 20% 16V		C51	1-102-961-00	CERAMIC 27PF 5% 50V	
C8	1-161-379-00	CERAMIC 0.01uF 20% 25V		C52	1-102-961-00	CERAMIC 27PF 5% 50V	
C9	1-161-379-00	CERAMIC 0.01uF 20% 25V		C53	1-124-477-11	ELECT 47uF 20% 25V	
C10	1-161-379-00	CERAMIC 0.01uF 20% 25V		C54	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C11	1-124-907-11	ELECT 10uF 20% 50V		C55	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C12	1-124-902-00	ELECT 0.47uF 20% 50V		C56	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C13	1-124-903-11	ELECT 1uF 20% 50V		C57	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C14	1-124-903-11	ELECT 1uF 20% 50V		C58	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C15	1-124-907-11	ELECT 10uF 20% 50V		C61	1-124-925-11	ELECT 2.2uF 20% 100V	
C16	1-124-907-11	ELECT 10uF 20% 50V		C62	1-124-463-00	ELECT 0.1uF 20% 50V	
C17	1-124-907-11	ELECT 10uF 20% 50V		C63	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C18	1-124-907-11	ELECT 10uF 20% 50V		C64	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C19	1-136-158-00	FILM 0.027uF 5% 50V	(AEP, UK, EE, CIS)	C65	1-124-120-11	ELECT 220uF 20% 25V (UK)	
C19	1-136-159-00	FILM 0.033uF 5% 50V (IT, G)		C65	1-126-934-11	ELECT 220uF 20% 16V	(AEP, IT, G, EE, CIS)
C20	1-136-158-00	FILM 0.027uF 5% 50V	(AEP, UK, EE, CIS)	C67	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C20	1-136-159-00	FILM 0.033uF 5% 50V (IT, G)		C71	1-136-173-00	FILM 0.47uF 5% 50V	(AEP, UK, EE, CIS)
C21	1-161-046-00	CERAMIC 0.0039uF 10% 25V		C72	1-161-494-00	CERAMIC 0.022uF 25V	(AEP, UK, EE, CIS)
C22	1-161-046-00	CERAMIC 0.0039uF 10% 25V		C73	1-124-463-00	ELECT 0.1uF 20% 50V	(AEP, UK, EE, CIS)
C23	1-124-903-11	ELECT 1uF 20% 50V		C81	1-162-291-31	CERAMIC 560PF 10% 50V (AEP, IT, G)	
C24	1-161-374-11	CERAMIC 0.0015uF 20% 50V (IT, G)		C82	1-124-907-11	ELECT 10uF 20% 50V (AEP, IT, G)	
C24	1-162-294-31	CERAMIC 0.001uF 10% 50V	(AEP, UK, EE, CIS)	C83	1-161-379-00	CERAMIC 0.01uF 20% 25V (AEP, IT, G)	
				C84	1-124-925-11	ELECT 2.2uF 20% 100V (AEP, IT, G)	
				C85	1-162-288-31	CERAMIC 330PF 10% 50V (AEP, IT, G)	
				C86	1-161-379-00	CERAMIC 0.01uF 20% 25V (AEP, IT, G)	
				C87	1-162-291-31	CERAMIC 560PF 10% 50V (AEP, IT, G)	
				C88	1-161-379-00	CERAMIC 0.01uF 20% 25V (AEP, IT, G)	

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
C89	1-101-880-00	CERAMIC	47PF	5%	50V	(AEP, IT, G)	C1027	1-137-375-11	FILM	0.068uF	5%	50V	
C90	1-102-527-11	CERAMIC	82PF	5%	50V	(AEP, IT, G)	C1028	1-124-903-11	ELECT	1uF	20%	50V	
C91	1-161-379-00	CERAMIC	0.01uF	20%	25V	(AEP, IT, G)	C1029	1-137-441-11	FILM	0.027uF	5%	50V	
C92	1-124-907-11	ELECT	10uF	20%	50V	(AEP, IT, G)	C1030	1-124-902-00	ELECT	0.47uF	20%	50V	
C93	1-124-907-11	ELECT	10uF	20%	50V	(AEP, IT, G)	C1031	1-137-370-11	FILM	0.01uF	5%	50V	
C95	1-124-903-11	ELECT	1uF	20%	50V	(CIS)	C1032	1-136-168-00	FILM	0.18uF	5%	50V	
C96	1-124-903-11	ELECT	1uF	20%	50V	(CIS)	C1033	1-137-436-11	FILM	0.0039uF	5%	50V	
C301	1-124-477-11	ELECT	47uF	20%	25V		C1034	1-137-375-11	FILM	0.068uF	5%	50V	
C302	1-124-477-11	ELECT	47uF	20%	25V		C1035	1-137-434-11	FILM	0.0018uF	5%	50V	
C303	1-124-927-11	ELECT	4.7uF	20%	100V		C1036	1-130-489-00	MYLAR	0.033uF	5%	50V	
C304	1-126-176-11	ELECT	220uF	20%	10V		C1037	1-137-363-91	FILM	680PF	5%	50V	
C305	1-124-472-11	ELECT	470uF	20%	10V		C1038	1-137-439-91	FILM	0.012uF	5%	50V	
C306	1-124-902-00	ELECT	0.47uF	20%	50V		C1039	1-137-429-11	FILM	270PF	5%	50V	
C308	1-124-907-11	ELECT	10uF	20%	50V		C1040	1-137-368-11	FILM	0.0047uF	5%	50V	
C309	1-124-443-00	ELECT	100uF	20%	10V		C1041	1-124-907-11	ELECT	10uF	20%	50V	
C310	1-164-159-11	CERAMIC	0.1uF		50V		C1042	1-164-159-11	CERAMIC	0.1uF		50V	
C311	1-164-159-11	CERAMIC	0.1uF		50V		C1045	1-164-159-11	CERAMIC	0.1uF		50V	
C312	1-164-159-11	CERAMIC	0.1uF		50V		C1046	1-164-159-11	CERAMIC	0.1uF		50V	
C313	1-161-379-00	CERAMIC	0.01uF	20%	25V		C1047	1-164-159-11	CERAMIC	0.1uF		50V	
C314	1-161-494-00	CERAMIC	0.022uF		25V		C1048	1-164-159-11	CERAMIC	0.1uF		50V	
C317	1-162-284-31	CERAMIC	150PF	10%	50V		C1049	1-164-159-11	CERAMIC	0.1uF		50V	
C318	1-162-284-31	CERAMIC	150PF	10%	50V		C1050	1-164-159-11	CERAMIC	0.1uF		50V	
C319	1-162-284-31	CERAMIC	150PF	10%	50V		C1051	1-162-286-31	CERAMIC	220PF	10%	50V	(IT, G)
C320	1-162-284-31	CERAMIC	150PF	10%	50V		C1052	1-124-925-11	ELECT	2.2uF	20%	100V	
C321	1-137-437-11	FILM	0.0056uF	5%	50V		C1053	1-162-282-31	CERAMIC	100PF	10%	50V	
C322	1-137-437-11	FILM	0.0056uF	5%	50V		C1058	1-124-477-11	ELECT	47uF	20%	25V	(IT, G)
C323	1-137-364-11	FILM	0.001uF	5%	50V		C1061	1-162-286-31	CERAMIC	220PF	10%	50V	(IT, G)
C324	1-137-364-11	FILM	0.001uF	5%	50V		C1063	1-162-282-31	CERAMIC	100PF	10%	50V	
C325	1-124-477-11	ELECT	47uF	20%	25V		C1064	1-124-482-11	ELECT	33uF	20%	35V	(EE, CIS)
C326	1-124-477-11	ELECT	47uF	20%	25V		C1064	1-124-927-11	ELECT	4.7uF	20%	100V	(AEP, UK, IT, G)
C329	1-164-159-11	CERAMIC	0.1uF		50V		C1065	1-161-377-00	CERAMIC	0.0047uF	30%	16V	
C330	1-124-927-11	ELECT	4.7uF	20%	100V		C1066	1-161-374-11	CERAMIC	0.0015uF	20%	50V	
C331	1-124-126-00	ELECT	47uF	20%	10V		C1067	1-124-464-11	ELECT	0.22uF	20%	50V	
C1001	1-162-286-31	CERAMIC	220PF	10%	50V	(IT, G)	C1069	1-164-159-11	CERAMIC	0.1uF		50V	
C1002	1-124-925-11	ELECT	2.2uF	20%	100V		C1071	1-164-159-11	CERAMIC	0.1uF		50V	
C1003	1-162-282-31	CERAMIC	100PF	10%	50V		C1072	1-126-176-11	ELECT	220uF	20%	10V	
C1008	1-124-477-11	ELECT	47uF	20%	25V	(IT, G)	C1073	1-124-443-00	ELECT	100uF	20%	10V	
C1011	1-162-288-31	CERAMIC	330PF	10%	50V	(IT, G)	C1074	1-124-443-00	ELECT	100uF	20%	10V	
C1013	1-162-282-31	CERAMIC	100PF	10%	50V		C1076	1-137-364-11	FILM	0.001uF	5%	50V	
C1014	1-124-482-11	ELECT	33uF	20%	35V	(EE, CIS)	C1077	1-137-375-11	FILM	0.068uF	5%	50V	
C1014	1-124-927-11	ELECT	4.7uF	20%	100V	(AEP, UK, IT, G)	C1078	1-124-903-11	ELECT	1uF	20%	50V	
C1015	1-161-377-00	CERAMIC	0.0047uF	30%	16V		C1079	1-137-441-11	FILM	0.027uF	5%	50V	
C1016	1-161-374-11	CERAMIC	0.0015uF	20%	50V		C1080	1-124-902-00	ELECT	0.47uF	20%	50V	
C1017	1-124-464-11	ELECT	0.22uF	20%	50V		C1081	1-137-370-11	FILM	0.01uF	5%	50V	
C1019	1-164-159-11	CERAMIC	0.1uF		50V		C1082	1-136-168-00	FILM	0.18uF	5%	50V	
C1021	1-164-159-11	CERAMIC	0.1uF		50V		C1083	1-137-436-11	FILM	0.0039uF	5%	50V	
C1022	1-126-176-11	ELECT	220uF	20%	10V		C1084	1-137-375-11	FILM	0.068uF	5%	50V	
C1023	1-124-443-00	ELECT	100uF	20%	10V		C1085	1-137-434-11	FILM	0.0018uF	5%	50V	
C1024	1-124-443-00	ELECT	100uF	20%	10V		C1086	1-130-489-00	MYLAR	0.033uF	5%	50V	
C1026	1-137-364-11	FILM	0.001uF	5%	50V		C1087	1-137-363-91	FILM	680PF	5%	50V	

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D1337	8-719-987-63	DIODE 1N4148M				< COIL >	
D1341	8-719-987-63	DIODE 1N4148M					
D1342	8-719-987-63	DIODE 1N4148M		L1	1-407-500-00	INDUCTOR 4.7mH	
				L2	1-410-524-41	INDUCTOR 220uH (AEP, UK, EE, CIS)	
D1343	8-719-987-63	DIODE 1N4148M		L81	1-410-521-11	INDUCTOR 100uH (AEP, IT, G)	
D1371	8-719-200-82	DIODE 11ES2 (UK, EE, CIS)		L301	1-410-322-11	INDUCTOR 3.3uH	
D1372	8-719-200-82	DIODE 11ES2 (UK, EE, CIS)		L302	1-410-322-11	INDUCTOR 3.3uH	
D1373	8-719-200-82	DIODE 11ES2 (UK, EE, CIS)					
D1374	8-719-200-82	DIODE 11ES2 (UK, EE, CIS)		L1301	1-420-872-00	COIL, AIR-CORE	
				L1351	1-420-872-00	COIL, AIR-CORE	
D1375	8-719-001-43	DIODE UZL-11M1				< FILTER >	
		< FRONTEND >		LPF1	1-239-597-11	FILTER, LOW PASS	
FE1	1-465-007-11	FRONT END (4 GANG) (IT, G)		LPF2	1-239-597-11	FILTER, LOW PASS	
FE1	1-693-090-31	FRONT END (FM) (2 GANG) (AEP, UK)				< TRANSISTOR >	
FE1	1-693-244-11	FRONT END (3 GANG) (EE, CIS)					
FE2	1-239-260-11	ENCAPSULATED COMPONENT (IT, G)		Q1	8-729-230-XX	TRANSISTOR 2SC26690Y-TPE4	
FE2	1-239-261-12	ENCAPSULATED COMPONENT (AEP, UK, EE, CIS)		Q2	8-729-230-XX	TRANSISTOR 2SC26690Y-TPE4 (IT, G)	
				Q3	8-729-119-76	TRANSISTOR 2SA1175-HFE (AEP, UK, EE, CIS)	
FE3	1-236-463-11	ENCAPSULATED COMPONENT (AEP, UK, EE, CIS)		Q4	8-729-119-76	TRANSISTOR 2SA1175-HFE (AEP, UK, EE, CIS)	
		< IC >		Q5	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS)	
IC1	8-759-176-03	IC LA1835		Q6	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS)	
IC51	8-759-175-87	IC LC7218-ST		Q7	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS)	
IC81	8-759-145-58	IC UPC4558C (AEP, IT, G)		Q8	8-729-900-80	TRANSISTOR DTC114ES (AEP, UK, EE, CIS)	
IC82	8-759-169-99	IC SAA6579 (AEP, IT, G)		Q55	8-729-900-61	TRANSISTOR DTA114ES	
IC83	8-759-062-26	IC LC7073 (AEP, IT, G)		Q61	8-729-202-67	TRANSISTOR 2SK246-GR3	
IC301	8-759-061-65	IC LA5602		Q62	8-729-201-84	TRANSISTOR 2SC3112-B	
IC302	8-759-805-37	IC L78LR05D		Q71	8-729-202-67	TRANSISTOR 2SK246-GR3 (AEP, UK, EE, CIS)	
IC304	8-759-822-09	IC LB1641		Q72	8-729-201-84	TRANSISTOR 2SC3112-B (AEP, UK, EE, CIS)	
IC305	8-759-145-58	IC UPC4558C		Q301	8-729-119-78	TRANSISTOR 2SC403SP-51	
IC306	8-759-145-58	IC UPC4558C		Q302	8-729-900-65	TRANSISTOR DTA114ES	
IC307	8-759-605-00	IC M5F78M07L		Q303	8-729-900-65	TRANSISTOR DTA114ES	
IC1001	8-759-634-51	IC M5218AP		Q1031	8-729-119-78	TRANSISTOR 2SC403SP-51	
IC1002	8-759-000-48	IC MC14052BCP		Q1081	8-729-119-78	TRANSISTOR 2SC403SP-51	
IC1003	8-759-140-53	IC UPD4053BC		Q1341	8-729-900-63	TRANSISTOR DTA124ES	
IC1004	8-759-634-51	IC M5218AP		Q1370	8-729-900-36	TRANSISTOR DTC124ES (AEP, IT, G)	
IC1005	8-759-081-01	IC NJU7305L		Q1371	8-729-209-15	TRANSISTOR 2SD2012	
IC1006	8-759-633-78	IC M5289P				< RESISTOR >	
IC1056	8-759-633-78	IC M5289P					
IC1301	8-759-605-00	IC M5F78M07L		R1	1-249-411-11	CARBON 330 5% 1/4W	
IC1302	8-759-604-95	IC M5F79M07L		R2	1-249-411-11	CARBON 330 5% 1/4W	
				R3	1-249-409-11	CARBON 220 5% 1/4W F	
IC1303	8-759-604-84	IC M5F7806L		△R4	1-249-402-11	CARBON 56 5% 1/4W F	
IC1304	8-759-604-39	IC M5F78M12 (AEP, UK, IT, G)		R5	1-247-891-00	CARBON 330K 5% 1/4W	
IC1341	8-759-111-68	IC UPC1237HA					
		< IFT >		R6	1-249-411-11	CARBON 330 5% 1/4W	
IFT1	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)		R7	1-247-891-00	CARBON 330K 5% 1/4W (IT, G)	
		< JACK >		R8	1-249-411-11	CARBON 330 5% 1/4W (IT, G)	
* J1001	1-580-912-11	JACK, PIN 4P (PHONO/VIDEO)		△R9	1-249-405-11	CARBON 100 5% 1/4W F	
J1202	1-569-130-11	JACK, PIN 2P (SURROUND SPEAKER)		R10	1-249-437-11	CARBON 47K 5% 1/4W	
				R12	1-249-429-11	CARBON 10K 5% 1/4W	
				R13	1-249-442-11	CARBON 510 5% 1/4W	

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

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△R14	1-249-403-11	CARBON	68 5% 1/4W F	R69	1-247-807-31	CARBON	100 5% 1/4W
R16	1-249-429-11	CARBON	10K 5% 1/4W	R71	1-249-423-11	CARBON	3.3K 5% 1/4W F (AEP, UK, EE, CIS)
R17	1-247-842-11	CARBON	3K 5% 1/4W	R72	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, EE, CIS)
R18	1-249-429-11	CARBON	10K 5% 1/4W	R73	1-249-414-11	CARBON	560 5% 1/4W F (AEP, UK, EE, CIS)
R19	1-249-441-11	CARBON	100K 5% 1/4W	R74	1-249-417-11	CARBON	1K 5% 1/4W F (AEP, UK, EE, CIS)
R20	1-249-435-11	CARBON	33K 5% 1/4W	R75	1-249-410-11	CARBON	270 5% 1/4W F (AEP, UK, EE, CIS)
R21	1-249-441-11	CARBON	100K 5% 1/4W	R76	1-249-421-11	CARBON	2.2K 5% 1/4W F (AEP, UK, EE, CIS)
R22	1-249-437-11	CARBON	47K 5% 1/4W	R77	1-249-425-11	CARBON	4.7K 5% 1/4W F (AEP, UK, EE, CIS)
R23	1-249-399-11	CARBON	33 5% 1/4W F	R78	1-247-807-31	CARBON	100 5% 1/4 (AEP, UK, EE, CIS)
R24	1-249-425-11	CARBON	4.7K 5% 1/4W F (AEP, UK, EE, CIS)	R81	1-249-441-11	CARBON	100K 5% 1/4W (AEP, IT, G)
R25	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R82	1-249-441-11	CARBON	100K 5% 1/4W (AEP, IT, G)
R26	1-249-429-11	CARBON	10K 5% 1/4W	R83	1-249-433-11	CARBON	22K 5% 1/4W (AEP, IT, G)
R27	1-249-429-11	CARBON	10K 5% 1/4W	R84	1-249-426-11	CARBON	5.6K 5% 1/4W (AEP, IT, G)
R30	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R85	1-249-421-11	CARBON	2.2K 5% 1/4W F (AEP, IT, G)
R31	1-249-429-11	CARBON	10K 5% 1/4W (AEP, UK, EE, CIS)	R86	1-249-429-11	CARBON	10K 5% 1/4W (AEP, IT, G)
R32	1-249-433-11	CARBON	22K 5% 1/4W (AEP, UK, EE, CIS)	R301	1-249-429-11	CARBON	10K 5% 1/4W
R33	1-247-903-00	CARBON	1M 5% 1/4W (AEP, UK, EE, CIS)	R302	1-249-429-11	CARBON	10K 5% 1/4W
R34	1-249-437-11	CARBON	47K 5% 1/4W (AEP, UK, EE, CIS)	R318	1-249-417-11	CARBON	1K 5% 1/4W F
R35	1-249-423-11	CARBON	3.3K 5% 1/4W F	R319	1-249-417-11	CARBON	1K 5% 1/4W F
R36	1-249-423-11	CARBON	3.3K 5% 1/4W F	R320	1-247-852-11	CARBON	7.5K 5% 1/4W
R45	1-249-426-11	CARBON	5.6K 5% 1/4W	R321	1-247-852-11	CARBON	7.5K 5% 1/4W
R46	1-249-426-11	CARBON	5.6K 5% 1/4W	R322	1-247-852-11	CARBON	7.5K 5% 1/4W
R47	1-249-408-11	CARBON	180 5% 1/4W F (AEP, IT, G)	R323	1-247-852-11	CARBON	7.5K 5% 1/4W
R48	1-249-423-11	CARBON	3.3K 5% 1/4W F (UK, EE)	R324	1-249-431-11	CARBON	15K 5% 1/4W
R48	1-249-429-11	CARBON	10K 5% 1/4W (AEP, IT, G, CIS)	R325	1-249-431-11	CARBON	15K 5% 1/4W
R49	1-249-423-11	CARBON	3.3K 5% 1/4W F	R326	1-249-431-11	CARBON	15K 5% 1/4W
△R50	1-249-401-11	CARBON	47 5% 1/4W F	R327	1-249-431-11	CARBON	15K 5% 1/4W
R51	1-249-417-11	CARBON	1K 5% 1/4W F	R328	1-249-419-11	CARBON	1.5K 5% 1/4W F
R52	1-249-417-11	CARBON	1K 5% 1/4W F	R329	1-249-419-11	CARBON	1.5K 5% 1/4W F
R53	1-249-417-11	CARBON	1K 5% 1/4W F	R330	1-249-419-11	CARBON	1.5K 5% 1/4W F
R54	1-249-417-11	CARBON	1K 5% 1/4W F	R331	1-249-419-11	CARBON	1.5K 5% 1/4W F
R56	1-249-425-11	CARBON	4.7K 5% 1/4W F	R332	1-249-441-11	CARBON	100K 5% 1/4W
R57	1-249-417-11	CARBON	1K 5% 1/4W F	R333	1-249-441-11	CARBON	100K 5% 1/4W
R58	1-249-417-11	CARBON	1K 5% 1/4W F	R336	1-249-418-11	CARBON	1.2K 5% 1/4W F
△R60	1-249-405-11	CARBON	100 5% 1/4W F	R337	1-249-418-11	CARBON	1.2K 5% 1/4W F
R61	1-249-423-11	CARBON	3.3K 5% 1/4W F	R338	1-249-417-11	CARBON	1K 5% 1/4W F
R62	1-249-425-11	CARBON	4.7K 5% 1/4W F	R339	1-249-429-11	CARBON	10K 5% 1/4W
R63	1-249-414-11	CARBON	560 5% 1/4W F	R1001	1-249-417-11	CARBON	1K 5% 1/4W F
R64	1-249-417-11	CARBON	1K 5% 1/4W F	R1002	1-247-903-00	CARBON	1M 5% 1/4W
R65	1-249-410-11	CARBON	270 5% 1/4W F	R1008	1-249-409-11	CARBON	220 5% 1/4W F (IT, G)
R66	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1011	1-249-417-11	CARBON	1K 5% 1/4W F (IT, G)
R67	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1012	1-249-417-11	CARBON	1K 5% 1/4W F
R68	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1013	1-249-437-11	CARBON	47K 5% 1/4W
				R1014	1-249-416-11	CARBON	820 5% 1/4W F

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1015	1-247-897-11	CARBON	560K 5% 1/4W	R1344	1-249-427-11	CARBON	6.8K 5% 1/4W F
R1016	1-249-437-11	CARBON	47K 5% 1/4W	R1345	1-249-427-11	CARBON	6.8K 5% 1/4W F
R1017	1-249-409-11	CARBON	220 5% 1/4W F	R1346	1-249-438-11	CARBON	56K 5% 1/4W
R1018	1-249-441-11	CARBON	100K 5% 1/4W	R1347	1-249-437-11	CARBON	47K 5% 1/4W
R1021	1-249-437-11	CARBON	47K 5% 1/4W	R1348	1-249-429-11	CARBON	10K 5% 1/4W
R1023	1-249-437-11	CARBON	47K 5% 1/4W	R1349	1-249-429-11	CARBON	10K 5% 1/4W
R1024	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1363	1-249-389-11	CARBON	4.7 5% 1/4W F
R1025	1-249-441-11	CARBON	100K 5% 1/4W	R1364	1-249-389-11	CARBON	4.7 5% 1/4W F
R1026	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1370	1-249-417-11	CARBON	1K 5% 1/4W F (AEP, IT, G)
R1031	1-249-425-11	CARBON	4.7K 5% 1/4W F (AEP, UK, G, IT)	R1371	1-249-423-11	CARBON	3.3K 5% 1/4W F
R1036	1-247-852-11	CARBON	7.5K 5% 1/4W	△R1380	1-215-890-11	METAL OXIDE	470 5% 2W F (UK)
R1038	1-249-425-11	CARBON	4.7K 5% 1/4W F	△R1380	1-215-891-11	METAL OXIDE	680 5% 2W F (AEP, IT, G, EE, CIS)
R1039	1-249-441-11	CARBON	100K 5% 1/4W	R1381	1-249-410-11	CARBON	270 5% 1/4W F
R1040	1-247-889-00	CARBON	270K 5% 1/4W	R1382	1-249-410-11	CARBON	270 5% 1/4W F
R1041	1-249-433-11	CARBON	22K 5% 1/4W	R1383	1-249-410-11	CARBON	270 5% 1/4W F
R1042	1-249-433-11	CARBON	22K 5% 1/4W	R1384	1-249-410-11	CARBON	270 5% 1/4W F
R1043	1-249-433-11	CARBON	22K 5% 1/4W	R1385	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)
R1044	1-249-433-11	CARBON	22K 5% 1/4W	R1386	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)
R1045	1-249-413-11	CARBON	470 5% 1/4W F	< VARIABLE RESISTOR >			
R1046	1-249-413-11	CARBON	470 5% 1/4W F	RV1	1-238-601-11	RES, ADJ, CARBON	22K
R1047	1-249-413-11	CARBON	470 5% 1/4W F	RV2	1-238-600-11	RES, ADJ, CARBON	10K
R1048	1-249-429-11	CARBON	10K 5% 1/4W	< RELAY >			
R1051	1-249-417-11	CARBON	1K 5% 1/4W F	RY1201	1-515-920-11	RELAY (24V)	
R1052	1-247-903-00	CARBON	1M 5% 1/4W	< TRANSFORMER >			
R1058	1-249-409-11	CARBON	220 5% 1/4W F (IT, G)	T1	1-235-126-00	ENCAPSULATED COMPONENT (IT, G)	
R1061	1-249-417-11	CARBON	1K 5% 1/4W F (IT, G)	< TERMINAL >			
R1062	1-249-417-11	CARBON	1K 5% 1/4W F	* TM1	1-537-264-11	TERMINAL BOARD (ANTENNA) (UK)	
R1063	1-249-437-11	CARBON	47K 5% 1/4W	* TM1	1-537-288-11	TERMINAL BOARD, ANTENNA (PAL) (ANTENNA)	
R1064	1-249-416-11	CARBON	820 5% 1/4W F			(AEP, IT, G, EE, CIS)	
R1065	1-247-897-11	CARBON	560K 5% 1/4W	* TM1301	1-537-327-11	TERMINAL BOARD (SPEAKER)	
R1066	1-249-437-11	CARBON	47K 5% 1/4W	< VIBRATOR >			
R1067	1-249-409-11	CARBON	220 5% 1/4W F	X1	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz) (AEP, IT, G)	
R1068	1-249-441-11	CARBON	100K 5% 1/4W	X2	1-577-358-21	VIBRATOR, CERAMIC (4MHz) (AEP, IT, G)	
R1071	1-249-437-11	CARBON	47K 5% 1/4W	XT51	1-577-126-31	VIBRATOR, CRYSTAL (7.2MHz)	
R1073	1-249-437-11	CARBON	47K 5% 1/4W	*****			
R1074	1-249-427-11	CARBON	6.8K 5% 1/4W F				
R1075	1-249-441-11	CARBON	100K 5% 1/4W				
R1076	1-249-427-11	CARBON	6.8K 5% 1/4W F				
R1086	1-247-852-11	CARBON	7.5K 5% 1/4W				
R1088	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R1089	1-249-441-11	CARBON	100K 5% 1/4W				
R1090	1-247-889-00	CARBON	270K 5% 1/4W				
R1313	1-249-389-11	CARBON	4.7 5% 1/4W F				
R1314	1-249-389-11	CARBON	4.7 5% 1/4W F				
R1335	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)				
R1336	1-249-389-11	CARBON	4.7 5% 1/4W F (IT, G)				
R1341	1-249-429-11	CARBON	10K 5% 1/4W				
R1342	1-249-441-11	CARBON	100K 5% 1/4W				
R1343	1-249-436-11	CARBON	39K 5% 1/4W				

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

MAIN TC

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4365-150-A	MAIN TC BOARD, COMPLETE (UK) *****		CN905	1-580-783-11	CONNECTOR, BOARD TO BOARD	
				CN906	1-580-783-11	CONNECTOR, BOARD TO BOARD	
*	A-4365-942-A	MAIN TC BOARD, COMPLETE(AEP, IT, G, EE, CIS) *****		CN907	1-580-783-11	CONNECTOR, BOARD TO BOARD	
*	4-942-204-01	PLATE, GROUND		* CN908	1-568-850-11	SOCKET, CONNECTOR 7P	
		< CAPACITOR >		* CN909	1-568-850-11	SOCKET, CONNECTOR 7P	
C722	1-137-368-11	FILM	0.0047uF 5% 50V	* CN910	1-568-852-11	SOCKET, CONNECTOR 9P	
C723	1-162-291-31	CERAMIC	560PF 10% 50V	* CN911	1-568-856-11	SOCKET, CONNECTOR 13P	
C726	1-137-399-11	FILM	0.1uF 5% 50V				
C727	1-126-791-11	ELECT	10uF 20% 35V	* CN912	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P	
C728	1-124-903-11	ELECT	1uF 20% 50V			< DIODE >	
				D901	8-719-987-63	DIODE 1N4148M	
C729	1-124-465-00	ELECT	0.47uF 20% 50V	D902	8-719-987-63	DIODE 1N4148M	
C730	1-124-907-11	ELECT	10uF 20% 50V	D903	8-719-987-63	DIODE 1N4148M	
C731	1-164-159-11	CERAMIC	0.1uF 50V	D904	8-719-987-63	DIODE 1N4148M	
C732	1-126-791-11	ELECT	10uF 20% 35V	D905	8-719-987-63	DIODE 1N4148M	
C741	1-124-903-11	ELECT	1uF 20% 50V			< IC >	
				IC901	8-759-098-75	IC HA12171NT	
C742	1-126-791-11	ELECT	10uF 20% 35V	IC902	8-759-250-60	IC M50964-261FP	
C822	1-137-368-11	FILM	0.0047uF 5% 50V	IC903	8-759-635-63	IC M51943BSL	
C823	1-162-291-31	CERAMIC	560PF 10% 50V	IC904	8-759-266-35	IC TA8242K	
C826	1-137-399-11	FILM	0.1uF 5% 50V			< TRANSISTOR >	
C827	1-124-907-11	ELECT	10uF 20% 50V	Q701	8-729-119-78	TRANSISTOR 2SC403SP-51	
				Q801	8-729-119-78	TRANSISTOR 2SC403SP-51	
C828	1-124-903-11	ELECT	1uF 20% 50V	Q901	8-729-900-65	TRANSISTOR DTA144ES	
C829	1-124-902-00	ELECT	0.47uF 20% 50V	Q902	8-729-900-89	TRANSISTOR DTC144ES	
C830	1-124-907-11	ELECT	10uF 20% 50V	Q903	8-729-900-89	TRANSISTOR DTC144ES	
C831	1-161-377-00	CERAMIC	0.0047uF 20% 16V				
C832	1-161-375-00	CERAMIC	0.0022uF 20% 50V	Q904	8-729-900-65	TRANSISTOR DTA144ES	
				Q905	8-729-119-78	TRANSISTOR 2SC403SP-51	
C833	1-124-902-00	ELECT	0.47uF 20% 50V	Q906	8-729-116-56	TRANSISTOR 2SB1068-L	
C841	1-124-903-11	ELECT	1uF 20% 50V	Q907	8-729-116-56	TRANSISTOR 2SB1068-L	
C842	1-124-907-11	ELECT	10uF 20% 50V	Q908	8-729-900-65	TRANSISTOR DTA144ES	
C901	1-124-443-00	ELECT	100uF 20% 10V				
C902	1-124-471-00	ELECT	1000uF 20% 6.3V	Q909	8-729-900-89	TRANSISTOR DTC144ES	
				Q910	8-729-900-65	TRANSISTOR DTA144ES	
C903	1-124-443-00	ELECT	100uF 20% 10V			< RESISTOR >	
C910	1-124-907-11	ELECT	10uF 20% 50V	R720	1-215-451-00	METAL 18K 1% 1/6W	
C911	1-124-907-11	ELECT	10uF 20% 50V	R721	1-249-430-11	CARBON 12K 5% 1/4W	
C912	1-124-120-11	ELECT	220uF 20% 25V	R722	1-249-431-11	CARBON 15K 5% 1/4W	
C914	1-124-584-00	ELECT	100uF 20% 10V	R723	1-249-425-11	CARBON 4.7K 5% 1/4W F	
				R724	1-249-428-11	CARBON 8.2K 5% 1/4W F	
C916	1-124-443-00	ELECT	100uF 20% 10V				
C917	1-124-443-00	ELECT	100uF 20% 10V	R725	1-249-429-11	CARBON 10K 5% 1/4W	
C918	1-124-443-00	ELECT	100uF 20% 10V	R727	1-249-429-11	CARBON 10K 5% 1/4W	
C956	1-162-290-31	CERAMIC	470PF 10% 50V	R730	1-249-429-11	CARBON 10K 5% 1/4W	
C957	1-162-290-31	CERAMIC	470PF 10% 50V	R731	1-249-425-11	CARBON 4.7K 5% 1/4W F	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R736	1-249-429-11	CARBON	10K	5%	1/4W	R937	1-249-429-11	CARBON	10K	5%	1/4W
R737	1-249-429-11	CARBON	10K	5%	1/4W	R938	1-249-429-11	CARBON	10K	5%	1/4W
R738	1-249-429-11	CARBON	10K	5%	1/4W	R939	1-249-429-11	CARBON	10K	5%	1/4W
R741	1-249-421-11	CARBON	2. 2K	5%	1/4W F	R940	1-249-429-11	CARBON	10K	5%	1/4W
R742	1-249-428-11	CARBON	8. 2K	5%	1/4W F	R941	1-249-429-11	CARBON	10K	5%	1/4W
R743	1-247-840-00	CARBON	2. 4K	5%	1/4W	R942	1-249-441-11	CARBON	100K	5%	1/4W
R744	1-249-433-11	CARBON	22K	5%	1/4W	R943	1-249-441-11	CARBON	100K	5%	1/4W
R745	1-249-417-11	CARBON	1K	5%	1/4W F	R958	1-247-807-31	CARBON	100	5%	1/4W
R821	1-249-430-11	CARBON	12K	5%	1/4W	R959	1-249-381-11	CARBON	1	5%	1/4W F
R822	1-249-431-11	CARBON	15K	5%	1/4W	R960	1-249-381-11	CARBON	1	5%	1/4W F
R823	1-249-425-11	CARBON	4. 7K	5%	1/4W F	R968	1-247-807-31	CARBON	100	5%	1/4W
R824	1-249-428-11	CARBON	8. 2K	5%	1/4W F	R969	1-249-381-11	CARBON	1	5%	1/4W F
R825	1-247-882-11	CARBON	130K	5%	1/4W	R970	1-249-381-11	CARBON	1	5%	1/4W F
R826	1-247-866-11	CARBON	30K	5%	1/4W	R971	1-249-429-11	CARBON	10K	5%	1/4W
R829	1-249-429-11	CARBON	10K	5%	1/4W	R972	1-249-425-11	CARBON	4. 7K	5%	1/4W F
R830	1-249-432-11	CARBON	18K	5%	1/4W	R973	1-249-434-11	CARBON	27K	5%	1/4W
R831	1-247-885-00	CARBON	180K	5%	1/4W	R974	1-249-429-11	CARBON	10K	5%	1/4W
R841	1-249-421-11	CARBON	2. 2K	5%	1/4W F	R976	1-249-425-11	CARBON	4. 7K	5%	1/4W F
R842	1-249-428-11	CARBON	8. 2K	5%	1/4W F	R977	1-249-434-11	CARBON	27K	5%	1/4W
R843	1-247-840-00	CARBON	2. 4K	5%	1/4W	< VARIABLE RESISTOR >					
R844	1-249-433-11	CARBON	22K	5%	1/4W	RV701	1-230-496-11	RES, ADJ, CARBON 10K			
R845	1-249-417-11	CARBON	1K	5%	1/4W F	RV801	1-230-496-11	RES, ADJ, CARBON 10K			
R901	1-247-807-31	CARBON	100	5%	1/4W	< VIBRATOR >					
R902	1-249-389-11	CARBON	4. 7	5%	1/4W F	X901	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			
R907	1-249-429-11	CARBON	10K	5%	1/4W	*****					
R908	1-247-903-00	CARBON	1M	5%	1/4W	* A-2006-623-A MD-A BOARD, COMPLETE (RA12AL)					
R909	1-247-895-00	CARBON	470K	5%	1/4W	*****					
R910	1-247-895-00	CARBON	470K	5%	1/4W	< CAPACITOR >					
R911	1-249-410-11	CARBON	270	5%	1/4W F	C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
R912	1-249-410-11	CARBON	270	5%	1/4W F	C12	1-136-157-00	FILM	0. 022uF	5%	50V
R914	1-249-411-11	CARBON	330	5%	1/4W	C13	1-124-234-00	ELECT	22uF	20%	16V
R915	1-249-411-11	CARBON	330	5%	1/4W	C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
R917	1-249-411-11	CARBON	330	5%	1/4W	C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
R918	1-249-417-11	CARBON	1K	5%	1/4W F	C22	1-136-157-00	FILM	0. 022uF	5%	50V
R919	1-249-429-11	CARBON	10K	5%	1/4W	C23	1-124-234-00	ELECT	22uF	20%	16V
R920	1-249-429-11	CARBON	10K	5%	1/4W	C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
R921	1-249-421-11	CARBON	2. 2K	5%	1/4W F	C31	1-124-234-00	ELECT	22uF	20%	16V
R922	1-249-421-11	CARBON	2. 2K	5%	1/4W F	C32	1-124-234-00	ELECT	22uF	20%	16V
R923	1-249-429-11	CARBON	10K	5%	1/4W	C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
R926	1-249-429-11	CARBON	10K	5%	1/4W	< CONNECTOR >					
R927	1-249-425-11	CARBON	4. 7K	5%	1/4W F	* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD			
R928	1-249-429-11	CARBON	10K	5%	1/4W	* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P			
R929	1-249-415-11	CARBON	680	5%	1/4W F	* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P			
R930	1-249-414-11	CARBON	560	5%	1/4W F	* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
R931	1-249-415-11	CARBON	680	5%	1/4W F						
R932	1-249-429-11	CARBON	10K	5%	1/4W						
R933	1-249-415-11	CARBON	680	5%	1/4W F						
R934	1-249-429-11	CARBON	10K	5%	1/4W						
R935	1-249-415-11	CARBON	680	5%	1/4W F						
R936	1-249-429-11	CARBON	10K	5%	1/4W						

MD-A**MD-B**

Ref.No.	Part No.	Description	Remark
< IC >			
IC31A	8-759-106-02	IC UPC4570G2	
< JUMPER RESISTOR >			
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW51	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW52	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW53	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW54	1-216-296-91	METAL GLAZE 0 5% 1/8W	
< TRANSISTOR >			
Q71A	8-729-216-22	TRANSISTOR 2SA1162-G	
< RESISTOR >			
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R12	1-216-025-00	METAL CHIP 100 5% 1/10W	
R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R73	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
R74	1-216-089-91	METAL GLAZE 47K 5% 1/10W	
< VARIABLE RESISTOR >			
RV11A	1-241-761-11	RES, ADJ, CARBON 1K	
RV21A	1-241-761-11	RES, ADJ, CARBON 1K	
RV71A	1-241-630-11	RES, ADJ, CARBON 10K	
RV72A	1-241-630-11	RES, ADJ, CARBON 10K	

*	A-2007-134-A	MD-B BOARD, COMPLETE (RB53A)	

< CAPACITOR >			
C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C12	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C13	1-136-153-00	FILM 0.01uF 5% 50V	
C14	1-126-177-11	ELECT 100uF 20% 10V	
C15	1-124-234-00	ELECT 22uF 20% 16V	
C16	1-136-273-91	FILM 75PF 5% 630V	
C17	1-164-080-11	CERAMIC 390PF 10% 50V	
C18	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C21	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C22	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	

Ref.No.	Part No.	Description	Remark
C23	1-136-153-00	FILM 0.01uF 5% 50V	
C24	1-126-177-11	ELECT 100uF 20% 10V	
C25	1-124-234-00	ELECT 22uF 20% 16V	
C26	1-136-273-91	FILM 75PF 5% 630V	
C27	1-164-080-11	CERAMIC 390PF 10% 50V	
C28	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C31	1-124-234-00	ELECT 22uF 20% 16V	
C32	1-124-234-00	ELECT 22uF 20% 16V	
C33	1-124-234-00	ELECT 22uF 20% 16V	
C51	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C52	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V	
C53	1-163-022-00	CERAMIC CHIP 0.012uF 10% 50V	
C54	1-136-559-11	FILM 0.0047uF 5% 630V	
C56	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C57	1-164-346-11	CERAMIC CHIP 1uF 16V	
C58	1-163-024-00	CERAMIC CHIP 0.018uF 10% 50V	
C72	1-124-499-11	ELECT, NONPOLAR 1uF 20% 50V	
< CONNECTOR >			
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD	
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P	
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
< IC >			
IC31B	8-759-249-21	IC uPC1330GR	
IC32	8-759-106-02	IC UPC4570G2	
< JUMPER RESISTOR >			
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW11	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW12	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW13	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW14	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW15	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW16	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW17	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW18	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW19	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW20	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW21	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW22	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW23	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW24	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW25	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW26	1-216-296-91	METAL GLAZE 0 5% 1/8W	
JW27	1-216-296-91	METAL GLAZE 0 5% 1/8W	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< COIL >				*****			
L11	1-410-780-11	INDUCTOR 27mH		*	A-4369-169-A	PANEL BOARD, COMPLETE (AEP)	
L21	1-410-780-11	INDUCTOR 27mH				*****	
< TRANSISTOR >				*	A-4369-303-A	PANEL BOARD, COMPLETE (IT)	
Q51	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2				*****	
Q52	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2		*	A-4369-899-A	PANEL BOARD, COMPLETE (G)	
Q53	8-729-111-29	TRANSISTOR 2SD1616A-K				*****	
Q71B	8-729-216-22	TRANSISTOR 2SA1162-G		< CAPACITOR >			
< RESISTOR >				C601	1-124-442-00	ELECT 330uF 20% 6.3V	
R11	1-216-099-00	METAL CHIP 120K 5% 1/10W		C602	1-124-442-00	ELECT 330uF 20% 6.3V	
R12	1-216-033-00	METAL CHIP 220 5% 1/10W		C603	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R13	1-216-081-00	METAL CHIP 22K 5% 1/10W		C604	1-136-169-00	FILM 0.22uF 5% 50V	
R14	1-216-075-00	METAL CHIP 12K 5% 1/10W		C605	1-164-159-11	CERAMIC 0.1uF 50V	
R15	1-216-107-00	METAL CHIP 270K 5% 1/10W		C607	1-102-949-00	CERAMIC 12PF 5% 50V	
R16	1-249-430-11	CARBON 12K 5% 1/4W		C608	1-102-945-00	CERAMIC 8.0PF +-0.5PF 50V	
R21	1-216-099-00	METAL CHIP 120K 5% 1/10W		C609	1-164-159-11	CERAMIC 0.1uF 50V	
R22	1-216-033-00	METAL CHIP 220 5% 1/10W		C610	1-161-379-00	CERAMIC 0.01uF 20% 25V	
R23	1-216-081-00	METAL CHIP 22K 5% 1/10W		C611	1-124-261-00	ELECT 10uF 20% 50V	
R24	1-216-075-00	METAL CHIP 12K 5% 1/10W		C612	1-164-159-11	CERAMIC 0.1uF 50V	
R25	1-216-107-00	METAL CHIP 270K 5% 1/10W		C613	1-124-903-11	ELECT 1uF 20% 50V	
R26	1-249-430-11	CARBON 12K 5% 1/4W		C614	1-124-903-11	ELECT 1uF 20% 50V	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W		C615	1-164-159-11	CERAMIC 0.1uF 50V	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W		C1101	1-124-589-11	ELECT 47uF 20% 16V	
R33	1-216-073-00	METAL CHIP 10K 5% 1/10W		C1102	1-162-219-31	CERAMIC 68PF 5% 50V	
R41	1-249-393-11	CARBON 10 5% 1/4W F		C1103	1-162-282-31	CERAMIC 100PF 10% 50V	
R42	1-249-393-11	CARBON 10 5% 1/4W F		C1104	1-126-157-11	ELECT 10uF 20% 16V	
R51	1-216-075-00	METAL CHIP 12K 5% 1/10W		C1106	1-124-252-00	ELECT 0.33uF 20% 50V	
R52	1-216-075-00	METAL CHIP 12K 5% 1/10W		C1107	1-124-463-00	ELECT 0.1uF 20% 50V	
R53	1-216-073-00	METAL CHIP 10K 5% 1/10W		C1108	1-126-301-11	ELECT 1uF 20% 50V	
R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W		C1109	1-126-301-11	ELECT 1uF 20% 50V	
R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W		C1151	1-124-589-11	ELECT 47uF 20% 16V	
R56	1-216-298-00	METAL CHIP 2.2 5% 1/10W		C1152	1-162-219-31	CERAMIC 68PF 5% 50V	
R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W		C1153	1-162-282-31	CERAMIC 100PF 10% 50V	
R72	1-216-081-00	METAL CHIP 22K 5% 1/10W		C1154	1-126-157-11	ELECT 10uF 20% 16V	
R73	1-216-089-91	METAL GLAZE 47K 5% 1/10W		C1156	1-124-252-00	ELECT 0.33uF 20% 50V	
R74	1-216-089-91	METAL GLAZE 47K 5% 1/10W		C1157	1-124-463-00	ELECT 0.1uF 20% 50V	
< VARIABLE RESISTOR >				C1158	1-126-301-11	ELECT 1uF 20% 50V	
RV11B	1-241-761-11	RES, ADJ, CARBON 1K		C1159	1-126-301-11	ELECT 1uF 20% 50V	
RV12B	1-238-551-11	RES, ADJ, CARBON 220K		C1501	1-164-159-11	CERAMIC 0.1uF 50V	
RV21	1-241-761-11	RES, ADJ, CARBON 1K		C1502	1-164-159-11	CERAMIC 0.1uF 50V	
RV22	1-238-551-11	RES, ADJ, CARBON 220K		C1503	1-164-159-11	CERAMIC 0.1uF 50V	
RV71B	1-241-630-11	RES, ADJ, CARBON 10K		C1504	1-126-301-11	ELECT 1uF 20% 50V	
RV72B	1-241-630-11	RES, ADJ, CARBON 10K		C1505	1-126-301-11	ELECT 1uF 20% 50V	
< TRANSFORMER >				C1511	1-164-159-11	CERAMIC 0.1uF 50V	
T51	1-406-419-11	COIL, BIAS OSCILLATION		C1512	1-164-159-11	CERAMIC 0.1uF 50V	
				C1513	1-126-157-11	ELECT 10uF 20% 16V	
				C1514	1-126-177-11	ELECT 100uF 20% 10V	
				C1515	1-164-159-11	CERAMIC 0.1uF 50V	

PANEL

Ref. No.	Part No.	Description	Remark
C1516	1-164-159-11	CERAMIC 0.1uF	50V
C1517	1-162-294-31	CERAMIC 0.001uF 10%	50V
C1531	1-126-157-11	ELECT 10uF 20%	16V
C1532	1-164-159-11	CERAMIC 0.1uF	50V
C1533	1-162-306-11	CERAMIC 0.01uF 20%	16V
C1534	1-164-159-11	CERAMIC 0.1uF	50V
C1535	1-162-306-11	CERAMIC 0.01uF 20%	16V
C1536	1-164-159-11	CERAMIC 0.1uF	50V
C1537	1-162-306-11	CERAMIC 0.01uF 20%	16V
C1538	1-104-905-11	CAP, DOUBLE LAYERS 0.22F	5.5V
C1541	1-126-177-11	ELECT 100uF 20%	10V
C1551	1-126-301-11	ELECT 1uF 20%	50V
C1552	1-126-157-11	ELECT 10uF 20%	16V
C1553	1-126-157-11	ELECT 10uF 20%	16V
< CONNECTOR >			
CN601	1-750-420-11	CONNECTOR, FFC/FPC 15P	
CN1501	1-750-430-11	CONNECTOR, FFC/FPC 25P	
< COMPOSITION CIRCUIT BLOCK >			
CP1501	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
CP1502	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
CP1503	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
CP1504	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
< DIODE >			
D601	8-719-200-82	DIODE 11ES2	
D602	8-719-987-63	DIODE 1N4148M	
D603	8-719-987-63	DIODE 1N4148M	
D604	8-719-987-63	DIODE 1N4148M	
D1511	8-719-987-63	DIODE 1N4148M	
D1512	8-719-987-63	DIODE 1N4148M	
D1513	8-719-987-63	DIODE 1N4148M	
D1514	8-719-987-63	DIODE 1N4148M	
D1522	8-719-987-63	DIODE 1N4148M	
D1523	8-719-987-63	DIODE 1N4148M	
D1531	8-719-200-82	DIODE 11ES2	
D1532	8-719-200-82	DIODE 11ES2	
D1533	8-719-987-63	DIODE 1N4148M	
D1534	8-719-987-63	DIODE 1N4148M	
D1535	8-719-987-63	DIODE 1N4148M	
D1541	8-719-987-63	DIODE 1N4148M	
D1551	8-719-200-82	DIODE 11ES2	
D1552	8-719-200-82	DIODE 11ES2	
D1553	8-719-987-63	DIODE 1N4148M	
D1554	8-719-046-46	DIODE SEL5221S-TH8C (VIDEO)	
D1555	8-719-046-46	DIODE SEL5221S-TH8C (TAPE)	
D1556	8-719-046-46	DIODE SEL5221S-TH8C (CD)	
D1557	8-719-046-46	DIODE SEL5221S-TH8C (TUNER)	
D1558	8-719-046-46	DIODE SEL5221S-TH8C (PHONO)	
D1559	8-719-046-46	DIODE SEL5221S-TH8C (HALL 1)	

Ref. No.	Part No.	Description	Remark
D1560	8-719-046-46	DIODE SEL5221S-TH8C (DANCE 2)	
D1561	8-719-046-46	DIODE SEL5221S-TH8C (VOCAL 3)	
D1562	8-719-046-46	DIODE SEL5221S-TH8C (POPS 4)	
D1563	8-719-046-46	DIODE SEL5221S-TH8C (BGM 5)	
D1564	8-719-046-46	DIODE SEL5221S-TH8C (EQUALIZER)	
D1565	8-719-046-46	DIODE SEL5221S-TH8C (MEMORY)	
D1566	8-719-046-46	DIODE SEL5221S-TH8C (VOLUME)	
D1567	8-719-046-46	DIODE SEL5221S-TH8C (P. FILE)	
D1581	8-719-987-63	DIODE 1N4148M	
D1582	8-719-987-63	DIODE 1N4148M	
D1583	8-719-987-63	DIODE 1N4148M	
D1584	8-719-987-63	DIODE 1N4148M	
D1585	8-719-987-63	DIODE 1N4148M	
D1586	8-719-987-63	DIODE 1N4148M	
D1587	8-719-987-63	DIODE 1N4148M	
D1589	8-719-987-63	DIODE 1N4148M	
< FLUORESCENT INDICATOR >			
FL601	1-517-265-11	INDICATOR TUBE, FLUORESCENT	
FL1501	1-517-266-21	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC601	8-759-519-16	IC uPD78043GF-079-3B9	
IC602	8-749-920-83	IC GP1U52XB	
IC1101	8-759-634-51	IC M5218AP	
IC1501	8-759-253-53	IC uPD78042GF056-3B9	
IC1502	8-759-991-11	IC XR1091DCP	
IC1503	8-759-635-63	IC M51943BSL	
IC1505	8-759-917-18	IC SN74HCU04AN	
IC1506	8-759-916-46	IC SN74HC139AN	
IC1507	8-759-917-18	IC SN74HCU04AN	
< COIL >			
L601	1-410-521-11	INDUCTOR 100uH	
L1511	1-410-513-11	INDUCTOR 22uH	
L1512	1-410-513-11	INDUCTOR 22uH	
L1531	1-410-521-11	INDUCTOR 100uH	
< TRANSISTOR >			
Q601	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q602	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q1102	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q1103	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1152	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q1153	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1521	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q1531	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q1545	8-729-900-36	TRANSISTOR DTC124ES	
Q1546	8-729-900-63	TRANSISTOR DTA124ES	
Q1551	8-729-119-76	TRANSISTOR 2SA1175-HFE	

PANEL

Ref.No.	Part No.	Description	Remark				Ref.No.	Part No.	Description	Remark			
< RESISTOR >							R656	1-249-410-11	CARBON	270	5%	1/4W	F
R602	1-249-417-11	CARBON	1K	5%	1/4W	F	R657	1-249-411-11	CARBON	330	5%	1/4W	
R603	1-249-417-11	CARBON	1K	5%	1/4W	F	R658	1-249-413-11	CARBON	470	5%	1/4W	F
R604	1-249-417-11	CARBON	1K	5%	1/4W	F	R659	1-249-414-11	CARBON	560	5%	1/4W	F
R605	1-249-417-11	CARBON	1K	5%	1/4W	F	R660	1-249-416-11	CARBON	820	5%	1/4W	F
R606	1-249-429-11	CARBON	10K	5%	1/4W		R661	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R607	1-249-423-11	CARBON	3.3K	5%	1/4W	F	R662	1-247-807-31	CARBON	100	5%	1/4W	
R608	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R663	1-249-406-11	CARBON	120	5%	1/4W	F
R609	1-249-429-11	CARBON	10K	5%	1/4W		R664	1-249-406-11	CARBON	120	5%	1/4W	F
R610	1-249-417-11	CARBON	1K	5%	1/4W	F	R665	1-247-811-31	CARBON	150	5%	1/4W	
R611	1-249-417-11	CARBON	1K	5%	1/4W	F	R666	1-249-408-11	CARBON	180	5%	1/4W	F
R612	1-249-417-11	CARBON	1K	5%	1/4W	F	R667	1-249-409-11	CARBON	220	5%	1/4W	F
R613	1-249-417-11	CARBON	1K	5%	1/4W	F	R668	1-249-410-11	CARBON	270	5%	1/4W	F
R614	1-249-417-11	CARBON	1K	5%	1/4W	F	R669	1-249-411-11	CARBON	330	5%	1/4W	
R615	1-249-413-11	CARBON	470	5%	1/4W	F	R670	1-249-413-11	CARBON	470	5%	1/4W	F
R619	1-249-437-11	CARBON	47K	5%	1/4W		R671	1-249-414-11	CARBON	560	5%	1/4W	F
R620	1-249-433-11	CARBON	22K	5%	1/4W		R672	1-249-416-11	CARBON	820	5%	1/4W	F
R621	1-249-433-11	CARBON	22K	5%	1/4W		R673	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R622	1-249-417-11	CARBON	1K	5%	1/4W	F	R674	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R623	1-249-409-11	CARBON	220	5%	1/4W	F	R675	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R624	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R676	1-249-441-11	CARBON	100K	5%	1/4W	(IT)
R625	1-249-441-11	CARBON	100K	5%	1/4W	(AEP, G)	R677	1-249-441-11	CARBON	100K	5%	1/4W	(AEP)
R626	1-249-441-11	CARBON	100K	5%	1/4W	(IT, G)	R678	1-249-417-11	CARBON	1K	5%	1/4W	F
R627	1-249-441-11	CARBON	100K	5%	1/4W		R679	1-249-417-11	CARBON	1K	5%	1/4W	F
R628	1-249-441-11	CARBON	100K	5%	1/4W		R680	1-249-417-11	CARBON	1K	5%	1/4W	F
R629	1-249-441-11	CARBON	100K	5%	1/4W	(G)	R681	1-249-417-11	CARBON	1K	5%	1/4W	F
R630	1-249-441-11	CARBON	100K	5%	1/4W	(IT, G)	R682	1-249-429-11	CARBON	10K	5%	1/4W	
R631	1-249-441-11	CARBON	100K	5%	1/4W		R683	1-249-417-11	CARBON	1K	5%	1/4W	F
R632	1-249-441-11	CARBON	100K	5%	1/4W		R1101	1-249-417-11	CARBON	1K	5%	1/4W	F
R633	1-249-441-11	CARBON	100K	5%	1/4W		R1102	1-247-903-00	CARBON	1M	5%	1/4W	
R634	1-249-441-11	CARBON	100K	5%	1/4W		R1103	1-249-429-11	CARBON	10K	5%	1/4W	
R635	1-249-441-11	CARBON	100K	5%	1/4W		R1104	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R636	1-249-441-11	CARBON	100K	5%	1/4W		R1106	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R637	1-249-441-11	CARBON	100K	5%	1/4W		R1107	1-249-434-11	CARBON	27K	5%	1/4W	
R638	1-249-441-11	CARBON	100K	5%	1/4W		R1108	1-247-881-00	CARBON	120K	5%	1/4W	
R640	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R1109	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R641	1-247-807-31	CARBON	100	5%	1/4W		R1110	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R642	1-249-406-11	CARBON	120	5%	1/4W	F	R1111	1-249-435-11	CARBON	33K	5%	1/4W	
R643	1-249-406-11	CARBON	120	5%	1/4W	F	R1112	1-249-426-11	CARBON	5.6K	5%	1/4W	
R644	1-247-811-31	CARBON	150	5%	1/4W		R1113	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R645	1-249-408-11	CARBON	180	5%	1/4W	F	R1114	1-249-412-11	CARBON	390	5%	1/4W	F
R646	1-249-409-11	CARBON	220	5%	1/4W	F	R1151	1-249-417-11	CARBON	1K	5%	1/4W	F
R647	1-249-410-11	CARBON	270	5%	1/4W	F	R1152	1-247-903-00	CARBON	1M	5%	1/4W	
R649	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R1153	1-249-429-11	CARBON	10K	5%	1/4W	
R650	1-247-807-31	CARBON	100	5%	1/4W		R1154	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R651	1-249-406-11	CARBON	120	5%	1/4W	F	R1156	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R652	1-249-406-11	CARBON	120	5%	1/4W	F	R1157	1-249-434-11	CARBON	27K	5%	1/4W	
R653	1-247-811-31	CARBON	150	5%	1/4W		R1158	1-247-881-00	CARBON	120K	5%	1/4W	
R654	1-249-408-11	CARBON	180	5%	1/4W	F	R1159	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R655	1-249-409-11	CARBON	220	5%	1/4W	F	R1160	1-249-425-11	CARBON	4.7K	5%	1/4W	F

PANEL

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
R1161	1-249-435-11	CARBON	33K 5% 1/4W			< SWITCH >	
R1162	1-249-426-11	CARBON	5. 6K 5% 1/4W	S601	1-554-303-21	SWITCH, TACTILE (POWER)	
R1163	1-249-421-11	CARBON	2. 2K 5% 1/4W F	S602	1-554-303-21	SWITCH, TACTILE (SLEEP)	
R1164	1-249-412-11	CARBON	390 5% 1/4W F	S603	1-554-303-21	SWITCH, TACTILE (1)	
R1181	1-249-431-11	CARBON	15K 5% 1/4W	S604	1-554-303-21	SWITCH, TACTILE (2)	
R1501	1-249-384-11	CARBON	1. 8 5% 1/6W F	S605	1-554-303-21	SWITCH, TACTILE (3)	
R1502	1-249-384-11	CARBON	1. 8 5% 1/6W F	S606	1-554-303-21	SWITCH, TACTILE (4)	
R1511	1-249-419-11	CARBON	1. 5K 5% 1/4W F	S607	1-554-303-21	SWITCH, TACTILE (5)	
R1512	1-249-393-11	CARBON	10 5% 1/4W F	S608	1-554-303-21	SWITCH, TACTILE (6)	
R1521	1-249-429-11	CARBON	10K 5% 1/4W	S610	1-554-303-21	SWITCH, TACTILE (7)	
R1522	1-249-429-11	CARBON	10K 5% 1/4W	S611	1-554-303-21	SWITCH, TACTILE (8)	
R1523	1-249-425-11	CARBON	4. 7K 5% 1/4W F	S616	1-554-303-21	SWITCH, TACTILE (BAND)	
R1531	1-249-417-11	CARBON	1K 5% 1/4W F	S617	1-554-303-21	SWITCH, TACTILE (SHIFT)	
R1532	1-249-423-11	CARBON	3. 3K 5% 1/4W F	S618	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
R1533	1-249-429-11	CARBON	10K 5% 1/4W	S619	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R1545	1-249-433-11	CARBON	22K 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
R1546	1-249-433-11	CARBON	22K 5% 1/4W	S621	1-554-303-21	SWITCH, TACTILE (-)	
R1551	1-249-429-11	CARBON	10K 5% 1/4W	S622	1-554-303-21	SWITCH, TACTILE (9)	
R1552	1-249-425-11	CARBON	4. 7K 5% 1/4W F	S623	1-554-303-21	SWITCH, TACTILE (0)	
R1554	1-249-415-11	CARBON	680 5% 1/4W F	S624	1-554-303-21	SWITCH, TACTILE (NEXT)	
R1555	1-249-414-11	CARBON	560 5% 1/4W F	S627	1-554-303-21	SWITCH, TACTILE (PTY)	
R1556	1-249-415-11	CARBON	680 5% 1/4W F	S628	1-554-303-21	SWITCH, TACTILE (EON)	
R1557	1-249-415-11	CARBON	680 5% 1/4W F	S629	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
R1558	1-249-415-11	CARBON	680 5% 1/4W F	S630	1-554-303-21	SWITCH, TACTILE (REC)	
R1559	1-249-415-11	CARBON	680 5% 1/4W F	S631	1-554-303-21	SWITCH, TACTILE (DAILY)	
R1563	1-249-429-11	CARBON	10K 5% 1/4W	S632	1-554-303-21	SWITCH, TACTILE (ONCE)	
R1564	1-249-429-11	CARBON	10K 5% 1/4W	S633	1-554-303-21	SWITCH, TACTILE (TIMER)	
R1565	1-249-429-11	CARBON	10K 5% 1/4W	S634	1-554-303-21	SWITCH, TACTILE (CLOCK)	
R1571	1-249-429-11	CARBON	10K 5% 1/4W	S636	1-554-303-21	SWITCH, TACTILE (+)	
R1572	1-249-429-11	CARBON	10K 5% 1/4W	S1551	1-554-303-21	SWITCH, TACTILE (PHONO)	
R1573	1-249-429-11	CARBON	10K 5% 1/4W	S1552	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, DOWN)	
R1581	1-247-883-00	CARBON	150K 5% 1/4W	S1553	1-554-303-21	SWITCH, TACTILE (TUNER)	
R1582	1-249-429-11	CARBON	10K 5% 1/4W	S1554	1-554-303-21	SWITCH, TACTILE (CD)	
R1583	1-247-895-00	CARBON	470K 5% 1/4W	S1555	1-554-303-21	SWITCH, TACTILE (TAPE)	
R1591	1-247-807-31	CARBON	100 5% 1/4W	S1556	1-554-303-21	SWITCH, TACTILE (VIDEO)	
R1592	1-247-807-31	CARBON	100 5% 1/4W	S1557	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, RIGHT)	
R1593	1-247-807-31	CARBON	100 5% 1/4W	S1558	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, LEFT)	
R1594	1-247-807-31	CARBON	100 5% 1/4W	S1559	1-554-303-21	SWITCH, TACTILE (P. FILE)	
R1595	1-249-413-11	CARBON	470 5% 1/4W F	S1560	1-554-303-21	SWITCH, TACTILE (HALL 1)	
R1596	1-249-413-11	CARBON	470 5% 1/4W F	S1561	1-554-303-21	SWITCH, TACTILE (DANCE 2)	
R1597	1-249-413-11	CARBON	470 5% 1/4W F	S1562	1-554-303-21	SWITCH, TACTILE (EQ FLAT)	
R1598	1-249-393-11	CARBON	10 5% 1/4W F	S1563	1-554-303-21	SWITCH, TACTILE (EQUALIZER)	
		< VARIABLE RESISTOR >		S1565	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
RV1181	1-223-251-11	RES, VAR, CARBON 100K/100K (SURROUND)		S1566	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL, UP)	
RV1182	1-223-251-11	RES, VAR, CARBON 100K/100K (DBS LEVEL)		S1567	1-554-303-21	SWITCH, TACTILE (MEMORY)	
RV1183	1-223-251-11	RES, VAR, CARBON 100K/100K (DBS FREQUENCY (Hz))		S1568	1-554-303-21	SWITCH, TACTILE (VOCAL 3)	
RV1184	1-223-569-11	RES, VAR, CARBON 100K (BALANCE)		S1569	1-554-303-21	SWITCH, TACTILE (POPS 4)	
				S1570	1-554-303-21	SWITCH, TACTILE (BGM 5)	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
< VIBRATOR >				C1511	1-164-159-11	CERAMIC 0.1uF	50V
X601	1-760-096-21	VIBRATOR, CRYSTAL (4.19MHz)		C1512	1-164-159-11	CERAMIC 0.1uF	50V
X1501	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)		C1513	1-126-157-11	ELECT 10uF 20%	16V
*****				C1514	1-126-177-11	ELECT 100uF 20%	10V
*	A-4369-156-A	PANEL BOARD, COMPLETE (UK)		C1515	1-164-159-11	CERAMIC 0.1uF	50V
		*****		C1516	1-164-159-11	CERAMIC 0.1uF	50V
*	A-4369-309-A	PANEL BOARD, COMPLETE (EE)		C1517	1-162-294-31	CERAMIC 0.001uF 10%	50V
		*****		C1531	1-126-157-11	ELECT 10uF 20%	16V
*	A-4369-903-A	PANEL BOARD, COMPLETE (CIS)		C1532	1-164-159-11	CERAMIC 0.1uF	50V
		*****		C1534	1-164-159-11	CERAMIC 0.1uF	50V
	4-942-301-01	HOLDER, FL TUBE		C1536	1-164-159-11	CERAMIC 0.1uF	50V
*	4-949-935-21	CUSHION (FL)		C1538	1-104-905-11	CAP, DOUBLE LAYERS 0.22F	5.5V
< CAPACITOR >				C1541	1-126-177-11	ELECT 100uF 20%	10V
C601	1-124-442-00	ELECT 330uF 20%	6.3V	C1551	1-126-301-11	ELECT 1uF 20%	50V
C602	1-161-379-00	CERAMIC 0.01uF 20%	25V	C1552	1-126-157-11	ELECT 10uF 20%	16V
C603	1-124-442-00	ELECT 330uF 20%	6.3V	C1553	1-126-157-11	ELECT 10uF 20%	16V
C605	1-124-916-11	ELECT 22uF 20%	63V	C1533	1-161-379-00	CERAMIC 0.01uF 20%	25V (UK)
C606	1-162-202-31	CERAMIC 13PF 5%	50V	C1533	1-162-306-11	CERAMIC 0.01uF 20%	16V
C607	1-162-202-31	CERAMIC 13PF 5%	50V				(EE, CIS)
C608	1-126-163-11	ELECT 4.7uF 20%	50V	C1535	1-161-379-00	CERAMIC 0.01uF 20%	25V (UK)
C609	1-161-379-00	CERAMIC 0.01uF 20%	25V	C1535	1-162-306-11	CERAMIC 0.01uF 20%	16V
C610	1-161-379-00	CERAMIC 0.01uF 20%	25V				(EE, CIS)
C613	1-124-903-11	ELECT 1uF 20%	50V	C1537	1-161-379-00	CERAMIC 0.01uF 20%	25V (UK)
C614	1-124-903-11	ELECT 1uF 20%	50V	C1537	1-162-306-11	CERAMIC 0.01uF 20%	16V
C615	1-124-442-00	ELECT 330uF 20%	6.3V				(EE, CIS)
C1101	1-124-589-11	ELECT 47uF 20%	16V	< CONNECTOR >			
C1102	1-162-219-31	CERAMIC 68PF 5%	50V	* CN601	1-750-416-11	CONNECTOR, FFC/FPC 11P	
C1103	1-162-282-31	CERAMIC 100PF 10%	50V	CN1501	1-750-430-11	CONNECTOR, FFC/FPC 25P	
C1104	1-126-157-11	ELECT 10uF 20%	16V	< COMPOSITION CIRCUIT BLOCK >			
C1106	1-124-252-00	ELECT 0.33uF 20%	50V	* CP601	1-233-216-11	COMPOSITION CIRCUIT BLOCK 220PF	
C1107	1-124-463-00	ELECT 0.1uF 20%	50V	CP602	1-239-584-11	COMPOSITION CIRCUIT BLOCK 220PF	
C1108	1-126-301-11	ELECT 1uF 20%	50V	CP1501	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
C1109	1-126-301-11	ELECT 1uF 20%	50V	CP1502	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
C1151	1-124-589-11	ELECT 47uF 20%	16V	CP1503	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
C1152	1-162-219-31	CERAMIC 68PF 5%	50V	CP1504	1-232-998-11	COMPOSITION CIRCUIT BLOCK 100K	
C1153	1-162-282-31	CERAMIC 100PF 10%	50V	< DIODE >			
C1154	1-126-157-11	ELECT 10uF 20%	16V	D600	8-719-987-63	DIODE 1N4148M	
C1156	1-124-252-00	ELECT 0.33uF 20%	50V	D601	8-719-987-63	DIODE 1N4148M	
C1157	1-124-463-00	ELECT 0.1uF 20%	50V	D602	8-719-200-82	DIODE 11ES2	
C1158	1-126-301-11	ELECT 1uF 20%	50V	D604	8-719-987-63	DIODE 1N4148M	
C1159	1-126-301-11	ELECT 1uF 20%	50V	D607	8-719-987-63	DIODE 1N4148M (EE, CIS)	
C1501	1-164-159-11	CERAMIC 0.1uF	50V	D608	8-719-987-63	DIODE 1N4148M (EE, CIS)	
C1502	1-164-159-11	CERAMIC 0.1uF	50V	D614	8-719-987-63	DIODE 1N4148M	
C1503	1-164-159-11	CERAMIC 0.1uF	50V	D615	8-719-987-63	DIODE 1N4148M	
C1504	1-126-301-11	ELECT 1uF 20%	50V	D616	8-719-987-63	DIODE 1N4148M	
C1505	1-126-301-11	ELECT 1uF 20%	50V	D617	8-719-987-63	DIODE 1N4148M	
				D618	8-719-987-63	DIODE 1N4148M	

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D619	8-719-987-63	DIODE	1N4148M	IC1503	8-759-635-63	IC	M51943BSL
D620	8-719-987-63	DIODE	1N4148M	IC1505	8-759-917-18	IC	SN74HCU04AN
D1511	8-719-987-63	DIODE	1N4148M	IC1506	8-759-916-46	IC	SN74HC139AN
D1512	8-719-987-63	DIODE	1N4148M	IC1507	8-759-917-18	IC	SN74HCU04AN
D1513	8-719-987-63	DIODE	1N4148M	< COIL >			
D1514	8-719-987-63	DIODE	1N4148M	L601	1-410-521-11	INDUCTOR	100uH
D1522	8-719-987-63	DIODE	1N4148M	L1511	1-410-513-11	INDUCTOR	22uH
D1523	8-719-987-63	DIODE	1N4148M	L1512	1-410-513-11	INDUCTOR	22uH
D1531	8-719-200-82	DIODE	11ES2	L1531	1-410-521-11	INDUCTOR	100uH
D1532	8-719-200-82	DIODE	11ES2	< TRANSISTOR >			
D1533	8-719-987-63	DIODE	1N4148M	Q602	8-729-119-78	TRANSISTOR	2SC403SP-51
D1534	8-719-987-63	DIODE	1N4148M	Q1102	8-729-119-78	TRANSISTOR	2SC403SP-51
D1535	8-719-987-63	DIODE	1N4148M	Q1103	8-729-141-26	TRANSISTOR	2SC3622A-LK
D1541	8-719-987-63	DIODE	1N4148M	Q1152	8-729-119-78	TRANSISTOR	2SC403SP-51
D1551	8-719-200-82	DIODE	11ES2	Q1153	8-729-141-26	TRANSISTOR	2SC3622A-LK
D1552	8-719-200-82	DIODE	11ES2	Q1521	8-729-119-78	TRANSISTOR	2SC403SP-51
D1553	8-719-987-63	DIODE	1N4148M	Q1531	8-729-119-78	TRANSISTOR	2SC403SP-51
D1554	8-719-046-46	DIODE	SEL5221S-TH8C (VIDEO)	Q1545	8-729-900-36	TRANSISTOR	DTC124ES
D1555	8-719-046-46	DIODE	SEL5221S-TH8C (TAPE)	Q1546	8-729-900-63	TRANSISTOR	DTA124ES
D1556	8-719-046-46	DIODE	SEL5221S-TH8C (CD)	Q1551	8-729-119-76	TRANSISTOR	2SA1175-HFE
D1557	8-719-046-46	DIODE	SEL5221S-TH8C (TUNER)	< RESISTOR >			
D1558	8-719-046-46	DIODE	SEL5221S-TH8C (PHONO)	R603	1-249-429-11	CARBON	10K 5% 1/4W
D1559	8-719-046-46	DIODE	SEL5221S-TH8C (HALL 1)	R604	1-249-425-11	CARBON	4.7K 5% 1/4W F
D1560	8-719-046-46	DIODE	SEL5221S-TH8C (DANCE 2)	R605	1-249-441-11	CARBON	100K 5% 1/4W
D1561	8-719-046-46	DIODE	SEL5221S-TH8C (VOCAL 3)	R606	1-249-417-11	CARBON	1K 5% 1/4W F
D1562	8-719-046-46	DIODE	SEL5221S-TH8C (POPS 4)	R607	1-249-409-11	CARBON	220 5% 1/4W F
D1563	8-719-046-46	DIODE	SEL5221S-TH8C (BGM 5)	R608	1-249-409-11	CARBON	220 5% 1/4W F
D1564	8-719-046-46	DIODE	SEL5221S-TH8C (EQUALIZER)	R609	1-249-409-11	CARBON	220 5% 1/4W F
D1565	8-719-046-46	DIODE	SEL5221S-TH8C (MEMORY)	R611	1-249-421-11	CARBON	2.2K 5% 1/4W F
D1566	8-719-046-46	DIODE	SEL5221S-TH8C (VOLUME)	R612	1-249-423-11	CARBON	3.3K 5% 1/4W F
D1567	8-719-046-46	DIODE	SEL5221S-TH8C (P. FILE)	R613	1-249-441-11	CARBON	100K 5% 1/4W
D1581	8-719-987-63	DIODE	1N4148M	R614	1-249-441-11	CARBON	100K 5% 1/4W
D1582	8-719-987-63	DIODE	1N4148M	R615	1-249-441-11	CARBON	100K 5% 1/4W
D1583	8-719-987-63	DIODE	1N4148M	R619	1-249-429-11	CARBON	10K 5% 1/4W
D1584	8-719-987-63	DIODE	1N4148M	R620	1-249-429-11	CARBON	10K 5% 1/4W
D1585	8-719-987-63	DIODE	1N4148M	R621	1-249-429-11	CARBON	10K 5% 1/4W
D1586	8-719-987-63	DIODE	1N4148M	R622	1-249-429-11	CARBON	10K 5% 1/4W
D1587	8-719-987-63	DIODE	1N4148M	R623	1-249-429-11	CARBON	10K 5% 1/4W
D1589	8-719-987-63	DIODE	1N4148M	R624	1-249-429-11	CARBON	10K 5% 1/4W
< FLUORESCENT INDICATOR >				R625	1-249-429-11	CARBON	10K 5% 1/4W
FL601	1-517-265-11	INDICATOR TUBE, FLUORESCENT		R626	1-249-429-11	CARBON	10K 5% 1/4W
FL1501	1-517-266-21	INDICATOR TUBE, FLUORESCENT		R627	1-249-425-11	CARBON	4.7K 5% 1/4W F
< IC >				R628	1-249-425-11	CARBON	4.7K 5% 1/4W F
IC601	8-759-248-05	IC	TMP47C1270AN-H227	R629	1-249-425-11	CARBON	4.7K 5% 1/4W F
IC602	8-749-920-83	IC	GP1U52XB	R630	1-249-425-11	CARBON	4.7K 5% 1/4W F
IC1101	8-759-634-51	IC	M5218AP	R631	1-249-425-11	CARBON	4.7K 5% 1/4W F
IC1501	8-759-253-53	IC	uPD78042GF056-3B9	R632	1-249-425-11	CARBON	4.7K 5% 1/4W F
IC1502	8-759-991-11	IC	XR1091DCP	R633	1-249-425-11	CARBON	4.7K 5% 1/4W F

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R634	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1564	1-249-429-11	CARBON	10K 5% 1/4W
R635	1-249-429-11	CARBON	10K 5% 1/4W	R1565	1-249-429-11	CARBON	10K 5% 1/4W
R1101	1-249-417-11	CARBON	1K 5% 1/4W F	R1571	1-249-429-11	CARBON	10K 5% 1/4W
R1102	1-247-903-00	CARBON	1M 5% 1/4W	R1572	1-249-429-11	CARBON	10K 5% 1/4W
R1103	1-249-429-11	CARBON	10K 5% 1/4W	R1573	1-249-429-11	CARBON	10K 5% 1/4W
R1104	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1581	1-247-883-00	CARBON	150K 5% 1/4W
R1106	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1582	1-249-429-11	CARBON	10K 5% 1/4W
R1107	1-249-434-11	CARBON	27K 5% 1/4W	R1583	1-247-895-00	CARBON	470K 5% 1/4W
R1108	1-247-881-00	CARBON	120K 5% 1/4W	R1591	1-247-807-31	CARBON	100 5% 1/4W
R1109	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1592	1-247-807-31	CARBON	100 5% 1/4W
R1110	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1593	1-247-807-31	CARBON	100 5% 1/4W
R1111	1-249-435-11	CARBON	33K 5% 1/4W	R1594	1-247-807-31	CARBON	100 5% 1/4W
R1112	1-249-426-11	CARBON	5.6K 5% 1/4W	R1595	1-249-413-11	CARBON	470 5% 1/4W F
R1113	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1596	1-249-413-11	CARBON	470 5% 1/4W F
R1114	1-249-412-11	CARBON	390 5% 1/4W F	R1597	1-249-413-11	CARBON	470 5% 1/4W F
R1151	1-249-417-11	CARBON	1K 5% 1/4W F	R1598	1-249-393-11	CARBON	10 5% 1/4W F
R1152	1-247-903-00	CARBON	1M 5% 1/4W	< VARIABLE RESISTOR >			
R1153	1-249-429-11	CARBON	10K 5% 1/4W	RV1181	1-223-251-11	RES, VAR, CARBON 100K/100K (SURROUND)	
R1154	1-249-421-11	CARBON	2.2K 5% 1/4W F	RV1182	1-223-251-11	RES, VAR, CARBON 100K/100K (DBS LEVEL)	
R1156	1-249-421-11	CARBON	2.2K 5% 1/4W F	RV1183	1-223-251-11	RES, VAR, CARBON 100K/100K (DBS FREQUENCY (Hz))	
R1157	1-249-434-11	CARBON	27K 5% 1/4W	RV1184	1-223-569-11	RES, VAR, CARBON 100K (BALANCE)	
R1158	1-247-881-00	CARBON	120K 5% 1/4W	< SWITCH >			
R1159	1-249-427-11	CARBON	6.8K 5% 1/4W F	S601	1-554-303-21	SWITCH, TACTILE (1)	
R1160	1-249-425-11	CARBON	4.7K 5% 1/4W F	S602	1-554-303-21	SWITCH, TACTILE (2)	
R1161	1-249-435-11	CARBON	33K 5% 1/4W	S603	1-554-303-21	SWITCH, TACTILE (3)	
R1162	1-249-426-11	CARBON	5.6K 5% 1/4W	S604	1-554-303-21	SWITCH, TACTILE (4)	
R1163	1-249-421-11	CARBON	2.2K 5% 1/4W F	S605	1-554-303-21	SWITCH, TACTILE (5)	
R1164	1-249-412-11	CARBON	390 5% 1/4W F	S606	1-554-303-21	SWITCH, TACTILE (6)	
R1181	1-249-431-11	CARBON	15K 5% 1/4W	S607	1-554-303-21	SWITCH, TACTILE (7)	
R1501	1-249-384-11	CARBON	1.8 5% 1/6W F	S608	1-554-303-21	SWITCH, TACTILE (8)	
R1502	1-249-384-11	CARBON	1.8 5% 1/6W F	S609	1-554-303-21	SWITCH, TACTILE (9)	
R1511	1-249-419-11	CARBON	1.5K 5% 1/4W F	S610	1-554-303-21	SWITCH, TACTILE (0)	
R1512	1-249-393-11	CARBON	10 5% 1/4W F	S611	1-554-303-21	SWITCH, TACTILE (+)	
R1521	1-249-429-11	CARBON	10K 5% 1/4W	S612	1-554-303-21	SWITCH, TACTILE (-)	
R1522	1-249-429-11	CARBON	10K 5% 1/4W	S613	1-554-303-21	SWITCH, TACTILE (SHIFT)	
R1523	1-249-425-11	CARBON	4.7K 5% 1/4W F	S614	1-554-303-21	SWITCH, TACTILE (BAND)	
R1531	1-249-417-11	CARBON	1K 5% 1/4W F	S615	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R1532	1-249-423-11	CARBON	3.3K 5% 1/4W F	S616	1-554-303-21	SWITCH, TACTILE (ONCE)	
R1533	1-249-429-11	CARBON	10K 5% 1/4W	S617	1-554-303-21	SWITCH, TACTILE (DAILY)	
R1545	1-249-433-11	CARBON	22K 5% 1/4W	S618	1-554-303-21	SWITCH, TACTILE (REC)	
R1546	1-249-433-11	CARBON	22K 5% 1/4W	S619	1-554-303-21	SWITCH, TACTILE (CLOCK)	
R1551	1-249-429-11	CARBON	10K 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (SLEEP)	
R1552	1-249-425-11	CARBON	4.7K 5% 1/4W F	S621	1-554-303-21	SWITCH, TACTILE (TIMER)	
R1554	1-249-415-11	CARBON	680 5% 1/4W F	S622	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
R1555	1-249-414-11	CARBON	560 5% 1/4W F	S623	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
R1556	1-249-415-11	CARBON	680 5% 1/4W F	S624	1-554-303-21	SWITCH, TACTILE (POWER)	
R1557	1-249-415-11	CARBON	680 5% 1/4W F	S625	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
R1558	1-249-415-11	CARBON	680 5% 1/4W F				
R1559	1-249-415-11	CARBON	680 5% 1/4W F				
R1563	1-249-429-11	CARBON	10K 5% 1/4W				

PANEL (B)

Ref.No.	Part No.	Description	Remark
S906	1-572-269-11	SWITCH, SLIDE (DOLBY NR)	
S907	1-572-268-11	SWITCH, SLIDE (DIRECTION MODE)	

*	1-650-781-11	PANEL (B) BOARD	

		< CONNECTOR >	
* CN952	1-568-856-11	SOCKET, CONNECTOR 13P	
		< DIODE >	
D991	8-719-046-46	DIODE SEL5221S-TH8C (REC ●)	
D992	8-719-046-38	DIODE SEL5821A-TH8C (PAUSE ▨)	
D994	8-719-046-42	DIODE SEL5421E-TH8C (▷)	
D995	8-719-046-42	DIODE SEL5421E-TH8C (◁)	
D996	8-719-046-46	DIODE SEL5221S-TH8C (CD SYNCHRO)	
D997	8-719-046-46	DIODE SEL5221S-TH8C (NORMAL)	
D998	8-719-046-46	DIODE SEL5221S-TH8C (HIGH)	
		< RESISTOR >	
R990	1-247-811-31	CARBON 150 5% 1/4W	
R991	1-249-409-11	CARBON 220 5% 1/4W	F
R992	1-249-411-11	CARBON 330 5% 1/4W	
R993	1-249-413-11	CARBON 470 5% 1/4W	F
R994	1-249-411-11	CARBON 330 5% 1/4W	
R995	1-249-413-11	CARBON 470 5% 1/4W	F
R996	1-249-415-11	CARBON 680 5% 1/4W	F
R997	1-249-417-11	CARBON 1K 5% 1/4W	F
R998	1-249-420-11	CARBON 1.8K 5% 1/4W	F
R999	1-249-424-11	CARBON 3.9K 5% 1/4W	F
		< SWITCH >	
S951	1-554-303-21	SWITCH, TACTILE (■)	
S952	1-554-303-21	SWITCH, TACTILE (PAUSE ▨)	
S953	1-554-303-21	SWITCH, TACTILE (▷)	
S954	1-554-303-21	SWITCH, TACTILE (◁)	
S955	1-554-303-21	SWITCH, TACTILE (REC MUTE ●)	
S956	1-554-303-21	SWITCH, TACTILE (AMS ◀▶)	
S957	1-554-303-21	SWITCH, TACTILE (AMS ▶▶)	
S958	1-554-303-21	SWITCH, TACTILE (REC ●)	
S959	1-554-303-21	SWITCH, TACTILE (HIGH)	
S960	1-554-303-21	SWITCH, TACTILE (NORMAL)	
S961	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4360-815-A	POLAR BOARD, COMPLETE (CIS) *****				< COIL >	
		< CAPACITOR >		L1701	1-409-497-11	COIL (FILTER)	
						< TRANSISTOR >	
C1701	1-162-294-31	CERAMIC 0.001uF 10% 50V		Q1701	8-729-900-61	TRANSISTOR DTA114ES	
C1702	1-104-294-11	POLYSTYRENE 470PF 5% 50V		Q1702	8-729-900-80	TRANSISTOR DTC114ES	
C1703	1-124-902-00	ELECT 0.47uF 20% 50V		Q1703	8-729-900-80	TRANSISTOR DTC114ES	
C1704	1-124-902-00	ELECT 0.47uF 20% 50V		Q1704	8-729-900-80	TRANSISTOR DTC114ES	
C1705	1-164-098-11	CERAMIC 0.047uF 12V		Q1705	8-729-900-61	TRANSISTOR DTA114ES	
						< RESISTOR >	
C1706	1-124-903-11	ELECT 1uF 20% 50V		R1701	1-249-432-11	CARBON 18K 5% 1/4W	
C1707	1-162-288-31	CERAMIC 330PF 10% 50V		R1702	1-249-435-11	CARBON 33K 5% 1/4W	
C1708	1-124-903-11	ELECT 1uF 20% 50V		R1703	1-249-427-11	CARBON 6.8K 5% 1/4W	F
C1709	1-124-903-11	ELECT 1uF 20% 50V		R1704	1-247-858-11	CARBON 13K 5% 1/4W	
C1710	1-130-471-00	MYLAR 0.001uF 5% 50V		R1705	1-249-417-11	CARBON 1K 5% 1/4W	F
C1711	1-130-471-00	MYLAR 0.001uF 5% 50V		R1706	1-249-417-11	CARBON 1K 5% 1/4W	F
C1712	1-130-736-11	FILM 0.01uF 5% 50V		R1707	1-249-441-11	CARBON 100K 5% 1/4W	
C1713	1-130-736-11	FILM 0.01uF 5% 50V		R1708	1-249-440-11	CARBON 82K 5% 1/4W	
C1714	1-124-903-11	ELECT 1uF 20% 50V		R1709	1-249-439-11	CARBON 68K 5% 1/4W	
C1715	1-124-903-11	ELECT 1uF 20% 50V		R1710	1-249-439-11	CARBON 68K 5% 1/4W	
C1716	1-124-903-11	ELECT 1uF 20% 50V		R1711	1-249-439-11	CARBON 68K 5% 1/4W	
C1717	1-162-291-31	CERAMIC 560PF 10% 50V		R1712	1-247-878-00	CARBON 91K 5% 1/4W	
C1718	1-162-291-31	CERAMIC 560PF 10% 50V		R1713	1-247-878-00	CARBON 91K 5% 1/4W	
C1719	1-124-477-11	ELECT 47uF 20% 25V		R1714	1-249-441-11	CARBON 100K 5% 1/4W	
C1720	1-161-379-00	CERAMIC 0.01uF 20% 25V		R1715	1-249-441-11	CARBON 100K 5% 1/4W	
C1721	1-161-379-00	CERAMIC 0.01uF 20% 25V		R1716	1-249-441-11	CARBON 100K 5% 1/4W	
C1722	1-161-379-00	CERAMIC 0.01uF 20% 25V		R1717	1-249-441-11	CARBON 100K 5% 1/4W	
C1723	1-161-379-00	CERAMIC 0.01uF 20% 25V		R1718	1-249-429-11	CARBON 10K 5% 1/4W	
C1724	1-161-379-00	CERAMIC 0.01uF 20% 25V		R1719	1-249-429-11	CARBON 10K 5% 1/4W	
C1725	1-124-477-11	ELECT 47uF 20% 25V		R1720	1-249-429-11	CARBON 10K 5% 1/4W	
C1726	1-124-903-11	ELECT 1uF 20% 50V		R1721	1-249-434-11	CARBON 27K 5% 1/4W	
C1727	1-124-903-11	ELECT 1uF 20% 50V		R1722	1-249-441-11	CARBON 100K 5% 1/4W	
C1728	1-124-034-51	ELECT 33uF 20% 16V				< VARIABLE RESISTOR >	
C1729	1-124-907-11	ELECT 10uF 20% 50V		RV1701	1-238-601-11	RES, ADJ, CARBON 22K	
				RV1702	1-238-599-11	RES, ADJ, CARBON 4.7K	
		< CONNECTOR >				< SWITCH >	
* CN1701	1-568-832-11	SOCKET, CONNECTOR 13P		S1701	1-571-303-11	SWITCH, SLIDE (POLAR-PILOT TONE)	
		< DIODE >				< PIN CONNECTOR >	
D1701	8-719-987-63	DIODE 1N4148M		* TP1701	1-560-061-00	PIN, CONNECTOR 3P	
D1702	8-719-987-63	DIODE 1N4148M		* TP1702	1-560-061-00	PIN, CONNECTOR 3P	
D1703	8-719-987-63	DIODE 1N4148M				*****	
D1704	8-719-987-63	DIODE 1N4148M					
D1705	8-719-987-63	DIODE 1N4148M					
		< IC >					
IC1701	8-759-063-04	IC IR3R42					
IC1702	8-759-634-51	IC M5218AP					
IC1703	8-759-140-53	IC MC14053BCP					

POWER

POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4369-159-A	POWER BOARD, COMPLETE (UK) *****				< RESISTOR >	
*	A-4369-172-A	POWER BOARD, COMPLETE (AEP, IT, G) *****		R1601	1-249-417-11	CARBON 1K 5% 1/4W F	
*	A-4371-009-A	POWER BOARD, COMPLETE (EE, CIS) *****		R1602	1-249-429-11	CARBON 10K 5% 1/4W	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		△R1603	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
		< CAPACITOR >		R1611	1-249-425-11	CARBON 4.7K 5% 1/4W F	
△C1	1-161-744-51	CERAMIC 0.01uF 400V		R1612	1-249-421-11	CARBON 2.2K 5% 1/4W F	
C1601	1-124-907-11	ELECT 10uF 20% 50V		△R1613	1-212-934-00	FUSIBLE 1 5% 1/2W F	
C1602	1-161-379-00	CERAMIC 0.01uF 20% 25V (UK)		R1621	1-249-423-11	CARBON 3.3K 5% 1/4W F	
C1602	1-162-306-11	CERAMIC 0.01uF 20% 16V		R1622	1-249-433-11	CARBON 22K 5% 1/4W	
		(AEP, IT, G, EE, CIS)		R1623	1-249-400-11	CARBON 39 5% 1/4W F	(AEP, IT, G)
C1603	1-124-907-11	ELECT 10uF 20% 50V				< RELAY >	
C1604	1-161-379-00	CERAMIC 0.01uF 20% 25V (UK)		RY1	1-515-738-11	RELAY, POWER	
C1604	1-162-306-11	CERAMIC 0.01uF 20% 16V				< TRANSFORMER >	
		(AEP, IT, G, EE, CIS)		△T2	1-423-929-11	TRANSFORMER, POWER (SUB) (AEP, IT, G)	
C1605	1-124-463-00	ELECT 0.1uF 20% 50V		△T2	1-423-930-11	TRANSFORMER, POWER (SUB) (UK, EE, CIS)	
C1606	1-124-557-11	ELECT 1000uF 20% 25V				*****	
C1607	1-136-165-00	FILM 0.1uF 5% 50V (EE, CIS)		*	A-4369-160-A	POWER AMP BOARD, COMPLETE (UK) *****	
C1607	1-164-159-11	CERAMIC 0.1uF 50V	(AEP, UK, IT, G)				
C1611	1-124-910-11	ELECT 47uF 20% 50V		*	A-4369-173-A	POWER AMP BOARD, COMPLETE (AEP, EE, CIS) *****	
C1612	1-124-907-11	ELECT 10uF 20% 50V					
C1613	1-124-122-11	ELECT 100uF 20% 50V		*	A-4369-305-A	POWER AMP BOARD, COMPLETE (IT, G) *****	
		< CONNECTOR >				< CAPACITOR >	
* CN1	1-564-321-00	PIN, CONNECTOR 2P		C1201	1-126-163-11	ELECT 4.7uF 20% 50V	
		< DIODE >		C1202	1-164-075-11	CERAMIC 150PF 10% 50V	
D1601	8-719-987-63	DIODE 1N4148M		C1203	1-164-077-11	CERAMIC 220PF 10% 50V	
D1602	8-719-200-82	DIODE 11ES2		C1204	1-124-126-00	ELECT 47uF 20% 10V	
D1603	8-719-200-82	DIODE 11ES2		C1205	1-124-910-11	ELECT 47uF 20% 50V	
D1604	8-719-200-82	DIODE 11ES2					
D1605	8-719-200-82	DIODE 11ES2		C1206	1-124-122-11	ELECT 100uF 20% 50V	
D1606	8-719-987-63	DIODE 1N4148M		C1208	1-124-916-11	ELECT 22uF 20% 63V	
D1611	8-719-014-66	DIODE UZP-5.6B		C1210	1-137-375-11	FILM 0.068uF 5% 50V	
D1612	8-719-002-60	DIODE UZL-33L		C1211	1-137-375-11	FILM 0.068uF 5% 50V	
D1613	8-719-200-82	DIODE 11ES2		C1220	1-126-176-11	ELECT 220uF 20% 10V	
		< IC >		C1251	1-126-163-11	ELECT 4.7uF 20% 50V	
IC1601	8-759-820-13	IC L78MR06		C1252	1-164-075-11	CERAMIC 150PF 10% 50V	
		< TRANSISTOR >		C1253	1-164-077-11	CERAMIC 220PF 10% 50V	
Q1611	8-729-141-83	TRANSISTOR 2SB1094-LK		C1254	1-124-126-00	ELECT 47uF 20% 10V	
Q1621	8-729-119-78	TRANSISTOR 2SC403SP-51		C1255	1-124-910-11	ELECT 47uF 20% 50V	
				C1256	1-124-122-11	ELECT 100uF 20% 50V	
				C1260	1-137-375-11	FILM 0.068uF 5% 50V	
				C1261	1-137-375-11	FILM 0.068uF 5% 50V	

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

POWER AMP	VR
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Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
		< CONNECTOR >		△R1259	1-212-881-11	FUSIBLE 100 5% 1/4W F	
* CN1203	1-564-518-11	PLUG, CONNECTOR 3P		△R1260	1-217-151-00	RES, METAL PLATE 0.22 2W	
CN1204	1-764-331-11	PIN, CONNECTOR (PCB)(V TYPE) 8P		R1261	1-249-417-11	CARBON 1K 5% 1/4W F	
		< IC >		R1262	1-249-431-11	CARBON 15K 5% 1/4W	
IC1201	8-749-900-24	IC STK-4162MK2 (AEP, IT, G, EE, CIS)		R1263	1-249-441-11	CARBON 100K 5% 1/4W	
IC1201	8-749-920-09	IC STK-4152MK2K (UK)		R1268	1-249-397-11	CARBON 22 5% 1/4W F	
		< DIODE >		R1269	1-249-397-11	CARBON 22 5% 1/4W F	
D1201	8-719-987-63	DIODE 1N4148M		*****			
D1202	8-719-987-63	DIODE 1N4148M		*	1-651-167-11	VR BOARD	
D1251	8-719-987-63	DIODE 1N4148M				*****	
		< TRANSISTOR >				< CAPACITOR >	
Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		C1185	1-164-159-11	CERAMIC 0.1uF 50V	
Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		C1507	1-161-494-00	CERAMIC 0.022uF 25V	
		< RESISTOR >		C1508	1-124-443-00	ELECT 100uF 20% 10V	
R1201	1-249-417-11	CARBON 1K 5% 1/4W F				< CONNECTOR >	
R1202	1-249-438-11	CARBON 56K 5% 1/4W		* CN1502	1-568-934-11	PIN, CONNECTOR 7P	
R1203	1-249-414-11	CARBON 560 5% 1/4W F				< IC >	
R1204	1-249-438-11	CARBON 56K 5% 1/4W		IC1504	8-759-820-62	IC LB1639	
R1205	1-249-425-11	CARBON 4.7K 5% 1/4W F				< VARIABLE RESISTOR >	
R1206	1-249-425-11	CARBON 4.7K 5% 1/4W F		RV1185	1-241-350-11	RES, VAR, CARBON 100K/100K (VOLUME)	
R1207	1-249-425-11	CARBON 4.7K 5% 1/4W F		*****			
R1208	1-249-425-11	CARBON 4.7K 5% 1/4W F				MISCELLANEOUS	
△R1209	1-212-881-11	FUSIBLE 100 5% 1/4W F				*****	
△R1210	1-217-151-00	RES, METAL PLATE 0.22 2W		6	1-765-176-11	WIRE (FLAT TYPE) (26 CORE)	
R1211	1-249-417-11	CARBON 1K 5% 1/4W F		* 7	1-696-674-11	WIRE (FLAT TYPE) (23 CORE)	
R1212	1-249-431-11	CARBON 15K 5% 1/4W		8	1-690-824-11	WIRE (FLAT TYPE) (25 CORE)	
R1213	1-249-441-11	CARBON 100K 5% 1/4W		9	1-575-906-11	WIRE, FLAT TYPE (15 CORE) (AEP, G, IT)	
R1214	1-249-421-11	CARBON 2.2K 5% 1/4W F		9	1-590-459-11	WIRE, FLAT TYPE (11 CORE) (UK, EE, CIS)	
R1215	1-249-421-11	CARBON 2.2K 5% 1/4W F		△16	1-575-651-11	CORD, POWER (AEP, G, IT, EE, CIS)	
R1216	1-249-421-11	CARBON 2.2K 5% 1/4W F		△17	1-696-570-21	CORD, POWER (UK)	
R1217	1-249-421-11	CARBON 2.2K 5% 1/4W F		19	1-690-590-31	WIRE (FLAT TYPE) (13 CORE) (CIS)	
R1218	1-249-397-11	CARBON 22 5% 1/4W F		81	1-751-025-11	WIRE (FLAT TYPE) (9 CORE)	
R1219	1-249-397-11	CARBON 22 5% 1/4W F		83	1-751-210-11	WIRE (FLAT TYPE) (13 CORE)	
R1227	1-249-429-11	CARBON 10K 5% 1/4W		117	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
R1228	1-249-441-11	CARBON 100K 5% 1/4W		* 261	1-452-538-11	MAGNET	
R1230	1-249-429-11	CARBON 10K 5% 1/4W		△306	8-848-144-11	OPTICAL PICK-UP BLOCK (KSS-240A)	
R1243	1-249-383-11	CARBON 1.5 5% 1/6W F		307	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
R1251	1-249-417-11	CARBON 1K 5% 1/4W F		△F101	1-532-286-00	FUSE (T2.5A)	
R1252	1-249-438-11	CARBON 56K 5% 1/4W		△F102	1-532-286-00	FUSE (T2.5A)	
R1253	1-249-414-11	CARBON 560 5% 1/4W F		△F103	1-532-299-00	FUSE (T5.0A)	
R1254	1-249-438-11	CARBON 56K 5% 1/4W		△F104	1-532-299-00	FUSE (T5.0A)	
R1255	1-249-425-11	CARBON 4.7K 5% 1/4W F		HP101	A-2003-757-A	BASE ASSY, HEAD	
R1256	1-249-425-11	CARBON 4.7K 5% 1/4W F		HRPE101A	2003-930-A	BASE ASSY, HEAD	
R1257	1-249-425-11	CARBON 4.7K 5% 1/4W F					
R1258	1-249-425-11	CARBON 4.7K 5% 1/4W F					

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

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
IC81A	8-749-924-10	PHOTO REFECTOR NJ5165-B (DECK A)				*****	
IC81B	8-749-924-10	PHOTO REFECTOR NJ5165-B (DECK B)				HARDWARE LIST	
M101A	X-3363-501-1	MOTOR ASSY (REEL) (DECK A)				*****	
M101B	X-3363-501-1	MOTOR ASSY (REEL) (DECK B)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
M102A	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK A)		#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
				#3	7-682-560-04	SCREW +BVTT 4X6 (S)	
M102B	X-3365-377-1	MOTOR ASSY (CAPSTAN) (DECK B)		#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING)		#5	7-621-849-00	SCREW, TAPPING	
M301	X-4917-523-4	MOTOR ASSY (SPINDLE)					
M302	X-4917-504-1	MOTOR ASSY (SLED)		#6	7-627-556-08	SCREW +P 2. 6X2. 8	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)		#7	7-621-775-00	SCREW +B 2. 6X3	
△T1	1-423-927-11	TRANSFORMER, POWER (AEP, G, IT, EE, CIS)		#8	7-621-775-10	SCREW +B 2. 6X4	
△T1	1-426-782-11	TRANSFORMER, POWER (UK)		#9	7-621-255-15	SCREW +P 2X3	
△T2	1-423-929-11	TRANSFORMER, POWER (SUB) (AEP, G, IT)					
△T2	1-423-930-11	TRANSFORMER, POWER (SUB) (UK, EE, CIS)					

ACCESSORIES & PACKING MATERIALS							

	1-467-547-11	COMMANDER, STANDARD (RM-S421)					
	1-501-374-11	ANTENNA, LOOP (AEP, IT, EE, CIS)					
	1-501-536-11	ANTENNA (AEP, IT, EE, CIS)					
	2-181-754-21	COVER, BATTERY (For RM-S421)					
	3-758-162-11	MANUAL, INSTRUCTION (ENGLISH) (UK)					
	3-758-162-31	MANUAL, INSTRUCTION (GERMAN) (AEP)					
	3-758-162-41	MANUAL, INSTRUCTION					
		(ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)					
	3-758-162-51	MANUAL, INSTRUCTION					
		(GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT)					
	3-758-162-61	MANUAL, INSTRUCTION					
		(DANISH, FINNISH) (AEP)					
	3-758-162-71	MANUAL, INSTRUCTION					
		(ENGLISH, RUSSIAN, POLISH) (EE, CIS)					
	3-758-162-81	MANUAL, INSTRUCTION					
		(CZECHOSLOVAK, HUNGARIAN) (EE)					
*	4-963-204-11	CUSHION					
*	4-963-781-01	INDIVIDUAL CARTON (AEP, IT)					
*	4-963-782-01	INDIVIDUAL CARTON (EE, CIS)					

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