

HCD-H3800

SERVICE MANUAL

AEP Model
UK Model



- HCD-H3800 is the TUNER/COMPACT DISC PLAYER in MHC-3800.

Model Name Using Similar Mechanism	CDP-H3600
CD Mechanism Type	CDM13B-5BD3
Base Unit Name	BU-5BD3

SPECIFICATIONS

Tuner Section

System	FM stereo, FM/AM superheterodyne tuner
FM tuner section	
Tuning range	87.5 — 108 MHz
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	For Germany MW: 531 — 1,602 kHz For Italy MW: 522 — 1,611 kHz For other countries MW: 531 — 1,602 kHz LW: 153 — 279 kHz
Antenna	AM loop antenna, External antenna terminals
Intermediate frequency	450 kHz

Compact Disc Player Section

System	Compact disc digital audio system
Laser	Semiconductor laser
Wavelength	780 — 790 nm
Outputs	DIGITAL OUT OPTICAL (optical output connector) wavelength: 660 nm output level: -18 dBm

General

Power requirements	European model: 220 V — 230 V, 50/60 Hz U.K. model: 240 V, 50 Hz
Power consumption	170 watts
Dimensions	Approx. 225 x 390 x 280 mm (w/h/d) (8 ⁷ / ₈ x 15 ³ / ₈ x 11 ¹ / ₈ inches) incl. projecting parts and controls
Mass	Approx. 11.7 kg (25 lb 13 oz)
Supplied accessories	Remote Commander (1) (RM-S380) Sony SUM-3 (NS) batteries (2) AM loop antenna (1) FM antenna (1) AC power cord (2) Flat cord (1) Speaker cord (except for Europe and U.K.) (2)

Design and specifications subject to change without notice.

Note

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

TUNER/COMPACT DISC PLAYER

SONY®

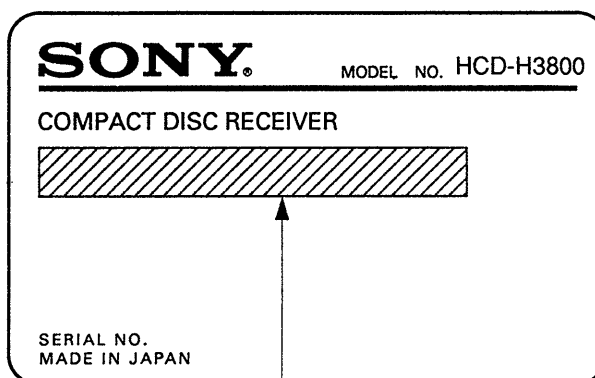


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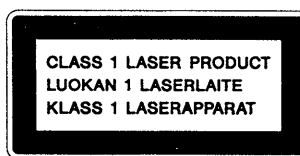
MODEL IDENTIFICATION

– SPECIFICATION LABEL –



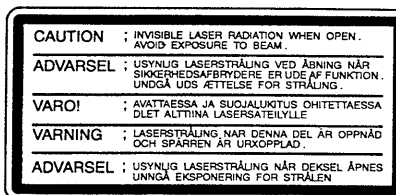
AEP, Germany,
 Italian MODEL : AC 220 - 230V~, 50/60Hz, 90W
 UK MODEL : AC240V, 50Hz, 175W

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





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

The following caution label is located inside the unit.



SAFETY-RELATED COMPONENT WARNING!!

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

SECTION 1

SERVICE NOTE

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

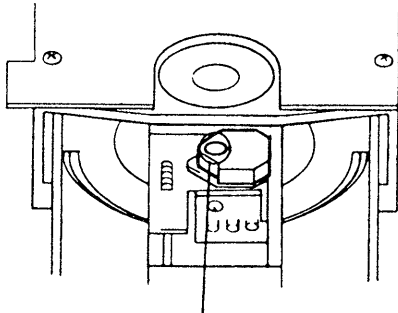
The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter 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. Turn 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)

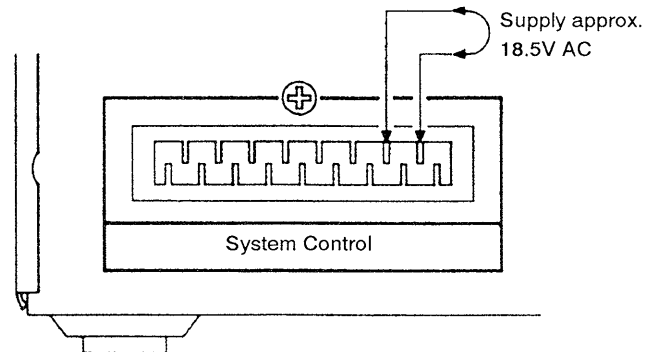
POWER SUPPLIED WHILE SERVICING

This unit does not have its own power supply. It operates on the power supplied from the amplifier (TA-H3800, SEQ-H3800) used by this series. Therefore connect the amplifier when servicing the unit as in electrical repairs.

TURNING ON THE POWER FORCIBLY

This unit does not have a power switch. Its power is turned on/off by the amplifier. However, if power is being supplied, its power can be turned on without an amplifier using the following method.

- Press the **MODE** and "**▶▶**" switches together to turn on the CD section, (Tuner section stops functioning.)
- Press the **STEREO/MONO** and "**◀◀**" switches together to turn on the tuner section (CD section stops functioning.)



[The power can also be supplied by connecting the connector of the "CDP/TC" section of the PFJ-1 tool.]

SERVICE MODE FOR CHECKING THE FL TUBE

All FL display tubes will light up when the "BAND" and "**△ OPEN/CLOSE**" switches are pressed together.

MEASURING THE TUNER/TCB BOARDS VOLTAGE

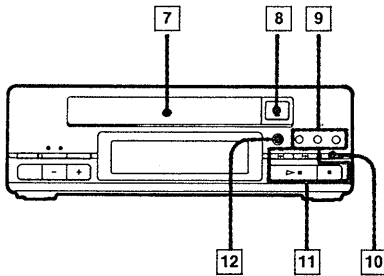
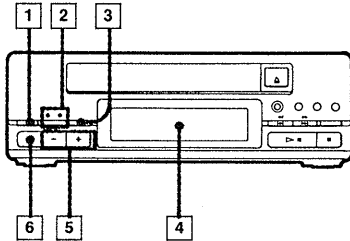
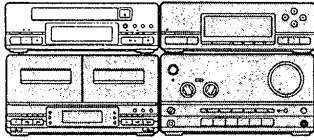
Prepare the following tools (extension cables) when measuring the voltages of the TUNER and TOB boards.

- 1) 4-pin extension cable (J-8000-026-A) ×3
- 2) 8-pin extension cable (J-8000-027-A) ×1

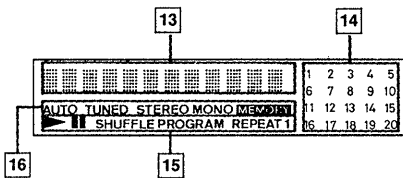
SECTION 2 GENERAL

This section is extracted from instruction manual.

A



B



Parts Identification

Tuner/CD Player Section A

Tuner

- 1 MEMORY button
- 2 MODE button and PRESET/TUNING indicators
- 3 STEREO/MONO button
- 4 Display window
- 5 -/+ button
- 6 BAND selector

CD player

- 7 Disc tray
- 8 OPEN/CLOSE button
- 9 PLAY MODE buttons
 - CONTINUE button
 - SHUFFLE button
 - PROGRAM button
- 10 REPEAT button
- 11 CD operation buttons
 - ◀◀◀◀▶▶▶▶: Manual search (when kept depressed)/Automatic Music Sensor (when pressed)
 - ▷||: Play/Pause
 - : Stop
- 12 EDIT button

Display window B

- 13 Frequency and playing time display
- 14 CD selection numbers display
Preset station number display
- 15 CD status display
- 16 Tuner status display

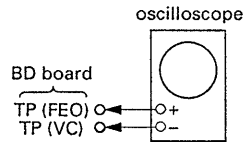
SECTION 3 ADJUSTMENTS

3-1. CD Section Checking

Note :

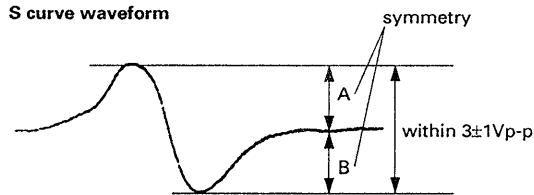
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal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

S Curve Check



Procedure :

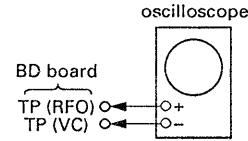
1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical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



5. After check, remove the lead wire TP(FES) connected in step 2.

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

RF Level Check

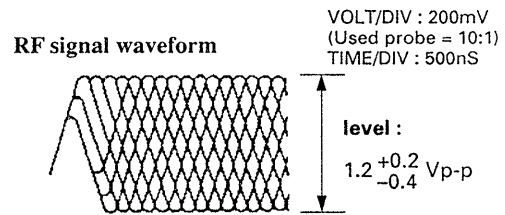


Procedure :

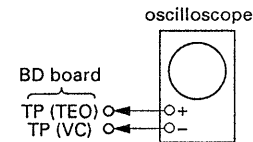
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

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



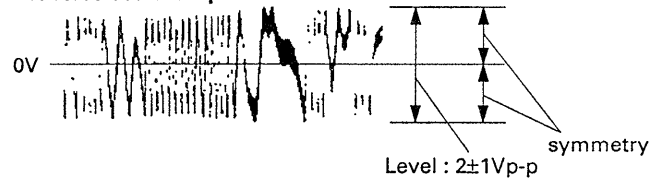
E-F Balance Check



Procedure :

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

Traverse oscilloscope

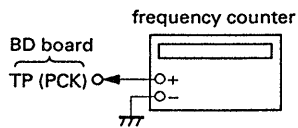


6. Remove the lead wire (TP [ADJ] and TP [TES]) connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

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



2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that reading on frequency counter is 4.3218MHz.

Focus/Tracking Gain

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

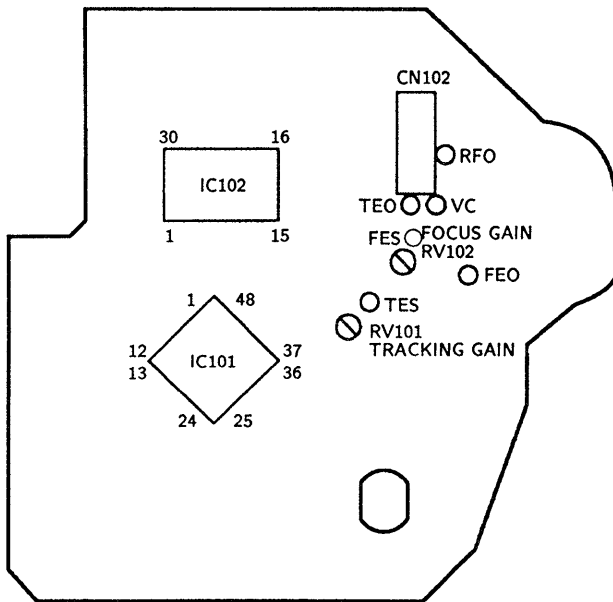
There is no problem.

Therefore, do not perform, this adjustment.

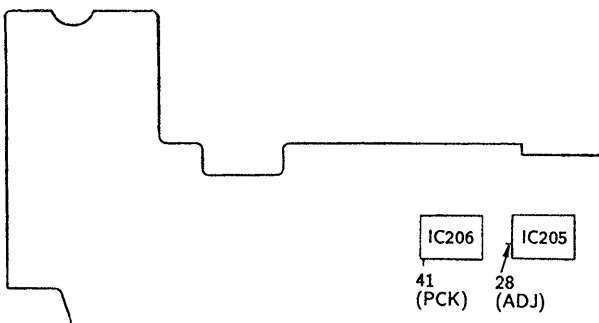
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Checking Location:

[BD BOARD] — Conductor side —



[CD BOARD] — Conductor side —

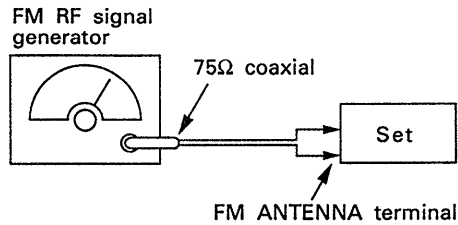


3-2. Tuner Section Adjustments

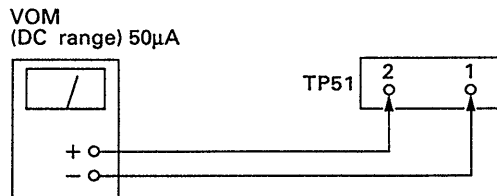
FM SECTION

Note : The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.

Setting :



Carrier frequency : 98MHz
 Modulation : 1kHz, 40kHz deviation
 Output level : 1mV (60dBμ)



FM Discriminator Alignment (NULL Check)

BAND switch: FM

Procedure:

1. Supply a 1mV (60dBμ) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust IFT51 for 0V reading on the VOM.

Adjustment Location: TUNER board.

Note : FM tuned indication lighting level adjustment should be made after FM discriminator alignment.

FM Tuned Indication Lighting Level Adjustment

BAND switch: FM

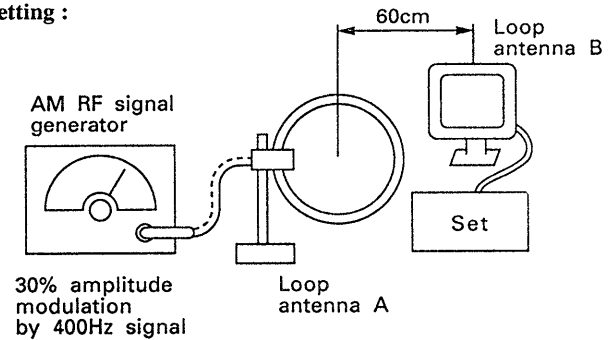
Procedure:

1. Supply a $22.5\mu\text{V}$ (27dBμ) (Except Germany and Italian models) or $12.5\mu\text{V}$ (22dBμ) (Germany and Italian models) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV52 so that the **TUNED** light up.
4. Confirm that the **TUNED** light off with FM RF SSG output level set at -3dB.

Adjustment Location : TCB board.

MW SECTION

Setting :



MW Tuned Indication Lighting Level Adjustment

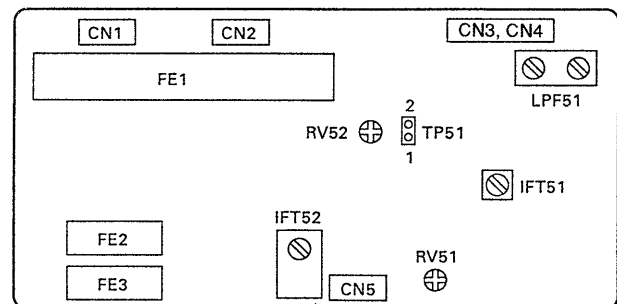
BAND switch: MW

Procedure:

1. Set loop antenna A so that the loop antenna B input level becomes 1mV (60dBμ).
2. Tune the set to 1,404kHz (9k step mode) (10k step mode : 1,490kHz).
3. Adjust the RV51 so that the **TUNED** light up.
4. Confirm that the **TUNED** light off with AM RF SG output level set at -3dB.

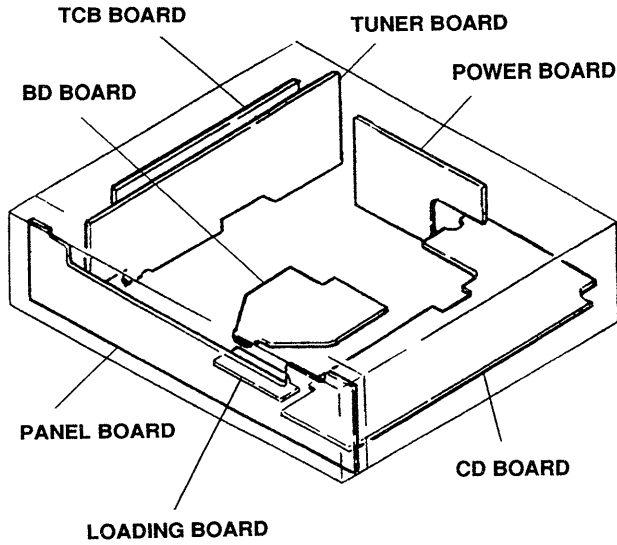
Adjustment Location : TCB board.

[TCB BOARD] — Component side —



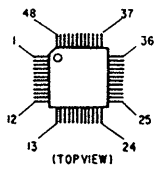
SECTION 4 DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION

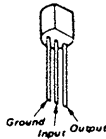


4-2. SEMICONDUCTOR LEAD LAYOUTS

CXA1372AQ



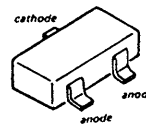
PST572C



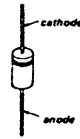
2SA1344



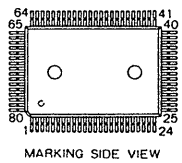
DCB010



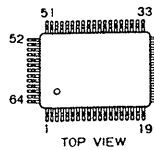
10E-2



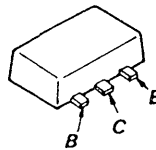
CXD2500BQ



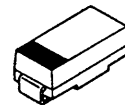
μ PD75116GF-G38-3BE



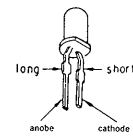
2SB798-DL
2SD999-CLCK



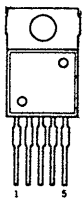
EC10QS-04



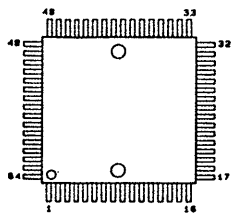
SEL2210S



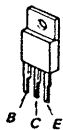
L78MR05



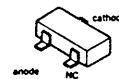
μ PD78011GC-514-AB8



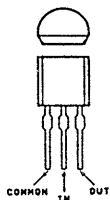
2SB1094-LK
2SD2012



UZM3.9Z
UZM4.7B
UZM10Y
UZM11X



NJM79L24A



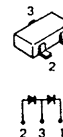
DTC144EK
2SC1623-L6
2SC3398
2SC3900



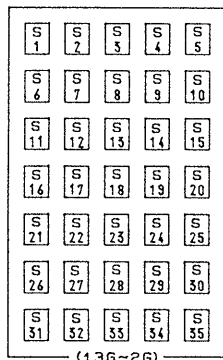
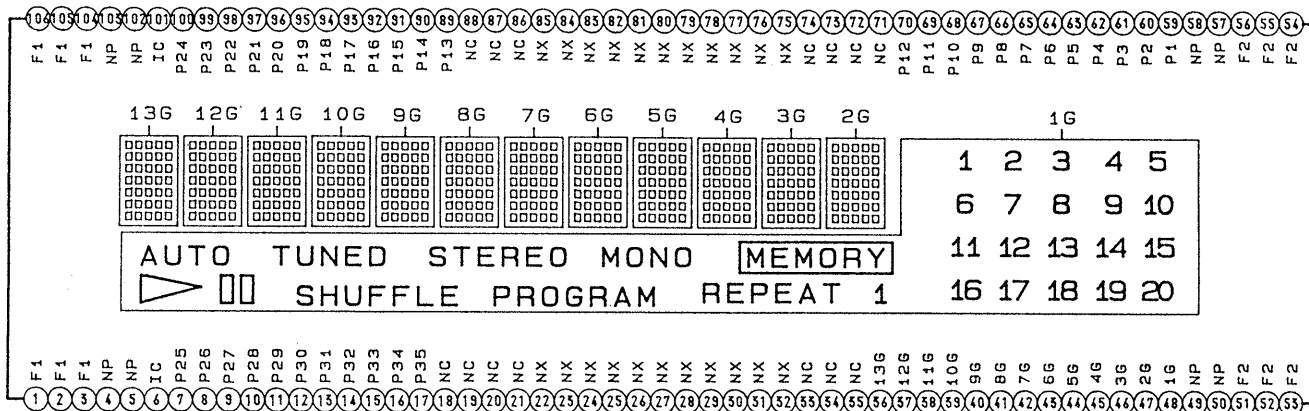
2SK208GR3



1SS226



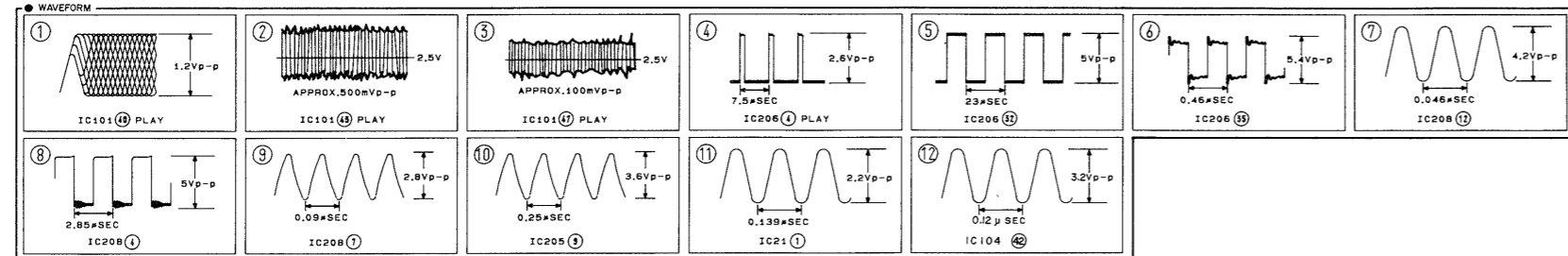
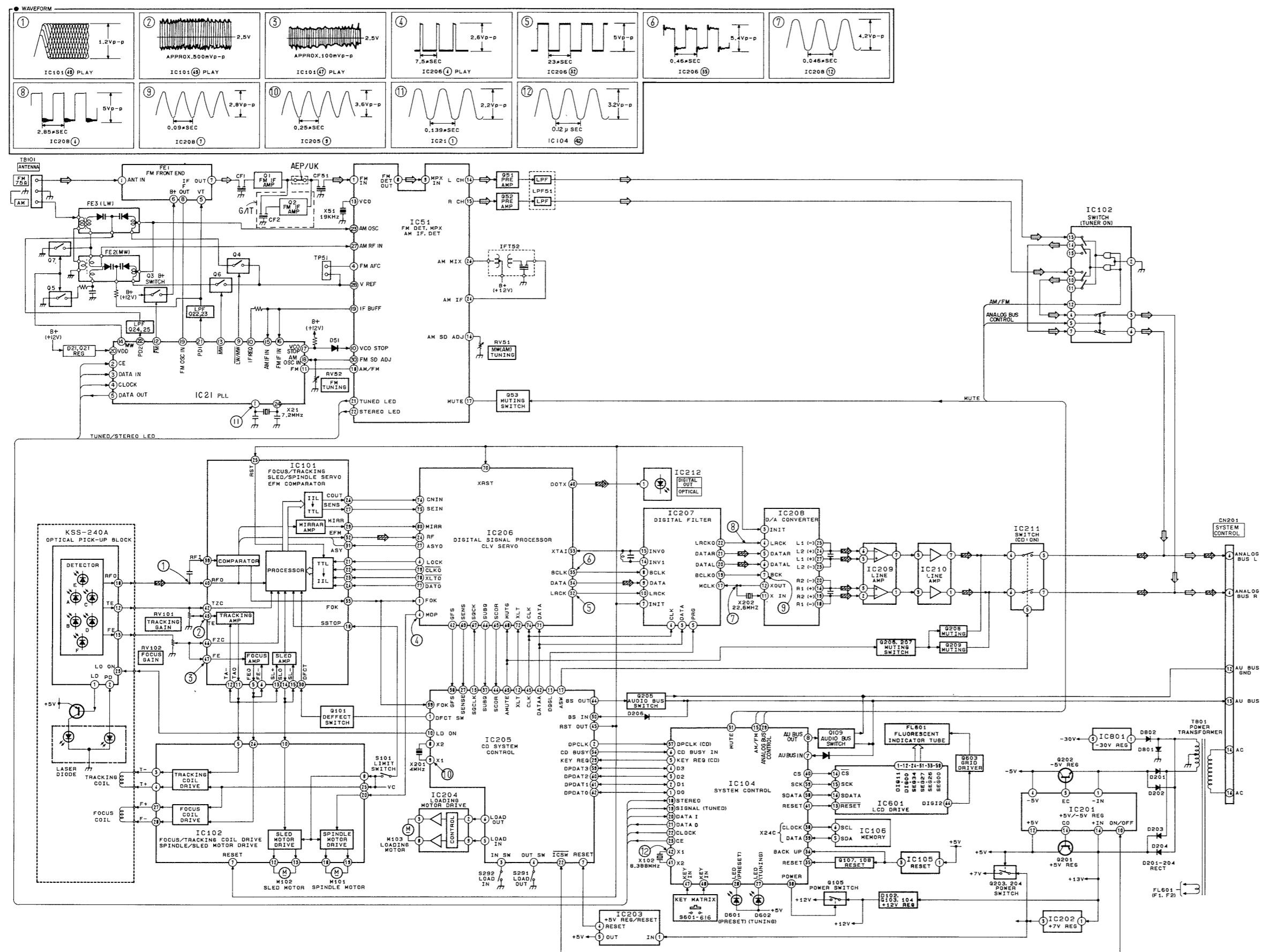
• FL601 (FLUORESCENT INDICATOR TUBE)



• SEGMENT CONNECTION TABLE

	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	1
P2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	2
P3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	3
P4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	4
P5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	5
P6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	6
P7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	7
P8	S8	S8	S8	S8	S8	S8	S8	S8	S8	S8	S8	S8	8
P9	S9	S9	S9	S9	S9	S9	S9	S9	S9	S9	S9	S9	9
P10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	S10	10
P11	S11	S11	S11	S11	S11	S11	S11	S11	S11	S11	S11	S11	11
P12	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12	S12	12
P13	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13	S13	13
P14	S14	S14	S14	S14	S14	S14	S14	S14	S14	S14	S14	S14	14
P15	S15	S15	S15	S15	S15	S15	S15	S15	S15	S15	S15	S15	15
P16	S16	S16	S16	S16	S16	S16	S16	S16	S16	S16	S16	S16	16
P17	S17	S17	S17	S17	S17	S17	S17	S17	S17	S17	S17	S17	17
P18	S18	S18	S18	S18	S18	S18	S18	S18	S18	S18	S18	S18	18
P19	S19	S19	S19	S19	S19	S19	S19	S19	S19	S19	S19	S19	19
P20	S20	S20	S20	S20	S20	S20	S20	S20	S20	S20	S20	S20	20
P21	S21	S21	S21	S21	S21	S21	S21	S21	S21	S21	S21	S21	▷
P22	S22	S22	S22	S22	S22	S22	S22	S22	S22	S22	S22	S22	▯
P23	S23	S23	S23	S23	S23	S23	S23	S23	S23	S23	S23	S23	SHUFFLE
P24	S24	S24	S24	S24	S24	S24	S24	S24	S24	S24	S24	S24	PROGRAM
P25	S25	S25	S25	S25	S25	S25	S25	S25	S25	S25	S25	S25	REPEAT
P26	S26	S26	S26	S26	S26	S26	S26	S26	S26	S26	S26	S26	1 (REPEAT)
P27	S27	S27	S27	S27	S27	S27	S27	S27	S27	S27	S27	S27	AUTO
P28	S28	S28	S28	S28	S28	S28	S28	S28	S28	S28	S28	S28	TUNED
P29	S29	S29	S29	S29	S29	S29	S29	S29	S29	S29	S29	S29	STEREO
P30	S30	S30	S30	S30	S30	S30	S30	S30	S30	S30	S30	S30	MONO
P31	S31	S31	S31	S31	S31	S31	S31	S31	S31	S31	S31	S31	MEMORY
P32	S32	S32	S32	S32	S32	S32	S32	S32	S32	S32	S32	S32	-
P33	S33	S33	S33	S33	S33	S33	S33	S33	S33	S33	S33	S33	-
P34	S34	S34	S34	S34	S34	S34	S34	S34	S34	S34	S34	S34	-
P35	S35	S35	S35	S35	S35	S35	S35	S35	S35	S35	S35	S35	-

4-3. BLOCK DIAGRAM



- Signal path.
- ◁ : FM
- ▭ : CD
- ▭ : digital out

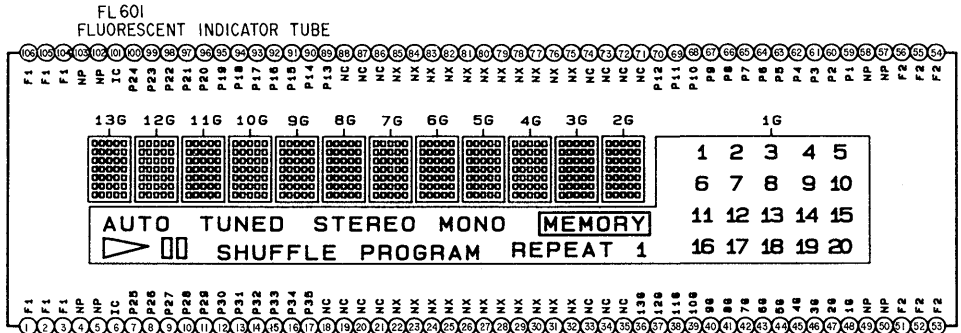
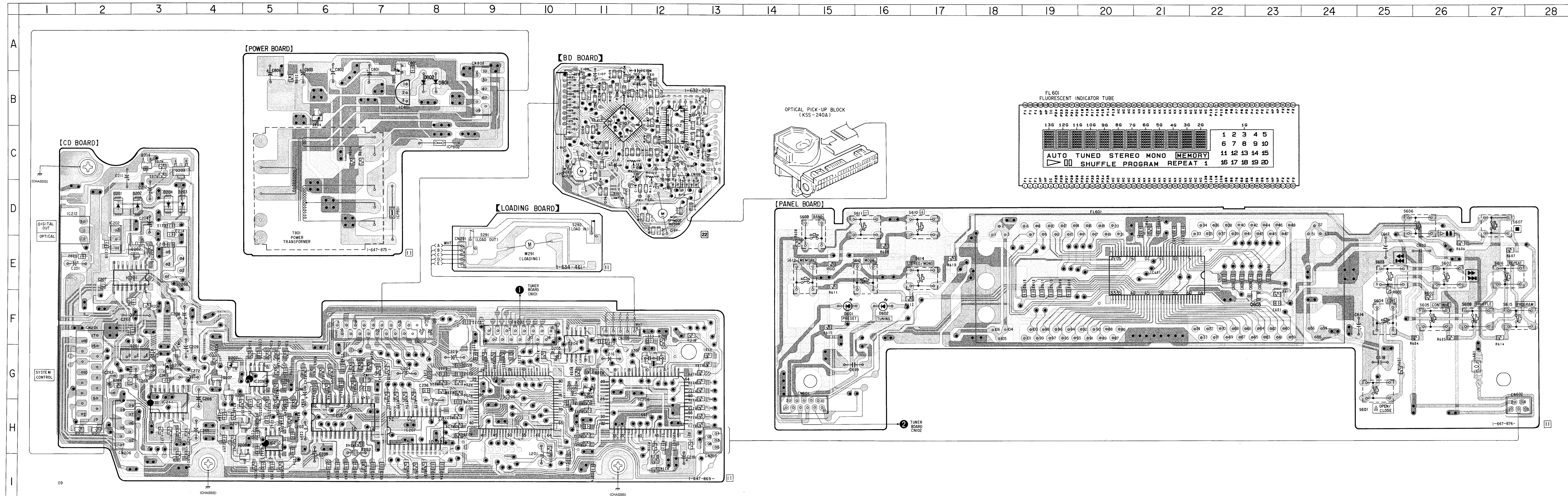
4-4. PRINTED WIRING BOARDS

- CD SECTION
- See page 8 for Circuit Boards Location and Semiconductor Lead Layouts.

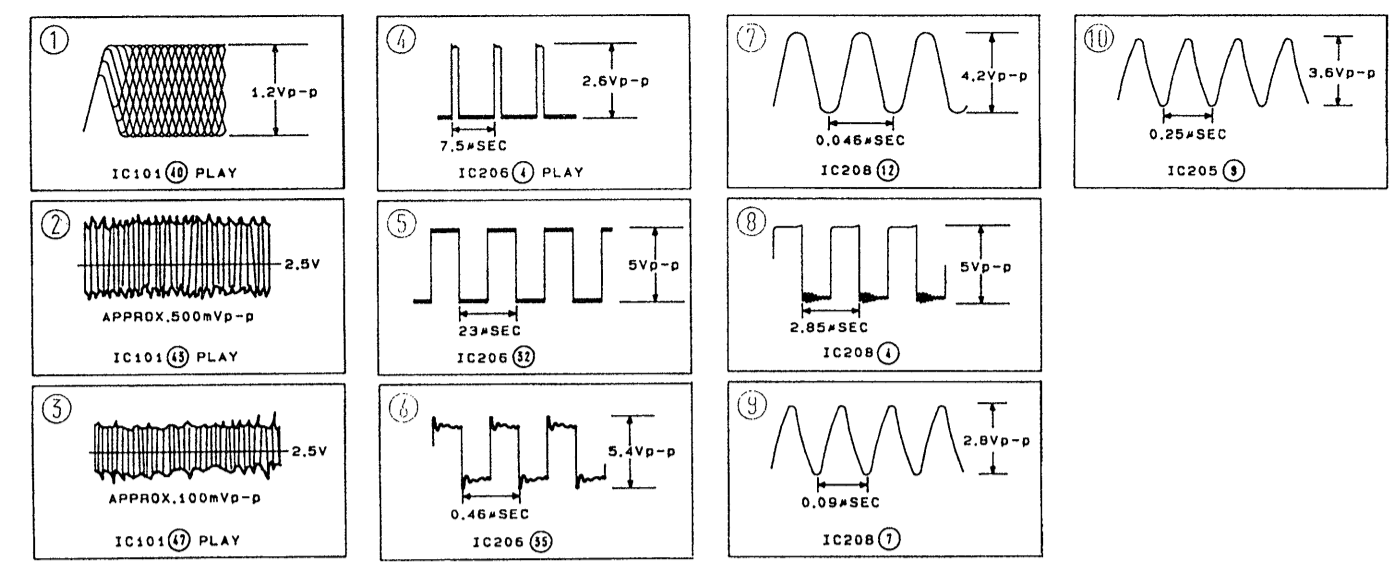
- Notes on printed wiring boards:
- : Indicated a lead wire mounted on the component side.
 - : Parts mounted on the conductor side.
 - : Through hole.
 - : Pattern from the side which enables seeing.
 - : Pattern of the rear side.

• Semiconductor Location

Ref. No.	Location
D201	D-2
D202	D-3
D203	D-3
D204	D-3
D205	G-10
D206	G-11
D207	G-4
D208	G-3
D209	G-3
D601	F-15
D602	B-8
D603	B-7
D604	B-6
IC101	B-11
IC102	B-12
IC201	E-2
IC202	D-2
IC203	E-3
IC204	F-10
IC205	H-12
IC206	H-10
IC207	H-8
IC208	H-6
IC209	G-5
IC210	H-5
IC211	H-3
IC212	D-1
IC801	B-7
Q101	C-11
Q201	G-3
Q202	E-3
Q203	C-3
Q204	C-3
Q205	G-10
Q206	G-4
Q207	G-4
Q208	H-5
Q209	H-5
Q603	F-23

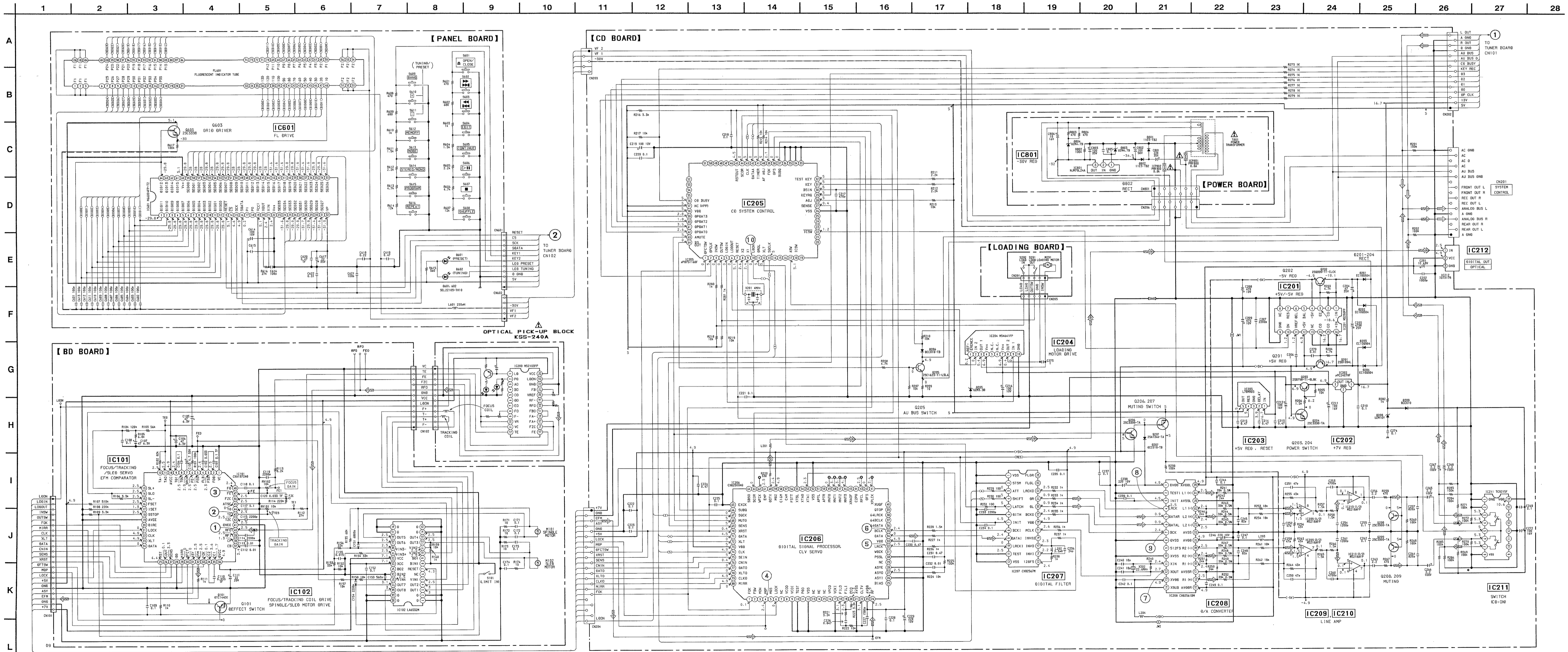


4-5. SCHEMATIC DIAGRAM
• CD SECTION
• See page 29, 30 and 31 for IC Block Diagrams.



- Notes on schematic diagram:**
- All capacitors are in μF unless otherwise noted. pF : μF 50VW or less are not indicated except for electrolytics and tantalums.
 - All resistors are in ohms, 1/4W or less unless otherwise noted.
 - Δ : Internal component.
 - : B+ line
 - - -: B- line
 - \square : Adjustment for repair.
 - Voltage are dc with respect to ground under no-signal conditions.
 - No mark: CD, STOP
 - Voltagess are taken with a VOM (input impedance 10 $\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
 - Circled numbers refer to waveforms.
 - Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
 - Signal path: \Rightarrow : FM \Rightarrow : CD \Rightarrow : DIGITAL OUT

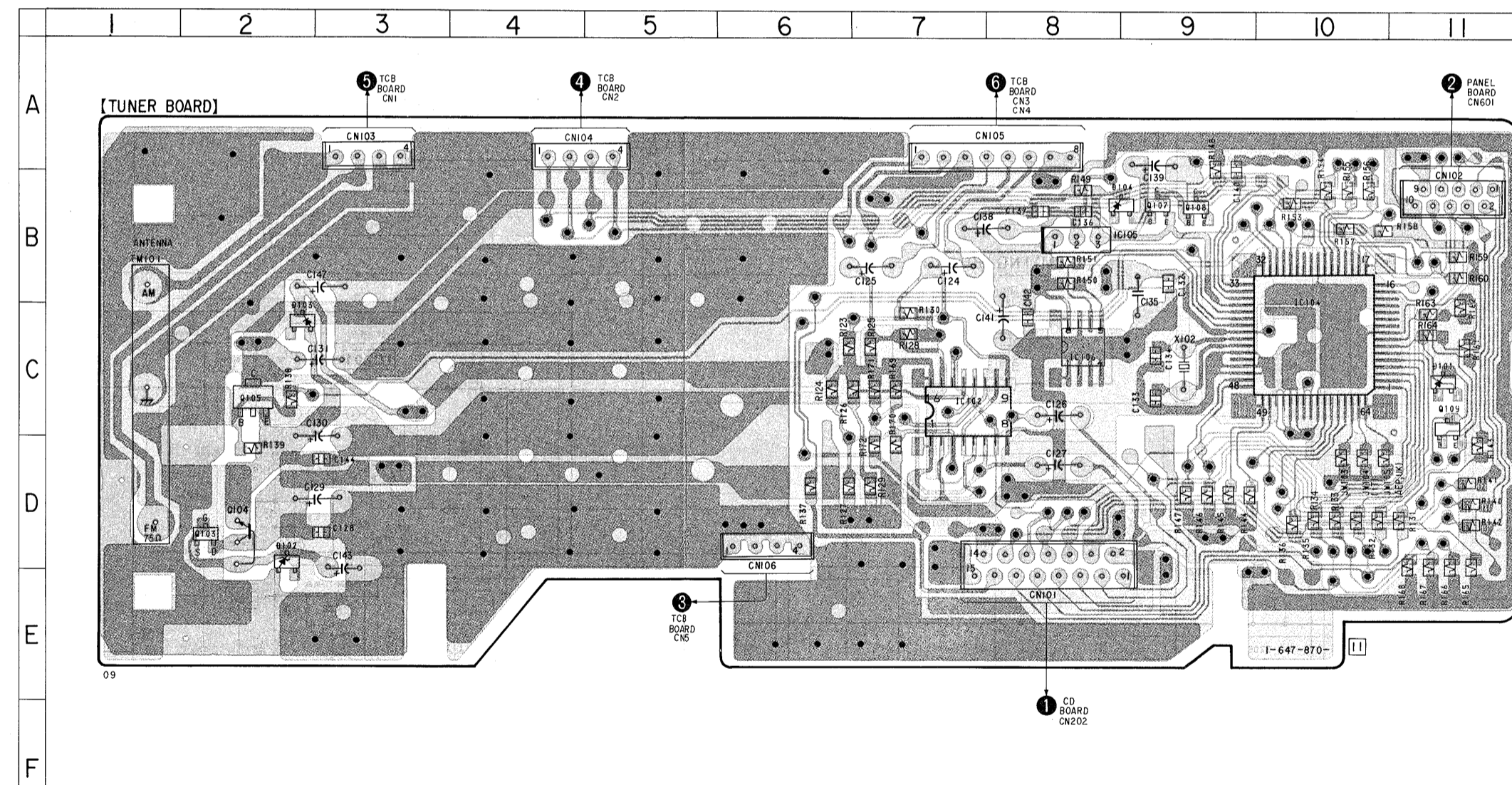
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.



4-6. PRINTED WIRING BOARD
• TUNER SECTION
• See page 8 for Circuit Boards Location and Semiconductor Lead Layouts.

• Semiconductor Location

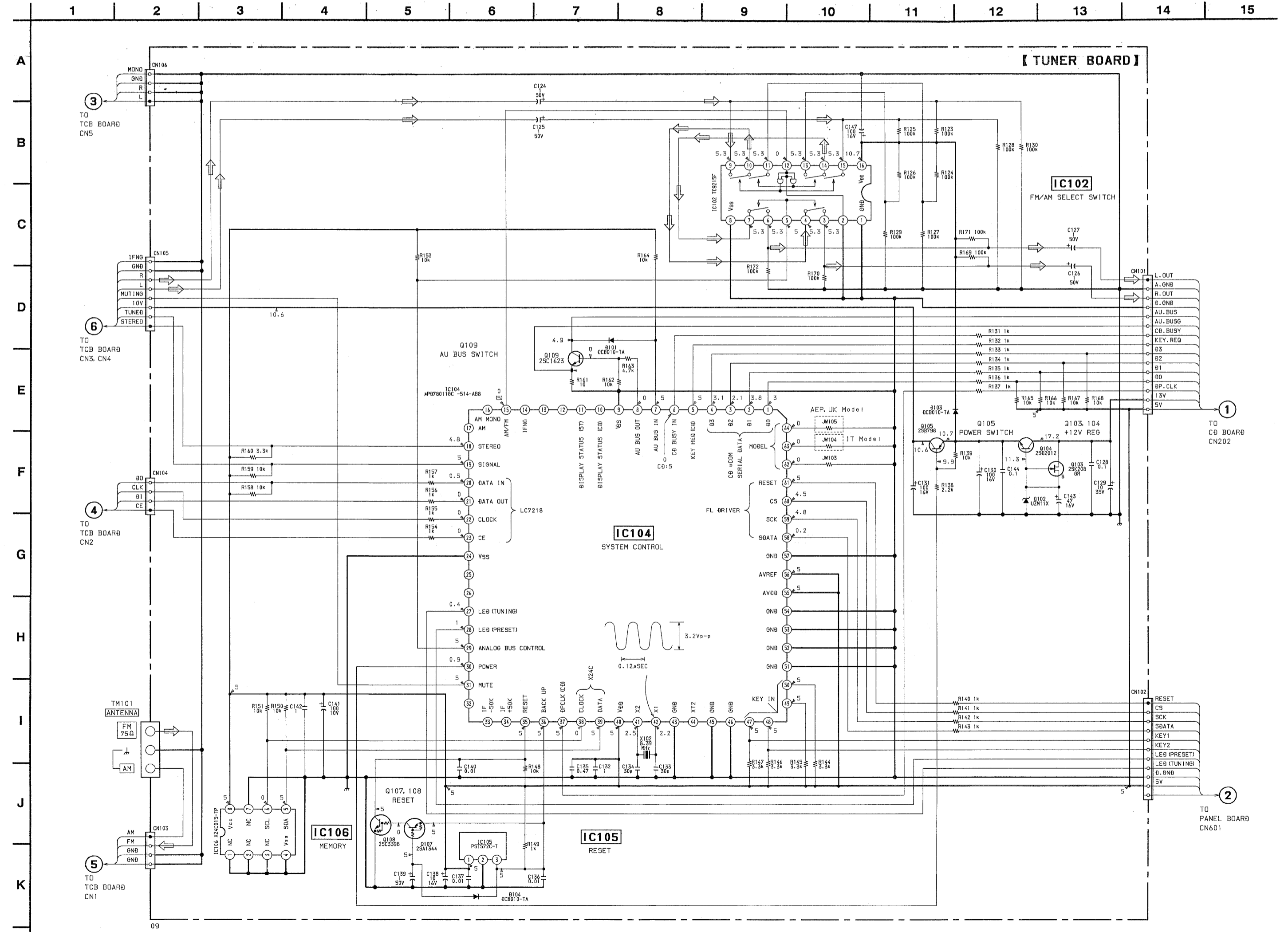
Ref. No.	Location
D101	C-11
D102	D-2
D103	C-2
D104	B-6
IC102	C-7
IC104	C-10
IC105	B-8
IC106	C-8
Q103	D-2
Q104	D-2
Q105	C-2
Q107	B-8
Q108	B-8
Q109	C-11



- Notes on printed wiring boards:
- : Indicated a lead wire mounted on the component side.
 - : Through hole.
 - ▨ : Pattern from the side which enables seeing.
 - ▧ : Pattern of the rear side.
 - IT : Italian Model

- Notes on schematic diagram:
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in ohms, 1/4W or less unless otherwise noted.
 - : B+ line
 - Voltage are dc with respect to ground under no-signal conditions.
 - No mark : FM
 - Voltagess are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
 - Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 - ↔ : FM
 - IT : Italian Model

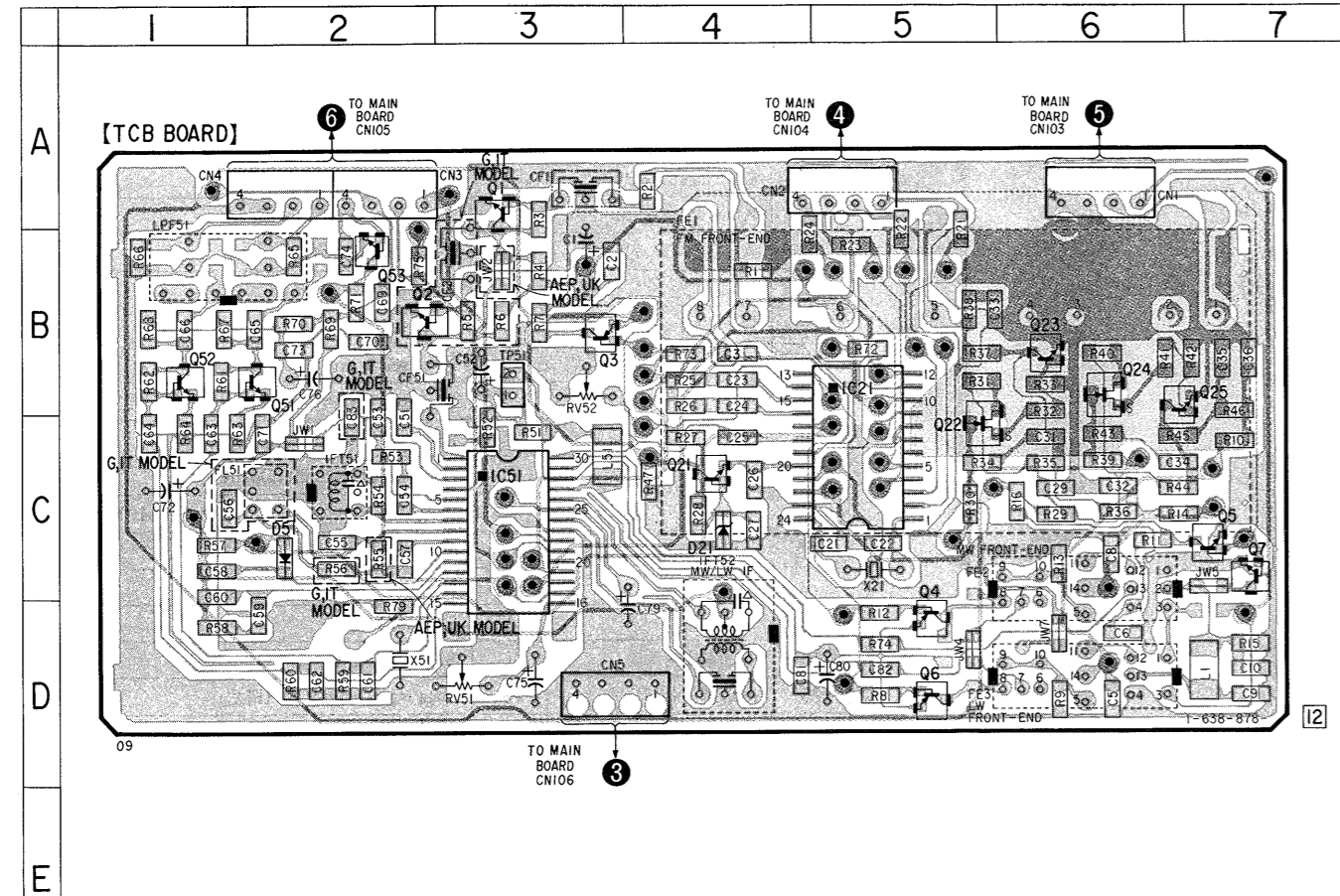
4-7. SCHEMATIC DIAGRAM
• TUNER SECTION
• See page 29, 30 and 31 for IC Block Diagrams.



4-8. PRINTED WIRING BOARD
 • TCB SECTION
 • See page 8 for Circuit Boards Location and Semiconductor Lead Layouts.

• Semiconductor Location

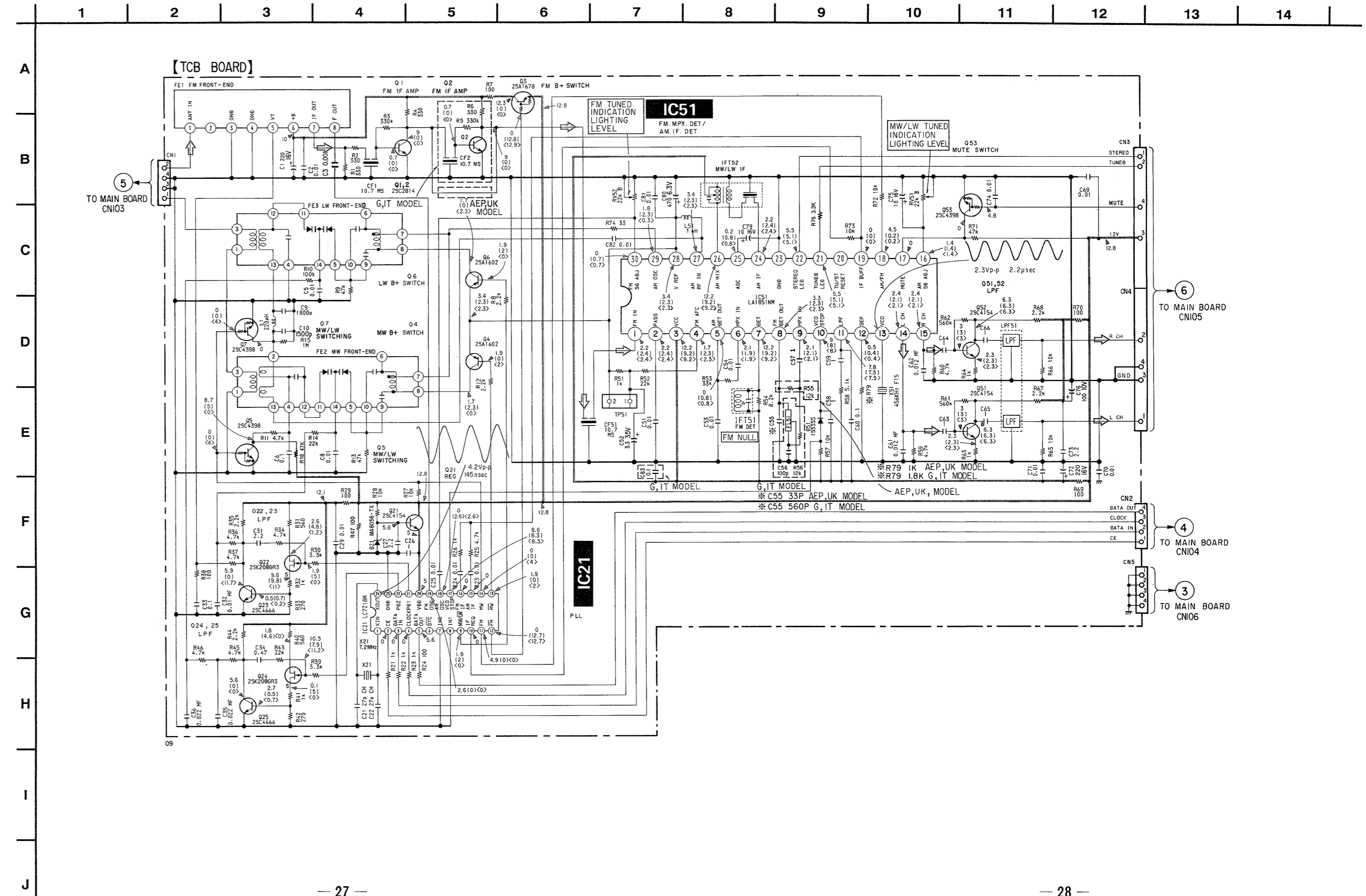
Ref. No.	Location
D21	C-4
D51	C-2
IC21	C-5
IC51	C-3
Q1	A-3
Q2	B-2
Q3	B-3
Q4	D-5
Q5	C-7
Q6	D-5
Q7	C-7
Q21	C-4
Q22	C-5
Q23	B-6
Q24	B-6
Q25	B-7
Q51	B-2
Q52	B-1
Q53	B-2



Notes on printed wiring boards:
 • — : Indicated a lead wire mounted on the component side.
 • □ : Indicated side identified with part number.
 • ● : Through hole.
 • ▨ : Pattern from the side which enables seeing.
 • ▩ : Pattern of the rear side.
 • G : Germany Model
 • IT : Italian Model

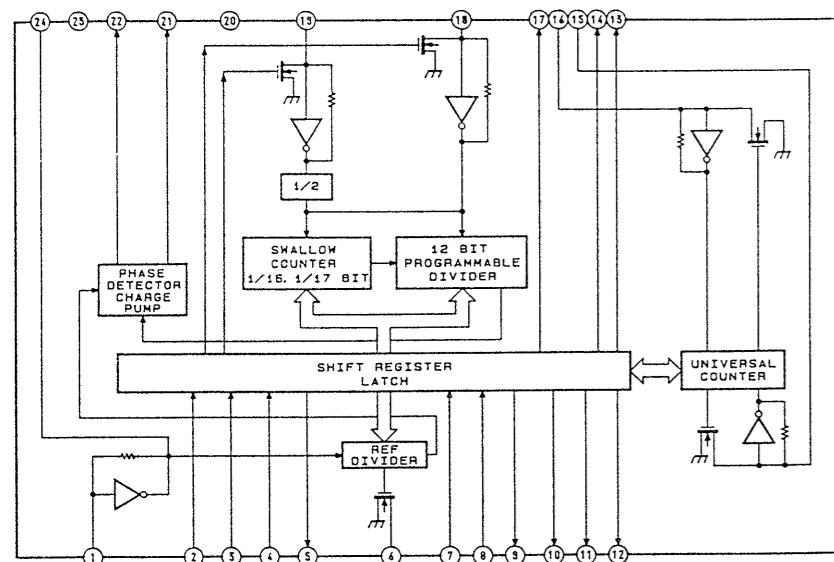
Notes on schematic diagram:
 • All capacitors are in μF unless otherwise noted. pF: μF 50VV or less are not indicated except for electrolytics and tantalums.
 • All resistors are in ohms, 1/4W or less unless otherwise noted.
 • Δ : Internal component.
 • — : B+ line
 • □ : Adjustment for repair.
 • Voltage are dc with respect to ground under no-signal conditions.
 • No mark : FM, CD
 • () : MW
 • < : LW
 • Voltages are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
 • Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
 • Signal path.
 • □ : FM
 • G : Germany Model
 • IT : Italian Model

4-9. SCHEMATIC DIAGRAM
 • TCB SECTION
 • See page 29, 30 and 31 for IC Block Diagrams.

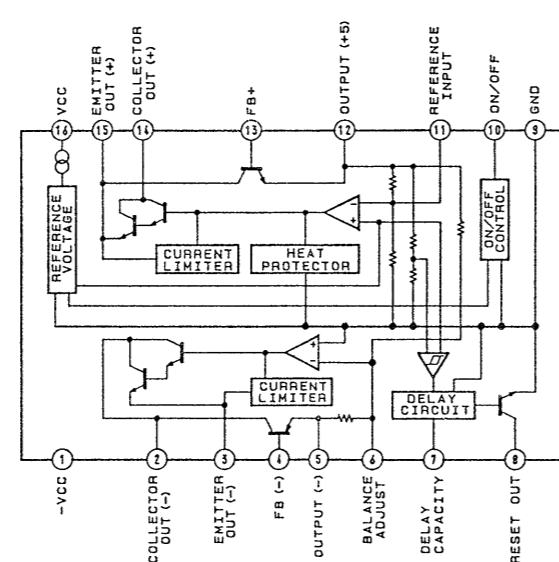


4-10. IC BLOCK DIAGRAMS

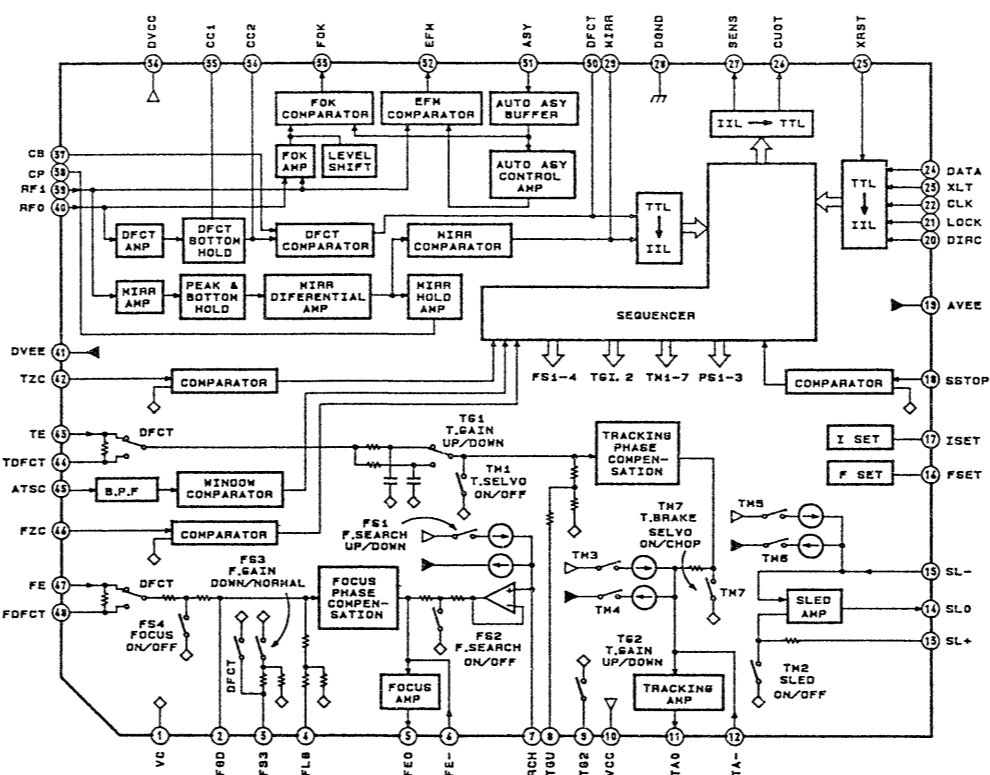
IC21 LC7218M



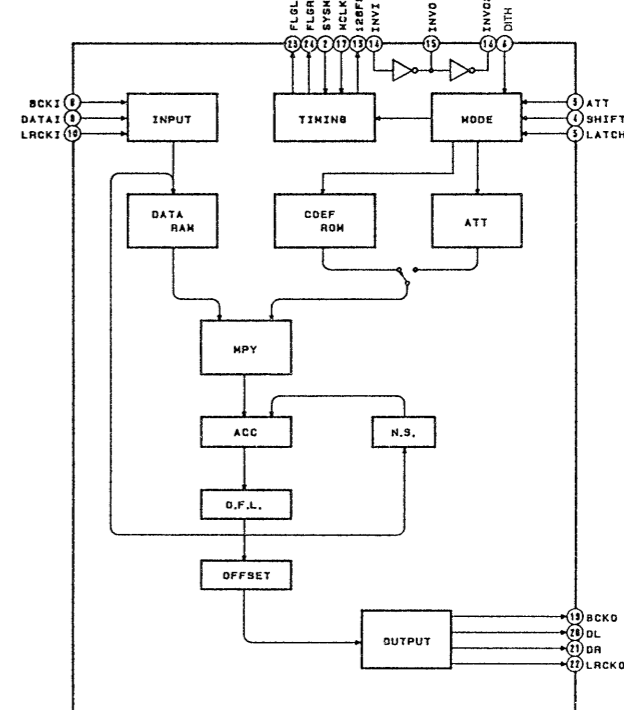
IC201 M5290FP



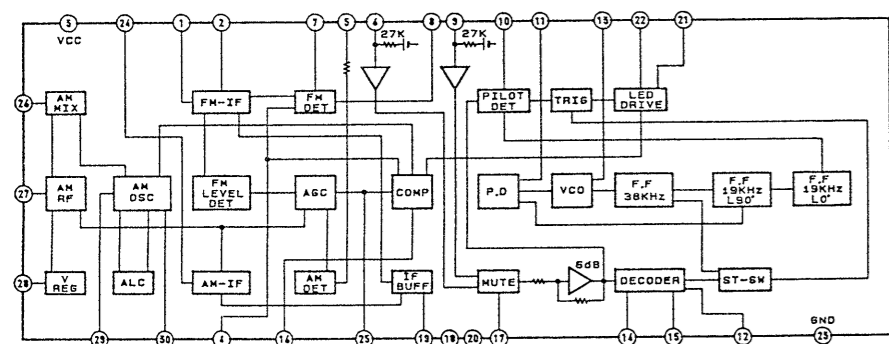
IC101 CXA1372AQ



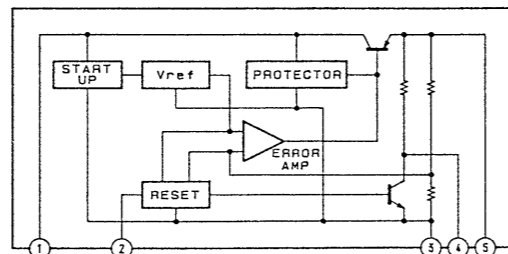
IC207 CXD2567M



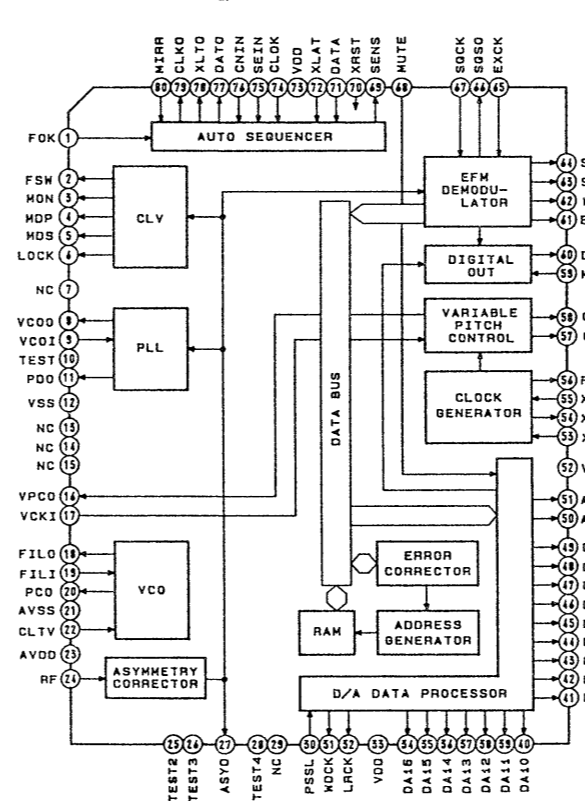
IC51 LA1851NM



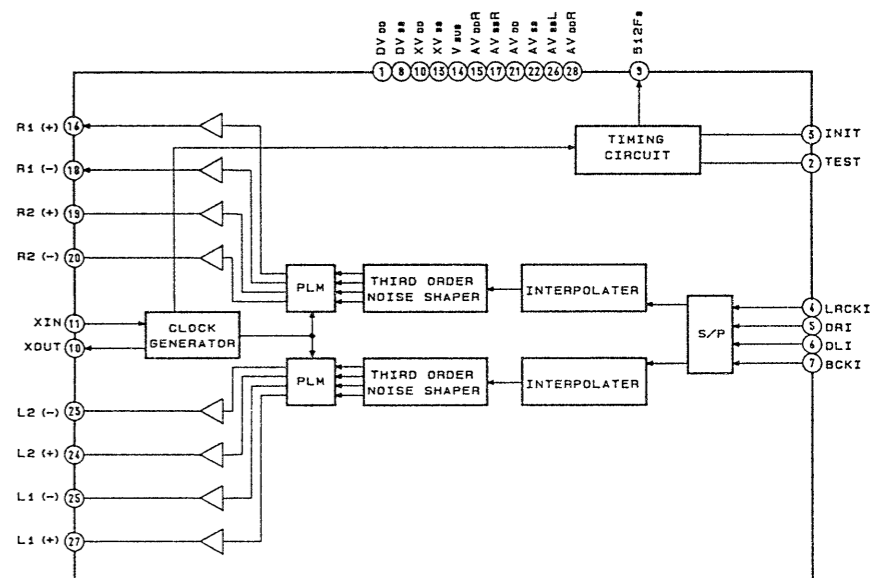
IC203 L78MR05



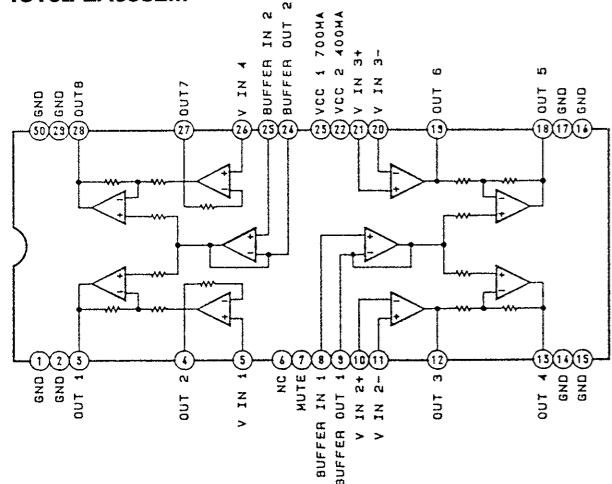
IC206 CXD2500BQ



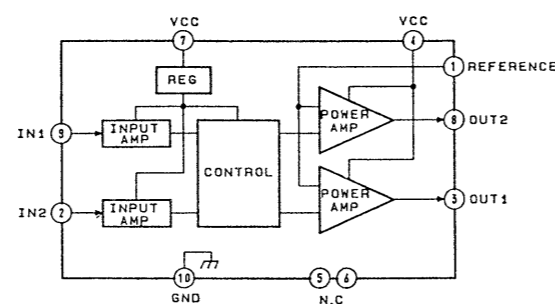
IC208 CXD2561BM



IC102 LA6532M



IC204 M54641FP



SECTION 5 IC PIN FUNCTIONS

• IC104 Tuner System Controller (μ PD78011GC-514-AB8)

No.	Name	I/O	Function
1	D0	I/O	Data input/output terminal with IC205 (CD system controller).
2	D1	I/O	Data input/output terminal with IC205 (CD system controller).
3	D2	I/O	Data input/output terminal with IC205 (CD system controller).
4	D3	I/O	Data input/output terminal with IC205 (CD system controller).
5	KEY REQ (CD)	O	Key data output timing. (CD)
6	CD BUSY INPUT	I	CD condition input.
7	AU BUS INPUT	I	Audio bus input.
8	AU BUS OUTPUT	O	Audio bus output.
9	Vss	–	GND pin.
10	Display status (CD)	O	Not used in this unit (Open).
11	Display status (ST)	O	Not used in this unit (Open).
12			Not used in this unit (Open).
13			Not used in this unit (Open).
14	I/OK	O	Not used in this unit (Open).
15	AM/FM	O	FM/AM selection output. "Low": FM "High": AM
16	AM forcible mono	O	Not used in this unit (Open).
17	AM	O	Not used in this unit (Open).
18	STEREO	I	STEREO input.
19	SIGNAL	I	SIGNAL input.
20	DATA INPUT	I	Data input from IC21 (PLL).
21	DATA OUTPUT	O	Data output to IC21 (PLL).
22	CLOCK	O	CLOCK output to IC21 (PLL).
23	CE	O	CE output to IC21 (PLL).
24	Vss	–	GND pin.
25			Not used in this unit (Open).
26			Not used in this unit (Open).
27	LED (TUNING)	O	Tuner "+"/"-" key mode LED output.
28	LED (PRESET)	O	Tuner "+"/"-" key mode LED output.
29	Analog bus control	O	Analog bus control output of IC102 (TC9215F-TP1).
30	POWER	O	Power output. "Low": ON "High": OFF
31	MUTE	O	Muting output. "Low": ON "High": OFF
32			Not used in this unit (Open).
33	IF -50K	I	IF offset input.
34	IF +50K	I	IF offset input.
35	RESET	I	Reset input.
36	BACK UP	I	Backup input.
37	DPCLK (CD)	I	CD display data timing input.
38	CLOCK	O	CLOCK output to IC106 (MEMORY).
39	DATA	I/O	Data input/output with IC106 (MEMORY).
40	VDD	–	Power supply pin (+5V).

No.	Name	I/O	Function
41	X2		Main clock.
42	X1	I	Main clock (8.38 MHz).
43	GND	–	GND pin.
44	XT2	–	Not used in this unit (Open).
45	GND	–	GND pin.
46	GND	–	GND pin.
47	Key input	I	Key input.
48	Key input	I	Key input.
49	Key input	I	Not used in this unit (+5V).
50	Key input	I	Not used in this unit (+5V).
51	GND	–	GND pin.
52	GND	–	GND pin.
53	GND	–	GND pin.
54	GND	–	GND pin.
55	AVDD	–	Power supply pin (+5V).
56	AVREF	–	Power supply pin (+5V).
57	GND	–	GND pin.
58	SDATA	O	Data output to IC601 (FL driver).
59	SCK	O	CLOCK output to IC601 (FL driver).
60	CS	O	CS output to IC601 (FL driver).
61	RESET	O	Reset output to IC601 (FL driver).
62	Destination	I	Destination determination input.
63	Destination	I	Destination determination input.
64	Destination	I	Destination determination input.

• **IC205 CD SYSTEM CONTROLLER (μ PD75116GF-G38-3BE)**

Controls IC101 (RF signal processing•servo), IC102 (DSP•digital filter) and loading, replaces data with IC104 (system controller), performs audio bus input, etc. of the CD section.

No.	Name	I/O	Function
1	DFCTSW	O	IC101 (CXA1372Q) DEFECT circuit ON/OFF selection output.
2	DPCLK	O	Display data transmission clock output to IC104 (μ PD78011GC-514-AB8).
3	INSW	I	S292 (loading-in switch) input.
4	OUTSW	I	S291 (loading-out switch) input.
5	LODIN	O	Output rotating M291 (loading motor) in loading-in direction. *1
6	LODOUT	O	Output rotating M291 (loading motor) in loading-out direction. *1
7	RESET	I	System reset input.
8	X2	I	Clock input.
9	X1	I	Clock input. (4 MHz)
10	LDON	O	Optical pickup laser diode on/off selection output. "High": ON
11	PRGL	O	Latch output to IC207 (digital filter).
12	XLT	O	Serial data latch output to IC206 (CXD2500BQ).
13	SQCLK	O	Sub-code Q data reading clock output to IC206 (CXD2500BQ).
14			Not used in this unit (Open).
15			Not used in this unit (Open).
16			Not used in this unit (Open).
17	ANASW	O	Analog bus control signal output of IC211 (TC9215F-TP1).
18	ICSW	I/O	CD power supply control pin. OFF: 0 output ON: Input (High impedance condition)
19			Not used in this unit (Open). (Same function as ICSW).
20			Not used in this unit (Open). (Same function as ICSW).
21			Not used in this unit (Open). (Same function as ICSW).
22	IVICSW	I/O	CD power supply control terminal. OFF: Input (High impedance condition) ON: 0 output
23			Not used in this unit (Open). (Same function as IVICSW).
24			Not used in this unit (Open). (Same function as IVICSW).
25			Not used in this unit (Open). (Same function as IVICSW).
26	Vss		GND pin.
27	SENSE	I	SENSE input from IC206 (CXD2500BQ).
28	ADJ	I	CD test mode input 1. Continues rotating the spindle motor even if the GFS check is not performed or no frame sync is output in PLAY, PAUSE, SEARCH at "Low".
29	KEYRQ	I	Key code input trigger from IC104 (μ PD78012GC-514-AB8). (Four falling edges for each key)
30	BSIN	I	Audio bus input.
31	ADKEY	I	AD key input pin.
32	ADSEL	I	AD key input permission selection pin.
33			Not used in this unit (GND).
34			Not used in this unit (GND).
35			Not used in this unit (GND).
36			Not used in this unit (GND).
37	SUBQ	I	Sub-code Q data input from IC206 (CXD2500BQ).
38	GFS	I	GFS signal input from IC206 (CXD2500BQ). "Low": NG "High": OK
39	FOK	I	Focus OK signal input from IC101 (CXA1372Q). "High": OK
40	AFADJ	I	CD test mode input 2.

No.	Name	I/O	Function
41	DACSW	I	IC208 (D/A converter) select pin. When DACSW: 1, CXD2561 When DACSW: 0, CXD2562
42	DATAA	O	Serial data output to IC206 (CXD2500BQ), IC207 (CXD2567M).
43	CLK	O	Serial data transmission clock output to IC206 (CXD2500BQ), IC207 (CXD2567M).
44	SCOR	I	Sub-code sync S0+S1 detection input from IC206 (CXD2500BQ).
45	RSTOUT	O	Reset output to vicinity ICs.
46			Not used in this unit (Open).
47			Not used in this unit (Open).
48			Not used in this unit (Open).
49			Not used in this unit (Open).
40			Not used in this unit (Open).
51			Not used in this unit (Open).
52			Not used in this unit (Open).
53			Not used in this unit (Open).
54			Not used in this unit (Open).
55			Not used in this unit (Open).
56	CDBUSY	O	CD ON: "High".
57	NC	-	Not used in this unit (+5V).
58	V _{DD}	-	Power supply pin (+5V).
59	DPDAT 3	I/O	Key data input and display data output with IC104 (μ PD78012GC-514-AB8).
60	DPDAT 2	I/O	Key data input and display data output with IC104 (μ PD78012GC-514-AB8).
61	DPDAT 1	I/O	Key data input and display data output with IC104 (μ PD78012GC-514-AB8).
62	DPDAT 0	I/O	Key data input and display data output with IC104 (μ PD78012GC-514-AB8).
63	AMUTE	O	Muting control output. "High": Mute
64	BSOUT	O	Audio bus output pin.

*1 Loading motor control

	IN	OUT	BRAKE
LOG OUT ⑥	L	H	H
LOG IN ⑤	H	L	H

SECTION 6 EXPLODED VIEWS

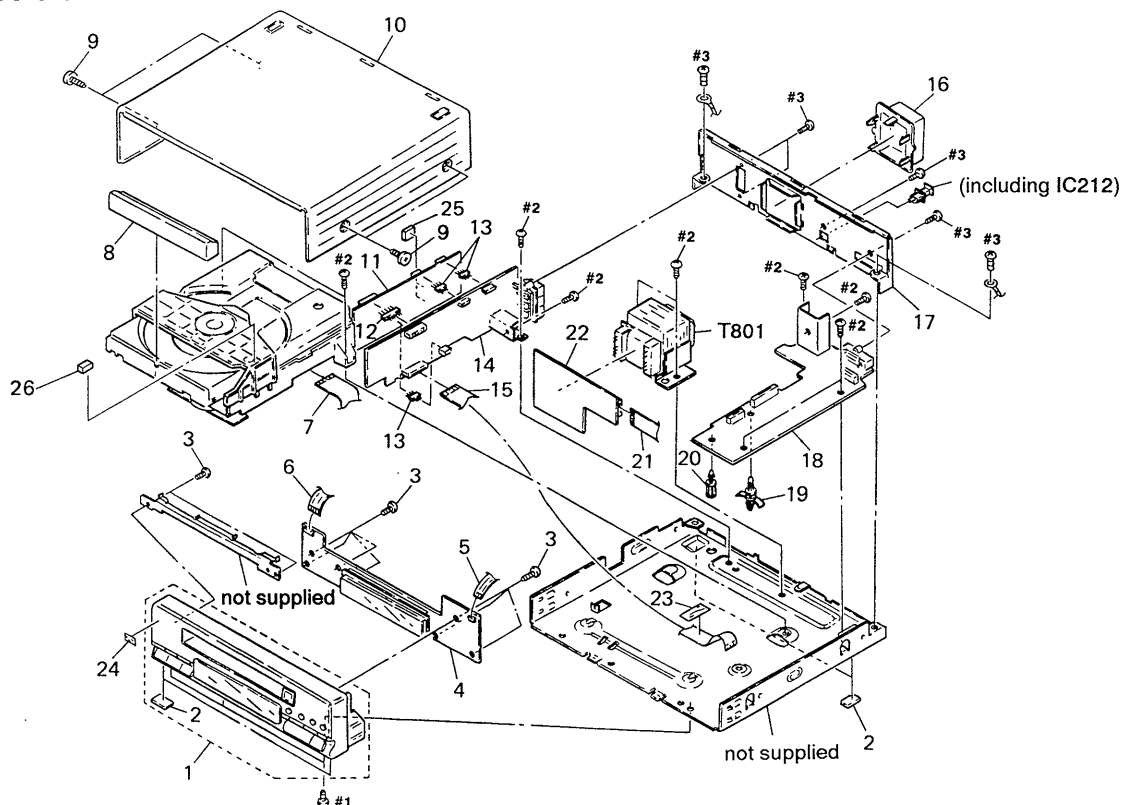
NOTE:

- -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

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

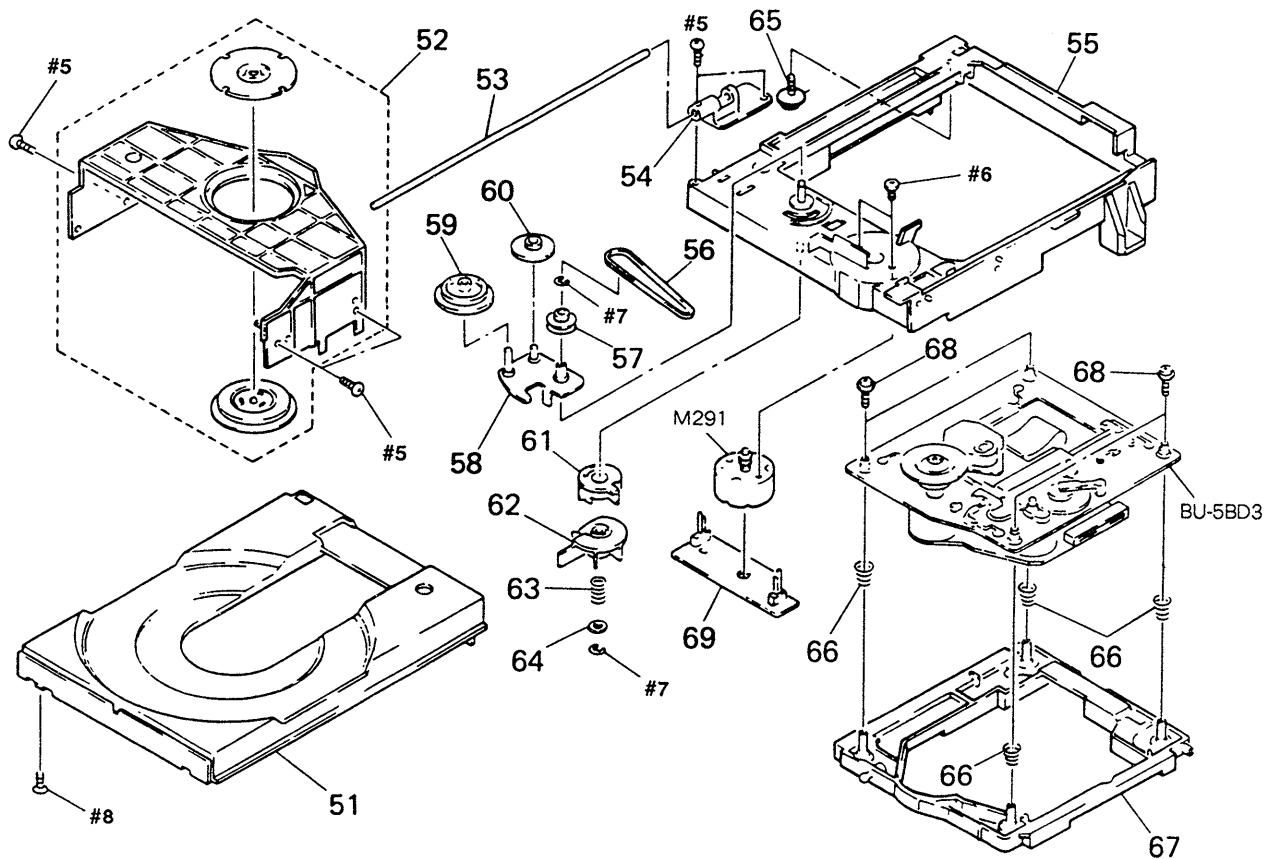
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

6-1. CHASSIS SECTION



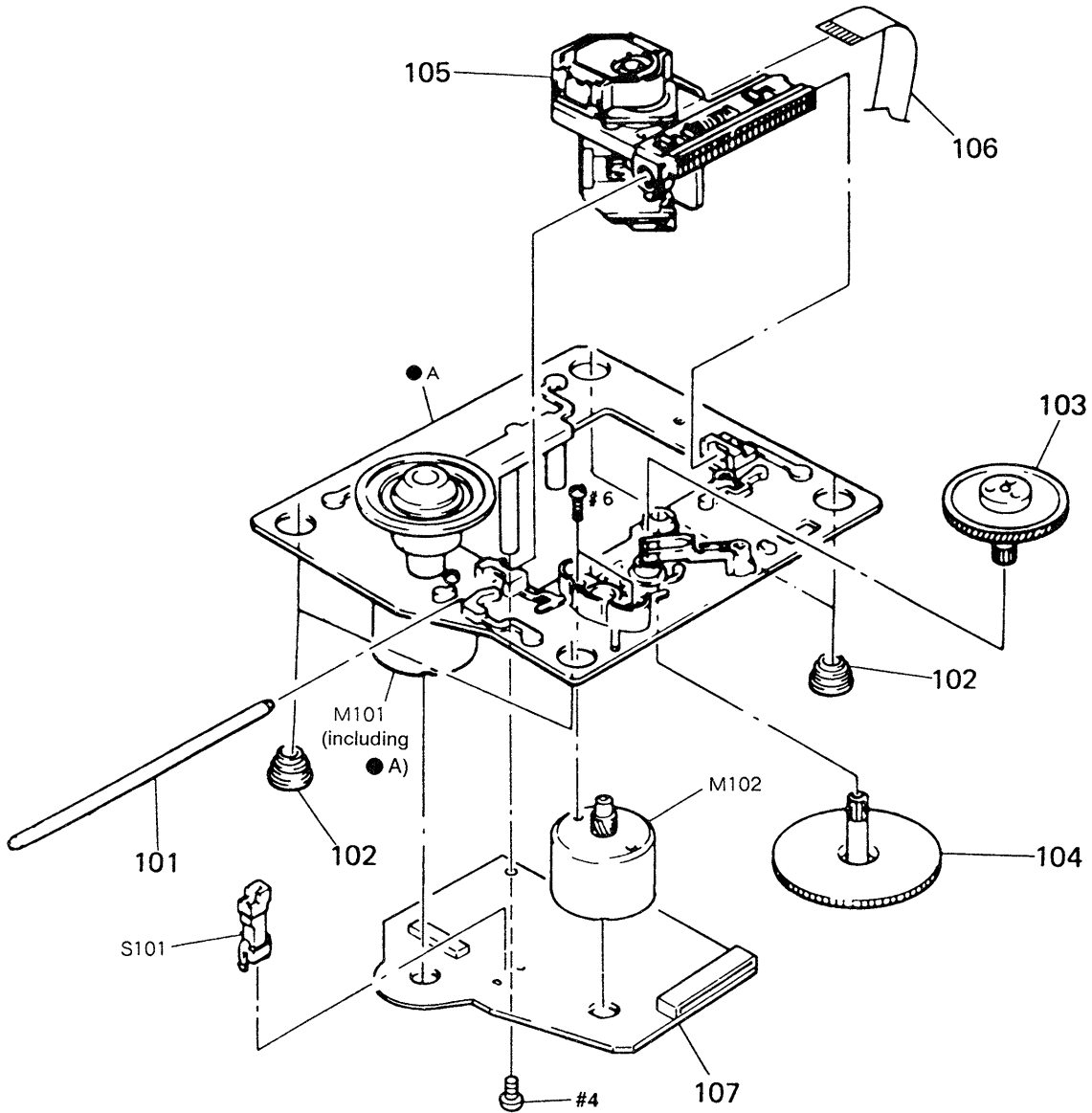
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4943-000-1	PANEL ASSY, FRONT		15	1-696-740-11	WIRE (FLAT TYPE) (15 CORE)	
2	4-930-336-31	FOOT (FELT)		* 16	4-954-186-01	COVER (T)	
3	4-951-620-01	SCREW (2. 6X8), +BVTP		* 17	4-955-031-01	PANEL (HCD), BACK (UK, G, IT)	
* 4	A-4360-227-A	PANEL BOARD, COMPLETE (AEP, UK)		* 18	4-955-031-31	PANEL (HCD), BACK (AEP)	
	A-4360-731-A	PANEL BOARD, COMPLETE (G)			A-4360-729-A	CD BOARD, COMPLETE (G)	
* 5	A-4360-735-A	PANEL BOARD, COMPLETE (IT)		* 18	A-4360-225-A	CD BOARD, COMPLETE (AEP, UK)	
6	1-696-738-11	WIRE (FLAT TYPE) (5 CORE)		* 19	A-4360-733-A	CD BOARD, COMPLETE (IT)	
7	1-696-739-11	WIRE (FLAT TYPE) (11 CORE)		* 20	4-924-098-11	HOLDER, PC BOARD	
8	1-690-753-11	WIRE (FLAT TYPE) (22 CORE)		* 21	3-669-610-00	SPACER	
9	3-363-099-21	SCREW (CASE 3 TP2) (AEP)			1-696-750-11	WIRE (FLAT TYPE) (9 CORE)	
	3-704-366-01	SCREW (CASE) (M3X8) (UK, G, IT)		22	A-4360-228-A	POWER BOARD, COMPLETE (AEP, UK)	
* 10	4-954-198-01	CASE		* 23	A-4360-732-A	POWER BOARD, COMPLETE (G)	
* 11	A-4304-343-A	TCB BOARD, COMPLETE (AEP, UK)		* 24	A-4360-736-A	POWER BOARD, COMPLETE (IT)	
* 12	A-4304-448-A	TCB BOARD, COMPLETE (G, IT)		25	4-860-518-00	CUSHION	
* 13	1-695-810-11	CONNECTOR, PC BOARD (PLUG) 8P		26	3-703-710-41	STICKER, SONY SYMBOL (12)	
* 14	1-695-809-11	CONNECTOR, PC BOARD (PLUG) 4P		* 25	3-561-427-21	CUSHION	
	A-4360-730-A	TUNER BOARD, COMPLETE (G)		26	3-884-171-00	STOPPER	
* 15	A-4360-226-A	TUNER BOARD, COMPLETE (AEP, UK)		*T801	1-423-378-11	TRANSFORMER, POWER	
* 16	A-4360-734-A	TUNER BOARD, COMPLETE (IT)					

6-2. CD MECHANISM SECTION-1
(CDM13B-5BD3)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-944-012-01	TABLE, DISC		61	4-929-727-01	CAM (A)	
52	A-4604-752-A	HOLDER (MG) ASSY (AEP)		62	4-929-729-01	CAM (B)	
	A-4660-272-B	HOLDER (MG) ASSY (UK, G, IT)		63	3-659-338-00	SPRING, COMPRESSION	
53	4-929-764-01	SHAFT (TABLE GUIDE)		64	4-927-654-01	WASHER (LIMITER)	
54	4-944-006-01	BEARING		* 65	4-917-583-21	BRACKET, YOKE	
55	X-4941-462-1	CHASSIS (MD) ASSY		66	4-917-541-01	SPRING (B) (AEP)	
56	4-927-649-01	BELT			4-958-593-01	SPRING (BU), COMPRESSION (UK, G, IT)	
57	4-929-724-01	PULLEY (B)		67	4-929-747-01	HOLDER (BU)	
58	X-4929-703-1	ARM ASSY, SWING		68	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
59	4-927-620-01	GEAR (P)		* 69	1-634-461-11	LOADING BOARD	
60	4-927-628-01	GEAR (C)		M291	A-4608-362-A	MOTOR (L) ASSY (LOADING)	

**6-3. CD MECHANISM SECTION-2
(BU-5BD3)**



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-917-565-01	SHAFT, SLED		106	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
102	4-933-126-01	INSULATOR (A) (AEP)		* 107	A-4617-371-A	BD BOARD, COMPLETE	
	4-951-940-01	INSULATOR (BU) (UK, G, IT)		M101	X-4917-523-3	MOTOR, DISK ASSY (SPINDLE)	
103	4-917-567-01	GEAR (M)		M102	X-4917-504-1	MOTOR ASSY (SLED)	
104	4-917-564-01	GEAR (P), FLATNESS		S101	1-572-085-11	SWITCH, LEAF	
Δ 105	8-848-144-11	DEVICE, OPTICAL KSS-240A					

SECTION 7 ELECTRICAL PARTS LIST

BD

NOTE:

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)
 ↑ ↑
 Parts color Cabinet's color
- Italian and Germany model is abbreviated as IT, G.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- **SEMICONDUCTORS**
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- **CAPACITORS**
uF : μ F
- **COILS**
uH : μ H
- AAEP: With Player terminal
AEP: Without Player terminal
- Hardware (# mark) list is given in the last of this parts list.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4617-371-A	BD BOARD, COMPLETE *****				< JUMPER RESISTOR >	
		< CAPACITOR >		J101	1-216-295-00	METAL CHIP 0 5% 1/10W	
				J102	1-216-295-00	METAL CHIP 0 5% 1/10W	
C101	1-163-038-00	CERAMIC CHIP 0.1uF 25V				< TRANSISTOR >	
C102	1-163-989-11	CERAMIC CHIP 0.033uF 10% 25V					
C103	1-126-163-11	ELECT 4.7uF 20% 50V					
C104	1-163-038-00	CERAMIC CHIP 0.1uF 25V		Q101	8-729-901-01	TRANSISTOR DTC144EK	
C105	1-126-154-11	ELECT 47uF 20% 6.3V				< RESISTOR >	
C106	1-126-154-11	ELECT 47uF 20% 6.3V		R101	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C107	1-126-154-11	ELECT 47uF 20% 6.3V		R102	1-216-095-00	METAL CHIP 82K 5% 1/10W	
C108	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R103	1-216-091-00	METAL CHIP 56K 5% 1/10W	
C109	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R104	1-216-099-00	METAL CHIP 120K 5% 1/10W	
C110	1-163-989-11	CERAMIC CHIP 0.033uF 10% 25V		R105	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
C111	1-131-367-00	TANTALUM 22uF 10% 20V		R106	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C112	1-164-232-11	CERAMIC CHIP 0.01uF 50V		R107	1-216-114-00	METAL GLAZE 510K 5% 1/10W	
C113	1-164-232-11	CERAMIC CHIP 0.01uF 50V		R108	1-216-105-00	METAL CHIP 220K 5% 1/10W	
C114	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V		R109	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C115	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V		R110	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C117	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R111	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C118	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R112	1-216-083-00	METAL CHIP 27K 5% 1/10W	
C119	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V		R113	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
C120	1-163-989-11	CERAMIC CHIP 0.033uF 10% 25V		R114	1-216-105-00	METAL CHIP 220K 5% 1/10W	
C151	1-163-019-00	CERAMIC CHIP 0.0068uF 10% 50V		R152	1-216-073-00	METAL CHIP 10K 5% 1/10W	
C152	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R153	1-216-085-00	METAL CHIP 33K 5% 1/10W	
C153	1-163-006-11	CERAMIC CHIP 560PF 10% 50V		R154	1-216-085-00	METAL CHIP 33K 5% 1/10W	
C154	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V		R155	1-216-093-00	METAL CHIP 68K 5% 1/10W	
C155	1-163-023-00	CERAMIC CHIP 0.015uF 5% 50V		R156	1-216-081-00	METAL CHIP 22K 5% 1/10W	
C171	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R157	1-216-079-00	METAL CHIP 18K 5% 1/10W	
C172	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R158	1-216-079-00	METAL CHIP 18K 5% 1/10W	
C173	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R159	1-216-079-00	METAL CHIP 18K 5% 1/10W	
C174	1-163-038-00	CERAMIC CHIP 0.1uF 25V		R160	1-216-049-00	METAL CHIP 1K 5% 1/10W	
		< CONNECTOR >		R171	1-216-001-00	METAL CHIP 10 5% 1/10W	
CN101	1-568-796-11	SOCKET, CONNECTOR 22P		R172	1-216-001-00	METAL CHIP 10 5% 1/10W	
CN102	1-568-795-11	SOCKET, CONNECTOR 12P		R173	1-216-001-00	METAL CHIP 10 5% 1/10W	
		< IC >		R174	1-216-001-00	METAL CHIP 10 5% 1/10W	
IC101	8-752-053-73	IC CXA1372AQ				< VARIABLE RESISTOR >	
IC102	8-759-822-36	IC LA6532M		RV101	1-241-630-11	RES. ADJ. CARBON 10K	
				RV102	1-241-630-11	RES. ADJ. CARBON 10K	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< SWITCH >					
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)		C237	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
		*****		C238	1-126-923-11	ELECT 220uF 20% 10V	
*	A-4360-225-A	CD BOARD, COMPLETE (AEP, UK)		C239	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
		*****		C240	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	
*	A-4360-729-A	CD BOARD, COMPLETE (G)		C241	1-163-099-00	CERAMIC CHIP 18PF 5% 50V	
		*****		C242	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
*	A-4360-733-A	CD BOARD, COMPLETE (IT)		C244	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
		*****		C245	1-163-115-00	CERAMIC CHIP 82PF 5% 50V	
*	4-880-403-21	HEAT SINK		C246	1-126-923-11	ELECT 220uF 20% 10V	
				C247	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
		< CAPACITOR >		C248	1-163-115-00	CERAMIC CHIP 82PF 5% 50V	
C201	1-124-915-11	ELECT 10uF 20% 63V		C249	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C202	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V		C251	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C203	1-124-564-11	ELECT 4700uF 20% 25V		C252	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C204	1-126-947-11	ELECT 47uF 20% 35V		C253	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	
C206	1-164-346-11	CERAMIC CHIP 1uF 16V		C254	1-163-143-00	CERAMIC CHIP 0.0012uF 5% 50V	
C207	1-164-695-11	CERAMIC CHIP 0.0022uF 5% 50V		C255	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C208	1-126-925-11	ELECT 470uF 20% 10V		C256	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C209	1-126-925-11	ELECT 470uF 20% 10V		C257	1-163-139-00	CERAMIC CHIP 820PF 5% 50V	
C210	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		C258	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C211	1-126-933-11	ELECT 100uF 20% 16V		C259	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
C212	1-126-933-11	ELECT 100uF 20% 16V		C260	1-163-017-00	CERAMIC CHIP 0.0047uF 5% 50V	
C213	1-164-005-11	CERAMIC CHIP 0.47uF 25V		C261	1-163-143-00	CERAMIC CHIP 0.0012uF 5% 50V	
C214	1-164-005-11	CERAMIC CHIP 0.47uF 25V		C262	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C215	1-164-005-11	CERAMIC CHIP 0.47uF 25V		C263	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C216	1-124-584-00	ELECT 100uF 20% 10V		C264	1-163-139-00	CERAMIC CHIP 820PF 5% 50V	
C217	1-163-133-00	CERAMIC CHIP 470PF 5% 50V		C265	1-124-925-11	ELECT 2.2uF 20% 100V	
C218	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		C266	1-124-925-11	ELECT 2.2uF 20% 100V	
C219	1-124-584-00	ELECT 100uF 20% 10V		C267	1-124-925-11	ELECT 2.2uF 20% 100V	
C220	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		C268	1-124-925-11	ELECT 2.2uF 20% 100V	
C221	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		C269	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C222	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		C270	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C223	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		C272	1-126-933-11	ELECT 100uF 20% 16V	
C224	1-164-005-11	CERAMIC CHIP 0.47uF 25V		C273	1-164-346-11	CERAMIC CHIP 1uF 16V	
C225	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		C274	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C226	1-163-035-00	CERAMIC CHIP 0.047uF 50V				< CONNECTOR >	
C227	1-163-145-00	CERAMIC CHIP 0.0015uF 5% 50V		* CN201	1-569-624-11	SOCKET, CONNECTOR 17P	
C228	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		* CN202	1-568-834-11	SOCKET, CONNECTOR 15P	
C229	1-126-923-11	ELECT 220uF 20% 10V		CN203	1-695-830-11	HOUSING, CONNECTOR 5P	
C230	1-164-005-11	CERAMIC CHIP 0.47uF 25V		* CN204	1-568-822-11	SOCKET, CONNECTOR 22P	
C231	1-164-005-11	CERAMIC CHIP 0.47uF 25V		* CN205	1-564-339-51	PIN, CONNECTOR 5P	
C232	1-164-232-11	CERAMIC CHIP 0.01uF 50V		CN206	1-695-693-11	CONNECTOR, FFC/FPC 9P	
C233	1-164-695-11	CERAMIC CHIP 0.0022uF 5% 50V				< DIODE >	
C234	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		D201	8-719-210-39	DIODE EC10QS-04	
C235	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V		D202	8-719-210-39	DIODE EC10QS-04	
C236	1-163-102-00	CERAMIC CHIP 24PF 5% 50V		D203	8-719-210-39	DIODE EC10QS-04	
				D204	8-719-210-39	DIODE EC10QS-04	
				D205	8-719-021-13	DIODE UZM3.9Z	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D206	8-719-800-76	DIODE 1SS226		R211	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
D207	8-719-800-76	DIODE 1SS226		R212	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
D208	8-719-021-89	DIODE UZM10X		R213	1-216-073-00	METAL CHIP 10K 5% 1/10W	
D209	8-719-800-76	DIODE 1SS226		R214	1-216-073-00	METAL CHIP 10K 5% 1/10W	
		< IC >		R215	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC201	8-759-636-24	IC M5290FP		R216	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
IC202	8-759-148-80	IC uPC2407HF		R217	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC203	8-759-820-84	IC L78MR05		R218	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC204	8-759-636-20	IC M54641FP		R219	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC205	8-759-163-41	IC uPD75116GF-G38-3BE		R220	1-216-037-00	METAL CHIP 330 5% 1/10W	
IC206	8-752-352-93	IC CXD2500BQ		R221	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
IC207	8-752-356-03	IC CXD2567M		R222	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC208	8-752-351-19	IC CXD2561BM		R223	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
IC209	8-759-636-55	IC M5218AFP		R224	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC210	8-759-636-55	IC M5218AFP		R225	1-216-097-00	METAL CHIP 100K 5% 1/10W	
IC211	8-759-051-64	IC TC9215F-TP1		R226	1-216-049-00	METAL CHIP 1K 5% 1/10W	
IC212	8-749-923-04	IC TOTX178		R227	1-216-049-00	METAL CHIP 1K 5% 1/10W	
		< JUMPER RESISTOR >		R228	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W		R229	1-216-025-00	METAL CHIP 100 5% 1/10W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W		R230	1-216-025-00	METAL CHIP 100 5% 1/10W	
		< COIL >		R231	1-216-025-00	METAL CHIP 100 5% 1/10W	
L201	1-410-397-21	FERRITE BEAD INDUCTOR		R232	1-216-049-00	METAL CHIP 1K 5% 1/10W	
L202	1-410-464-11	INDUCTOR 3.3uH		R233	1-216-049-00	METAL CHIP 1K 5% 1/10W	
L203	1-410-397-21	FERRITE BEAD INDUCTOR		R234	1-216-049-00	METAL CHIP 1K 5% 1/10W	
L204	1-410-397-21	FERRITE BEAD INDUCTOR		R235	1-216-049-00	METAL CHIP 1K 5% 1/10W	
		< TRANSISTOR >		R236	1-216-049-00	METAL CHIP 1K 5% 1/10W	
Q201	8-729-141-83	TRANSISTOR 2SB1094-LK		R237	1-216-049-00	METAL CHIP 1K 5% 1/10W	
Q202	8-729-140-75	TRANSISTOR 2SD999-CLCK		R238	1-216-049-00	METAL CHIP 1K 5% 1/10W	
Q203	8-729-101-07	TRANSISTOR 2SB798-DL		R239	1-216-097-00	METAL CHIP 100K 5% 1/10W	
Q204	8-729-805-41	TRANSISTOR 2SC3398		R240	1-216-121-00	METAL CHIP 1M 5% 1/10W	
Q205	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R241	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
Q206	8-729-805-41	TRANSISTOR 2SC3398		R242	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
Q207	8-729-805-65	TRANSISTOR 2SA1344		R243	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
Q208	8-729-805-40	TRANSISTOR 2SC3900		R244	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
Q209	8-729-805-40	TRANSISTOR 2SC3900		R245	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
		< RESISTOR >		R246	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R201	1-216-097-00	METAL CHIP 100K 5% 1/10W		R247	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R202	1-216-097-00	METAL CHIP 100K 5% 1/10W		R248	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R203	1-216-065-00	METAL CHIP 4.7K 5% 1/10W		R249	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R204	1-216-065-00	METAL CHIP 4.7K 5% 1/10W		R250	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R205	1-216-073-00	METAL CHIP 10K 5% 1/10W		R251	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
R206	1-216-053-00	METAL CHIP 1.5K 5% 1/10W		R252	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R207	1-216-073-00	METAL CHIP 10K 5% 1/10W		R253	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R208	1-216-065-00	METAL CHIP 4.7K 5% 1/10W		R254	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R209	1-216-001-00	METAL CHIP 10 5% 1/10W		R255	1-216-088-00	METAL CHIP 43K 5% 1/10W	
R210	1-216-073-00	METAL CHIP 10K 5% 1/10W		R256	1-216-088-00	METAL CHIP 43K 5% 1/10W	
				R257	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
				R258	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
				R259	1-216-041-00	METAL CHIP 470 5% 1/10W	
				R260	1-216-097-00	METAL CHIP 100K 5% 1/10W	

CD	LOADING	PANEL
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Ref. No.	Part No.	Description	Remark
R261	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R262	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R263	1-216-088-00	METAL CHIP 43K 5% 1/10W	
R264	1-216-088-00	METAL CHIP 43K 5% 1/10W	
R265	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R266	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R267	1-216-041-00	METAL CHIP 470 5% 1/10W	
R268	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R269	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R270	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R271	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R272	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R273	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R274	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R275	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R276	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R277	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R278	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R279	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R280	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R281	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R282	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R283	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R284	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R285	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R286	1-216-097-00	METAL CHIP 100K 5% 1/10W	
< VIBRATOR >			
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	
X202	1-567-965-11	VIBRATOR, CRYSTAL (22.6MHz)	

*	1-634-461-11	LOADING BOARD	

< CONNECTOR >			
* CN291	1-564-498-11	PIN, CONNECTOR 5P	
< SWITCH >			
S291	1-571-924-11	SWITCH, LEAF (LOAD OUT)	
S292	1-571-924-11	SWITCH, LEAF (LOAD IN)	

Ref. No.	Part No.	Description	Remark
*	A-4360-227-A	PANEL BOARD, COMPLETE (AEP, UK)	

*	A-4360-731-A	PANEL BOARD, COMPLETE (G)	

*	A-4360-735-A	PANEL BOARD, COMPLETE (IT)	

*	4-932-810-11	CUSHION (FL)	
*	4-954-187-01	HOLDER (FL)	
< CAPACITOR >			
C601	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C602	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C603	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C604	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C605	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C606	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C607	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C608	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C609	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C610	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C611	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C612	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C613	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C614	1-124-584-00	ELECT 100uF 20% 10V	
C615	1-164-346-11	CERAMIC CHIP 1uF 16V	
C616	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C617	1-124-248-00	ELECT 22uF 20% 35V	
C618	1-136-169-00	FILM 0.22uF 5% 50V	
C619	1-136-173-00	FILM 0.47uF 5% 50V	
C620	1-136-173-00	FILM 0.47uF 5% 50V	
C621	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C622	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
< CONNECTOR >			
CN601	1-695-829-11	HOUSING, CONNECTOR 11P	
CN602	1-580-918-11	HOUSING, CONNECTOR 5P	
< DIODE >			
D601	8-719-301-37	LED SEL2210S-CD	
D602	8-719-301-37	LED SEL2210S-CD	
< FILTER >			
FL601	1-517-115-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC601	8-759-077-16	IC M66004M4FP	

PANEL POWER TUNER

Ref.No.	Part No.	Description	Remark
		< COIL >	
L601	1-408-793-21	INDUCTOR CHIP 220uH	
		< TRANSISTOR >	
Q603	8-729-805-41	TRANSISTOR 2SC3398	
		< RESISTOR >	
R601	1-216-041-00	METAL CHIP 470 5% 1/10W	
R602	1-216-045-00	METAL CHIP 680 5% 1/10W	
R603	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R604	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R605	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R606	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R607	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R608	1-216-041-00	METAL CHIP 470 5% 1/10W	
R609	1-216-045-00	METAL CHIP 680 5% 1/10W	
R610	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R611	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R612	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R613	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R614	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R615	1-216-043-00	METAL CHIP 560 5% 1/10W	
R616	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R617	1-216-097-00	METAL CHIP 100K 5% 1/10W	
		< SWITCH >	
S601	1-554-303-21	SWITCH, TACTILE (△)	
S602	1-554-303-21	SWITCH, TACTILE (▶▶)	
S603	1-554-303-21	SWITCH, TACTILE (◀◀)	
S604	1-554-303-21	SWITCH, TACTILE (EDIT)	
S605	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S606	1-554-303-21	SWITCH, TACTILE (▷ ■■)	
S607	1-554-303-21	SWITCH, TACTILE (■)	
S608	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S609	1-554-303-21	SWITCH, TACTILE (BAND)	
S610	1-554-303-21	SWITCH, TACTILE (+)	
S611	1-554-303-21	SWITCH, TACTILE (-)	
S612	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S613	1-554-303-21	SWITCH, TACTILE (MODE)	
S614	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)	
S615	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S616	1-554-303-21	SWITCH, TACTILE (REPEAT)	

Ref.No.	Part No.	Description	Remark
*	1-647-875-11	POWER BOARD *****	
		< CAPACITOR >	
C801	1-126-949-11	ELECT 220uF 20% 35V	
C802	1-124-122-11	ELECT 100uF 20% 50V	
C803	1-126-948-11	ELECT 100uF 20% 35V	
C805	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	
C806	1-126-157-11	ELECT 10uF 20% 16V	
		< CONNECTOR >	
CN801	1-695-729-11	CONNECTOR, FFC/FPC 9P	
		< DIODE >	
D801	8-719-200-02	DIODE 10E-2	
D802	8-719-200-02	DIODE 10E-2	
D803	8-719-021-23	DIODE UZM4.7B	
D804	8-719-021-23	DIODE UZM4.7B	
		< IC >	
IC801	8-759-700-72	IC NJM79L24A	
		< IC LINK >	
△ICP801	1-532-838-11	LINK, IC (PRF800 0.8A)	
△ICP802	1-532-838-11	LINK, IC (PRF800 0.8A)	
		< RESISTOR >	
R802	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R803	1-216-041-00	METAL CHIP 470 5% 1/10W	
R804	1-216-041-00	METAL CHIP 470 5% 1/10W	
		< TRANSFORMER >	
△T801	1-423-378-11	TRANSFORMER, POWER	

*	A-4360-226-A	TUNER BOARD, COMPLETE (AEP, UK) *****	
*	A-4360-730-A	TUNER BOARD, COMPLETE (G) *****	
*	A-4360-734-A	TUNER BOARD, COMPLETE (IT) *****	
		< CAPACITOR >	
C124	1-126-160-11	ELECT 1uF 20% 50V	
C125	1-126-160-11	ELECT 1uF 20% 50V	
C126	1-126-160-11	ELECT 1uF 20% 50V	
C127	1-126-160-11	ELECT 1uF 20% 50V	
C128	1-164-004-11	CERAMIC CHIP 0.1uF 10% 25V	

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

TUNER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C129	1-126-096-11	ELECT	10uF 20% 35V	Q109	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
C130	1-126-933-11	ELECT	100uF 20% 16V			< RESISTOR >	
C131	1-126-933-11	ELECT	100uF 20% 16V				
C132	1-164-346-11	CERAMIC CHIP	1uF 16V				
C133	1-163-104-00	CERAMIC CHIP	30PF 5% 50V	R123	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C134	1-163-104-00	CERAMIC CHIP	30PF 5% 50V	R124	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C135	1-136-173-00	FILM	0.47uF 5% 50V	R125	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C136	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R126	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C137	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R127	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C138	1-126-157-11	ELECT	10uF 20% 16V	R128	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C139	1-126-160-11	ELECT	1uF 20% 50V	R129	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C140	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R130	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C141	1-124-584-00	ELECT	100uF 20% 10V	R131	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C142	1-164-346-11	CERAMIC CHIP	1uF 16V	R132	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C143	1-124-589-11	ELECT	47uF 20% 16V	R133	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C144	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	R134	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C147	1-126-933-11	ELECT	100uF 20% 16V	R135	1-216-049-00	METAL CHIP 1K 5% 1/10W	
		< CONNECTOR >		R136	1-216-049-00	METAL CHIP 1K 5% 1/10W	
* CN101	1-568-834-11	SOCKET, CONNECTOR 15P		R137	1-216-049-00	METAL CHIP 1K 5% 1/10W	
CN102	1-695-829-11	HOUSING, CONNECTOR 11P		R138	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
CN103	1-573-105-11	CONNECTOR, PC BOARD (RECEPTACLE)		R139	1-216-073-00	METAL CHIP 10K 5% 1/10W	
CN104	1-573-105-11	CONNECTOR, PC BOARD (RECEPTACLE)		R140	1-216-049-00	METAL CHIP 1K 5% 1/10W	
* CN105	1-695-808-11	CONNECTOR, PC BOARD (RECEPTACLE)		R141	1-216-049-00	METAL CHIP 1K 5% 1/10W	
CN106	1-573-105-11	CONNECTOR, PC BOARD (RECEPTACLE)		R142	1-216-049-00	METAL CHIP 1K 5% 1/10W	
		< DIODE >		R143	1-216-049-00	METAL CHIP 1K 5% 1/10W	
D101	8-719-990-39	DIODE DCB010		R144	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
D102	8-719-021-95	DIODE UZM11B		R145	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
D103	8-719-990-39	DIODE DCB010		R146	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
D104	8-719-990-39	DIODE DCB010		R147	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
		< IC >		R148	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC102	8-759-051-64	IC TC9215F-TP1		R149	1-216-049-00	METAL CHIP 1K 5% 1/10W	
IC104	8-759-155-75	IC uPD78011GC-514-AB8		R150	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC105	8-759-510-43	IC PST572C		R151	1-216-073-00	METAL CHIP 10K 5% 1/10W	
IC106	8-759-504-12	IC X24C01S		R153	1-216-073-00	METAL CHIP 10K 5% 1/10W	
		< JUMPER RESISTOR >		R154	1-216-049-00	METAL CHIP 1K 5% 1/10W	
JW103	1-216-295-00	METAL CHIP	0 5% 1/10W	R155	1-216-049-00	METAL CHIP 1K 5% 1/10W	
JW104	1-216-295-00	METAL CHIP	0 5% 1/10W	R156	1-216-049-00	METAL CHIP 1K 5% 1/10W	
			(IT)	R157	1-216-049-00	METAL CHIP 1K 5% 1/10W	
JW105	1-216-295-00	METAL CHIP	0 5% 1/10W	R158	1-216-073-00	METAL CHIP 10K 5% 1/10W	
			(AEP, UK)	R159	1-216-073-00	METAL CHIP 10K 5% 1/10W	
		< TRANSISTOR >		R160	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
Q103	8-729-232-69	TRANSISTOR 2SK208GR3		R161	1-216-001-00	METAL CHIP 10 5% 1/10W	
Q104	8-729-209-15	TRANSISTOR 2SD2012		R162	1-216-073-00	METAL CHIP 10K 5% 1/10W	
Q105	8-729-101-07	TRANSISTOR 2SB798-DL		R163	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
Q107	8-729-805-65	TRANSISTOR 2SA1344		R164	1-216-073-00	METAL CHIP 10K 5% 1/10W	
Q108	8-729-805-41	TRANSISTOR 2SC3398		R165	1-216-073-00	METAL CHIP 10K 5% 1/10W	
				R166	1-216-073-00	METAL CHIP 10K 5% 1/10W	
				R167	1-216-073-00	METAL CHIP 10K 5% 1/10W	
				R168	1-216-073-00	METAL CHIP 10K 5% 1/10W	
				R169	1-216-097-00	METAL CHIP 100K 5% 1/10W	
				R170	1-216-097-00	METAL CHIP 100K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R171	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R172	1-216-097-00	METAL CHIP 100K 5% 1/10W	
		< TERMINAL >	
* TM101	1-537-288-11	TERMINAL BOARD, ANTENNA (PAL)	
		< VIBRATOR >	
X102	1-579-600-11	VIBRATOR, CERAMIC (8.39MHz)	

*	A-4303-343-A	TCB BOARD, COMPLETE (AEP, UK)	

*	A-4303-448-A	TCB BOARD, COMPLETE (G, IT)	

		< CAPACITOR >	
C001	1-124-120-11	ELECT 220uF 20% 25V	
C002	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C003	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C005	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C006	1-163-038-11	CERAMIC CHIP 0.1uF 25V	
C008	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C009	1-163-012-00	CERAMIC CHIP 0.0018uF 10% 50V	
C010	1-163-011-11	CERAMIC CHIP 0.0015uF 10% 50V	
C021	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C022	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C023	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C024	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C025	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C026	1-164-346-11	CERAMIC CHIP 1uF 16V	
C027	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C029	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C031	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C032	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C033	1-163-038-11	CERAMIC CHIP 0.1uF 25V	
C034	1-164-005-11	CERAMIC CHIP 0.47uF 25V	
C035	1-163-033-11	CERAMIC CHIP 0.022uF 50V	
C036	1-163-033-11	CERAMIC CHIP 0.022uF 50V	
C051	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C052	1-126-162-11	ELECT 3.3uF 20% 50V	
C053	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C054	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C055	1-163-105-00	CERAMIC CHIP 33PF 5% 50V (AEP, UK)	
C055	1-163-135-00	CERAMIC CHIP 560PF 5% 50V (G, IT)	
C056	1-163-117-00	CERAMIC CHIP 100PF 5% 50V (G, IT)	
C057	1-164-346-11	CERAMIC CHIP 1uF 16V	

Ref. No.	Part No.	Description	Remark
C058	1-164-346-11	CERAMIC CHIP 1uF 16V	
C059	1-164-346-11	CERAMIC CHIP 1uF 16V	
C060	1-163-038-11	CERAMIC CHIP 0.1uF 25V	
C061	1-163-022-00	CERAMIC CHIP 0.012uF 10% 50V	
C062	1-163-022-00	CERAMIC CHIP 0.012uF 10% 50V	
C063	1-164-346-11	CERAMIC CHIP 1uF 16V	
C064	1-164-346-11	CERAMIC CHIP 1uF 16V	
C065	1-164-346-11	CERAMIC CHIP 1uF 16V	
C066	1-164-346-11	CERAMIC CHIP 1uF 16V	
C069	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C070	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C071	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C072	1-124-120-11	ELECT 220uF 20% 25V	
C073	1-164-505-11	CERAMIC CHIP 2.2uF 16V	
C074	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C075	1-126-157-11	ELECT 10uF 20% 16V	
C076	1-126-101-11	ELECT 100uF 20% 16V	
C079	1-126-157-11	ELECT 10uF 20% 16V	
C080	1-124-472-11	ELECT 470uF 20% 10V	
C081	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C082	1-163-031-11	CERAMIC CHIP 0.01uF 50V	
C083	1-163-031-11	CERAMIC CHIP 0.01uF 50V (G, IT)	
		< FILTER >	
CF001	1-579-675-11	FILTER, CERAMIC (10.7MHz)	
CF002	1-579-675-11	FILTER, CERAMIC (10.7MHz) (G, IT)	
CF051	1-579-675-11	FILTER, CERAMIC (10.7MHz)	
		< CONNECTOR >	
CN001	1-573-105-11	CONNECTOR, PC BOARD (RECEPTACLE) 4P	
CN002	1-573-105-11	CONNECTOR, PC BOARD (RECEPTACLE) 4P	
CN003	1-573-105-11	CONNECTOR, PC BOARD (RECEPTACLE) 4P	
CN004	1-573-105-11	CONNECTOR, PC BOARD (RECEPTACLE) 4P	
CN005	1-573-105-11	CONNECTOR, PC BOARD (RECEPTACLE) 4P	
		< DIODE >	
D021	8-719-422-46	DIODE MA8056	
D051	8-719-988-62	DIODE ISS355	
		< FRONTEND >	
FE001	1-465-673-11	FRONTEND (FM 2 BAND) (FM) (AEP, UK)	
FE001	1-463-957-12	FRONTEND (FM 4 BAND) (FM) (G, IT)	
FE002	1-239-030-11	ENCAPSULATED COMPONENT (MW)	
FE003	1-239-049-11	ENCAPSULATED COMPONENT (LW)	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
		< FILTER >					
FL051	1-239-029-11	ENCAPSULATED COMPONENT (G, IT)		R005	1-216-109-00	METAL CHIP 330K 5%	1/10W (G, IT)
		< IC >		R006	1-216-037-00	METAL CHIP 330 5%	1/10W (G, IT)
IC021	8-759-821-43	IC LC7218M		R007	1-216-025-00	METAL CHIP 100 5%	1/10W
IC051	8-759-823-68	IC LA1851NM		R008	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
		< IFT >		R009	1-216-089-00	METAL CHIP 47K 5%	1/10W
IFT051	1-404-954-11	TRANSFORMER, DISCRIMINATOR (FM DET)		R010	1-216-097-00	METAL CHIP 100K 5%	1/10W
IFT052	1-404-713-11	TRANSFORMER, IF (MW/LW IF)		R011	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
		< JUMPER RESISTOR >		R012	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
JW001	1-216-295-00	METAL CHIP 0 5%	1/10W	R013	1-216-089-00	METAL CHIP 47K 5%	1/10W
JW002	1-216-295-00	METAL CHIP 0 5%	1/10W (AEP, UK)	R014	1-216-081-00	METAL CHIP 22K 5%	1/10W
JW004	1-216-295-00	METAL CHIP 0 5%	1/10W	R015	1-216-121-00	METAL CHIP 1M 5%	1/10W
JW005	1-216-295-00	METAL CHIP 0 5%	1/10W	R016	1-216-089-00	METAL CHIP 47K 5%	1/10W
JW007	1-216-295-00	METAL CHIP 0 5%	1/10W	R021	1-216-049-00	METAL CHIP 1K 5%	1/10W
		< COIL >		R022	1-216-049-00	METAL CHIP 1K 5%	1/10W
L001	1-408-793-21	INDUCTOR CHIP 220uH		R023	1-216-049-00	METAL CHIP 1K 5%	1/10W
L051	1-408-798-00	INDUCTOR CHIP 1mH		R024	1-216-025-00	METAL CHIP 100 5%	1/10W
		< LPF >		R025	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
LPF051	1-235-221-00	FILTER, LOW PASS		R026	1-216-049-00	METAL CHIP 1K 5%	1/10W
		< TRANSISTOR >		R027	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q001	8-729-804-72	TRANSISTOR 2SC2814-F4		R028	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q002	8-729-804-72	TRANSISTOR 2SC2814-F4 (G, IT)		R029	1-216-025-00	METAL CHIP 100 5%	1/10W
Q003	8-729-810-16	TRANSISTOR 2SA1678		R030	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
Q004	8-729-602-36	TRANSISTOR 2SA1602		R031	1-216-043-00	METAL CHIP 560 5%	1/10W
Q005	8-729-810-28	TRANSISTOR 2SC4398		R032	1-216-049-00	METAL CHIP 1K 5%	1/10W
Q006	8-729-602-36	TRANSISTOR 2SA1602		R033	1-216-035-00	METAL CHIP 270 5%	1/10W
Q007	8-729-810-28	TRANSISTOR 2SC4398		R034	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
Q021	8-729-602-21	TRANSISTOR 2SC4154-F		R035	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
Q022	8-729-232-69	TRANSISTOR 2SK208GR3		R036	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
Q023	8-729-232-59	TRANSISTOR 2SC4666B		R037	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
Q024	8-729-232-69	TRANSISTOR 2SK208GR3		R038	1-216-025-00	METAL CHIP 100 5%	1/10W
Q025	8-729-232-58	TRANSISTOR 2SC4666B		R039	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
Q051	8-729-602-21	TRANSISTOR 2SC4154-F		R040	1-216-043-00	METAL CHIP 560 5%	1/10W
Q052	8-729-602-21	TRANSISTOR 2SC4154-F		R041	1-216-049-00	METAL CHIP 1K 5%	1/10W
Q053	8-729-810-28	TRANSISTOR 2SC4398		R042	1-216-035-00	METAL CHIP 270 5%	1/10W
		< RESISTOR >		R043	1-216-081-00	METAL CHIP 22K 5%	1/10W
R001	1-216-037-00	METAL CHIP 330 5%	1/10W	R044	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R002	1-216-037-00	METAL CHIP 330 5%	1/10W	R045	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R003	1-216-109-00	METAL CHIP 330K 5%	1/10W	R046	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R004	1-216-037-00	METAL CHIP 330 5%	1/10W	R047	1-216-025-00	METAL CHIP 100 5%	1/10W
				R051	1-216-049-00	METAL CHIP 1K 5%	1/10W
				R052	1-216-081-00	METAL CHIP 22K 5%	1/10W
				R053	1-216-085-00	METAL CHIP 33K 5%	1/10W
				R054	1-216-071-00	METAL CHIP 8.2K 5%	1/10W
				R055	1-216-075-00	METAL CHIP 12K 5%	1/10W (AEP, UK)
				R056	1-216-075-00	METAL CHIP 12K 5%	1/10W (G, IT)
				R057	1-216-073-00	METAL CHIP 10K 5%	1/10W

Ref.No.	Part No.	Description	Remark
R058	1-216-066-00	METAL CHIP	5.1K 5% 1/10W
R059	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R060	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R061	1-216-115-00	METAL CHIP	560K 5% 1/10W
R062	1-216-115-00	METAL CHIP	560K 5% 1/10W
R063	1-216-049-00	METAL CHIP	1K 5% 1/10W
R064	1-216-049-00	METAL CHIP	1K 5% 1/10W
R065	1-216-073-00	METAL CHIP	10K 5% 1/10W
R066	1-216-073-00	METAL CHIP	10K 5% 1/10W
R067	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R068	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R069	1-216-025-00	METAL CHIP	100 5% 1/10W
R070	1-216-025-00	METAL CHIP	100 5% 1/10W
R071	1-216-089-00	METAL CHIP	47K 5% 1/10W
R072	1-216-073-00	METAL CHIP	10K 5% 1/10W
R073	1-216-073-00	METAL CHIP	10K 5% 1/10W
R074	1-216-013-00	METAL CHIP	33 5% 1/10W
R075	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R079	1-216-049-00	METAL CHIP	1K 5% 1/10W
R079	1-216-055-00	METAL CHIP	1.8K 5% 1/10W (G, IT)
		< VARIABLE RESISTOR >	
RV051	1-238-601-11	RES, ADJ, CARBON 22K (MW/LW TUNED IND. LEVEL)	
RV052	1-238-601-11	RES, ADJ, CARBON 22K (FW TUNED IND. LEVEL)	
		< TEST PIN >	
* TP051	1-564-336-00	PIN, CONNECTOR 2P	
		< VIBRATOR >	
X021	1-577-126-11	VIBRATOR, CRYSTAL (7.2MHz)	
X051	1-577-075-11	OSCILLATOR, CERAMIC (456kHz)	

		MISCELLANEOUS	

5	1-696-738-11	WIRE (FLAT TYPE) (5 CORE)	
6	1-696-739-11	WIRE (FLAT TYPE) (11 CORE)	
7	1-690-753-11	WIRE (FLAT TYPE) (22 CORE)	
* 12	1-695-810-11	CONNECTOR, PC BOARD (PLUG) 8P	
* 13	1-695-809-11	CONNECTOR, PC BOARD (PLUG) 4P	
15	1-696-740-11	WIRE (FLAT TYPE) (15 CORE)	
21	1-696-750-11	WIRE (FLAT TYPE) (9 CORE)	
△105	8-848-144-11	DEVICE, OPTICAL KSS-240A	
106	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M291	A-4608-362-A	MOTOR (L) ASSY (LOADING)	
M101	X-4917-523-3	MOTOR, DISK ASSY (SPINDLE)	

Ref.No.	Part No.	Description	Remark
M102	X-4917-504-1	MOTOR ASSY (SLED)	
S101	1-572-085-11	SWITCH, LEAF	

		ACCESSORIES & PACKING MATERIALS	

*	4-941-548-01	LABEL, CLASS 1	
*	4-957-154-21	INDIVIDUAL CARTON	
*	4-957-356-01	CUSHION (REAR)	
*	4-957-361-01	CUSHION (FRONT)	

		HARDWARE LIST	

#1	7-682-547-09	SCREW +BVTT 3X6 (S)	
#2	7-685-871-01	SCREW +BVTT 3X6 (S)	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#4	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#5	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#6	7-621-775-10	SCREW +B 2.6X4	
#7	7-624-105-04	STOP RING 2.3, TYPE -E	
#8	7-685-234-19	SCREW +KTP 2.6X8 TYPE2NON-SLIT	
#9	7-621-255-15	SCREW +P 2X3	

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

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SONY® SERVICE MANUAL

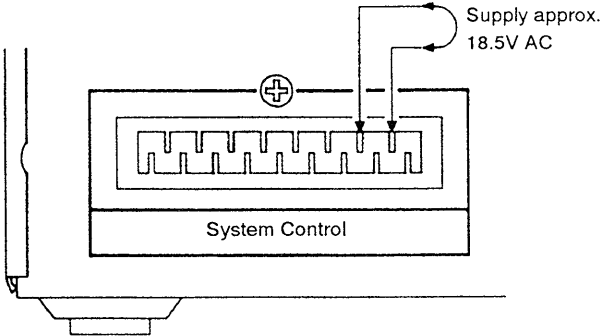
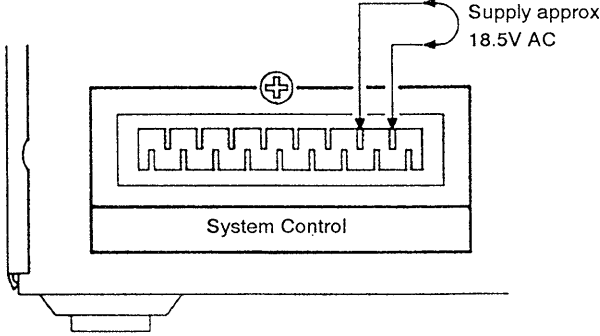
AEP Model
UK Model

CORRECTION-1

Correct your service manual as shown below

SECTION 1 SERVICE NOTE

 : indicates corrected portion.

Page	INCORRECT	CORRECT
3	<ul style="list-style-type: none">• TURNING ON THE POWER FORCIBLY This unit does not have a power switch. Its power is turned on/off by the amplifier. However, if power is being supplied, its power can be turned on without an amplifier using the following method.<ul style="list-style-type: none">• Press the “+” and “>” switches together to turn on the CD section, (Tuner section stops functioning.)• Press the “-” and “<” switches together to turn on the tuner section (CD section stops functioning.)  <p>Supply approx. 18.5V AC</p> <p>System Control</p> <p>{ The power can also be supplied by connecting the connector of the “CDP/TC” section of the PFJ-1 tool. }</p>	<ul style="list-style-type: none">• TURNING ON THE POWER FORCIBLY This unit does not have a power switch. Its power is turned on/off by the amplifier. However, if power is being supplied, its power can be turned on without an amplifier using the following method.<ul style="list-style-type: none">• Press the <u>MODE</u> and “>” switches together to turn on the CD section, (Tuner section stops functioning.)• Press the <u>STEREO/MONO</u> and “<” switches together to turn on the tuner section (CD section stops functioning.)  <p>Supply approx. 18.5V AC</p> <p>System Control</p> <p>{ The power can also be supplied by connecting the connector of the “CDP/TC” section of the PFJ-1 tool. }</p>

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SONY SERVICE MANUAL

AEP Model
UK Model

CORRECTION-2

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
36	* 22	A-4360-228-A	POWER BOARD, COMPLETE (AEP, UK)	1-647-875-11	PC BOARD, POWER
		A-4360-732-A	POWER BOARD, COMPLETE (G)		_____
		A-4360-736-A	POWER BOARD, COMPLETE (IT)		_____
					_____

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SONY SERVICE MANUAL

AEP Model
UK Model

CORRECTION-3

Correct your service manual as shown below.

___ (Under line) : indicates corrected portion.

Page	INCORRECT			CORRECT		
	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
36	* 11	A-4304-343-A	TCB BOARD, COMPLETE (AE, UK)	* 11	A- 4304 343-A	TCB BOARD, COMPLETE (AE, UK)
36	* 11	A-4304-448-A	TCB BOARD, COMPLETE (G, IT)	* 11	A- 4304 448-A	TCB BOARD, COMPLETE (G, IT)

(RPC-96010)