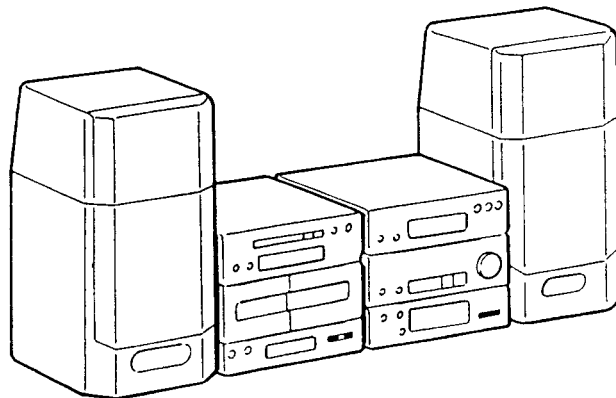


# FH-E737CD/E838CD, MHC-2600/3600

## SERVICE MANUAL



FH-E838CD, MHC-3600

US Model  
Canadian Model  
AEP Model  
UK Model

MHC-2600/3600

E Model  
Australian Model

FH-E737CD/E838CD

MHC-2600 inkl. LfdNr.:

4709+4205+4105+V13727

### SPECIFICATIONS

Power requirements US, CND models : 120V AC, 60Hz  
AEP, G, IT models :  
220-230V AC, 50/60Hz  
UK model : 240V AC, 50Hz  
E, EA AUS models :  
120V, 220V, or 240V AC  
adjustable, 50/60Hz

### Power consumption

	MHC-2600 FH-E737CD	MHC-3600 FH-E838CD
US model	100W	130W
CND AEP, G, IT, E, EA, AUS models	110W	140W
UK model	195W	310W

### Dimensions

MHC-2600/FH-E737CD :  
Approx. 225 × 365 × 275 mm  
(w/h/d)  
(8 7/8 × 14 3/8 × 10 7/8 inches)  
MHC-3600/FH-E838CD :  
Approx. 225 × 365 × 270 mm  
(w/h/d)  
(8 7/8 × 14 3/8 × 10 3/4 inches)

incl. projecting parts and controls

### Weight

MHC-2600/FH-E737CD :  
Approx. 9.6 kg (21 lb 3 oz)  
MHC-3600/FH-E838CD :  
Approx. 11.0 kg (24 lb 4 oz)

•FH-E737CD/E838CD and MHC-2600/3600 are composed of the following models. As for the service manual, it is issued for each component models, then please refer to it.

### COMPONENT MODEL NAME FOR

FH-E737CD E838CD and MHC-2600/3600

Component	System MHC-2600/FH-E737CD		MHC-3600/FH-E838CD	
	except US, Canadian models	US, Canadian models	US, Canadian models	except US, Canadian models
Amplifier	TA-H2600		TA-H3600	
CD player	CDP-H3600			
Tuner	ST-H3600			
Cassette deck	TC-H2600	TC-H3600		
Speaker System	SS-H2600			SS-H3600

### NOTE :

CND : Canadian model  
G : Germany model  
IT : Italian model  
EA : Saudi Arabia model  
AUS : Australian model

Design and specifications subject to change without notice.



MINI HI-FI  
COMPONENT SYSTEM  
**SONY**®

## PARTS LIST

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

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

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

### ACCESSORY & PACKING MATERIALS

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	1-465-703-11	REMOTE COMMANDER(RM-S360) (3600, E838CD)			3-753-175-11	MANUAL, INSTRUCTION(3600:AEP, UK, E838CD)	
	1-463-704-11	REMOTE COMMANDER(RM-S260) (2600:AEP, UK, G, IT, E737CD)				(English, French, Spanish, Chinese)	
	1-465-705-11	REMOTE COMMANDER(RM-S355) (2600:US, CND)			3-753-175-21	MANUAL, INSTRUCTION(3600:US, CND)	
						(English, French)	
	1-501-369-11	ANTENNA(FM) (AEP, UK, G, IT)			3-753-175-41	MANUAL, INSTRUCTION(3600:AEP, G, IT)	
	1-501-374-11	ANTENNA, LOOP(AM)				(German, Dutch, Swedish, Italian, Portuguese)	
	1-501-224-00	ANTENNA, FEEDER(FM) (US, CND)			3-753-277-11	MANUAL, INSTRUCTION(2600:AEP, UK, E737CD)	
						(English, French, Spanish, Chinese)	
	1-535-706-11	PLUG, JUMPER(H3600:E, EA)			3-753-277-21	MANUAL, INSTRUCTION(2600:US, CND)	
						(English, French)	
	$\triangle$ 1-558-032-11	CORD, POWER(UK)			3-753-277-41	MANUAL, INSTRUCTION(2600:AEP, G, IT)	
	$\triangle$ 1-575-131-11	CORD, POWER(AEP, G, IT, EA)				(German, Dutch, Swedish, Italian, Portuguese)	
	$\triangle$ 1-575-706-11	CORD, POWER(US, CND)			3-707-584-01	COVER, BATTERY(for RM-S260, S355)	
	$\triangle$ 1-555-074-00	CORD, POWER(AUS)			4-945-647-01	LID, SLIDE(for RM-S360)	
	$\triangle$ 1-556-280-00	CORD, POWER(E)			4-945-648-01	CASE, BATTERY(for RM-S360)	
	$\triangle$ 1-569-007-11	ADAPTER, CONVERSION 2P(E)			* 4-945-070-01	INDIVIDUAL CARTON(TA, TC, ST, CDP) (2600:AEP, UK)	
	$\triangle$ 1-569-008-11	ADAPTER, CONVERSION 2P(EA)			* 4-945-154-01	INDIVIDUAL CARTON(TA, TC, CDP) (2600:AEP, G, IT)	
	1-590-870-11	CORD(WITH CONNECTOR)17P(TA-TC-CD)			* 4-947-013-01	INDIVIDUAL CARTON(2600:US, CND)	
	1-574-927-21	CORD(WITH CONNECTOR)15P(TA-ST)			* 4-945-151-01	INDIVIDUAL CARTON(TA, TC, ST, CDP) (3600:AEP, UK)	
					* 4-945-153-01	INDIVIDUAL CARTON(TA, TC, CDP) (3600:AEP, G, IT)	
	1-590-855-11	CORD, SPEAKER(3600, E838CD)			* 4-946-068-01	INDIVIDUAL CARTON(3600:US, CND)	
	1-557-954-21	CORD, SPEAKER(2600, E737CD)			* 4-945-727-01	INDIVIDUAL CARTON(E737CD:E, EA)	
					* 4-945-728-01	INDIVIDUAL CARTON(E737CD:AUS)	
					* 4-945-729-01	INDIVIDUAL CARTON(E838CD:E, EA)	
					* 4-945-730-01	INDIVIDUAL CARTON(E838CD:AUS)	

# TC-H2600/H3600

## SERVICE MANUAL



*AEP Model*  
*UK Model*  
*E Model*  
*Australian Model*  
 TC-H2600  
 TC-H3600  
  
*US Model*  
*Canadian Model*  
 TC-H3600


This set is a deck block of the following models.

MHC-2600 (TC-H2600 : AEP, UK/  
 TC-H3600 : US, Canadian),  
 FH-E737CD (TC-H2600 : E, Australian),  
 MHC-3600 (TC-H3600 : AEP, UK, US, Canadian),  
 FH-E838CD (TC-H3600 : E, Australian).

Model Name Using Similar Mechanism	TC-WR620 / WR720
Tape Transport Mechanism Type	DECK A TCM-19ORA12A
	DECK B TCM-19ORB22A

### SPECIFICATIONS

Recording system 4-track 2-channel stereo  
 Frequency response (DOLBY NR OFF)  
 40 — 13,000 Hz ( $\pm 3$  dB),  
 using TYPE I cassette  
 (Sony HF-S)  
 40 — 14,000 Hz ( $\pm 3$  dB),  
 using TYPE II cassette  
 40 — 15,000 Hz ( $\pm 3$  dB) using  
 TYPE IV cassette  
 Wow and flutter 0.1% WRMS  $\pm 0.3\%$  (DIN)  
 Inputs  
 PHONO (phono jacks):  
 sensitivity 2.5 mV,  
 impedance 47 kilohms  
 DAT (phono jacks):  
 sensitivity 450 mV,  
 impedance 47 kilohms  
 VIDEO (phono jacks) (H3600 Model):  
 sensitivity 300 mV,  
 impedance 47 kilohms

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.



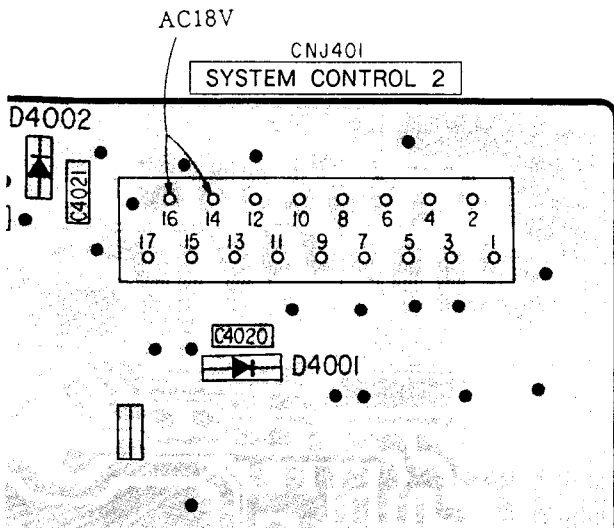
STEREO CASSETTE DECK  
**SONY**®

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Caution when repairing

Normally the power of this set is supplied from the TA-H2600/H3600 amplifier connected. When only this set is repaired, connect the power of 18V AC as shown in the figure below.

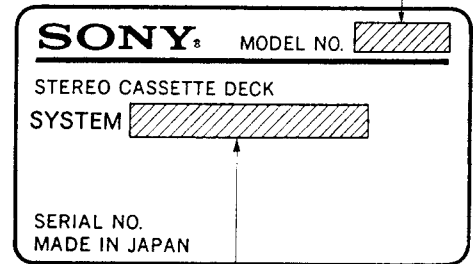


MODEL IDENTIFICATION

—Specification Label—

TC-H2600

TC-H3600



- MHC-2600 (TC-H2600 : AEP, UK/  
TC-H3600 : US, Canadian),
- FH-E737CD (TC-H2600 : E, Australian),
- MHC-3600 (TC-H3600 : AEP, UK, US, Canadian),
- FH-E838CD (TC-H3600 : E, Australian).

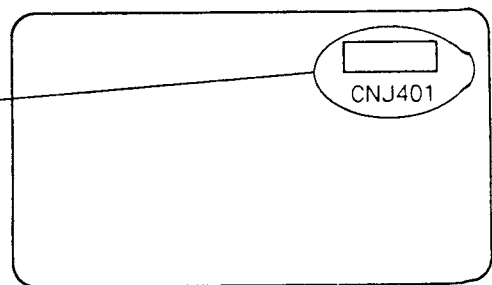
SAFETY-RELATED COMPONENT WARNING!!

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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

【PIN JACK BOARD】 (conductor side)





## SECTION 1 GENERAL

This section is extracted from instruction manual.

### SAFETY CHECK-OUT

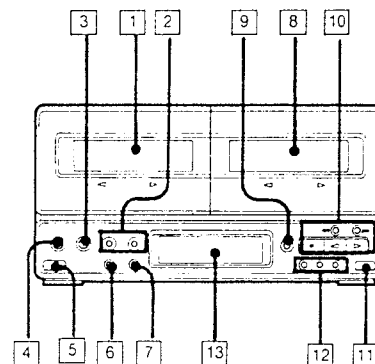
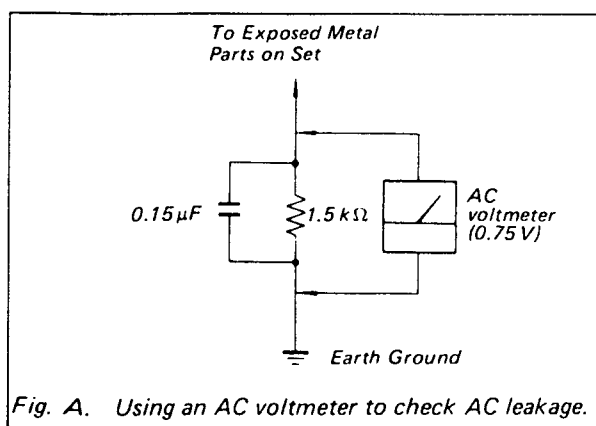
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

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

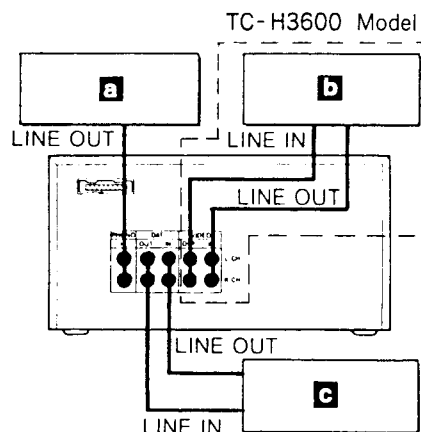
### LEAKAGE TEST

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

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



- 1 Cassette holder (Deck A)
- 2 DECK A/B selector **(6)**
- 3 CD SYNCHRO (CD synchronized recording) button and indicator **(66) (17)**
- 4 DUBBING MODE button and indicator **(84)**
- 5  $\Delta$  EJECT button (Deck A)
- 6 DOLBY NR (Dolby Noise Reduction) switch **(65) (68)**
- 7 DIRECTION MODE selector **(84) (68)**
- 8 Cassette holder (Deck B)
- 9 COUNTER RESET button  
Resets the counter of the cassette deck to "0".
- 10 Tape operation buttons (for Deck A and B)  
  - $\ll$   $\gg$  : Fast winding
  - $\blacksquare$  : Stop
  - $\blacktriangleright$  : Forward play
  - $\blacktriangleleft$  : Reverse play
- 11  $\Delta$  EJECT button (Deck B)
- 12 Tape operation buttons (for Deck B)  
  - $\parallel$  : PAUSE
  - $\circ$  : MUTE (Muting)
  - $\bullet$  : REC (recording)
- 13 Display window



You can connect a turntable system **a** to the PHONO jacks, a VCR **b** to the VIDEO jacks, and a DAT system **c** to the DAT jacks. To listen to each piece of equipment, press the FUNCTION buttons on the front panel until "PHONO" (for the turntable system), "VIDEO" (for VCR), or "DAT" appears on the display.

## SECTION 2 MECHANICAL ADJUSTMENTS

### PRECAUTION

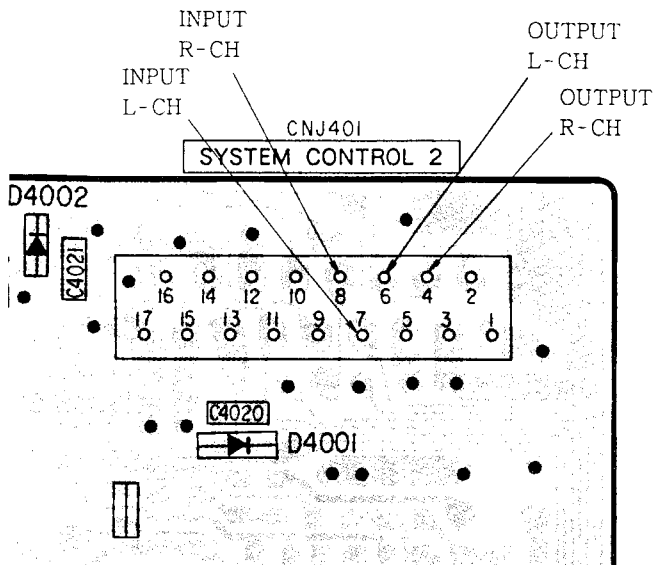
1. Clean the following parts with a denatured alcohol-moistened swab :
 

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

### Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	35 to 60g·cm (0.49 to 0.83 oz·inch)
Forward back tension	CQ-102C	2 to 6g·cm (0.03 to 0.08oz·inch)
Reverse	CQ-102RC	35 to 60g·cm (0.49 to 0.83oz·inch)
Reverse back tension	CQ-102RC	2 to 6g·cm (0.03 to 0.08oz·inch)
Forward, Reverse	CQ-201B	70 to 110g·cm (0.98 to 1.52 oz·inch)

### LINE IN/OUT Terminal (CNJ401)



## SECTION 3 ELECTRICAL ADJUSTMENTS

### PRECAUTION

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

### Test Tape

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

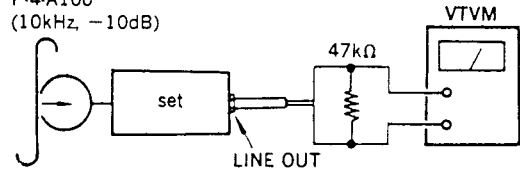
### Record/Playback Head Azimuth Adjustment

**DECK A**    **DECK B**

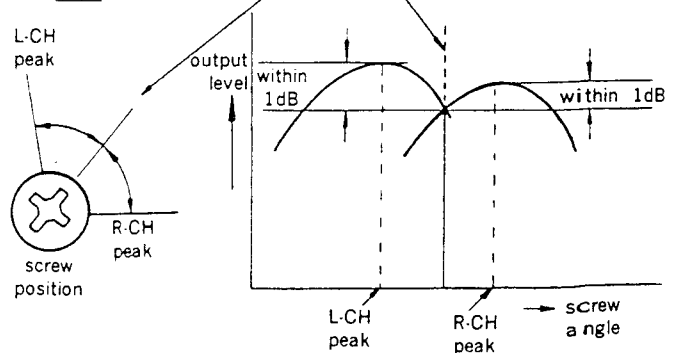
#### Procedure :

1. Forward Playback Mode

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

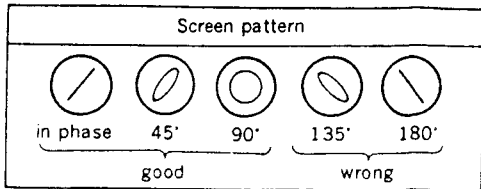
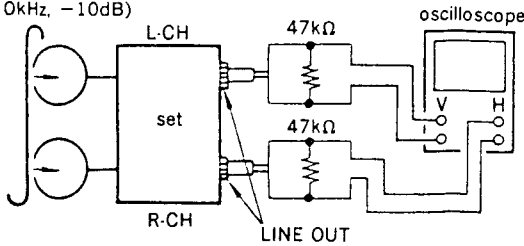


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1dB.



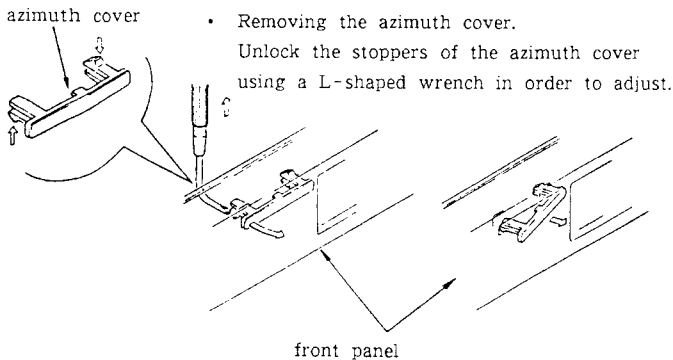
3. Playback Mode

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

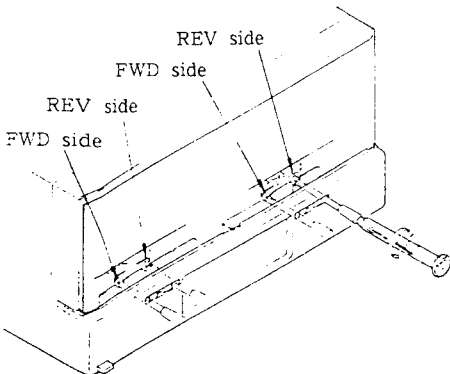


4. Change the reverse playback mode and repeat the steps 1 to 3.
5. After the adjustment, lock the adjustment screw with suitable locking compound.

Adjustment Location : —record/playback head—



- Removing the azimuth cover.  
Unlock the stoppers of the azimuth cover using a L-shaped wrench in order to adjust.

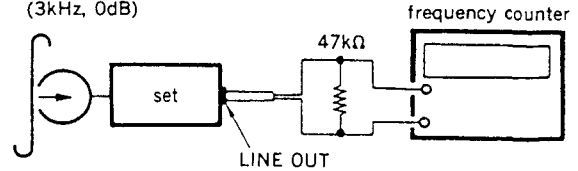


Tape Speed Adjustment DECK A DECK B

Procedure :

—Forward Playback Mode—

test tape  
WS-48B  
(3kHz, 0dB)



Perform high speed adjustment before normal speed adjustment.

(High speed adjustment)

1. Short TP601 (main board) when the power is OFF.
2. Turn on the power and put the deck A into the FWD mode.
3. Connect a resistor of 150 Ω to both the terminals of TP6001 (main board). (The set enters into high speed playback mode.)
4. Adjust RV72A (H) of the deck A so that a reading of the frequency counter meets the adjustment value.
5. Put the deck A into the STOP mode and remove the resistor of 150 Ω
6. Adjust the deck B performing items 2 through 5 as deck A.
7. After the adjustment is completed, remove the short of TP601.

(Normal speed adjustment)

1. Put the set into the FWD playback mode.
2. At this time, adjust RV71A (L) of the deck A and RV71B (L) of the deck B so that a reading of the frequency counter meets the adjustment value.

Adjustment Limits :

Speed	Frequency Counter Reading
High	6,000 ± 20Hz
Normal	3,000 ± 10Hz

Frequency difference between the beginning and the end of the tape should be within 3%.

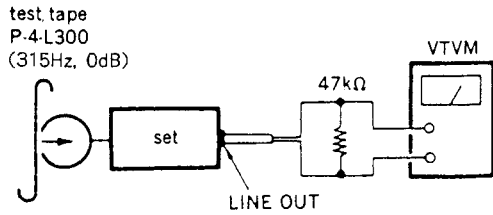
Frequency difference between deck A and deck B the beginning of the tape should be within 1.5%.

Adjustment Location : MD-A, B board

**Playback Level Adjustment** DECK A DECK B

**Procedure :**

—Forward Playback Mode—



Adjust deck A : RV11A (L-CH), RV21A R-CH) and deck B : RV11B (L-CH), RV21B (R-CH) so that the VTVM reading becomes the adjustment limits below.

**Adjustment Limits :**

LINE OUT level :  $-10 \pm 0.5\text{dB}$  (0.23 to 0.26V)

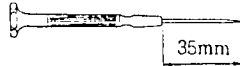
Level Difference between Channels : within 0.5dB

Confirm the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

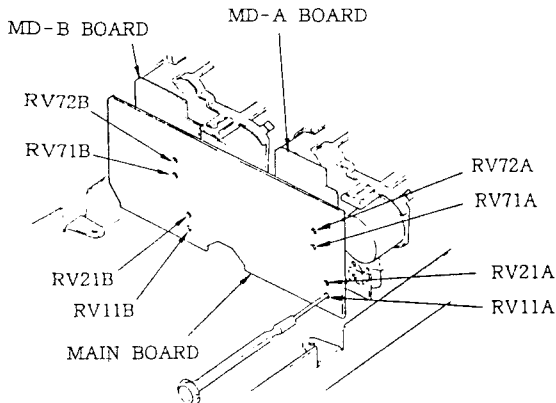
**Adjustment Location :** MD-A, B board

Tape Speed/playback Level Adjustment

Screwdriver to adjust the MD block



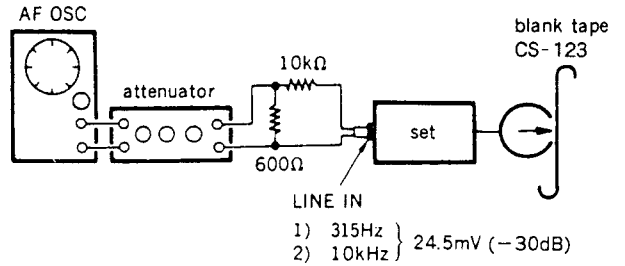
The MD block adjustment can be performed by inserting a screwdriver of which axis length (not including the shaft) is 35 mm or more through the rear side of the main board.



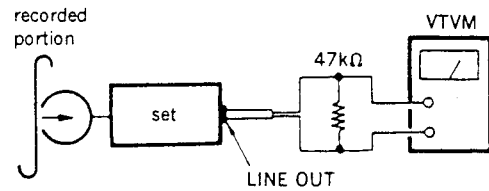
**Record Bias Adjustment** DECK B

**Procedure :**

1. Record Mode



2. Playback Mode



Playback the signal recorded in step 1.

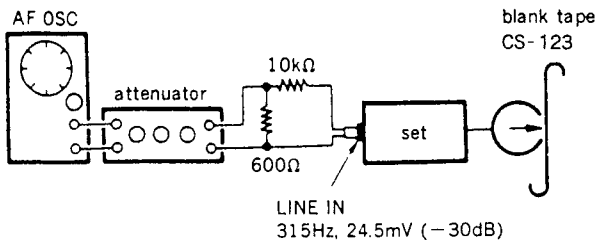
Confirm that the 10kHz playback output is  $0 \pm 0.5\text{dB}$  relative to the 315Hz output. If necessary, adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

**Adjustment Location :** MD-B board

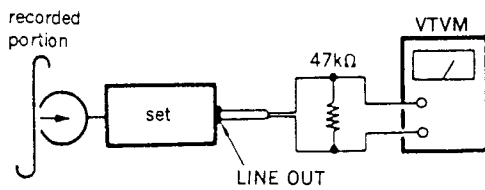
**Record Level Adjustment** DECK B

**Procedure :**

1. Record Mode



2. Playback Mode



Confirm playback the tape recorded become adjustment level as follows.

If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat steps 1 and 2.

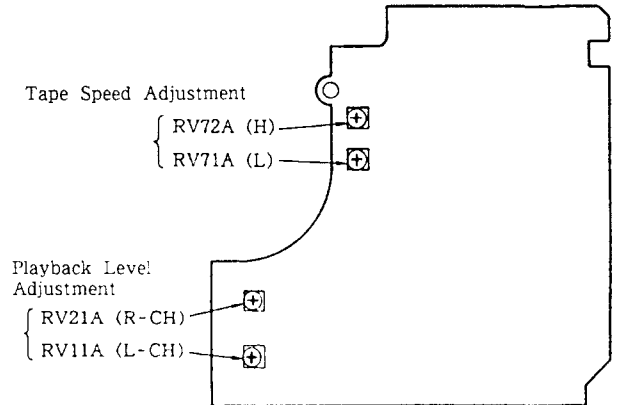
**Adjustment Limits:**

LINE OUT level :  $-30 \pm 0.5\text{dB}$  (23 to 26mV)

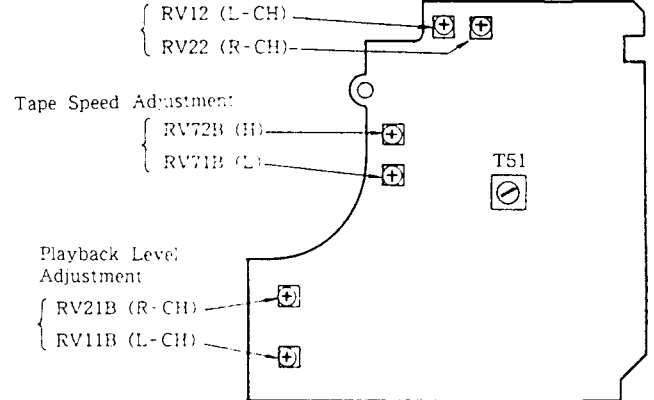
Adjustment Location : main board

**ADJUSTMENT LOCATION :**

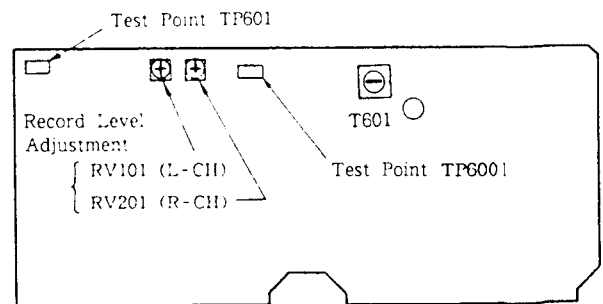
**【MD-A BOARD】 component side**



**【MD-B BOARD】 component side**



**【MAIN BOARD】 component side**



## SECTION 4 DIAGRAMS

### 4-1. IC PIN DESCRIPTION

IC351 display microprocessor HD614022FP

Fluorescent lamp indicator is activated by receiving data from IC601 (system controller).

Pin No.	Pin Name	I/O	Description
1~11 12 13 14~15 16	S10-S0 VDISP SYNC	O — I	FL indicator tube(FL351) segment output Not used. (+5.6 V) Power supply for activating the FL indicator tube(-20V) Not used(GND) Interrupt input. Data transmission from IC601(system controller) is checked.
17 18~25 26 27 28	INT Vcc CLK DATA	I I — I I	Not used. (GND) Not used. (GND) Power supply terminal (+5.6V) Data transmission clock input from IC601 (system controller) Serial data input from IC601 (system controller)
29 30~32 33 34 35	SYNC HIGH DUB NORM DUB CD SYNC	I O O O	Sync signal input which indicates the first byte of data sent from IC601 (system controller) Not used. (GND) LED (D301) light output in the high speed dubbing mode. LED (D301) light output in the normal speed dubbing mode. LED (D302) light output in the CD sync mode.
36~38 39 40~42 43 44	FLCHECK RESET TEST	I I I I	Not used. (GND) All the FL indicator tubes are lit when this port is set to "L". (Normally +5.6V) Not used. (GND) Reset input from IC601 (system controller). "L": Reset. Not used. (+5.6V)
45 46 47 48~50 51	OSC1 OSC2 GND	I O —	Clock input (4.19MHz) Clock output Power supply terminal (GND) Not used. (GND) Not used. (Pull-up)
52~57 58~61 62~64	G0 - G6 S11 - S13	O O	FL indicator tube (FL351) grid output Not used. (+5.6V) FL indicator tube (FL351) segment output

IC406 selector controller M50760-315FP

AV output is switched with the audio pass signal sent from the amplifier (TA-H2600/H3600).

Pin No.	Pin Name	I/O	Description
1 2 3 4 5	D3 A0 A1 CNVss	I O O —	Model secection input port. Connected to GND. Audio IN switch (IC403 and IC404) control output port. Not used. Audio IN switch (IC403 and IC404) control output port. Power supply terminal (GND)
6 7 8 9 10	Vss A2 B0 B1	— O O O	Power supply terminal (GND) Audio IN switch (IC403 and IC404) control output port. Audio OUT switch (IC405) control output port. Audio OUT switch (IC405) control output port. Not used.
11 12 13~14 15	V0 V1	O O	Video IN/OUT switch (IC407) control output port. Video IN/OUT switch (IC407) control output port. Not used. (GND) Not used.
16 17 18 19 20	RESET XOUT XIN S D2	I O I I I	Reset input. "L": Reset Clock output. Clock input. Serial data input (audio pass) Serial data input (audio pass)
21 22 23 24	S1 VDO V <sub>op</sub>	I — I —	Model secection input port. Connected to GND. Not used. Model secection input port. Connected to GND. Power supply terminal (+5V)

## IC601 system controller M50944-121FP

The system is wholly controlled by communication between IC351 (display microprocessor) and IC602 (mechanism controller).

Pin No.	Pin Name	I/O	Description
1	KEY2	I	Not used. (GND)
2	KEY1	I	Not used. (GND)
3	SYNC	O	Sync signal input which indicates the first byte of data sent to IC351 (display microprocessor).
4	FL-SCK	O	Data transmission clock output to IC351 (display microprocessor).
5	FL-SO	O	Serial data output to IC351 (display microprocessor).
6	AU-BUS	O	Audio pass output.
7	AU-BUS	I	Audio pass input (negative edge).
8	POWER-IN	I	Power-off detection input. "L": Power OFF.
9	PB-SELECT	O	Deck A/B switch output in the playback mode. "L": deck B, "H": deck A.
10	AMS-SELECT	O	AMS amplifier input switch output
11	MD-REQ	I	Data request input from IC602 (mechanism controller)
12	MD-SCLK	O	Data transmission clock output to IC602 (mechanism controller)
13	MD-SO	O	Serial data output to IC602 (mechanism controller)
14	MD-SI	I	Serial data input from IC602 (mechanism controller)
15		O	Not used. (GND)
16	RESET (MD)	O	IC602 (mechanism controller) reset signal output.
17	AU-BUS	I	Audio pass input (positive-edge)
18	RESET (DSP)	O	IC351 (display microprocessor) reset signal output.
19	GND	—	Power supply terminal. (GND)
20	RESET	I	System reset input. "L": Reset.
21	X-IN	I	Clock input (4MHz)
22	X-OUT	O	Clock output
23	XC-IN	I	Not used. (GND)
24	XC-OUT	O	Not used. (open)
25	VSS	—	Power supply terminal (GND)
26	N. C.		Not used. (open)
27	TEST	I	Electrical adjustment test mode setting input This set enters into the test mode when the power is on and it is set to "L". *1
28	VAR SELECT	I	Not used. (pull-up)
29	METAL (B)	I	Metal switch (S83) input for deck B. "H": Metal.
30	70 $\mu$ (B)	I	Chrome switch (S82) input for deck B. "L": Normal
31	PPOWER-ON	O	Not used. (open)
32~35			Not used. (GND)
36	70 $\mu$ (A)	I	Chrome switch (S83) input for deck A. "L": Normal.
37	AMS IN	I	Signal input from the AMS amplifier. "H": Detected, "L": Not detected.
38	N. C.		Not used. (GND)
39			Not used. (GND)
40	EQ-HIGH	O	REC equalizer characteristic switch output "H": High speed, "L": Normal speed.
41	BIAS FADE	O	Not used. (GND)
42	BIAS (B)	O	Bias ON/OFF switch output. "H": OFF, "L": ON.
43	TYPE II (B)	O	Not used. (GND)
44	TYPE I (B)	O	Not used. (GND)
45	R.MUTE (B)	O	REC mute control output. "L": Mute ON, "H": Mute OFF.
46	RELAY (B)	O	Mechanism deck head switch control output. "L": ON.
47	DOLBY B	O	Dolby B/C switch control output. "L": Dolby C, "H": Dolby B.
48	DOLBY ON	O	Dolby ON/OFF switch control output. "L": ON, "H": OFF.
49	REC/PB	O	Dolby amplifier REC/PB switch output. "L": REC, "H": PB.
50		O	Not used. (open)
51	PB 70 $\mu$	O	Playback equalizer characteristic switch output. "H": normal, "L": chrome metal
52	AMS/BS	O	Not used.
53	PASS	O	PASS amplifier switch output for LINE OUT. "L": PASS amplifier, "H": Through.

Pin No.	Pin Name	I/O	Description
54	LINE-MUTE	O	Line mute control output. "L": MUTE OFF, "H": MUTE ON
55	AVCC	—	Power supply terminal. (+5V)
56	VCC	—	Power supply terminal. (+5V)
57	AVSS	—	Power supply terminal (GND)
58	V.REF	I	Reference voltage input for A/D input port (+5 V)
59	METER (R)	I	Level meter signal output (R-CH)
60	METER (L)	I	Level meter signal input (L-CH)
61	VOL DATA	I	Not used. (GND)
62	KEY5	I	Not used. (GND)
63	KEY4	I	Key input. (analog) *2
64	KEY3	I	Key input. (analog) *2

\*1 Test mode

When the power is on and pin ⑤ is set to "L" (TP601 is shortened.), the set enters the electrical adjustment test mode and the followings can be available.

(1) High speed playback

When A or B deck is in the playback mode and a resistor of 150 Ω is connected to both the terminals of TP6001 (main board), the set can be entered the high speed playback mode.

(2) Source monitor

Recording signals can be monitored through the LINE OUT terminal (see page 4) because the line short is removed in recording.

(3) Recording memory

Recording memory is set to ON when the tape counter is reset at the record start point.

(4) Mode display

The counter displays as shown in the A figure when the counter mode is set to the deck A and the deck A button of deck A/B switch is pressed, or when the counter mode is the B deck and the B deck button is pressed.

(5) When this terminal is set back to "H" after it is set to the test mode in "L" of the power-on mode, all the FL indicator tubes are lit.

(The mechanism block continues to operate as before it is set to "H".)

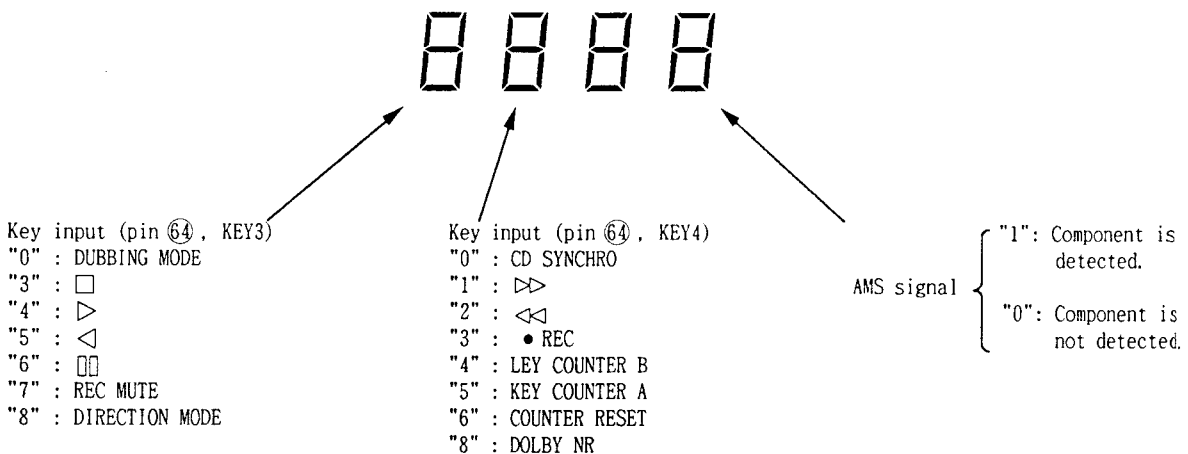


Figure A

\*2 Key input (analog port)

Voltage(V)	0	0.3	0.7	1.2	1.7	2.3	2.8	3.3	4.0
Input port									
Pin ⑥, KEY4	CD SYNCHRO	◁◁	▷▷	● REC	KEY COUNTER B	KEY COUNTER A	COUNTER RESET		DOLBY NR
Pin ⑥, KEY3	DUBBING MODE			□	▷	◁	□□ PAUSE	● REC MUTE	DIRECTION MODE



IC602 mechanism controller M50925-482FP

The mechanism deck is controlled by receiving data from IC601 (system controller).

Pin No.	Pin Name	I/O	Description
1	RESET	I	Reset input from IC601 (system controller). "L": Reset.
2	STOP-A	I	Deck A stop switch (S81) input. "H": Stop.
3	AVSS	—	Power supply terminal (GND)
4	Vref	I	A/D input port reference voltage input.
5	A/D. IN-B	I	Deck B leaf switch input (analog). #1
6	A/D. IN-A	I	Deck A leaf switch input (analog). #1
7	AVDD	—	Power supply terminal. (+5V)
8	N. C.	—	
9	T. REEL-B	I	Not used. (GND)
10	S. REEL-B	I	Deck B supply reel table sensor (IC81)
11	T. REEL-A	I	Not used. (GND)
12	S. REEL-A	I	Deck A supply reel table sensor (IC81)
13~14	N. C.	—	
15	CM. ON-A	O	Deck A capstan motor (M102) ON/OFF control output. "L": OFF, "H": ON.
16	CM. ON-B	O	Deck B capstan motor (M102) ON/OFF control output. "L": OFF, "H": ON.
17	GND	—	Power supply terminal. (GND)
18	VSS	—	Power supply terminal. (GND)
19	CM. H/L	O	Capstan motor (M102) speed switch output. "H": High speed, "L": Normal.
20	FWD-B	O	Deck B reel motor control output. #2 The reel motor is activated by combining these three outputs.
21	TRIG-B	O	
22	FWD-B	O	
23	RWD-A	O	Deck A reel motor control output. #2 The reel motor is activated by combining these three outputs.
24	TRIG-A	O	
25	FWD-A	O	
26	N. C.	—	
27	S. REQ	O	Data request output to IC601 (system controller).
28	S. CLK	I	Data transmission clock input from IC601 (system controller).
29	S. OUT	O	Serial data output to IC601 (system controller).
30	S.IN	I	Serial data input from IC601 (system controller).
31~32	N. C.	—	
33	XOUT	O	Clock output.
34	XIN	I	Clock input.
35	STOP-B	I	Deck B stop switch (S81) input. "H": Stop.
36	VDD	—	Power supply terminal. (+5V)

#1 HALF, REC safety tab leaf switch input

Leaf switch	Voltage	1	1.9	2.8	3.9	5	
Half	S86	ON					OFF
REC safety tab, side A	S84	OFF	ON	OFF	ON	OFF	
REC safety tab, side B	S85	ON	ON	OFF	OFF	OFF	

REC available for only side B. REC available for both sides. REC inhibit for both sides A and B. REC available for only side A. Tape is not set.

Tape is set.

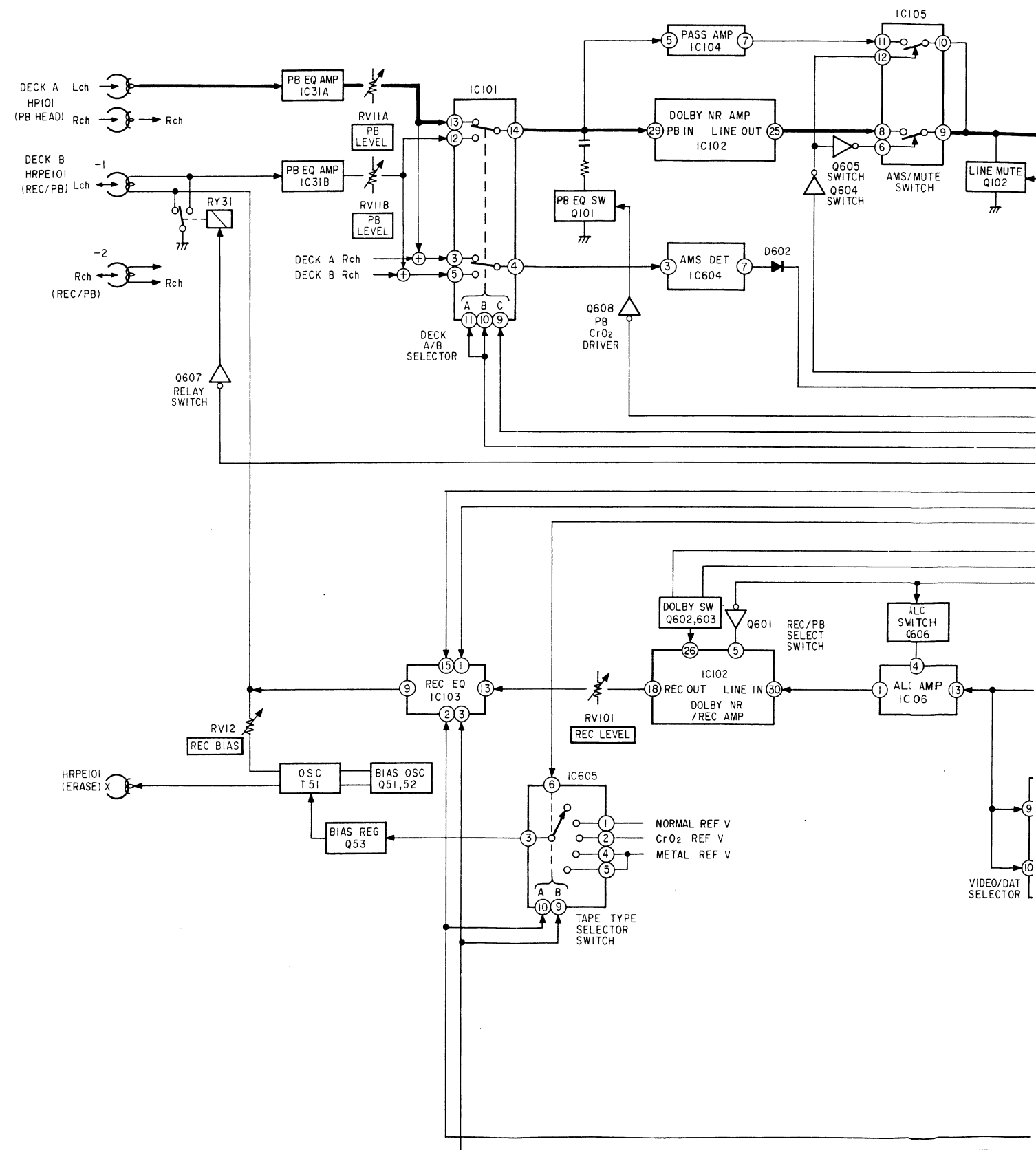
#2 Reel motor drive

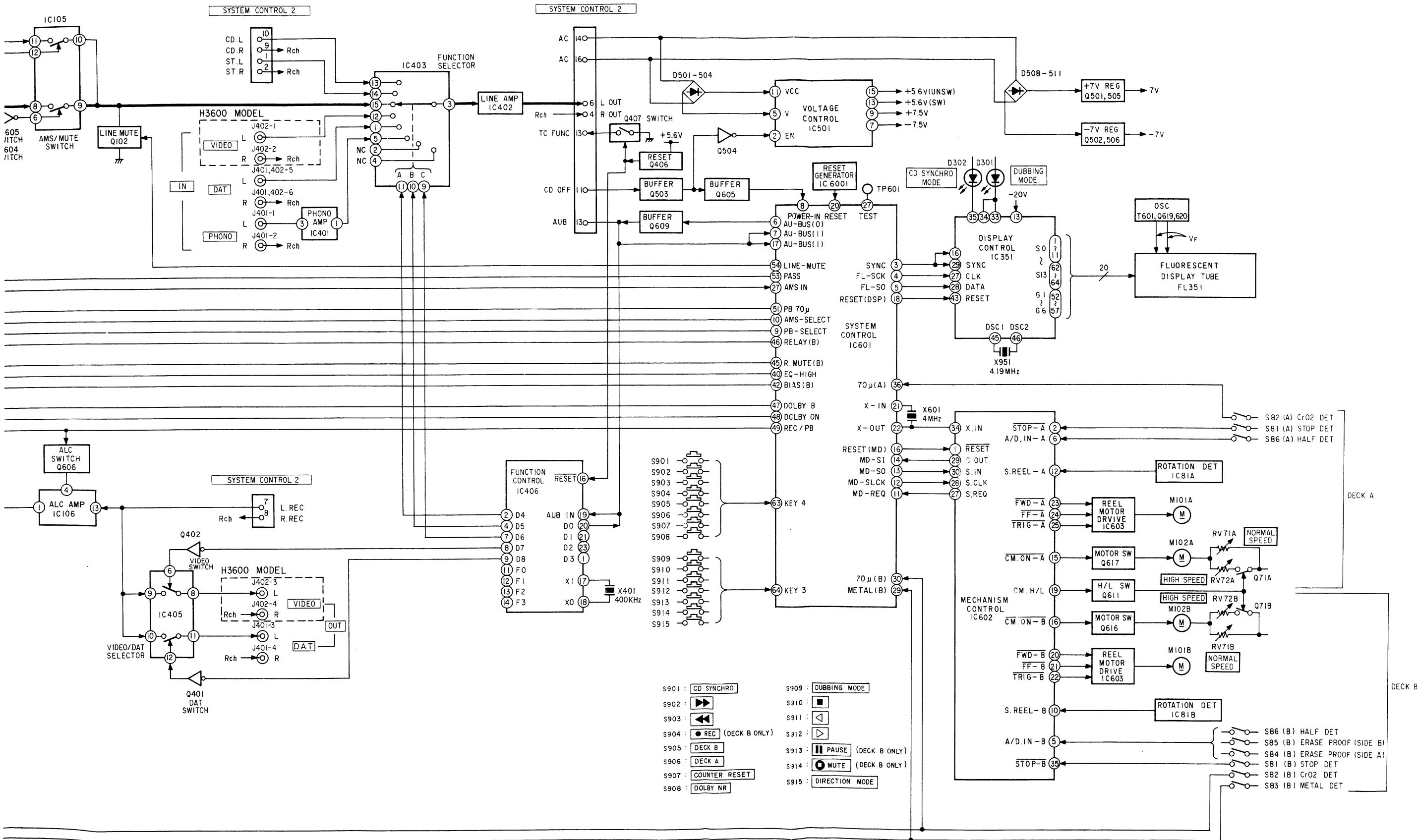
Output port	Mode	FF	TRIG (kick)	STOP	FWD
Pins ② and ③	FF	L	H	L	L
Pins ② and ⑤	TRIG	H	L	L	H
Pins ② and ②	FWD	H	H	L	L

Reel motor drive amplifier output voltage

Output	Voltage
TRIG	+6V
FF. REW	-5V
FWD	-3V

4-2. BLOCK DIAGRAM

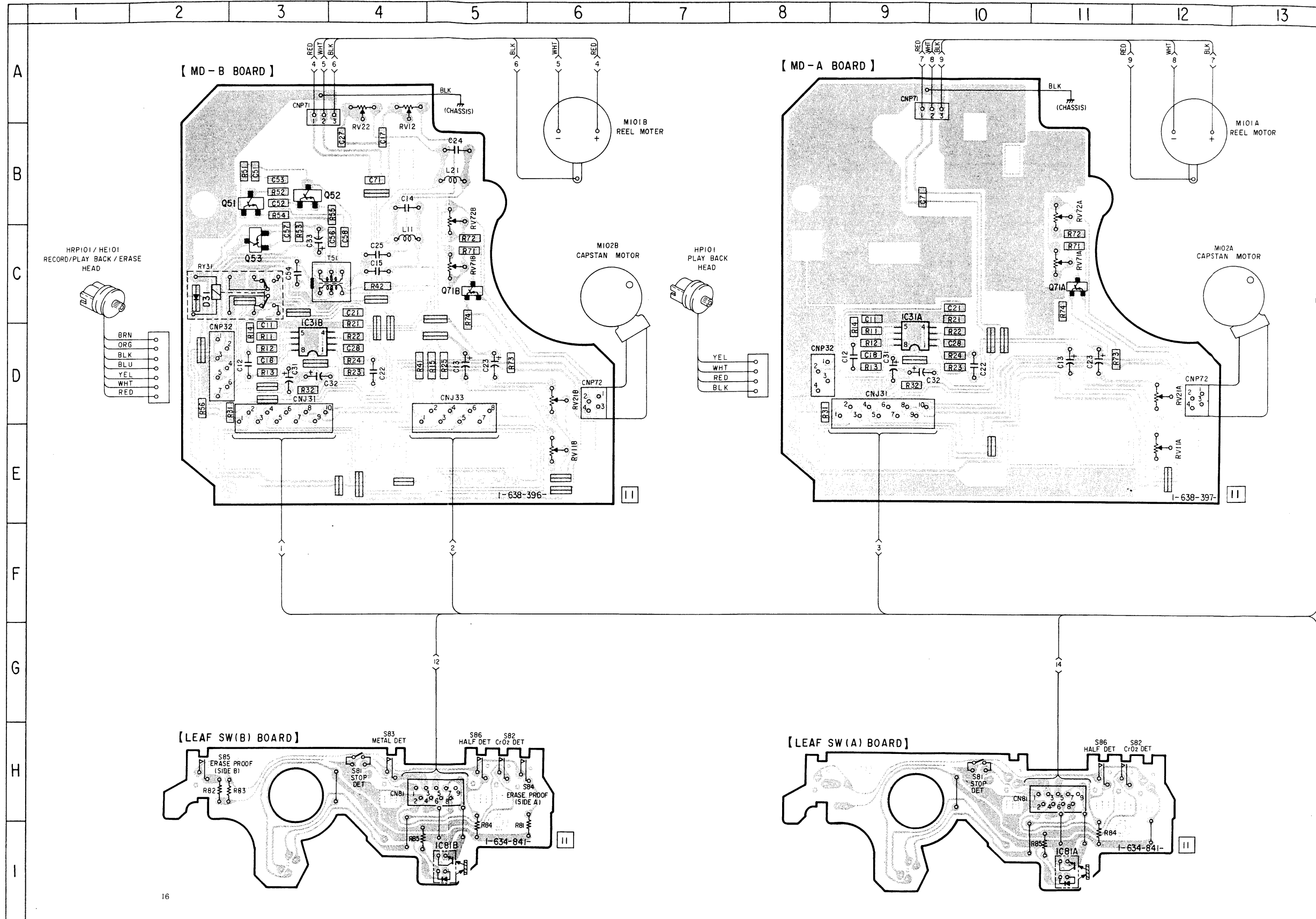




4-3. PRINTED WIRING BOARDS - MAIN SECTION - See page 32 for Semiconductor Lead Layouts and Curcuit Boards Location.

• Semiconductor Location

Ref. No.	Location
D31	C-2
D301	B-24
D302	A-23
D601	I-21
D602	I-15
D603	G-19
D604	F-19
D605	F-19
D606	F-19
D607	F-15
D608	F-16
D6010	G-21
D6011	G-21
D6012	G-22
IC31-A	D-9
IC31-B	D-3
IC81-A	I-11
IC81-B	I-5
IC101	H-21
IC102	I-23
IC103	I-20
IC104	H-23
IC105	H-23
IC106	G-23
IC351	B-20
IC601	G-20
IC602	H-18
IC603	G-15
IC604	I-16
IC605	I-17
IC6001	G-19
Q51	B-3
Q52	B-3
Q53	C-3
Q71-A	C-11
Q71-B	C-5
Q101	G-21
Q102	H-22
Q201	G-21
Q202	H-22
Q601	J-21
Q602	I-21
Q603	J-22
Q604	G-22
Q605	G-23
Q606	G-23
Q607	H-21
Q608	H-21
Q609	F-20
Q611	H-16
Q612	I-16
Q613	H-16
Q616	I-19
Q617	H-19
Q619	G-19
Q620	G-18
Q6005	G-19



**Note on Mounting Diagram:**

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : Through hole.
- ▨ : Pattern on the side which is seen.
- ▩ : Pattern of the rear side.

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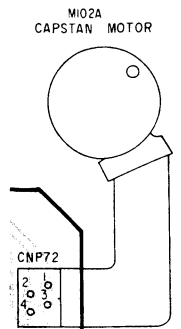
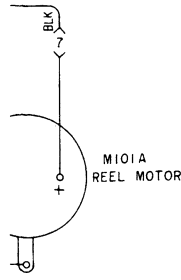
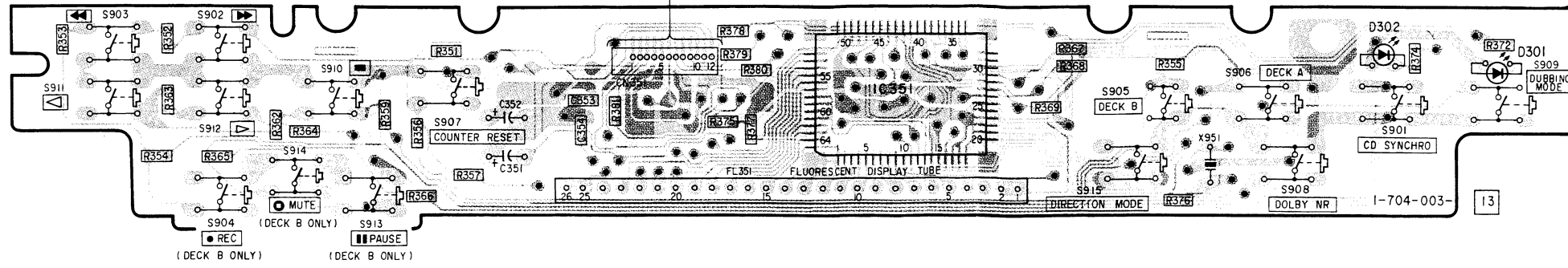
24

25

26

27

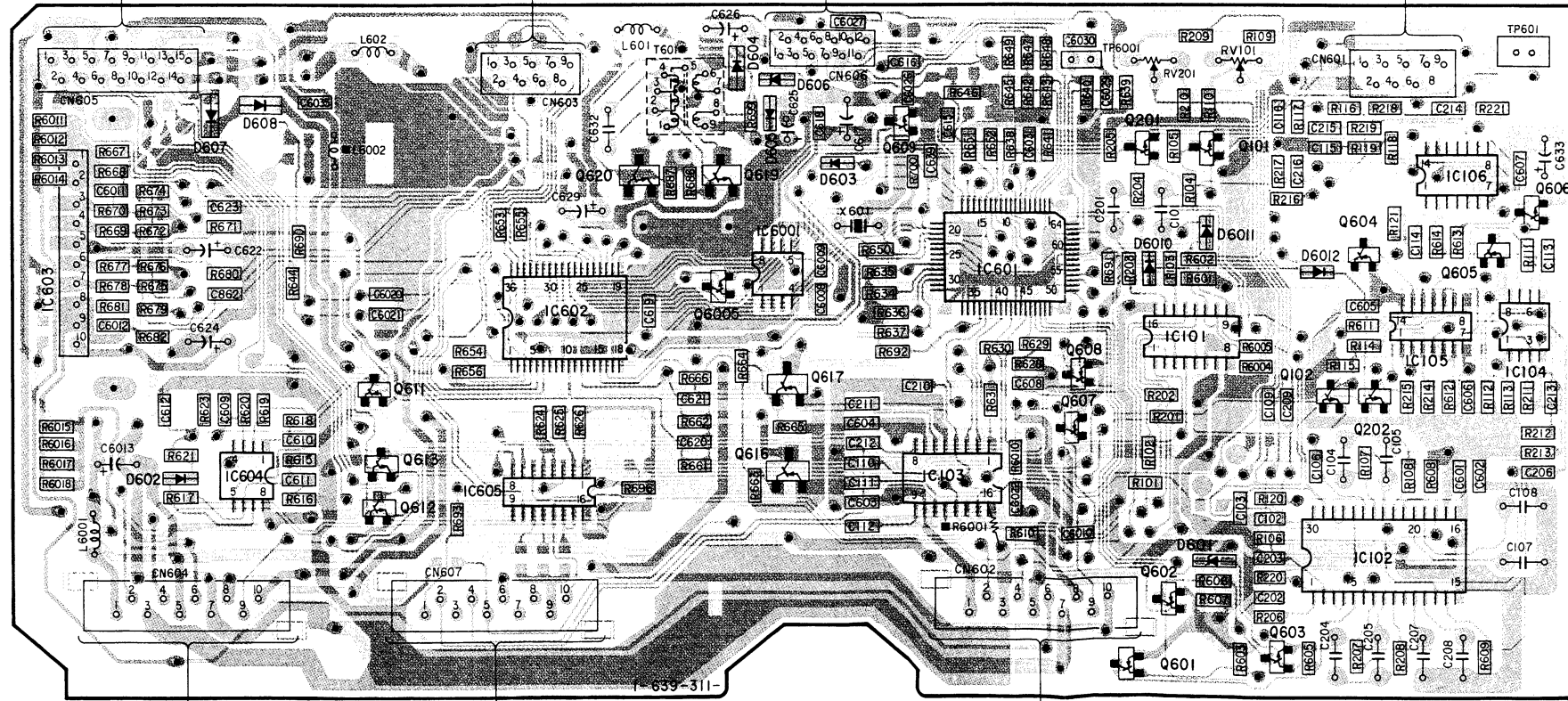
[ PANEL BOARD ]



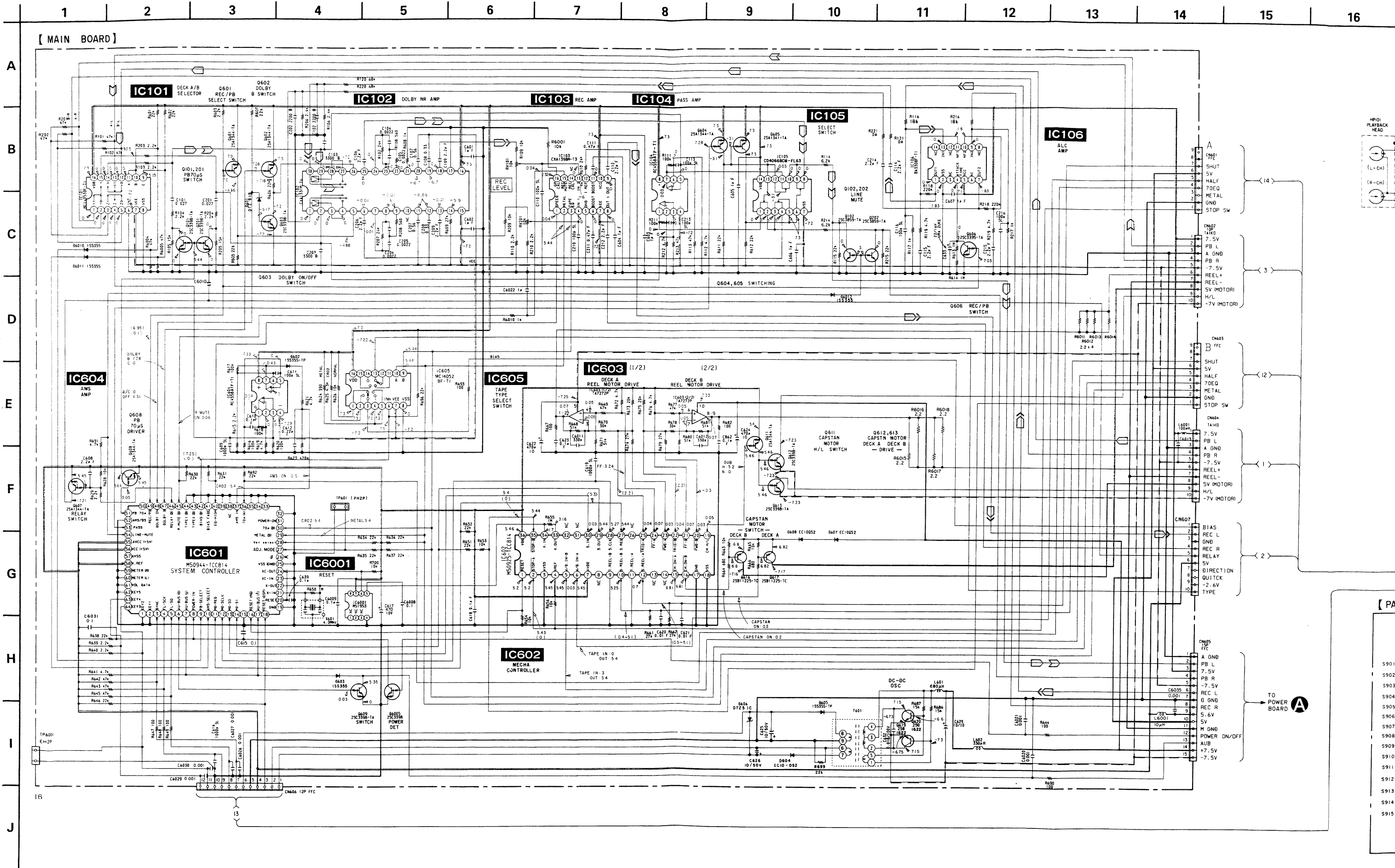
638-397

TO POWER BOARD

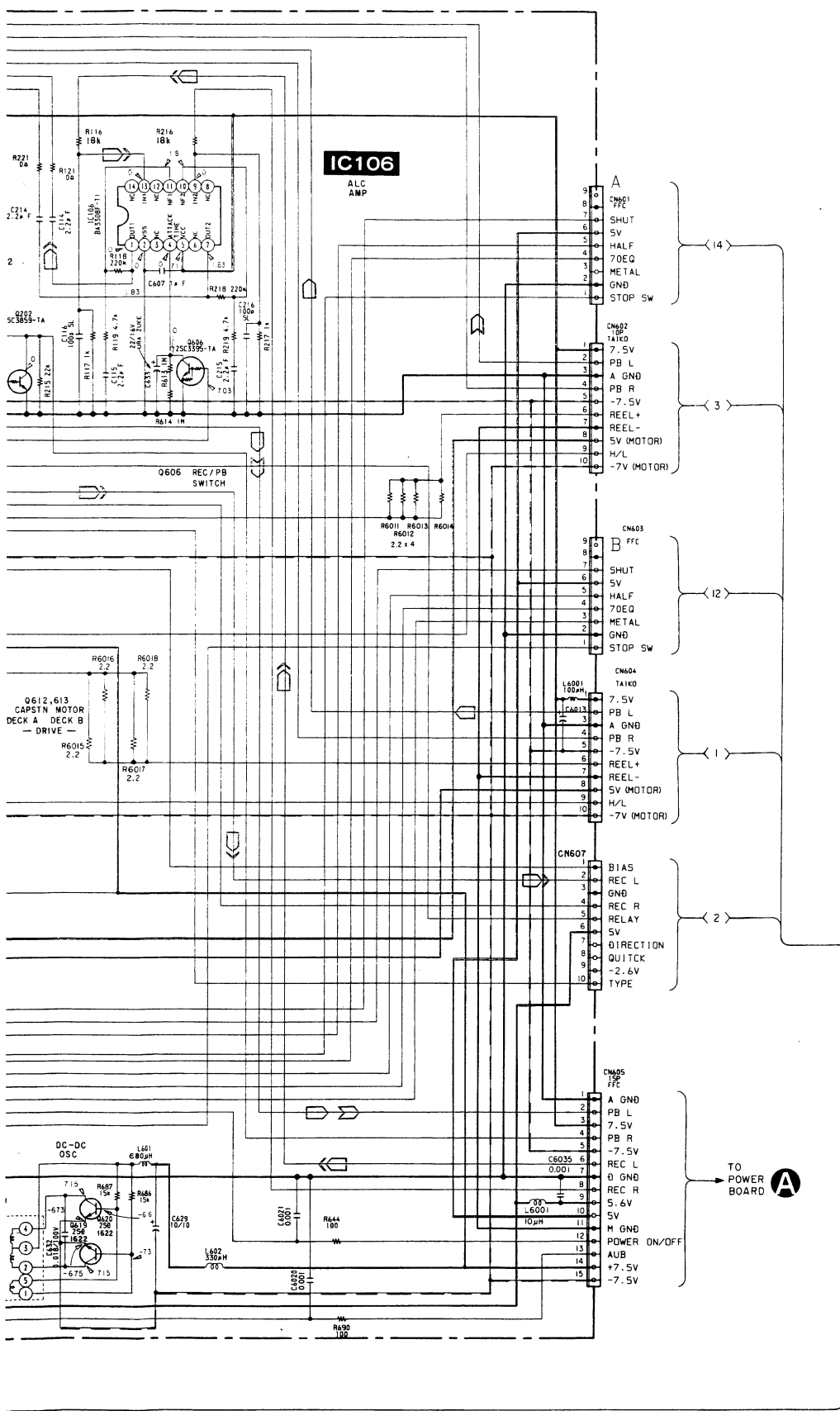
[ MAIN BOARD ]



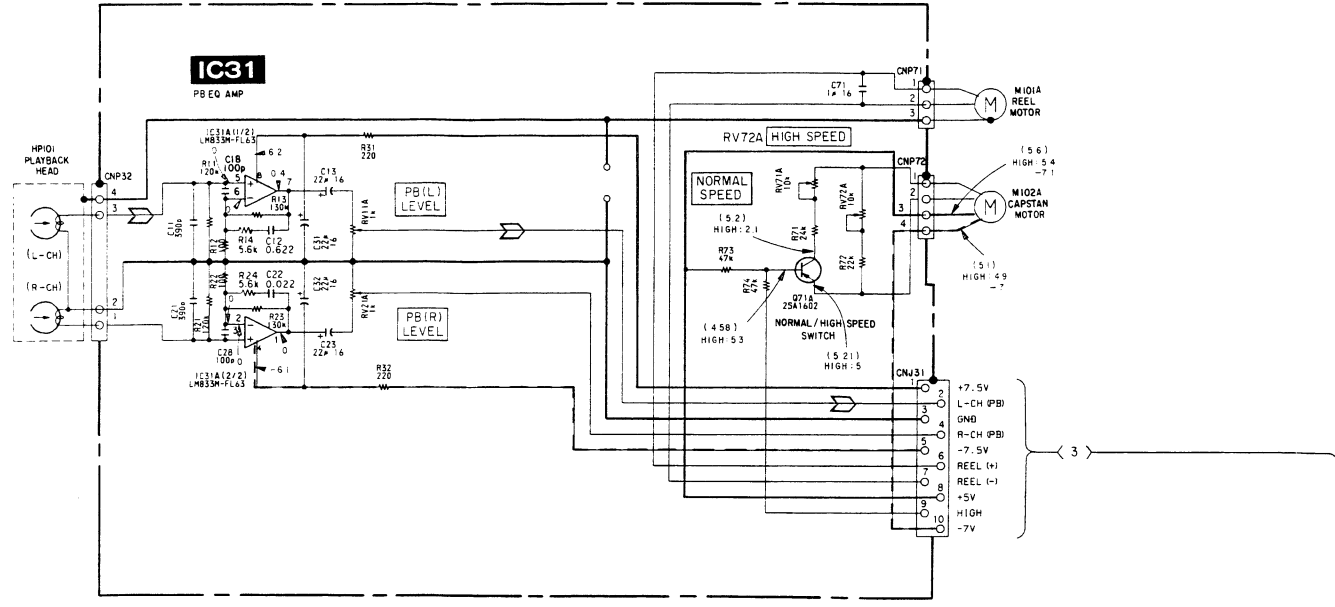
4-4. SCHEMATIC DIAGRAM - MAIN SECTION - See page 24 for Note in Schematic Diagram.



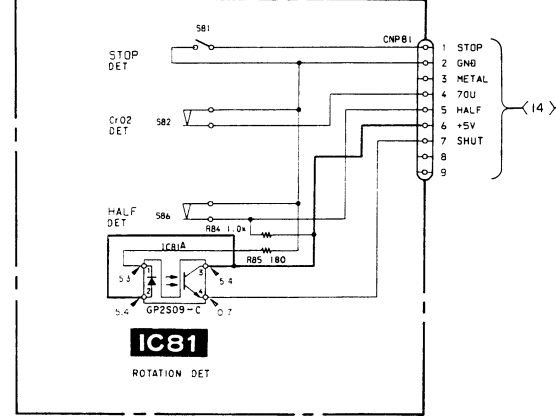




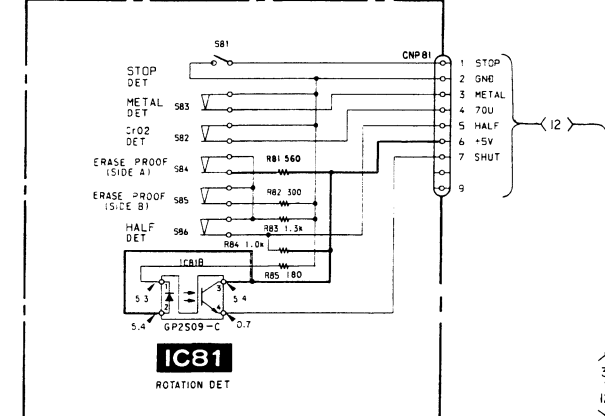
[MD-A BOARD]



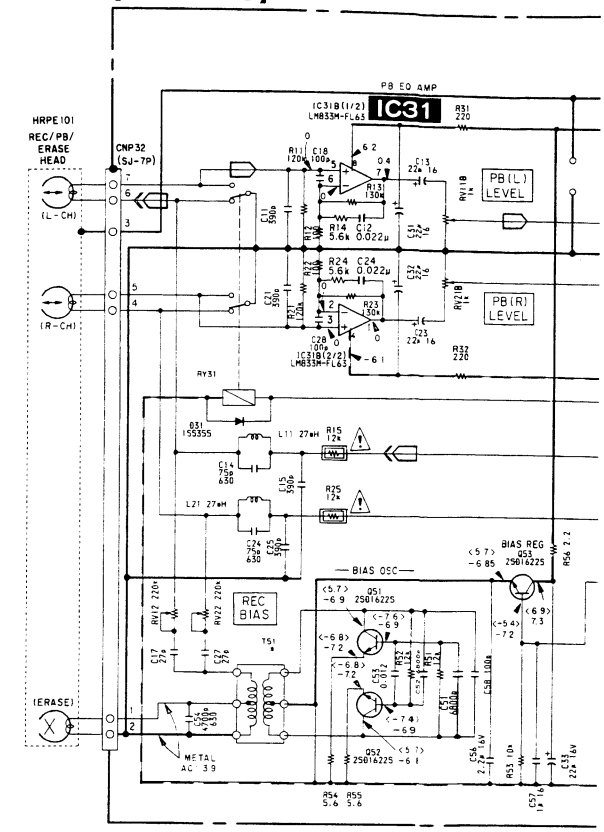
[LEAF SW (A) BOARD] (A DECK) TCM-190 RAI3A



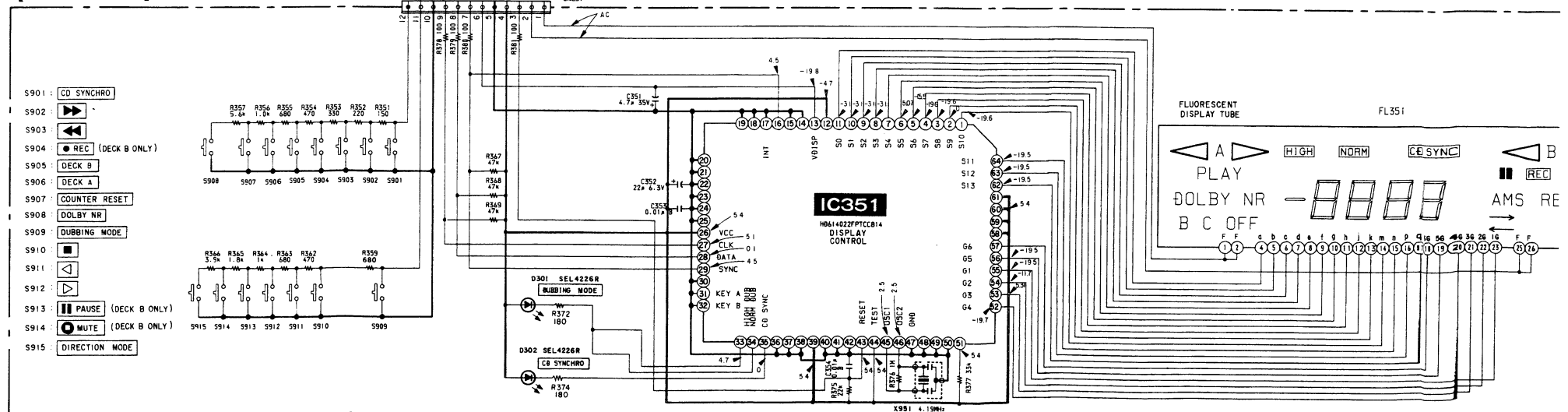
[LEAF SW (B) BOARD] (B DECK) RB22A



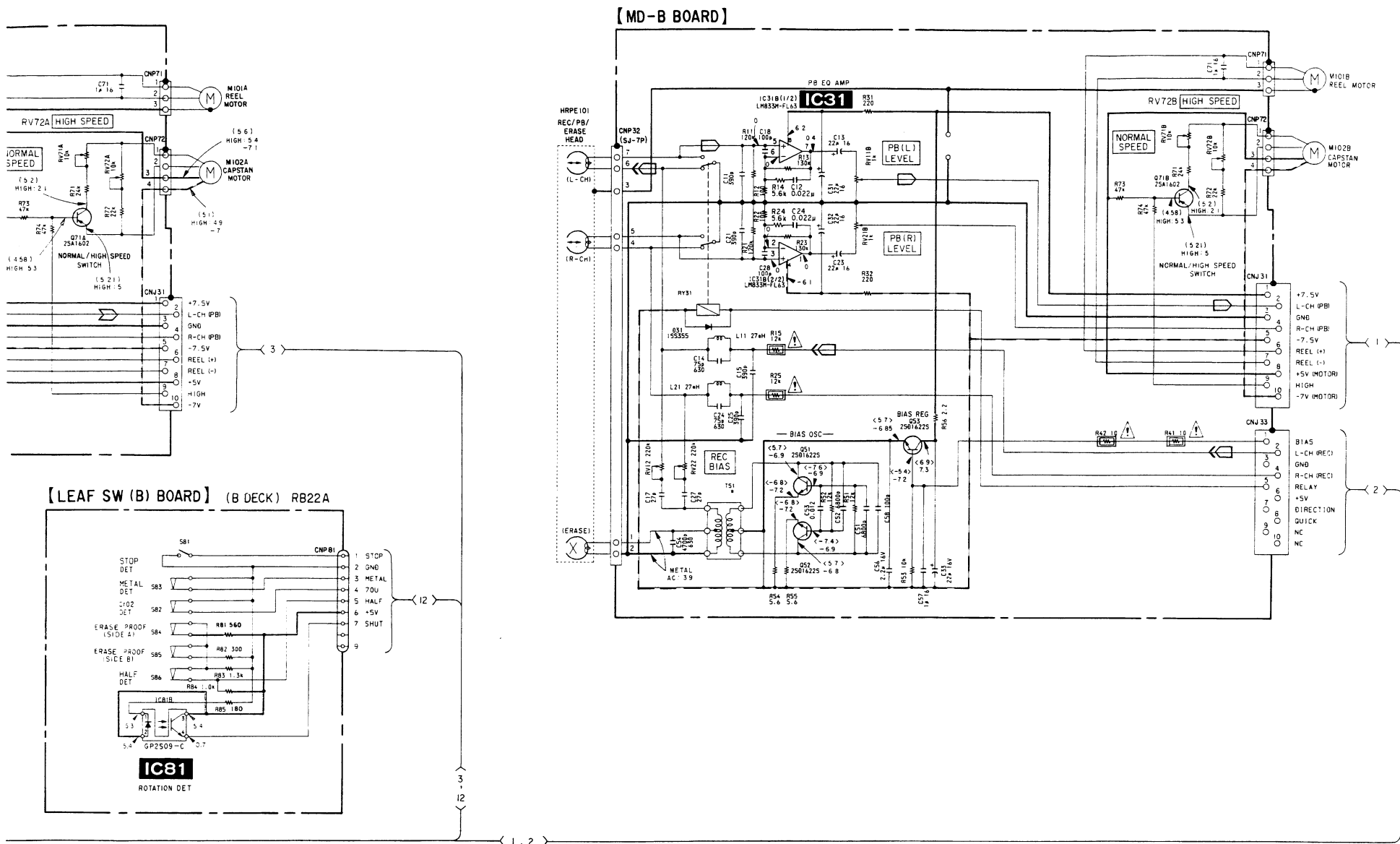
[MD-B BOARD]



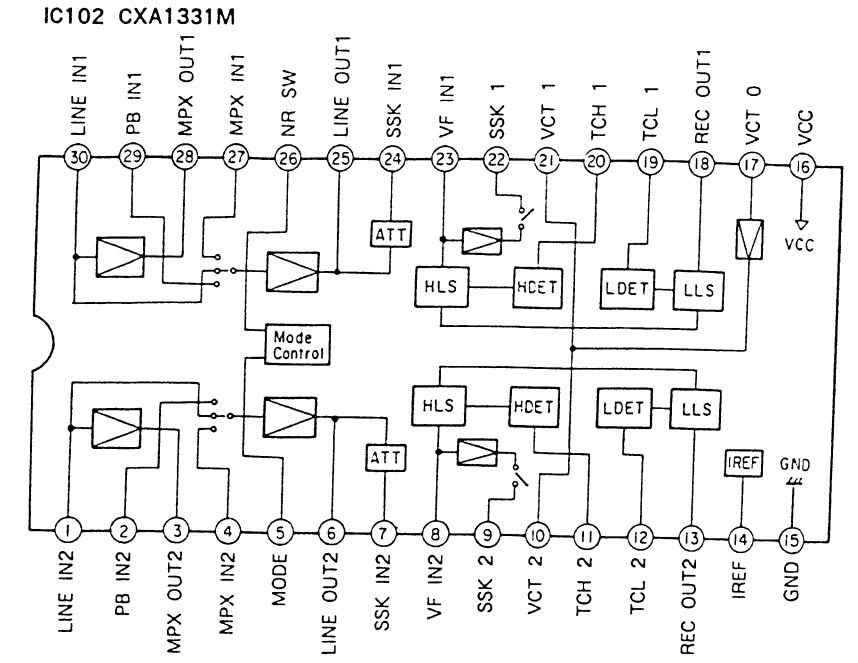
[PANEL BOARD]



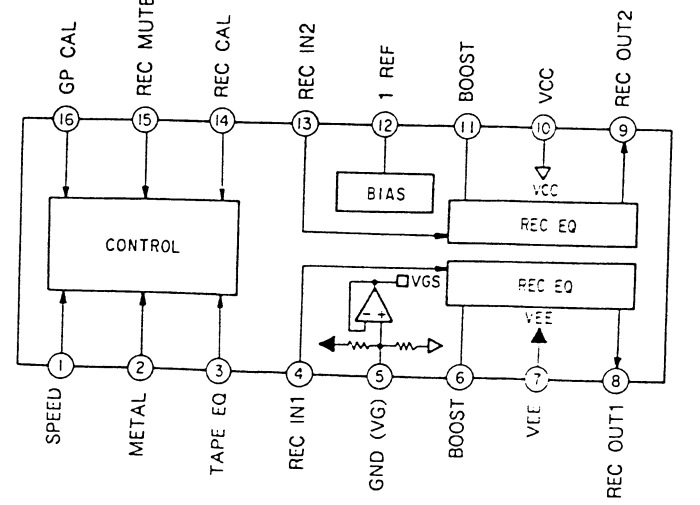
20 21 22 23 24 25 26 27 28 29 30



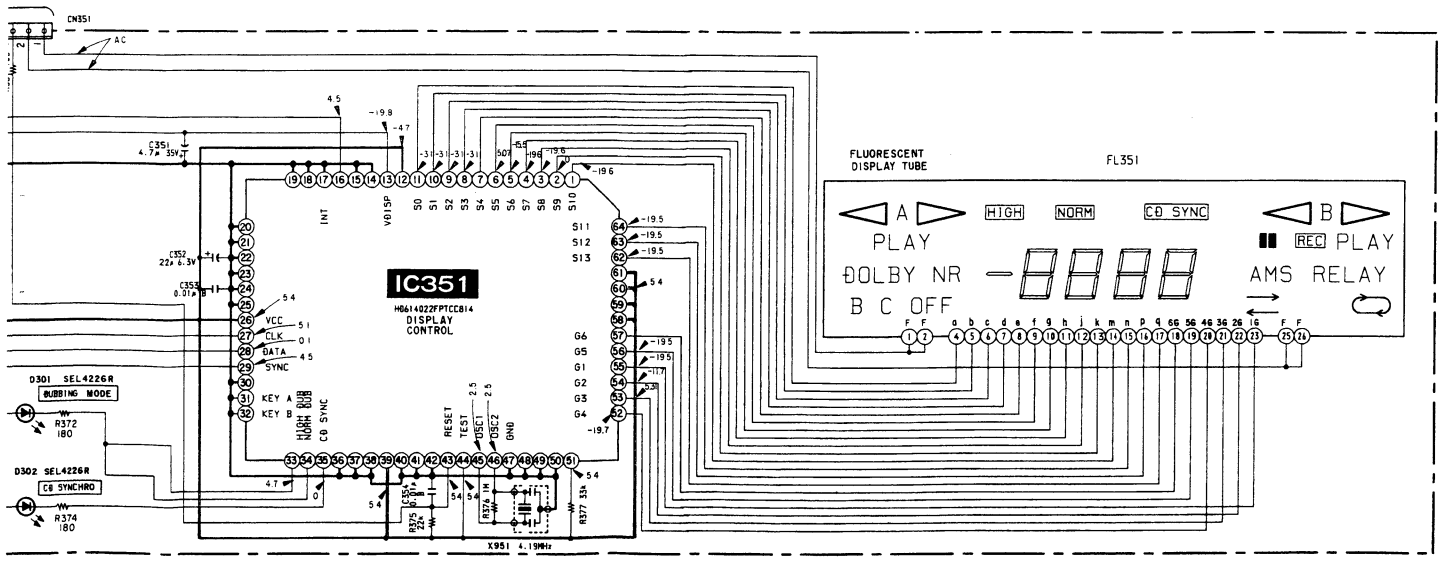
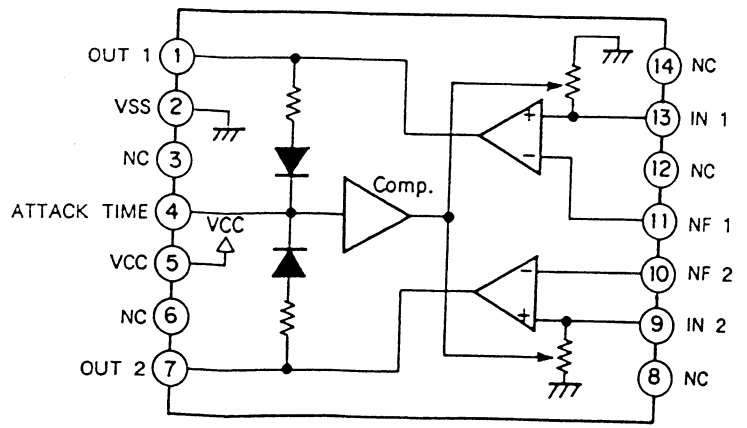
IC BLOCK DIAGRAM



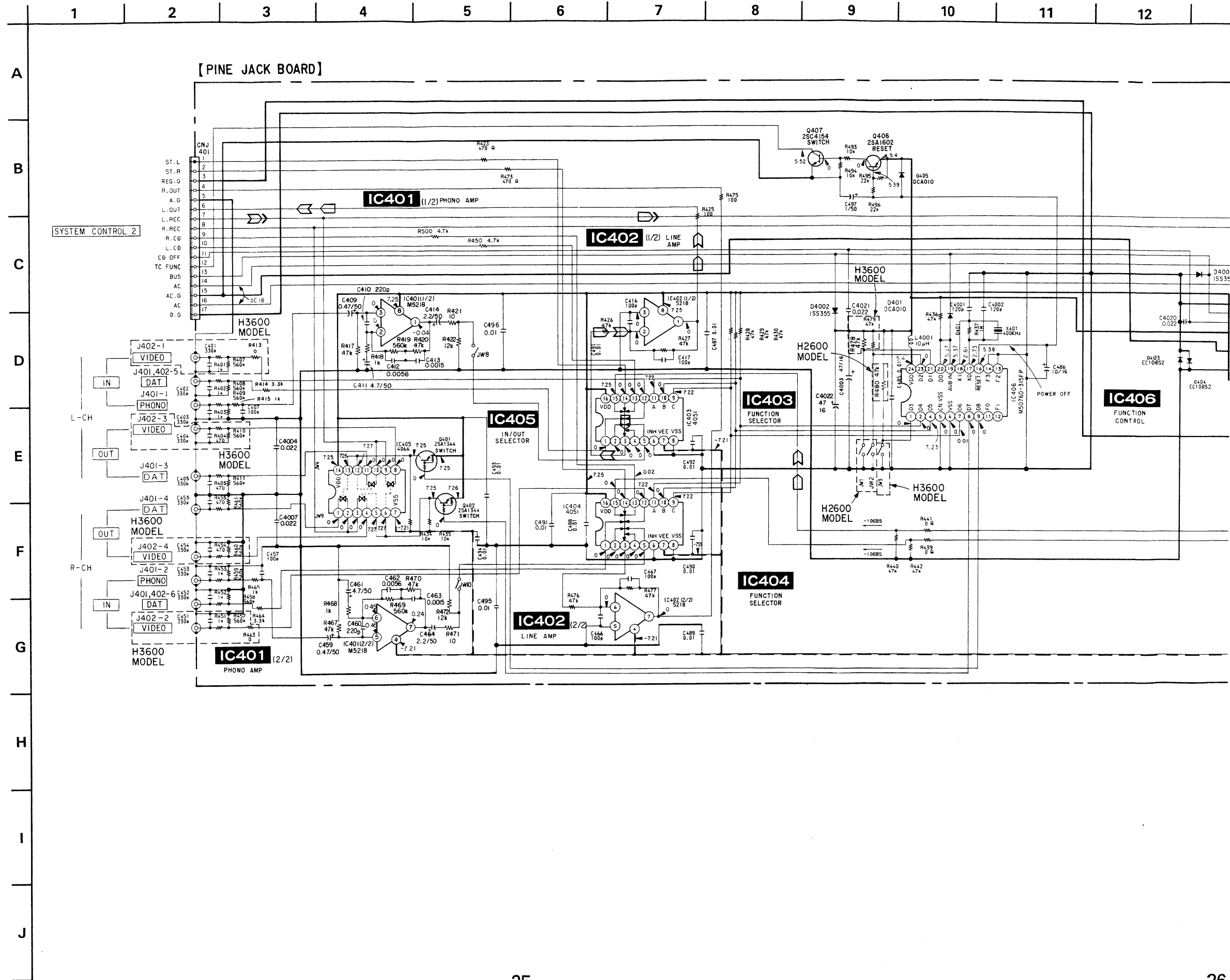
IC103 CXA1398M



IC106 BA3308F



4-5. SCHEMATIC DIAGRAM - PIN JACK SECTION -



Note on Schematic Diagram:

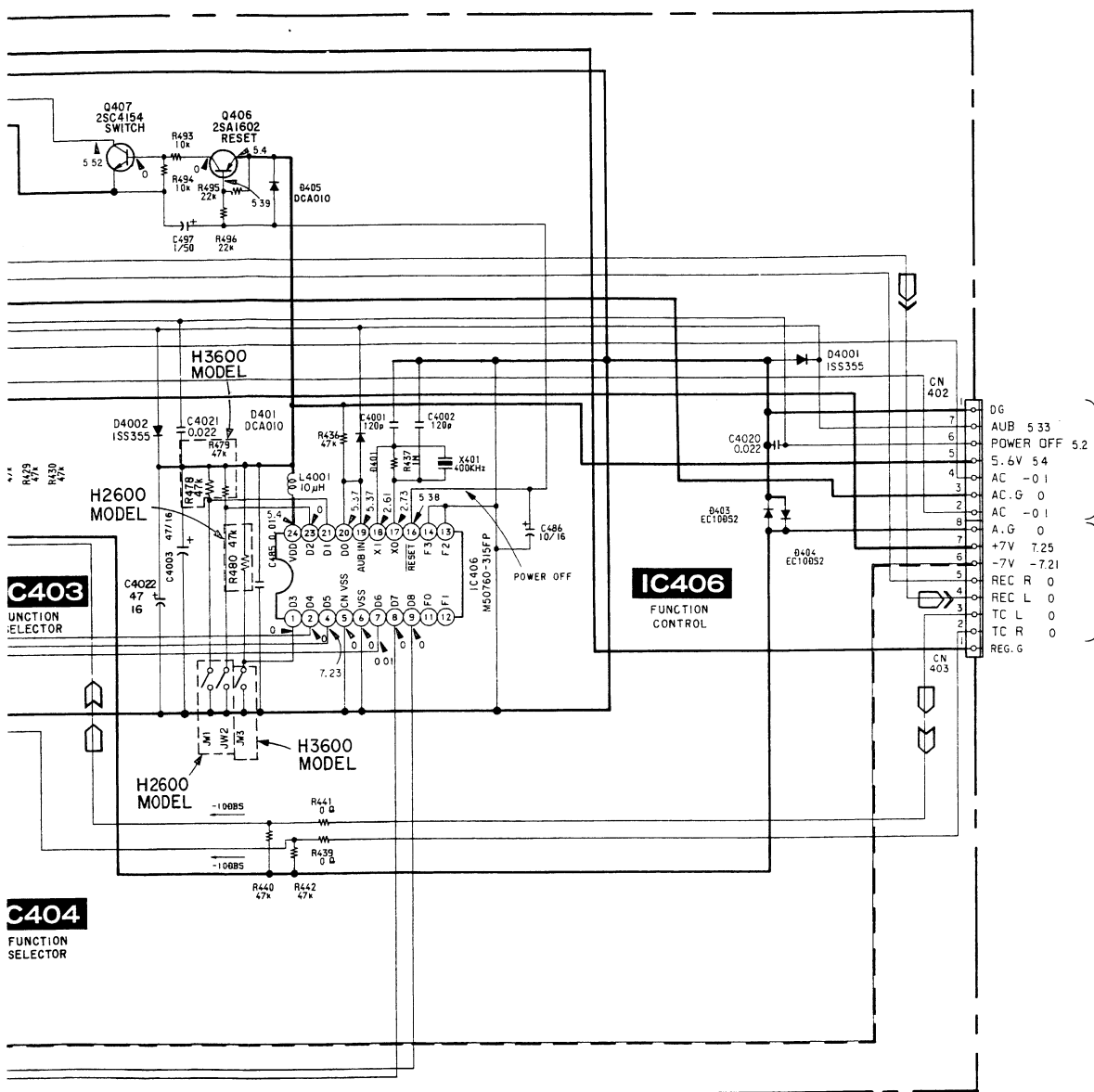
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{mF}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- : nonflammable resistor.

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

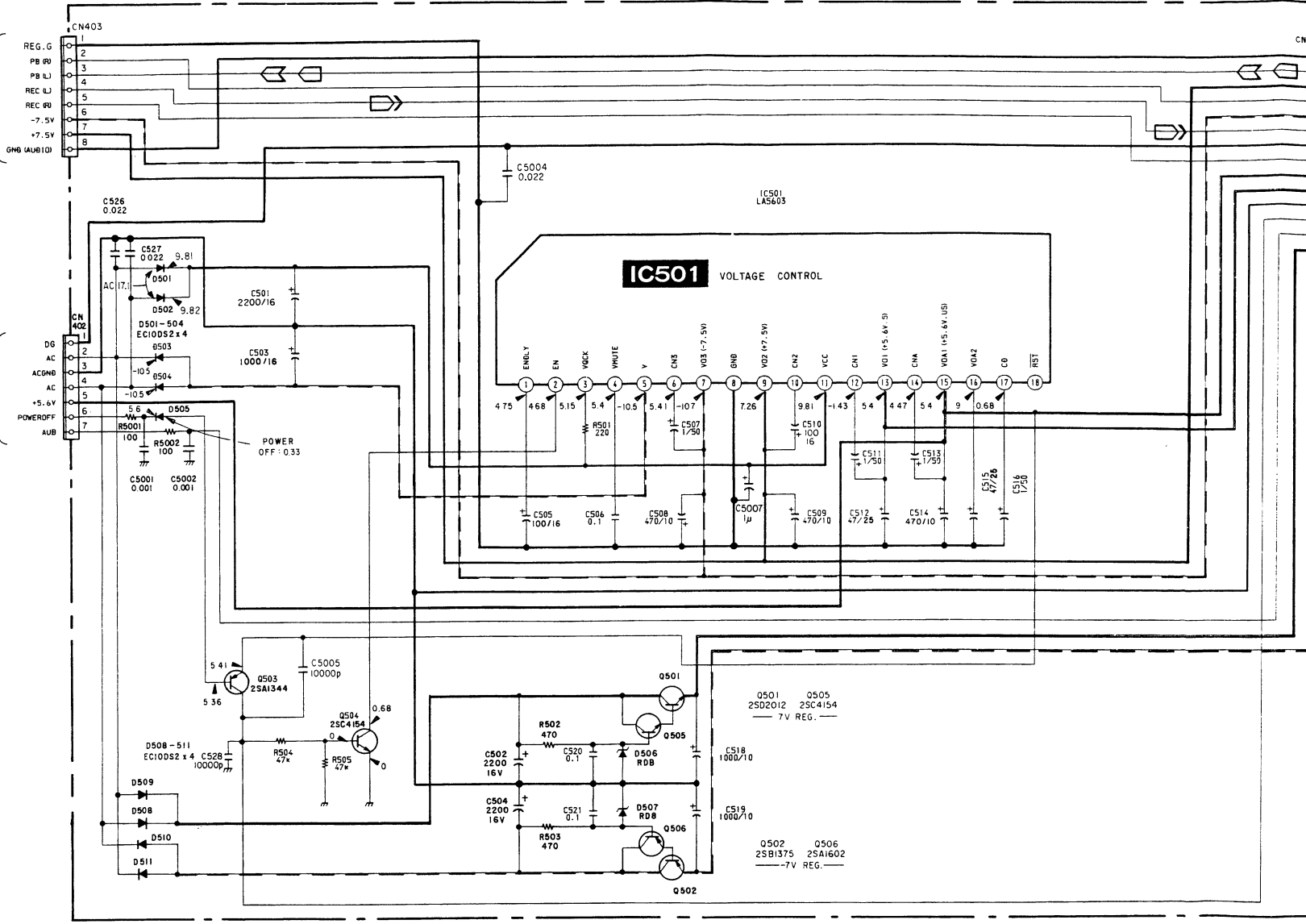
**Note:**  
Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

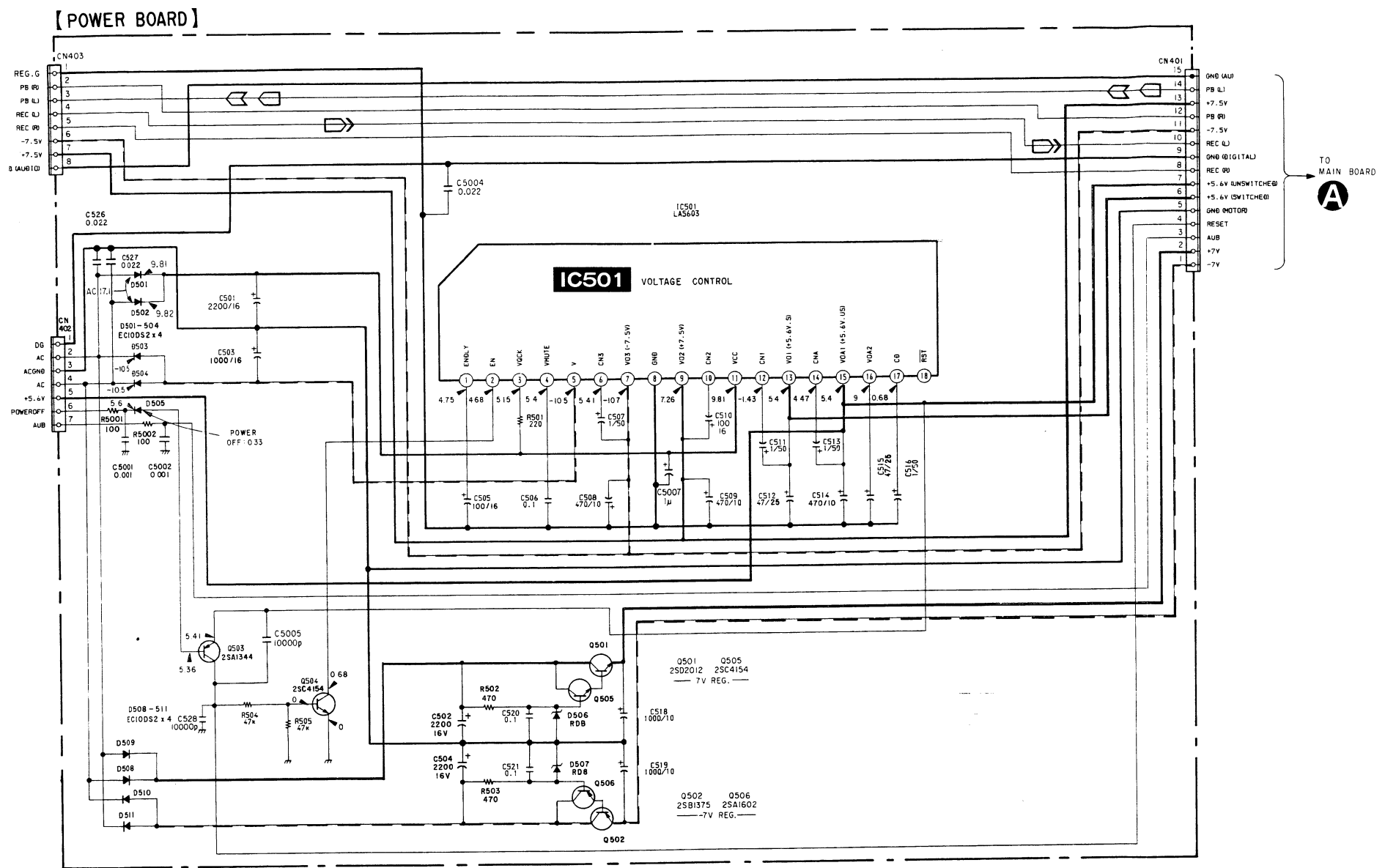
- : B+ Line
- : B- Line
- : adjustment for repair.
- no mark: STOP      : PAUSE
- ( ) : PB              : FF/REW
- < > : REC
- : FWD      : REV      : STOP
- : FF      : REW      : REC
- Voltages are taken with a VOM (Input impedance 10M  $\Omega$ )  
Voltage variations may be noted due to normal production tolerances.
- Signal path.
- : PB (DECK A)
- : PB (DECK B)
- : REC (DECK B)



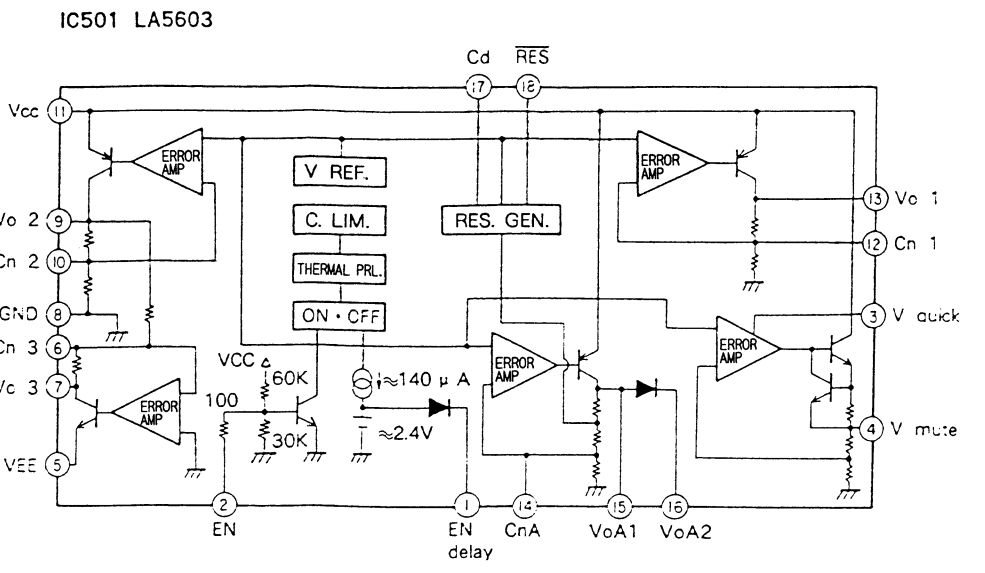


[ POWER BOARD ]

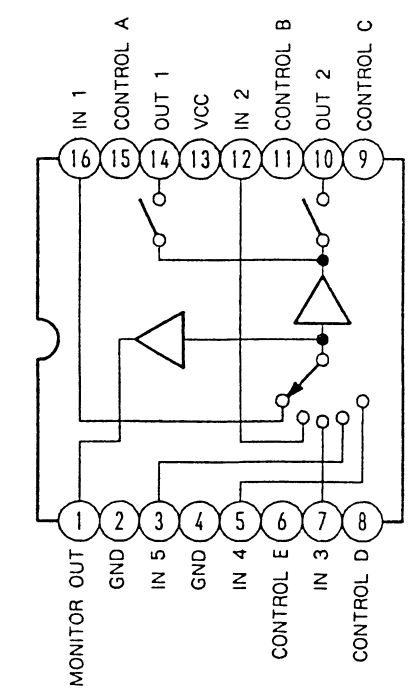


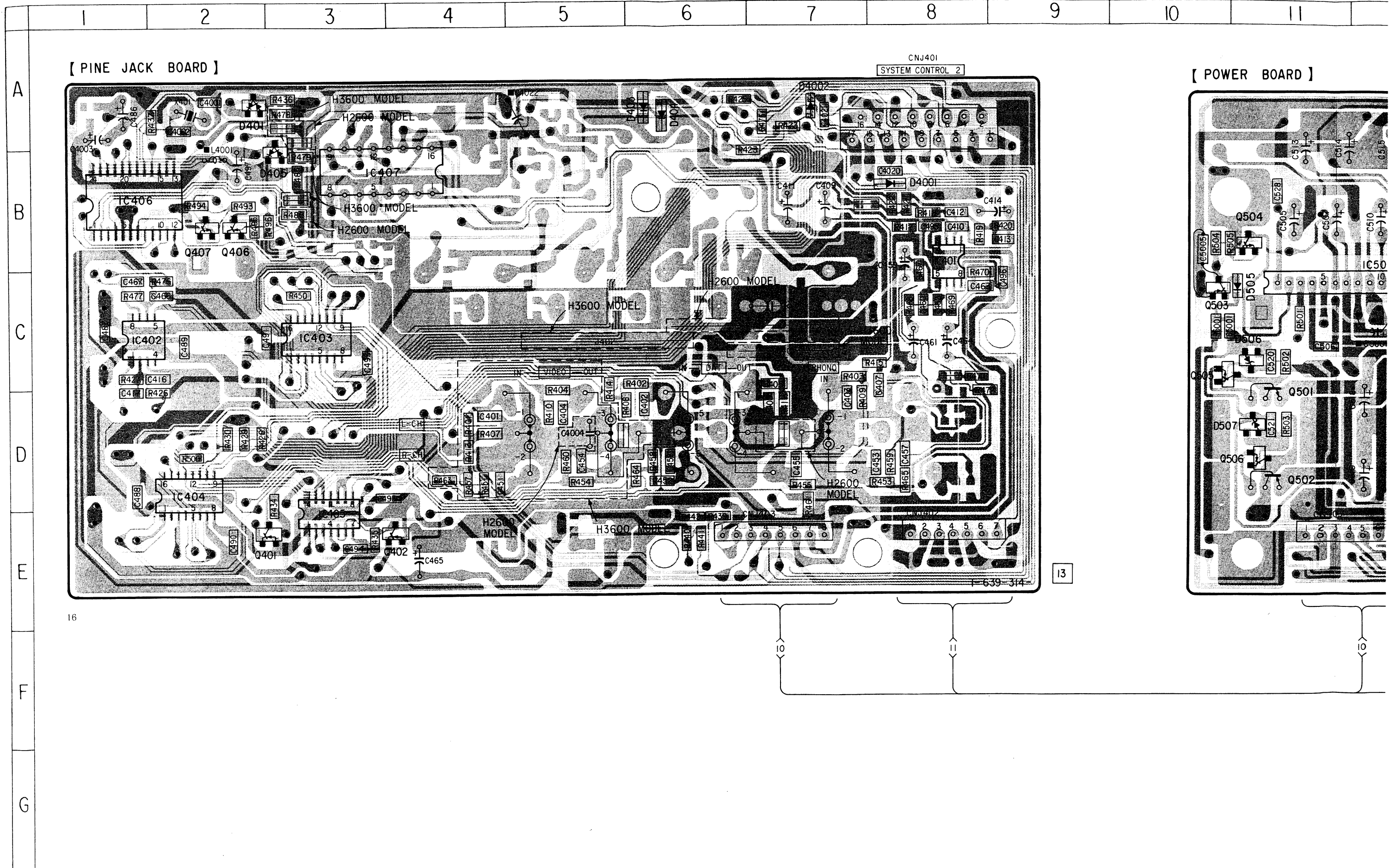


• IC BLOCK DIAGRAM



**IC407 BA7625**



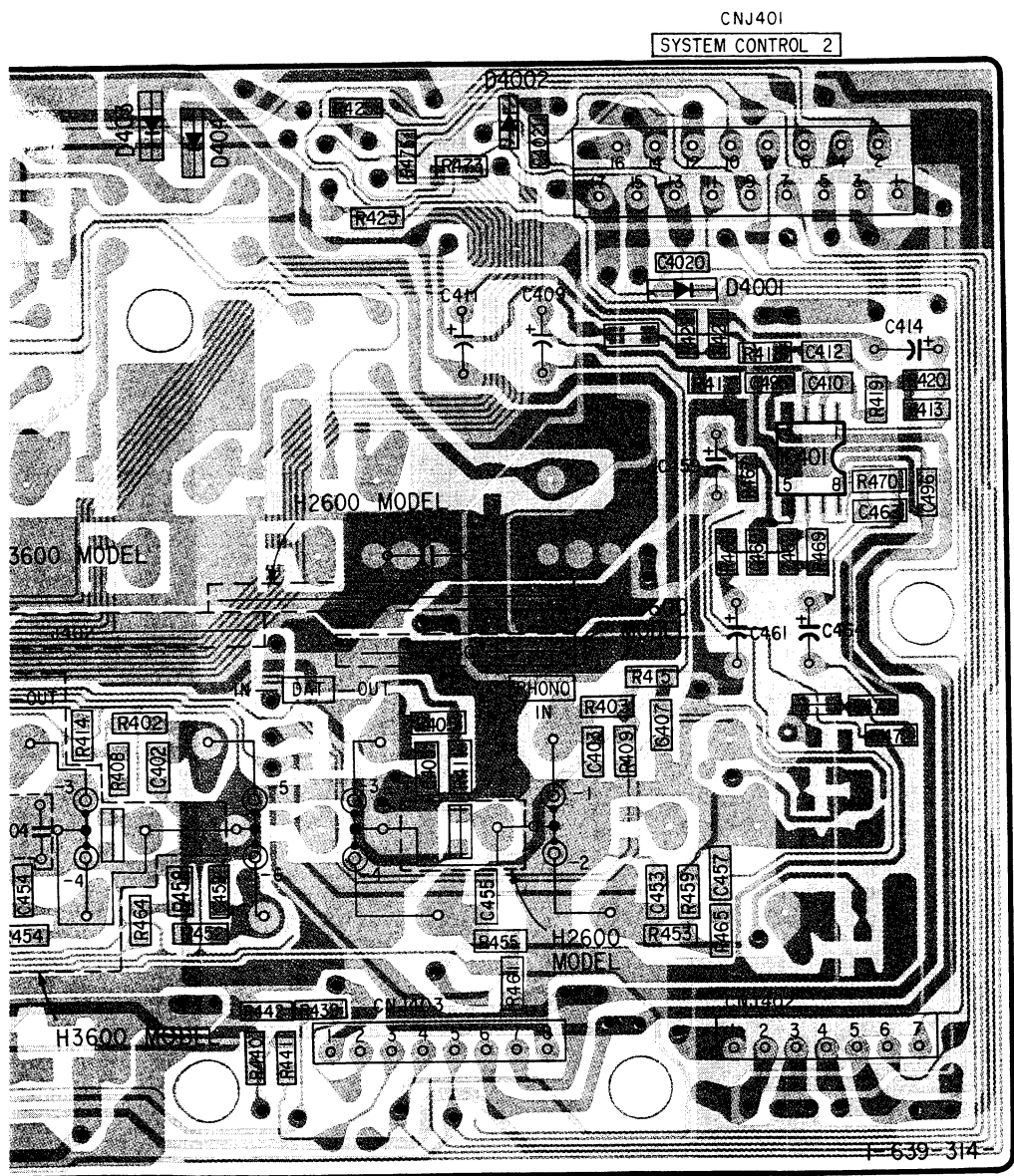




6 7 8 9

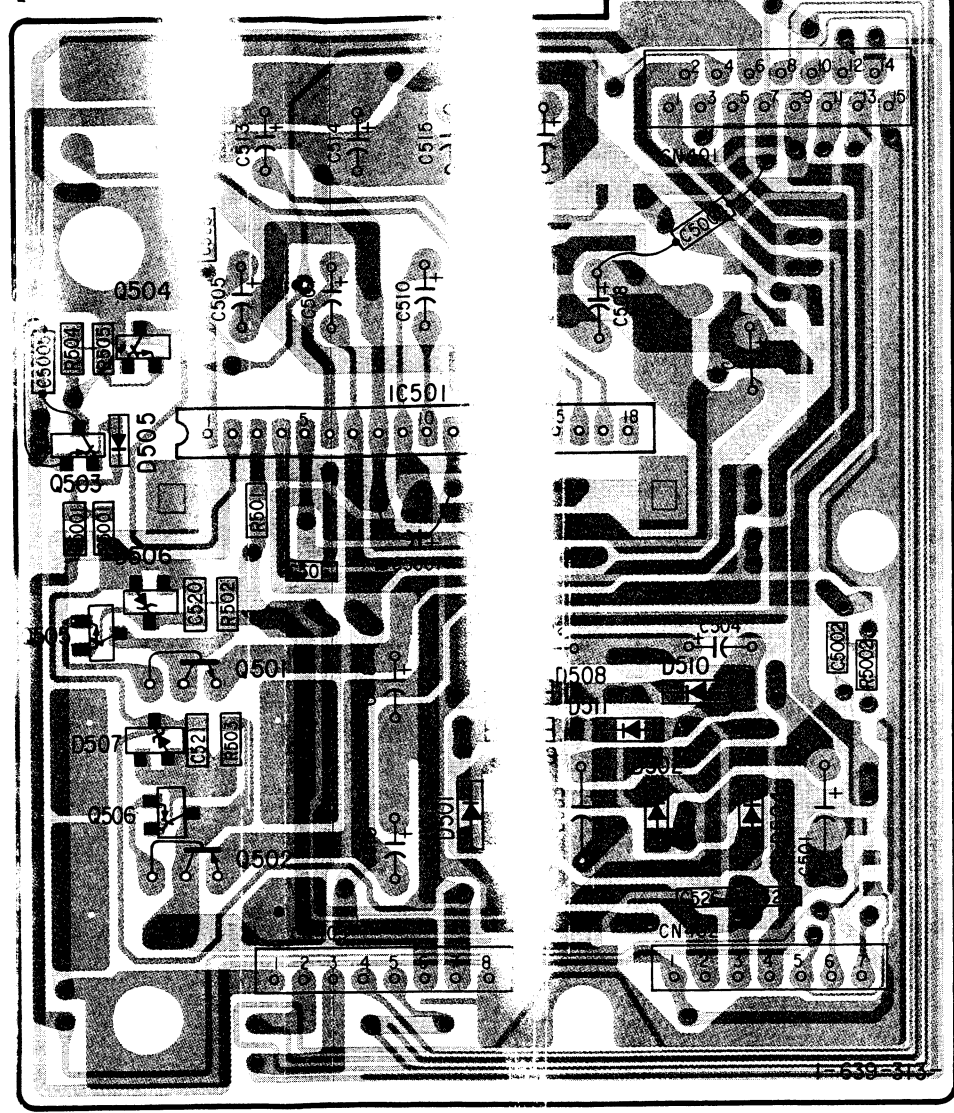
0 1

13 14



13

[ POWER D ]



13

• Semiconductor Location

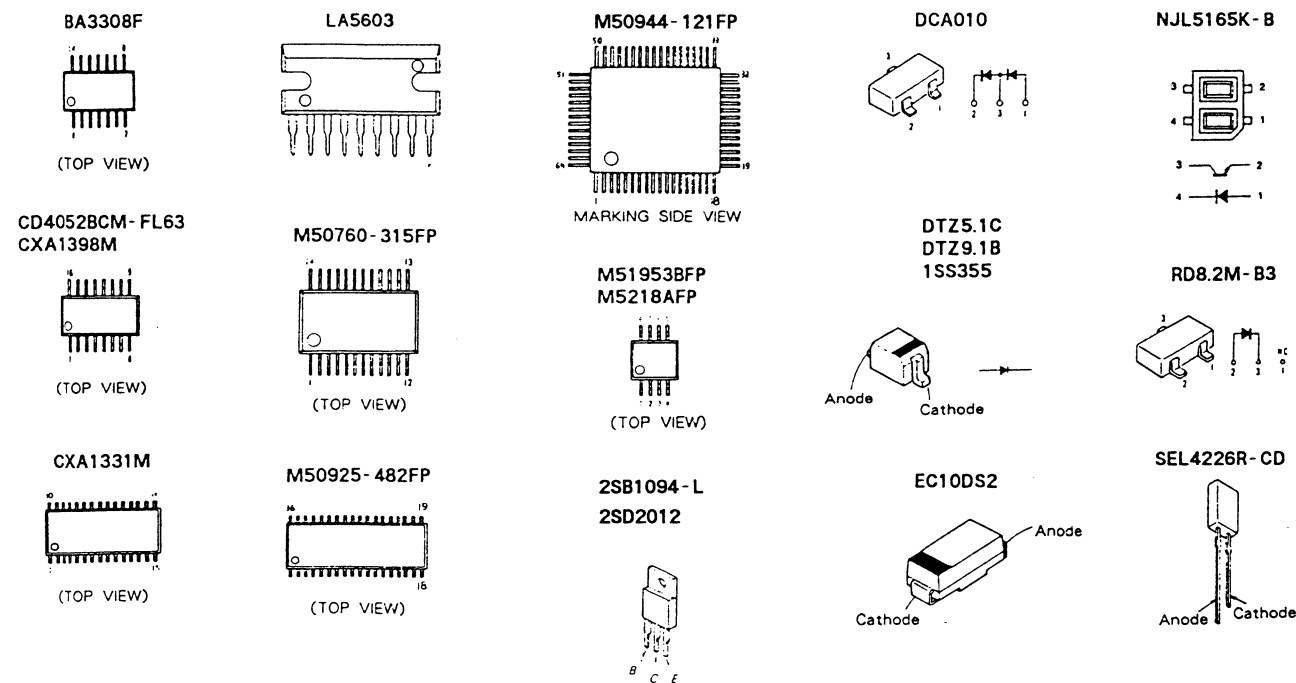
Ref. No.	Location
D401	A-2
D403	A-6
D404	A-6
D405	B-3
D501	D-12
D502	D-13
D503	D-12
D504	D-13
D505	C-11
D506	C-11
D507	D-11
D508	D-12
D509	D-12
D510	D-13
D511	D-13
D4001	B-8
D4002	A-7
IC401	C-8
IC402	C-1
IC403	C-3
IC404	D-2
IC405	E-3
IC406	B-1
IC501	C-12
Q401	E-3
Q402	E-4
Q406	B-2
Q407	B-2
Q501	D-11
Q502	D-11
Q503	C-10
Q504	B-11
Q505	C-10
Q506	D-11



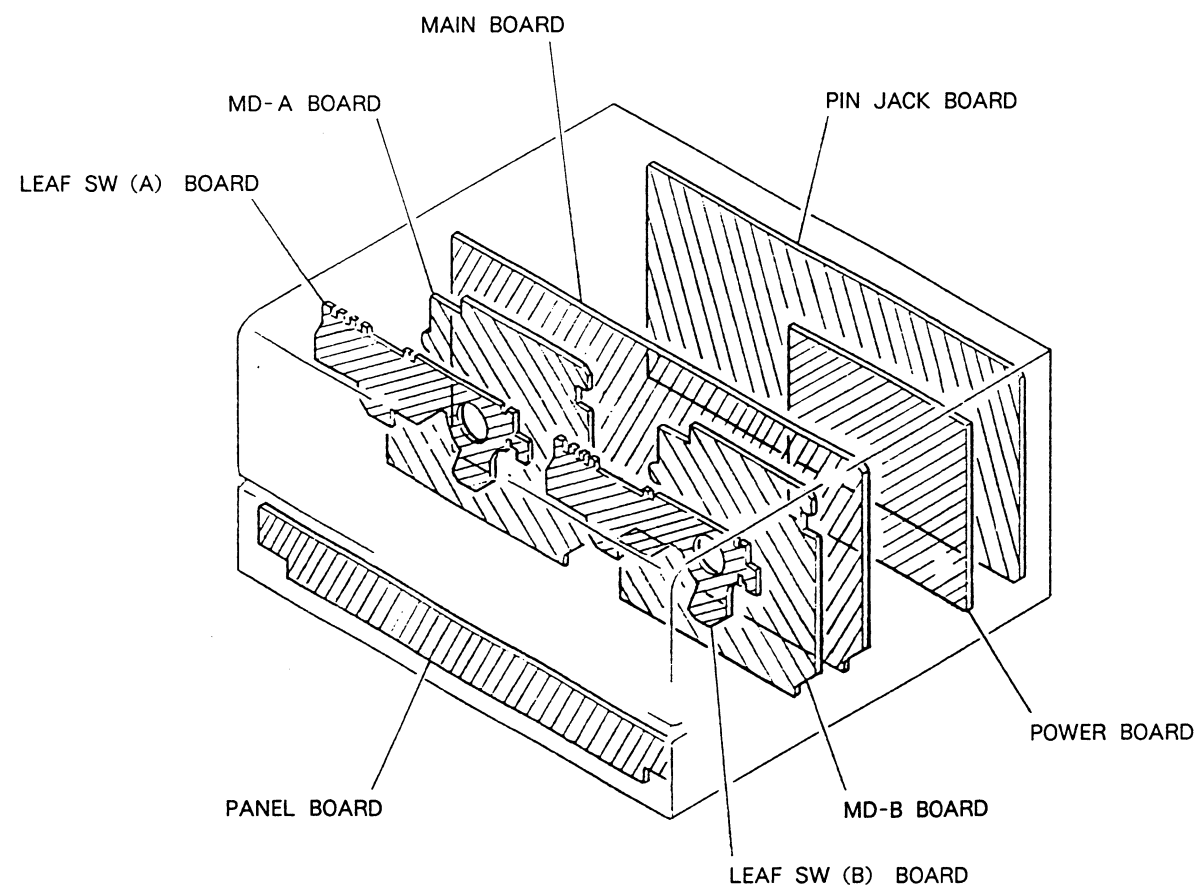
**Note on Mounting Diagram:**

- ○ — : parts extracted from the component side.
- ■ : parts mounted on the conductor side
- ● : Through hole.
- [diagonal lines] : Pattern on the side which is seen.
- [cross-hatch] : Pattern of the rear side.

4-7. SEMICONDUCTOR LEAD LAYOUTS



4-8. CIRCUIT BOARDS LOCATION

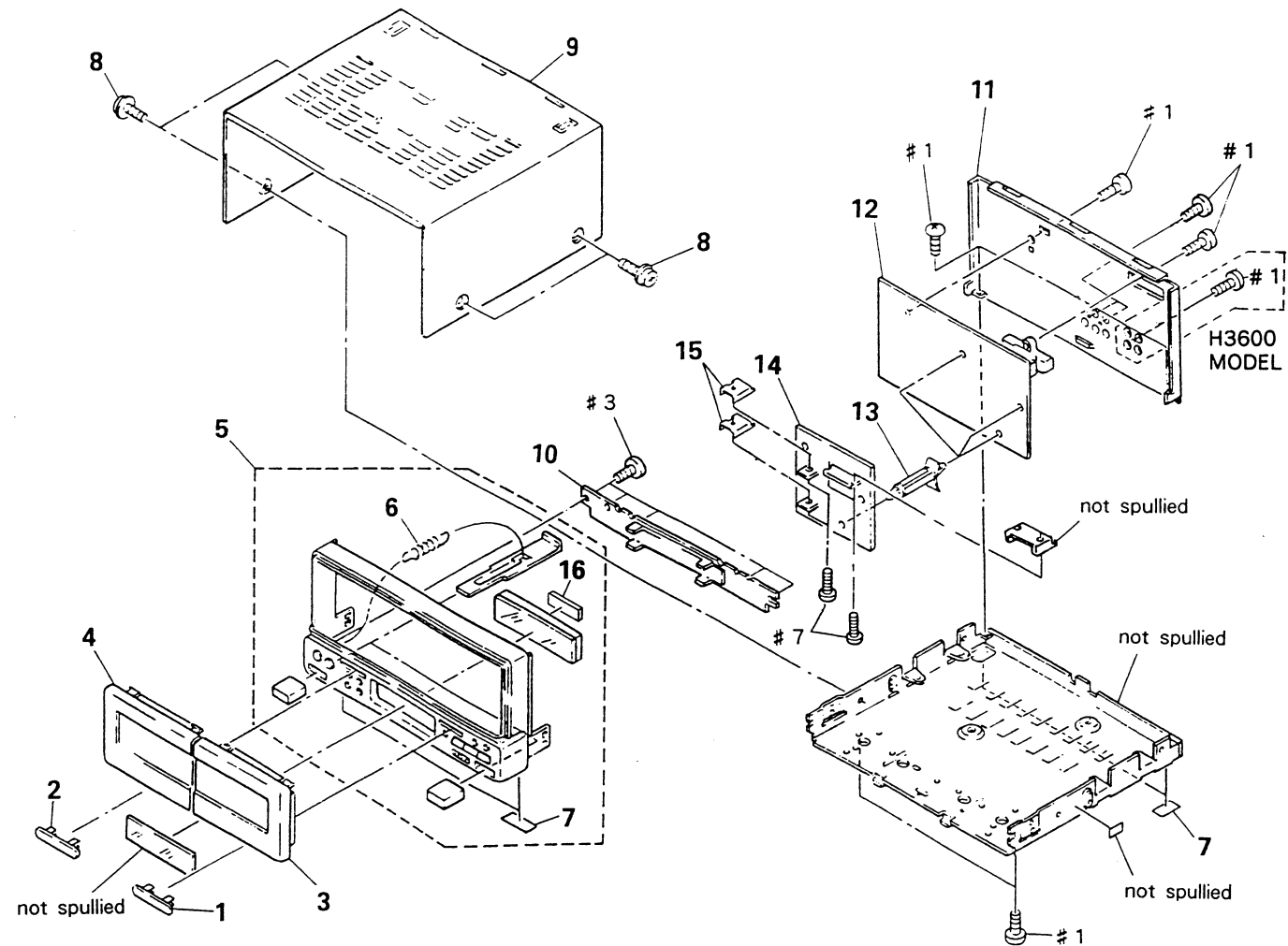


SECTION 5  
EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example:  
KNOB, BALANCE (WHITE)...(RED)  
↑                   ↑  
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.

5-1. FRONT PANEL SECTION - 1



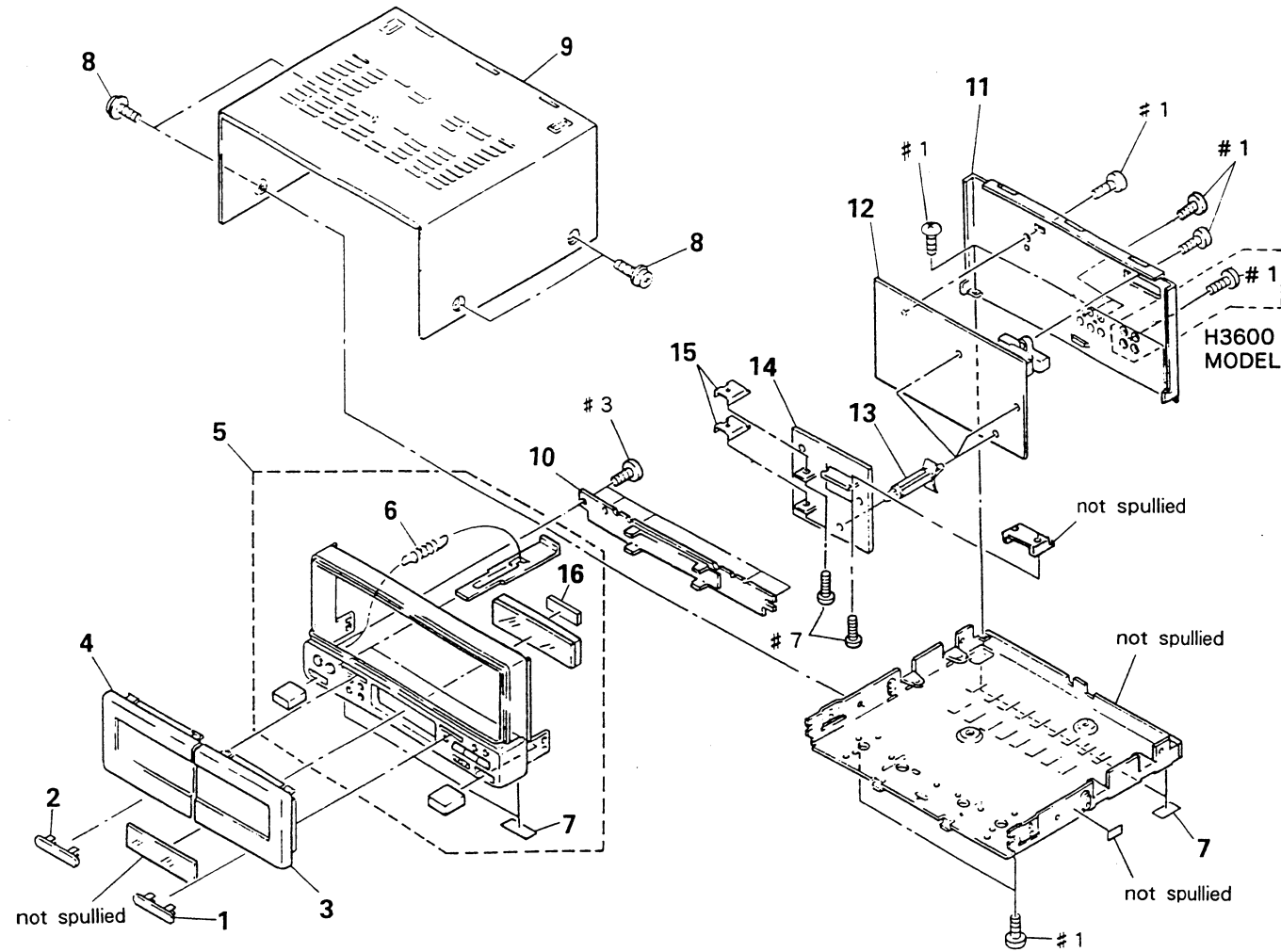
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	Ref. No.
1	3-367-872-11	COVER (AZIMUTH)		11	* 3-366-786-11	PANEL, BACK (H3600:EXCEPT Germany, Italian)		51
2	3-367-872-01	COVER (AZIMUTH)			* 3-366-786-21	PANEL, BACK (H3600:Germany, Italian)		52
3	X-3362-918-1	LID(B) ASSY, CASSETTE			* 3-366-786-31	PANEL, BACK (H2600:EXCEPT Germany, Italian)		53
4	X-3362-919-1	LID(A) ASSY, CASSETTE			* 3-366-786-41	PANEL, BACK (H2600:Germany, Italian)		54
5	X-3362-921-1	PANEL ASSY, FRONT						55
6	3-567-110-00	SPRING, TENSION		12	* A-2006-411-A	PIN JACK BOARD(H3600)		56
7	4-930-336-01	FOOT (FELT)			* A-2006-417-A	PIN JACK BOARD(H2600)		57
8	3-363-099-01	SCREW(CASE +3X8 TP2)		13	* 3-703-353-02	SUPPORT, PC BOARD		57
9	* 4-944-522-01	CASE(K211522)		14	* A-2006-613-A	POWER BOARD		58
10	* A-2006-410-A	PANEL BOARD		15	* 3-309-144-21	HEAT SINK		58
				16	4-906-024-11	TABLE, PENT		59

## SECTION 5 EXPLODED VIEWS

**NOTE :**

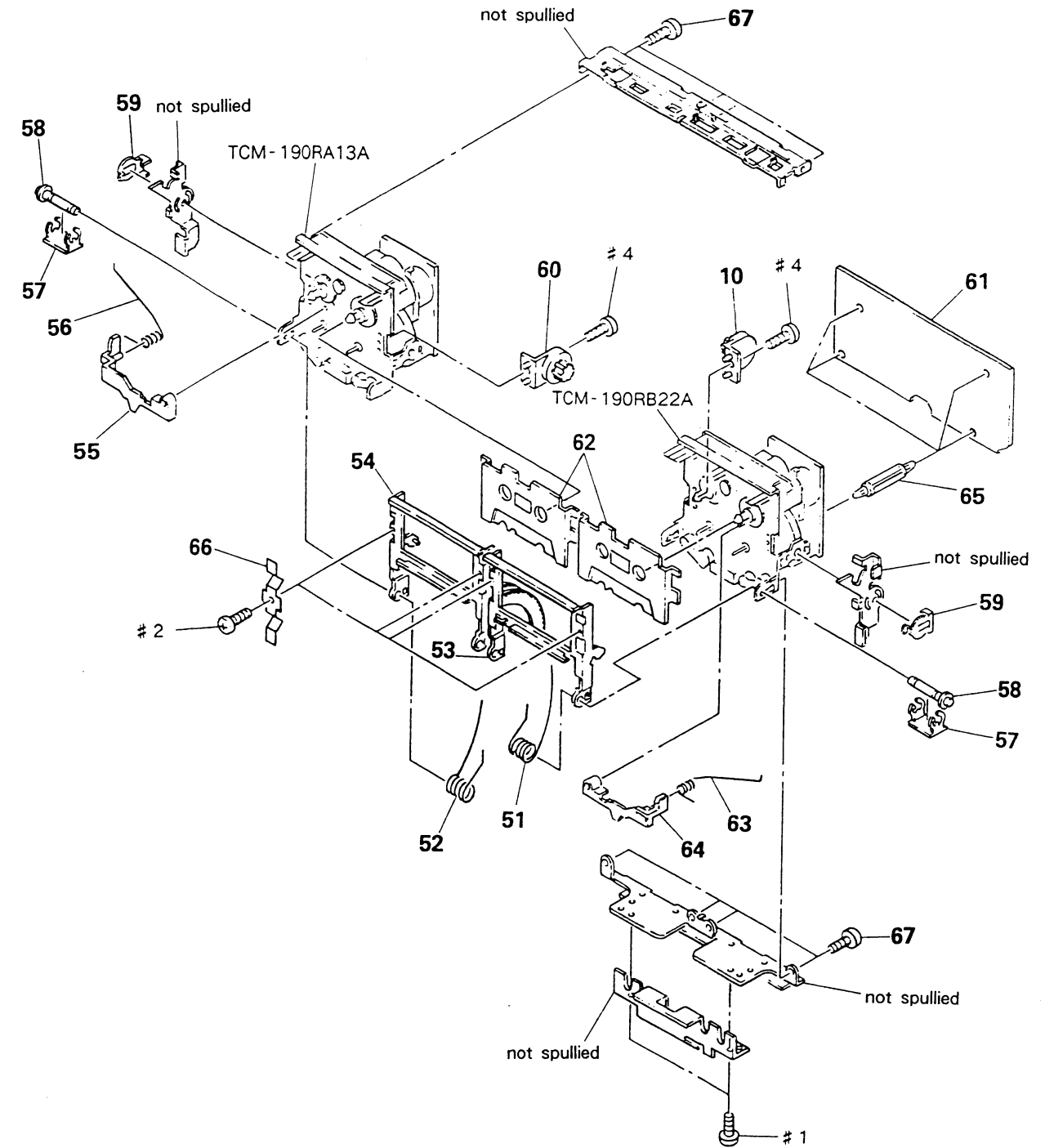
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts  
Example :  
KNOB, BALANCE (WHITE)...(RED)  
                  ↑                  ↑  
                  Parts color   Cabinet's color
- Items marked "\*" are not stocked 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.

### 5-1. FRONT PANEL SECTION-1



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-367-872-11	COVER (AZIMUTH)		11	* 3-366-786-11	PANEL, BACK (H3600: EXCEPT Germany, Italian)	
2	3-367-872-01	COVER (AZIMUTH)			* 3-366-786-21	PANEL, BACK (H3600: Germany, Italian)	
3	X-3362-918-1	LID (B) ASSY, CASSETTE			* 3-366-786-31	PANEL, BACK (H2600: EXCEPT Germany, Italian)	
4	X-3362-919-1	LID (A) ASSY, CASSETTE			* 3-366-786-41	PANEL, BACK (H2600: Germany, Italian)	
5	X-3362-921-1	PANEL ASSY, FRONT		12	* A-2006-411-A	PIN JACK BOARD (H3600)	
6	3-567-110-00	SPRING, TENSION			* A-2006-417-A	PIN JACK BOARD (H2600)	
7	4-930-336-01	FOOT (FELT)		13	* 3-703-353-02	SUPPORT, PC BOARD	
8	3-363-099-01	SCREW (CASE +3X8 TP2)		14	* A-2006-613-A	POWER BOARD	
9	* 4-944-522-01	CASE (K211522)		15	* 3-309-144-21	HEAT SINK	
10	* A-2006-410-A	PANEL BOARD		16	4-906-024-11	TABLE, PENT	

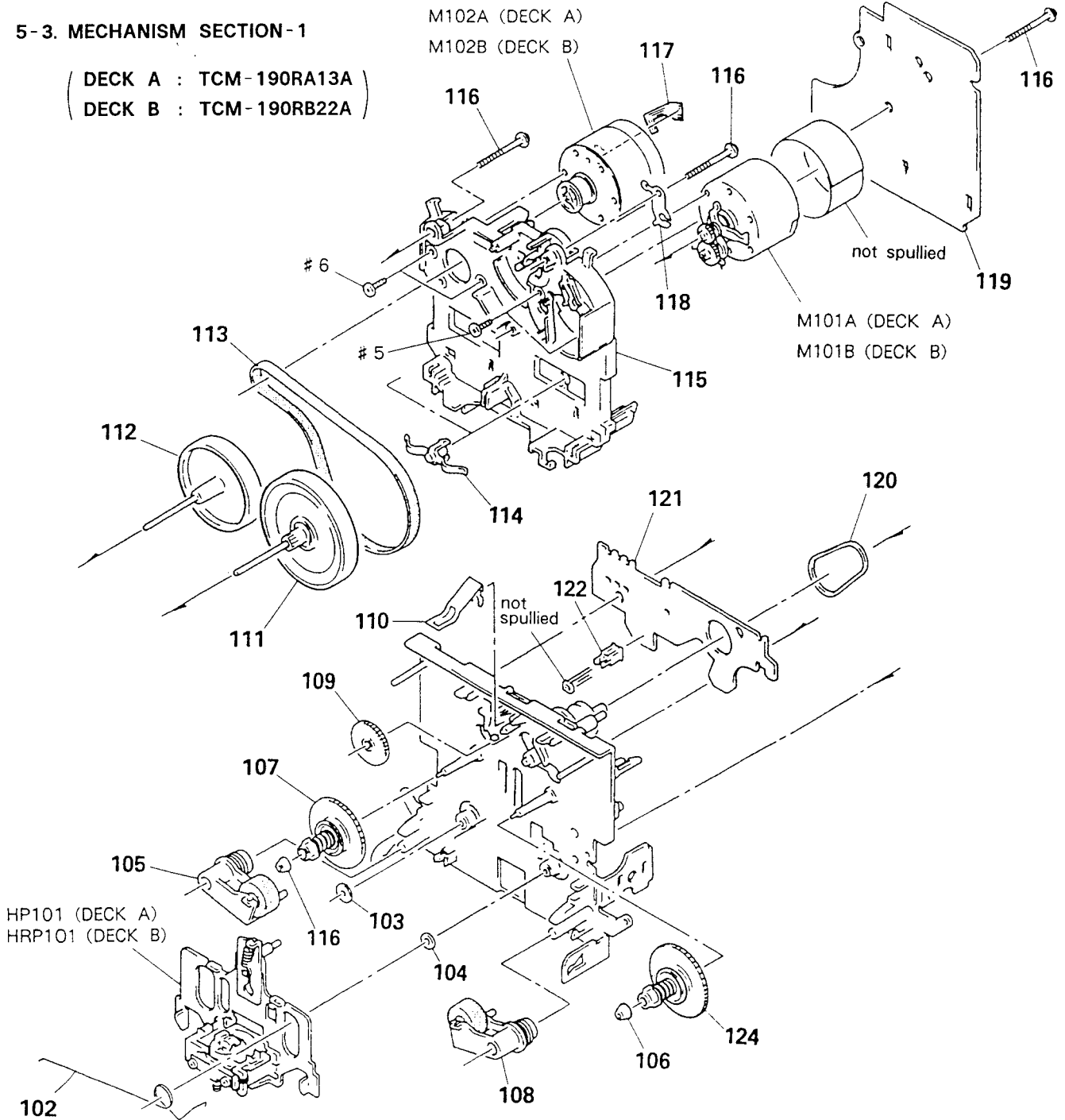
### 5-2. FRONT PANEL SECTION-2



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-354-960-01	SPRING (LOADING R), TORSION		60	3-354-963-01	DAMPER	
52	3-354-959-01	SPRING (LOADING L), TORSION		61	* A-2006-407-A	MAIN BOARD	
53	X-3362-856-1	HOLDER (R) ASSY, CASSETTE		62	3-367-711-01	RETAINER, CASSETTE	
54	X-3362-857-1	HOLDER (L) ASSY, CASSETTE		63	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
55	3-354-955-01	LEVER (EJ SAFTY LEVER L)		64	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
56	3-354-961-01	SPRING (EJ SAFTY SPRING L)		65	* 3-682-419-21	HOLDER, P. C. B	
57	3-367-720-01	RING (W), RETAINING		66	3-340-137-01	SPRING, CASSETTE RETAINER	
58	3-367-721-01	SHAFT (FULCRUM SHAFT)		67	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
59	3-354-957-01	JOINT (LOCK LEVER)					

5-3. MECHANISM SECTION-1

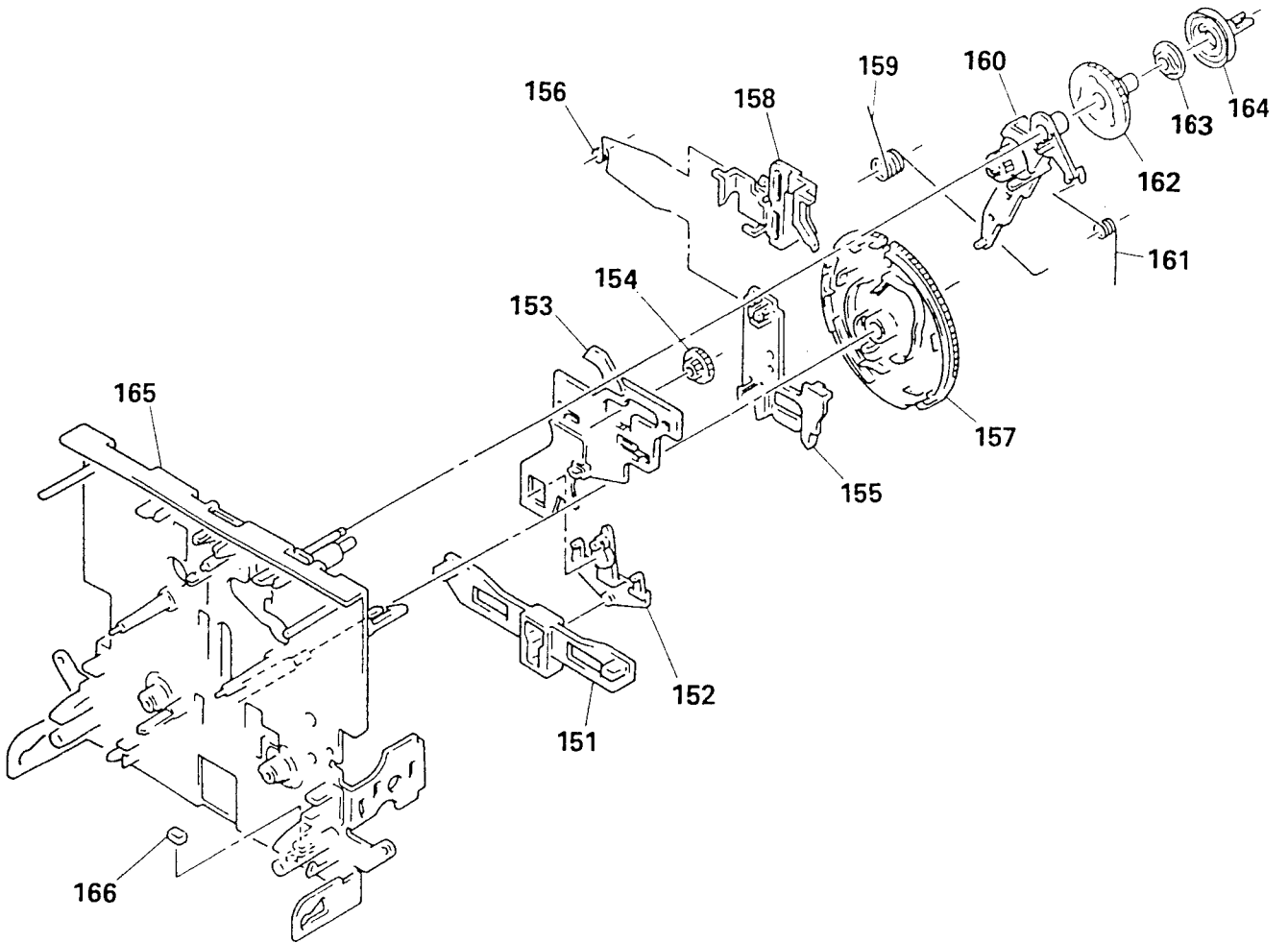
( DECK A : TCM-190RA13A )  
 ( DECK B : TCM-190RB22A )



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
102	3-359-455-01	SPRING, TORSION		117	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
103	3-356-714-01	WASHER		118	3-359-450-01	PLATE, GROUND	
104	3-356-713-01	WASHER		119	* A-2006-400-A	MD-B BOARD(RB22A) (DECK B)	
105	X-3359-409-1	LEVER(PINCH LEVER REV) ASSY			* A-2006-399-A	MD-A BOARD(RA12A) (DECK A)	
106	3-362-308-01	CAP(REEL)		120	3-359-466-01	BELT(FR), SQUARE	
107	X-3362-078-1	TABLE ASSY(B), REEL		121	* 1-634-841-11	LEAF SW(B) BOARD(RB22A) (DECK B)	
108	X-3359-408-1	LEVER(PINCH LEVER FWD) ASSY			* 1-634-841-11	LEAF SW(A) BOARD(RA12A) (DECK A)	
109	3-359-424-01	GEAR(REV GEAR)		122	3-343-419-01	HOLDER(S SENSOR A)	
110	3-359-430-01	SPRING(CASSETTE RETAINER), LEAF		124	X-3359-404-1	TABLE ASSY, REEL	
111	X-3359-406-1	FLYWHEEL(FWD) COMPLETE ASSY		HP101	A-2003-868-B	BASE ASSY, HEAD(DECK A)	
112	X-3359-410-1	FLYWHEEL(REV) ASSY		HRP101	A-2003-838-A	BASE ASSY, HEAD(DECK B)	
113	3-359-417-01	BELT (FLAT), CAPSTAN		M101A	A-2003-474-A	MOTOR(REEL MOTOR) ASSY(DECK A)	
114	3-575-321-00	RETAINER, THRUST, CAPSTAN		M101B	A-2003-474-A	MOTOR(REEL MOTOR) ASSY(DECK B)	
115	* 3-359-436-01	BASE(THRUST RETAINER), FITTING		M102A	X-3359-417-1	MOTOR(CAPSTAN MOTOR) ASSY(DECK A)	
116	3-359-414-01	SCREW(+PTPMH 2X23)		M102B	X-3359-417-1	MOTOR(CAPSTAN MOTOR) ASSY(DECK B)	

5-4. MECHANISM SECTION-2

( DECK A : TCM-190RA13A )  
 ( DECK B : TCM-190RB22A )



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	* 3-359-425-01	SLIDER(REVERSE SLIDER)		159	3-359-456-01	SPRING(TRIGGER SPRING), TORSION	
152	3-359-426-01	LEVER(REVERSE LEVER)		160	X-3359-405-1	LEVER(FR ARM) ASSY	
153	* 3-359-415-01	SLIDER(TRIGGER SLIDER)		161	3-359-453-01	SPRING(FR ARM), TORSION	
154	3-359-448-01	GEAR(TRIGGER)		162	3-359-419-01	GEAR(FR GEAR)	
155	* 3-359-427-01	SLIDER(LEVERSE SLIDER)		163	3-359-421-01	CLUTCH(REEL DISK)	
156	3-359-454-01	SPRING, TORSION		164	3-359-418-01	PULLEY(FR PULLEY)	
157	3-359-420-01	GEAR(CAM GEAR)		165	X-3359-415-1	CHASSIS ASSY, MECHANICAL	
158	3-359-429-01	SLIDER(BRAKE PLATE)		166	3-359-469-01	SPACER	



## SECTION 6 ELECTRICAL PARTS LIST

MAIN
PANEL  
PIN JACK
POWER

**NOTE :**

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- - XX, - X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL : metal-film resistor  
METAL OXIDE : Metal Oxide-film resistor  
F : nonflammable
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case,  $\mu$  :  $\mu$ , for example :  
 $\mu A...$  :  $\mu A...$ ,  $\mu PA...$ ,  $\mu PA...$ ,  
 $\mu PB...$ ,  $\mu PB...$ ,  $\mu PC...$ ,  $\mu PC...$ ,  
 $\mu PD...$ ,  $\mu PD...$
- CAPACITORS :  
 $\mu F$  :  $\mu F$
- COILS  
 $\mu H$  :  $\mu H$

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* A-2006-407-A	MAIN BOARD	*****		C215	1-164-505-11	CERAMIC CHIP 2.2uF	16V
* A-2006-410-A	PANEL BOARD	*****		C216	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
* A-2006-411-A	PIN JACK BOARD (H3600)			C351	1-126-163-11	ELECT 4.7uF	20% 50V
* A-2006-417-A	PIN JACK BOARD (H2600)	*****		C352	1-124-638-11	ELECT 22uF	20% 10V
* A-2006-613-A	POWER BOARD	*****		C353	1-164-232-11	CERAMIC CHIP 0.01uF	50V
* 3-309-144-21	HEAT SINK			C354	1-164-232-11	CERAMIC CHIP 0.01uF	50V
* 3-367-839-01	HOLDER, FL TUBE			C401	1-163-003-11	CERAMIC CHIP 330PF	10% 50V(H3600)
9-911-863-XX	SPACER			C402	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			C403	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
	( CAPACITOR )			C404	1-163-003-11	CERAMIC CHIP 330PF	10% 50V(H3600)
C101	1-136-158-00	FILM 0.027uF	5% 50V	C405	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C102	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	C407	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C103	1-164-182-11	CERAMIC CHIP 0.0033uF	10% 50V	C409	1-124-465-00	ELECT 0.47uF	20% 50V
C104	1-130-475-00	MYLAR 0.0022uF	5% 50V	C410	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C105	1-130-475-00	MYLAR 0.0022uF	5% 50V	C411	1-126-163-11	ELECT 4.7uF	20% 50V
C106	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C412	1-163-018-00	CERAMIC CHIP 0.0056uF	5% 50V
C107	1-136-174-00	FILM 0.56uF	5% 50V	C413	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
C108	1-136-171-00	FILM 0.33uF	5% 50V	C414	1-124-257-00	ELECT 2.2uF	20% 50V
C109	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C416	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C110	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C417	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C111	1-164-005-11	CERAMIC CHIP 0.47uF	25V	C451	1-163-003-11	CERAMIC CHIP 330PF	10% 50V(H3600)
C112	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C452	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C113	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C453	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C114	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C454	1-163-003-11	CERAMIC CHIP 330PF	10% 50V(H3600)
C115	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C455	1-163-003-11	CERAMIC CHIP 330PF	10% 50V
C116	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C457	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C201	1-136-158-00	FILM 0.027uF	5% 50V	C459	1-124-465-00	ELECT 0.47uF	20% 50V
C202	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V	C460	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C203	1-164-182-11	CERAMIC CHIP 0.0033uF	10% 50V	C461	1-126-163-11	ELECT 4.7uF	20% 50V
C204	1-130-475-00	MYLAR 0.0022uF	5% 50V	C462	1-163-018-00	CERAMIC CHIP 0.0056uF	5% 50V
C205	1-130-475-00	MYLAR 0.0022uF	5% 50V	C463	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
C206	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C464	1-124-257-00	ELECT 2.2uF	20% 50V
C207	1-136-174-00	FILM 0.56uF	5% 50V	C466	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C208	1-136-171-00	FILM 0.33uF	5% 50V	C467	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C209	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C485	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C210	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C486	1-126-157-11	ELECT 10uF	20% 16V
C211	1-164-005-11	CERAMIC CHIP 0.47uF	25V	C487	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C212	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C488	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C213	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C489	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C214	1-164-505-11	CERAMIC CHIP 2.2uF	16V	C490	1-164-232-11	CERAMIC CHIP 0.01uF	50V
				C491	1-164-232-11	CERAMIC CHIP 0.01uF	50V
				C492	1-164-232-11	CERAMIC CHIP 0.01uF	50V
				C493	1-164-232-11	CERAMIC CHIP 0.01uF	50V
				C494	1-164-232-11	CERAMIC CHIP 0.01uF	50V
				C495	1-164-232-11	CERAMIC CHIP 0.01uF	50V

**MAIN**   **PANEL**   **PIN JACK**   **POWER**

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C496	1-164-232-11	CERAMIC CHIP	0.01uF		50V	C4020	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C497	1-126-301-11	ELECT	1uF	20%	50V	C4021	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C501	1-124-556-11	ELECT	2200uF	20%	16V	C4022	1-124-589-11	ELECT	47uF	20%	16V
C502	1-124-556-11	ELECT	2200uF	20%	16V	C5001	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C503	1-124-360-00	ELECT	1000uF	20%	16V	C5002	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C504	1-124-556-11	ELECT	2200uF	20%	16V	C5004	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C505	1-126-023-11	ELECT	100uF	20%	16V	C5005	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C506	1-163-038-00	CERAMIC CHIP	0.1uF		25V	C5007	1-124-903-11	ELECT	1uF	20%	50V
C507	1-124-903-11	ELECT	1uF	20%	50V	C6008	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C508	1-124-472-11	ELECT	470uF	20%	10V	C6009	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C509	1-124-472-11	ELECT	470uF	20%	10V	C6010	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C510	1-126-023-11	ELECT	100uF	20%	16V	C6011	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C511	1-124-903-11	ELECT	1uF	20%	50V	C6012	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C512	1-124-477-11	ELECT	47uF	20%	25V	C6013	1-126-023-11	ELECT	100uF	20%	16V
C513	1-124-903-11	ELECT	1uF	20%	50V	C6020	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C514	1-124-472-11	ELECT	470uF	20%	10V	C6021	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C515	1-124-477-11	ELECT	47uF	20%	25V	C6022	1-164-346-11	CERAMIC CHIP	1uF		16V
C516	1-124-903-11	ELECT	1uF	20%	50V	C6026	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C518	1-124-473-11	ELECT	1000uF	20%	10V	C6027	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C519	1-124-473-11	ELECT	1000uF	20%	10V	C6029	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C520	1-163-038-00	CERAMIC CHIP	0.1uF		25V	C6030	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C521	1-163-038-00	CERAMIC CHIP	0.1uF		25V	C6031	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C526	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V	C6035	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V
C527	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V						
C528	1-164-232-11	CERAMIC CHIP	0.01uF		50V			< CONNECTOR >			
C601	1-164-346-11	CERAMIC CHIP	1uF		16V	CN351	1-580-883-21	SOCKET, CONNECTOR (SMT) 12P			
C602	1-164-346-11	CERAMIC CHIP	1uF		16V	CN401	1-568-834-11	SOCKET, CONNECTOR 15P			
C603	1-164-346-11	CERAMIC CHIP	1uF		16V	CN402	* 1-573-187-11	SOCKET, CONNECTOR 7P			
C604	1-164-346-11	CERAMIC CHIP	1uF		16V	CN403	1-573-388-11	SOCKET, CONNECTOR 8P			
C605	1-164-346-11	CERAMIC CHIP	1uF		16V	CN601	1-573-101-11	SOCKET, CONNECTOR 9P			
C606	1-164-346-11	CERAMIC CHIP	1uF		16V	CN602	1-580-783-11	PLUG, CONNECTOR			
C607	1-164-346-11	CERAMIC CHIP	1uF		16V	CN603	1-573-101-11	SOCKET, CONNECTOR 9P			
C608	1-164-505-11	CERAMIC CHIP	2.2uF		16V	CN604	1-580-783-11	PLUG, CONNECTOR			
C609	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	CN605	* 1-568-858-11	SOCKET, CONNECTOR 15P			
C610	1-163-038-00	CERAMIC CHIP	0.1uF		25V	CN606	1-568-795-11	SOCKET, CONNECTOR 12P			
C611	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	CN607	1-580-783-11	PLUG, CONNECTOR			
C612	1-164-222-11	CERAMIC CHIP	0.22uF		25V	CNJ401	* 1-580-740-11	SOCKET, CONNECTOR 17P(SYSTEM CONTROL 2)			
C615	1-163-038-00	CERAMIC CHIP	0.1uF		25V			< DIODE >			
C616	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	D301	8-719-312-30	DIODE SEL4226R-CD			
C617	1-124-472-11	ELECT	470uF	20%	10V	D302	8-719-312-30	DIODE SEL4226R-CD			
C618	1-163-038-00	CERAMIC CHIP	0.1uF		25V	D401	8-719-990-36	DIODE DCA010			
C619	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	D403	8-719-210-33	DIODE EC10DS2			
C620	1-164-232-11	CERAMIC CHIP	0.01uF		50V	D404	8-719-210-33	DIODE EC10DS2			
C621	1-164-232-11	CERAMIC CHIP	0.01uF		50V	D405	8-719-990-36	DIODE DCA010			
C622	1-124-472-11	ELECT	470uF	20%	10V	D501	8-719-210-33	DIODE EC10DS2			
C623	1-163-038-00	CERAMIC CHIP	0.1uF		25V	D502	8-719-210-33	DIODE EC10DS2			
C624	1-124-472-11	ELECT	470uF	20%	10V	D503	8-719-210-33	DIODE EC10DS2			
C625	1-126-059-11	ELECT	10uF	20%	50V	D504	8-719-210-33	DIODE EC10DS2			
C626	1-126-059-11	ELECT	10uF	20%	50V	D505	8-719-988-62	DIODE 1SS355			
C629	1-126-157-11	ELECT	10uF	20%	16V	D506	8-719-106-36	DIODE RD8. 2M-B3			
C632	1-136-594-11	FILM	0.018uF	5%	100V	D507	8-719-106-36	DIODE RD8. 2M-B3			
C633	1-124-234-00	ELECT	22uF	20%	16V	D508	8-719-210-33	DIODE EC10DS2			
C639	1-163-038-00	CERAMIC CHIP	0.1uF		25V	D509	8-719-210-33	DIODE EC10DS2			
C862	1-163-038-00	CERAMIC CHIP	0.1uF		25V	D510	8-719-210-33	DIODE EC10DS2			
C4001	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	D511	8-719-210-33	DIODE EC10DS2			
C4002	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	D601	8-719-977-24	DIODE DT29. 1B			
C4003	1-124-589-11	ELECT	47uF	20%	16V	D602	8-719-988-62	DIODE 1SS355			
C4004	1-101-005-00	CERAMIC	22000PF		50V	D603	8-719-988-62	DIODE 1SS355			
C4007	1-101-005-00	CERAMIC	22000PF		50V						

**MAIN**    **PANEL**    **PIN JACK**    **POWER**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D604	8-719-210-33	DIODE EC10DS2		Q201	8-729-805-41	TRANSISTOR 2SC3398	
D605	8-719-988-62	DIODE 1SS355		Q202	8-729-805-42	TRANSISTOR 2SC3859	
D606	8-719-977-20	DIODE DTZ5.1C		Q401	8-729-805-65	TRANSISTOR 2SA1344	
D607	8-719-210-33	DIODE EC10DS2		Q402	8-729-805-65	TRANSISTOR 2SA1344	
D608	8-719-210-33	DIODE EC10DS2		Q406	8-729-602-36	TRANSISTOR 2SA1602-F	
D4001	8-719-988-62	DIODE 1SS355		Q407	8-729-602-21	TRANSISTOR 2SC4154-F	
D4002	8-719-988-62	DIODE 1SS355		Q501	8-729-209-15	TRANSISTOR 2SD2012	
D6010	8-719-988-62	DIODE 1SS355		Q502	8-729-111-67	TRANSISTOR 2SB1094-L	
D6011	8-719-988-62	DIODE 1SS355		Q503	8-729-805-65	TRANSISTOR 2SA1344	
D6012	8-719-988-62	DIODE 1SS355		Q504	8-729-602-21	TRANSISTOR 2SC4154-F	
〈 INDICATOR 〉				Q505	8-729-602-21	TRANSISTOR 2SC4154-F	
FL351	1-519-638-11	INDICATOR TUBE, FLUORESCENT		Q506	8-729-602-36	TRANSISTOR 2SA1602-F	
〈 IC 〉				Q601	8-729-805-65	TRANSISTOR 2SA1344	
IC101	8-759-300-71	IC HD14053BFP		Q602	8-729-805-65	TRANSISTOR 2SA1344	
IC102	8-752-055-08	IC CXA1331M		Q603	8-729-805-41	TRANSISTOR 2SC3398	
IC103	8-752-056-00	IC CXA1398M		Q604	8-729-805-65	TRANSISTOR 2SA1344	
IC104	8-759-636-55	IC M5218AFP		Q605	8-729-805-69	TRANSISTOR 2SA1341	
IC105	8-759-516-47	IC CD4068BCM-FL63		Q606	8-729-805-45	TRANSISTOR 2SC3395	
IC106	8-759-998-71	IC BA3308F		Q607	8-729-805-65	TRANSISTOR 2SA1344	
IC351	8-759-323-35	IC HD-614023		Q608	8-729-805-65	TRANSISTOR 2SA1344	
IC401	8-759-636-55	IC M5218AFP		Q609	8-729-805-41	TRANSISTOR 2SC3398	
IC402	8-759-636-55	IC M5218AFP		Q611	8-729-805-65	TRANSISTOR 2SA1344	
IC403	8-759-009-05	IC MC14051BF		Q612	8-729-805-41	TRANSISTOR 2SC3398	
IC404	8-759-009-05	IC MC14051BF		Q613	8-729-805-41	TRANSISTOR 2SC3398	
IC405	8-759-516-47	IC CD4066BCM		Q616	8-729-804-41	TRANSISTOR 2SB1122-S	
IC406	8-759-636-35	IC M50760-315FP		Q617	8-729-804-41	TRANSISTOR 2SB1122-S	
IC501	8-759-823-46	IC LA5603		Q619	8-729-808-01	TRANSISTOR 2SD1622-S	
IC601	8-759-636-37	IC M50944-121FP		Q620	8-729-808-01	TRANSISTOR 2SD1622-S	
IC602	8-759-636-67	IC M50925-482FP		Q6005	8-729-805-41	TRANSISTOR 2SC3398	
IC603	8-759-207-05	IC TA7272P		〈 RESISTOR 〉			
IC604	8-759-636-55	IC M5218AFP		R101	1-216-089-00	METAL CHIP 47K	5% 1/10W
IC605	8-759-516-41	IC CD4052BCM-FL63		R102	1-216-089-00	METAL CHIP 47K	5% 1/10W
IC6001	8-759-634-43	IC M51953BFP		R103	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
〈 JACK 〉				R104	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
J401	1-565-304-11	JACK, PIN 4P (PHONO IN/DAT OUT) (H3600)		R105	1-216-077-00	METAL CHIP 15K	5% 1/10W
J401	* 1-569-812-11	JACK, PIN 6P (PHONO/DAT) (H2600)		R106	1-216-058-00	METAL GLAZE 2.4K	5% 1/10W
J402	* 1-569-812-11	JACK, PIN 6P (DAT IN/VIDEO) (H3600)		R107	1-216-082-00	METAL GLAZE 24K	5% 1/10W
〈 JUMPER 〉				R108	1-216-043-00	METAL CHIP 560	5% 1/10W
JW1	1-216-295-00	METAL CHIP 0	5% 1/10W(H2600)	R109	1-216-073-00	METAL CHIP 10K	5% 1/10W
JW2	1-216-295-00	METAL CHIP 0	5% 1/10W(H2600)	R110	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
JW3	1-216-295-00	METAL CHIP 0	5% 1/10W(H3600)	R111	1-216-097-00	METAL CHIP 100K	5% 1/10W
JW8	1-216-295-00	METAL CHIP 0	5% 1/10W	R112	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
JW10	1-216-295-00	METAL CHIP 0	5% 1/10W	R113	1-216-089-00	METAL CHIP 47K	5% 1/10W
JW12	1-216-295-00	METAL CHIP 0	5% 1/10W(H3600)	R114	1-216-068-00	METAL CHIP 6.2K	5% 1/10W
JW14	1-216-295-00	METAL CHIP 0	5% 1/10W(H2600)	R115	1-216-081-00	METAL CHIP 22K	5% 1/10W
〈 COIL 〉				R116	1-216-079-00	METAL CHIP 18K	5% 1/10W
L601	1-410-761-11	INDUCTOR 0.68mH		R117	1-216-049-00	METAL CHIP 1K	5% 1/10W
L602	1-410-757-21	INDUCTOR 0.33mH		R118	1-216-105-00	METAL CHIP 220K	5% 1/10W
L4001	1-408-777-00	INDUCTOR CHIP 10uH		R119	1-216-065-00	METAL CHIP 4.7K	5% 1/10W
L6001	1-410-482-31	INDUCTOR 100uH		R120	1-216-093-00	METAL CHIP 68K	5% 1/10W
L6002	1-408-777-00	INDUCTOR CHIP 10uH		R121	1-216-295-00	METAL CHIP 0	5% 1/10W
〈 TRANSISTOR 〉				R201	1-216-089-00	METAL CHIP 47K	5% 1/10W
Q101	8-729-805-41	TRANSISTOR 2SC3398		R202	1-216-089-00	METAL CHIP 47K	5% 1/10W
Q102	8-729-805-42	TRANSISTOR 2SC3859		R203	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
				R204	1-216-057-00	METAL CHIP 2.2K	5% 1/10W
				R205	1-216-077-00	METAL CHIP 15K	5% 1/10W
				R206	1-216-058-00	METAL GLAZE 2.4K	5% 1/10W
				R207	1-216-082-00	METAL GLAZE 24K	5% 1/10W
				R208	1-216-043-00	METAL CHIP 560	5% 1/10W

**MAIN PANEL PIN JACK POWER**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R209	1-216-073-00	METAL CHIP 10K 5%	1/10W	R427	1-216-089-00	METAL CHIP 47K 5%	1/10W
R210	1-216-057-00	METAL CHIP 2.2K 5%	1/10W	R428	1-216-089-00	METAL CHIP 47K 5%	1/10W
R211	1-216-097-00	METAL CHIP 100K 5%	1/10W	R429	1-216-089-00	METAL CHIP 47K 5%	1/10W
R212	1-216-065-00	METAL CHIP 4.7K 5%	1/10W	R430	1-216-089-00	METAL CHIP 47K 5%	1/10W
R213	1-216-089-00	METAL CHIP 47K 5%	1/10W	R434	1-216-073-00	METAL CHIP 10K 5%	1/10W
R214	1-216-068-00	METAL CHIP 6.2K 5%	1/10W	R435	1-216-073-00	METAL CHIP 10K 5%	1/10W
R215	1-216-081-00	METAL CHIP 22K 5%	1/10W	R436	1-216-089-00	METAL CHIP 47K 5%	1/10W
R216	1-216-079-00	METAL CHIP 18K 5%	1/10W	R437	1-216-121-00	METAL CHIP 1M 5%	1/10W
R217	1-216-049-00	METAL CHIP 1K 5%	1/10W	R439	1-216-295-00	METAL CHIP 0 5%	1/10W
R218	1-216-105-00	METAL CHIP 220K 5%	1/10W	R440	1-216-089-00	METAL CHIP 47K 5%	1/10W
R219	1-216-065-00	METAL CHIP 4.7K 5%	1/10W	R441	1-216-295-00	METAL CHIP 0 5%	1/10W
R220	1-216-093-00	METAL CHIP 68K 5%	1/10W	R442	1-216-089-00	METAL CHIP 47K 5%	1/10W
R221	1-216-295-00	METAL CHIP 0 5%	1/10W	R450	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R351	1-216-029-00	METAL CHIP 150 5%	1/10W	R451	1-216-049-00	METAL CHIP 1K 5%	1/10W(H3600)
R352	1-216-033-00	METAL CHIP 220 5%	1/10W	R452	1-216-049-00	METAL CHIP 1K 5%	1/10W
R353	1-216-037-00	METAL CHIP 330 5%	1/10W	R453	1-216-049-00	METAL CHIP 1K 5%	1/10W
R354	1-216-041-00	METAL CHIP 470 5%	1/10W	R454	1-216-041-00	METAL CHIP 470 5%	1/10W(H3600)
R355	1-216-045-00	METAL CHIP 680 5%	1/10W	R455	1-216-041-00	METAL CHIP 470 5%	1/10W
R356	1-216-049-00	METAL CHIP 1K 5%	1/10W	R457	1-216-115-00	METAL CHIP 560K 5%	1/10W(H3600)
R357	1-216-067-00	METAL CHIP 5.6K 5%	1/10W	R458	1-216-115-00	METAL CHIP 560K 5%	1/10W
R359	1-216-045-00	METAL CHIP 680 5%	1/10W	R459	1-216-115-00	METAL CHIP 560K 5%	1/10W
R362	1-216-041-00	METAL CHIP 470 5%	1/10W	R460	1-216-115-00	METAL CHIP 560K 5%	1/10W(H3600)
R363	1-216-045-00	METAL CHIP 680 5%	1/10W	R461	1-216-115-00	METAL CHIP 560K 5%	1/10W
R364	1-216-049-00	METAL CHIP 1K 5%	1/10W	R463	1-216-295-00	METAL CHIP 0 5%	1/10W(H3600)
R365	1-216-055-00	METAL CHIP 1.8K 5%	1/10W	R464	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R366	1-216-063-00	METAL CHIP 3.9K 5%	1/10W	R465	1-216-049-00	METAL CHIP 1K 5%	1/10W
R367	1-216-089-00	METAL CHIP 47K 5%	1/10W	R467	1-216-089-00	METAL CHIP 47K 5%	1/10W
R368	1-216-089-00	METAL CHIP 47K 5%	1/10W	R468	1-216-049-00	METAL CHIP 1K 5%	1/10W
R369	1-216-089-00	METAL CHIP 47K 5%	1/10W	R469	1-216-115-00	METAL CHIP 560K 5%	1/10W
R372	1-216-031-00	METAL CHIP 180 5%	1/10W	R470	1-216-089-00	METAL CHIP 47K 5%	1/10W
R374	1-216-031-00	METAL CHIP 180 5%	1/10W	R471	1-216-001-00	METAL CHIP 10 5%	1/10W
R375	1-216-081-00	METAL CHIP 22K 5%	1/10W	R472	1-216-075-00	METAL CHIP 12K 5%	1/10W
R376	1-216-121-00	METAL CHIP 1M 5%	1/10W	R473	1-216-041-00	METAL CHIP 470 5%	1/10W
R377	1-216-085-00	METAL CHIP 33K 5%	1/10W	R475	1-216-025-00	METAL CHIP 100 5%	1/10W
R378	1-216-025-00	METAL CHIP 100 5%	1/10W	R476	1-216-089-00	METAL CHIP 47K 5%	1/10W
R379	1-216-025-00	METAL CHIP 100 5%	1/10W	R477	1-216-089-00	METAL CHIP 47K 5%	1/10W
R380	1-216-025-00	METAL CHIP 100 5%	1/10W	R478	1-216-089-00	METAL CHIP 47K 5%	1/10W(H3600)
R381	1-216-025-00	METAL CHIP 100 5%	1/10W	R479	1-216-089-00	METAL CHIP 47K 5%	1/10W(H3600)
R401	1-216-049-00	METAL CHIP 1K 5%	1/10W(H3600)	R480	1-216-089-00	METAL CHIP 47K 5%	1/10W(H2600)
R402	1-216-049-00	METAL CHIP 1K 5%	1/10W	R493	1-216-073-00	METAL CHIP 10K 5%	1/10W
R403	1-216-049-00	METAL CHIP 1K 5%	1/10W	R494	1-216-073-00	METAL CHIP 10K 5%	1/10W
R404	1-216-041-00	METAL CHIP 470 5%	1/10W(H3600)	R495	1-216-081-00	METAL CHIP 22K 5%	1/10W
R405	1-216-041-00	METAL CHIP 470 5%	1/10W	R496	1-216-081-00	METAL CHIP 22K 5%	1/10W
R407	1-216-115-00	METAL CHIP 560K 5%	1/10W(H3600)	R500	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R408	1-216-115-00	METAL CHIP 560K 5%	1/10W	R501	1-216-033-00	METAL CHIP 220 5%	1/10W
R409	1-216-115-00	METAL CHIP 560K 5%	1/10W	R502	1-216-041-00	METAL CHIP 470 5%	1/10W
R410	1-216-115-00	METAL CHIP 560K 5%	1/10W(H3600)	R503	1-216-041-00	METAL CHIP 470 5%	1/10W
R411	1-216-115-00	METAL CHIP 560K 5%	1/10W	R504	1-216-089-00	METAL CHIP 47K 5%	1/10W
R413	1-216-295-00	METAL CHIP 0 5%	1/10W(H3600)	R505	1-216-089-00	METAL CHIP 47K 5%	1/10W
R414	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R601	1-216-081-00	METAL CHIP 22K 5%	1/10W
R415	1-216-049-00	METAL CHIP 1K 5%	1/10W	R602	1-216-081-00	METAL CHIP 22K 5%	1/10W
R417	1-216-089-00	METAL CHIP 47K 5%	1/10W	R603	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R418	1-216-049-00	METAL CHIP 1K 5%	1/10W	R605	1-216-081-00	METAL CHIP 22K 5%	1/10W
R419	1-216-115-00	METAL CHIP 560K 5%	1/10W	R606	1-216-081-00	METAL CHIP 22K 5%	1/10W
R420	1-216-089-00	METAL CHIP 47K 5%	1/10W	R607	1-216-081-00	METAL CHIP 22K 5%	1/10W
R421	1-216-001-00	METAL CHIP 10 5%	1/10W	R608	1-216-049-00	METAL CHIP 1K 5%	1/10W
R422	1-216-075-00	METAL CHIP 12K 5%	1/10W	R609	1-216-083-00	METAL CHIP 27K 5%	1/10W
R423	1-216-041-00	METAL CHIP 470 5%	1/10W	R610	1-216-082-00	METAL GLAZE 24K 5%	1/10W
R425	1-216-025-00	METAL CHIP 100 5%	1/10W	R611	1-216-081-00	METAL CHIP 22K 5%	1/10W
R426	1-216-089-00	METAL CHIP 47K 5%	1/10W	R612	1-216-081-00	METAL CHIP 22K 5%	1/10W

**MAIN**    **PANEL**    **PIN JACK**    **POWER**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R613	1-216-121-00	METAL CHIP	1M 5% 1/10W	R681	1-216-090-00	METAL CHIP	51K 5% 1/10W
R614	1-216-121-00	METAL CHIP	1M 5% 1/10W	R682	1-216-025-00	METAL CHIP	100 5% 1/10W
R615	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R686	1-216-077-00	METAL CHIP	15K 5% 1/10W
R616	1-216-097-00	METAL CHIP	100K 5% 1/10W	R687	1-216-077-00	METAL CHIP	15K 5% 1/10W
R617	1-216-097-00	METAL CHIP	100K 5% 1/10W	R690	1-216-025-00	METAL CHIP	100 5% 1/10W
R618	1-216-097-00	METAL CHIP	100K 5% 1/10W	R691	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R619	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R692	1-216-081-00	METAL CHIP	22K 5% 1/10W
R620	1-216-097-00	METAL CHIP	100K 5% 1/10W	R693	1-216-025-00	METAL CHIP	100 5% 1/10W
R621	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R696	1-216-081-00	METAL CHIP	22K 5% 1/10W
R623	1-216-113-00	METAL CHIP	470K 5% 1/10W	R699	1-216-081-00	METAL CHIP	22K 5% 1/10W
R624	1-216-039-00	METAL CHIP	390 5% 1/10W	R700	1-216-073-00	METAL CHIP	10K 5% 1/10W
R625	1-216-064-00	METAL CHIP	4.3K 5% 1/10W	R5001	1-216-025-00	METAL CHIP	100 5% 1/10W
R626	1-216-073-00	METAL CHIP	10K 5% 1/10W	R5002	1-216-025-00	METAL CHIP	100 5% 1/10W
R628	1-216-073-00	METAL CHIP	10K 5% 1/10W	R6001	1-216-073-00	METAL CHIP	10K 5% 1/10W
R629	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R6004	1-216-089-00	METAL CHIP	47K 5% 1/10W
R630	1-216-081-00	METAL CHIP	22K 5% 1/10W	R6005	1-216-089-00	METAL CHIP	47K 5% 1/10W
R631	1-216-081-00	METAL CHIP	22K 5% 1/10W	R6010	1-216-049-00	METAL CHIP	1K 5% 1/10W
R634	1-216-081-00	METAL CHIP	22K 5% 1/10W	R6011	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R635	1-216-081-00	METAL CHIP	22K 5% 1/10W	R6012	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R636	1-216-081-00	METAL CHIP	22K 5% 1/10W	R6013	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R637	1-216-081-00	METAL CHIP	22K 5% 1/10W	R6014	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R638	1-216-081-00	METAL CHIP	22K 5% 1/10W	R6015	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R639	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R6016	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R640	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R6017	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R641	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R6018	1-216-298-00	METAL CHIP	2.2 5% 1/10W
R642	1-216-089-00	METAL CHIP	47K 5% 1/10W			< VARIABLE RESISTOR >	
R643	1-216-089-00	METAL CHIP	47K 5% 1/10W				
R644	1-216-025-00	METAL CHIP	100 5% 1/10W	RV101	1-238-547-11	RES, ADJ. CARBON 10K	
R645	1-216-089-00	METAL CHIP	47K 5% 1/10W	RV201	1-238-547-11	RES, ADJ. CARBON 10K	
R646	1-216-081-00	METAL CHIP	22K 5% 1/10W			< SWITCH >	
R647	1-216-025-00	METAL CHIP	100 5% 1/10W	S901	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	
R648	1-216-025-00	METAL CHIP	100 5% 1/10W	S902	1-554-303-21	SWITCH, TACTILE (▶▶)	
R649	1-216-025-00	METAL CHIP	100 5% 1/10W	S903	1-554-303-21	SWITCH, TACTILE (◀◀)	
R650	1-216-121-00	METAL CHIP	1M 5% 1/10W	S904	1-554-303-21	SWITCH, TACTILE (● REC)	
R651	1-216-081-00	METAL CHIP	22K 5% 1/10W	S905	1-554-303-21	SWITCH, TACTILE (DECK B)	
R652	1-216-081-00	METAL CHIP	22K 5% 1/10W	S906	1-554-303-21	SWITCH, TACTILE (DECK A)	
R653	1-216-073-00	METAL CHIP	10K 5% 1/10W	S907	1-554-303-21	SWITCH, TACTILE (COUNTER RESET)	
R654	1-216-073-00	METAL CHIP	10K 5% 1/10W	S908	1-554-303-21	SWITCH, TACTILE (DOLBY NR)	
R655	1-216-121-00	METAL CHIP	1M 5% 1/10W	S909	1-554-303-21	SWITCH, TACTILE (DUBBING MODE)	
R656	1-216-073-00	METAL CHIP	10K 5% 1/10W	S910	1-554-303-21	SWITCH, TACTILE (■)	
R661	1-216-083-00	METAL CHIP	27K 5% 1/10W	S911	1-554-303-21	SWITCH, TACTILE (◀)	
R662	1-216-083-00	METAL CHIP	27K 5% 1/10W	S912	1-554-303-21	SWITCH, TACTILE (▶)	
R663	1-216-073-00	METAL CHIP	10K 5% 1/10W	S913	1-554-303-21	SWITCH, TACTILE (   PAUSE)	
R664	1-216-045-00	METAL CHIP	680 5% 1/10W	S914	1-554-303-21	SWITCH, TACTILE (○ MUTE)	
R665	1-216-073-00	METAL CHIP	10K 5% 1/10W	S915	1-554-303-21	SWITCH, TACTILE (DIRECTION MODE)	
R666	1-216-045-00	METAL CHIP	680 5% 1/10W			< TRANSFORMER >	
R667	1-216-025-00	METAL CHIP	100 5% 1/10W	T601	1-450-458-11	TRANSFORMER, DC-DC CONVERTER	
R668	1-216-090-00	METAL CHIP	51K 5% 1/10W			< TEST PIN >	
R669	1-216-089-00	METAL CHIP	47K 5% 1/10W				
R670	1-216-084-00	METAL GLAZE	30K 5% 1/10W	TP601	* 1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P	
R671	1-216-090-00	METAL CHIP	51K 5% 1/10W	TP6001	* 1-564-517-11	PLUG, CONNECTOR 2P	
R672	1-216-065-00	METAL CHIP	4.7K 5% 1/10W			< CRYSTAL >	
R673	1-216-080-00	METAL CHIP	20K 5% 1/10W	X401	1-577-077-11	OSCILLATOR, CERAMIC 400KHz	
R674	1-216-083-00	METAL CHIP	27K 5% 1/10W	X601	1-577-358-21	VIBRATOR, CERAMIC 4MHz	
R675	1-216-080-00	METAL CHIP	20K 5% 1/10W	X951	1-577-101-11	VIBRATOR, CERAMIC 4.19KHz	
R676	1-216-065-00	METAL CHIP	4.7K 5% 1/10W			*****	
R677	1-216-089-00	METAL CHIP	47K 5% 1/10W				
R678	1-216-084-00	METAL GLAZE	30K 5% 1/10W				
R679	1-216-083-00	METAL CHIP	27K 5% 1/10W				
R680	1-216-090-00	METAL CHIP	51K 5% 1/10W				

**LEAF SW(A) MD-A LEAF SW(B)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	* 1-634-841-11	LEAF SW(A) BOARD *****				< TRANSISTOR >	
	3-343-419-01	HOLDER (S SENSOR A) < CONNECTOR >		Q71A	8-729-602-36	TRANSISTOR 2SA1602 < RESISTOR >	
CNP81	* 1-568-852-11	SOCKET, CONNECTOR 9P < IC >		R11	1-216-099-00	METAL CHIP 120K 5% 1/10W	
IC81A	8-719-710-03	IC PHOTO REFLECTOR NJL5165K-B < RESISTOR >		R12	1-216-025-00	METAL CHIP 100 5% 1/10W	
R84	1-249-417-11	CARBON 1K 5% 1/4W		R13	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
R85	1-249-408-11	CARBON 180 5% 1/4W < SWITCH >		R14	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (A. STOP DET)		R21	1-216-099-00	METAL CHIP 120K 5% 1/10W	
S82	1-571-281-21	SWITCH, LEAF (A. CrO2 DET)		R22	1-216-025-00	METAL CHIP 100 5% 1/10W	
S86	1-571-281-21	SWITCH, LEAF (A. HALF DET)		R23	1-216-100-00	METAL GLAZE 130K 5% 1/10W	
*****				R24	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
	* A-2006-399-A	MD-A BOARD ***** < CAPACITOR >		R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V		R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
C12	1-136-157-00	FILM 0.022uF 5% 50V		R71	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
C13	1-124-234-00	ELECT 22uF 20% 16V		R72	1-216-081-00	METAL CHIP 22K 5% 1/10W	
C18	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		R73	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C21	1-163-131-00	CERAMIC CHIP 390PF 5% 50V		R74	1-216-089-00	METAL CHIP 47K 5% 1/10W	
C22	1-136-157-00	FILM 0.022uF 5% 50V		< VARIABLE RESISTOR >			
C23	1-124-234-00	ELECT 22uF 20% 16V		RV11A	1-238-012-11	RES. ADJ. CARBON 1K	
C28	1-163-117-00	CERAMIC CHIP 100PF 5% 50V		RV21A	1-238-012-11	RES. ADJ. CARBON 1K	
C31	1-124-234-00	ELECT 22uF 20% 16V		RV71A	1-238-016-11	RES. ADJ. CARBON 10K	
C32	1-124-234-00	ELECT 22uF 20% 16V		RV72A	1-238-016-11	RES. ADJ. CARBON 10K	
C71	1-164-346-11	CERAMIC CHIP 1uF 16V < CONNECTOR >		*****			
CNJ31	* 1-580-782-11	SOCKET, CONNECTOR			* 1-634-841-11	LEAF SW(B) BOARD *****	
CNP32	* 1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P			3-343-419-01	HOLDER (S SENSOR A) < CONNECTOR >	
CNP71	* 1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		CNP81	* 1-568-852-11	SOCKET, CONNECTOR 9P < IC >	
CNP72	* 1-580-411-11	SOCKET, CONNECTOR 4P < IC >		IC81B	8-719-710-03	IC PHOTO REFLECTOR NJL5165K-B < RESISTOR >	
IC31A	8-759-970-66	IC LM833M < JUMPER >		R81	1-249-414-11	CARBON 560 5% 1/4W	
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W		R82	1-247-818-11	CARBON 300 5% 1/4W	
JW51	1-216-296-00	METAL CHIP 0 5% 1/8W		R83	1-247-834-11	CARBON 1.3K 5% 1/4W	
JW52	1-216-296-00	METAL CHIP 0 5% 1/8W		R84	1-249-417-11	CARBON 1K 5% 1/4W	
JW53	1-216-296-00	METAL CHIP 0 5% 1/8W		R85	1-249-408-11	CARBON 180 5% 1/4W < SWITCH >	
JW54	1-216-296-00	METAL CHIP 0 5% 1/8W		S81	1-571-958-11	SWITCH, PUSH (1 KEY) (B. STOP DET)	
				S82	1-571-281-21	SWITCH, LEAF (B. CrO2 DET)	
				S83	1-571-281-21	SWITCH, LEAF (B. METAL DET)	
				S84	1-571-281-21	SWITCH, LEAF (B. ERASE PROOF SIDE A)	
				S85	1-571-281-21	SWITCH, LEAF (B. ERASE PROOF SIDE B)	
				S86	1-571-281-21	SWITCH, LEAF (B. HALF DET)	
				*****			


**MD-B**

Ref. No.	Part No.	Description	Remark
	* A-2006-400-A	MD-B BOARD *****	
		< CAPACITOR >	
C11	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C12	1-136-157-00	FILM 0.022uF 5% 50V	
C13	1-124-234-00	ELECT 22uF 20% 16V	
C14	1-136-273-91	FILM 75PF 5% 630V	
C15	1-164-080-11	CERAMIC 390PF 10% 50V	
C17	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C18	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C21	1-163-131-00	CERAMIC CHIP 390PF 5% 50V	
C22	1-136-157-00	FILM 0.022uF 5% 50V	
C23	1-124-234-00	ELECT 22uF 20% 16V	
C24	1-136-273-91	FILM 75PF 5% 630V	
C25	1-164-080-11	CERAMIC 390PF 10% 50V	
C27	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
C28	1-163-117-00	CERAMIC CHIP 100PF 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	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
C71	1-164-346-11	CERAMIC CHIP 1uF 16V	
		< CONNECTOR >	
CNJ31	* 1-580-782-11	SOCKET, CONNECTOR	
CNJ33	* 1-580-782-11	SOCKET, CONNECTOR	
CNP32	* 1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P	
CNP71	* 1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P	
CNP72	* 1-580-411-11	SOCKET, CONNECTOR 4P	
		< DIODE >	
D31	8-719-988-62	DIODE 1SS355	
		< IC >	
IC31B	8-759-970-66	IC LM833M	
		< JUMPER >	
JW1	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW3	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW4	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW5	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW6	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW7	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW52	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW53	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW54	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW55	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW56	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW57	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW58	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW59	1-216-296-00	METAL CHIP 0 5% 1/8W	

Ref. No.	Part No.	Description	Remark
JW60	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW61	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< COIL >	
L11	1-410-780-11	INDUCTOR 27mH	
L21	1-410-780-11	INDUCTOR 27mH	
		< TRANSISTOR >	
Q51	8-729-808-01	TRANSISTOR 2SD1622-S	
Q52	8-729-808-01	TRANSISTOR 2SD1622-S	
Q53	8-729-808-01	TRANSISTOR 2SD1622-S	
Q71B	8-729-602-36	TRANSISTOR 2SA1602	
		< 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	
R15	1-249-430-11	CARBON 12K 5% 1/4W	
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	
R25	1-249-430-11	CARBON 12K 5% 1/4W	
R31	1-216-033-00	METAL CHIP 220 5% 1/10W	
R32	1-216-033-00	METAL CHIP 220 5% 1/10W	
R41	1-249-393-11	CARBON 10 5% 1/4W	
R42	1-249-393-11	CARBON 10 5% 1/4W	
R51	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R52	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R53	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R54	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
R55	1-216-309-00	METAL CHIP 5.6 5% 1/10W	
R56	1-216-298-00	METAL CHIP 2.2 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	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R74	1-216-089-00	METAL CHIP 47K 5% 1/10W	
		< VARIABLE RESISTOR >	
RV11B	1-238-012-11	RES, ADJ, CARBON 1K	
RV12	1-238-551-11	RES, ADJ, CARBON 220K	
RV21B	1-238-012-11	RES, ADJ, CARBON 1K	
RV22	1-238-551-11	RES, ADJ, CARBON 220K	
RV71B	1-238-016-11	RES, ADJ, CARBON 10K	
RV72B	1-238-016-11	RES, ADJ, CARBON 10K	
		< RELAY >	
RY31	1-515-726-11	RELAY	
		< COIL >	
T51	1-406-419-11	COIL, BIAS OSCILLATION	

\*\*\*\*\*

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

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

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
117	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
HP101	A-2003-868-B	BASE ASSY, HEAD (DECK A)	
HRP101	A-2003-838-A	BASE ASSY, HEAD (DECK B)	
M101A	A-2003-474-A	MOTOR (REEL MOTOR) ASSY (DECK A)	
M101B	A-2003-474-A	MOTOR (REEL MOTOR) ASSY (DECK B)	
M102A	X-3359-417-1	MOTOR (CAPSTAN MOTOR) ASSY (DECK A)	
M102B	X-3359-417-1	MOTOR (CAPSTAN MOTOR) ASSY (DECK B)	

\*\*\*\*\*

**HARDWARE LIST**  
\*\*\*\*\*

# 1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
# 2	7-621-255-15	SCREW +PTT 2X3 (S)
# 3	7-685-134-19	SCREW +BTP 2. 6X8 TYPE2 N-S
# 4	7-621-770-67	SCREW +PTT 2. 6X6 (S)
# 5	7-627-556-08	SCREW +P 2. 6X2. 8
# 6	7-621-775-00	SCREW +B 2. 6X3
# 7	7-682-548-04	+BVTT 3X8 (S)




# TC-H2600/H3600


## SONY<sup>®</sup> SERVICE MANUAL

4205  
AEP Model  
UK Model  
E Model  
Australian Model  
TC-H2600  
TC-H3600  
US Model  
Canadian Model  
TC-H3600

### CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT		
	<u>No.</u>	<u>Part No.</u>	<u>Description</u>	<u>No.</u>	<u>Part No.</u>	<u>Description</u>
36	165	X-3359-415-1	CHASSIS ASSY, MECHANICAL	165	<u>X-3363-790-1</u> 	CHASSIS ASSY, MECHANICAL

# TC-H2600 / H3600

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**SONY**  
**SERVICE MANUAL**

*AEP Model*

*UK Model*

*E Model*

*Australian Model*

*TC-H2600*

*TC-H3600*

*US Model*

*Canadian Model*

*TC-H3600*

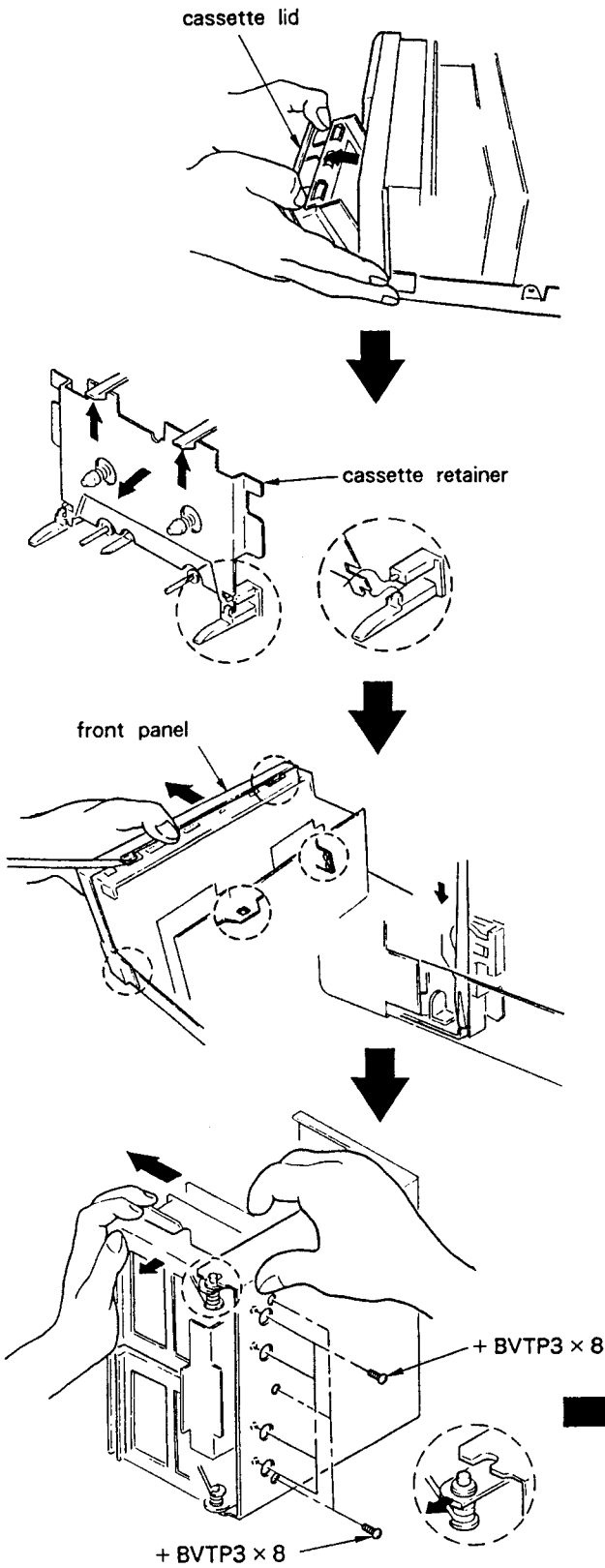
## **SUPPLEMENT-1**

File this supplement with service manual.

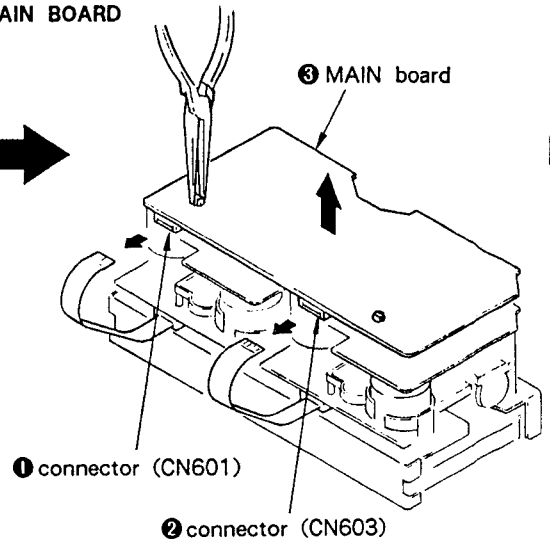
Subject : Disassembly

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

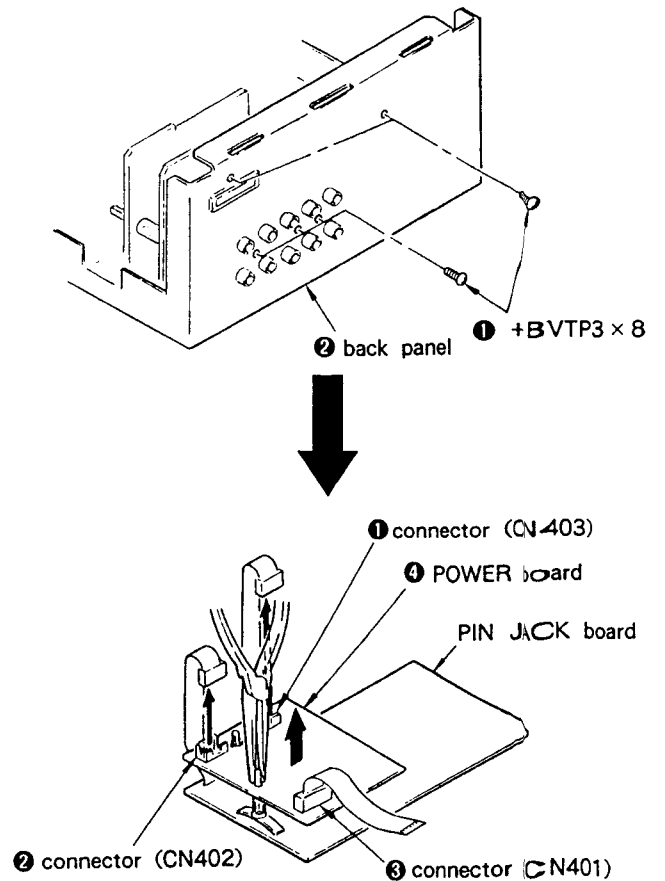
• FRONT PANEL



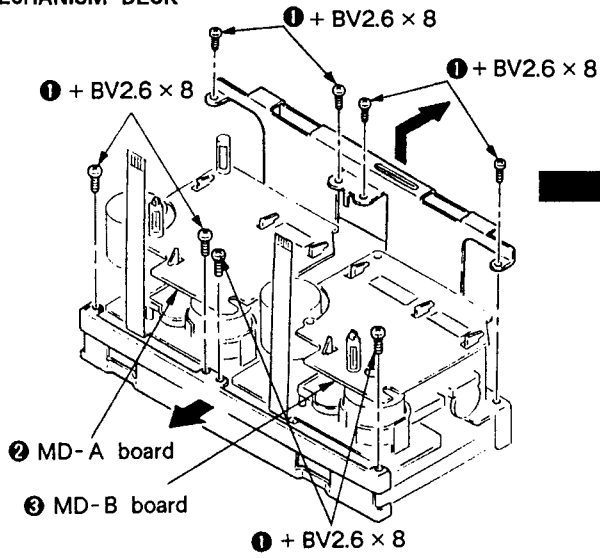
• MAIN BOARD



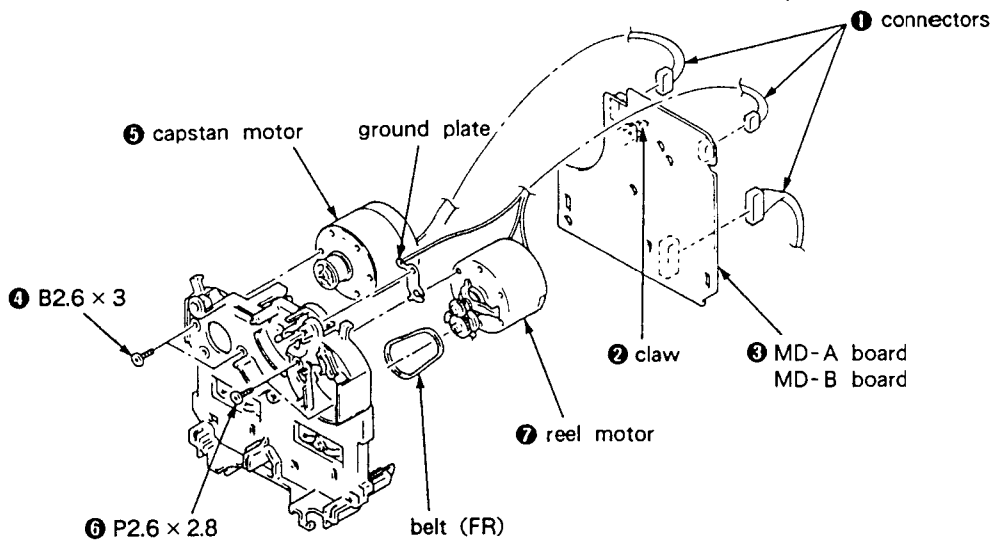
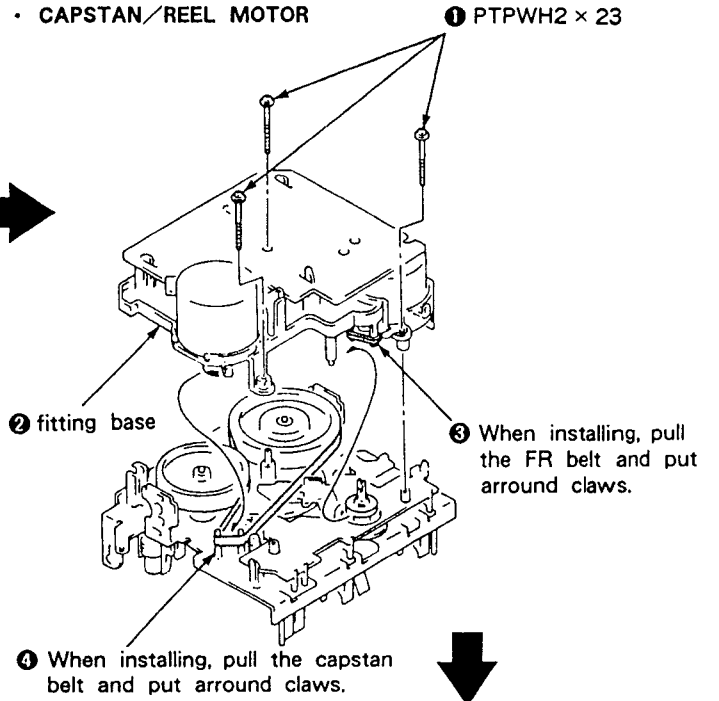
• PIN JACK/POWER BOARD



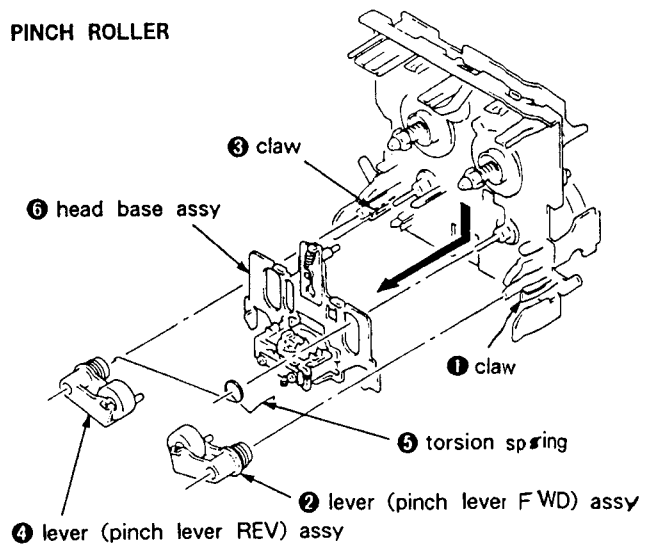
• MECHANISM DECK



• CAPSTAN/REEL MOTOR



• HEAD, PINCH ROLLER



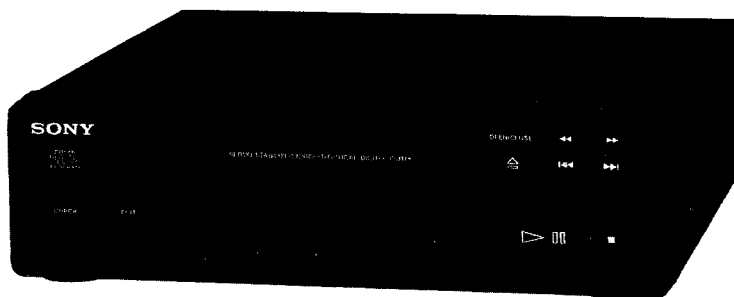




# CDP-H3600

## SERVICE MANUAL

AEP Model  
UK Model



This set is the  
CD player section in  
MHC-2600/3600

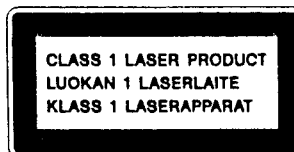
Model Name Using Similar Mechanism	CDP-H300
CD Mechanism Type	CDM13B-5BD3
Base Unit Name	BU-5BD3

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### SPECIFICATIONS

System	Compact disc digital audio system
Laser	Semiconductor laser ( $\lambda = 780 \text{ nm}$ ) Emission duration: continuous
Laser output	Max. $44.6 \mu\text{W}^*$ * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
Signal to noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.05% (at 1 kHz)
Channel separation	More than 90 dB
Output level	2 V (at 50 kilohms)
Load impedance	More than 10 kilohms
Outputs	DIGITAL OUT OPTICAL (optical output connector): wave length 660 nm, output level -18 dBm



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

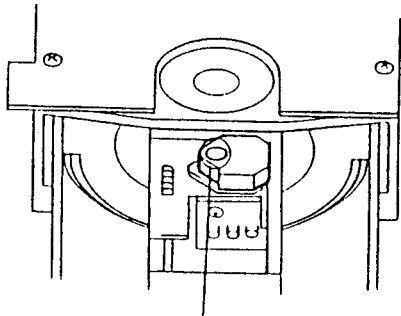


# COMPACT DISC PLAYER

# SONY®

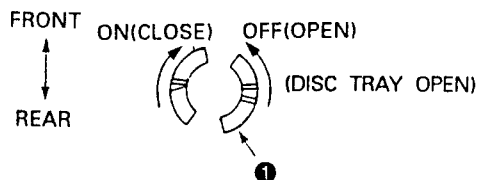
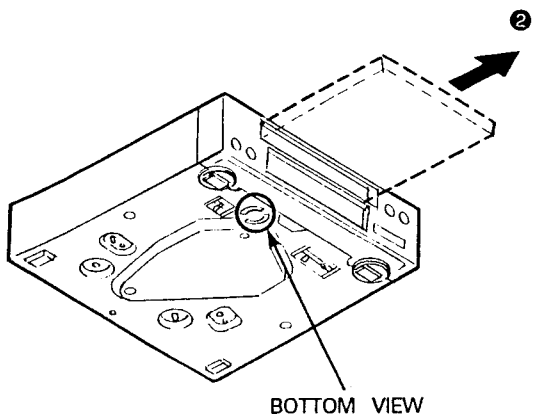
**LASER DIODE AND FOCUS SERCH OPERATION CHECK**

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)

**HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF**



- (1) Insert to ① for tapering driver, etc., and turn in the direction of arrow OFF. (Disc tray open)
- (2) Tray as come out little of front panel, pull out in the direction of arrow ② by hand.

**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.

**SAFETY-RELATED COMPONENT WARNING!!**

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

## SECTION 1 GENERAL

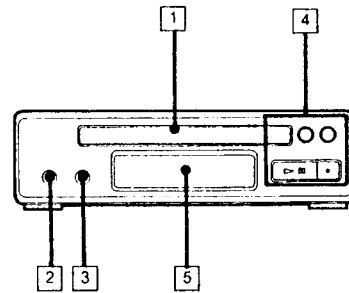
### LOCATION OF CONTROLS

This section is extracted from instruction manual.

#### CD Player Section **D**

- 1 Disc tray
- 2 CHECK button
- 3 EDIT/TIME FADE button
- 4 CD operation buttons
  - ⏏ : OPEN/CLOSE
  - ⏮ : Play/pause
  - ⏪ ⏩ : Manual search (when kept depressed)/Automatic Music Sensor (when pressed)
- 5 Display window

**D**





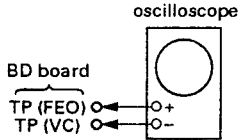
## SECTION 2

### ELECTRICAL BLOCK CHECKING

**Note :**

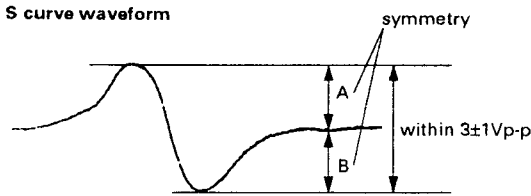
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal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

**S Curve Check**



**Procedure :**

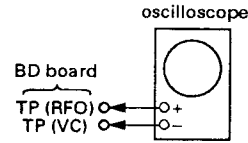
1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical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



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

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

**RF Level Check**

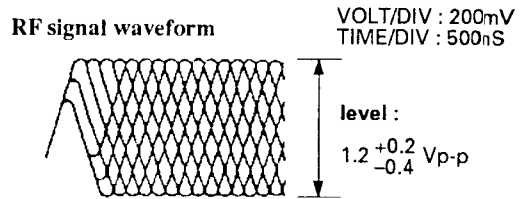


**Procedure :**

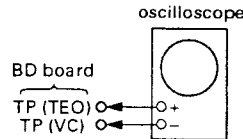
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

**Note :**

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

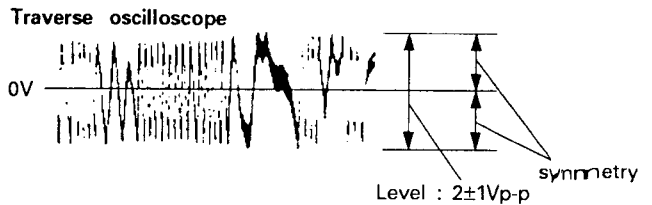


**E-F Balance Check**



**Procedure :**

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



6. Remove the lead wire connected in step 1.

[ TEST MODES ]



1. Test mode of display micon (IC401)

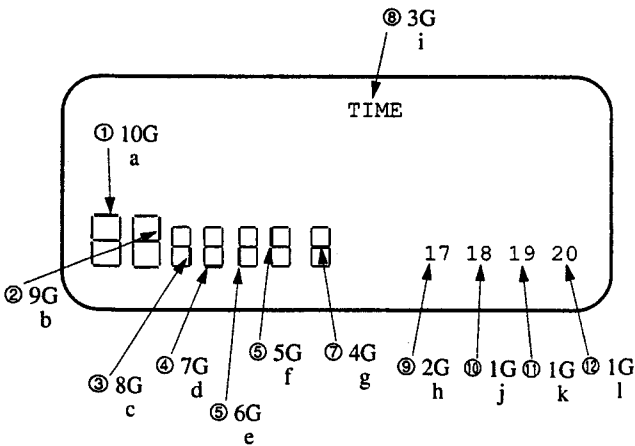
Connect Pin ⑩ of IC401 to ground and turn ON the POWER switch, thus you can test the following 3 tests.

(1) All FL tube ON


This mode is actuated immediately after turning ON the POWER switch.



(2) FL tube segment check

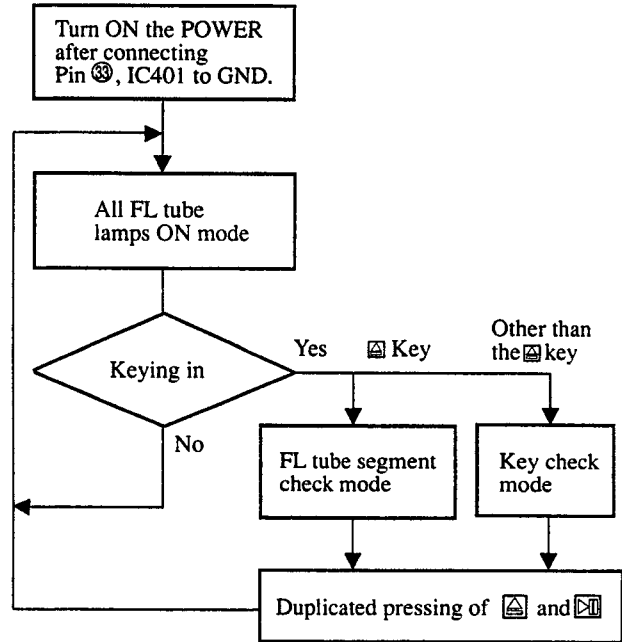
This mode is actuated by pressing the  key in the state of (1). Every time the  key is pressed, the segments are indicated sequentially from the segment a. When the last l segment is displayed, keying in is no longer accepted while continuing the lighting-up state of the last segment. Conditions are normal provided all lamps light up in the following order.



(3) KEY check

This mode is effected by pressing the  key in the state of (1), while indicating "1." Every time a new key is pressed subsequently, the indicated number is incremented. Conditions are normal provided "7" is indicated when all types of keys are pressed. Even if a key is pressed again, it is not counted.

\* To leave the mode (2) or (3), press the  and  keys in duplication, thereby the mode returning to all ON mode.



2. Test Modes of CD Syscon (IC202)


(1) ADJUST mode

When this mode is effected, the machine is operated normally except for the following.

- When pin ⑩, IC202 (ADJ) is set to "L" after turning ON the POWER switch:
  1. GFS is no longer monitored during PLAY, PAUSE or SEARCH, while not stopping even with GFS remaining still at "L" (NG).
  2. No high-speed feeding is activated during SEARCH.
  3. Focus gain is reset to normal gain during PLAY (normally, the gain is lowered to reduce noise when FOCUS is locked).
- When Pin ⑬, IC202 (AFADJ) is set to "L" after turning ON the POWER switch:
  1. Regardless of Pin ⑩ (ADJ) of the CLV-S fixed function, the CLV mode during PLAY becomes CLV-S (rough servo) only while Pin e remains "L".

(2) AFADJUST mode

In this mode, it is possible to check the interface between the display micon (IC401) and CD syscon (IC202).

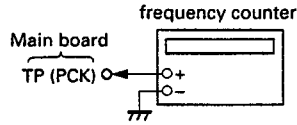
- Set Pin ⑬, IC202 (AFADJ) to "L" before turning ON the POWER switch.
- 1. Every time the  key is pressed after turning On the POWER switch, indication on the FL tube is switched correspondingly. Conditions are normal provided the indication repeats the 4 patterns including all lamp ON.

**RF PLL Free-run Frequency Check**

**[ BD BOARD ] - Conductor Side -**

Procedure :

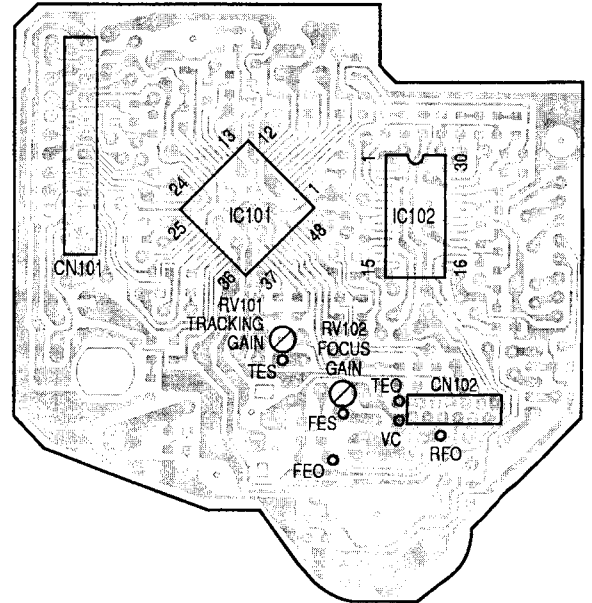
1. Connect frequency counter to test point (PCK) with lead wire.



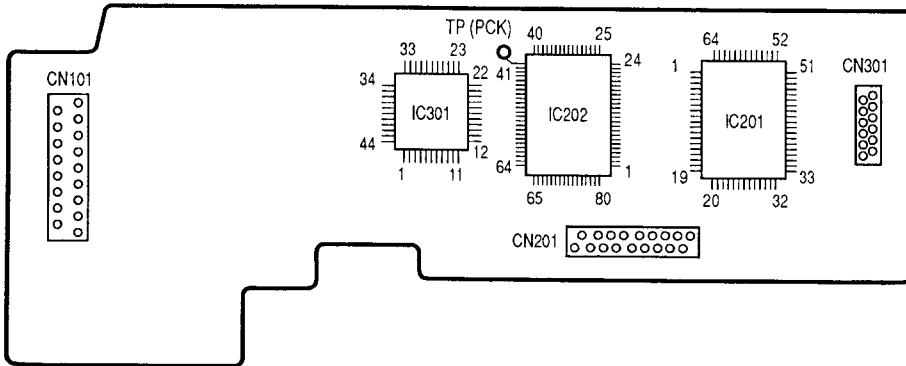
2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

**Focus/Tracking Gain**

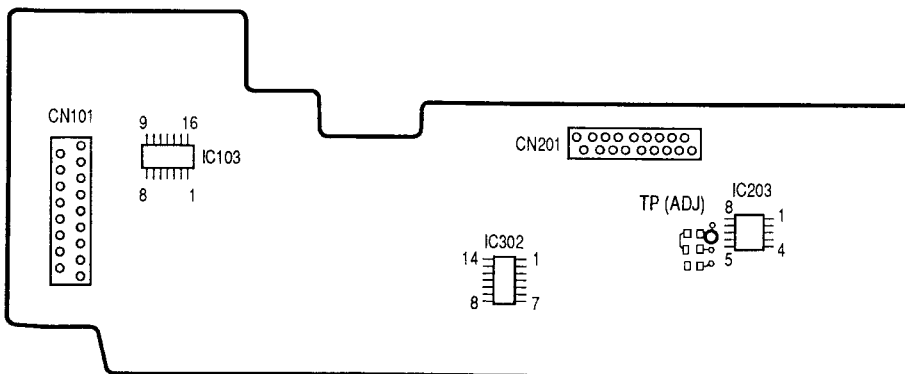
This gain has a margin, so even if it is slightly off. There is no problem. Therefore, do not perform, this adjustment. Please note that it should be fixed to mechanical center position when you moved and do not know original position.



**[ MAIN BOARD ] - Component Side -**

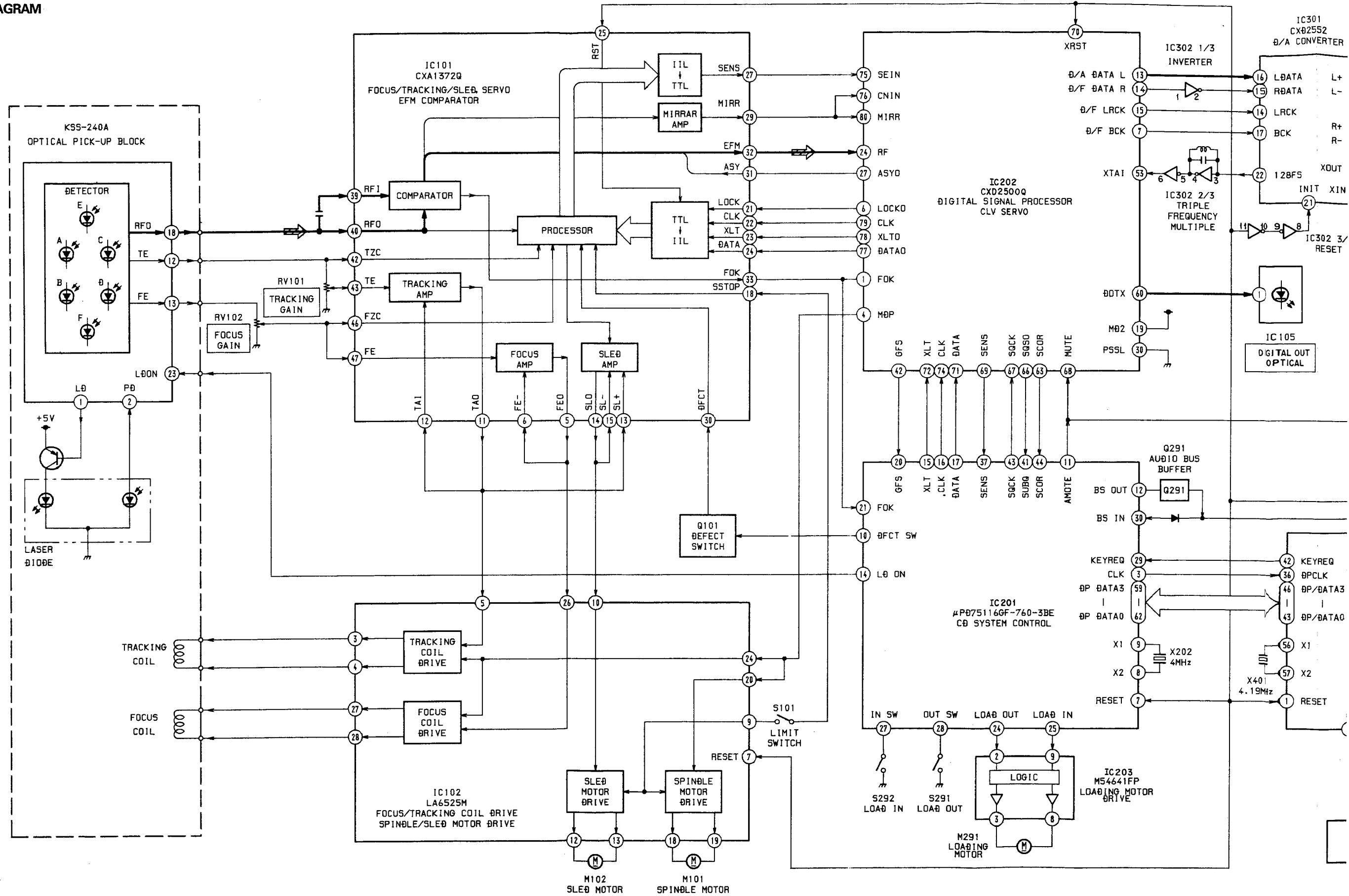


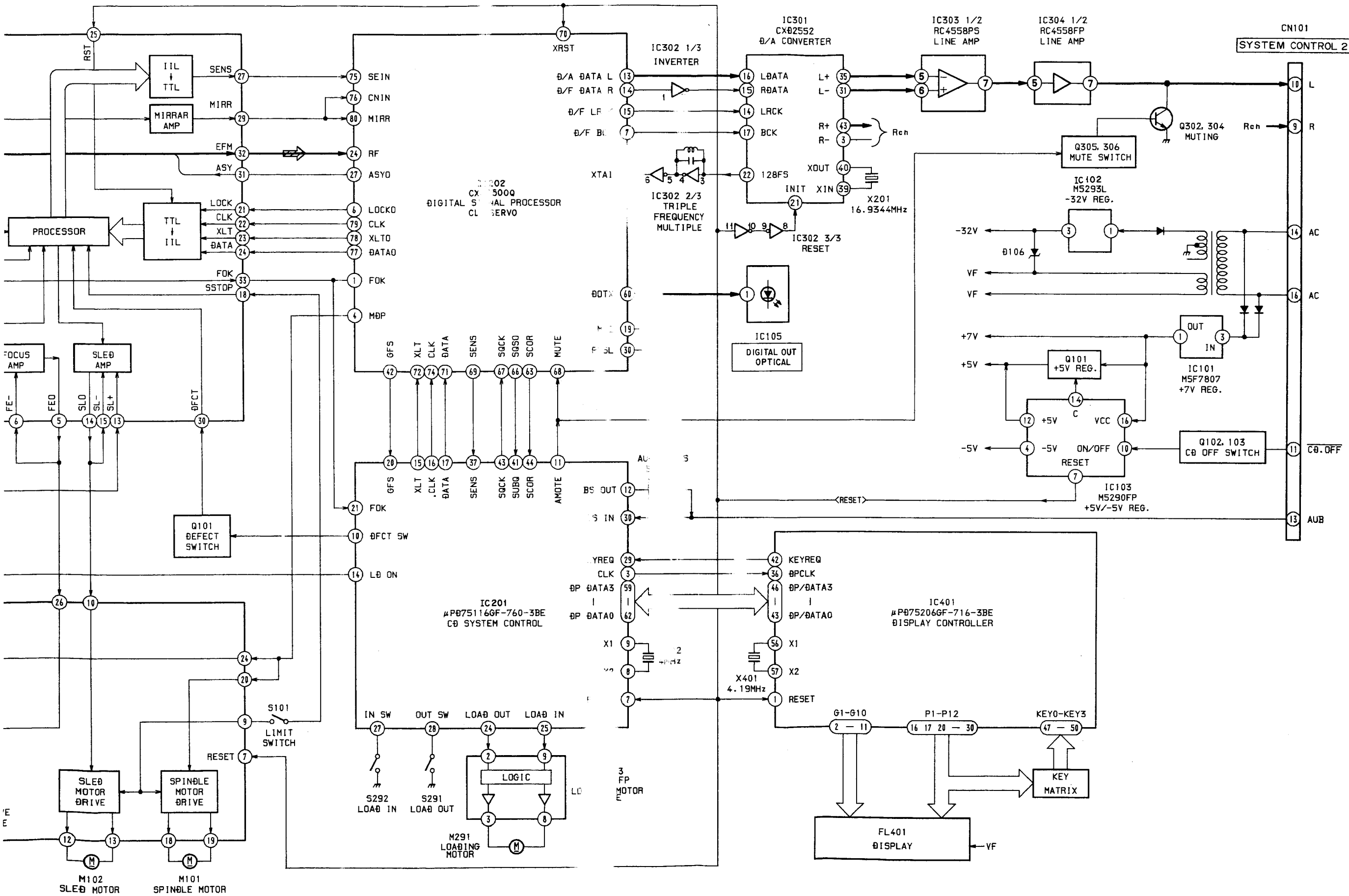
**[ MAIN BOARD ] - Conductor Side -**



**SECTION 3  
DIAGRAMS**

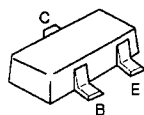
**3-1. BLOCK DIAGRAM**



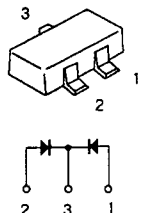


3-2. SEMICONDUCTOR LEAD LAYOUTS

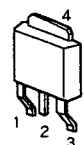
DTC144EK  
2SA1162-G  
2SC3052-EF  
2SC3624A-L15



MA152WK

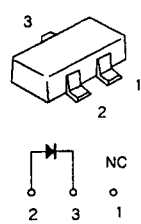


2SA1341  
2SB1122-S

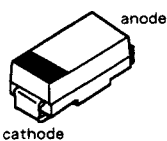


1: BASE  
2: COLLECTOR  
3: EMITTER  
4: COLLECTOR

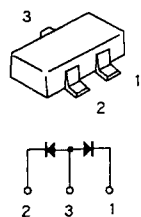
RD4.7M-B3  
RD6.8M-B2  
RD8.2M-B3



EC10DS2  
EC10QS-04



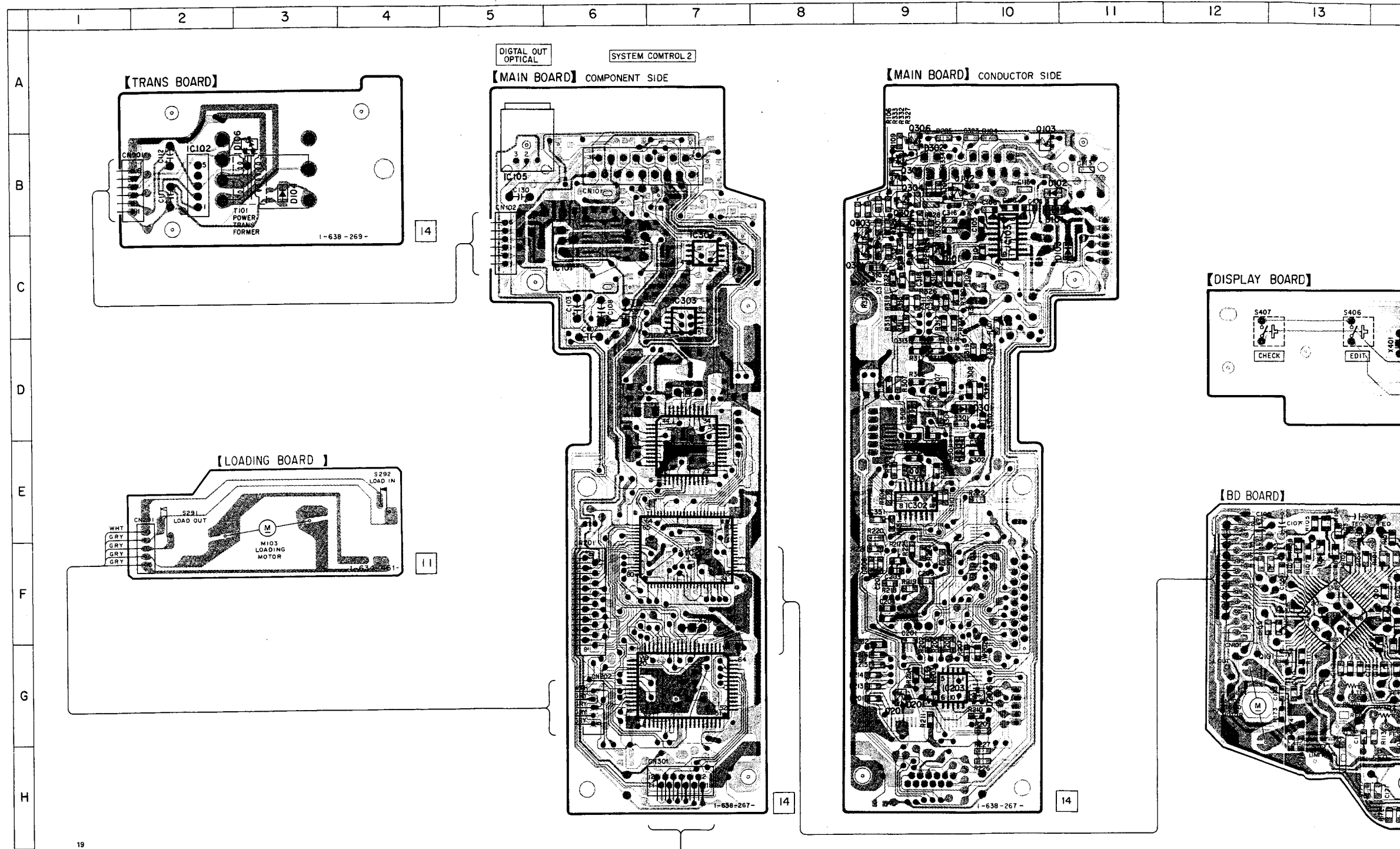
1S2836



• SEMICONDUCTOR LOCATION

BD BOARD		EXCEPT BD BOARD	
Ref. No.	LOCATION	Ref. No.	LOCATION
Q101	F-13	D101	B-10
IC101	F-13	D102	B-10
IC102	F-14	D103	C-11
		D201	G-9
		D206	G-10
		D301	D-9
		D302	B-9
		D401	D-17
		D402	D-19
		D403	D-15
		IC101	C-6
		IC102	B-2
		IC103	C-10
		IC105	B-5
		IC201	G-7
		IC202	F-7
		IC203	G-9
		IC301	E-7
		IC302	E-9
		IC303	C-7
		IC304	C-7
		IC401	D-15
		Q101	C-9
		Q102	B-9
		Q103	B-10
		Q201	G-9
		Q301	C-9
		Q302	B-9
		Q303	C-9
		Q304	B-9
		Q305	B-9
		Q306	B-9

3-3. PRINTED WIRING BOARDS

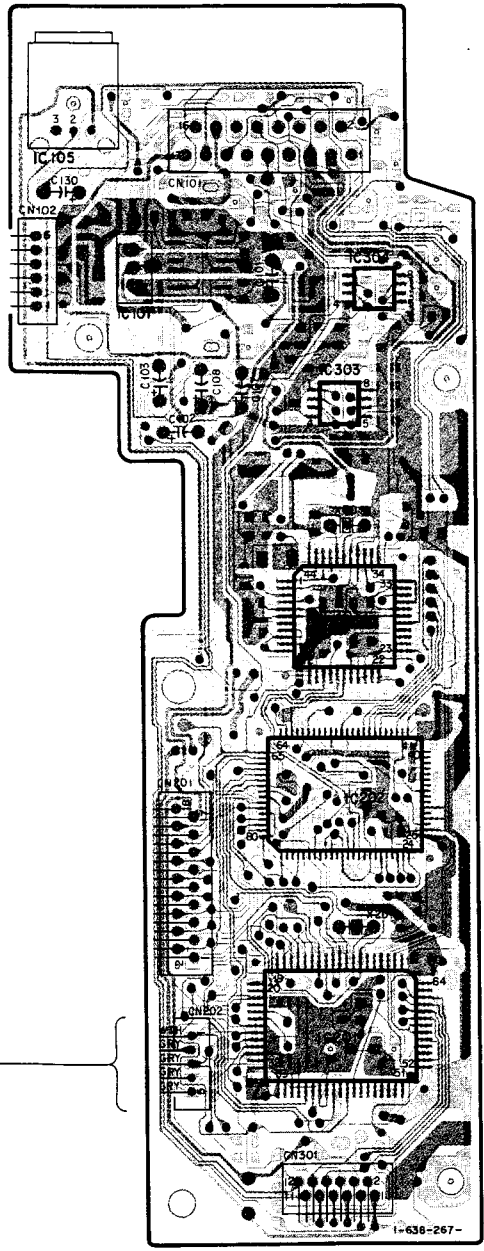


Note:

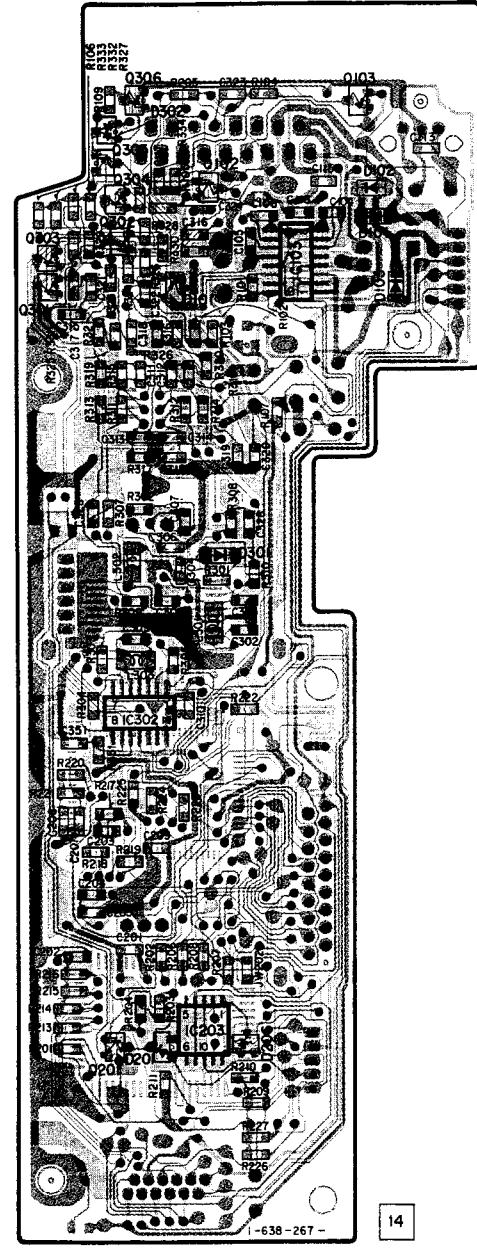
- — : indicated a lead wire mounted on the component side.
- ○ : indicated a lead wire mounted on the conductor side.
- : Through hole.
- : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

DIGITAL OUT OPTICAL SYSTEM CONTROL 2

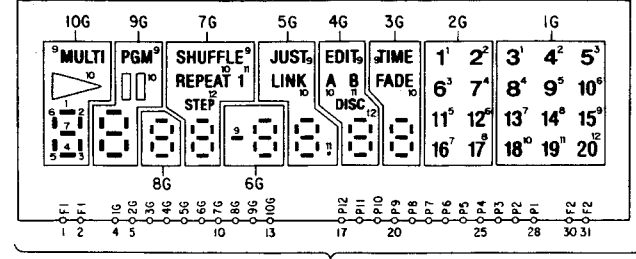
【MAIN BOARD】 COMPONENT SIDE



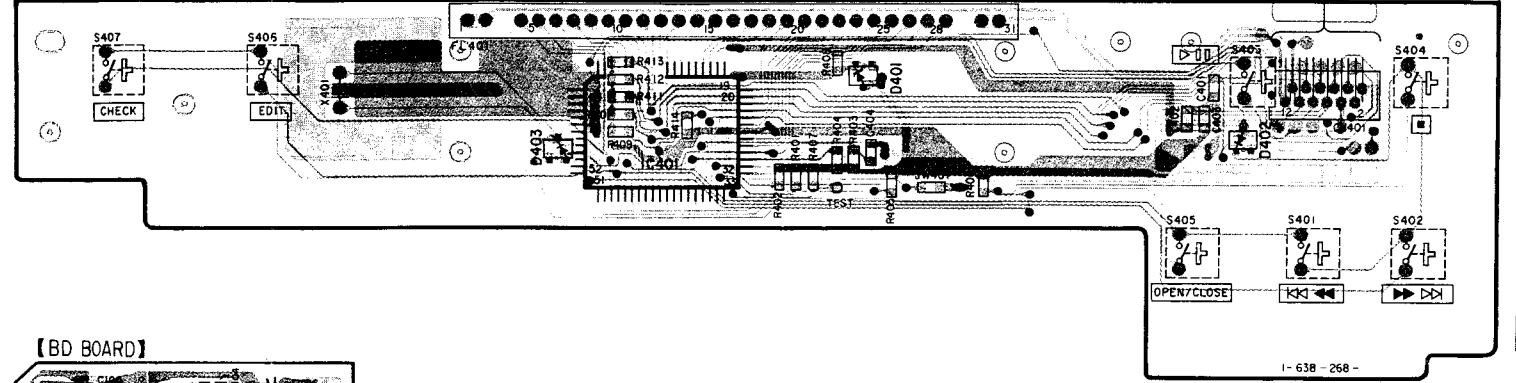
【MAIN BOARD】 CONDUCTOR SIDE



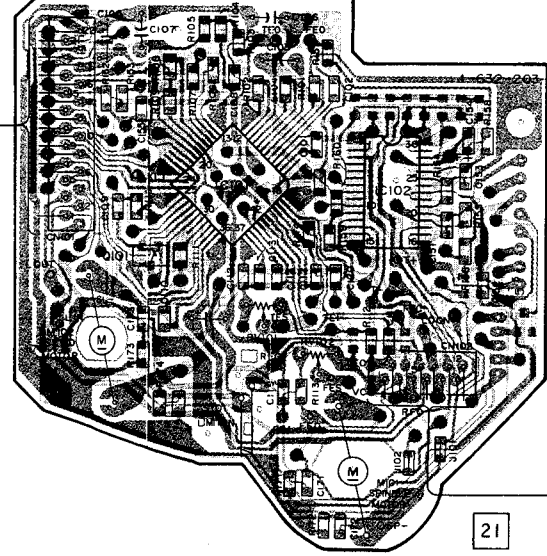
FL401 FLUORESCENT INDICATOR TUBE



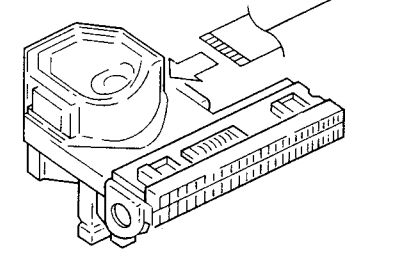
【DISPLAY BOARD】



【BD BOARD】



OPTICAL PICK-UP BLOCK (KSS-240A)



component side.  
 conductor side.  
 seeing.

3-4. SCHEMATIC DIAGRAM

1 2 3 4 5 6 7 8 9

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O

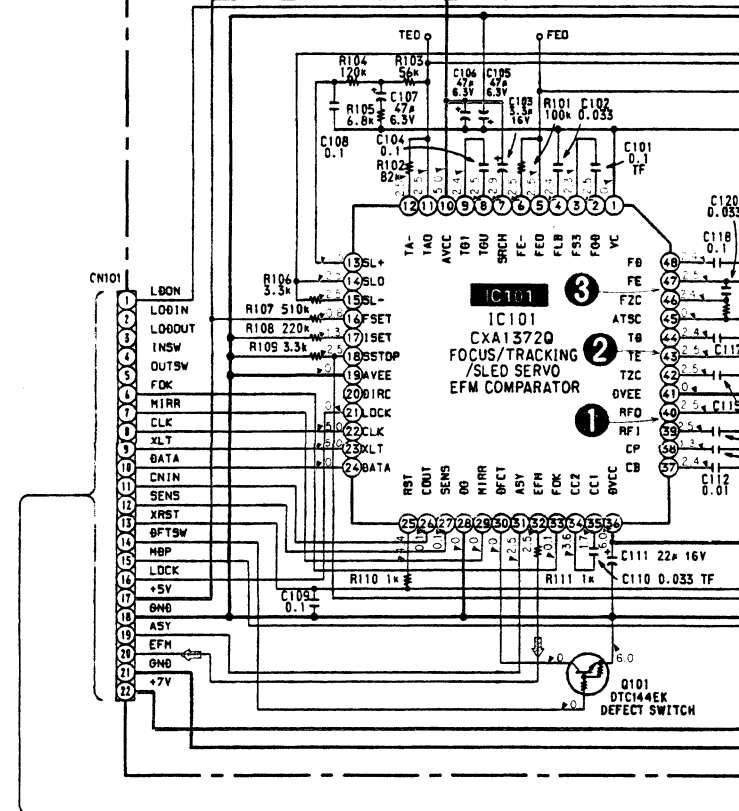
Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4W or less unless otherwise noted.
- $\Delta$  : internal component.

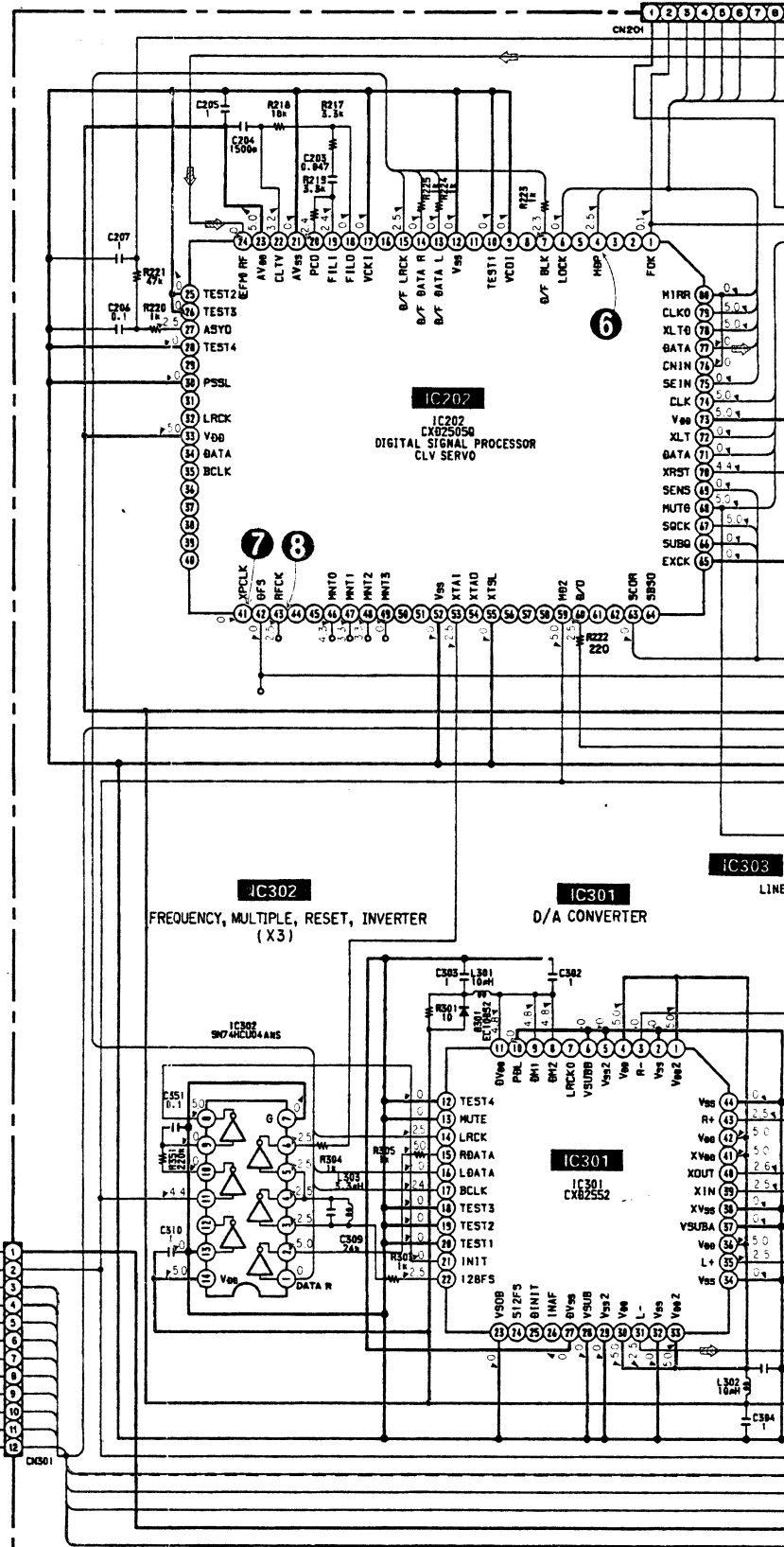
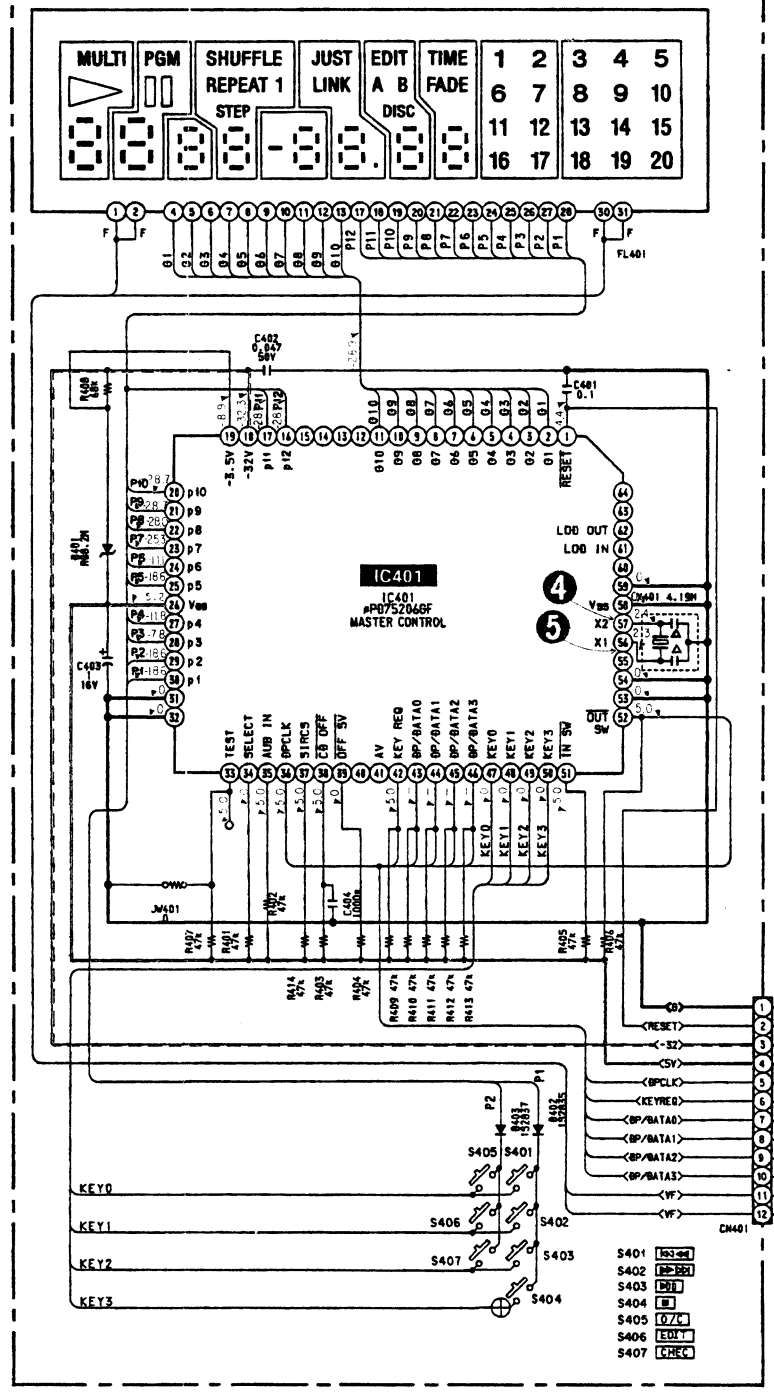
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

- : B+ Line.
- - - : B-Line
- $\square$  : adjustment for repair.
- Voltages are DC between measurement points and ground. no mark : PLAY
- Voltages are taken with a VOM (input impedance 10M $\Omega$ ).
- Voltage variations may be noted due to normal production tolerances.
- Signal path  $\Rightarrow$  : CD

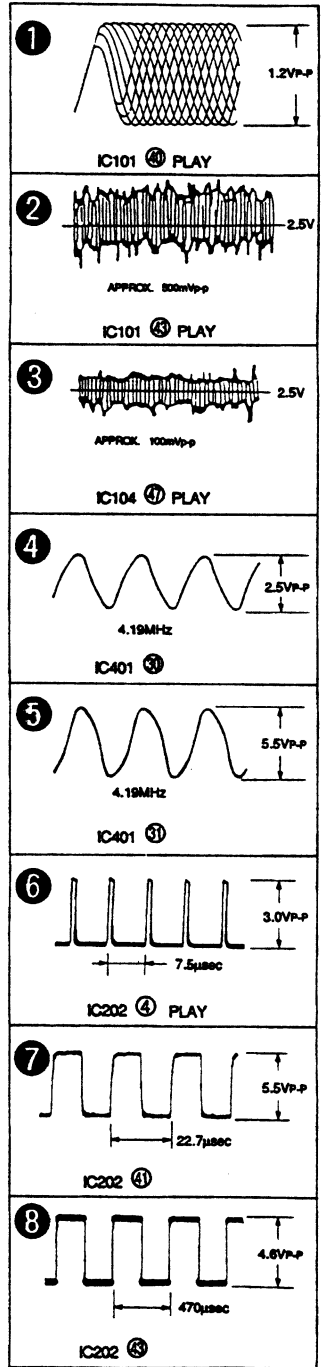
[ BD BOARD ]



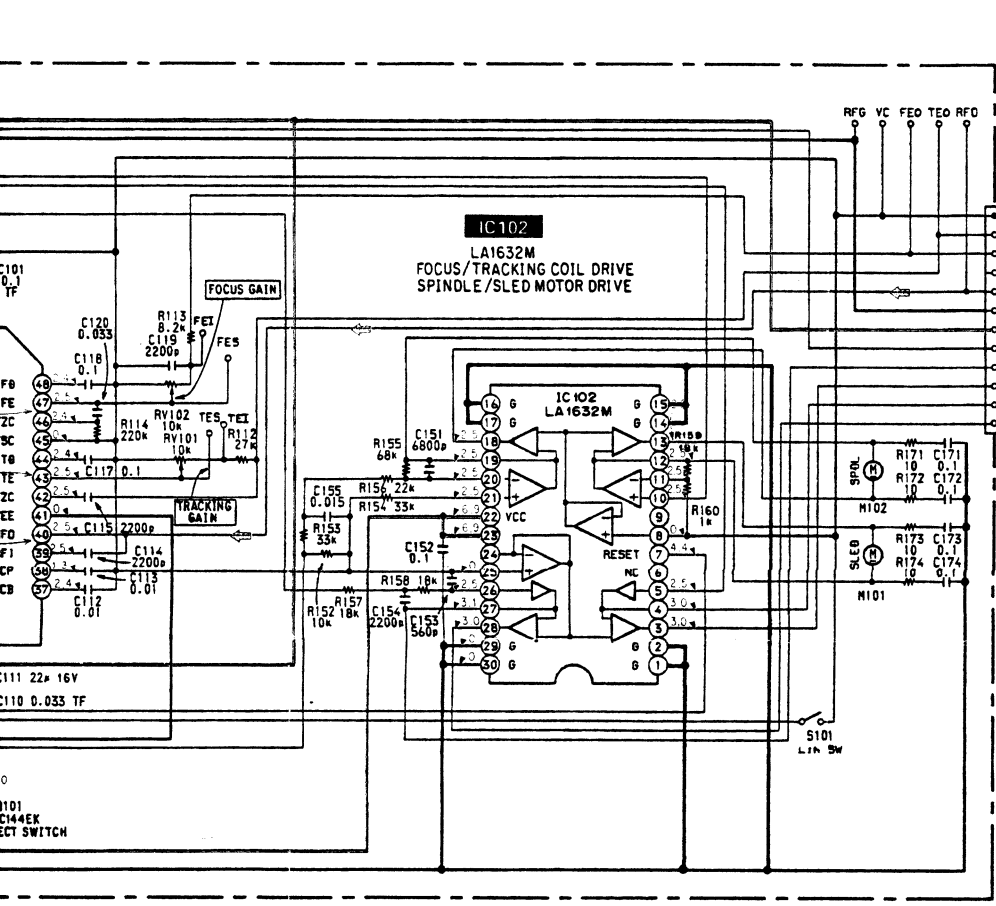
[ DISPLAY BOARD ]



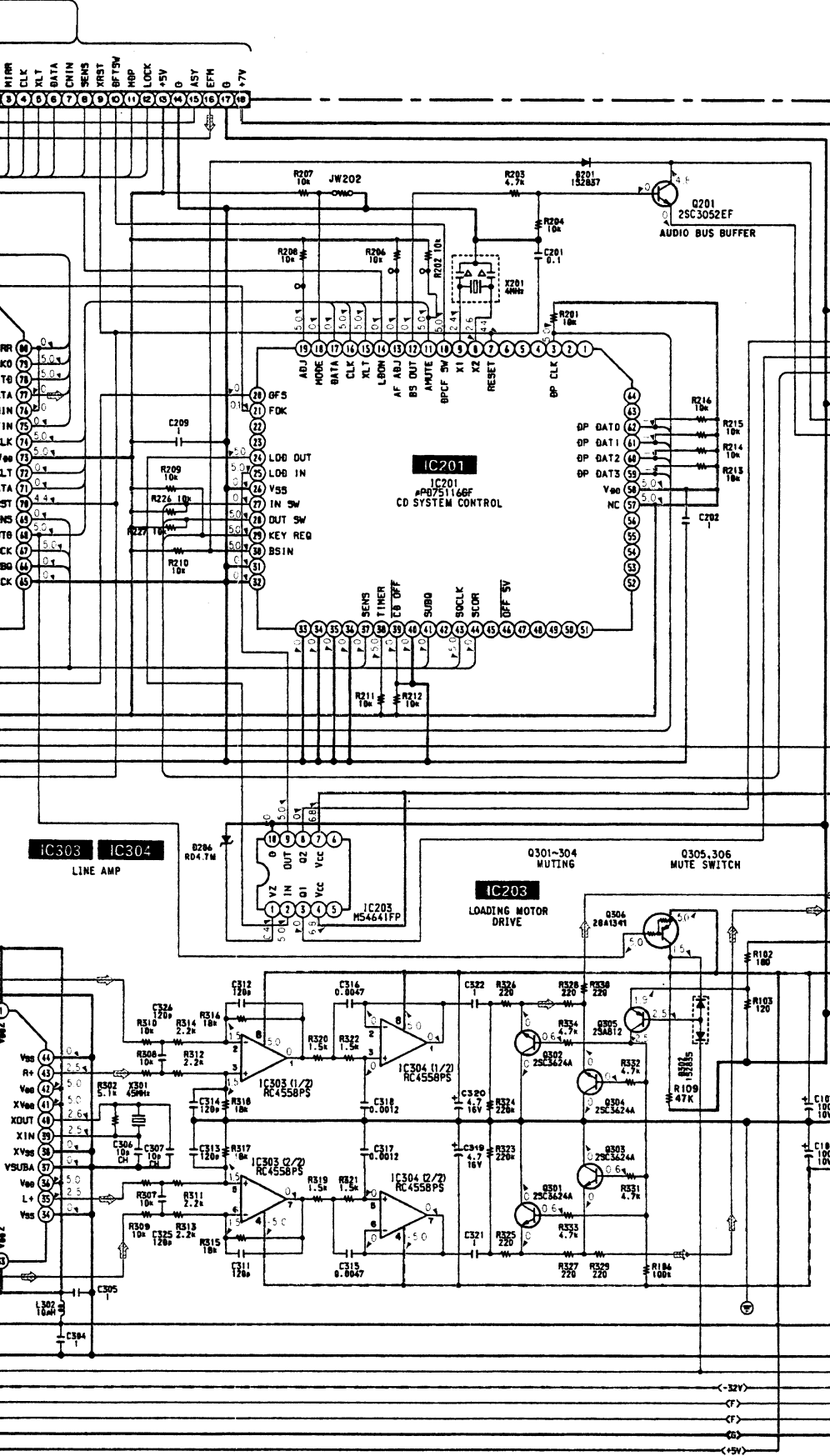
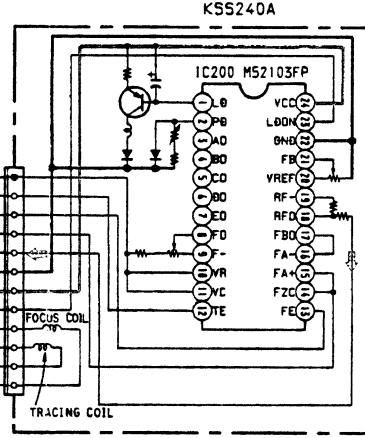
• Waveforms







[ OPTICAL PICK-UP BLOCK ]



[ MAIN BOARD ]

[ TRANSFORMER BOARD ]

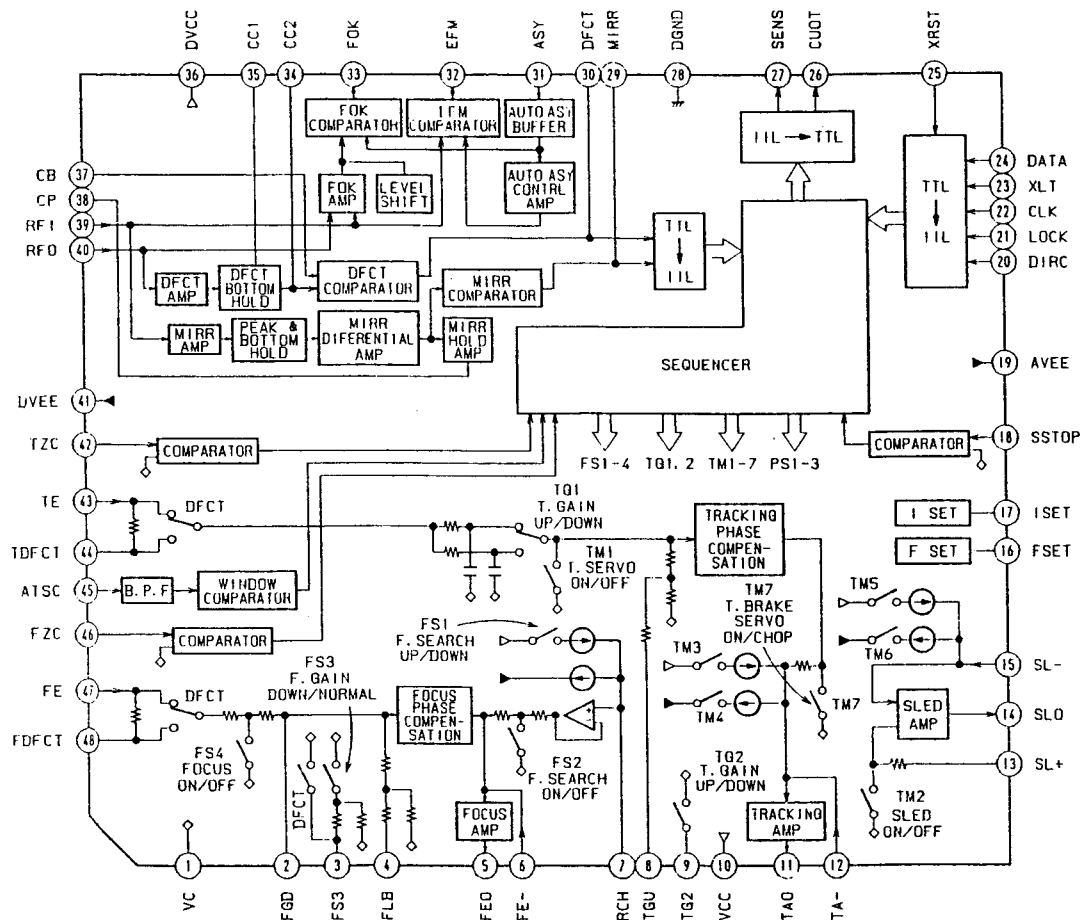
[ LOADING BOARD ]

SYSTEM CONTROL 2

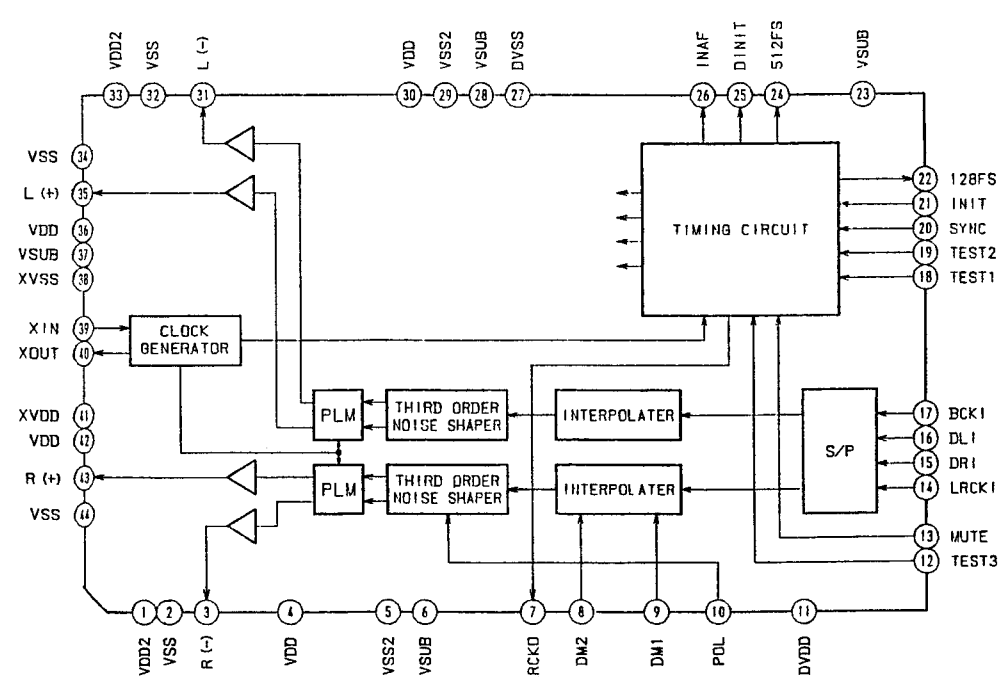
DIGITAL OUT OPTICAL

3-5. IC BLOCK DIAGRAMS

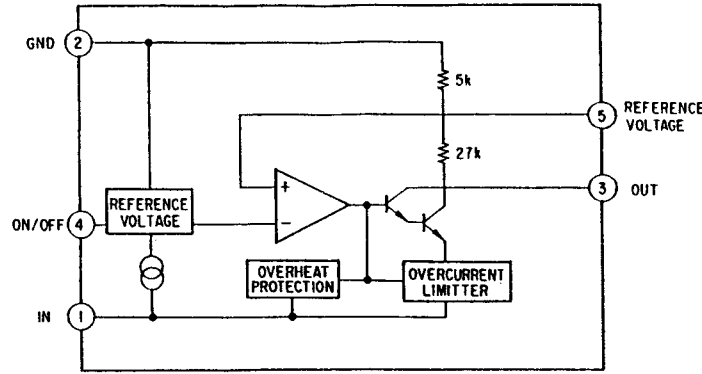
IC101 CXA1372Q



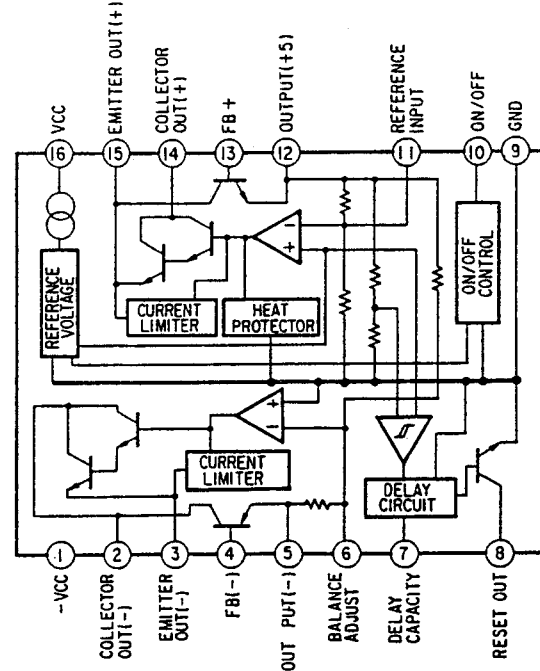
IC301 CXD2552Q



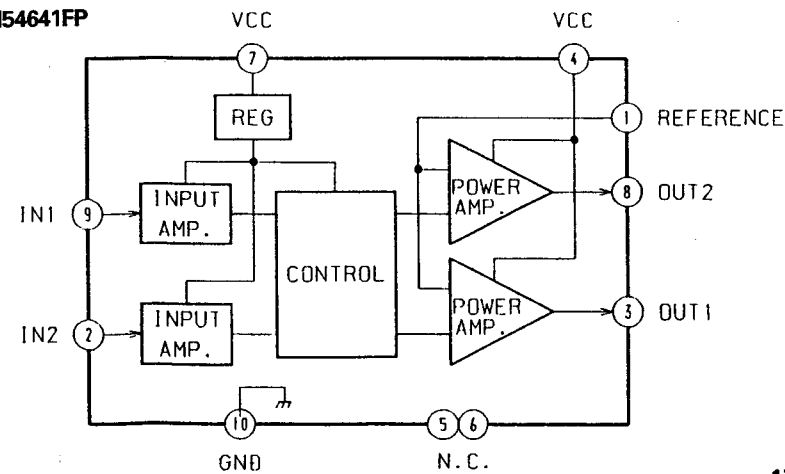
IC102 M5293L



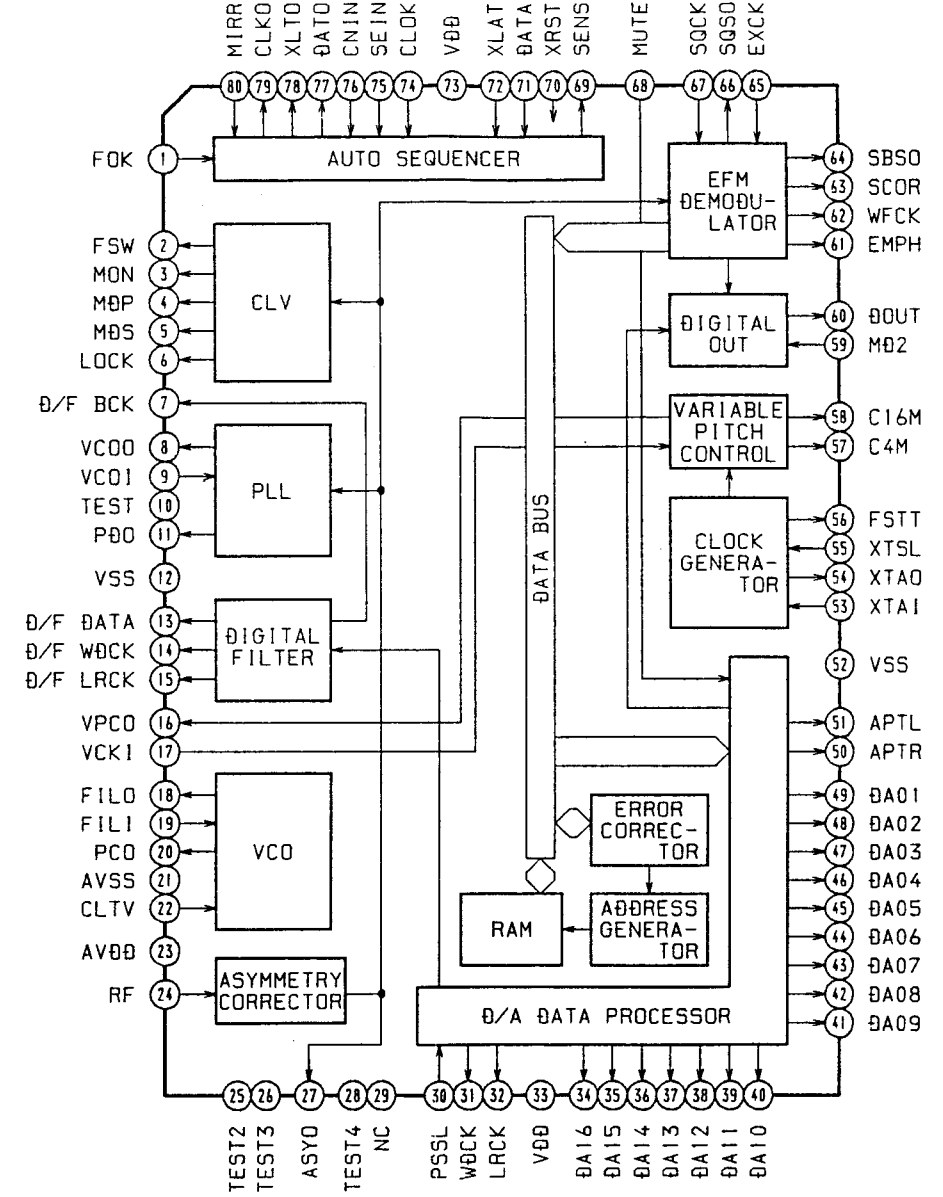
IC103 M5290FP



IC203 M54641FP



IC202 CXD2505Q



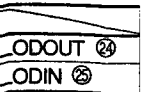
3-6. PIN FU

• IC202 CD S

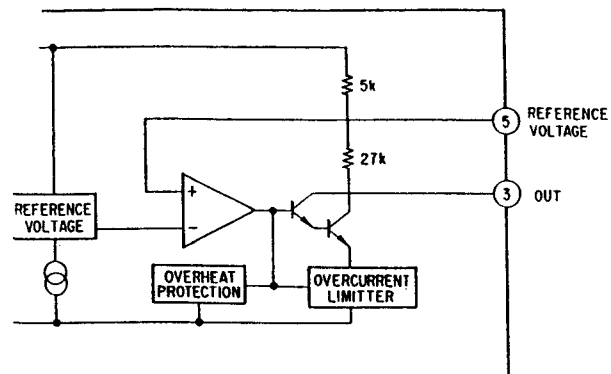
Functions effect CD unit, data ex

Pin No.	Functions effect CD unit, data ex
1-2	SBSO
3	SCOR
4-6	WFCK
7	EMPH
8	ØOUT
9	MØ2
10	
11	C16M
12	C4M
13	
14	FSTT
15	XTSL
16	XTAO
17	XTAI
18	
19	
20	
21	APTL
22-23	APTR
24	ØA01
25	ØA02
26	ØA03
27	ØA04
28	ØA05
29	ØA06
30	ØA07
31-36	ØA08
37	ØA09
38	
39	
40	
41	
42	
43	
44	
45-56	
57	
58	
59-62	
63-64	

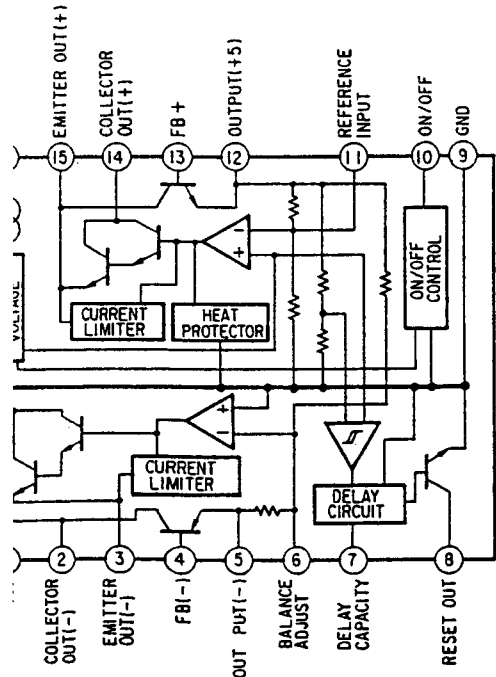
\*1 Loading mot



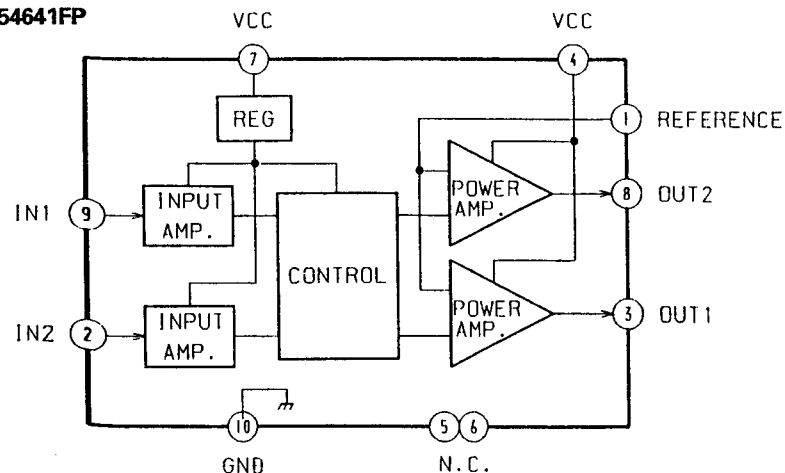
M5293L



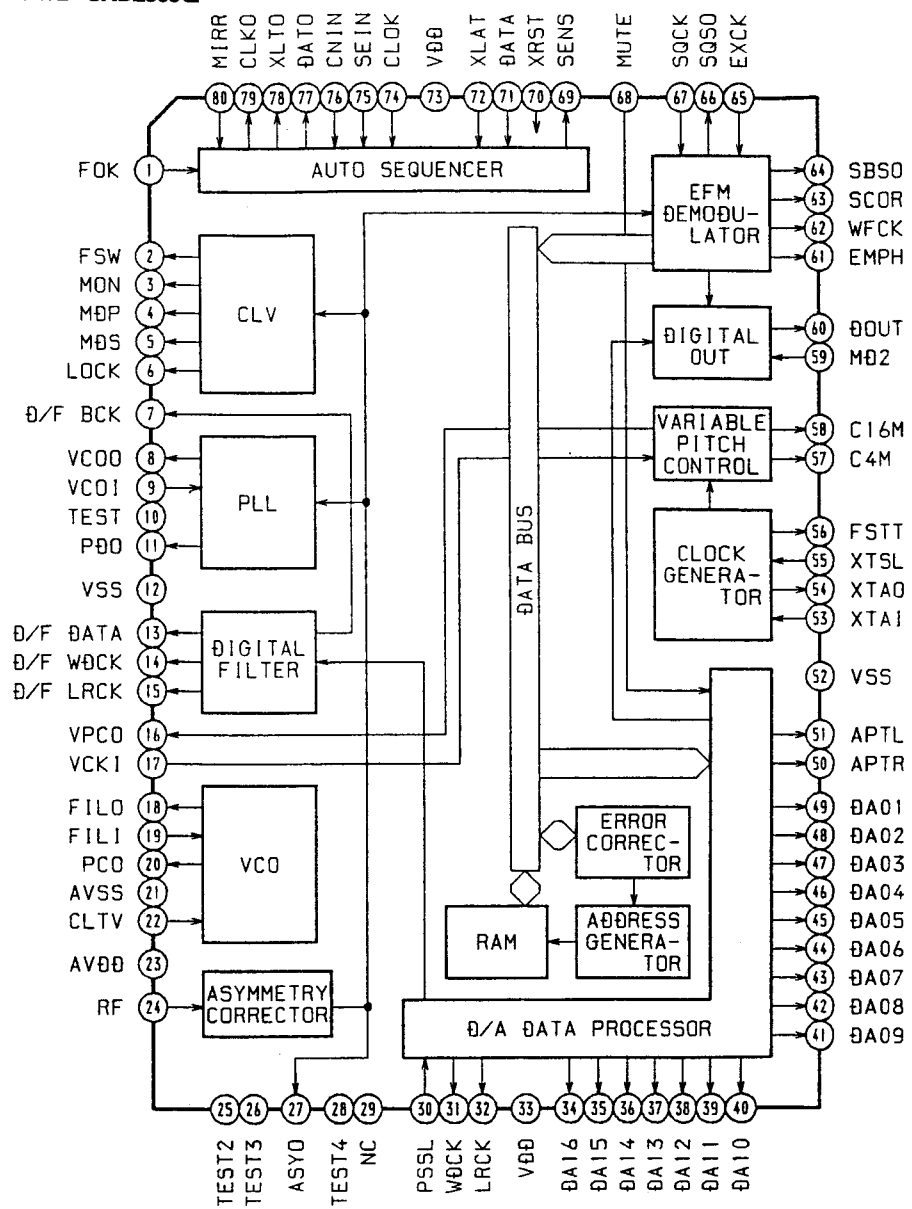
M5290FP



03 M54641FP



IC202 CXD2505Q



3-6. PIN FUNCTION OF IC202 AND IC401

• IC202 CD System Controller (μPD75116GF-760-3BE)

Functions effected by the captioned controller include IC101 (RF signal processing, servo), IC201 (DSP, digital filter) and loading control in the CD unit, data exchange with IC401 (display controller), audio bus entry, etc.

Pin No.	Pin Name	I/O	Description
1-2		O	Not in use with the model (open).
3	DPCLK	O	Display data transfer clock output to IC401 (display micron)
4-6		O	Not in use with the model (open)
7	RESET	I	System reset input. "L": Reset
8	X2	I	Clock input
9	X1	I	Clock input (4 MHz)
10	DFCT SW	O	DEFECT circuit ON/OFF switching output of IC101 (CXA1372Q). It is turned OFF ("H") to focus-search the DISC flaw detection circuit.
11	AMUTE	O	Muting control output. "H": Mute
12	BSOUT	O	Audio bus output
13	AFADJ	I	Test mode input. Various test operations are effected upon "L" after turning ON the POWER.
14	LDON	O	Optical pickup laser diode ON/OFF switching output. "H": ON
15	XLT	O	Serial data latch output to IC201 (CXD2505Q)
16	CLK	O	Serial data transfer clock output to IC201 (CXD2505Q)
17	DATA	O	Serial data output to IC201 (CXD2505Q)
18	MODE	I	Not in use with the model (GND)
19	ADJ	I	Test mode input. Upon "L," GFS checking is disabled while continuously rotating the spindle no matter whether frame synch is issued during PLAY, PAUSE or SEARCH.
20	GFS	I	GFS signal input from IC201 (CXD2505Q). "L": NG "H": OK
21	FOK	I	Focus OK signal input from IC101 (CXA1372Q). "H": OK
22-23		O	Not in use with the model (open)
24	LODOUT	O	Output to rotate M291 (loading motor) in the loading out direction. *1
25	LODIN	O	Output to rotate M291 (loading motor) in the loading in direction. *1
26	VSS	-	Power terminal (GND)
27	IN SW	I	S292 (Loading in switch) input
28	OUT SW	I	S291 (Loading out switch) input
29	KEY REQ	I	Key data request input from IC401 (display controller)
30	BS IN	I	Audio bus input
31-36			Not in use with the model (GND)
37	SENS	I	SENS input from IC101 (CXA1372Q) and IC201 (CXD2505Q)
38	TIMER	I	Not in use with the model (pull up)
39	D/F 16BIT	I	IC201 (CXD2505Q) digital filter mode setting input. It is fixed at 16 bit, 4fs with the model (pull up).
40			Not in use with the model (GND)
41	SUBQ	I	Subcode Q data input from IC201 (CXD2505Q)
42		O	Not in use with the model (open)
43	SQCLK	O	Subcode Q data readout clock output to IC201 (CXD2505Q)
44	SCOR	I	Subcode sync S0 + S1 detection input from IC201 (CXD2505Q)
45-56		O	Not in use with the model (open)
57	N.C.	I	Not in use with the model (+5V)
58	VDD	-	Power terminal (+5V)
59-62	DPDATA3-0	I/O	Key data input and display data output with IC401 (display controller)
63-64		O	Not in use with the model (open)

\*1 Loading motor control

	IN	OUT	BRAKE
LODOUT ⊗	L	H	H
LODIN ⊗	H	L	H

• IC401 Display controller ( $\mu$ PD75206GF-716-3BE)

In charge of displaying the FL tube and keying in, it exchanges data with the IC202 (CD syscon) in 4-bit parallel mode.

Pin No.	Pin Name	I/O	Description
1	RESET	I	System reset input. "L": Reset
2 - 11	G1-10	O	Digital output to the FL tube
12 - 15		O	Not in use with the model (open)
16, 17	l, k	O	FL tube segment output
18	VLOAD	-	Power supply for the FL tube controller (builtin) (-32V)
19	VPRE	-	Power supply for the FL tube predriver (-3.5V)
20 - 25	j ~ e	O	FL tube segment output
26	VDD	-	Power terminal (+5V)
27, 28	d, c	O	FL tube segment output
29, 30	b, a	O	FL tube segment, key scan output
31, 32		I	Not in use with the model (GND)
33	TEST	I	Test mode input. "L": Test mode
34	SELECT	I	Not in use with the model (pull up)
35	BSIN	I	Not in use with the model (pull up)
36	DPCLK	I	Display data transfer clock input from IC202 (CD syscon)
37, 38		I	Not in use with the model (pull up)
39		O	Not in use with the model (pull up)
40, 41		O	Not in use with the model (open)
42	KEY REQ	O	Key data request output to IC202 (CD syscon)
43 - 46	DPDATA0-3	I/O	Key data output and display data input with IC202 (CD syscon)
47 - 50	KEY0-3	I	Key data input
51, 52		I	Not in use with the model (pull up)
53, 54		I	Not in use with the model (GND)
55		O	Not in use with the model (open)
56	X1	I	System clock input (4.19 MHz)
57	X2	I	System clock input
58	Vss	-	Power supply terminal (GND)
59		I	Not in use with the model (GND)
60 - 64		O	Not in use with the model (open)

## SECTION 4 EXPLODED VIEW

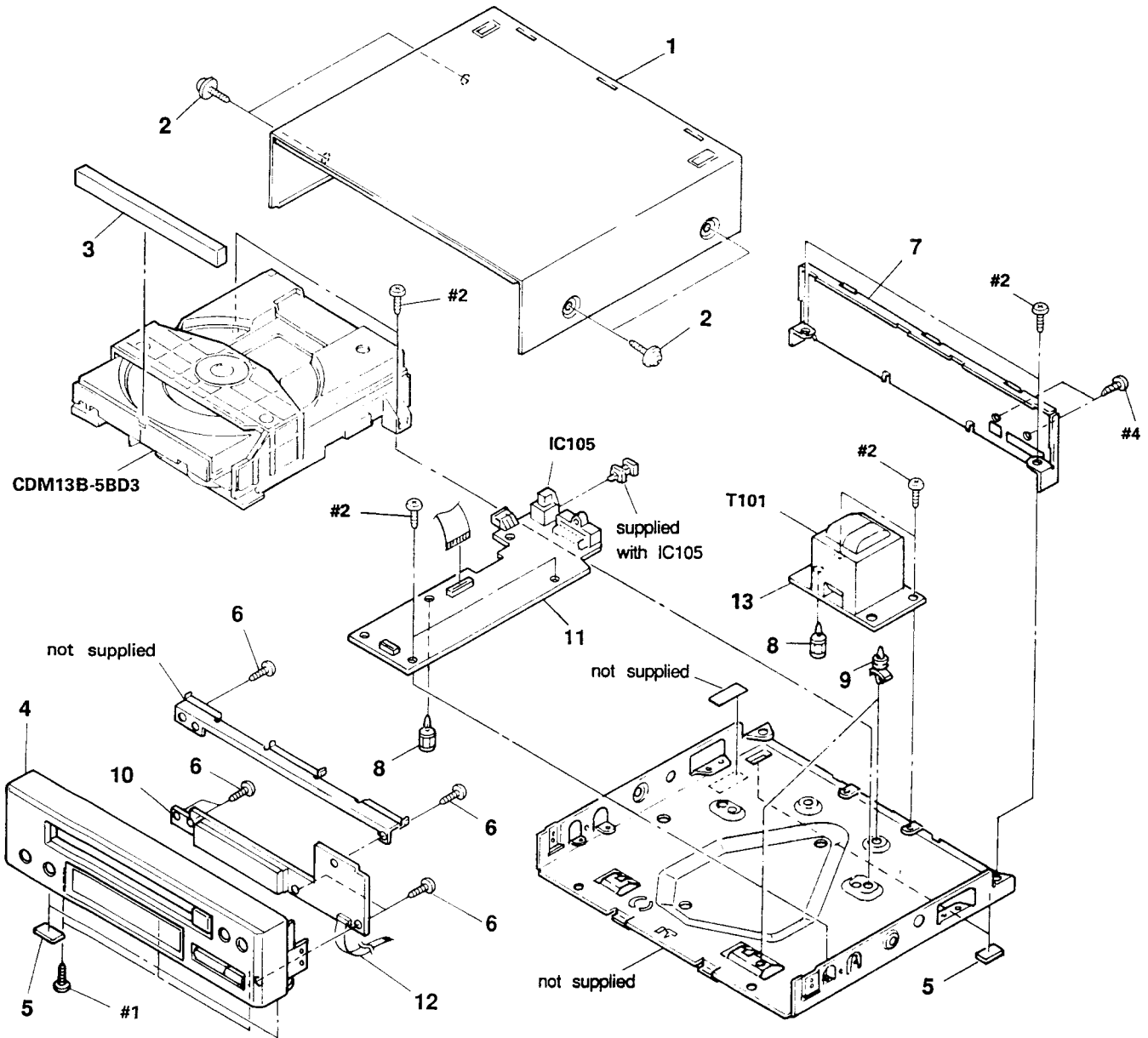
**NOTE:**

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts  
Example:  
KNOB,BALANCE(WHITE)...(RED)  
          ↑                  ↑  
          Parts color Cabinet's color
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware(# mark) list is given in the last of this parts list.

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

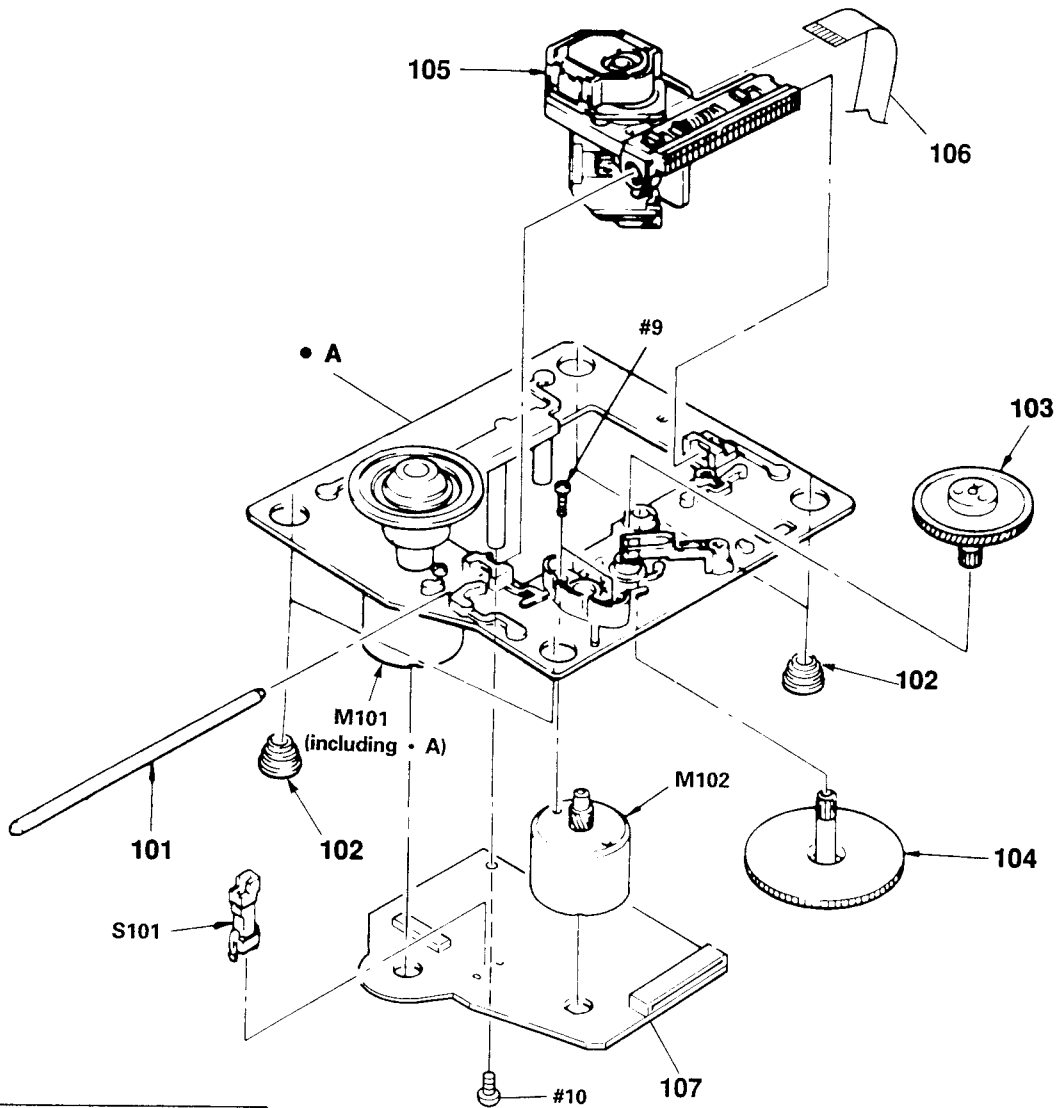
When indicating parts by reference number, please include the board name.

**(1) CHASSIS SECTION**



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	* 4-944-423-01	CASE (K206522)		8	* 3-669-610-00	SPACER	
2	3-363-099-01	SCREW (CASE +3X8 TP2)		9	* 4-924-098-11	HOLDER, PC BOARD	
3	4-944-417-01	PANEL, LOADING		10	* A-4617-811-A	DISPLAY BOARD, COMPLETE	
4	X-4941-522-1	PANEL ASSY, FRONT		11	* A-4617-805-A	MAIN BOARD, COMPLETE	
5	4-930-336-01	FOOT (FELT)		12	1-575-001-11	WIRE, FILM TYPE (12 CORE)	
6	4-928-635-01	SCREW, +BV (2. 6X8) TAPPING		13	* 1-638-269-11	TRANSFORMER BOARD	
7	* 4-943-175-41	PAENL, BACK		T101	$\Delta$ 1-450-341-11	TRANSFORMER, POWER	

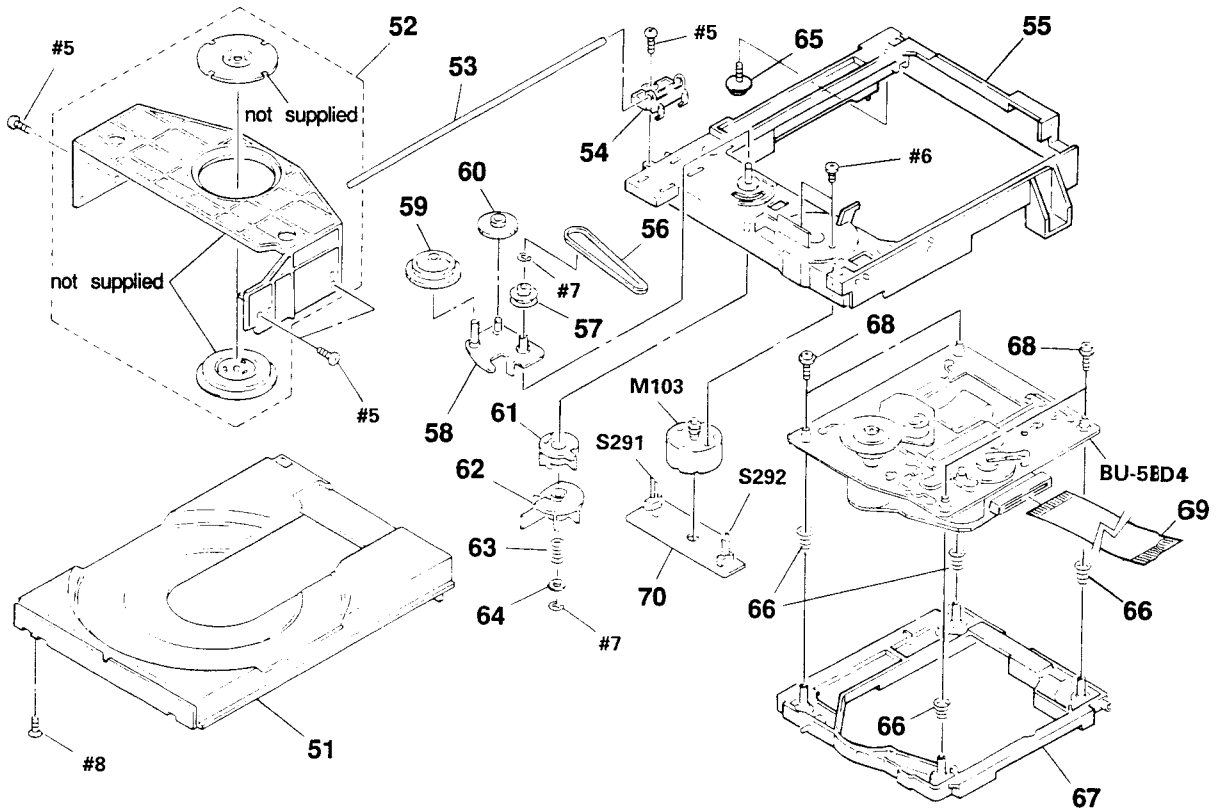
(3) OPTICAL PICK-UP BLOCK (BU-5BD3)



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

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

(2) CD MECHANISM SECTION (CDM13B-5BD3)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	4-944-012-01	TABLE, DISC		63	3-659-338-00	SPRING, COMPRESSION	
52	A-4604-752-A	HOLDER (MG) ASSY		64	4-927-654-01	WASHER (LIMITER)	
53	4-929-764-01	SHAFT (TABLE GUIDE)		65	* 4-917-583-21	BRACKET, YOKE	
54	4-944-006-01	BEARING		66	4-917-541-01	SPRING (B)	
55	X-4941-462-1	CHASSIS (MD) ASSY		67	4-929-747-01	HOLDER (BU)	
56	4-927-649-01	BELT		68	4-933-134-01	SCREW (+PTPHW M2. 6X6)	
57	4-929-724-01	PULLEY (B)		69	1-535-845-11	JUMPER, FILM (WITH TERMINAL)	
58	X-4929-703-1	ARM ASSY, SWING		70	* 1-634-461-11	LOADING BOARD	
59	4-927-620-11	GEAR (P)		M103	A-4608-362-A	MOTOR (L) ASSY (LOADING)	
60	4-927-628-01	GEAR (C)		S291	1-571-924-11	SWITCH, LEAF (LOAD OUT)	
61	4-929-727-01	CAM (A)		S292	1-571-924-11	SWITCH, LEAF (LOAD IN)	
62	4-929-729-01	CAM (B)					

SECTION 5  
ELECTRICAL PARTS LIST

BD

NOTE:

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL : Metal-film resistor  
METAL OXIDE : Metal Oxide-film resistor  
F : nonflammable
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u :  $\mu$ , for example :  
uA...:  $\mu$ A..., uPA...:  $\mu$ PA...,  
uPB...:  $\mu$ PB..., uPC...:  $\mu$ PC...,  
uPD...:  $\mu$ PD...
- CAPACITORS  
uF :  $\mu$ F
- COILS  
uH :  $\mu$ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* A-4617-371-A BD BOARD, COMPLETE *****							
< CAPACITOR >				< CONNECTOR >			
C101	1-163-038-00	CERAMIC CHIP	0.1uF 25V	CN101	1-568-796-11	SOCKET, CONNECTOR 22P	
C102	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	CN102	1-568-795-11	SOCKET, CONNECTOR 12P	
C103	1-126-163-11	ELECT	4.7uF 20% 50V	< IC >			
C104	1-163-038-00	CERAMIC CHIP	0.1uF 25V	IC101	8-752-050-82	IC CXA13720	
C105	1-126-154-11	ELECT	47uF 20% 6.3V	IC102	8-759-822-36	IC LA6532M	
C106	1-126-154-11	ELECT	47uF 20% 6.3V	< JACK >			
C107	1-126-154-11	ELECT	47uF 20% 6.3V	J101	1-216-295-00	METAL CHIP 0 5% 1/10W	
C108	1-163-038-00	CERAMIC CHIP	0.1uF 25V	J102	1-216-295-00	METAL CHIP 0 5% 1/10W	
C109	1-163-038-00	CERAMIC CHIP	0.1uF 25V	< TRANSISTOR >			
C110	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	Q101	8-729-901-01	TRANSISTOR DTC144EK	
C111	1-131-367-00	TANTALUM	22uF 10% 20V	< RESISTOR >			
C112	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R101	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C113	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R102	1-216-095-00	METAL CHIP 82K 5% 1/10W	
C114	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R103	1-216-091-00	METAL CHIP 56K 5% 1/10W	
C115	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R104	1-216-099-00	METAL CHIP 120K 5% 1/10W	
C117	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R105	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
C118	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R106	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C119	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R107	1-216-114-00	METAL GLAZE 510K 5% 1/10W	
C120	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	R108	1-216-105-00	METAL CHIP 220K 5% 1/10W	
C151	1-163-019-00	CERAMIC CHIP	0.0068uF 10% 50V	R109	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C152	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R110	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C153	1-163-006-11	CERAMIC CHIP	560PF 10% 50V	R111	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C154	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R112	1-216-083-00	METAL CHIP 27K 5% 1/10W	
C155	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V	R113	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
C171	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R114	1-216-105-00	METAL CHIP 220K 5% 1/10W	
C172	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R152	1-216-073-00	METAL CHIP 10K 5% 1/10W	
C173	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R153	1-216-085-00	METAL CHIP 33K 5% 1/10W	
C174	1-163-038-00	CERAMIC CHIP	0.1uF 25V				



**BD MAIN DISPLAY TRANSFORMER**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R154	1-216-085-00	METAL CHIP 33K	5% 1/10W	C207	1-164-346-11	CERAMIC CHIP 1uF	16V
R155	1-216-093-00	METAL CHIP 68K	5% 1/10W	C209	1-164-346-11	CERAMIC CHIP 1uF	16V
R156	1-216-081-00	METAL CHIP 22K	5% 1/10W	C302	1-164-346-11	CERAMIC CHIP 1uF	16V
R157	1-216-079-00	METAL CHIP 18K	5% 1/10W	C303	1-164-346-11	CERAMIC CHIP 1uF	16V
R158	1-216-079-00	METAL CHIP 18K	5% 1/10W	C304	1-164-346-11	CERAMIC CHIP 1uF	16V
R159	1-216-079-00	METAL CHIP 18K	5% 1/10W	C305	1-164-346-11	CERAMIC CHIP 1uF	16V
R160	1-216-049-00	METAL CHIP 1K	5% 1/10W	C306	1-163-227-11	CERAMIC CHIP 10PF	5% 50V
R171	1-216-001-00	METAL CHIP 10	5% 1/10W	C307	1-163-227-11	CERAMIC CHIP 10PF	5% 50V
R172	1-216-001-00	METAL CHIP 10	5% 1/10W	C309	1-163-102-00	CERAMIC CHIP 24PF	5% 50V
R173	1-216-001-00	METAL CHIP 10	5% 1/10W	C310	1-164-346-11	CERAMIC CHIP 1uF	16V
R174	1-216-001-00	METAL CHIP 10	5% 1/10W	C311	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
		< VARIABLE RESISTOR >		C312	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
RV101	1-238-016-11	RES, ADJ, CARBON 10K		C313	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
RV102	1-238-016-11	RES, ADJ, CARBON 10K		C314	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
		< SWITCH >		C315	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)		C316	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V
*****				C317	1-163-010-11	CERAMIC CHIP 0.0012uF	10% 50V
		* A-4617-805-A MAIN BOARD, COMPLETE		C318	1-163-010-11	CERAMIC CHIP 0.0012uF	10% 50V
		*****		C319	1-164-346-11	CERAMIC CHIP 1uF	16V
		* A-4617-811-A DISPLAY BOARD, COMPLETE		C320	1-164-346-11	CERAMIC CHIP 1uF	16V
		*****		C321	1-164-346-11	CERAMIC CHIP 1uF	16V
		* 1-638-269-11 TRANSFORMER BOARD		C322	1-164-346-11	CERAMIC CHIP 1uF	16V
		*****		C323	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
		* 4-880-403-11 HEAT SINK		C324	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
		* 4-932-810-11 CUSHION (FL)		C325	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
		< CAPACITOR >		C326	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C101	1-126-939-11	ELECT 10000uF	20% 16V	C351	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C102	1-124-907-11	ELECT 10uF	20% 50V	C401	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C103	1-124-477-11	ELECT 47uF	20% 25V	C402	1-163-035-00	CERAMIC CHIP 0.047uF	50V
C104	1-164-346-11	CERAMIC CHIP 1uF	16V	C403	1-164-346-11	CERAMIC CHIP 1uF	16V
C105	1-164-346-11	CERAMIC CHIP 1uF	16V	C404	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
C106	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V			< CONNECTOR >	
C107	1-124-443-00	ELECT 100uF	20% 10V	CN101	* 1-569-624-11	SOCKET, CONNECTOR 17P	
C108	1-124-443-00	ELECT 100uF	20% 10V	CN102	1-568-662-11	CONNECTOR, BOARD TO BOARD 6P	
C111	1-126-063-11	ELECT 100uF	20% 63V	CN201	1-568-802-11	SOCKET, CONNECTOR 19P	
C112	1-124-907-11	ELECT 10uF	20% 50V	CN202	* 1-564-339-00	PIN, CONNECTOR 5P	
C113	1-164-346-11	CERAMIC CHIP 1uF	16V	CN203	* 1-564-340-00	PIN, CONNECTOR 6P	
C115	1-164-232-11	CERAMIC CHIP 0.01uF	50V	CN301	* 1-573-099-11	HOUSING, CONNECTOR 12P	
C116	1-164-232-11	CERAMIC CHIP 0.01uF	50V	CN401	* 1-573-098-11	HOUSING, CONNECTOR 12P	
C117	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V	CN901	1-568-668-11	CONNECTOR, BOARD TO BOARD 6P	
C201	1-163-038-00	CERAMIC CHIP 0.1uF	25V			< DIODE >	
C202	1-164-346-11	CERAMIC CHIP 1uF	16V	D101	8-719-210-39	DIODE EC10QS-04	
C203	1-163-035-00	CERAMIC CHIP 0.047uF	50V	D102	8-719-210-39	DIODE EC10QS-04	
C204	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V	D103	8-719-210-33	DIODE EC10DS2	
C205	1-164-346-11	CERAMIC CHIP 1uF	16V	D104	8-719-210-33	DIODE EC10DS2	
C206	1-163-038-00	CERAMIC CHIP 0.1uF	25V	D106	8-719-106-17	DIODE RD6.8M-B2	
				D201	8-719-400-18	DIODE MA152WK	

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

## MAIN

## DISPLAY

## TRANSFORMER

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
D206	8-719-105-74	DIODE RD4. 7M-B3		R101	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W
D301	8-719-210-33	DIODE EC10DS2		R102	1-216-031-00	METAL CHIP	180 5% 1/10W
D302	8-719-104-34	DIODE 1S2836		R103	1-216-027-00	METAL CHIP	120 5% 1/10W
D401	8-719-106-36	DIODE RD8. 2M-B3		R104	1-216-073-00	METAL CHIP	10K 5% 1/10W
D402	8-719-104-34	DIODE 1S2836		R105	1-216-073-00	METAL CHIP	10K 5% 1/10W
D403	8-719-400-18	DIODE MA152WK		R106	1-216-097-00	METAL CHIP	100K 5% 1/10W
		( INDICATOR TUBE )		R107	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W
FL401	1-519-652-11	INDICATOR TUBE, FLUORESCENT		R109	1-216-089-00	METAL CHIP	47K 5% 1/10W
		( IC )		R201	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC101	8-759-604-86	IC M5F7807L		R202	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC102	8-759-633-42	IC M5293L		R203	1-216-065-00	METAL CHIP	4. 7K 5% 1/10W
IC103	8-759-636-24	IC M5290FP		R204	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC105	8-749-922-39	IC GP1F34T		R205	1-216-001-00	METAL CHIP	10 5% 1/10W
IC201	8-759-153-16	IC $\mu$ PD75116GF-760-3BE		R206	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC202	8-752-340-37	IC CXD2505Q		R207	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC203	8-759-636-20	IC M54641FP		R208	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC301	8-752-334-87	IC CXD2552Q		R209	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC302	8-759-927-29	IC SN74HCU04ANS		R210	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC303	8-759-981-95	IC RC4558S		R211	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC304	8-759-981-95	IC RC4558S		R212	1-216-073-00	METAL CHIP	10K 5% 1/10W
IC401	8-759-154-14	IC $\mu$ PD75206GF-716-3BE		R213	1-216-073-00	METAL CHIP	10K 5% 1/10W
		( JUMPER )		R214	1-216-073-00	METAL CHIP	10K 5% 1/10W
JW201	1-216-295-00	METAL CHIP	0 5% 1/10W	R215	1-216-073-00	METAL CHIP	10K 5% 1/10W
JW202	1-216-295-00	METAL CHIP	0 5% 1/10W	R216	1-216-073-00	METAL CHIP	10K 5% 1/10W
JW401	1-216-295-00	METAL CHIP	0 5% 1/10W	R217	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W
		( COIL )		R218	1-216-073-00	METAL CHIP	10K 5% 1/10W
L301	1-410-381-11	INDUCTOR CHIP 10 $\mu$ H		R219	1-216-061-00	METAL CHIP	3. 3K 5% 1/10W
L302	1-410-381-11	INDUCTOR CHIP 10 $\mu$ H		R220	1-216-049-00	METAL CHIP	1K 5% 1/10W
L303	1-410-375-11	INDUCTOR CHIP 3. 3 $\mu$ H		R221	1-216-089-00	METAL CHIP	47K 5% 1/10W
		( TRANSISTOR )		R222	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q101	8-729-804-41	TRANSISTOR 2SB1122-S		R223	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q102	8-729-620-06	TRANSISTOR 2SC3052-EF		R224	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q103	8-729-805-69	TRANSISTOR 2SA1341		R225	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q201	8-729-620-06	TRANSISTOR 2SC3052-EF		R226	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q301	8-729-107-46	TRANSISTOR 2SC3624A-L15		R227	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q302	8-729-107-46	TRANSISTOR 2SC3624A-L15		R301	1-216-001-00	METAL CHIP	10 5% 1/10W
Q303	8-729-107-46	TRANSISTOR 2SC3624A-L15		R302	1-216-066-00	METAL CHIP	5. 1K 5% 1/10W
Q304	8-729-107-46	TRANSISTOR 2SC3624A-L15		R303	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q305	8-729-216-22	TRANSISTOR 2SA1162-G		R304	1-216-049-00	METAL CHIP	1K 5% 1/10W
Q306	8-729-805-69	TRANSISTOR 2SA1341		R305	1-216-049-00	METAL CHIP	1K 5% 1/10W
		( RESISTOR )		R307	1-216-073-00	METAL CHIP	10K 5% 1/10W
				R308	1-216-073-00	METAL CHIP	10K 5% 1/10W
				R309	1-216-073-00	METAL CHIP	10K 5% 1/10W
				R310	1-216-073-00	METAL CHIP	10K 5% 1/10W
				R311	1-216-057-00	METAL CHIP	2. 2K 5% 1/10W
				R312	1-216-057-00	METAL CHIP	2. 2K 5% 1/10W
				R313	1-216-057-00	METAL CHIP	2. 2K 5% 1/10W
				R314	1-216-057-00	METAL CHIP	2. 2K 5% 1/10W
				R315	1-216-079-00	METAL CHIP	18K 5% 1/10W
				R316	1-216-079-00	METAL CHIP	18K 5% 1/10W

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

**MAIN**

**DISPLAY**

**TRANSFORMER**

**LOADING**

Ref. No.	Part No.	Description	Remarks
R317	1-216-079-00	METAL CHIP	18K 5% 1/10W
R318	1-216-079-00	METAL CHIP	18K 5% 1/10W
R319	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R320	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R321	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R322	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R323	1-216-105-00	METAL CHIP	220K 5% 1/10W
R324	1-216-105-00	METAL CHIP	220K 5% 1/10W
R325	1-216-033-00	METAL CHIP	220 5% 1/10W
R326	1-216-033-00	METAL CHIP	220 5% 1/10W
R327	1-216-033-00	METAL CHIP	220 5% 1/10W
R328	1-216-033-00	METAL CHIP	220 5% 1/10W
R329	1-216-033-00	METAL CHIP	220 5% 1/10W
R330	1-216-033-00	METAL CHIP	220 5% 1/10W
R331	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R332	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R333	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R334	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R351	1-216-105-00	METAL CHIP	220K 5% 1/10W
R401	1-216-089-00	METAL CHIP	47K 5% 1/10W
R402	1-216-089-00	METAL CHIP	47K 5% 1/10W
R403	1-216-089-00	METAL CHIP	47K 5% 1/10W
R404	1-216-089-00	METAL CHIP	47K 5% 1/10W
R405	1-216-089-00	METAL CHIP	47K 5% 1/10W
R406	1-216-089-00	METAL CHIP	47K 5% 1/10W
R407	1-216-089-00	METAL CHIP	47K 5% 1/10W
R408	1-216-093-00	METAL CHIP	68K 5% 1/10W
R409	1-216-089-00	METAL CHIP	47K 5% 1/10W
R410	1-216-089-00	METAL CHIP	47K 5% 1/10W
R411	1-216-089-00	METAL CHIP	47K 5% 1/10W
R412	1-216-089-00	METAL CHIP	47K 5% 1/10W
R413	1-216-089-00	METAL CHIP	47K 5% 1/10W
( SWITCH )			
S401	1-572-184-11	SWITCH, KEYBOARD ( <<< <<< )	
S402	1-572-184-11	SWITCH, KEYBOARD ( >>> >>> )	
S403	1-572-184-11	SWITCH, KEYBOARD ( >>> >>> )	
S404	1-572-184-11	SWITCH, KEYBOARD ( ■ )	
S405	1-572-184-11	SWITCH, KEYBOARD ( OPEN/CLOSE )	
S406	1-572-184-11	SWITCH, KEYBOARD ( EDIT )	
S407	1-572-184-11	SWITCH, KEYBOARD ( CHECK )	
( TRANSFORMER )			
T101	△ 1-450-341-11	TRANSFORMER, POWER	
( CRYSTAL )			
X201	1-577-358-21	VIBRATOR, CERAMIC (4.0MHz)	
X301	1-577-686-11	VIBRATOR, CRYSTAL (45MHz)	

Ref. No.	Part No.	Description	Remarks
X401	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	
*****			
	* 1-634-461-11	LOADING BOARD	
*****			
		( CONNECTOR )	
CN291	* 1-564-498-11	PIN, CONNECTOR 5P	
		( SWITCH )	
S291	1-571-924-11	SWITCH, LEAF (LOADING OUT)	
S292	1-571-924-11	SWITCH, LEAF (LOADING IN)	
*****			
		MISCELLANEOUS	
*****			
12	1-575-001-11	WIRE, FILM TYPE (12 CORE)	
69	1-535-845-11	JUMPER, FILM (WITH TERMINAL)	
105	△ 8-848-144-11	DEVICE, OPTICAL KSS-240A	
106	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M101	X-4917-523-3	ASSY, MOTOR (SPINDLE)	
M102	X-4917-504-1	ASSY, MOTOR (SLED)	
M103	A-4608-362-A	MOTOR (L) ASSY (LOADING)	
*****			
		ACCESSORY & PACKING MATERIAL	
*****			
	4-920-941-01	SHEET (B), PROTECTION	
	* 4-941-548-01	LABEL, CLASS 1	
	* 4-945-079-01	CUSHION	
*****			
HARDWARE LIST			
# 1	7-682-547-09	SCREW +BVTT 3X6 (S)	
# 2	7-682-547-04	SCREW +BVTT 3X6 (S)	
# 3	7-685-135-19	SCREW +BTP 2.6X10 TYPE2 N-S	
# 4	7-685-647-79	SCREW +BVTP 3X10 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	
#10	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#11	7-682-548-04	SCREW +BVTT 3X8 (S)	

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

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

# CDP-H3600

## SONY SERVICE MANUAL

AEP Model  
UK Model

### CORRECTION-1

Correct your service manual as shown below.

#### SUPPLEMENT-1 SERVICE MANUAL

 : Indicates corrected portion

Page	INCORRECT			CORRECT		
	No.	Part No.	Description	No.	Part No.	Description
<25> (25)	IC303	8-759-981-95	IC RC4558PS	IC303	8-759- <del>996-43</del>	IC RC4558PS
	IC304	8-759-981-95	IC RC4558PS	IC304	8-759- <del>996-43</del>	IC RC4558PS

↑ < > SUPPLEMENT-1  
( ) SERVICE MANUAL

# CDP-H3600

## SONY<sup>®</sup> SERVICE MANUAL

AEP Model  
UK Model

### SUPPLEMENT-1

File this supplement with the service manual.

#### Addition of Main Board

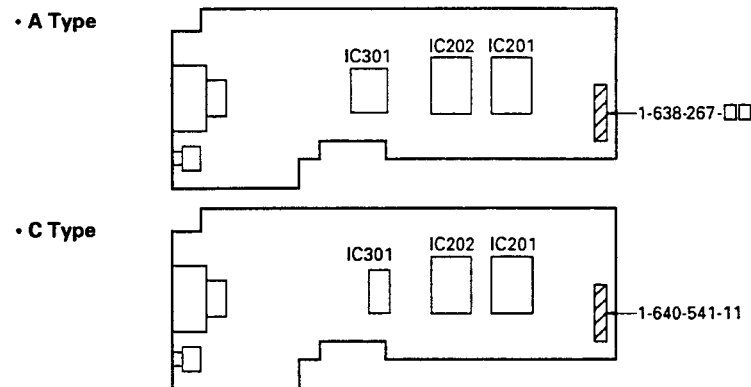
Any of the following 2 types of main boards is used in the equipment.

- Type A with an IC CXD2552Q to D/A converter.
- Type C with an IC PCM67U to D/A converter.

The description of the Service Manual is given relating only to Type A, so refer to the following Note to discriminate the types. The schematic diagram, printed wiring diagram, etc. of Type C are also herewith attached.

Note for discrimination:

You can discriminate either type according to the silk printing and mounted parts on the main board.



#### TABLE OF CONTENTS

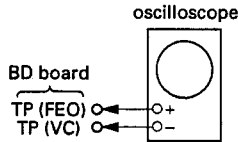
<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1.	ELECTRICAL BLOCK CHECKING .....	2	2-6.	Pin Functions of IC201 and IC401 .....	18
2.	DIAGRAMS		3.	EXPLODED VIEWS	
2-1.	Block Diagram .....	5	3-1.	Chassis Section .....	20
2-2.	Semiconductor Lead Layouts .....	9	3-2.	CD Mechanism Section .....	21
2-3.	Printed Wiring Boards .....	10	3-3.	Optical Pick-Up Block .....	22
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2-5.	IC Block Diagrams .....	16			

## SECTION 1 ELECTRICAL BLOCK CHECKING

**Note :**

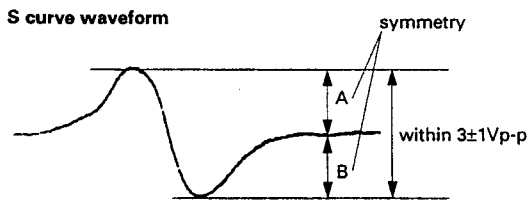
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal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

**S Curve Check**



**Procedure :**

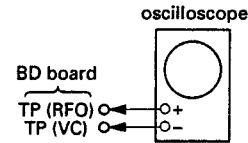
1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical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



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

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

**RF Level Check**

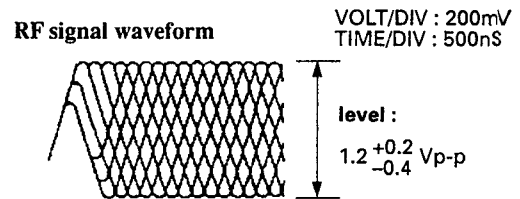


**Procedure :**

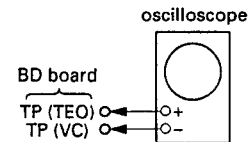
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

**Note :**

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



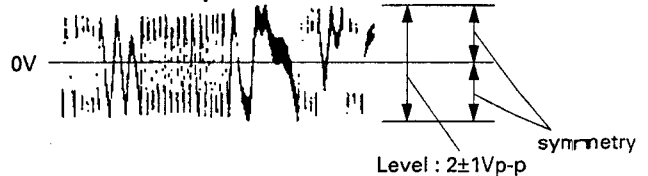
**E-F Balance Check**



**Procedure :**

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

**Traverse oscilloscope**

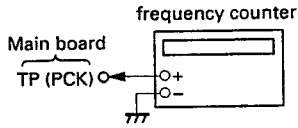


6. Remove the lead wire connected in step 1.

**RF PLL Free-run Frequency Check**

Procedure :

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

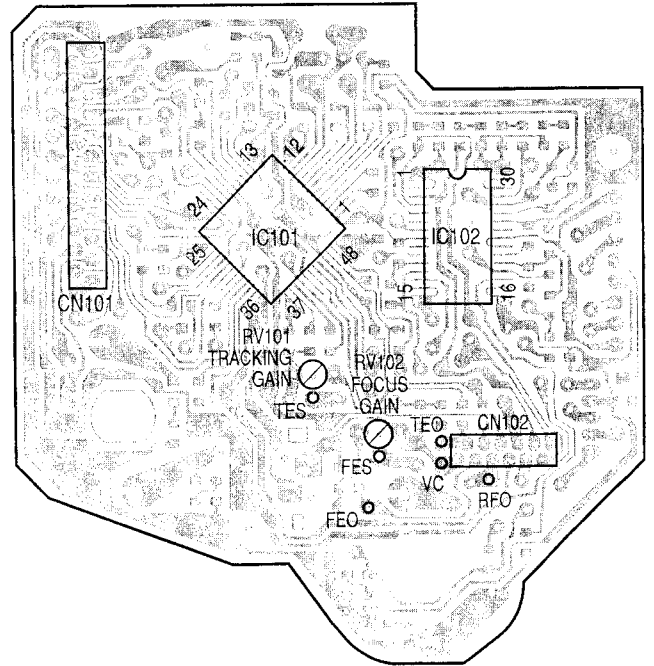


2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

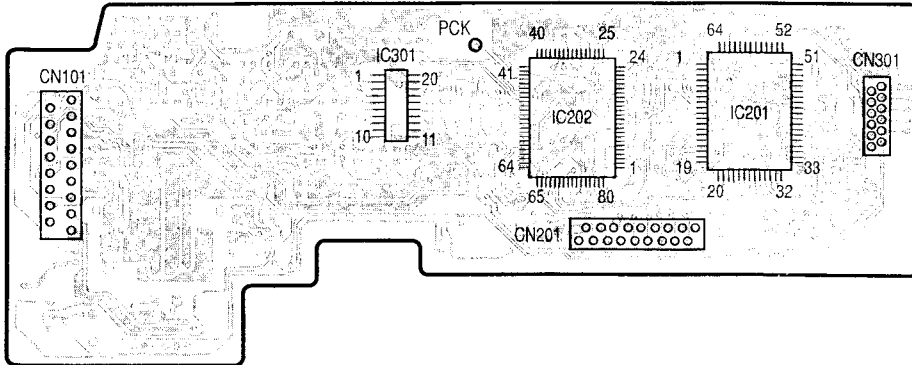
**Focus/Tracking Gain**

This gain has a margin, so even if it is slightly off. There is no problem. Therefore, do not perform, this adjustment. Please note that it should be fixed to mechanical center position when you moved and do not know original position.

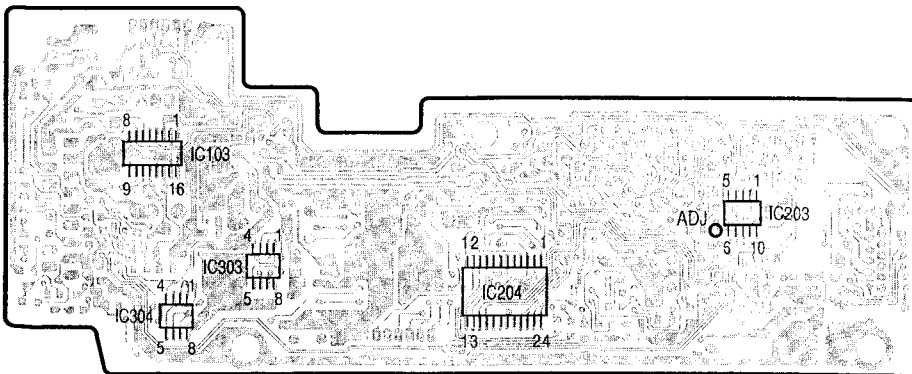
**[ BD BOARD ] - Component Side -**



**[ MAIN BOARD ] - Component Side -**



**[ MAIN BOARD ] - Conductor Side -**



[ TEST MODES ]



1. Test mode of display micon (IC401)

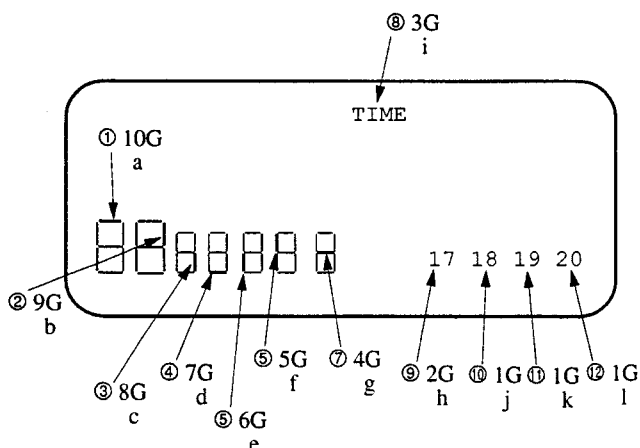
Connect Pin ⑩ of IC401 to ground and turn ON the POWER switch, thus you can test the following 3 tests.

(1) All FL tube ON


This mode is actuated immediately after turning ON the POWER switch.



(2) FL tube segment check

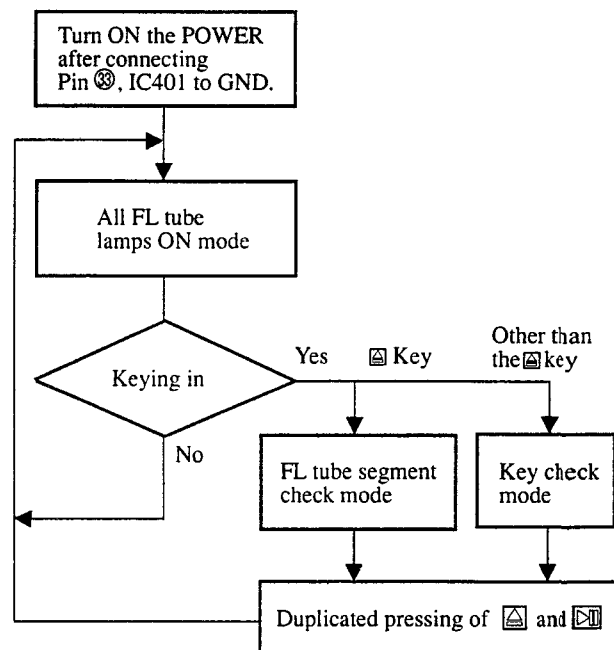
This mode is actuated by pressing the  key in the state of (1). Every time the  key is pressed, the segments are indicated sequentially from the segment a. When the last l segment is displayed, keying in is no longer accepted while continuing the lighting-up state of the last segment. Conditions are normal provided all lamps light up in the following order.



(3) KEY check

This mode is effected by pressing the  key in the state of (1), while indicating "1." Every time a new key is pressed subsequently, the indicated number is incremented. Conditions are normal provided "7" is indicated when all types of keys are pressed. Even if a key is pressed again, it is not counted.

\* To leave the mode (2) or (3), press the  and  keys in duplication, thereby the mode returning to all ON mode.



2. Test Modes of CD Syscon (IC201)

(1) ADJUST mode

When this mode is effected, the machine is operated normally except for the following.


- When pin ⑩, IC201 (ADJ) is set to "L" after turning ON the POWER switch:
  1. GFS is no longer monitored during PLAY, PAUSE or SEARCH, while not stopping even with GFS remaining still at "L" (NG).
  2. No high-speed feeding is activated during SEARCH.
  3. Focus gain is reset to normal gain during PLAY (normally, the gain is lowered to reduce noise when FOCUS is locked).

- When Pin ⑩, IC201 (AFADJ) is set to "L" after turning ON the POWER switch:

1. Regardless of Pin ⑩ (ADJ) of the CLV-S fixed function, the CLV mode during PLAY becomes CLV-S (rough servo) only while Pin e remains "L".

(2) AFADJUST mode

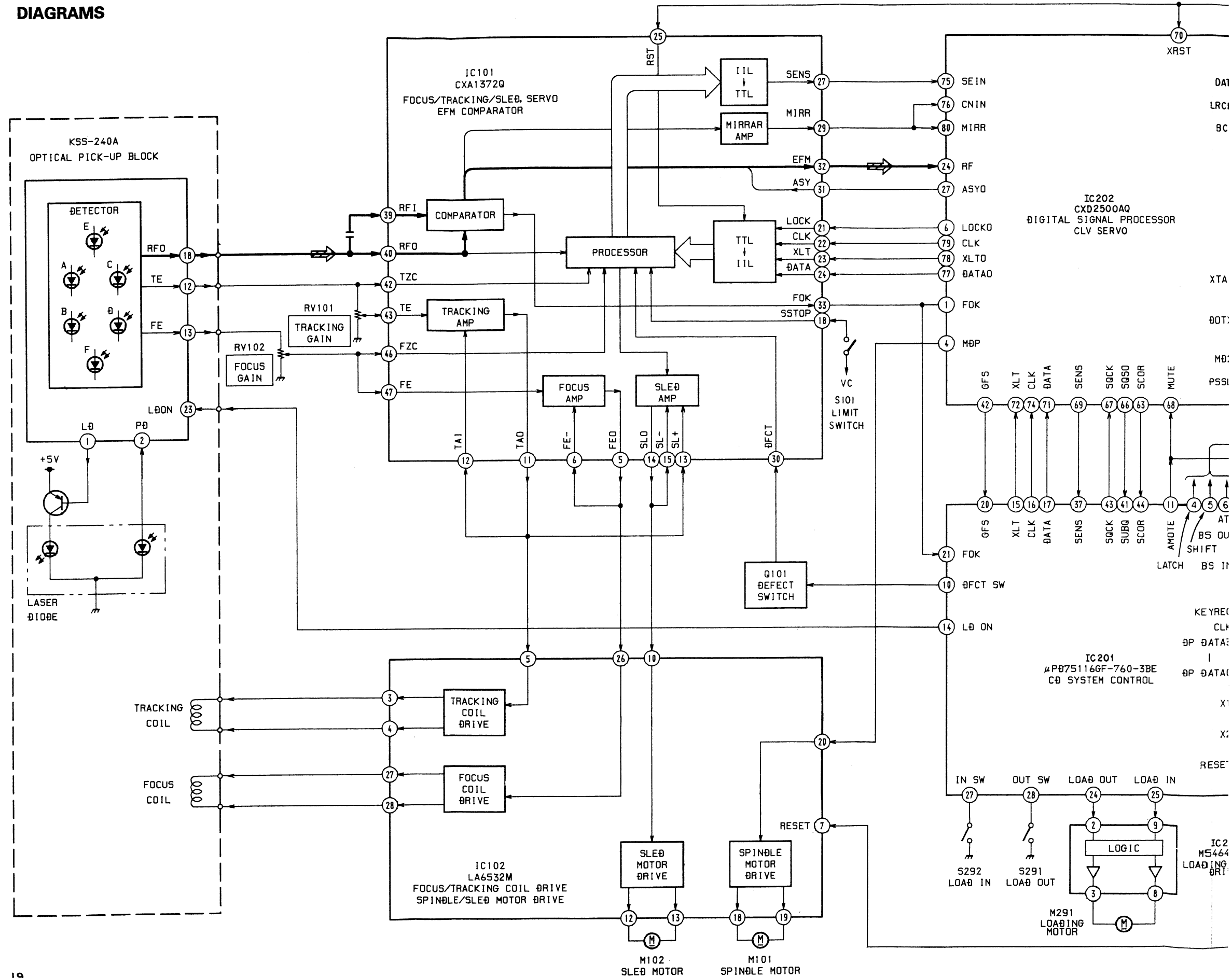
In this mode, it is possible to check the interface between the display micon (IC401) and CD syscon (IC201).

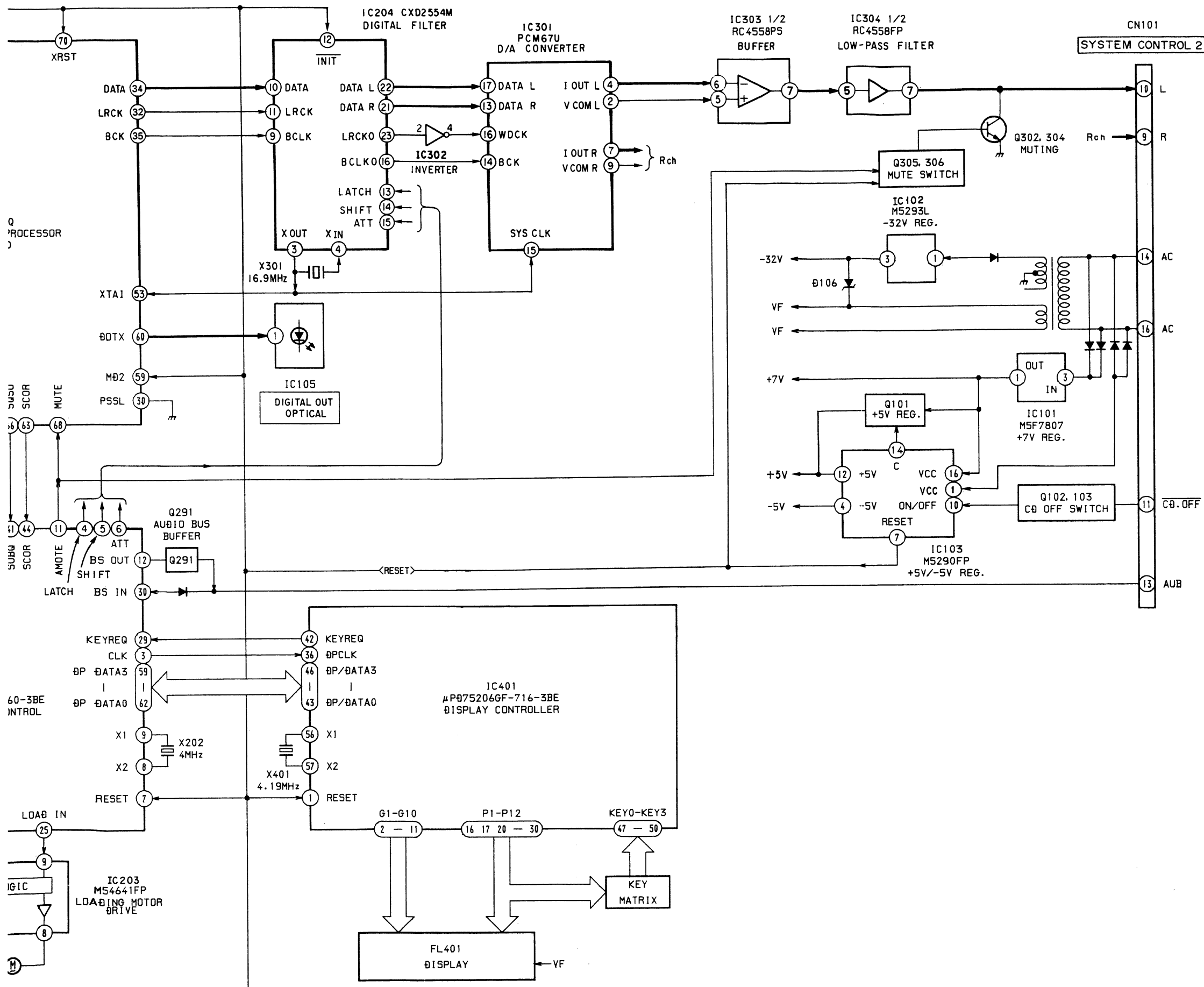
- Set Pin ⑩, IC201 (AFADJ) to "L" before turning ON the POWER switch.
  1. Every time the  key is pressed after turning On the POWER switch, indication on the FL tube is switched correspondingly. Conditions are normal provided the indication repeats the 4 patterns including all lamp ON.



**SECTION 2  
DIAGRAMS**

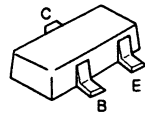
**2-1. BLOCK DIAGRAM**





## 2-2. SEMICONDUCTOR LEAD LAYOUTS

DTC144EK  
2SA1162-G  
2SC3052-EF  
2SC3624A-L15

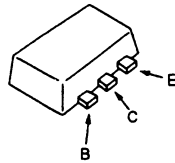


2SA1341

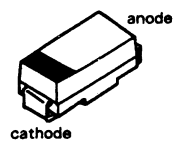


1: BASE  
2: COLLECTOR  
3: EMITTER  
4: COLLECTOR

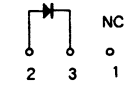
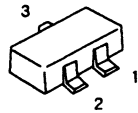
2SB1122-S



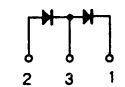
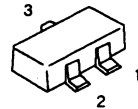
EC10DS2  
EC10QS-04



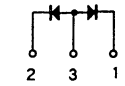
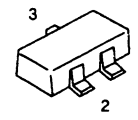
RD3.9M-B2  
RD6.8M-B2  
RD8.2M-B3



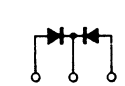
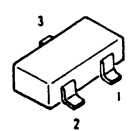
1SS226



1S2836



MA152WK



## SEMICONDUCTOR LOCATION

### EXCEPT BD BOARD

Ref. No.	LOCATION
D101	B-7
D102	B-7
D103	B-7
D104	G-11
D106	F-10
D113	B-1
D131	B-5
D132	B-2
D201	H-6
D206	H-6
D302	A-5
D401	C-13
D402	D-10
D403	C-16
IC101	B-2
IC102	G-9
IC103	B-7
IC105	A-1
IC201	H-3
IC202	F-3
IC203	H-6
IC204	E-5
IC301	D-3
IC302	E-6
IC303	C-6
IC304	B-5
IC401	C-15
Q101	B-6
Q102	B-6
Q103	A-7
Q201	H-5
Q301	B-4
Q302	B-3
Q303	B-4
Q304	B-3
Q305	B-5
Q306	A-5

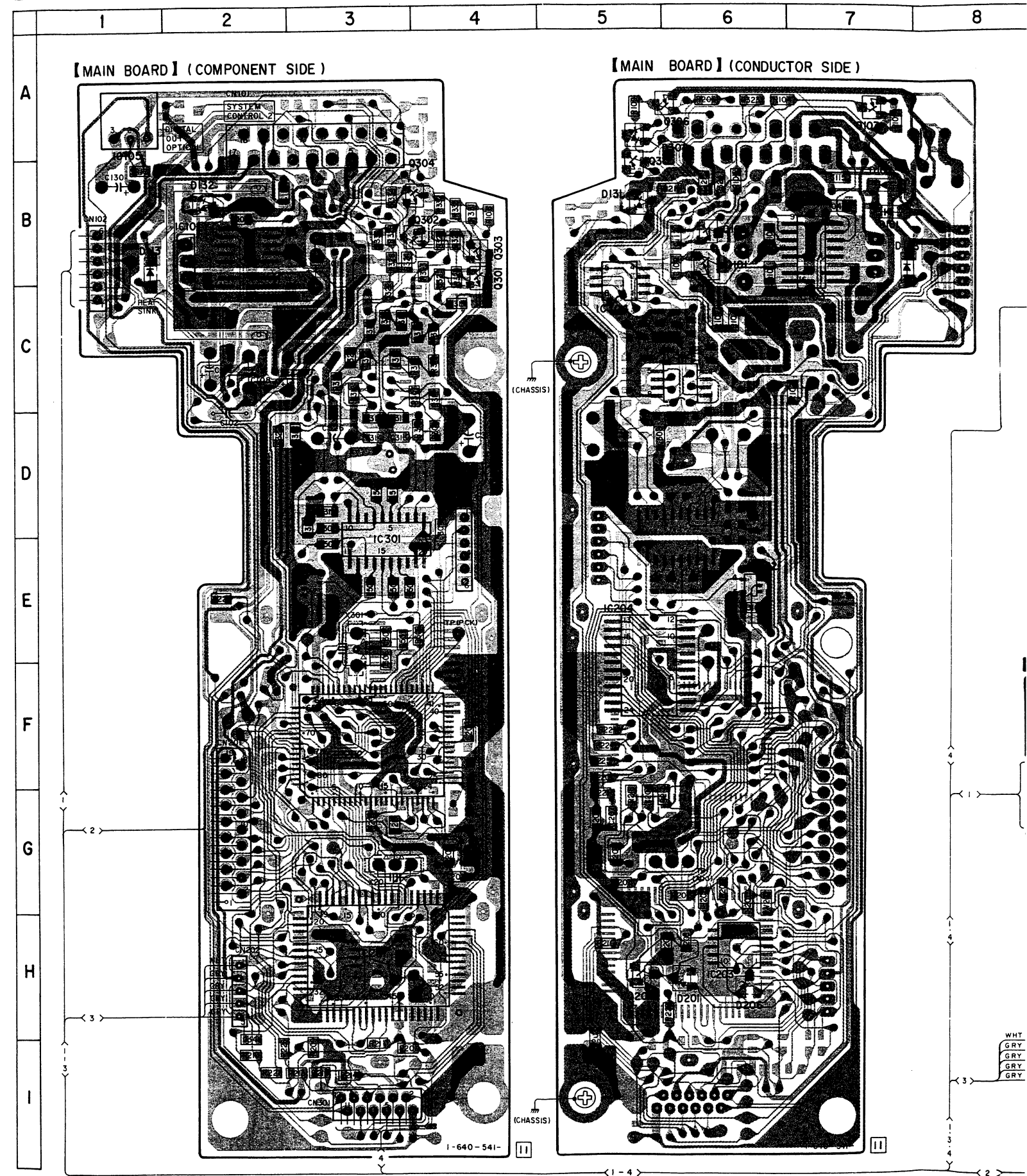
### BD BOARD

Ref. No.	LOCATION
IC101	F-13
IC102	F-14
Q101	F-13

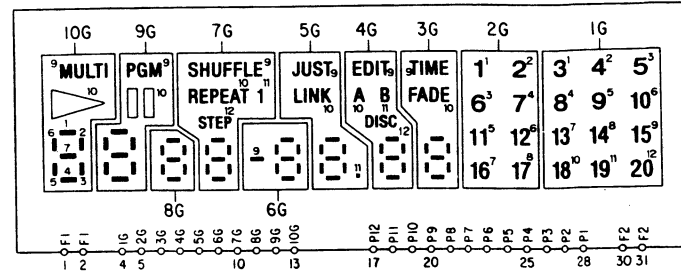
### Note:

- : indicated a lead wire mounted on the component side.
- : indicated a lead wire mounted on the conductor side.
- : Through hole.
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

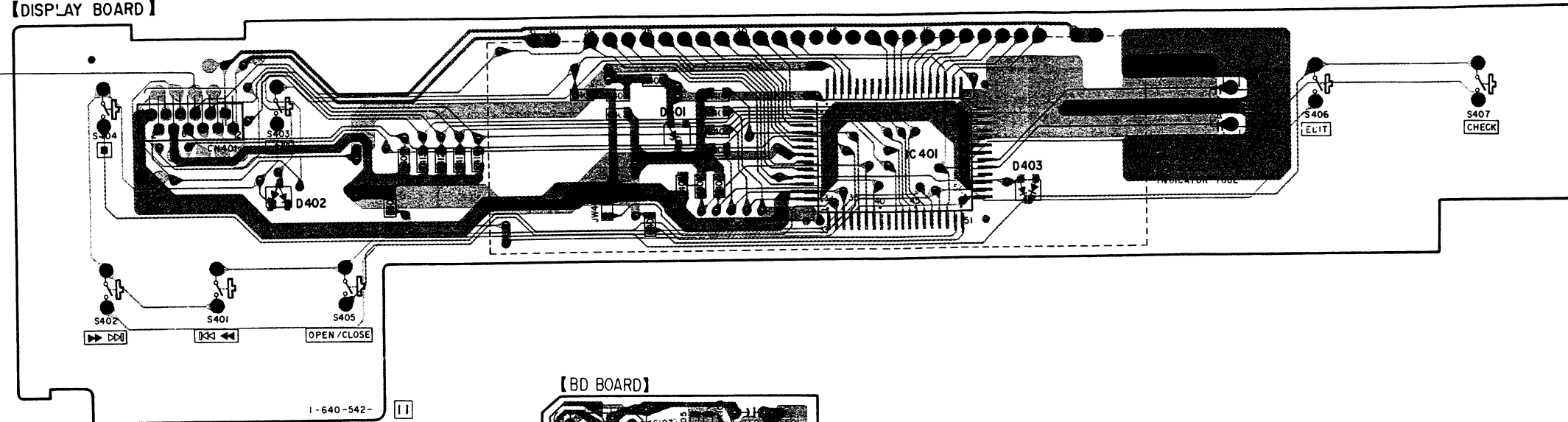
## 2-3. PRINTED WIRING BOARDS



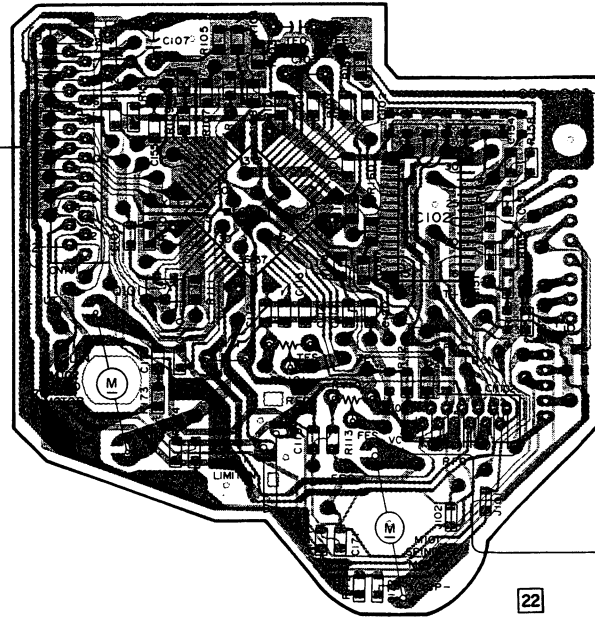
FL401 FLUORESCENT INDICATOR TUBE



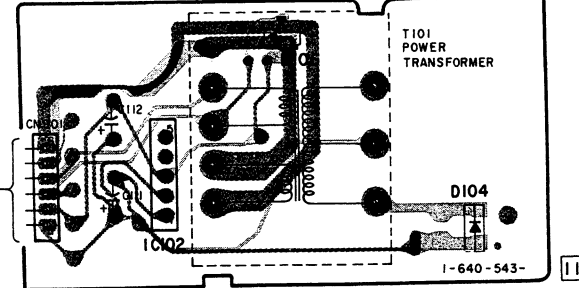
【DISPLAY BOARD】



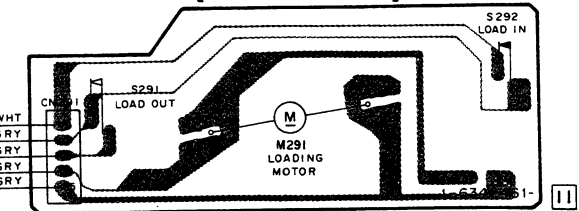
【BD BOARD】



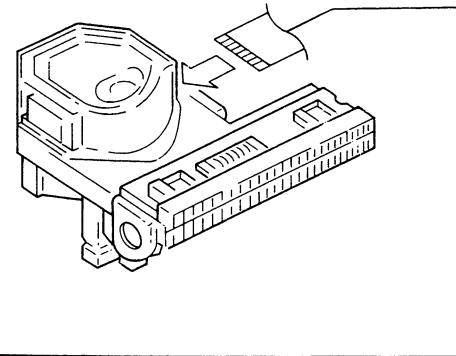
【TRANSFORMER BOARD】



【LOADING BOARD】



OPTICAL PICK-UP BLOCK (KSS-240A)



**Note:**

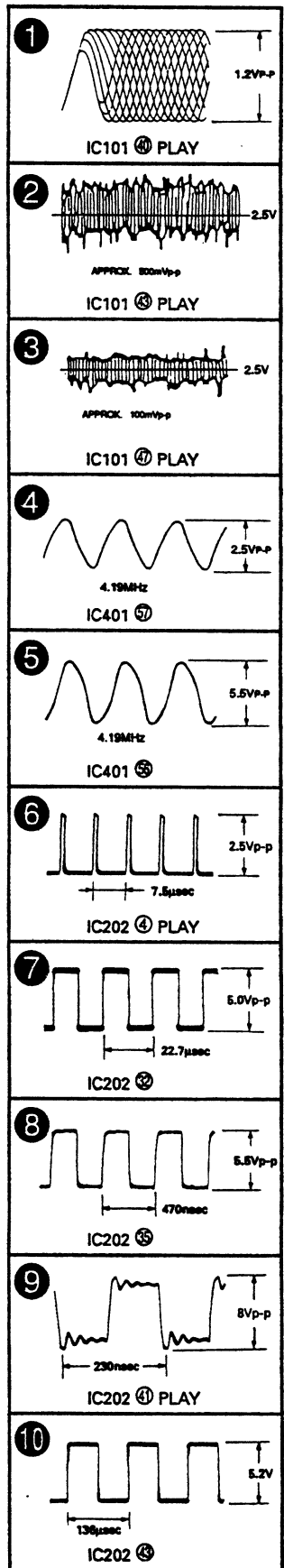
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50VV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4W or less unless otherwise noted.
- $\Delta$  : internal component.

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

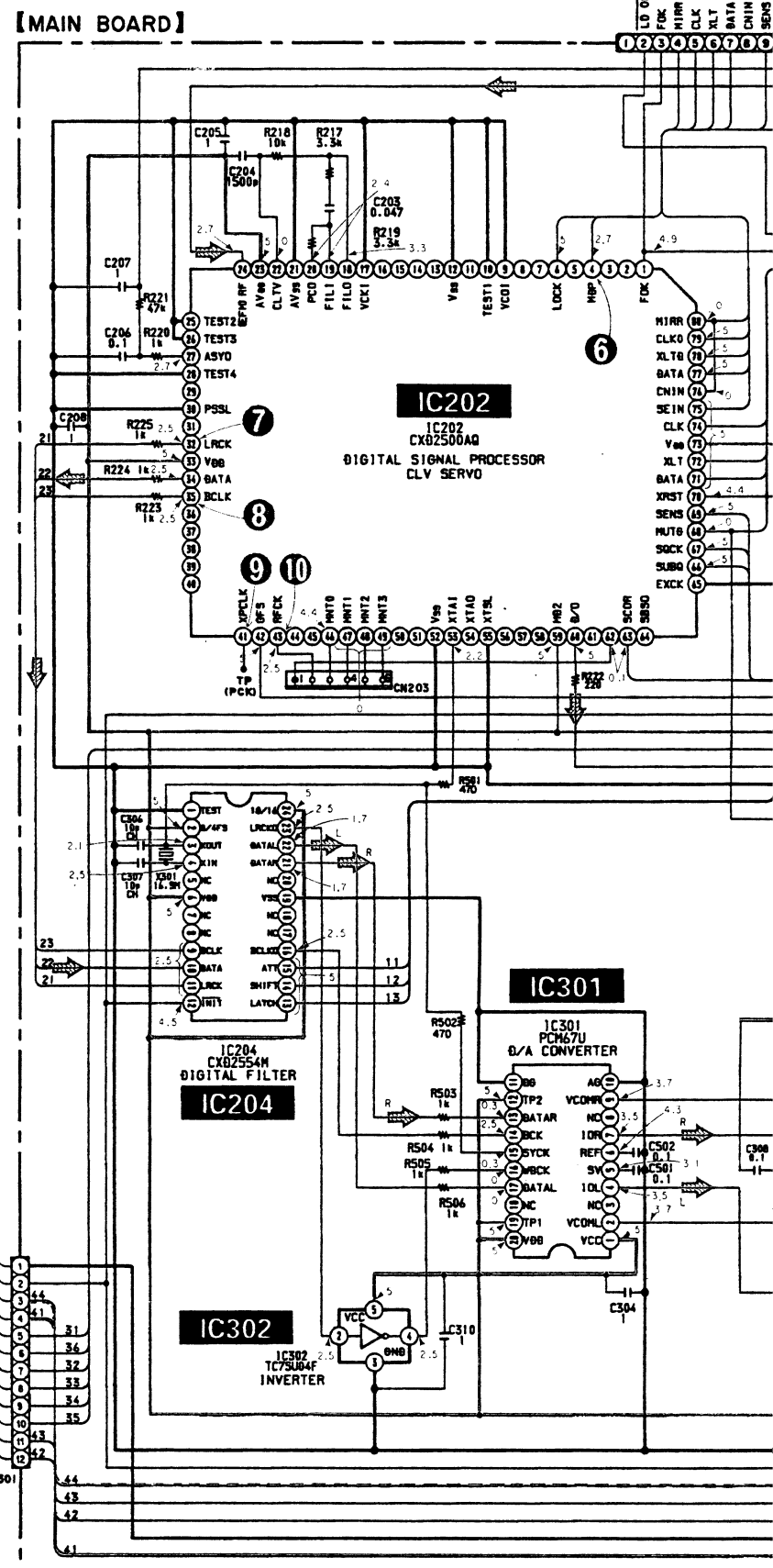
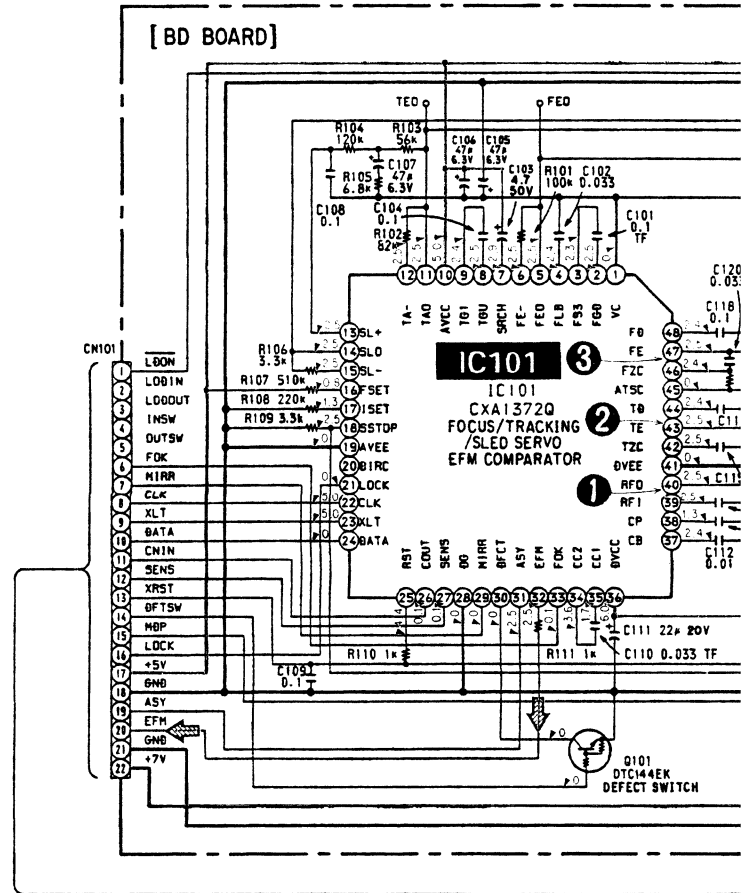
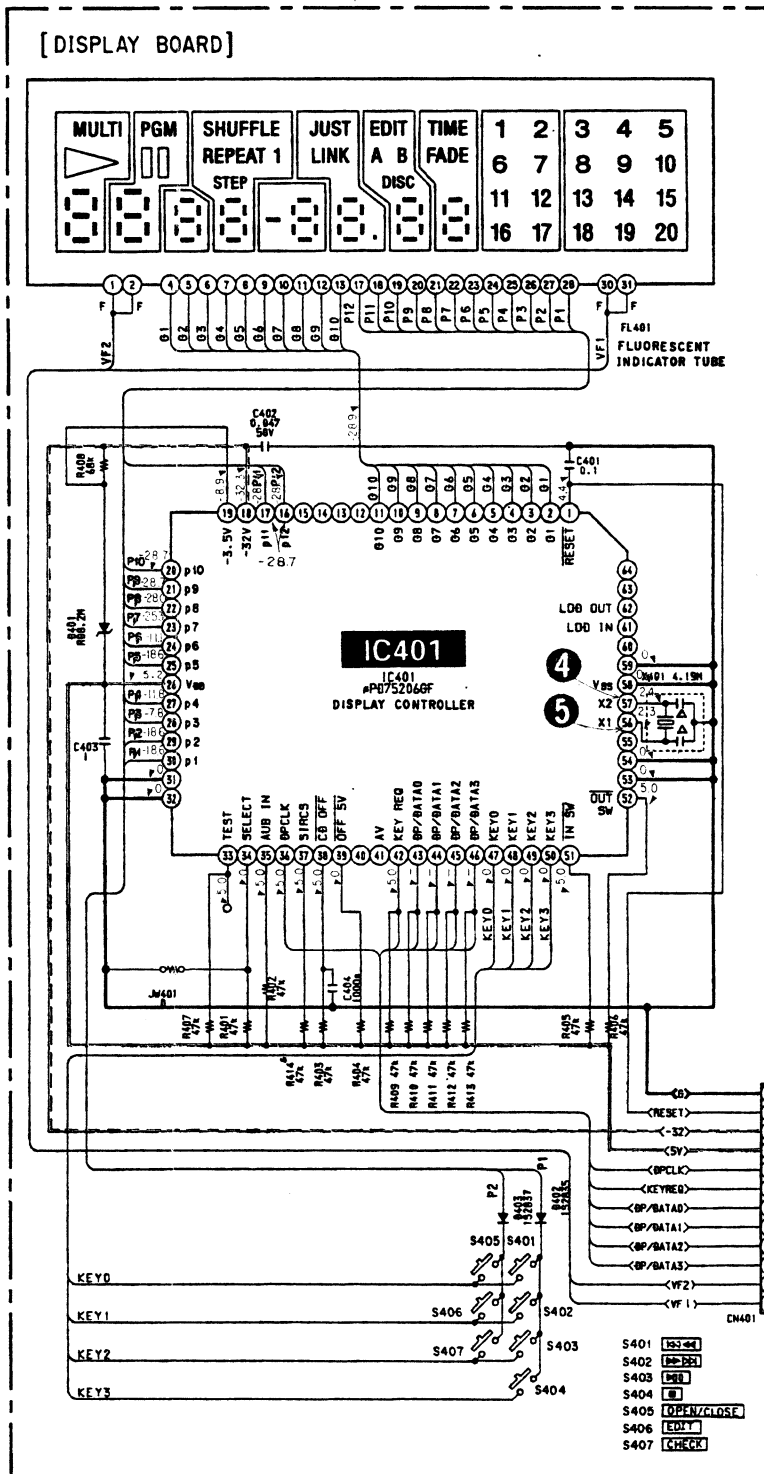
- — : B + Line.
- - - - : B - Line.
- □ : adjustment for repair.
- Voltages are DC between measurement points and ground. no mark : PLAY
- Voltages are taken with a VOM (input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path : CD

2-4. SCHEMATIC DIAGRAM • See page 12 for note.

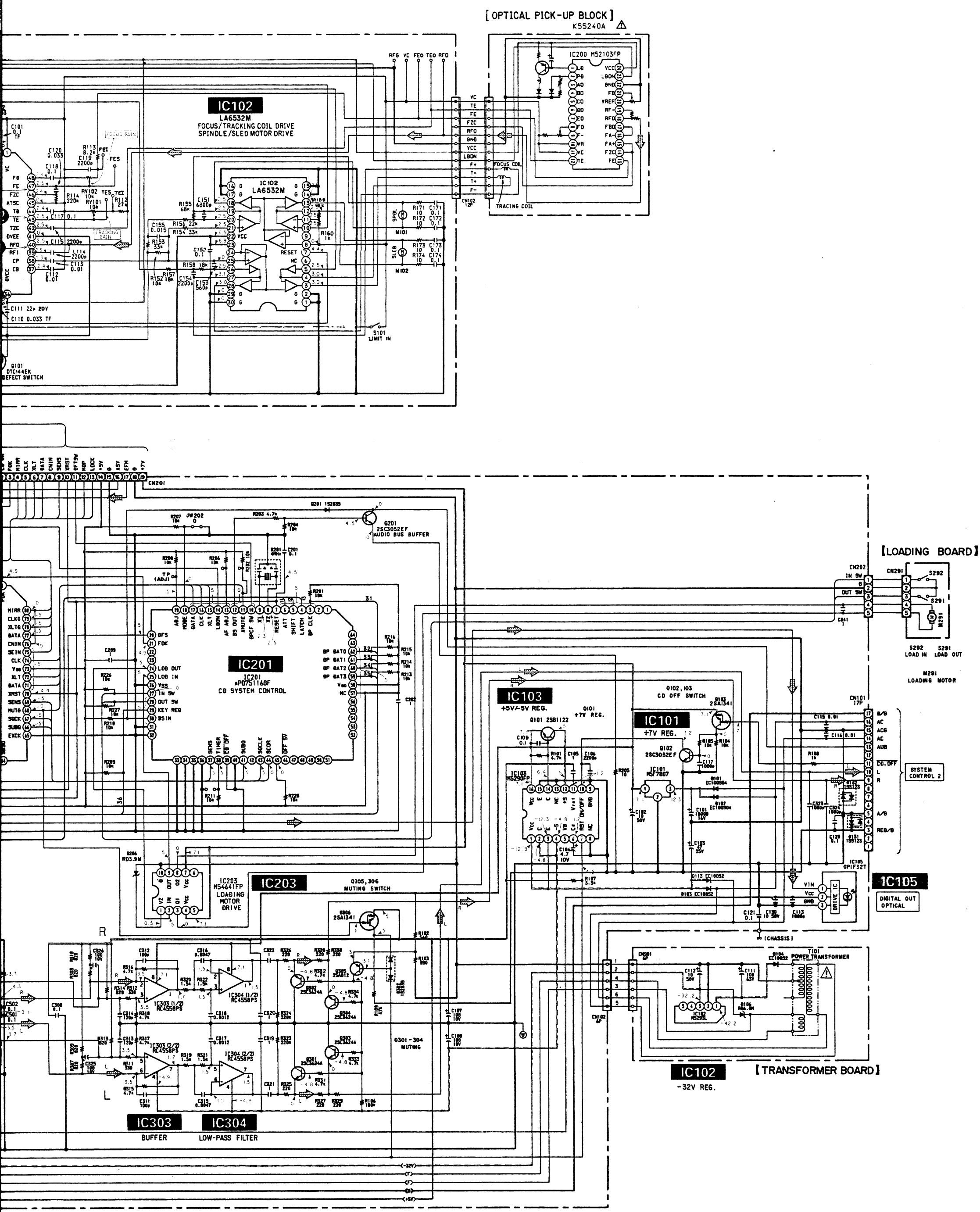
• Waveforms



A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O



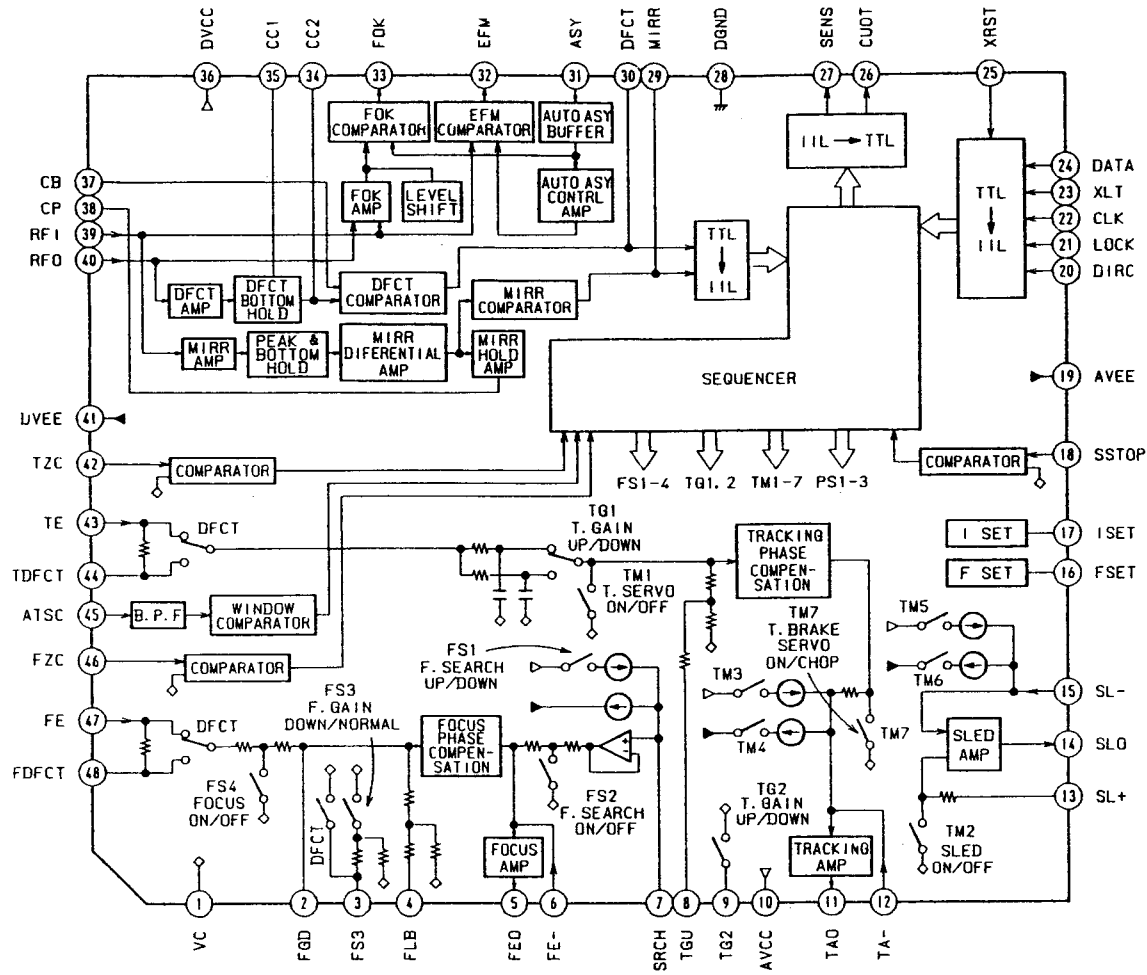
4472 1  
V13727



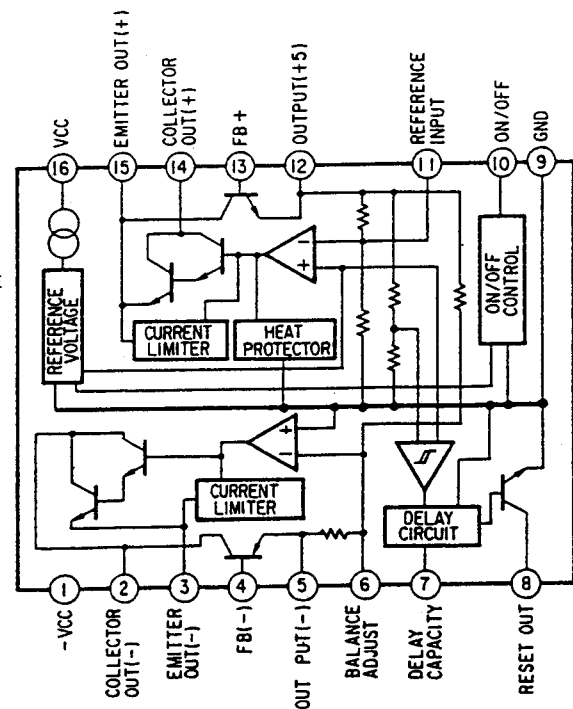


2-5. IC BLOCK DIAGRAMS

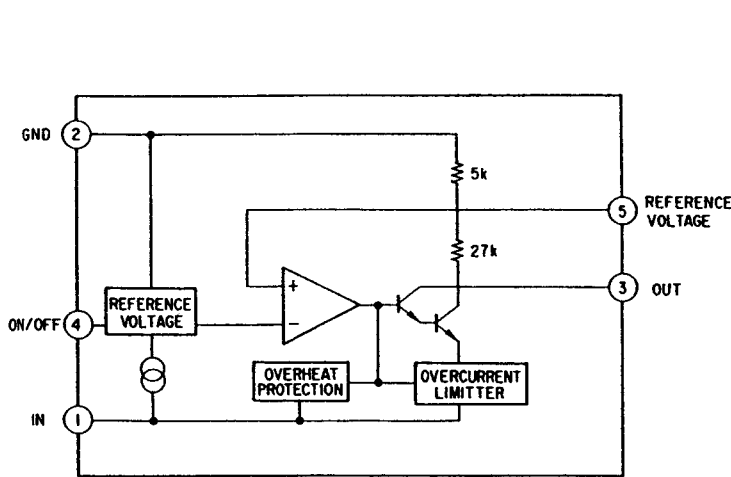
IC101 CXA1372Q



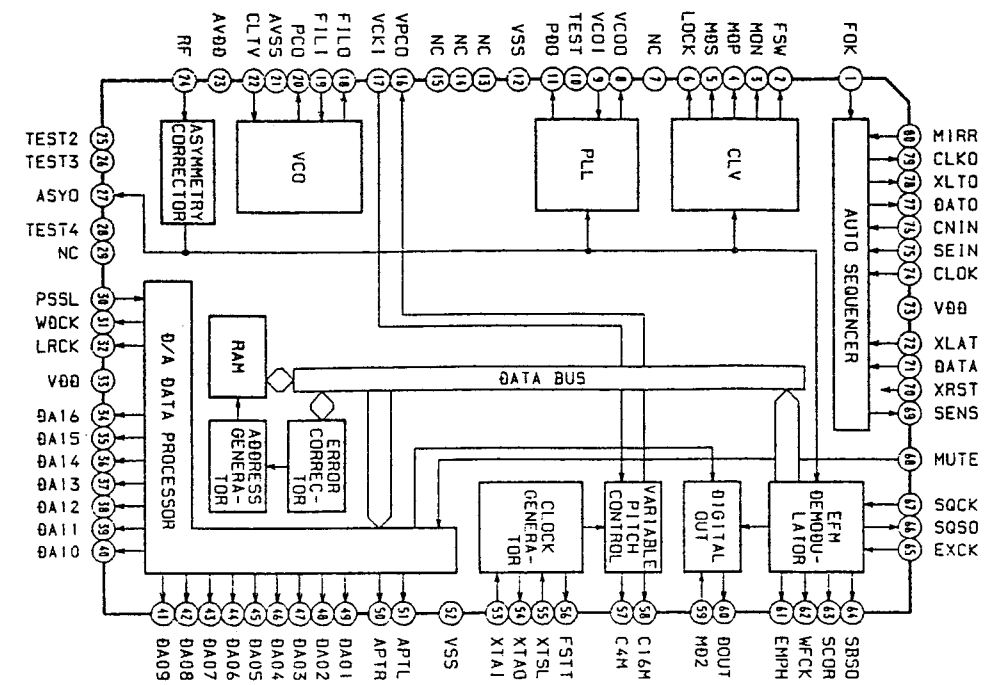
IC103 M5290FP



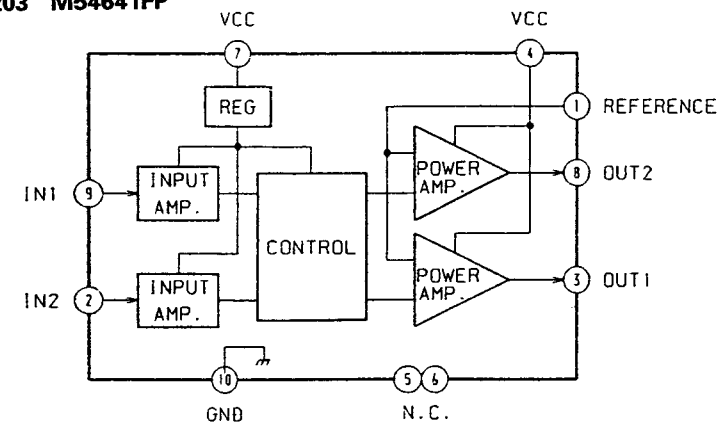
IC102 M5293L



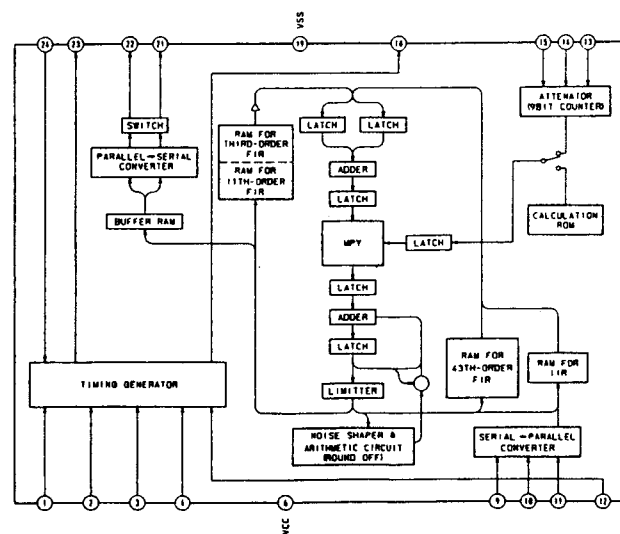
IC202 CXD2500AQ



IC203 M54641FP



IC204 CXD2554M



2-6. PIN

• IC201

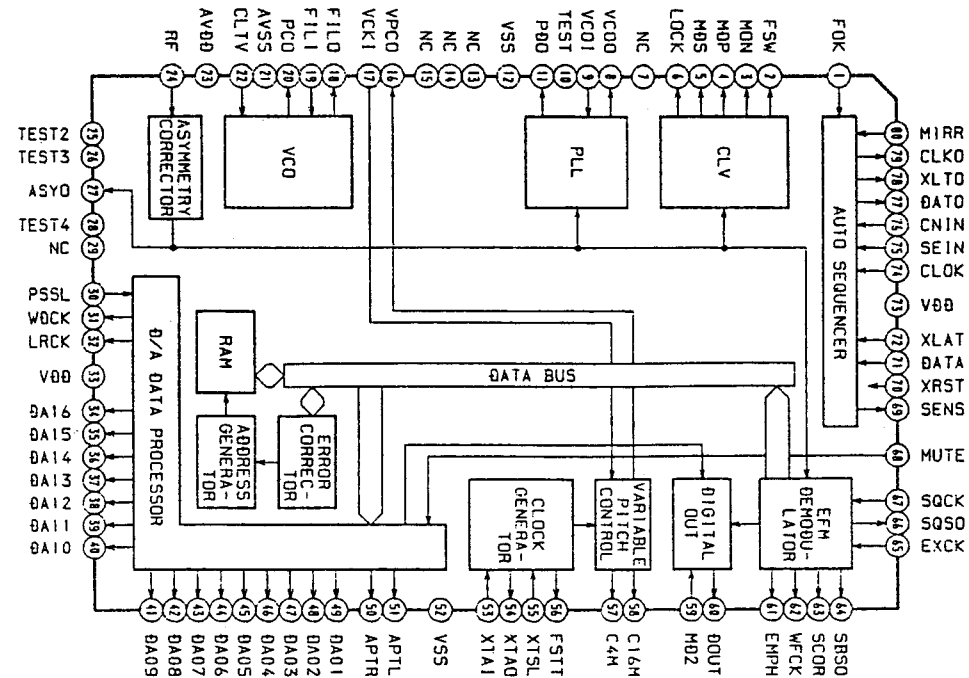
Functions  
CD unit, c

Pin N	Functions
1-2	
3	
4-6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22-2	
24	
25	
26	
27	
28	
29	
30	
31-3	
37	
38	
39	
40	
41	
42	
43	
44	
45-5	
57	
58	
59-6	
63-6	

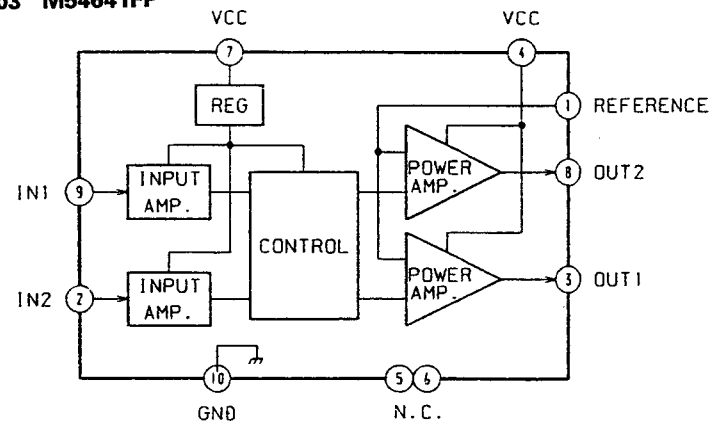
\*1 Load

LODOU  
LODIN

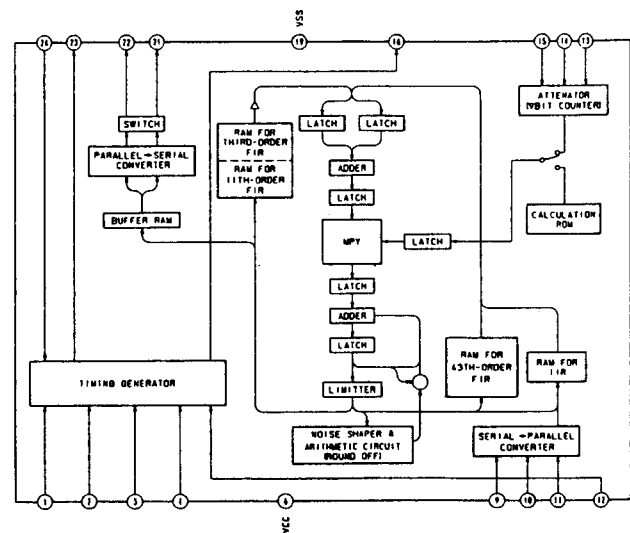
**IC202 CXD2500AQ**



**IC203 M54641FP**



**IC204 CXD2554M**



**2-6. PIN FUNCTIONS OF IC201 AND IC401**

**• IC201 CD System Controller (μPD75116GF-760-3BE)**

Functions effected by the captioned controller include IC101 (RF signal processing, servo), IC202 (DSP, digital filter) and loading control in the CD unit, data exchange with IC401 (display controller), audio bus entry, etc.

Pin No.	Pin Name	I/O	Description
1-2		O	Not in use with the model (open).
3	DPCLK	O	Display data transfer clock output to IC401 (display micon)
4-6		O	IC204 (CXD2554M) control output.
7	RESET	I	System reset input. "L": Reset
8	X2	I	Clock input
9	X1	I	Clock input (4 MHz)
10	DFCT SW	O	DEFECT circuit ON/OFF switching output of IC101 (CXA1372Q). It is turned OFF ("H") to focus-search the DISC flaw detection circuit.
11	AMUTE	O	Muting control output. "H": Mute
12	BSOUT	O	Audio bus output
13	AFADJ	I	Test mode input. Various test operations are effected upon "L" after turning ON the POWER.
14	LDON	O	Optical pickup laser diode ON/OFF switching output. "H": ON
15	XLT	O	Serial data latch output to IC202 (CXD2500AQ)
16	CLK	O	Serial data transfer clock output to IC202 (CXD2500AQ)
17	DATA	O	Serial data output to IC202 (CXD2500AQ)
18	MODE	I	Not in use with the model (GND)
19	ADJ	I	Test mode input. Upon "L," GFS checking is disabled while continuously rotating the spindle no matter whether frame synch is issued during PLAY, PAUSE or SEARCH.
20	GFS	I	GFS signal input from IC202 (CXD2500AQ). "L": NG "H": OK
21	FOK	I	Focus OK signal input from IC101 (CXA1372Q). "H": OK
22-23		O	Not in use with the model (open)
24	LODOUT	O	Output to rotate M291 (loading motor) in the loading out direction. *1
25	LODIN	O	Output to rotate M291 (loading motor) in the loading in direction. *1
26	Vss	-	Power terminal (GND)
27	IN SW	I	S292 (Loading in switch) input
28	OUT SW	I	S291 (Loading out switch) input
29	KEY REQ	I	Key data request input from IC401 (display controller)
30	BS IN	I	Audio bus input
31-36		I	Not in use with the model (GND)
37	SENS	I	SENS input from IC101 (CXA1372Q) and IC202 (CXD2500AQ)
38	TIMER	I	Not in use with the model (pull up)
39	D/F 16BIT	I	IC202 (CXD2500AQ) digital filter mode setting input. It is fixed at 16 bit, 4fs with the model (pull up).
40		I	Not in use with the model (GND)
41	SUBQ	I	Subcode Q data input from IC202 (CXD2500AQ)
42		O	Not in use with the model (open)
43	SQCLK	O	Subcode Q data readout clock output to IC202 (CXD2500AQ)
44	SCOR	I	Subcode sync S0 + S1 detection input from IC202 (CXD2500AQ)
45-56		O	Not in use with the model (open)
57	N.C.	I	Not in use with the model (+5V)
58	VDD	-	Power terminal (+5V)
59-62	DPDATA3-0	I/O	Key data input and display data output with IC401 (display controller)
63-64		O	Not in use with the model (open)

\*1 Loading motor control

	IN	OUT	BRAKE
LODOUT ②	L	H	H
LODIN ②	H	L	H



• IC401 Display controller ( $\mu$ PD75206GF-716-3BE)

In charge of displaying the FL tube and keying in, it exchanges data with the IC201 (CD system controller) in 4-bit parallel mode.

Pin No.	Pin Name	I/O	Description
1	RESET	I	System reset input. "L": Reset
2 - 11	G1-10	O	Digital output to the FL tube
12 - 15		O	Not in use with the model (open)
16, 17	l, k	O	FL tube segment output
18	VLOAD	-	Power supply for the FL tube controller (builtin) (-32V)
19	VPRE	-	Power supply for the FL tube predriver (-3.5V)
20 - 25	j ~ e	O	FL tube segment output
26	V <sub>DD</sub>	-	Power terminal (+5V)
27, 28	d, c	O	FL tube segment output
29, 30	b, a	O	FL tube segment, key scan output
31, 32		I	Not in use with the model (GND)
33	TEST	I	Test mode input. "L": Test mode
34	SELECT	I	Not in use with the model (pull up)
35	BSIN	I	Not in use with the model (pull up)
36	DPCLK	I	Display data transfer clock input from IC201 (CD system controller)
37, 38		I	Not in use with the model (pull up)
39		O	Not in use with the model (pull up)
40, 41		O	Not in use with the model (open)
42	KEY REQ	O	Key data request output to IC201 (CD system controller)
43 - 46	DPDATA0-3	I/O	Key data output and display data input with IC201 (CD system controller)
47 - 50	KEY0-3	I	Key data input
51, 52		I	Not in use with the model (pull up)
53, 54		I	Not in use with the model (GND)
55		O	Not in use with the model (open)
56	X1	I	System clock input (4.19 MHz)
57	X2	I	System clock input
58	V <sub>SS</sub>	-	Power supply terminal (GND)
59		I	Not in use with the model (GND)
60 - 64		O	Not in use with the model (open)

## SECTION 3 EXPLODED VIEWS

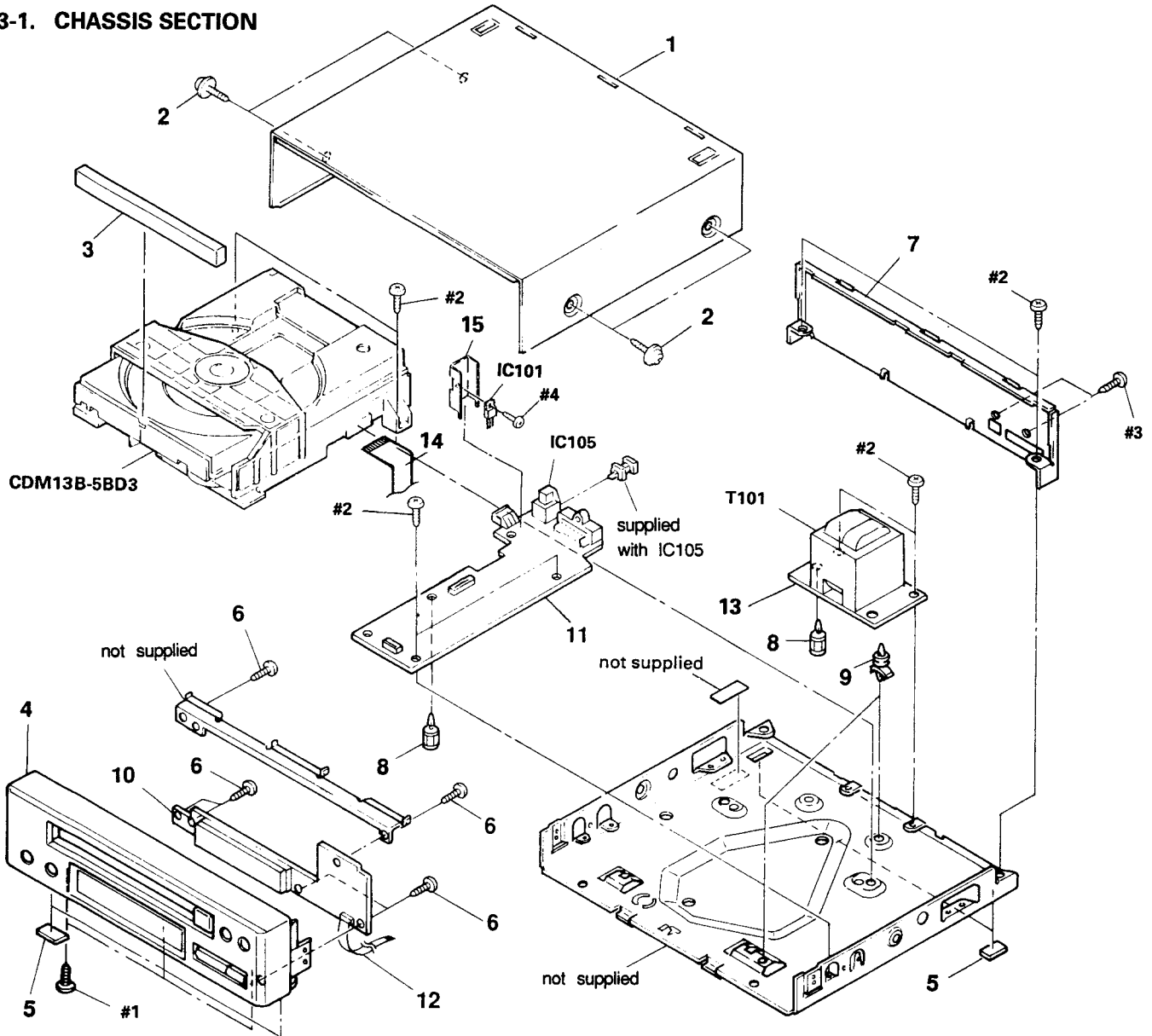
**NOTE:**

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts  
Example:  
KNOB,BALANCE(WHITE)...(RED)  
                  ↑                  ↑  
          Parts color  Cabinet's color

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

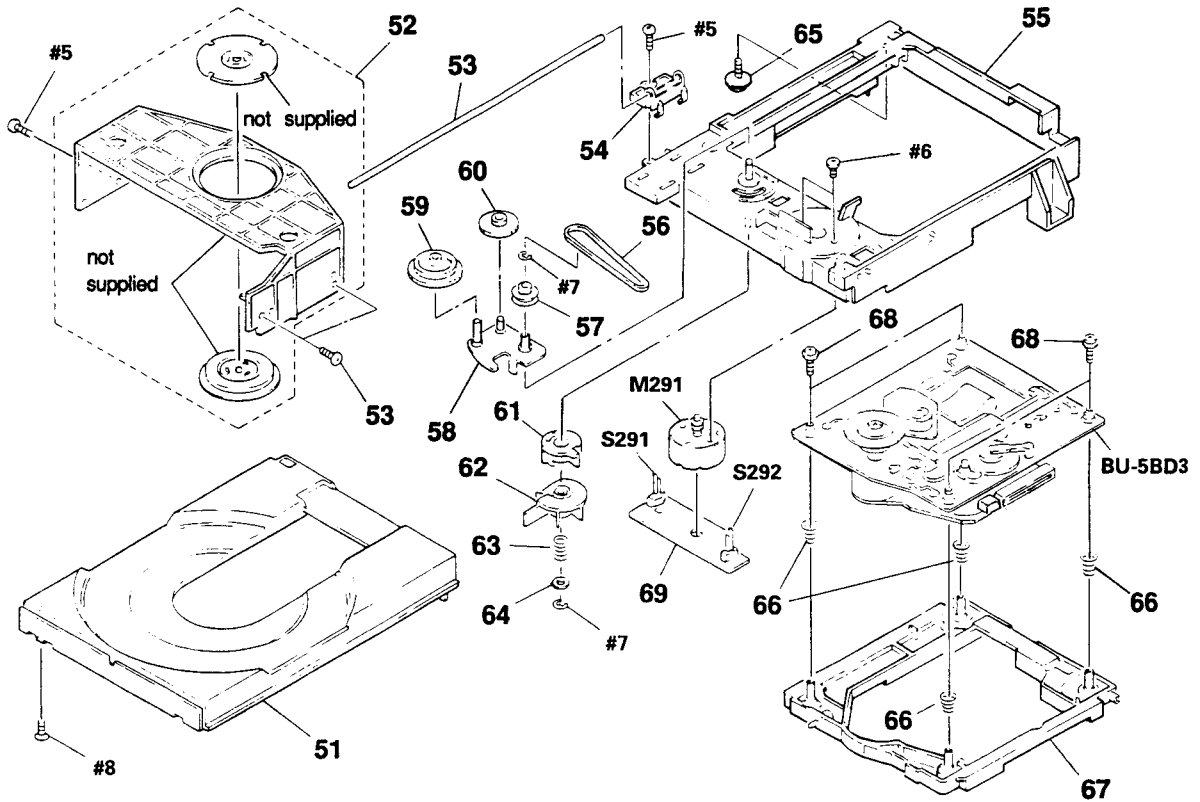
The components identified by mark Δ or dotted line with mark Δ are critical for safety.  
Replace only with part number specified.

### 3-1. CHASSIS SECTION



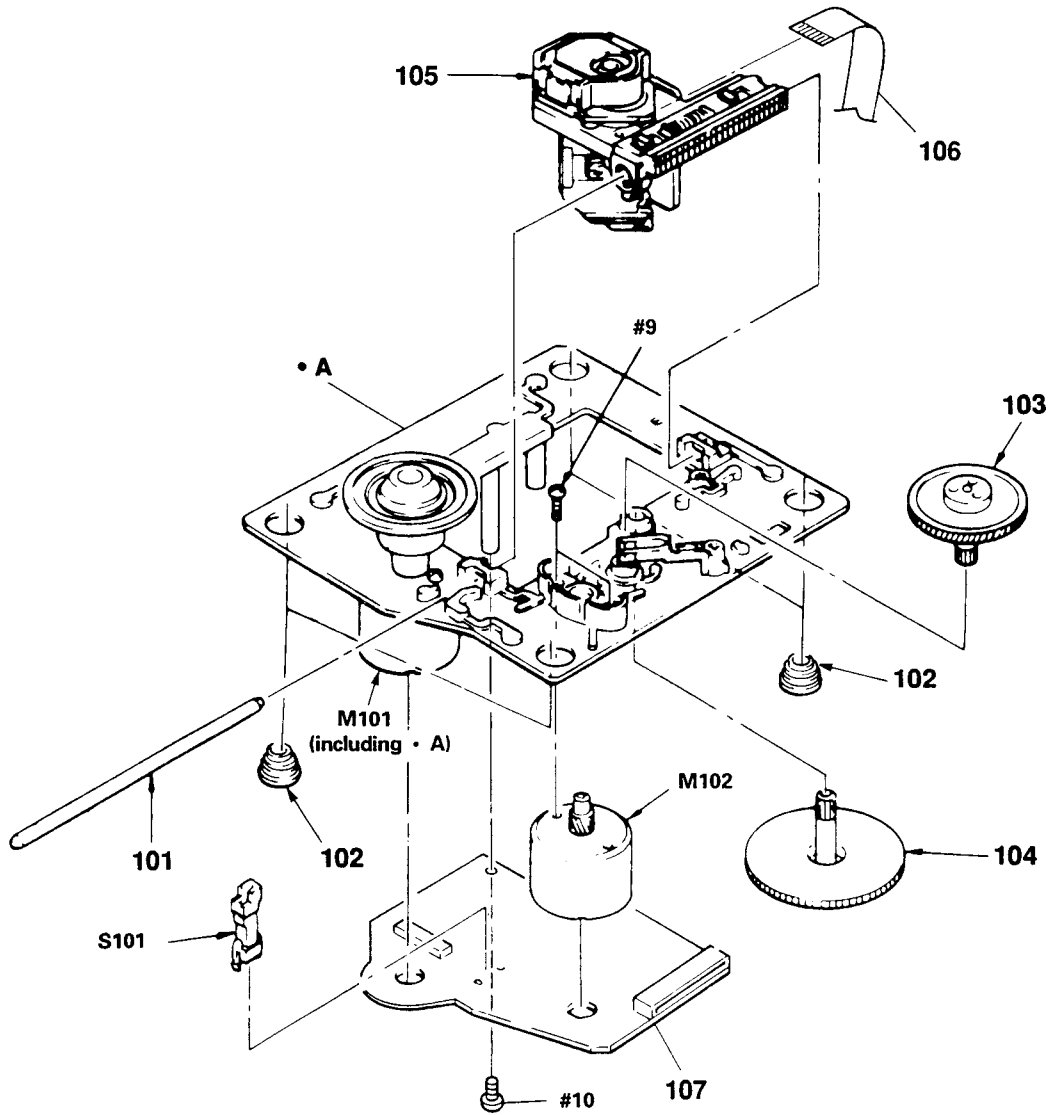
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	* 4-944-423-01	CASE (K206522)		9	* 4-924-098-11	HOLDER, PC BOARD	
2	3-363-099-01	SCREW (CASE +3X8 TP2)		10	* A-4617-966-A	DISPLAY BOARD, COMPLETE	
3	4-944-417-01	PANEL, LOADING		11	* A-4617-963-A	MAIN BOARD, COMPLETE	
4	X-4941-522-1	PANEL ASSY, FRONT		12	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
5	4-930-336-01	FOOT (FELT)		13	* 1-640-543-11	TRANSFORMER BOARD	
6	4-928-635-01	SCREW, +BV (2. 6X8) TAPPING		14	1-535-845-11	JUMPER, FILM (WITH TERMINAL)	
7	* 4-943-175-41	PAENL, BACK		15	* 4-880-403-11	HEAT SINK	
8	* 3-669-610-00	SPACER					

3-2. CD MECHANISM SECTION (CDM13B-5BD3)



Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
51	4-944-012-01	TABLE, DISC		62	4-929-729-01	CAM (B)	
52	A-4604-752-A	HOLDER (MG) ASSY		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)	
56	4-927-649-01	BELT		67	4-929-747-01	HOLDER (BU)	
57	4-929-724-01	PULLEY (B)		68	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
58	X-4929-703-1	ARM ASSY, SWING		69	* 1-634-461-11	LOADING BOARD	
59	4-927-620-11	GEAR (P)		M291	A-4608-362-A	MOTOR (L) ASSY (LOADING)	
60	4-927-628-01	GEAR (C)		S291	1-571-924-11	SWITCH, LEAF (LOAD OUT)	
61	4-929-727-01	CAM (A)		S292	1-571-924-11	SWITCH, LEAF (LOAD IN)	

3-3. OPTICAL PICK-UP BLOCK (BU-5BD3)



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

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

SECTION 4  
ELECTRICAL PARTS LIST

BD

NOTE:

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL : Metal-film resistor  
METAL OXIDE : Metal Oxide-film resistor  
F : nonflammable
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case,  $\mu$  :  $\mu$ , for example :  
 $\mu A...$ :  $\mu A...$ ,  $\mu PA...$ :  $\mu PA...$ ,  
 $\mu PB...$ :  $\mu PB...$ ,  $\mu PC...$ :  $\mu PC...$ ,  
 $\mu PD...$ :  $\mu PD...$
- CAPACITORS  
 $\mu F$  :  $\mu F$
- COILS  
 $\mu H$  :  $\mu H$

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* A-4617-371-A BD BOARD, COMPLETE *****				IC102	8-759-822-36	IC LA6532M ( CHIP JUMPER )	
C101	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	J101	1-216-295-00	METAL CHIP 0 5% 1/10W	
C102	1-163-989-11	CERAMIC CHIP	0.033 $\mu F$ 10% 25V	J102	1-216-295-00	METAL CHIP 0 5% 1/10W	
C103	1-126-163-11	ELECT	4.7 $\mu F$ 20% 50V	( TRANSISTOR )			
C104	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	Q101	8-729-901-01	TRANSISTOR DTC144EK	
C105	1-126-154-11	ELECT	47 $\mu F$ 20% 6.3V	( RESISTOR )			
C106	1-126-154-11	ELECT	47 $\mu F$ 20% 6.3V	R101	1-216-097-00	METAL CHIP 100K 5% 1/10W	
C107	1-126-154-11	ELECT	47 $\mu F$ 20% 6.3V	R102	1-216-095-00	METAL CHIP 82K 5% 1/10W	
C108	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	R103	1-216-091-00	METAL CHIP 56K 5% 1/10W	
C109	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	R104	1-216-099-00	METAL CHIP 120K 5% 1/10W	
C110	1-163-989-11	CERAMIC CHIP	0.033 $\mu F$ 10% 25V	R105	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
C111	1-131-367-00	TANTALUM	22 $\mu F$ 10% 20V	R106	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C112	1-164-232-11	CERAMIC CHIP	0.01 $\mu F$ 50V	R107	1-216-114-00	METAL GLAZE 510K 5% 1/10W	
C113	1-164-232-11	CERAMIC CHIP	0.01 $\mu F$ 50V	R108	1-216-105-00	METAL CHIP 220K 5% 1/10W	
C114	1-164-161-11	CERAMIC CHIP	0.0022 $\mu F$ 10% 100V	R109	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
C115	1-164-161-11	CERAMIC CHIP	0.0022 $\mu F$ 10% 100V	R110	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C117	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	R111	1-216-049-00	METAL CHIP 1K 5% 1/10W	
C118	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	R112	1-216-083-00	METAL CHIP 27K 5% 1/10W	
C119	1-164-161-11	CERAMIC CHIP	0.0022 $\mu F$ 10% 100V	R113	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
C120	1-163-989-11	CERAMIC CHIP	0.033 $\mu F$ 10% 25V	R114	1-216-105-00	METAL CHIP 220K 5% 1/10W	
C151	1-163-019-00	CERAMIC CHIP	0.0068 $\mu F$ 10% 50V	R152	1-216-073-00	METAL CHIP 10K 5% 1/10W	
C152	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 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	0.0022 $\mu F$ 10% 100V	R155	1-216-093-00	METAL CHIP 68K 5% 1/10W	
C155	1-163-023-00	CERAMIC CHIP	0.015 $\mu F$ 5% 50V	R156	1-216-081-00	METAL CHIP 22K 5% 1/10W	
C171	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	R157	1-216-079-00	METAL CHIP 18K 5% 1/10W	
C172	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	R158	1-216-079-00	METAL CHIP 18K 5% 1/10W	
C173	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 25V	R159	1-216-079-00	METAL CHIP 18K 5% 1/10W	
C174	1-163-038-00	CERAMIC CHIP	0.1 $\mu F$ 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	8-752-050-82	IC CXA1372Q					

**BD MAIN DISPLAY TRANSFORMER**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
		( VARIABLE RESISTOR )					
RV101	1-238-016-11	RES, ADJ, CARBON 10K		C312	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
RV102	1-238-016-11	RES, ADJ, CARBON 10K		C313	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
		( SWITCH )		C314	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)		C315	1-136-017-00	CERAMIC CHIP 0.0047uF	50V
		*****		C316	1-136-017-00	CERAMIC CHIP 0.0047uF	50V
		* A-4617-963-A MAIN BOARD, COMPLETE					
		*****					
		* A-4617-966-A DISPLAY BOARD, COMPLETE					
		*****					
		* 1-640-543-11 TRANSFORMER BOARD					
		*****					
		* 1-560-242-21 BUS BAR 4P					
		* 4-932-810-11 CUSHION (FL)					
		( CAPACITOR )					
C101	1-126-939-11	ELECT 10000uF	20% 16V	C317	1-163-143-00	CERAMIC CHIP 0.0012uF	5% 50V
C102	1-124-907-11	ELECT 10uF	20% 50V	C318	1-163-143-00	CERAMIC CHIP 0.0012uF	5% 50V
C103	1-124-477-11	ELECT 47uF	20% 25V	C319	1-164-346-11	CERAMIC CHIP 1uF	16V
C104	1-135-155-21	TANTALUM CHIP 4.7uF	10% 10V	C320	1-164-346-11	CERAMIC CHIP 1uF	16V
C105	1-164-346-11	CERAMIC CHIP 1uF	16V	C321	1-164-346-11	CERAMIC CHIP 1uF	16V
C106	1-164-695-11	CERAMIC CHIP 0.0022uF	5% 50V	C322	1-164-346-11	CERAMIC CHIP 1uF	16V
C107	1-124-443-00	ELECT 100uF	20% 10V	C323	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C108	1-124-443-00	ELECT 100uF	20% 10V	C324	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V
C109	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C325	1-124-443-00	ELECT 100uF	20% 10V
C111	1-126-063-11	ELECT 100uF	20% 63V	C326	1-124-443-00	ELECT 100uF	20% 10V
C112	1-124-907-11	ELECT 10uF	20% 50V	C341	1-164-346-11	CERAMIC CHIP 1uF	16V
C113	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V	C401	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C115	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C402	1-163-035-00	CERAMIC CHIP 0.047uF	50V
C116	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C403	1-164-346-11	CERAMIC CHIP 1uF	16V
C117	1-163-141-00	CERAMIC CHIP 0.001uF	5% 50V	C404	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
C120	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C501	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C121	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C502	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C130	1-124-907-11	ELECT 10uF	20% 50V			( CONNECTOR )	
C201	1-163-038-00	CERAMIC CHIP 0.1uF	25V	CN101	* 1-569-624-11	SOCKET, CONNECTOR 17P	
C202	1-164-346-11	CERAMIC CHIP 1uF	16V	CN102	1-568-662-11	CONNECTOR, BOARD TO BOARD 6P	
C203	1-163-035-00	CERAMIC CHIP 0.047uF	50V	CN201	1-568-802-11	SOCKET, CONNECTOR 19P	
C204	1-163-145-00	CERAMIC CHIP 0.0015uF	5% 50V	CN202	* 1-564-339-00	PIN, CONNECTOR 5P	
C205	1-164-346-11	CERAMIC CHIP 1uF	16V	CN203	* 1-564-340-00	PIN, CONNECTOR 6P	
C206	1-163-038-00	CERAMIC CHIP 0.1uF	25V	CN301	* 1-573-099-11	HOUSING, CONNECTOR 12P	
C207	1-164-346-11	CERAMIC CHIP 1uF	16V	CN401	* 1-573-098-11	HOUSING, CONNECTOR 12P	
C208	1-164-346-11	CERAMIC CHIP 1uF	16V	CN901	1-568-668-11	CONNECTOR, BOARD TO BOARD 6P	
C209	1-164-346-11	CERAMIC CHIP 1uF	16V			( DIODE )	
C304	1-164-346-11	CERAMIC CHIP 1uF	16V	D101	8-719-210-39	DIODE EC100S-04	
C306	1-163-227-11	CERAMIC CHIP 10PF	5% 50V	D102	8-719-210-39	DIODE EC100S-04	
C307	1-163-227-11	CERAMIC CHIP 10PF	5% 50V	D103	8-719-210-33	DIODE EC10DS2	
C308	1-163-038-00	CERAMIC CHIP 0.1uF	25V	D104	8-719-210-33	DIODE EC10DS2	
C310	1-164-346-11	CERAMIC CHIP 1uF	16V	D106	8-719-106-17	DIODE RD6.8M-B2	
C311	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	D113	8-719-210-33	DIODE EC10DS2	
				D131	8-719-800-76	DIODE 1SS226	
				D132	8-719-800-76	DIODE 1SS226	
				D201	8-719-400-18	DIODE MA152WK	
				D206	8-719-105-58	DIODE RD3.9M-B2	
				D302	8-719-104-34	DIODE 1S2836	
				D401	8-719-106-36	DIODE RD8.2M-B3	
				D402	8-719-104-34	DIODE 1S2836	
				D403	8-719-400-18	DIODE MA152WK	
						( INDICATOR )	
				FL401	1-519-652-11	INDICATOR TUBE, FLUORESCENT	

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

**MAIN DISPLAY TRANSFORMER**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
( IC )							
IC101	8-759-604-86	IC M5F7807L		R213	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC102	8-759-633-42	IC M5293L		R214	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC103	8-759-636-24	IC M5290FP		R215	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC105	8-749-921-12	IC GP1F32T		R216	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC201	8-759-153-16	IC uPD75116GF-760-3BE		R217	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
IC202	8-752-337-26	IC CXD2500AQ		R218	1-216-073-00	METAL CHIP 10K 5%	1/10W
IC203	8-759-636-20	IC M54641FP		R219	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
IC204	8-752-337-10	IC CXD2554M		R220	1-216-049-00	METAL CHIP 1K 5%	1/10W
IC301	8-759-506-63	IC PCM67U		R221	1-216-089-00	METAL CHIP 47K 5%	1/10W
IC302	8-759-243-19	IC TC7SU04F		R222	1-216-033-00	METAL CHIP 220 5%	1/10W
IC303	8-759-981-95	IC RC4558PS		R223	1-216-049-00	METAL CHIP 1K 5%	1/10W
IC304	8-759-981-95	IC RC4558PS		R224	1-216-049-00	METAL CHIP 1K 5%	1/10W
IC401	8-759-154-14	IC uPD75206GF-716-3BE		R225	1-216-049-00	METAL CHIP 1K 5%	1/10W
( CHIP JUMPER )							
JW202	1-216-295-00	METAL CHIP 0 5%	1/10W	R226	1-216-073-00	METAL CHIP 10K 5%	1/10W
JW401	1-216-295-00	METAL CHIP 0 5%	1/10W	R227	1-216-073-00	METAL CHIP 10K 5%	1/10W
( TRANSISTOR )							
Q101	8-729-804-41	TRANSISTOR 2SB1122-S		R228	1-216-073-00	METAL CHIP 10K 5%	1/10W
Q102	8-729-620-06	TRANSISTOR 2SC3052-EF		R307	1-216-047-00	METAL CHIP 820 5%	1/10W
Q103	8-729-805-69	TRANSISTOR 2SA1341		R308	1-216-047-00	METAL CHIP 820 5%	1/10W
Q201	8-729-620-06	TRANSISTOR 2SC3052-EF		R309	1-216-047-00	METAL CHIP 820 5%	1/10W
Q301	8-729-107-46	TRANSISTOR 2SC3624A-L15		R310	1-216-047-00	METAL CHIP 820 5%	1/10W
Q302	8-729-107-46	TRANSISTOR 2SC3624A-L15		R311	1-216-037-00	METAL CHIP 330 5%	1/10W
Q303	8-729-107-46	TRANSISTOR 2SC3624A-L15		R312	1-216-037-00	METAL CHIP 330 5%	1/10W
Q304	8-729-107-46	TRANSISTOR 2SC3624A-L15		R313	1-216-047-00	METAL CHIP 820 5%	1/10W
Q305	8-729-216-22	TRANSISTOR 2SA1162-G		R314	1-216-047-00	METAL CHIP 820 5%	1/10W
Q306	8-729-805-69	TRANSISTOR 2SA1341		R315	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
( RESISTOR )							
R101	1-216-065-00	METAL CHIP 4.7K 5%	1/10W	R316	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R102	1-216-043-00	METAL CHIP 560 5%	1/10W	R317	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R103	1-216-039-00	METAL CHIP 390 5%	1/10W	R318	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R104	1-216-073-00	METAL CHIP 10K 5%	1/10W	R319	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R105	1-216-073-00	METAL CHIP 10K 5%	1/10W	R320	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R106	1-216-097-00	METAL CHIP 100K 5%	1/10W	R321	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R107	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	R322	1-216-053-00	METAL CHIP 1.5K 5%	1/10W
R108	1-216-049-00	METAL CHIP 1K 5%	1/10W	R323	1-216-105-00	METAL CHIP 220K 5%	1/10W
R109	1-216-089-00	METAL CHIP 47K 5%	1/10W	R324	1-216-105-00	METAL CHIP 220K 5%	1/10W
R201	1-216-073-00	METAL CHIP 10K 5%	1/10W	R325	1-216-033-00	METAL CHIP 220 5%	1/10W
R202	1-216-073-00	METAL CHIP 10K 5%	1/10W	R326	1-216-033-00	METAL CHIP 220 5%	1/10W
R203	1-216-065-00	METAL CHIP 4.7K 5%	1/10W	R327	1-216-033-00	METAL CHIP 220 5%	1/10W
R204	1-216-073-00	METAL CHIP 10K 5%	1/10W	R328	1-216-033-00	METAL CHIP 220 5%	1/10W
R205	1-216-001-00	METAL CHIP 10 5%	1/10W	R329	1-216-033-00	METAL CHIP 220 5%	1/10W
R206	1-216-073-00	METAL CHIP 10K 5%	1/10W	R330	1-216-033-00	METAL CHIP 220 5%	1/10W
R207	1-216-073-00	METAL CHIP 10K 5%	1/10W	R331	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R208	1-216-073-00	METAL CHIP 10K 5%	1/10W	R332	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R209	1-216-073-00	METAL CHIP 10K 5%	1/10W	R333	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R210	1-216-073-00	METAL CHIP 10K 5%	1/10W	R334	1-216-065-00	METAL CHIP 4.7K 5%	1/10W
R211	1-216-073-00	METAL CHIP 10K 5%	1/10W	R401	1-216-089-00	METAL CHIP 47K 5%	1/10W
				R402	1-216-089-00	METAL CHIP 47K 5%	1/10W
				R403	1-216-089-00	METAL CHIP 47K 5%	1/10W
				R404	1-216-089-00	METAL CHIP 47K 5%	1/10W
				R405	1-216-089-00	METAL CHIP 47K 5%	1/10W
				R406	1-216-089-00	METAL CHIP 47K 5%	1/10W
				R407	1-216-089-00	METAL CHIP 47K 5%	1/10W
				R408	1-216-093-00	METAL CHIP 68K 5%	1/10W

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

**MAIN**

**DISPLAY**

**TRANSFORMER**

**LOADING**

Ref. No.	Part No.	Description	Remarks
R409	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R410	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R411	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R412	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R413	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R414	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R501	1-216-041-00	METAL CHIP 470 5% 1/10W	
R502	1-216-041-00	METAL CHIP 470 5% 1/10W	
R503	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R504	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R505	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R506	1-216-049-00	METAL CHIP 1K 5% 1/10W	
( SWITCH )			
S401	1-572-184-11	SWITCH, KEYBOARD ( ⏪ ⏩ )	
S402	1-572-184-11	SWITCH, KEYBOARD ( ⏴ ⏵ )	
S403	1-572-184-11	SWITCH, KEYBOARD ( ⏴ )	
S404	1-572-184-11	SWITCH, KEYBOARD ( ■ )	
S405	1-572-184-11	SWITCH, KEYBOARD ( OPEN/CLOSE )	
S406	1-572-184-11	SWITCH, KEYBOARD ( EDIT )	
S407	1-572-184-11	SWITCH, KEYBOARD ( CHECK )	
( TRANSFORMER )			
T101	△ 1-450-704-11	TRANSFORMER, POWER	
( VIBRATOR )			
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	
X301	1-567-908-11	VIBRATOR, CRYSTAL (16.9MHz)	
X401	1-577-359-21	VIBRATOR, CERAMIC (4.19MHz)	
*****			
	* 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	Remarks
MISCELLANEOUS *****			
12	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
14	1-535-845-11	JUMPER, FILM (WITH TERMINAL)	
105	△ 8-848-144-11	DEVICE, OPTICAL KSS-240A	
106	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
M101	X-4917-523-3	ASSY, MOTOR (SPINDLE)	
M102	X-4917-504-1	ASSY, MOTOR (SLED)	
M291	A-4608-362-A	MOTOR (L) ASSY (LOADING)	
*****			
ACCESSORIES & PACKING MATERIALS *****			
	4-920-941-01	SHEET (B), PROTECTION	
	* 4-945-079-01	CUSHION	
	* 4-941-548-01	LABEL, CLASS 1	
*****			
HARDWARE LIST			
# 1	7-682-547-09	SCREW +BVTT 3X6 (S)	
# 2	7-682-547-04	SCREW +BVTT 3X6 (S)	
# 3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
# 4	7-682-548-04	SCREW +BVTT 3X8 (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	
#10	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	

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

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



# CDP-H3600

**SONY**  
**SERVICE MANUAL**

*AEP Model*  
*UK Model*

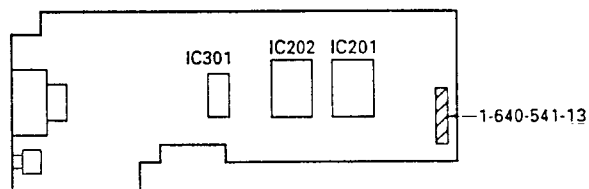
## SUPPLEMENT-2

File this Supplement with the Service Manual.

**Subject : The main board of C type has been change.**

Note for discrimination :

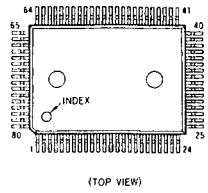
You can discriminate either type according to the silk printing and mounted parts on the main board.



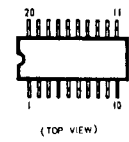
# SECTION 1 DIAGRAMS

## 1-1. SEMICONDUCTOR LEAD LAYOUTS

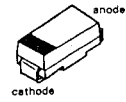
**CXD2500BQ**



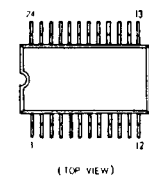
**PCM67U**



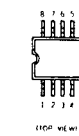
**EC10DS2  
EC10QS-04**



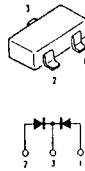
**CXD2554M**



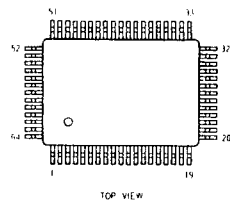
**RC4558PS**



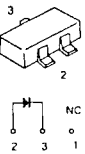
**MA152WK**



**μPD75116GF-F21-3BE**



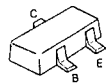
**UZM3.9X**



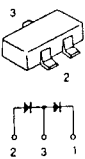
**M5F78M07L**



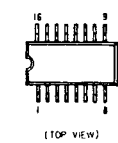
**DTA144EK  
2SA1162-G  
2SC1623-L5L6**



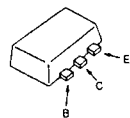
**1S226**



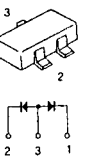
**M5290FP**



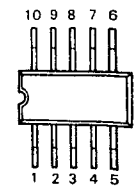
**2SB1122-S**



**1S2836**



**M54641FP**



1-2. PRINTED WIRING BOARD

• See page 2 for Semiconductor Lead Layouts.

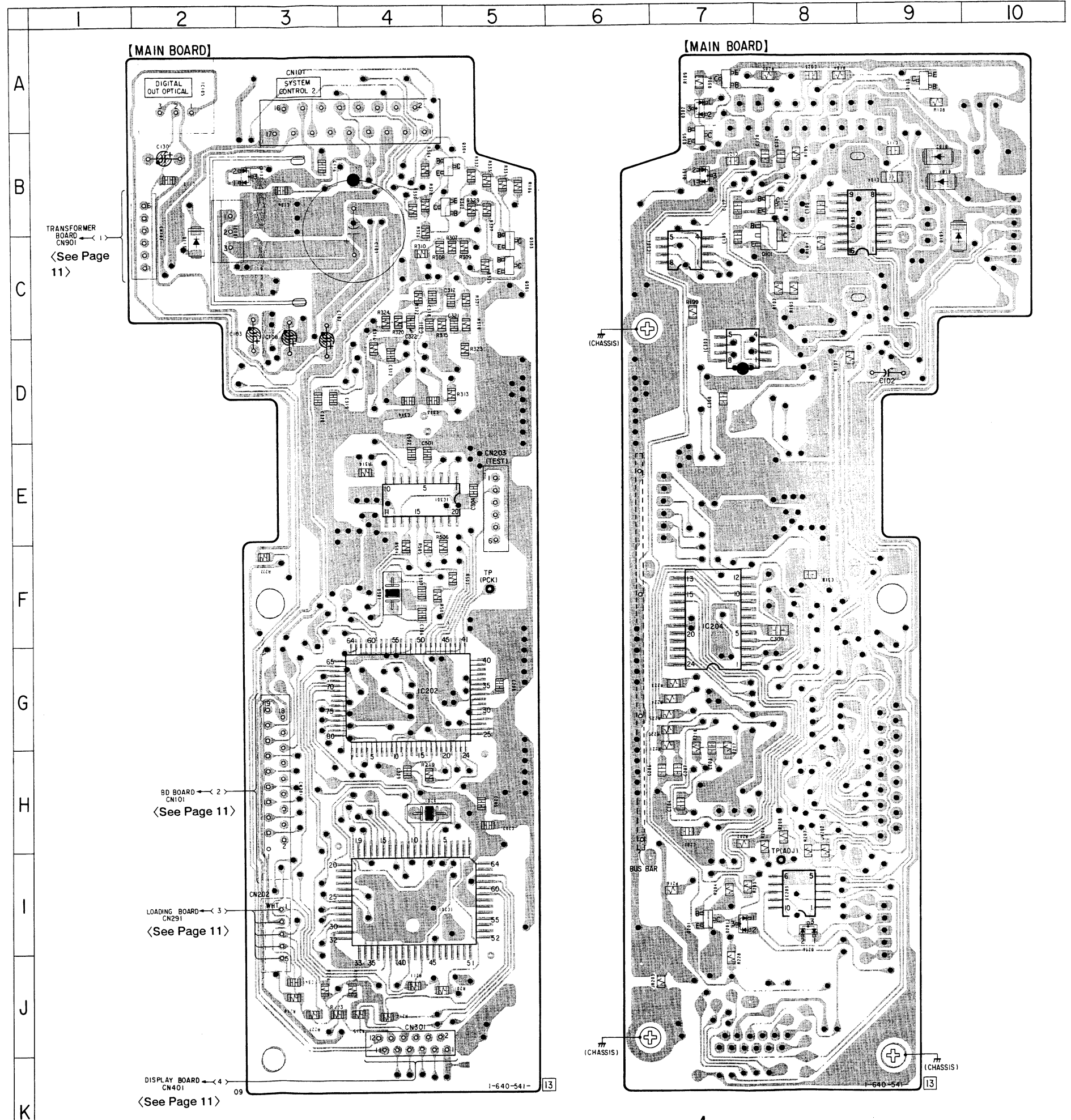
< > : The pages above correspond to CDP-H3600 SUPPLEMENT-1.

• SEMICONDUCTOR LOCATION

Ref. No.	Location
D101	B-9
D102	B-9
D103	C-9
D113	C-2
D131	B-7
D132	B-3
D201	I-7
D206	J-8
D302	A-7
IC101	B-2
IC103	B-8
IC105	A-2
IC201	I-4
IC202	G-4
IC203	I-8
IC204	F-7
IC301	E-4
IC303	D-7
IC304	C-6
Q101	C-8
Q102	B-8
Q103	A-9
Q201	I-7
Q301	C-5
Q302	B-5
Q303	C-5
Q304	B-5
Q305	B-7
Q306	A-7

Note :

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





1

2

3

4

5

6

7

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9

10

11

12

13

14

15

16

(See Page 14)

BD BOARD  
CN101

**[MAIN BOARD]**



A

B

C

D

E

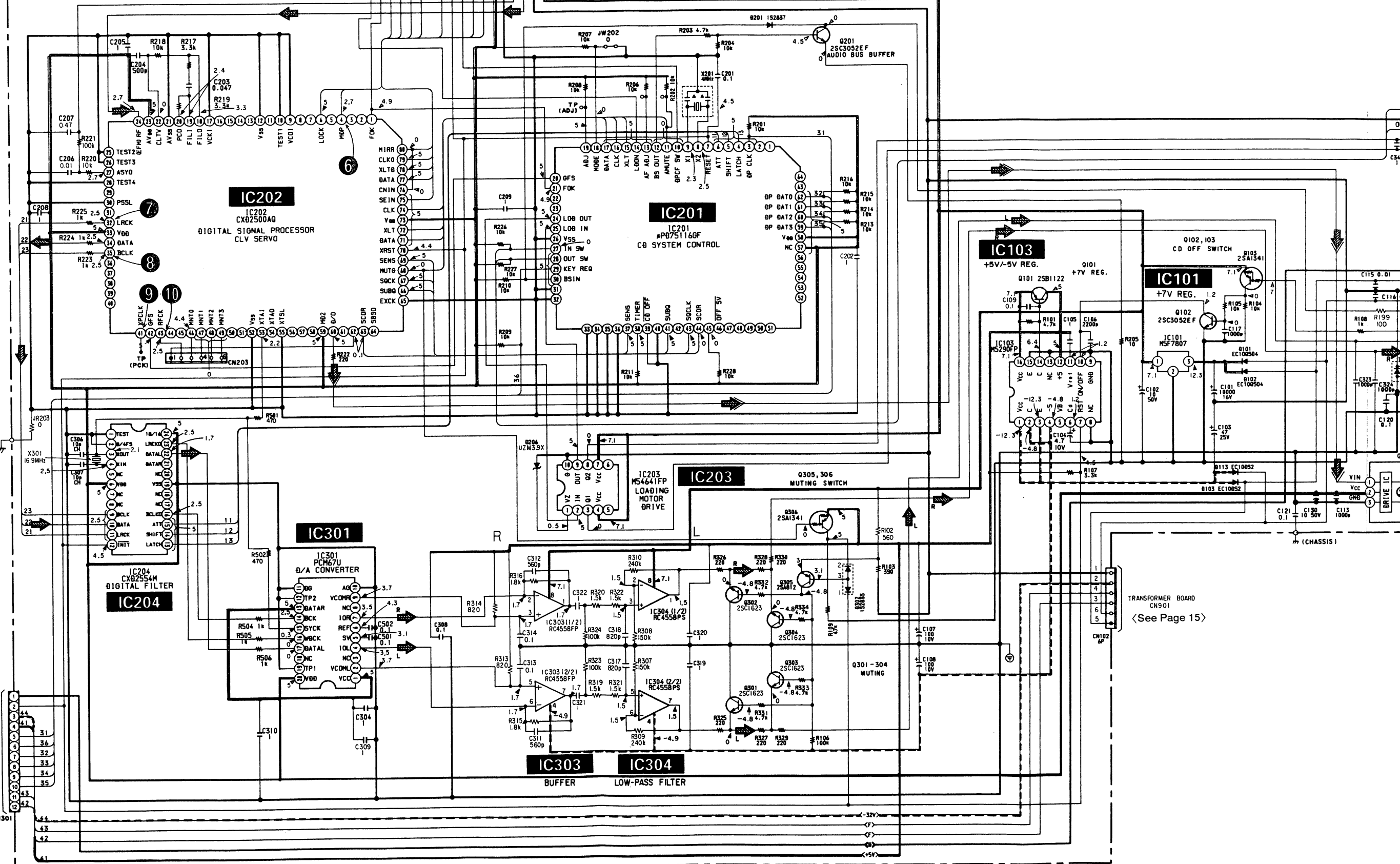
F

G

H

I

J

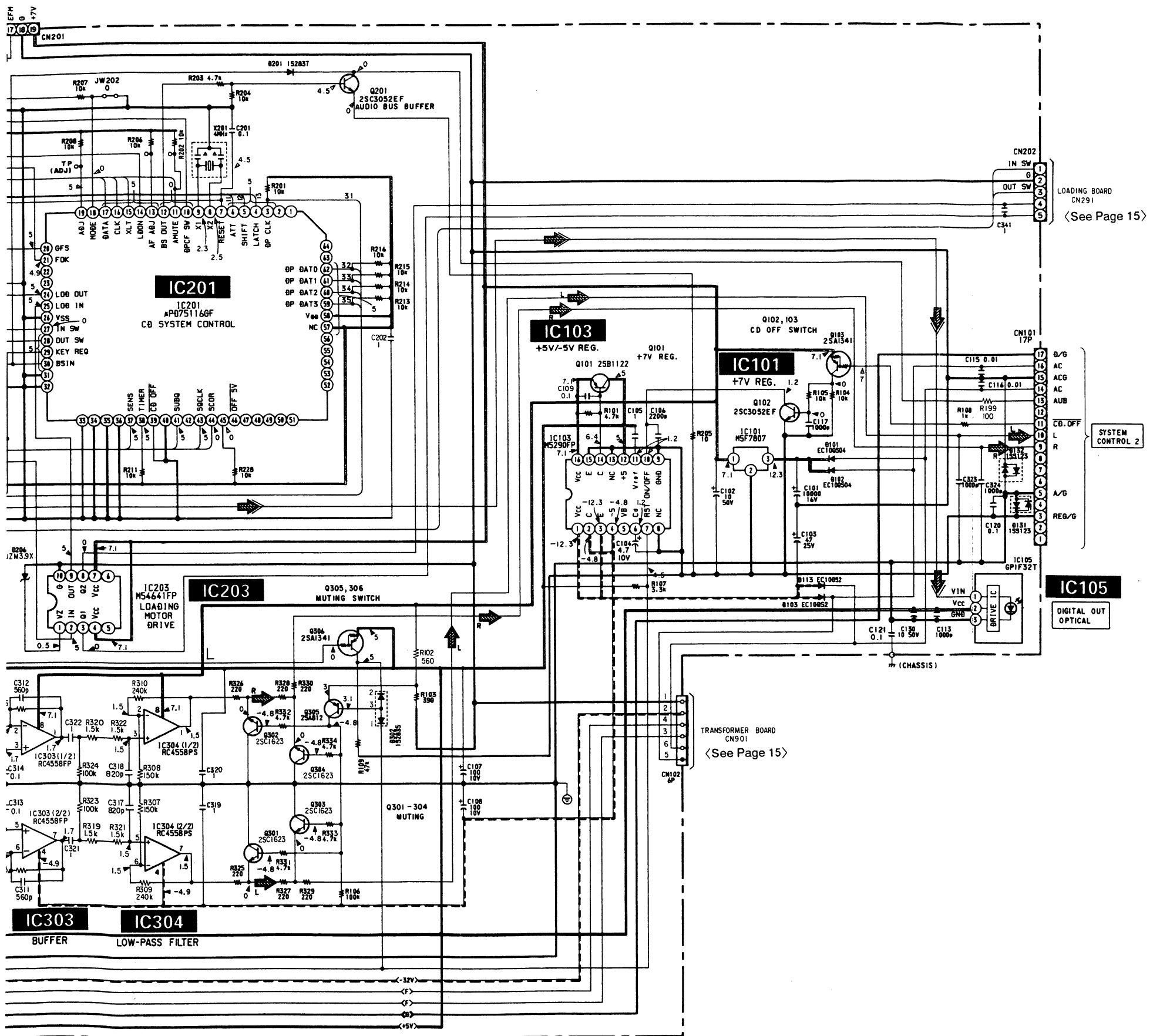


TRANSFORMER BOARD  
CN901  
(See Page 15)

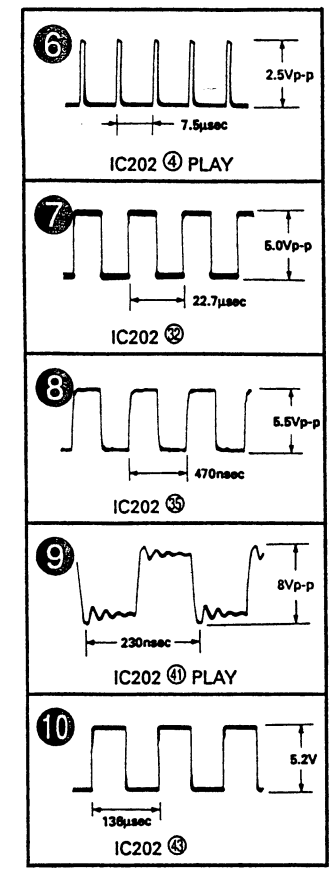
DISPLAY BOARD  
CN401  
(See Page 13)

correspond to CDP-H3600 SUPPLEMENT-1.

7 8 9 10 11 12 13 14 15 16 17



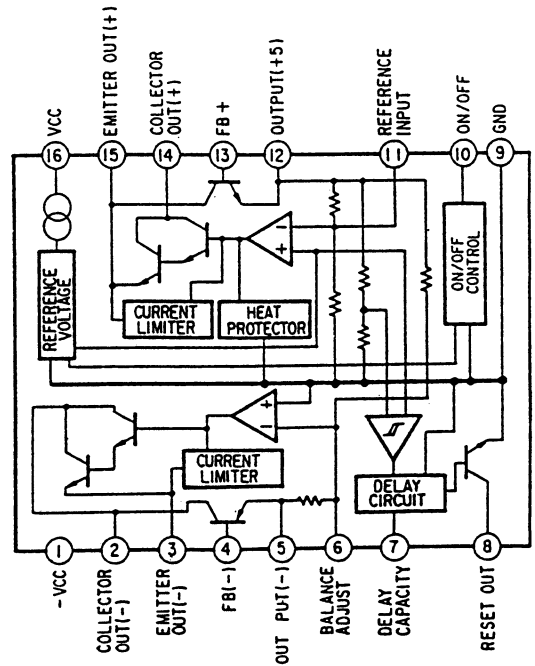
• Waveforms



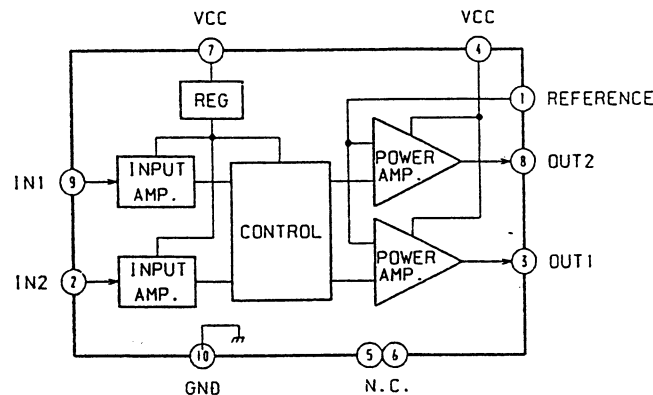
- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}:\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
  - All resistors are in  $\Omega$  and 1/4W or less unless otherwise specified.
  - $\Delta$  : internal component.
  - $\square$  : panel designation.
  - $\text{---}$  : B+ Line
  - $\text{---}$  : B- Line
  - Voltages and waveforms are dc with respect to ground in play mode.
  - Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ). 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.
  - Circled numbers refer to waveforms.
  - Signal path.
    - $\Rightarrow$  : CD
    - $\Rightarrow$  : digital out

### 1-4. IC BLOCK DIAGRAMS

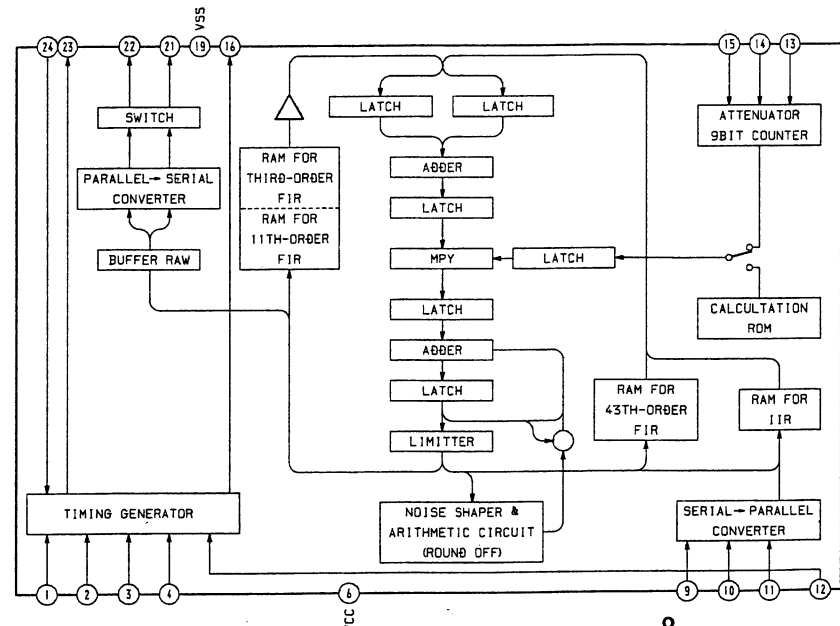
**IC103 M5290FP**



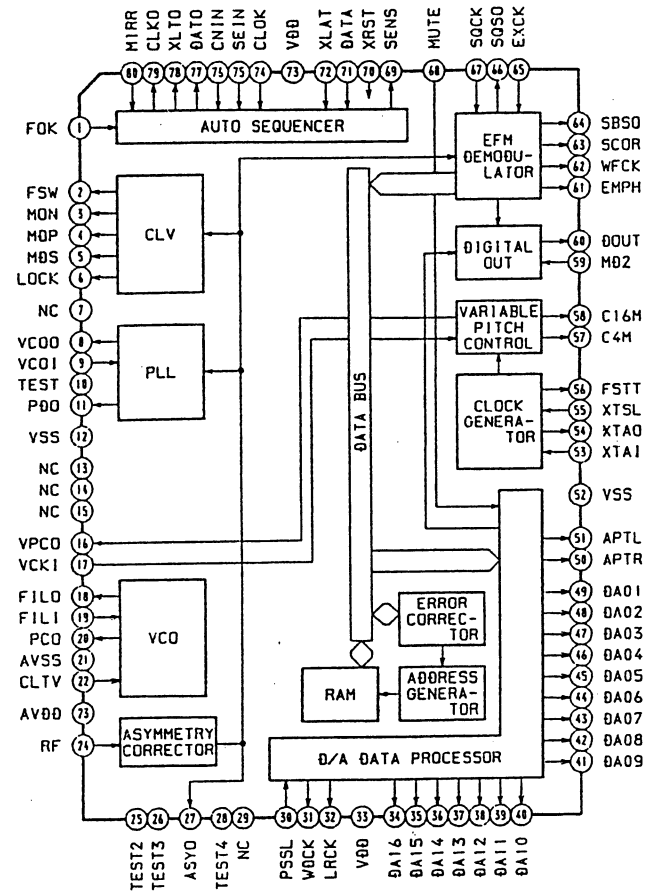
**IC203 M54641FP**



**IC204 CXD2554M**



**IC202 CXD2500AQ**



## SECTION 2 ELECTRICAL PARTS LIST

**MAIN**

**NOTE:**

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  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
- 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:  $\mu$ , for example:  
uA...:  $\mu$ A..., uPA...:  $\mu$ PA...,  
uPB...:  $\mu$ PB..., uPC...:  $\mu$ PC...,  
uPD...:  $\mu$ PD...
- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4649-037-A	MAIN BOARD, COMPLETE		C317	1-163-139-00	CERAMIC CHIP 820PF 5% 50V	
		*****		C318	1-163-139-00	CERAMIC CHIP 820PF 5% 50V	
	1-560-242-21	BUS BAR 4P		C319	1-164-346-11	CERAMIC CHIP 1uF 16V	
*	4-880-403-11	HEAT SINK		C320	1-164-346-11	CERAMIC CHIP 1uF 16V	
	7-682-548-04	SCREW +BVT 3x8 (S)		C321	1-164-346-11	CERAMIC CHIP 1uF 16V	
		< CAPACITOR >		C322	1-164-346-11	CERAMIC CHIP 1uF 16V	
C101	1-126-939-11	ELECT 10000uF 20% 16V		C323	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
C102	1-124-907-11	ELECT 10uF 20% 50V		C324	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V	
C103	1-124-477-11	ELECT 47uF 20% 25V		C341	1-164-346-11	CERAMIC CHIP 1uF 16V	
C104	1-135-155-21	TANTALUM CHIP 4.7uF 10% 16V		C501	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C105	1-164-346-11	CERAMIC CHIP 1uF 16V		C502	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
		< CONNECTOR >					
C106	1-164-695-11	CERAMIC CHIP 0.0022uF 5% 50V		* CN101	1-569-624-11	SOCKET, CONNECTOR 17P (SYSTEM CONTROL 2)	
C107	1-124-443-00	ELECT 100uF 20% 10V		CN102	1-568-662-11	CONNECTOR, BOARD TO BOARD 6P	
C108	1-124-443-00	ELECT 100uF 20% 10V		CN201	1-568-802-11	SOCKET, CONNECTOR 19P	
C109	1-163-038-00	CERAMIC CHIP 0.1uF 25V		* CN202	1-564-339-00	PIN, CONNECTOR 5P	
C113	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V		* CN203	1-564-340-00	PIN, CONNECTOR 6P	
C115	1-163-031-11	CERAMIC CHIP 0.01uF 50V		* CN301	1-573-099-11	HOUSING, CONNECTOR 12P	
C116	1-163-031-11	CERAMIC CHIP 0.01uF 50V				< DIODE >	
C117	1-163-141-00	CERAMIC CHIP 0.001uF 5% 50V		D101	8-719-210-39	DIODE EC10QS-04	
C120	1-163-038-00	CERAMIC CHIP 0.1uF 25V		D102	8-719-210-39	DIODE EC10QS-04	
C121	1-163-038-00	CERAMIC CHIP 0.1uF 25V		D103	8-719-210-33	DIODE EC10DS2	
				D113	8-719-210-33	DIODE EC10DS2	
C130	1-124-907-11	ELECT 10uF 20% 50V		D131	8-719-800-76	DIODE 1S226	
C201	1-163-038-00	CERAMIC CHIP 0.1uF 25V		D132	8-719-800-76	DIODE 1S226	
C202	1-164-346-11	CERAMIC CHIP 1uF 16V		D201	8-719-400-18	DIODE MA152WK	
C203	1-163-035-00	CERAMIC CHIP 0.047uF 50V		D206	8-719-021-11	DIODE UZM3.9X	
C204	1-163-145-00	CERAMIC CHIP 0.0015uF 5% 50V		D302	8-719-104-34	DIODE 1S2836	
						< IC >	
C205	1-164-346-11	CERAMIC CHIP 1uF 16V		IC101	8-759-605-00	IC M5F78M07L	
C206	1-163-031-11	CERAMIC CHIP 0.01uF 50V		IC103	8-759-636-24	IC M5290FP	
C207	1-164-005-11	CERAMIC CHIP 0.47uF 25V		IC105	8-749-921-12	IC GP1F32T (DIGITAL OUT OPTICAL)	
C208	1-164-346-11	CERAMIC CHIP 1uF 16V		IC201	8-759-059-86	IC UPD75116GF-F21-3BE	
C209	1-164-346-11	CERAMIC CHIP 1uF 16V		IC202	8-752-352-93	IC CXD2500BQ	
C304	1-164-346-11	CERAMIC CHIP 1uF 16V		IC203	8-759-636-20	IC M54641FP	
C306	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V		IC204	8-752-337-10	IC CXD2554M	
C307	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V		IC301	8-759-506-63	IC PCM67U	
C308	1-163-038-00	CERAMIC CHIP 0.1uF 25V		IC303	8-759-996-43	IC RC4558PS	
C309	1-162-638-11	CERAMIC CHIP 1uF 16V		IC304	8-759-996-43	IC RC4558PS	
C310	1-164-346-11	CERAMIC CHIP 1uF 16V					
C311	1-163-006-11	CERAMIC CHIP 560PF 10% 50V					
C312	1-163-006-11	CERAMIC CHIP 560PF 10% 50V					
C313	1-163-038-00	CERAMIC CHIP 0.1uF 25V					
C314	1-163-038-00	CERAMIC CHIP 0.1uF 25V					

**MAIN**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< JUMPER RESISTOR >							
JW202	1-216-295-00	METAL CHIP	0 5% 1/10W	R225	1-216-049-00	METAL CHIP	1K 5% 1/10W
JR203	1-216-295-00	METAL CHIP	0 5% 1/10W	R226	1-216-073-00	METAL CHIP	10K 5% 1/10W
< TRANSISTOR >							
Q101	8-729-804-41	TRANSISTOR	2SB1122-S	R227	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q102	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R228	1-216-073-00	METAL CHIP	10K 5% 1/10W
Q103	8-729-901-06	TRANSISTOR	DTA144EK	R307	1-216-101-00	METAL CHIP	150K 5% 1/10W
Q201	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R308	1-216-101-00	METAL CHIP	150K 5% 1/10W
Q301	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R309	1-216-106-00	METAL CHIP	240K 5% 1/10W
Q302	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R310	1-216-106-00	METAL CHIP	240K 5% 1/10W
Q303	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R313	1-216-047-00	METAL CHIP	820 5% 1/10W
Q304	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R314	1-216-047-00	METAL CHIP	820 5% 1/10W
Q305	8-729-216-22	TRANSISTOR	2SA1162-G	R315	1-216-055-00	METAL CHIP	1.8K 5% 1/10W
Q306	8-729-901-06	TRANSISTOR	DTA144EK	R316	1-216-055-00	METAL CHIP	1.8K 5% 1/10W
< RESISTOR >							
R101	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R319	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R102	1-216-043-00	METAL CHIP	560 5% 1/10W	R320	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R103	1-216-039-00	METAL CHIP	390 5% 1/10W	R321	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R104	1-216-073-00	METAL CHIP	10K 5% 1/10W	R322	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R105	1-216-073-00	METAL CHIP	10K 5% 1/10W	R323	1-216-097-00	METAL CHIP	100K 5% 1/10W
R106	1-216-097-00	METAL CHIP	100K 5% 1/10W	R324	1-216-097-00	METAL CHIP	100K 5% 1/10W
R107	1-216-061-00	METAL CHIP	3.3K 5% 1/10W	R325	1-216-033-00	METAL CHIP	220 5% 1/10W
R108	1-216-049-00	METAL CHIP	1K 5% 1/10W	R326	1-216-033-00	METAL CHIP	220 5% 1/10W
R109	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R327	1-216-033-00	METAL CHIP	220 5% 1/10W
R199	1-216-025-00	METAL CHIP	100 5% 1/10W	R328	1-216-033-00	METAL CHIP	220 5% 1/10W
R201	1-216-073-00	METAL CHIP	10K 5% 1/10W	R329	1-216-033-00	METAL CHIP	220 5% 1/10W
R202	1-216-073-00	METAL CHIP	10K 5% 1/10W	R330	1-216-033-00	METAL CHIP	220 5% 1/10W
R203	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	R331	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R204	1-216-073-00	METAL CHIP	10K 5% 1/10W	R332	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R205	1-216-001-00	METAL CHIP	10 5% 1/10W	R333	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R206	1-216-073-00	METAL CHIP	10K 5% 1/10W	R334	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R207	1-216-073-00	METAL CHIP	10K 5% 1/10W	R501	1-216-041-00	METAL CHIP	470 5% 1/10W
R208	1-216-073-00	METAL CHIP	10K 5% 1/10W	R502	1-216-041-00	METAL CHIP	470 5% 1/10W
R209	1-216-073-00	METAL CHIP	10K 5% 1/10W	R504	1-216-049-00	METAL CHIP	1K 5% 1/10W
R210	1-216-073-00	METAL CHIP	10K 5% 1/10W	R505	1-216-049-00	METAL CHIP	1K 5% 1/10W
R211	1-216-073-00	METAL CHIP	10K 5% 1/10W	R506	1-216-049-00	METAL CHIP	1K 5% 1/10W
R213	1-216-073-00	METAL CHIP	10K 5% 1/10W	< VIBRATOR >			
R214	1-216-073-00	METAL CHIP	10K 5% 1/10W	X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	
R215	1-216-073-00	METAL CHIP	10K 5% 1/10W	X301	1-567-908-11	VIBRATOR, CRYSTAL (16.9MHz)	
R216	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R217	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
R218	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R219	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
R220	1-216-073-00	METAL CHIP	10K 5% 1/10W				
R221	1-216-097-00	METAL CHIP	100K 5% 1/10W				
R222	1-216-033-00	METAL CHIP	220 5% 1/10W				
R223	1-216-049-00	METAL CHIP	1K 5% 1/10W				
R224	1-216-049-00	METAL CHIP	1K 5% 1/10W				



# TA-H2600

## SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
UK Model  
E Model  
Australian Model*



This set is the Amplifier section in MHC-2600 and FH-E737CD.

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS (US model)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads both channels driven, from 70 - 20000 Hz; rated 30 watts per channel minimum RMS power, with no more than 1% total harmonic distortion from 250 milliwatts to rated output.

Continuous RMS power output  
30 + 30 watts (6 ohms at 1 kHz, DIN)  
35 + 35 watts (6 ohms at 1 kHz, 5% THD)

Music power output  
55 + 55 watts (6 ohms at 1 kHz, 10% THD)

Peak music power output (E, Saudi Arabia model)

330 watts  
Inputs  
MIX MIC (minijack):  
sensitivity 1 mV,  
impedance 600 ohms  
ADAPTOR (pin jacks)  
(E, Saudi Arabia model)  
sensitivity 300 mV,  
impedance 47 kilohms  
Outputs  
HEADPHONES  
(stereo minijack):  
accepts headphones of 8 ohms or more.  
ADAPTOR (pin jacks)  
(E, Saudi Arabia model)  
output level 300 mV  
impedance 10 kilohms

Design and specifications subject to change without notice.



STEREO AMPLIFIER  
**SONY**®

## SAFETY CHECK-OUT

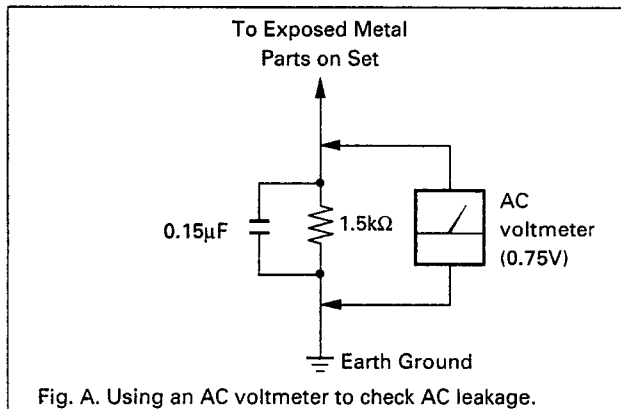
After correcting the original service problem, perform the following safety check before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

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

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig.A)



#### SAFETY-RELATED COMPONENT WARNING!!

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

#### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\Delta$  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER SES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

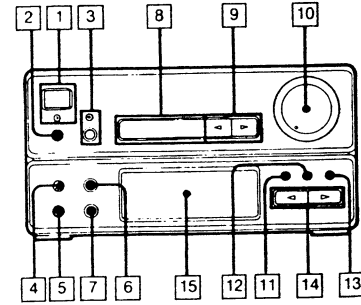
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## SECTION 1 GENERAL

### LOCATION OF CONTROLS

- 1 SYSTEM POWER switch and STANDBY indicator  
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
- 2 HEADPHONES jack (stereo minijack)
- 3 WAKE UP button and indicator
- 4 MIC (microphone) LEVEL control
- 5 MIX MIC (microphone) input jack
- 6 DISPLAY button
- 7 DIRECT button
- 8 Function indication display
- 9 FUNCTION <> buttons
- 10 VOLUME control
- 11 EQ (equalizer) button and indicator
- 12 S-SUR (simulated surround) button and indicator
- 13 DBFB (Dynamic Bass Feedback) button and indicator
- 14 PRESET <D> buttons
- 15 Display window

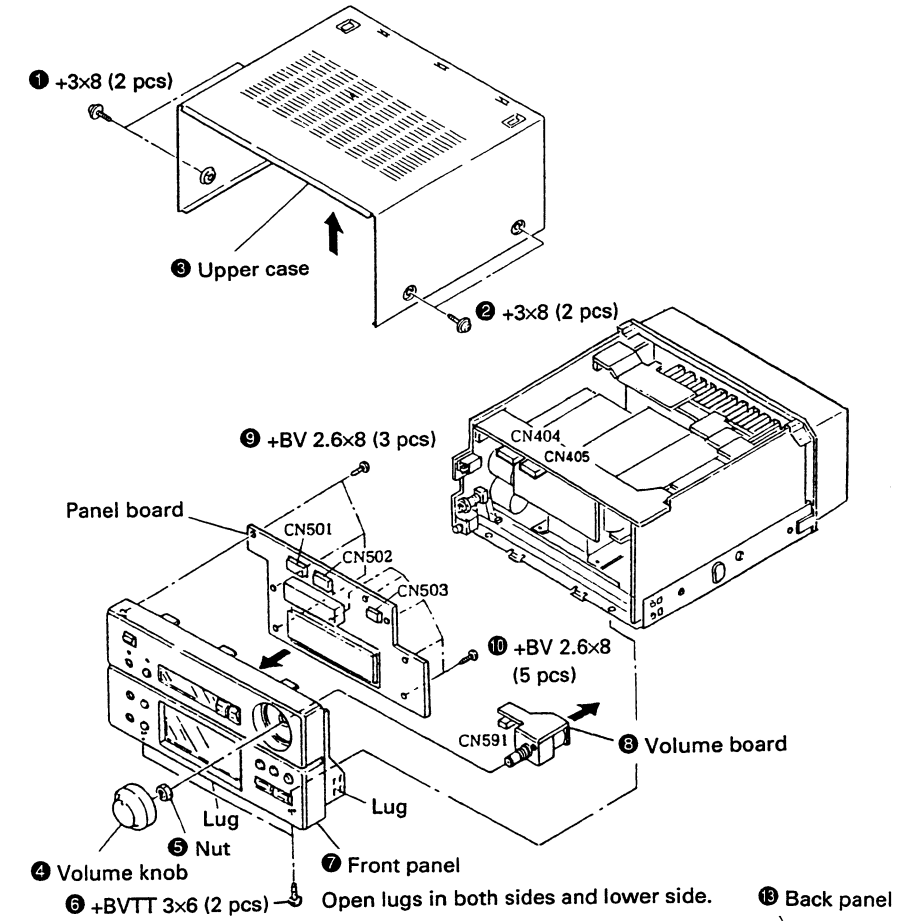


This section is extracted from instruction manual.

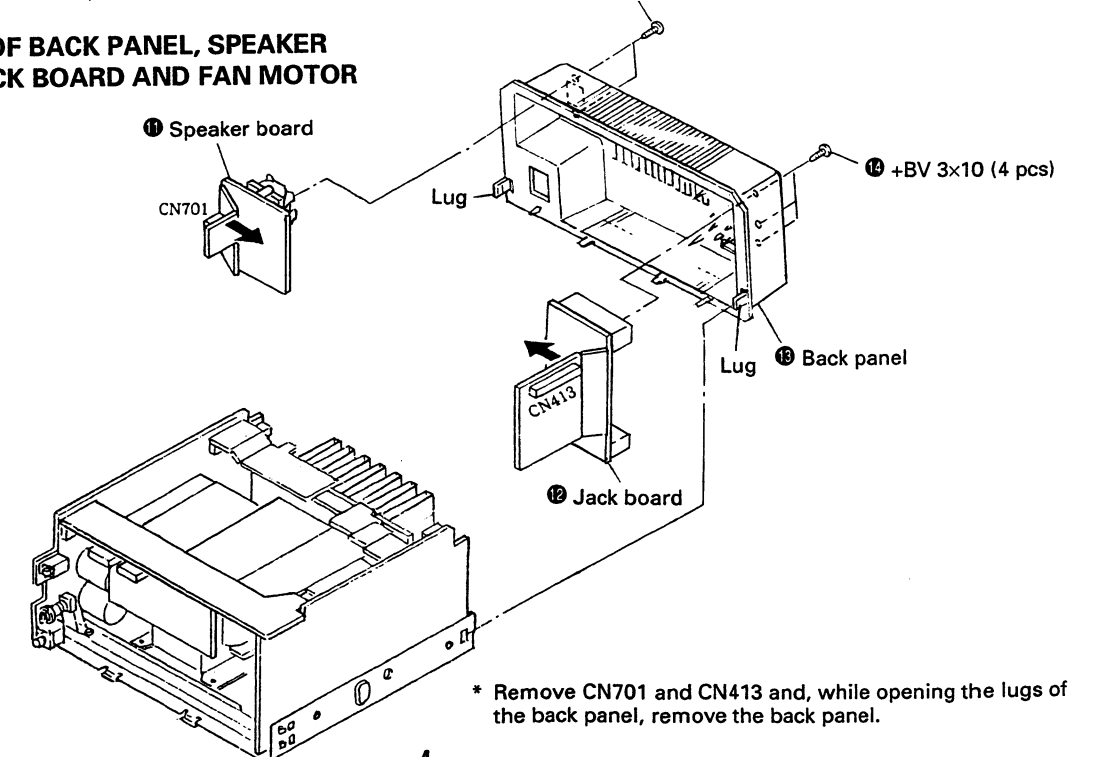
## SECTION 2 DISASSEMBLY

- Remove the following parts with the numbers in that order of the numbers.

### 2-1. REMOVAL OF UPPER CASE, FRONT PANEL AND PANEL BOARD



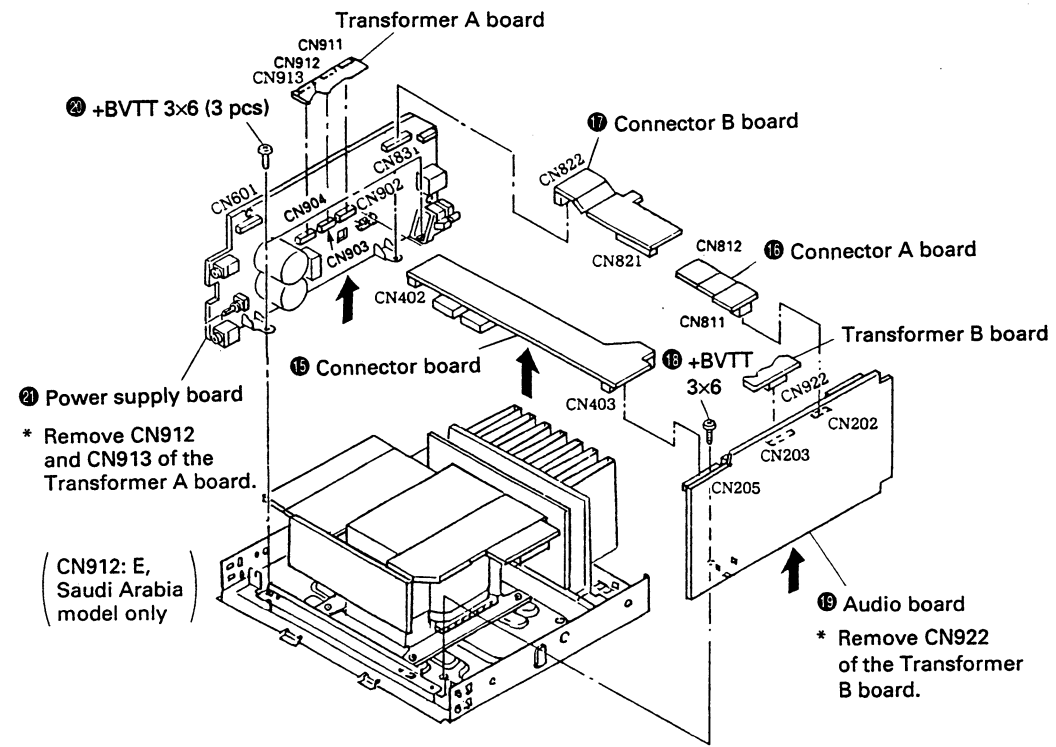
### 2-2. REMOVAL OF BACK PANEL, SPEAKER BOARD, JACK BOARD AND FAN MOTOR



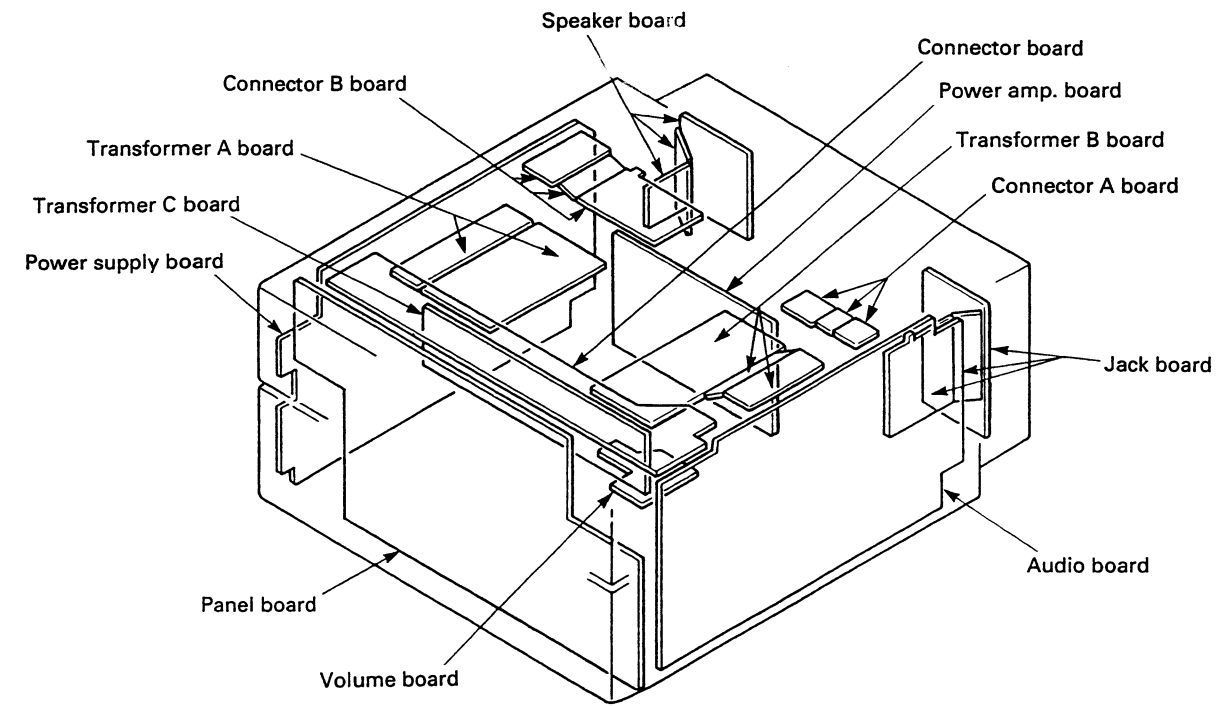
\* Remove CN701 and CN413 and, while opening the lugs of the back panel, remove the back panel.

**SECTION 3  
DIAGRAMS**

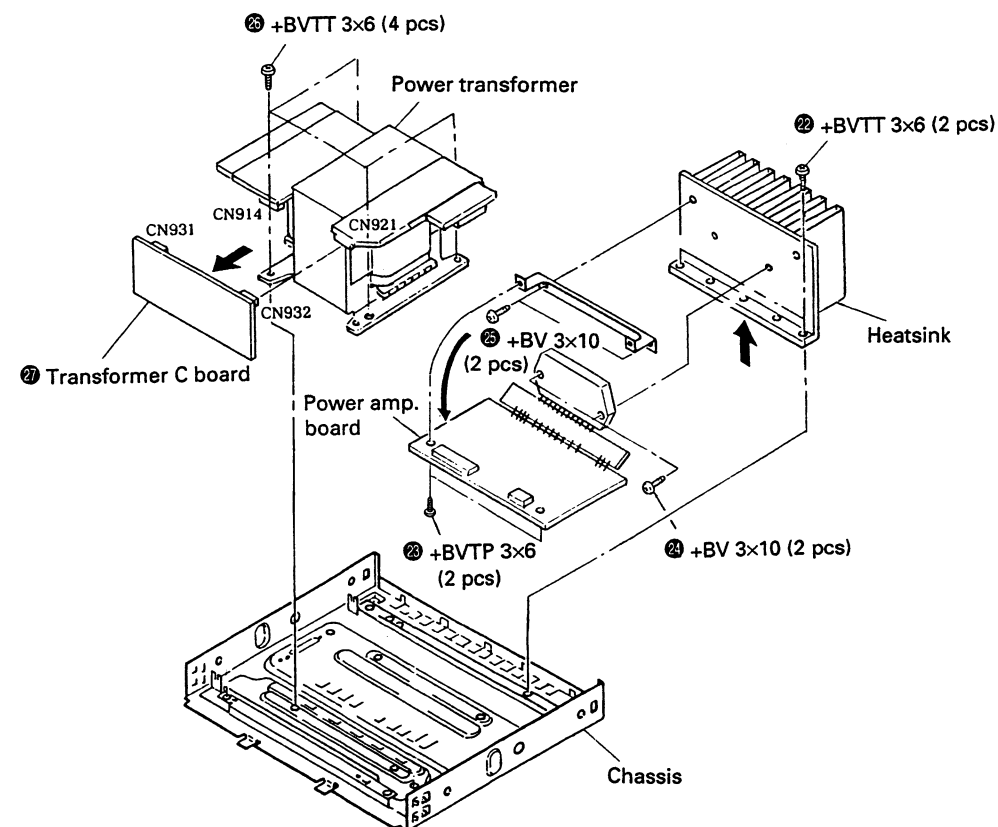
**2-3. REMOVAL OF AUDIO BOARD, POWER SUPPLY BOARD, CONNECTOR BOARD AND TRANSFORMER BOARD**



**3-1. CIRCUIT BOARDS LOCATION**

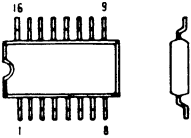


**2-4. REMOVAL OF POWER TRANSFORMER, POWER AMP. BOARD, TRANSFORMER C BOARD AND HEATSINK**

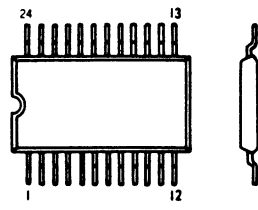


3-2. SEMICONDUCTOR LEAD LAYOUTS

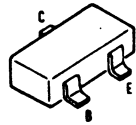
CD4052BCM  
HD14053BFP



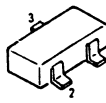
M66311FP



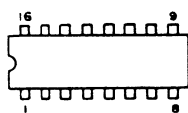
2SA1162-G  
2SA1342  
2SC3052-EF  
2SC3396  
2SC3624-L18



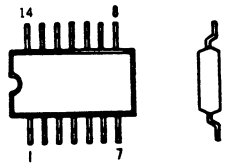
DCA010



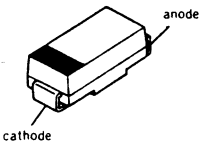
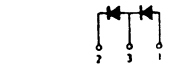
XR1091DCP



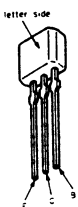
SN74HC04ANS



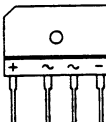
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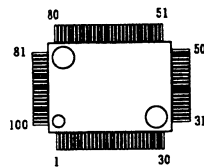
2SA1175-HFE



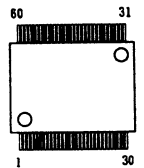
RBA-402



CXA1492Q



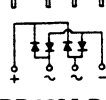
SN755703



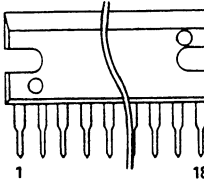
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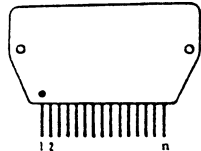
RD13M-B1  
RD5.1M-B2  
RD30M-B  
RD36M-B



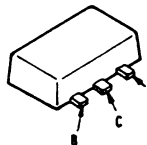
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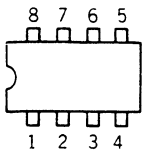
STK4142MK2  
STK4152MK2



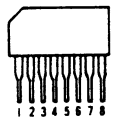
2SB1121-ST  
2SD1622-S



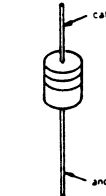
LB1639  
X24C01P



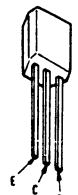
μPC1237HA



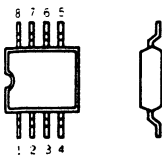
1SS120



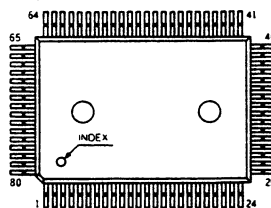
2SC2603-EF



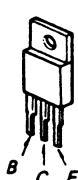
M5218AFP



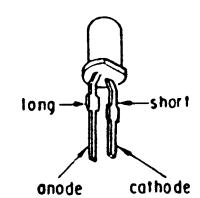
μPD78134-D29-3B9



2SD2012



SEL2210S-CD



● SEMICONDUCTOR LOCATION

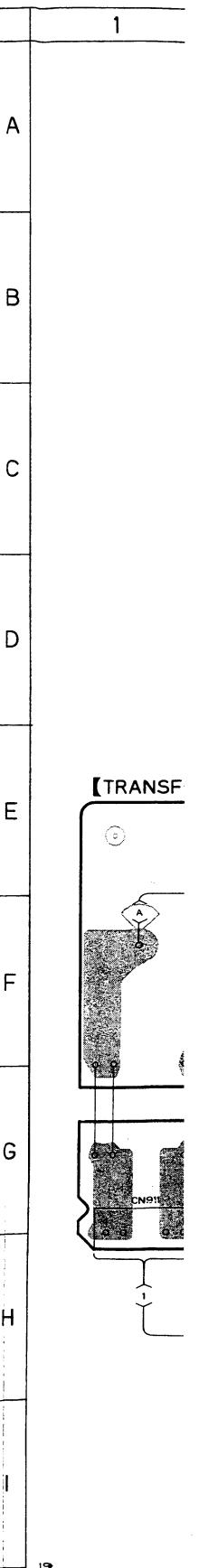
• MAIN BOARD

Ref. No	Location	Ref. No	Location
D291	E-13	Q312	B-14
D294	E-13	Q321	C-14
D311	B-14	Q322	G-12
D312	B-14	Q323	B-14
D331	E-14	Q341	B-13
D341	B-13	Q342	B-12
D342	B-13	Q371	C-14
D501	H-14	Q373	B-14
D502	G-13	Q501	G-13
D503	I-14	Q502	H-13
D504	I-14	Q921	H-12
D505	F-11	Q931	F-13
D911	F-12	Q932	F-13
D912	G-12	Q941	G-14
D913	F-12	Q951	G-14
D914	G-12		
D931	F-12		
D932	F-12		
D933	F-12		
D941	G-13		
D942	G-13		
D951	G-13		
D952	G-14		
D953	G-14		
IC201	D-13		
IC301	B-12		
IC303	A-13		
IC304	A-14		
IC305	C-15		
IC501	H-12		
IC502	I-14		
IC503	H-14		
IC601	C-14		
IC901	F-13		
Q292	E-13		
Q293	E-12		
Q311	B-15		

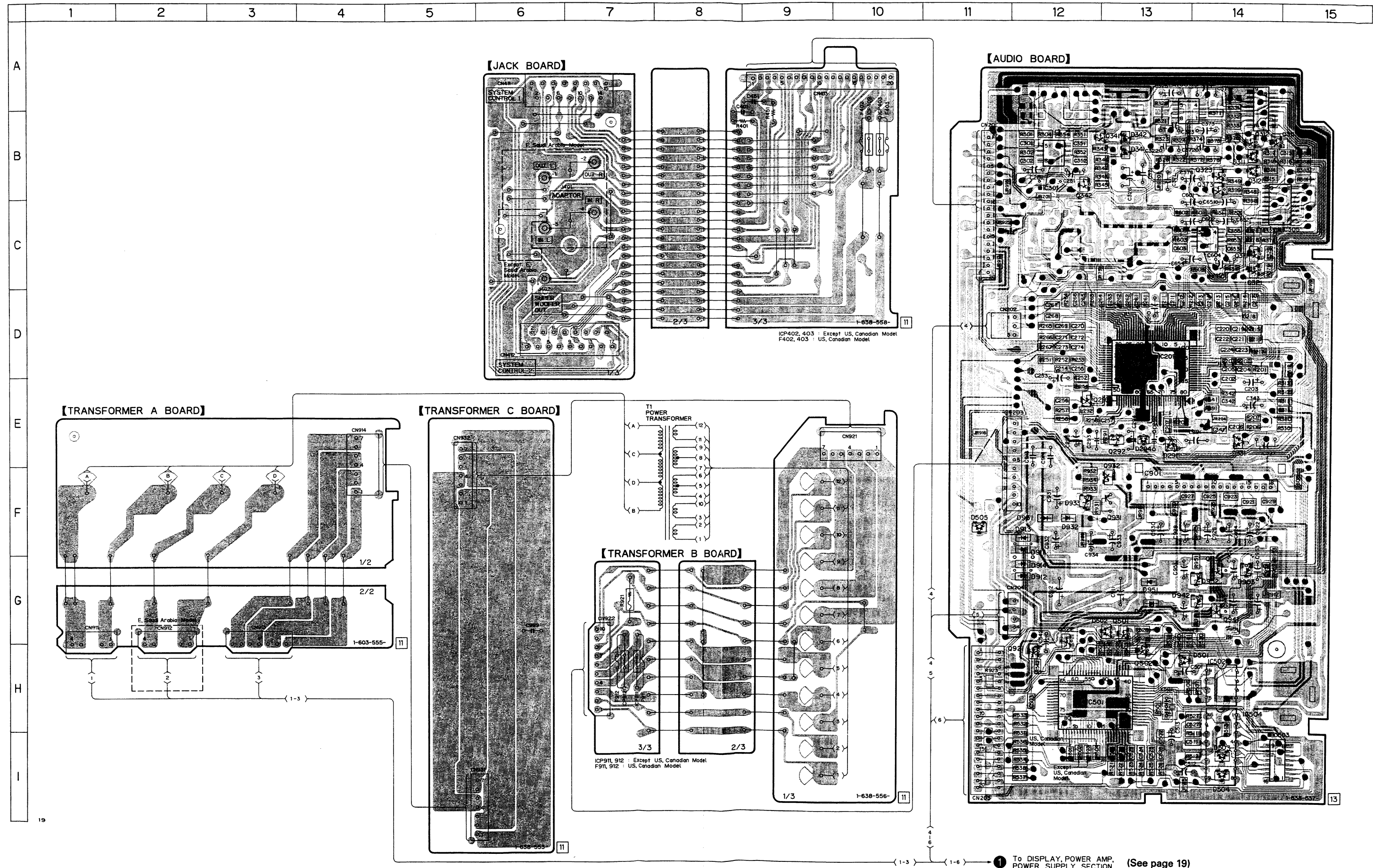
Note:

- : 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.

3-3. PRINTED W



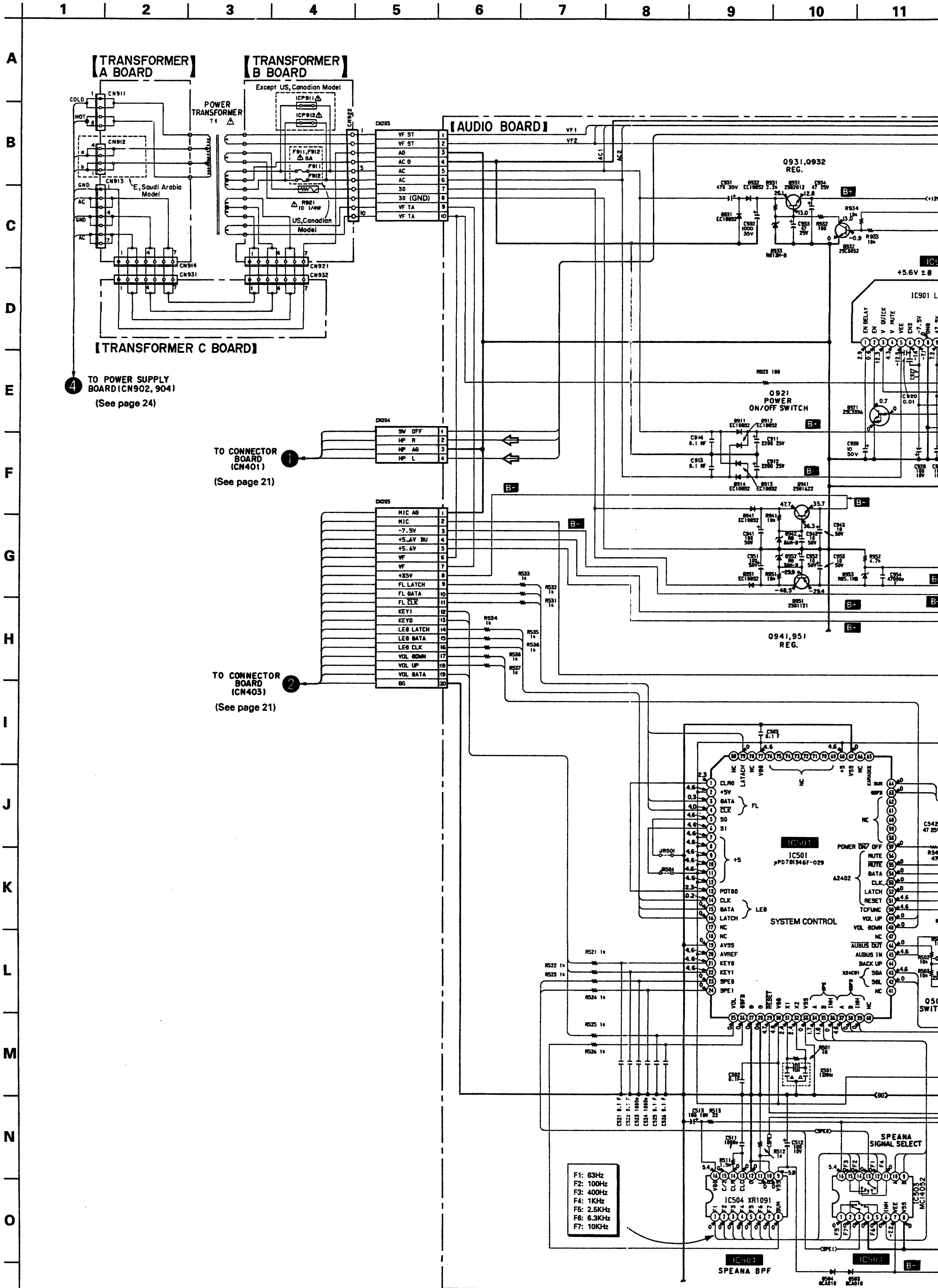
3-3. PRINTED WIRING BOARDS - MAIN SECTION -



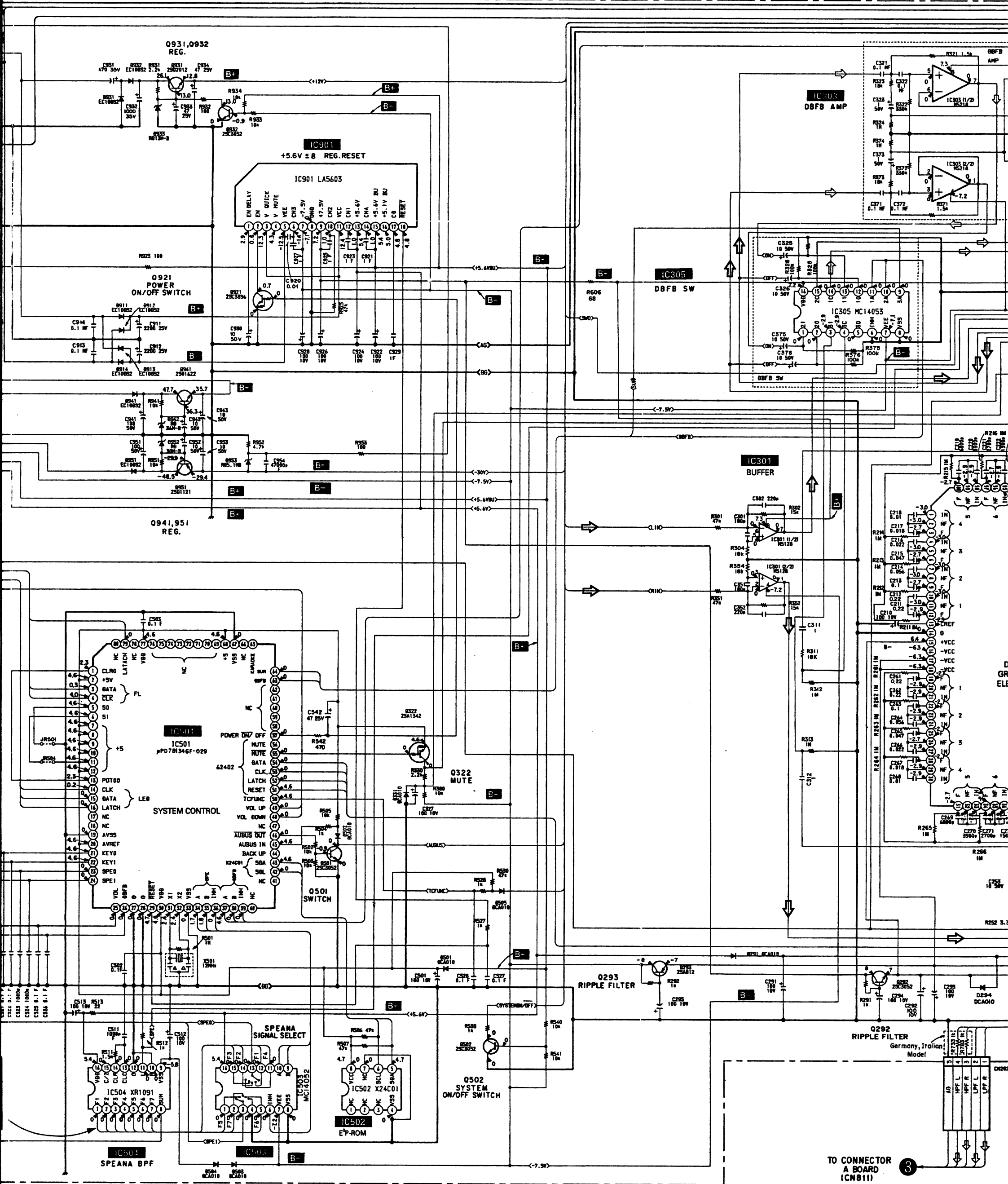
To DISPLAY, POWER AMP, POWER SUPPLY SECTION (See page 19)

4728

3-5. SCHEMATIC DIAGRAM - MAIN SECTION -

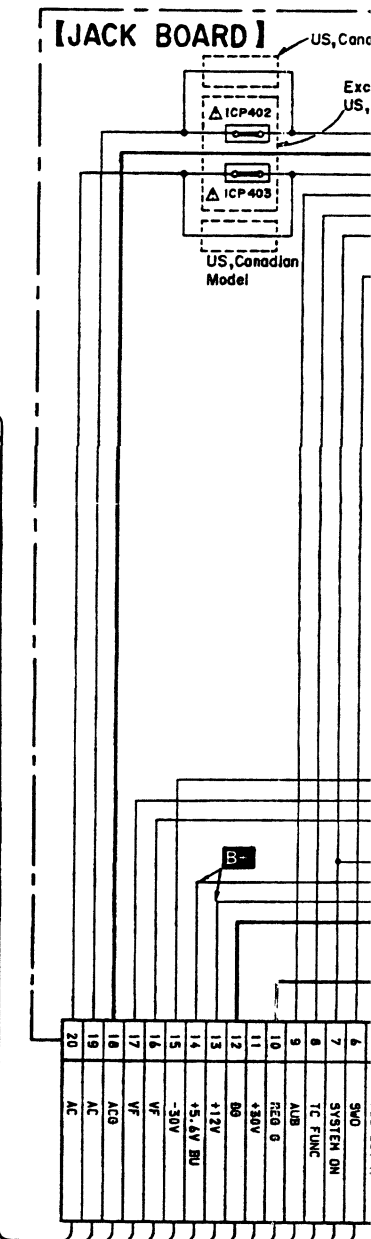
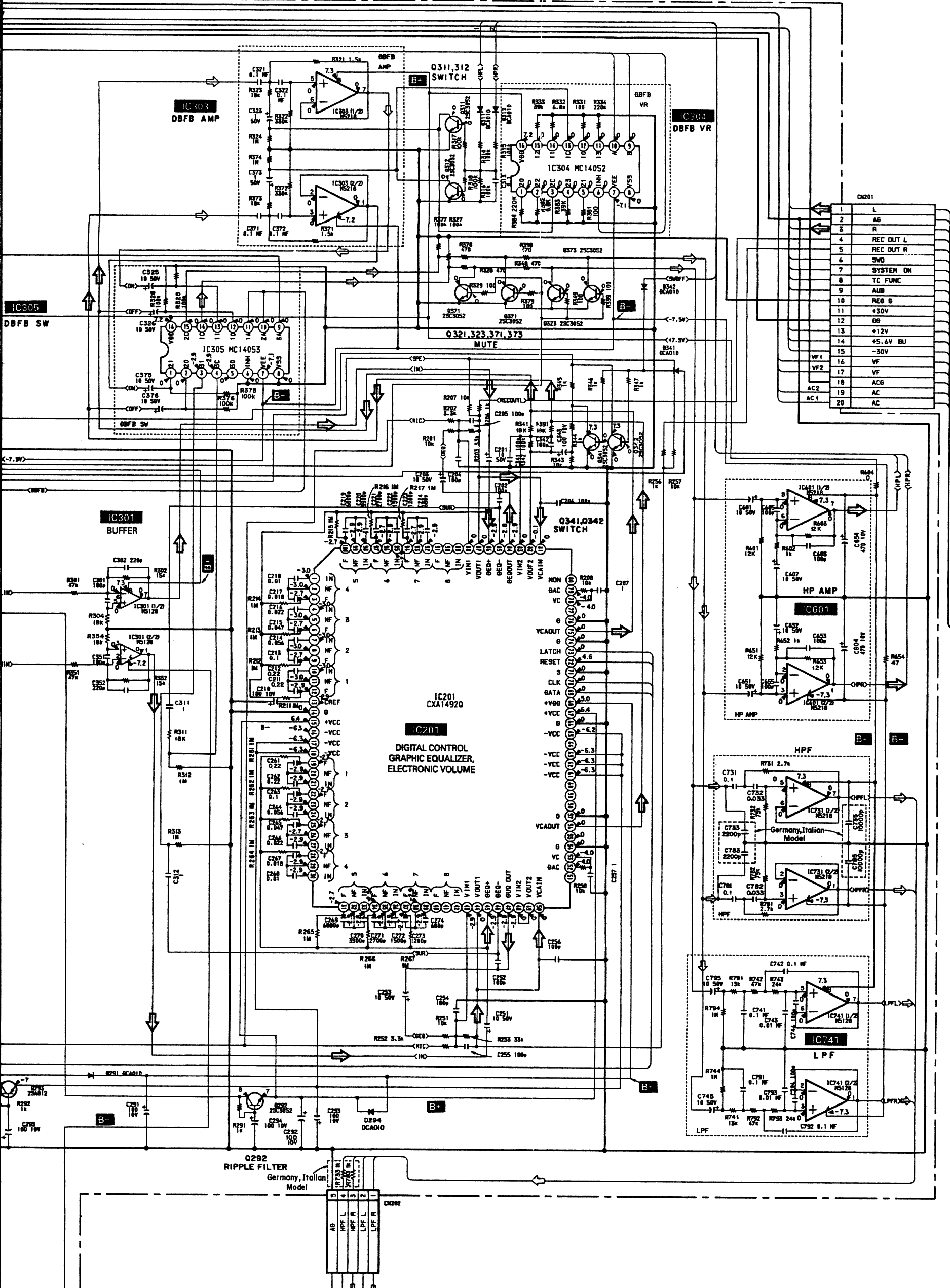




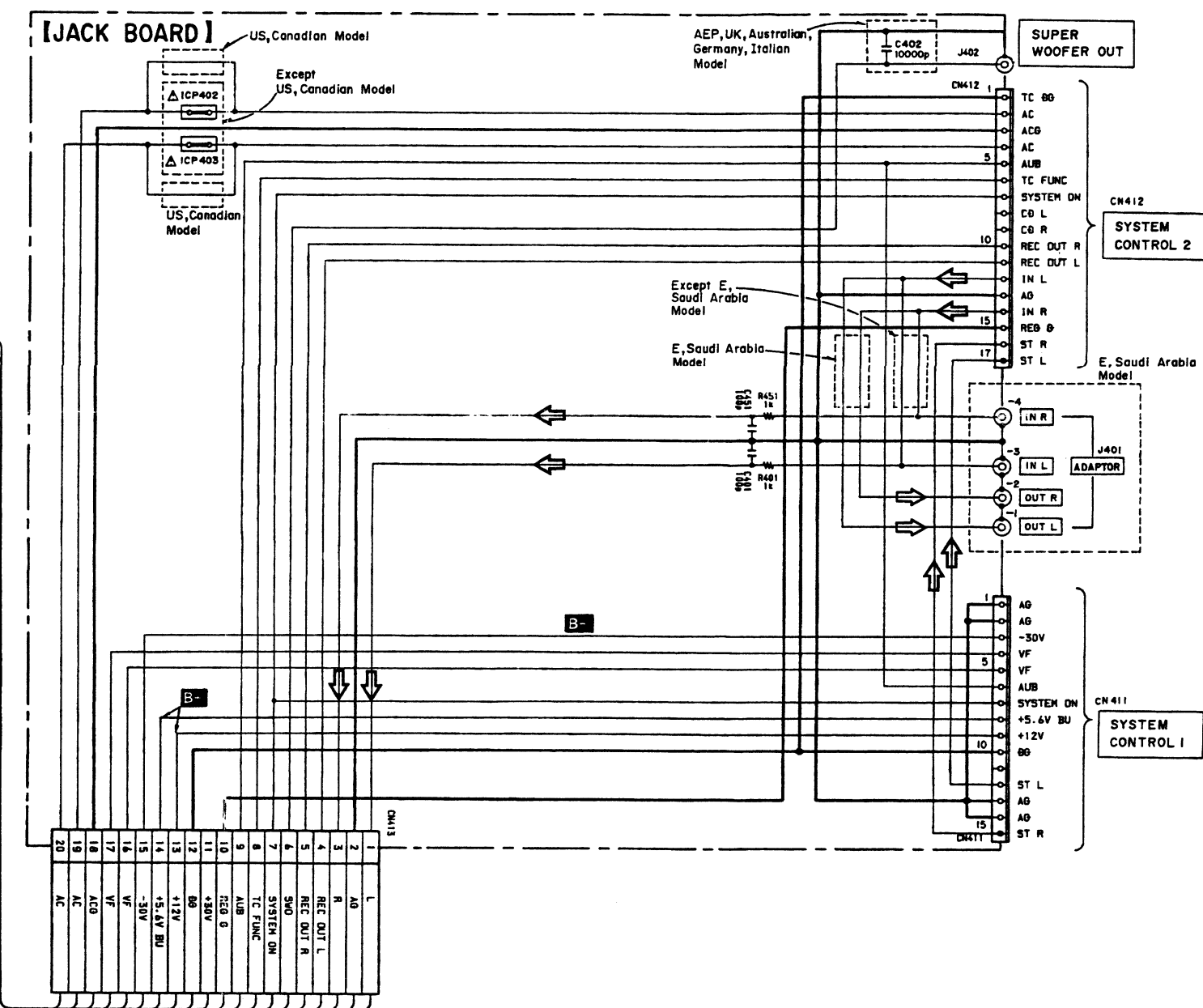
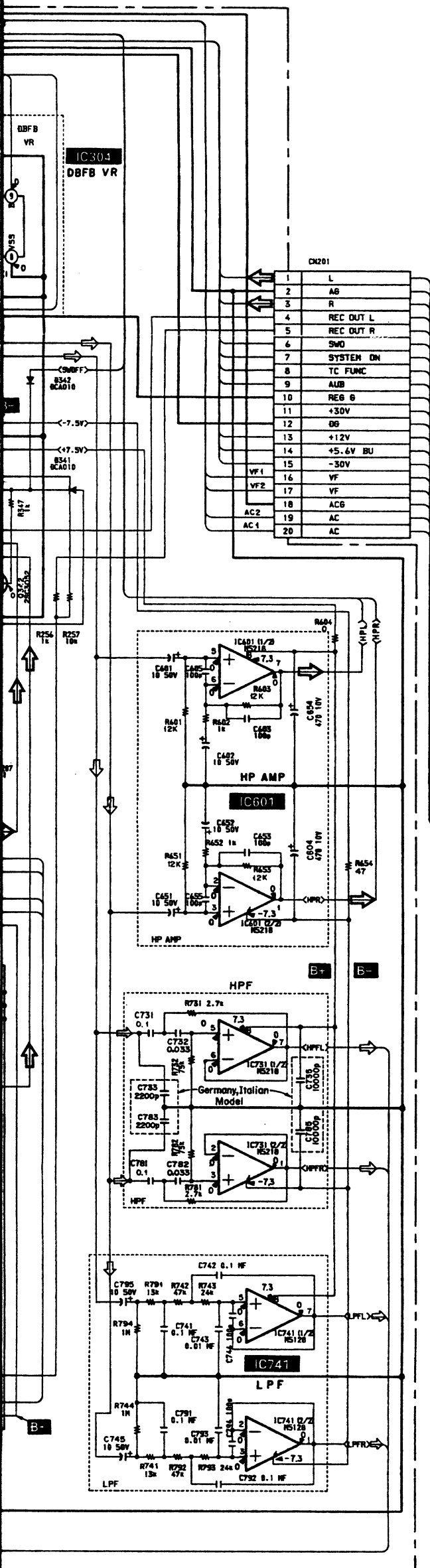


TO CONNECTOR  
A BOARD  
(CN811)  
(See page 23)





TO CONNECTOR A BOARD (CN811) (See page 23)



**Note:**

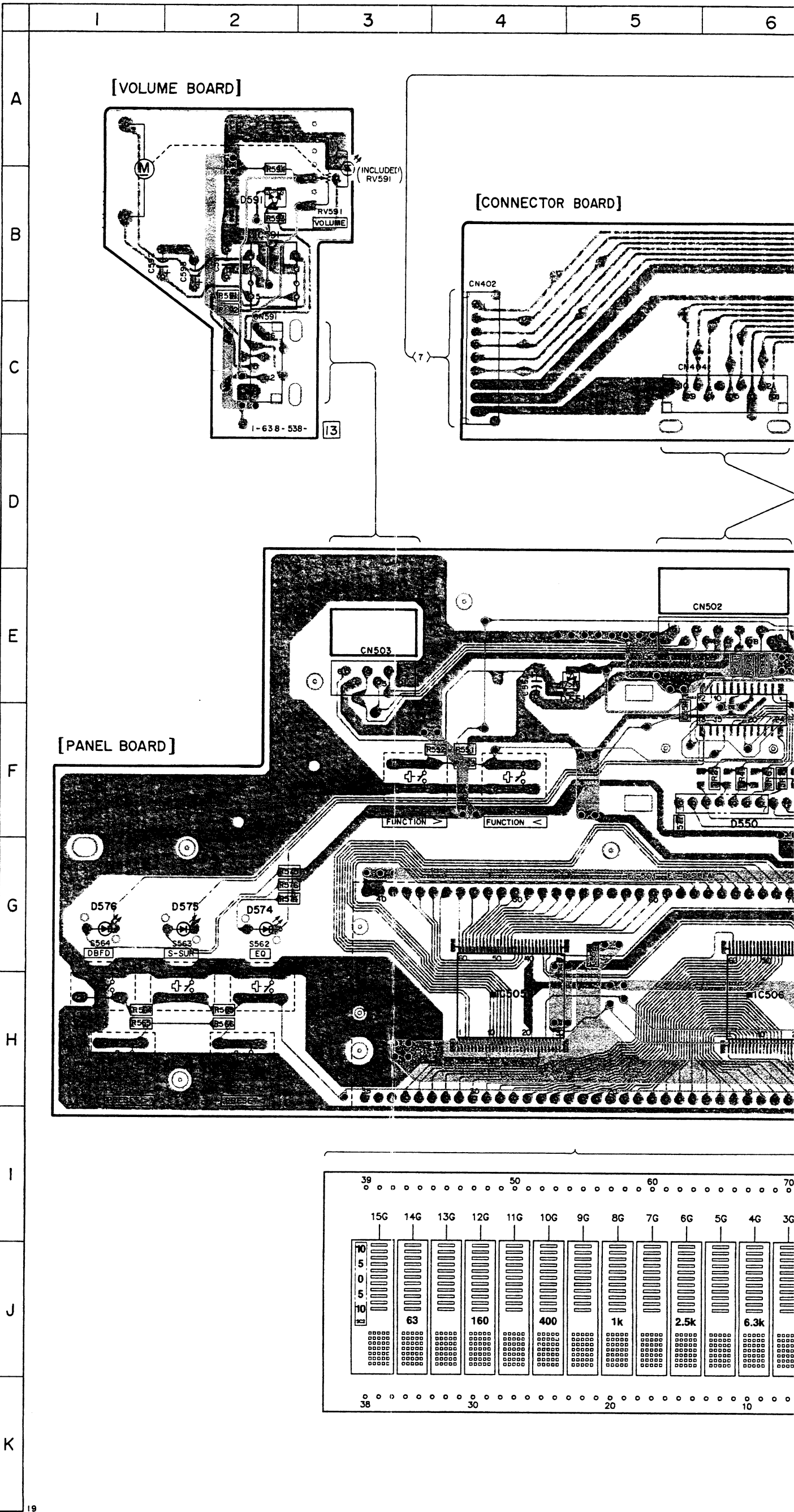
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{pF}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4W or less unless otherwise noted.
- $\Delta$  : internal component.
- $\square$  : nonflammable resistor
- $\text{---}$  : Fuse resistor

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- $\text{B+}$  : B+ Line.
- $\text{B-}$  : B- Line.
- Voltage are dc with respect to ground under no -signal conditions.
- no mark: CD
- Voltages are taken with a VOM (input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path  $\Rightarrow$  : TUNER

3-6. PRINTED WIRING BOARD - PANEL, POWER SECTION -

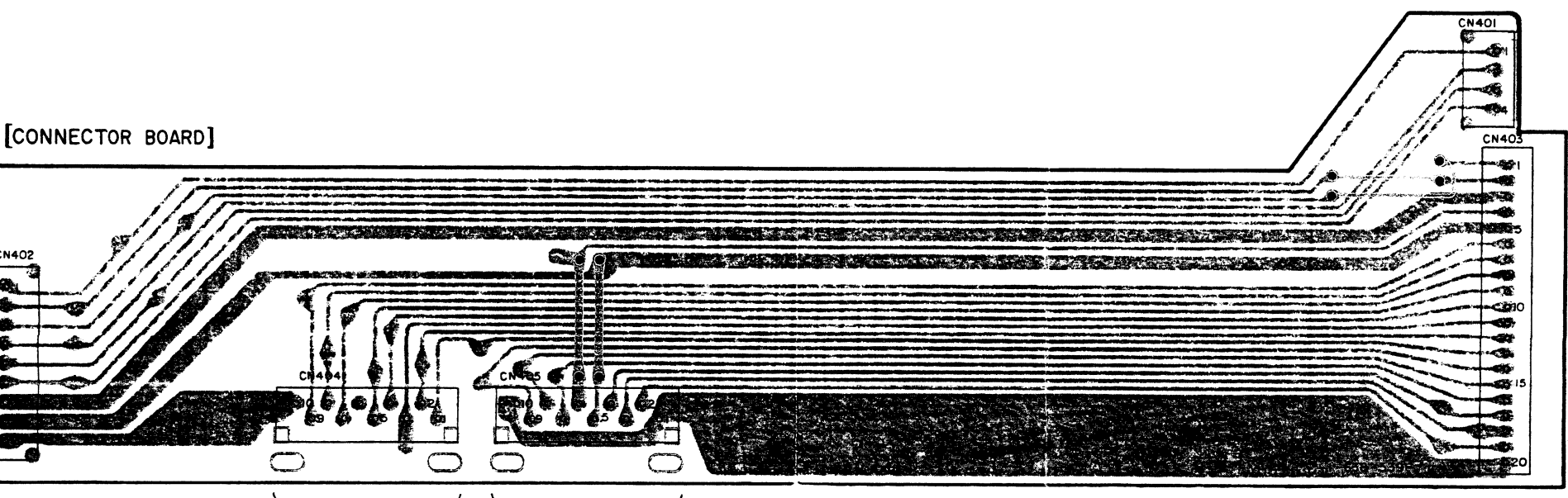


● SEMICONDUCTOR LOCATION  
• PANEL/POWER BOARD

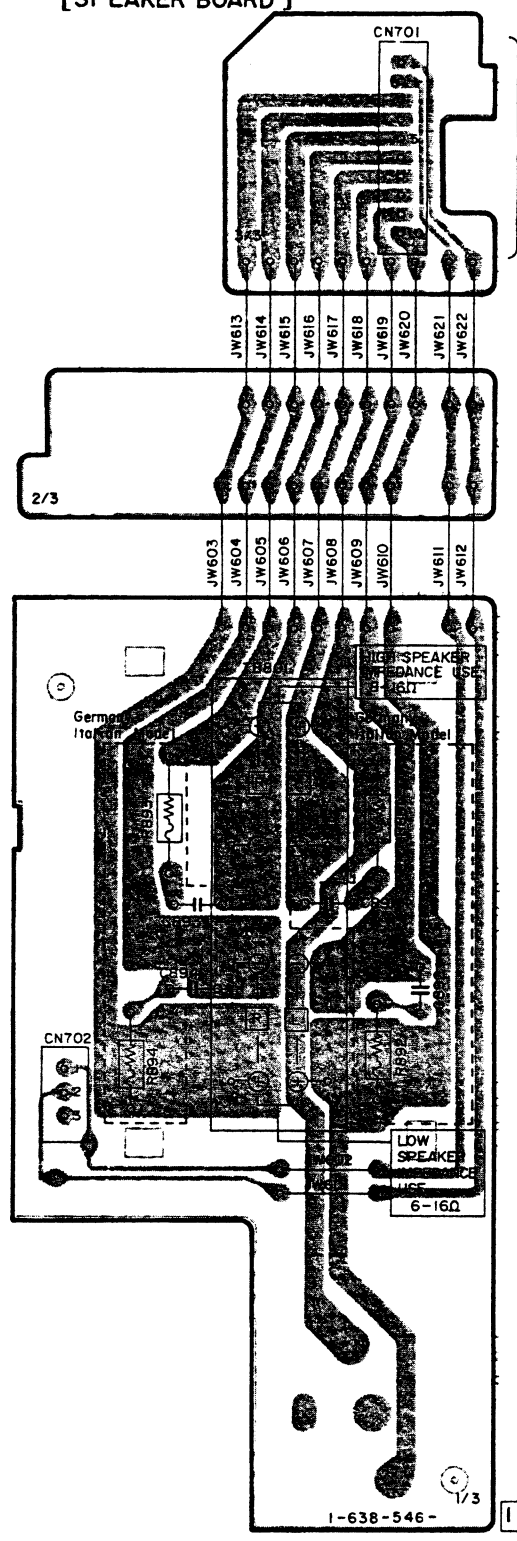
Ref. No	Location	Ref. No	Location
D550	F-6	IC505	H-4
D551	E-5	IC506	H-6
D571	E-9	IC507	E-6
D572	E-8	IC508	F-7
D573	H-8	IC591	B-2
D574	G-2	IC701	J-14
D575	G-2	IC702	H-15
D576	G-1	IC703	G-15
D591	B-2	IC801	G-15
D701	J-15	IC821	G-17
D702	J-14	IC851	G-14
D703	J-14	IC871	G-13
D704	I-15		
D705	I-15	Q611	C-21
D706	H-15	Q612	C-21
		Q701	J-15
D801	H-16	Q702	C-20
D802	I-16	Q801	I-16
D811	K-21		H-17
D812	K-20	Q821	
D821	H-16	Q851	I-14
		Q871	H-13
D822	I-16		
D851	H-14		
D852	I-15		
D871	H-14		
D872	I-16		
D901	E-21		
D902	D-22		
D903	D-22		

Note:  
 • — : 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.

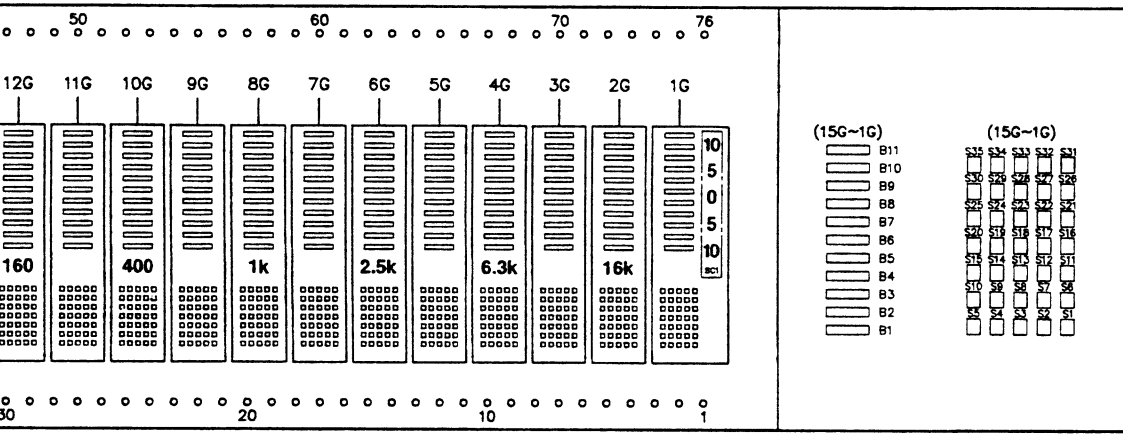
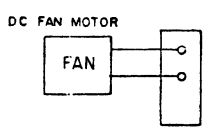
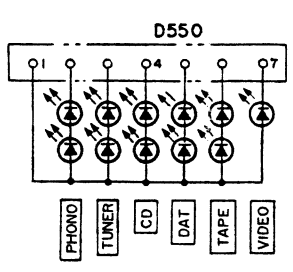
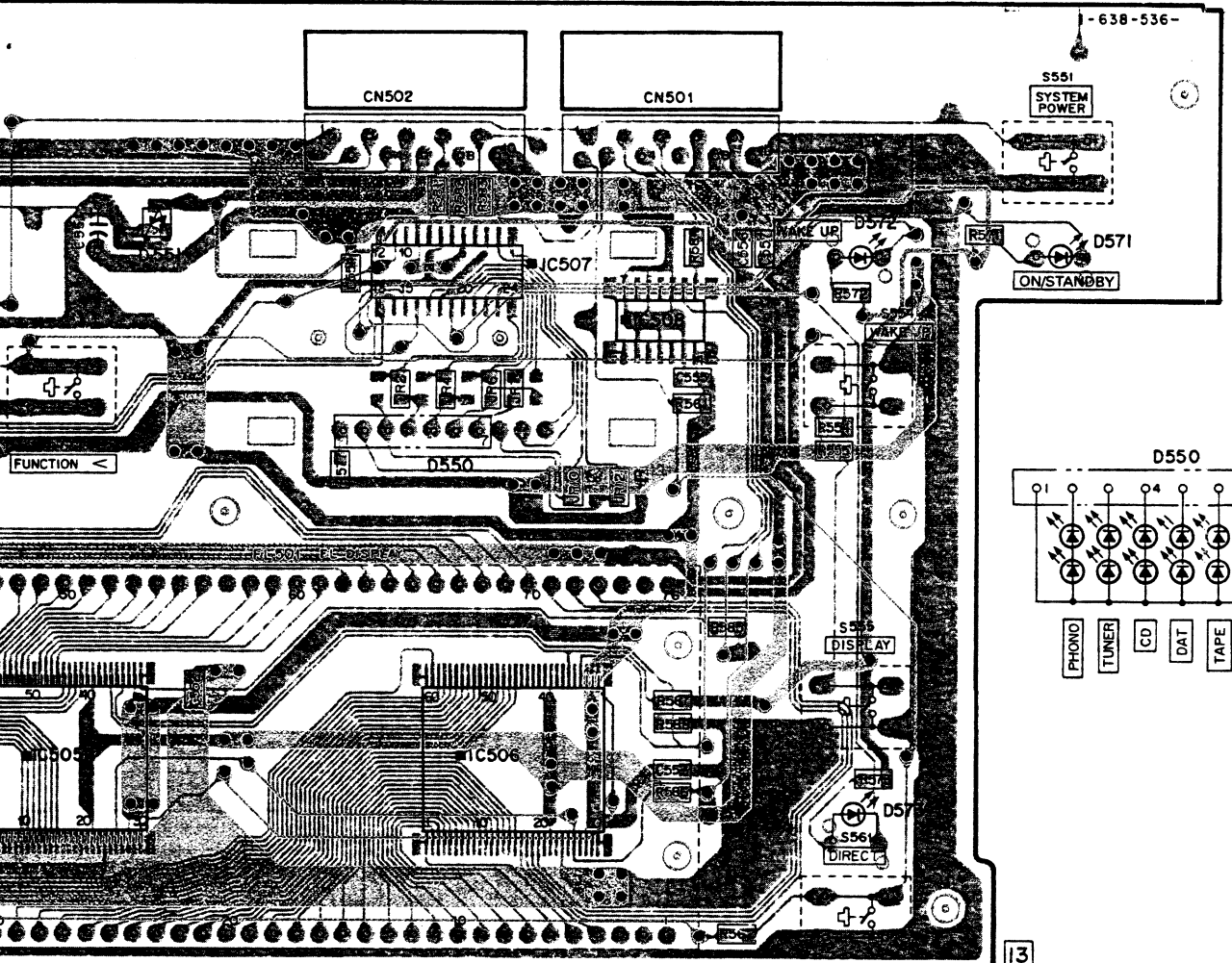
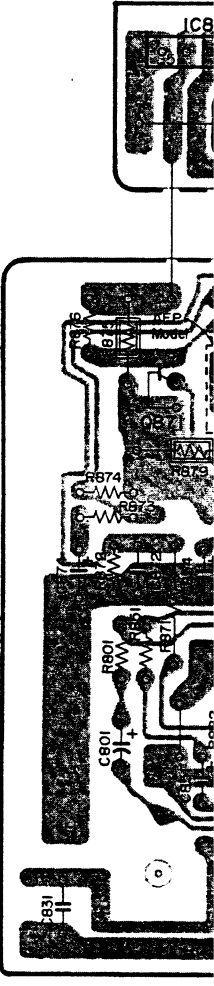
[CONNECTOR BOARD]



[SPEAKER BOARD]

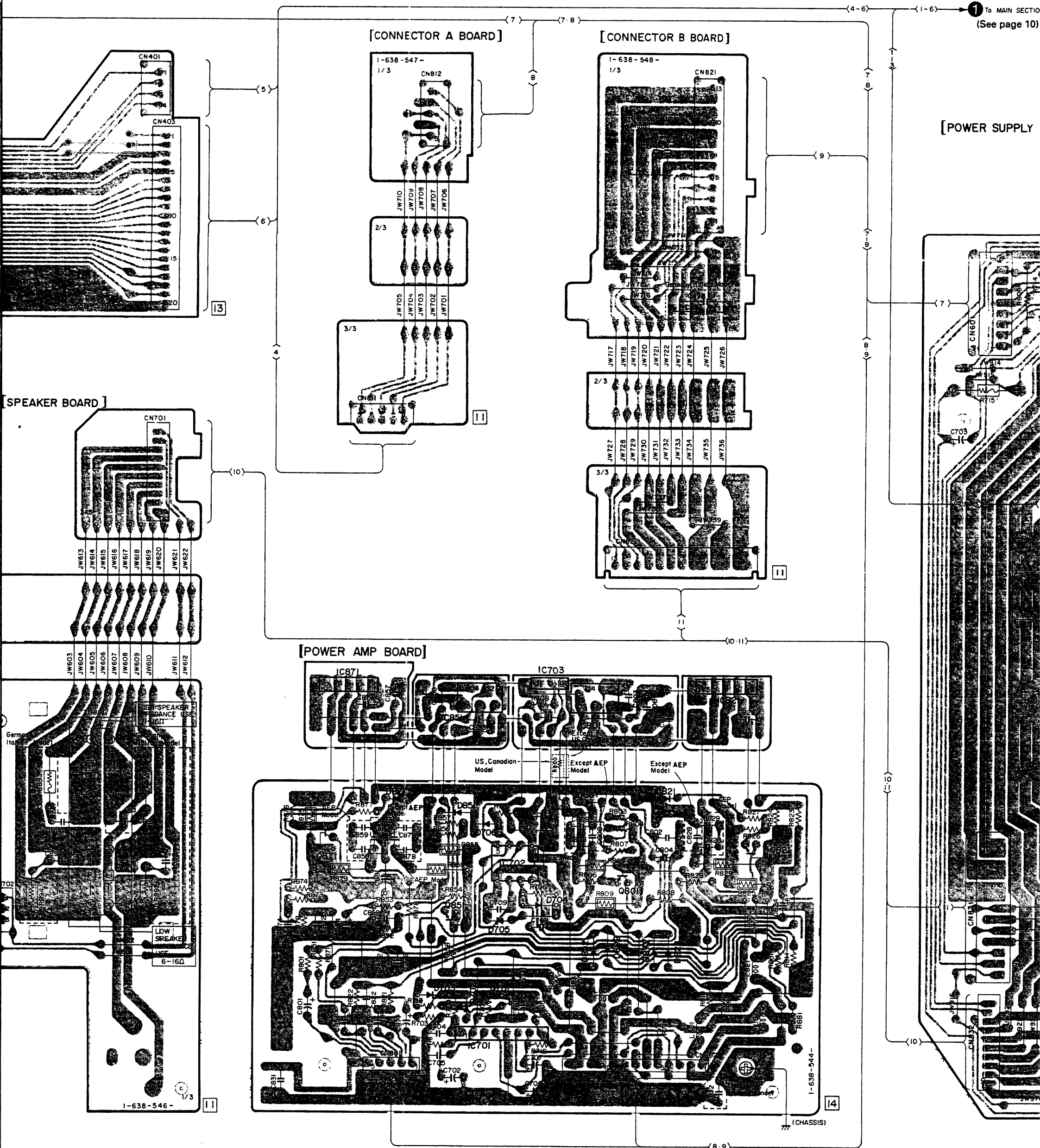


[POWER BOARD]

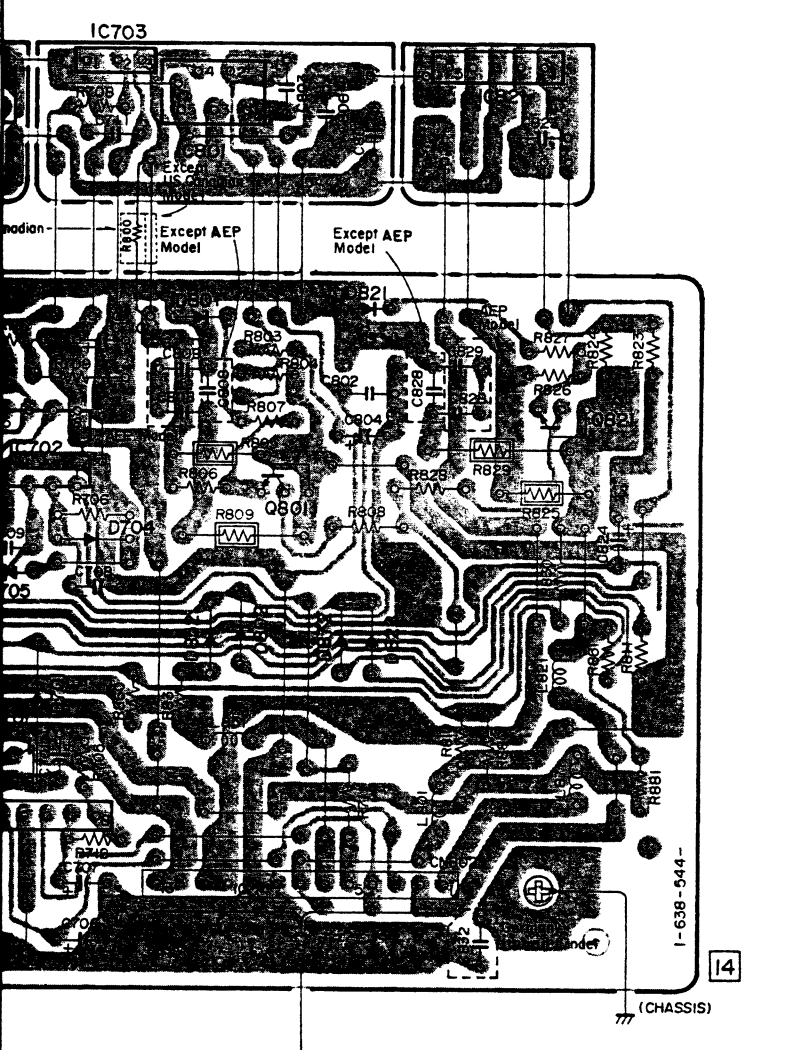
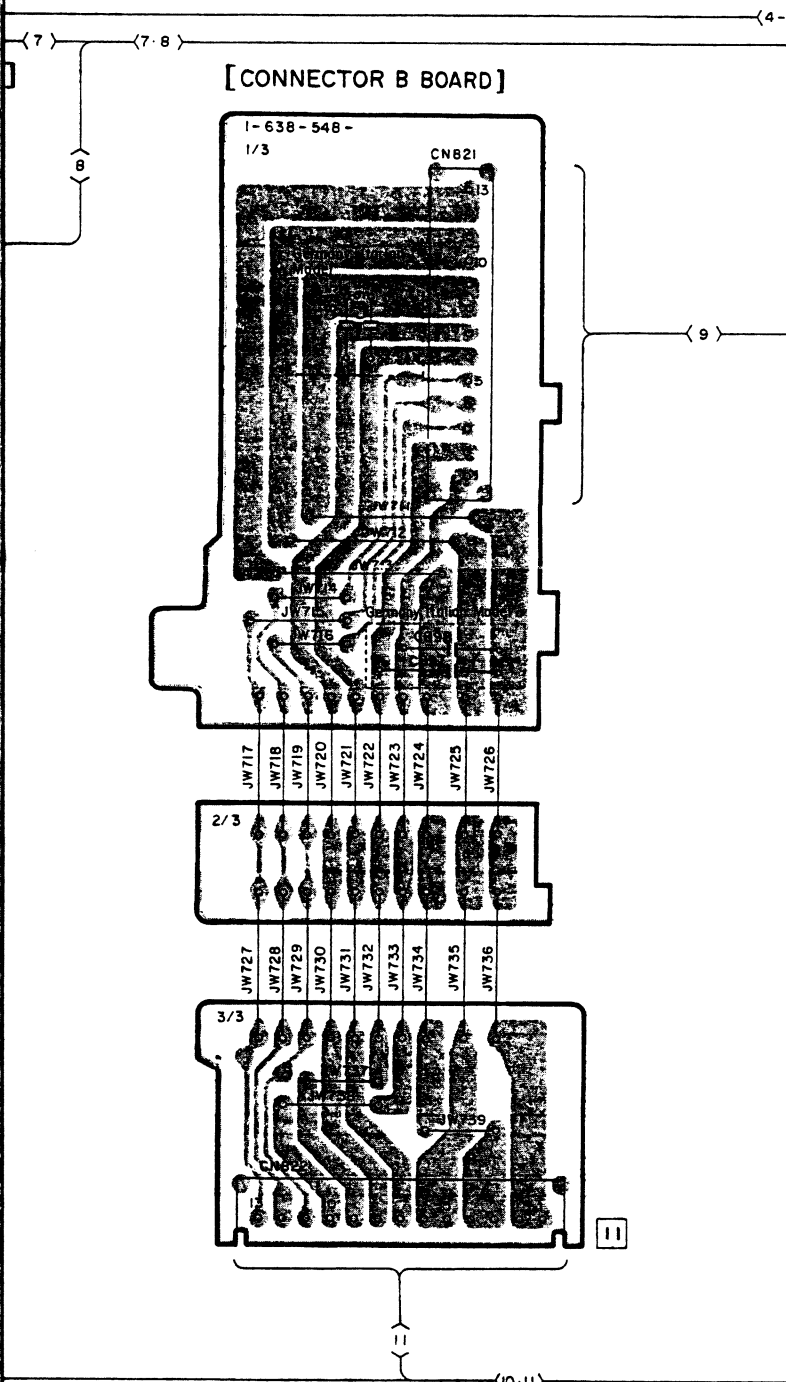


FL 501  
FL DISPLAY

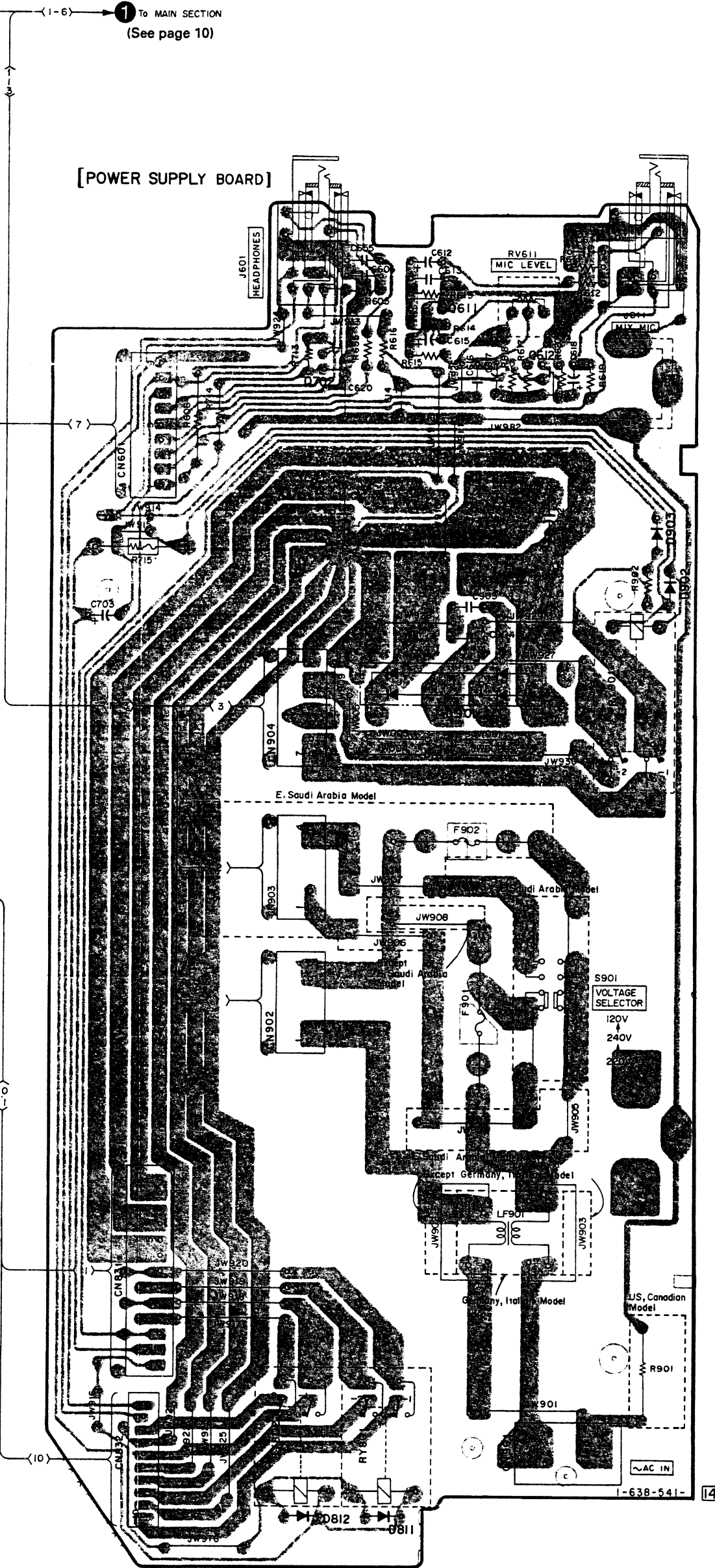




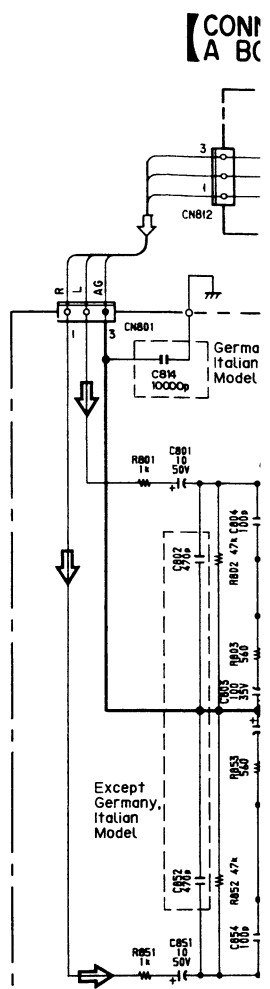
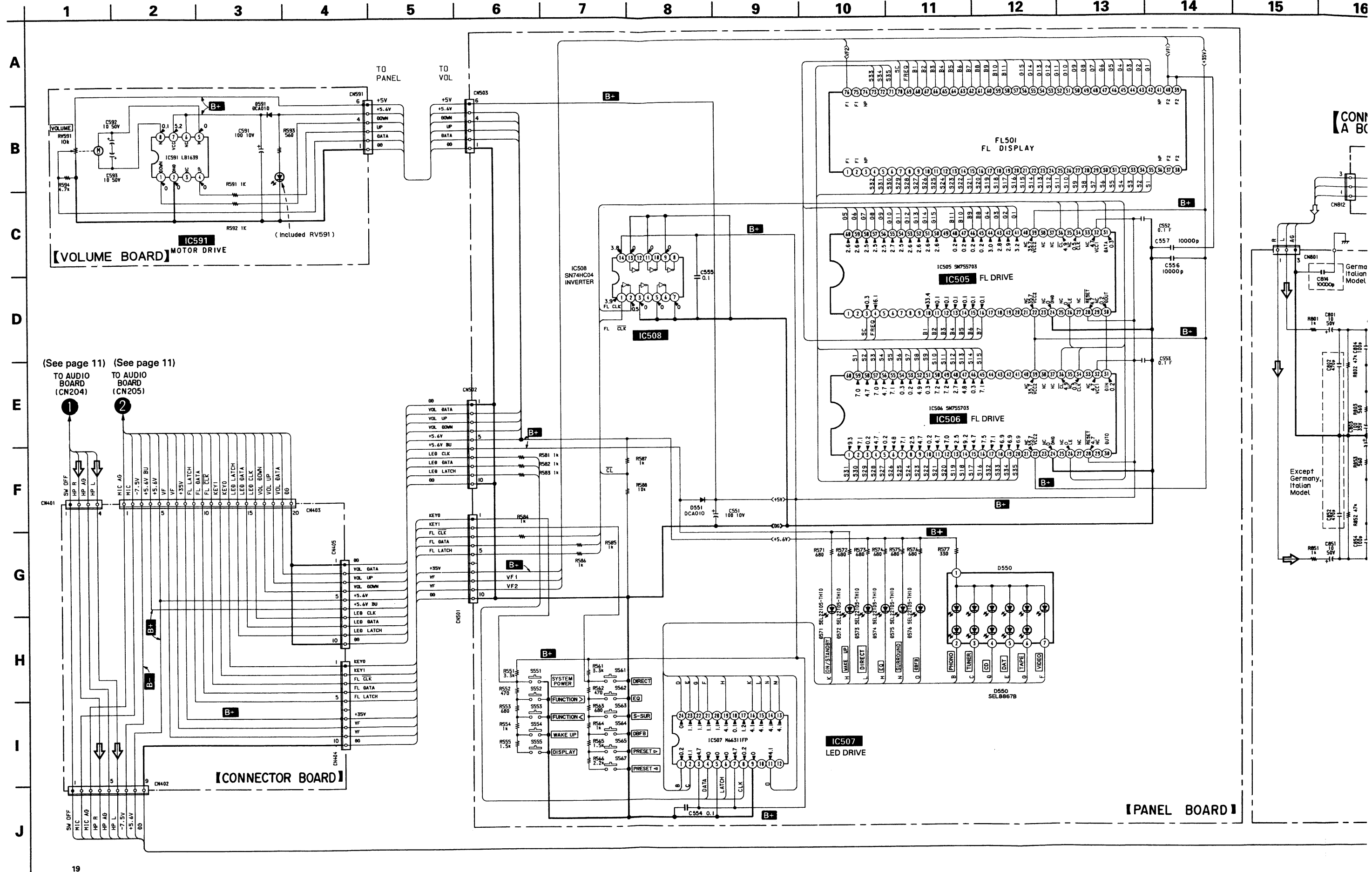
1 To MAIN SECTION (See page 10)

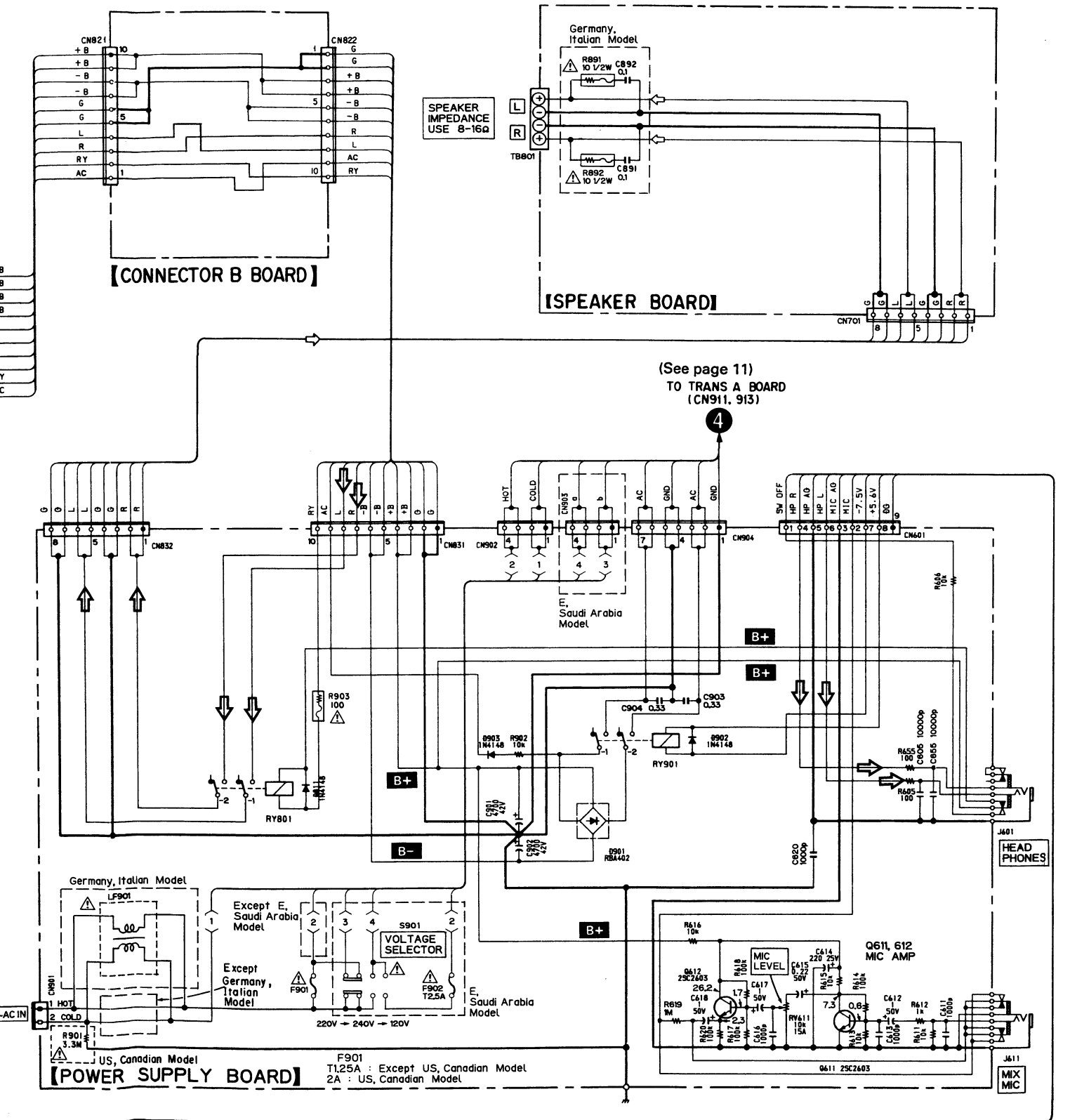
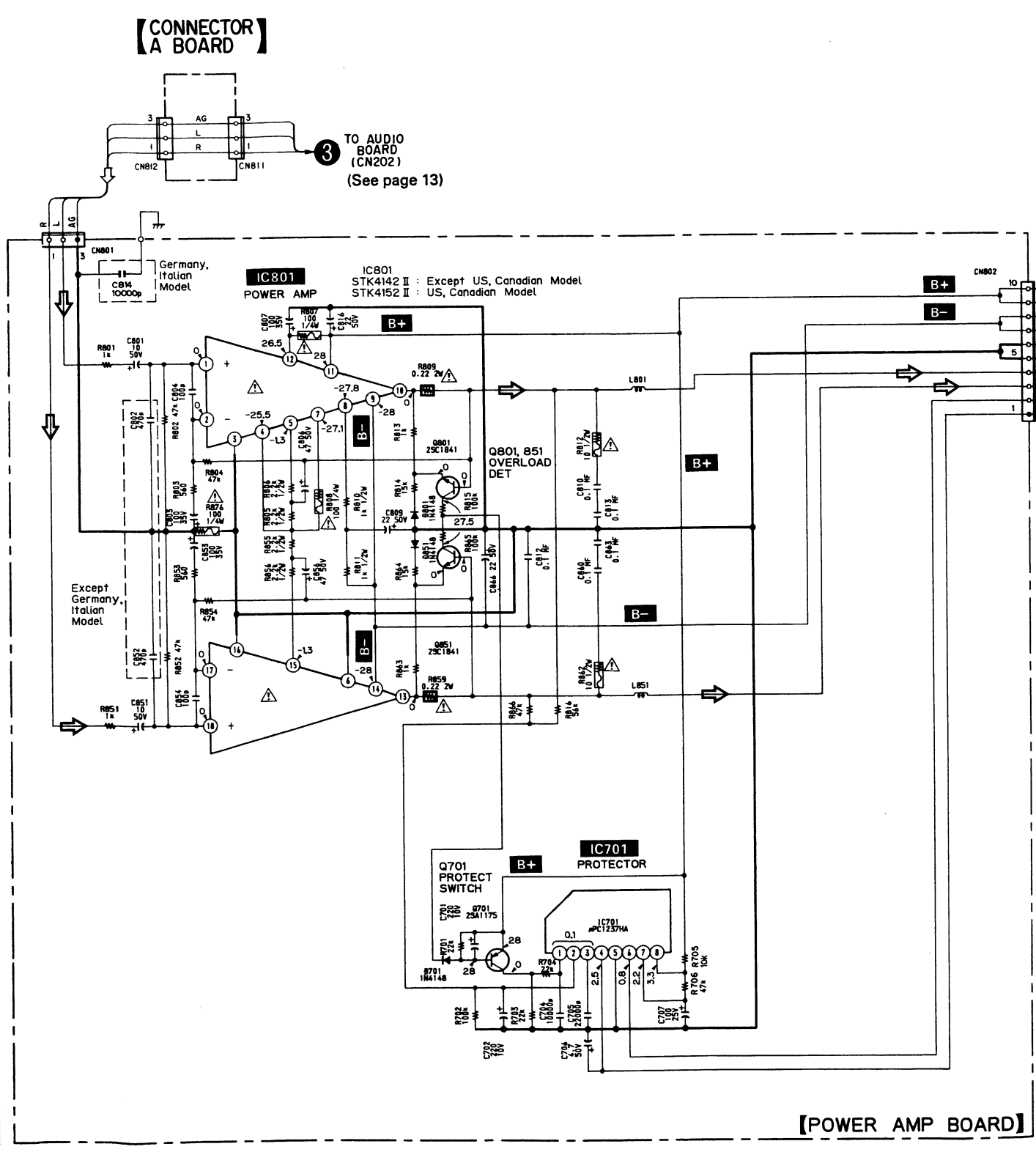


[POWER SUPPLY BOARD]



3-6. SCHEMATIC DIAGRAM - PANEL, POWER SECTION -

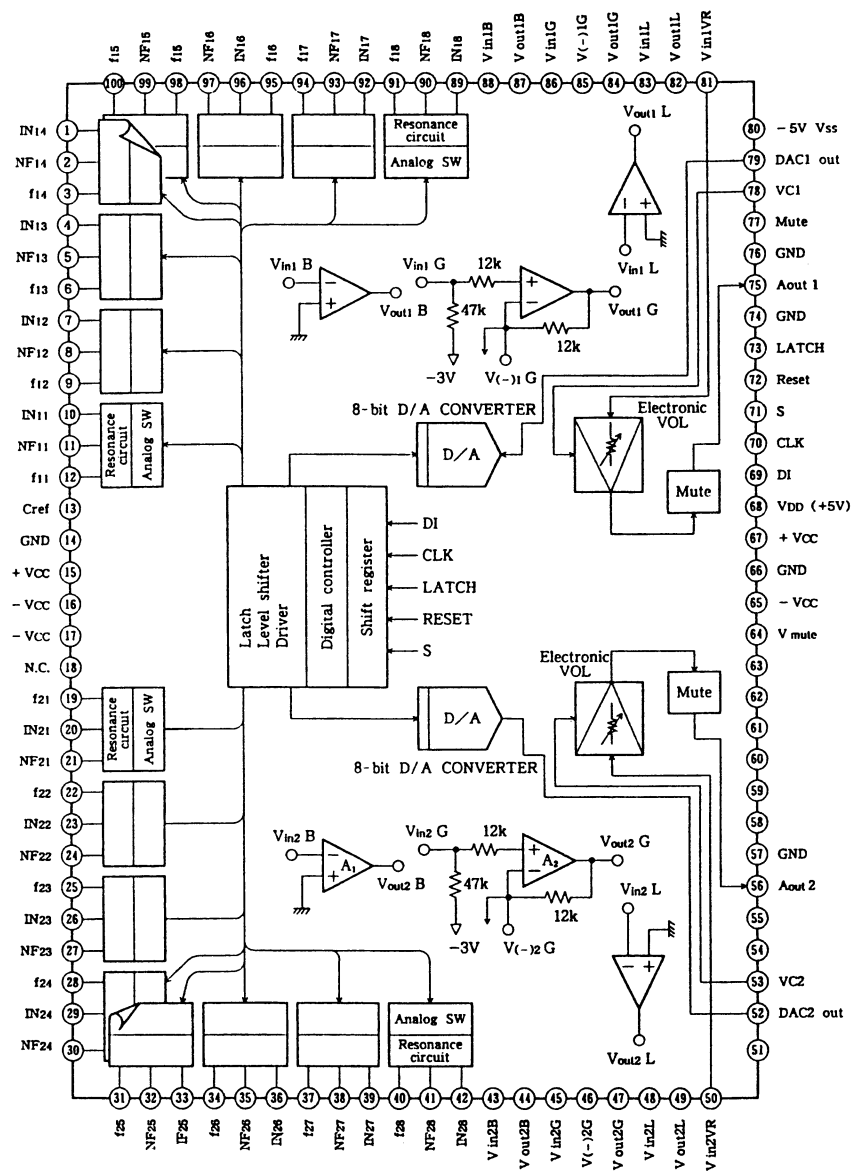




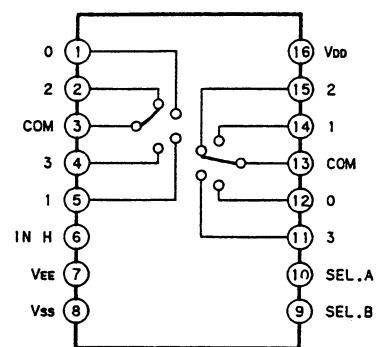


3-7. IC BLOCK DIAGRAMS

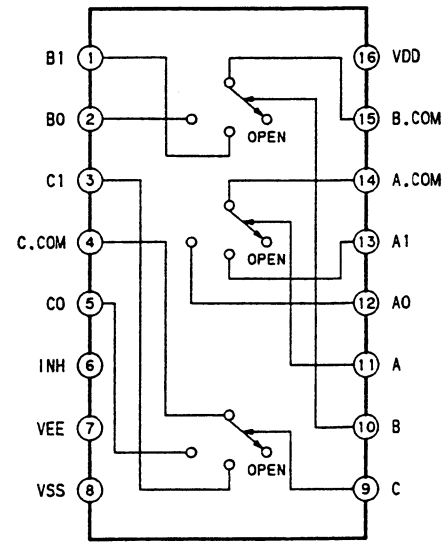
IC201 CXA1492Q



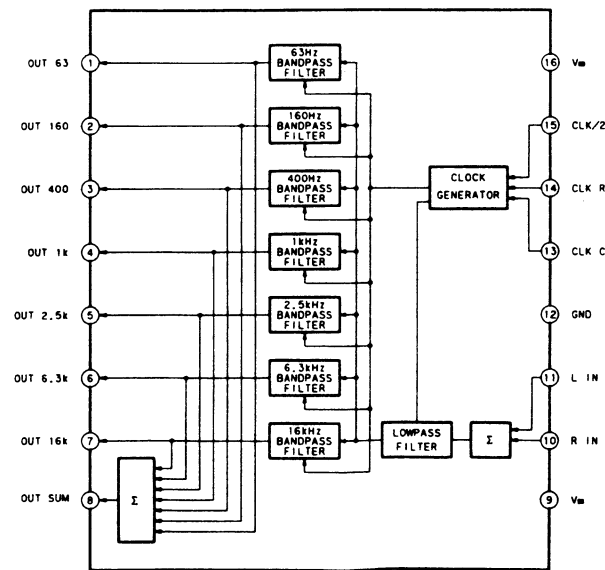
IC304, 503 MC14052BF



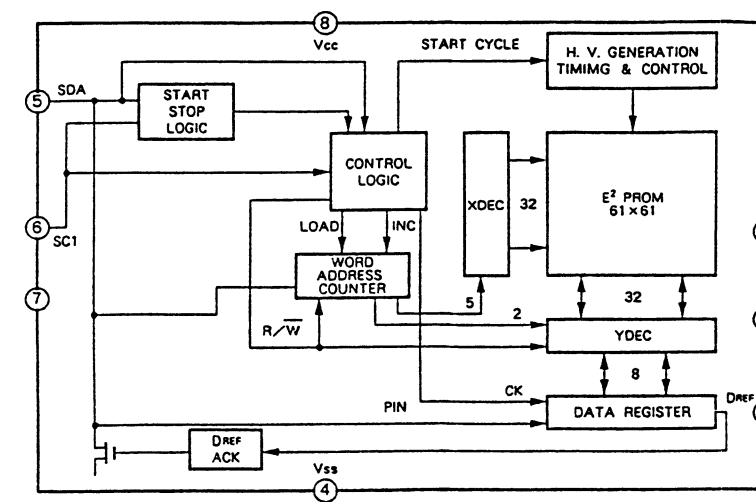
IC305 HD14053BFP



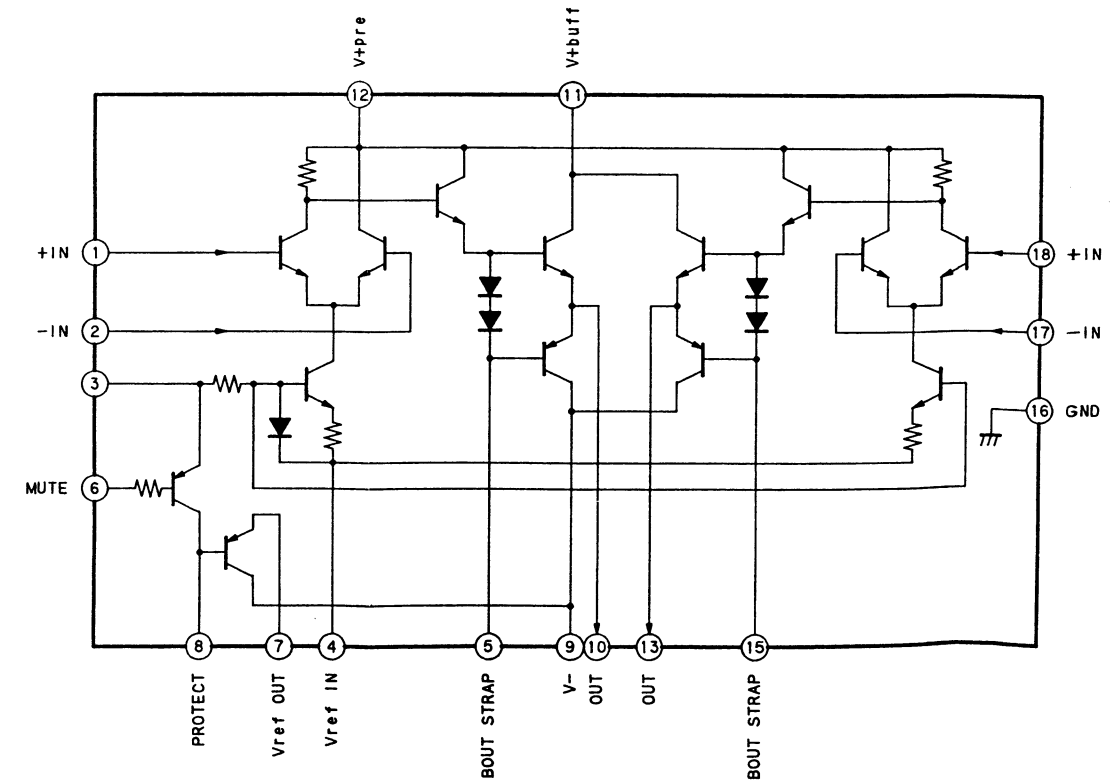
IC504 XR1091DCP



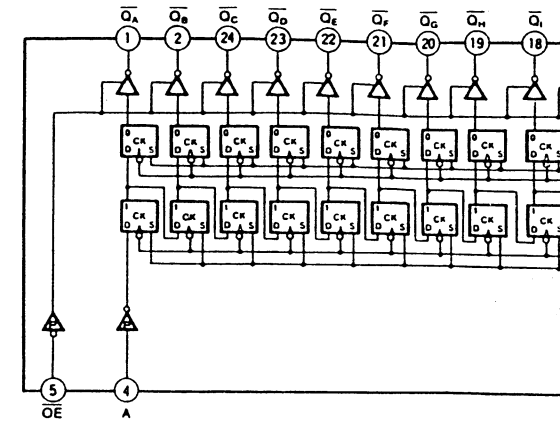
IC502 X24C01P

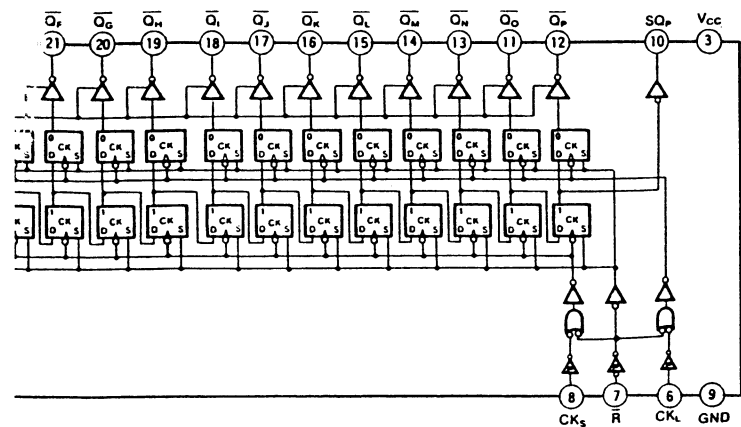


IC801 STK4142II  
STK4152II

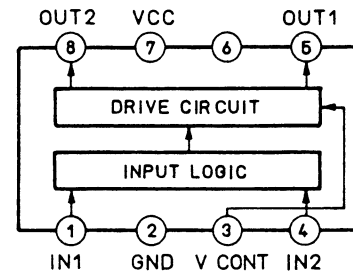


IC507 M66311FP

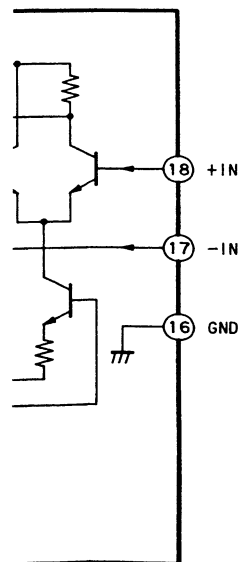
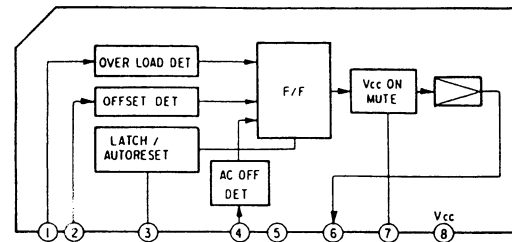




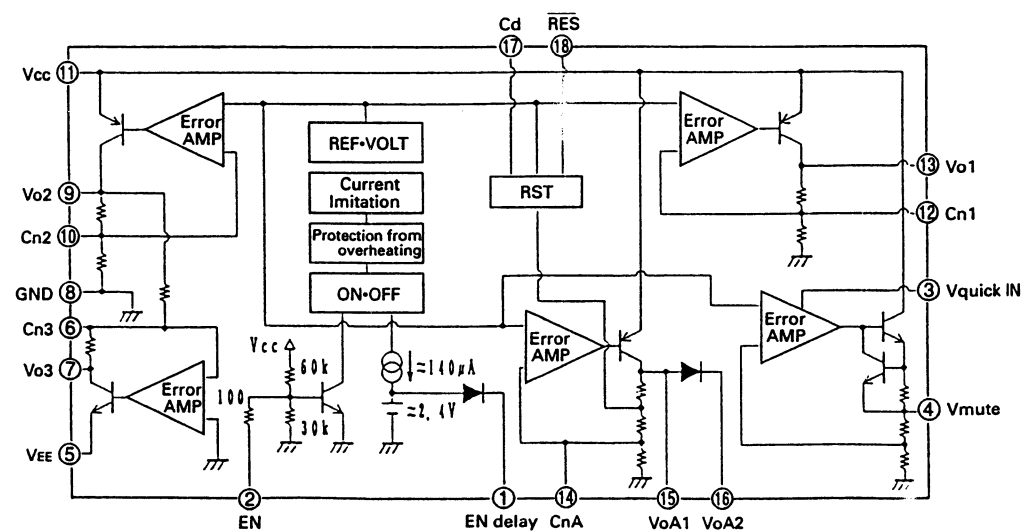
IC591 LB1639



IC701  $\mu$ PC1237HA



IC901 LA5603



3-8. PIN FUNCTIONS OF IC501 ( $\mu$ PD 78134-D29-3B9)

According to keying in or remote control signal, it sets the Graphic equalizer electronic volume (IC201), DBFB, surround etc. and switches the LED and FL tube display and functions in the deck.

Pin No.	Pin name	I/O	Description
1	CLR	I	Timer pulse input
2	+5V	I	Not in use with the equipment (+5V)
3	DATA	O	Serial data output to the FL tube driver (IC505, 506)
4	CLK	O	Data transfer clock output to the FL tube driver (IC505, 506)
5	S0	I	Input port for model selection. Connected to +5V(except US and Canadian model) or GND(US or Canadian model) with the equipment.
6	S1	I	Input port for model selection. Connected to +5V(US or Canadian model) or GND(except US and Canadian model) with the equipment.
7-12	-	I	Not in use with the equipment (+5V)
13	POT00	O	Timer pulse output (about 400 $\mu$ Sec)
14	CLK	O	Data transfer clock output to the LED driver (IC507)
15	DATA	O	Serial data output to LED driver (IC507)
16	LATCH	O	Data latch output to the LED driver (IC507)
17-18	PWM 0, PWM 1	O	Not in use with the equipment (open)
19	AVss	-	Analog system power terminal (GND)
20	AVref	I	Analog port reference voltage input (+5V)
21-22	KEY 0, 1	I	Key input (Analog)*1
23-24	SPE 0, 1	I	Spectrum analysis data input (analog)
25	VOL	I	Volume position data input (analog)
26	DBFB	I	DBFB data input
27-28	-	I	Not in use with the equipment (GND)
29	RESET	I	System reset input. "L" : reset
30	VDD	-	Power terminal (+5V)
31-32	X2, X1	-	Crystal connection terminal for system clock oscillation
33	VSS	-	Power terminal (GND)
34	A	O	Spectrum analysis data input switch A
35	B	O	Spectrum analysis data input switch B
36	INH	O	Spectrum analysis data input switch inhibit
37	A	O	DBFB output switch A
38	B	O	DBFB output switch B
39	INH	O	DBFB output switch inhibit
40-41	-	O	Not in use with the equipment (open)
42	SCL	O	Clock output to EEP-ROM (IC502)
43	SDA	I/O	Data input/output (user preset memory data, etc.) with EEP-ROM (IC502)
44	-	O	Not in use with the equipment (open)
45	AU BUS IN	I	Audio bus input
46	AU BUS OUT	O	Audio bus output (tuner power ON/OFF and instruction to the function switch microcomputer in the deck)
47	-	O	Not in use with the equipment (open)
48	VOL DOWN	O	DOWN signal output of the volume motor (RV591)
49	VOL UP	O	UP signal output of the volume motor (RV591)
50	TC FUNC	I	Request of audio bus (FUNCTION data) from the function switch microcomputer in the deck (TC-H2600)

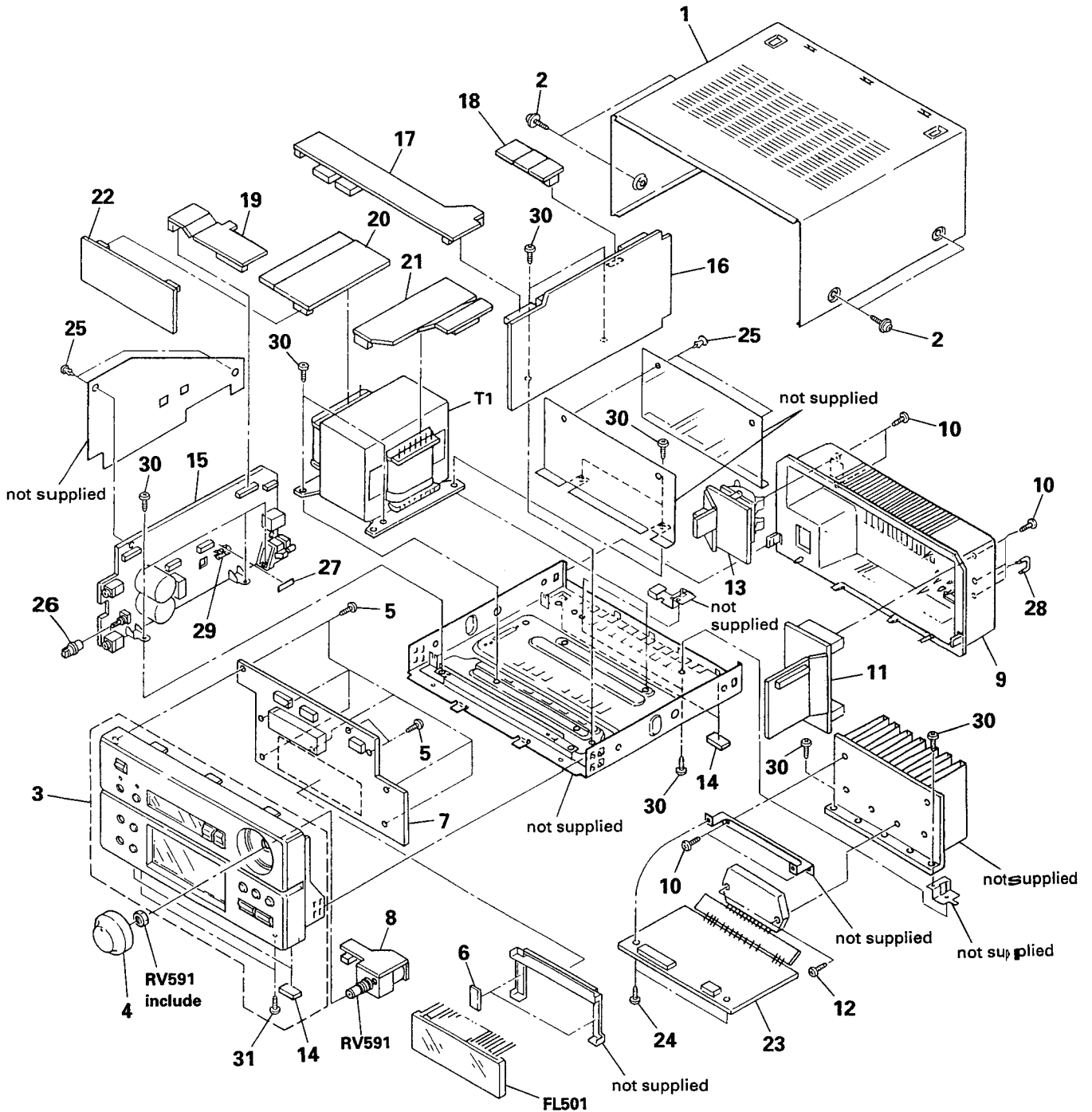
## SECTION 4 EXPLODED VIEW

**NOTE:**

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts  
Example:  
KNOB,BALANCE(WHITE)...(RED)  
                  ↑                  ↑  
          Parts color  Cabinet's color
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- CND : Canadian model  
  G : Germany model  
  IT : Italian model  
  EA : Saudi Arabia model  
  AUS : Australian model

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



Pin No.	Pin name	I/O	Description
51	RESET	O	Reset output to the Graphic equalizer electronic volume (IC201) "L" : reset
52	LATCH	O	Data latch output to the Graphic equalizer electronic volume (IC201)
53	CLK	O	Data transfer clock output to the Graphic equalizer electronic volume (IC201)
54	DATA	O	Serial data output to the Graphic equalizer electronic volume (IC201)
55	MUTE	O	Mute reverse output
56	MUTE	O	Mute output
57	POWER ON/OFF	O	Power (IC901) output control. "L" : Power ON
58-62	-	O	Not in use with the equipment (open)
63	DBFB	O	DBFB ON/OFF (IC305) controller output. "H" : ON, "L" : OFF
64	SUR	O	Surround ON/OFF (IC302 1/2) controller output. "H" : surround ON
65	KARAOKE	O	Not in use with the equipment (open)
66	ASTB/CLO	O	Not in use with the equipment (open)
67	VSS	-	Power terminal (GND)
68	EA	I	Not in use with the equipment (open)
69-76	-	O	Not in use with the equipment (open)
77	VDD	-	Power terminal (+5V)
78	-	O	Not in use with the equipment (open)
79	LATCH	O	Data latch output to the FL tube driver (IC505, 506)
80	-	O	Not in use with the equipment (open)

**\*1 Key input (analog port)**

Input port \ Voltage (V)	0	0.63	1.3	2.0	2.6	3.2
Pin ① KEY 0	POWER S551	FUNCTION AUDIO S552	FUNCTION VIDEO S553	WAKE UP S554	DISPLAY S555	—
Pin ② KEY 1	DIRECT S561	EQ S562	SURROUND S563	DBFB S564	PRESET UP ▷ S565	PRESET DOWN ◁ S567

**\*2 DBFB level control**

Input port \ Level	OFF	1	2	3	4
Pin ③ A	-	L	H	L	H
Pin ④ B	-	L	L	H	H
Pin ⑤ INH	H	L	L	L	L

## SECTION 5 ELECTRICAL PARTS LIST

### AUDIO PANEL VOLUME CONNECTOR

**NOTE:**

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL : Metal-film resistor  
METAL OXIDE : Metal Oxide-film resistor  
F : nonflammable
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u :  $\mu$ , for example :  
uA...:  $\mu$ A..., uPA...:  $\mu$ PA...,  
uPB...:  $\mu$ PB..., uPC...:  $\mu$ PC...,  
uPD...:  $\mu$ PD...  
• CAPACITORS  
uF :  $\mu$ F  
• COILS  
uH :  $\mu$ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	* A-4341-577-A	PANEL BOARD, COMPLETE (AEP, UK, E, EA, AUS)		C254	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
	* A-4341-581-A	PANEL BOARD, COMPLETE (G, IT)		C255	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
	* A-4345-442-A	PANEL BOARD, COMPLETE (US, CND)		C256	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
	*****			C257	1-164-346-11	CERAMIC CHIP 1uF	16V
	* A-4341-582-A	AUDIO BOARD, COMPLETE (AEP, UK, AUS)		C261	1-164-489-11	CERAMIC CHIP 0.22uF	10% 16V
	* A-4341-578-A	AUDIO BOARD, COMPLETE (E, EA)		C262	1-164-489-11	CERAMIC CHIP 0.22uF	10% 16V
	* A-4341-593-A	AUDIO BOARD, COMPLETE (G, IT)		C263	1-163-038-00	CERAMIC CHIP 0.1uF	25V
	* A-4345-443-A	AUDIO BOARD, COMPLETE (US, CND)		C264	1-164-343-11	CERAMIC CHIP 0.056uF	10% 25V
	*****			C265	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
	* 1-638-539-11	CONNECTOR BOARD		C266	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
	*****			C267	1-163-024-00	CERAMIC CHIP 0.018uF	10% 50V
	* 1-638-551-11	VOLUME BOARD		C268	1-164-232-11	CERAMIC CHIP 0.01uF	50V
	*****			C269	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V
	* 4-932-810-11	CUSHION (FL)		C270	1-163-016-00	CERAMIC CHIP 0.0039uF	10% 50V
	( CAPACITOR )			C271	1-163-014-00	CERAMIC CHIP 0.0027uF	10% 50V
C201	1-124-907-11	ELECT 10uF	20% 50V	C272	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
C202	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C273	1-163-010-11	CERAMIC CHIP 0.0012uF	10% 50V
C203	1-124-907-11	ELECT 10uF	20% 50V	C274	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C204	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C291	1-124-443-00	ELECT 100uF	20% 10V
C205	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C292	1-124-443-00	ELECT 100uF	20% 10V
C206	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C293	1-124-443-00	ELECT 100uF	20% 10V
C207	1-164-346-11	CERAMIC CHIP 1uF	16V	C294	1-124-443-00	ELECT 100uF	20% 10V
C210	1-124-443-00	ELECT 100uF	20% 10V	C295	1-124-443-00	ELECT 100uF	20% 10V
C211	1-164-489-11	CERAMIC CHIP 0.22uF	10% 16V	C301	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C212	1-164-489-11	CERAMIC CHIP 0.22uF	10% 16V	C302	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C213	1-163-038-00	CERAMIC CHIP 0.1uF	25V	C311	1-164-346-11	CERAMIC CHIP 1uF	16V
C214	1-164-343-11	CERAMIC CHIP 0.056uF	10% 25V	C312	1-164-346-11	CERAMIC CHIP 1uF	16V
C215	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V	C313	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C216	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	C321	1-136-165-00	FILM 0.1uF	5% 50V
C217	1-163-024-00	CERAMIC CHIP 0.018uF	10% 50V	C322	1-136-165-00	FILM 0.1uF	5% 50V
C218	1-164-232-11	CERAMIC CHIP 0.01uF	50V	C323	1-124-903-11	ELECT 1uF	20% 50V
C219	1-163-019-00	CERAMIC CHIP 0.0068uF	10% 50V	C325	1-124-907-11	ELECT 10uF	20% 50V
C220	1-163-016-00	CERAMIC CHIP 0.0039uF	10% 50V	C326	1-124-907-11	ELECT 10uF	20% 50V
C221	1-163-014-00	CERAMIC CHIP 0.0027uF	10% 50V	C327	1-124-443-00	ELECT 100uF	20% 10V
C222	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V	C341	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C223	1-163-010-11	CERAMIC CHIP 0.0012uF	10% 50V	C342	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C224	1-163-007-11	CERAMIC CHIP 680PF	10% 50V	C343	1-124-443-00	ELECT 100uF	20% 10V
C251	1-124-907-11	ELECT 10uF	20% 50V	C351	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C252	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C352	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C253	1-124-907-11	ELECT 10uF	20% 50V	C371	1-136-165-00	FILM 0.1uF	5% 50V

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	* 4-944-522-01	CASE (K211522)		16	* A-4341-582-A	AUDIO BOARD, COMPLETE (AEP, UK, AUS)	
2	3-363-099-01	SCREW (CASE +3X8 TP2)			* A-4341-578-A	AUDIO BOARD, COMPLETE (E, EA)	
3	X-4941-604-1	PANEL ASSY, FRONT (US, CND, AEP, UK, G, IT)			* A-4341-593-A	AUDIO BOARD, COMPLETE (G, IT)	
	X-4941-605-1	PANEL ASSY, FRONT (E, EA, AUS)			* A-4345-443-A	AUDIO BOARD, COMPLETE (US, CND)	
4	X-4941-532-1	KNOB (VOLUME) ASSY		17	* 1-638-539-11	CONNECTOR BOARD	
5	4-928-635-01	SCREW, +BV (2.6X8) TAPPING		18	* 1-638-560-11	CONNECTOR (A) BOARD	
6	* 4-932-810-11	CUSHION (FL)		19	* 1-638-561-11	CONNECTOR (B) BOARD	
7	* A-4341-577-A	PANEL BOARD, COMPLETE (AEP, UK, E, EA, AUS)		20	* 1-638-555-11	TRANSFORMER (A) BOARD	
	* A-4341-581-A	PANEL BOARD, COMPLETE (G, IT)		21	* 1-638-556-11	TRANSFORMER (B) BOARD	
	* A-4345-442-A	PANEL BOARD, COMPLETE (US, CND)		22	* 1-638-553-11	TRANSFORMER (C) BOARD	
8	* 1-638-551-11	VOLUME BOARD		23	* A-4345-441-A	POWER AMP BOARD, COMPLETE (AEP, UK, AUS)	
9	* 4-943-337-21	PANEL, BACK (US, CND, AEP, UK, G, IT, AUS)			* A-4341-571-A	POWER AMP BOARD, COMPLETE (E, EA)	
	* 4-943-337-11	PANEL, BACK (E, EA)			* A-4345-438-A	POWER AMP BOARD, COMPLETE (G, IT)	
10	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			* A-4345-763-A	POWER AMP BOARD, COMPLETE (US, CND)	
11	* 1-638-558-11	JACK BOARD		24	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
12	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3		25	4-812-134-11	RIVET NYLON, 3.5	
13	* 1-638-559-11	SPEAKER BOARD		26	4-932-882-11	KNOB (HP. VOL)	
14	4-930-336-01	FOOT (FELT)		27	3-701-947-12	LABEL (T1. 25A), FUSE	
						(AEP, UK, G, IT, E, EA, AUS)	
15	* A-4341-583-A	POWER SUPPLY BOARD, COMPLETE (AEP, UK, AUS)			3-701-946-13	LABEL (2A 250V), FUSE (US, CND)	
	* A-4341-579-A	POWER SUPPLY BOARD, COMPLETE (E)			3-701-948-18	LABEL (T2. 5A), FUSE (E, EA)	
	* A-4341-594-A	POWER SUPPLY BOARD, COMPLETE (G, IT)		28	* 1-535-706-11	PLUG, JUMPER (E, EA)	
	* A-4341-844-A	POWER SUPPLY BOARD, COMPLETE (US, CND)		29	* 1-533-213-31	HOLDER, FUSE	
	* A-4345-699-A	POWER SUPPLY BOARD, COMPLETE (EA)		30	7-682-547-04	SCREW +BVTT 3X6 (S)	
				31	7-682-547-09	SCREW +BVTT 3X6 (S)	

## AUDIO

## PANEL

## VOLUME

## CONNECTOR

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C372	1-136-165-00	FILM	0.1uF 5%	50V	C929	1-164-346-11 CERAMIC CHIP	1uF 16V
C373	1-124-903-11	ELECT	1uF 20%	50V	C930	1-124-907-11 ELECT	10uF 20% 50V
C375	1-124-907-11	ELECT	10uF 20%	50V	C931	1-126-104-11 ELECT	470uF 20% 35V
C376	1-124-907-11	ELECT	10uF 20%	50V	C932	1-126-105-11 ELECT	1000uF 20% 35V
C501	1-124-443-00	ELECT	100uF 20%	10V	C933	1-124-477-11 ELECT	47uF 20% 25V
C502	1-163-038-00	CERAMIC CHIP	0.1uF	25V	C934	1-124-477-11 ELECT	47uF 20% 25V
C503	1-163-038-00	CERAMIC CHIP	0.1uF	25V	C941	1-124-122-11 ELECT	100uF 20% 50V
C511	1-163-009-11	CERAMIC CHIP	0.001uF	10% 50V	C942	1-124-907-11 ELECT	10uF 20% 50V
C512	1-124-443-00	ELECT	100uF 20%	10V	C943	1-124-907-11 ELECT	10uF 20% 50V
C513	1-124-443-00	ELECT	100uF 20%	10V	C951	1-124-122-11 ELECT	100uF 20% 50V
C521	1-163-038-00	CERAMIC CHIP	0.1uF	25V	C952	1-124-907-11 ELECT	10uF 20% 50V
C522	1-163-038-00	CERAMIC CHIP	0.1uF	25V	C953	1-124-907-11 ELECT	10uF 20% 50V
C523	1-162-294-31	CERAMIC CHIP	0.001uF	10% 50V	C954	1-163-035-00 CERAMIC CHIP	0.047uF 50V
C524	1-162-294-31	CERAMIC CHIP	0.001uF	10% 50V			
C525	1-163-038-00	CERAMIC CHIP	0.1uF	25V			( CONNECTOR )
C526	1-163-038-00	CERAMIC CHIP	0.1uF	25V	CN201	* 1-566-154-11 CONNECTOR, BOARD TO BOARD	20P
C527	1-163-038-00	CERAMIC CHIP	0.1uF	25V	CN202	* 1-569-499-11 PIN, CONNECTOR	3P
C528	1-163-038-00	CERAMIC CHIP	0.1uF	25V	CN203	* 1-569-505-11 PIN, CONNECTOR	10P
C542	1-124-477-11	ELECT	47uF 20%	25V	CN204	* 1-569-396-11 PIN, CONNECTOR	4P
C551	1-124-443-00	ELECT	100uF 20%	10V	CN205	* 1-580-051-11 SOCKET, CONNECTOR	20P
C552	1-164-004-11	CERAMIC CHIP	0.1uF 10%	25V	CN401	* 1-569-397-11 SOCKET, CONNECTOR	4P
C553	1-164-004-11	CERAMIC CHIP	0.1uF 10%	25V	CN402	* 1-569-495-11 SOCKET, CONNECTOR	9P
C554	1-164-004-11	CERAMIC CHIP	0.1uF 10%	25V	CN403	* 1-580-050-11 PIN, CONNECTOR	20P
C555	1-164-004-11	CERAMIC CHIP	0.1uF 10%	25V	CN404	1-568-321-11 SOCKET, CONNECTOR	10P
C556	1-164-232-11	CERAMIC CHIP	0.01uF	50V	CN405	1-568-321-11 SOCKET, CONNECTOR	10P
C557	1-164-232-11	CERAMIC CHIP	0.01uF	50V	CN501	* 1-568-322-11 PLUG, CONNECTOR	10P
C591	1-124-443-00	ELECT	100uF 20%	10V	CN502	* 1-568-322-11 PLUG, CONNECTOR	10P
C592	1-124-907-11	ELECT	10uF 20%	50V	CN503	* 1-568-318-11 PLUG, CONNECTOR	6P
C593	1-124-907-11	ELECT	10uF 20%	50V	CN591	1-568-317-11 SOCKET, CONNECTOR	6P
C601	1-124-907-11	ELECT	10uF 20%	50V			( DIODE )
C602	1-124-907-11	ELECT	10uF 20%	50V	D291	8-719-990-36 DIODE	DCA010
C603	1-163-117-00	CERAMIC CHIP	100PF 5%	50V	D294	8-719-990-36 DIODE	DCA010
C604	1-124-472-11	ELECT	470uF 20%	10V	D311	8-719-990-36 DIODE	DCA010
C605	1-163-117-00	CERAMIC CHIP	100PF 5%	50V	D312	8-719-990-36 DIODE	DCA010
C651	1-124-907-11	ELECT	10uF 20%	50V	D331	8-719-990-36 DIODE	DCA010
C652	1-124-907-11	ELECT	10uF 20%	50V	D341	8-719-990-36 DIODE	DCA010
C653	1-163-117-00	CERAMIC CHIP	100PF 5%	50V	D342	8-719-990-36 DIODE	DCA010
C654	1-124-472-11	ELECT	470uF 20%	10V	D501	8-719-990-36 DIODE	DCA010
C655	1-163-117-00	CERAMIC CHIP	100PF 5%	50V	D502	8-719-990-36 DIODE	DCA010
C911	1-124-563-11	ELECT	2200uF 20%	25V	D503	8-719-990-36 DIODE	DCA010
C912	1-124-563-11	ELECT	2200uF 20%	25V	D504	8-719-990-36 DIODE	DCA010
C913	1-136-165-00	FILM	0.1uF 5%	50V	D505	8-719-990-36 DIODE	DCA010
C914	1-136-165-00	FILM	0.1uF 5%	50V	D550	8-719-313-71 DIODE	SEL8867B
C920	1-164-232-11	CERAMIC CHIP	0.01uF	50V	D551	8-719-990-36 DIODE	DCA010
C921	1-164-346-11	CERAMIC CHIP	1uF	16V	D571	8-719-301-37 DIODE	SEL2210S-CD
C922	1-124-443-00	ELECT	100uF 20%	10V	D572	8-719-301-37 DIODE	SEL2210S-CD
C923	1-164-346-11	CERAMIC CHIP	1uF	16V	D573	8-719-301-37 DIODE	SEL2210S-CD
C924	1-124-443-00	ELECT	100uF 20%	10V	D574	8-719-301-37 DIODE	SEL2210S-CD
C925	1-164-346-11	CERAMIC CHIP	1uF	16V	D575	8-719-301-37 DIODE	SEL2210S-CD
C926	1-124-443-00	ELECT	100uF 20%	10V	D576	8-719-301-37 DIODE	SEL2210S-CD
C927	1-164-346-11	CERAMIC CHIP	1uF	16V	D591	8-719-990-36 DIODE	DCA010
C928	1-124-443-00	ELECT	100uF 20%	10V			

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





## AUDIO

## PANEL

## VOLUME

## CONNECTOR

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R264	1-216-121-00	METAL CHIP	1M 5% 1/10W	R380	1-216-073-00	METAL CHIP	10K 5% 1/10W
R265	1-216-121-00	METAL CHIP	1M 5% 1/10W	R381	1-216-025-00	METAL CHIP	100 5% 1/10W
R266	1-216-121-00	METAL CHIP	1M 5% 1/10W	R382	1-216-069-00	METAL CHIP	6.8K 5% 1/10W
R267	1-216-121-00	METAL CHIP	1M 5% 1/10W	R383	1-216-748-11	METAL CHIP	39K 5% 1/10W
R291	1-216-049-00	METAL CHIP	1K 5% 1/10W	R384	1-216-105-00	METAL CHIP	220K 5% 1/10W
R292	1-216-049-00	METAL CHIP	1K 5% 1/10W	R391	1-216-079-00	METAL CHIP	18K 5% 1/10W
R301	1-216-089-00	METAL CHIP	47K 5% 1/10W	R398	1-216-041-00	METAL CHIP	470 5% 1/10W
R302	1-216-077-00	METAL CHIP	15K 5% 1/10W	R399	1-216-025-00	METAL CHIP	100 5% 1/10W
R304	1-216-079-00	METAL CHIP	18K 5% 1/10W	R501	1-216-121-00	METAL CHIP	1M 5% 1/10W
R311	1-216-079-00	METAL CHIP	18K 5% 1/10W	R502	1-216-073-00	METAL CHIP	10K 5% 1/10W
R312	1-216-121-00	METAL CHIP	1M 5% 1/10W	R503	1-216-073-00	METAL CHIP	10K 5% 1/10W
R313	1-216-121-00	METAL CHIP	1M 5% 1/10W	R504	1-216-049-00	METAL CHIP	1K 5% 1/10W
R314	1-216-097-00	METAL CHIP	100K 5% 1/10W	R505	1-216-073-00	METAL CHIP	10K 5% 1/10W
R315	1-216-097-00	METAL CHIP	100K 5% 1/10W	R506	1-216-089-00	METAL CHIP	47K 5% 1/10W
R316	1-216-097-00	METAL CHIP	100K 5% 1/10W	R507	1-216-089-00	METAL CHIP	47K 5% 1/10W
R317	1-216-097-00	METAL CHIP	100K 5% 1/10W	R511	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R318	1-216-097-00	METAL CHIP	100K 5% 1/10W	R512	1-216-049-00	METAL CHIP	1K 5% 1/10W
R321	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	R513	1-216-009-00	METAL CHIP	22 5% 1/10W
R322	1-216-109-00	METAL CHIP	330K 5% 1/10W	R521	1-216-049-00	METAL CHIP	1K 5% 1/10W
R323	1-216-079-00	METAL CHIP	18K 5% 1/10W	R522	1-216-049-00	METAL CHIP	1K 5% 1/10W
R324	1-216-121-00	METAL CHIP	1M 5% 1/10W	R523	1-216-049-00	METAL CHIP	1K 5% 1/10W
R325	1-216-097-00	METAL CHIP	100K 5% 1/10W	R524	1-216-049-00	METAL CHIP	1K 5% 1/10W
R326	1-216-097-00	METAL CHIP	100K 5% 1/10W	R525	1-216-049-00	METAL CHIP	1K 5% 1/10W
R327	1-216-097-00	METAL CHIP	100K 5% 1/10W	R526	1-216-049-00	METAL CHIP	1K 5% 1/10W
R328	1-216-041-00	METAL CHIP	470 5% 1/10W	R527	1-216-049-00	METAL CHIP	1K 5% 1/10W
R329	1-216-025-00	METAL CHIP	100 5% 1/10W	R528	1-216-049-00	METAL CHIP	1K 5% 1/10W
R330	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	R530	1-216-089-00	METAL CHIP	47K 5% 1/10W
R331	1-216-025-00	METAL CHIP	100 5% 1/10W	R531	1-216-049-00	METAL CHIP	1K 5% 1/10W
R332	1-216-069-00	METAL CHIP	6.8K 5% 1/10W	R532	1-216-049-00	METAL CHIP	1K 5% 1/10W
R333	1-216-748-11	METAL CHIP	39K 5% 1/10W	R533	1-216-049-00	METAL CHIP	1K 5% 1/10W
R334	1-216-105-00	METAL CHIP	220K 5% 1/10W	R534	1-216-049-00	METAL CHIP	1K 5% 1/10W
R341	1-216-079-00	METAL CHIP	18K 5% 1/10W	R535	1-216-049-00	METAL CHIP	1K 5% 1/10W
R342	1-216-097-00	METAL CHIP	100K 5% 1/10W	R536	1-216-049-00	METAL CHIP	1K 5% 1/10W
R343	1-216-073-00	METAL CHIP	10K 5% 1/10W	R537	1-216-049-00	METAL CHIP	1K 5% 1/10W
R344	1-216-049-00	METAL CHIP	1K 5% 1/10W	R538	1-216-049-00	METAL CHIP	1K 5% 1/10W
R345	1-216-049-00	METAL CHIP	1K 5% 1/10W	R539	1-216-049-00	METAL CHIP	1K 5% 1/10W
R346	1-216-049-00	METAL CHIP	1K 5% 1/10W	R540	1-216-073-00	METAL CHIP	10K 5% 1/10W
R347	1-216-049-00	METAL CHIP	1K 5% 1/10W	R541	1-216-073-00	METAL CHIP	10K 5% 1/10W
R348	1-216-041-00	METAL CHIP	470 5% 1/10W	R542	1-216-041-00	METAL CHIP	470 5% 1/10W
R349	1-216-025-00	METAL CHIP	100 5% 1/10W	R551	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R351	1-216-089-00	METAL CHIP	47K 5% 1/10W	R552	1-216-041-00	METAL CHIP	470 5% 1/10W
R352	1-216-077-00	METAL CHIP	15K 5% 1/10W	R553	1-216-045-00	METAL CHIP	680 5% 1/10W
R354	1-216-079-00	METAL CHIP	18K 5% 1/10W	R554	1-216-049-00	METAL CHIP	1K 5% 1/10W
R371	1-216-053-00	METAL CHIP	1.5K 5% 1/10W	R555	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R372	1-216-109-00	METAL CHIP	330K 5% 1/10W	R561	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R373	1-216-079-00	METAL CHIP	18K 5% 1/10W	R562	1-216-041-00	METAL CHIP	470 5% 1/10W
R374	1-216-121-00	METAL CHIP	1M 5% 1/10W	R563	1-216-045-00	METAL CHIP	680 5% 1/10W
R375	1-216-097-00	METAL CHIP	100K 5% 1/10W	R564	1-216-049-00	METAL CHIP	1K 5% 1/10W
R376	1-216-097-00	METAL CHIP	100K 5% 1/10W	R565	1-216-053-00	METAL CHIP	1.5K 5% 1/10W
R377	1-216-097-00	METAL CHIP	100K 5% 1/10W	R566	1-216-057-00	METAL CHIP	2.2K 5% 1/10W
R378	1-216-041-00	METAL CHIP	470 5% 1/10W	R571	1-216-045-00	METAL CHIP	680 5% 1/10W
R379	1-216-025-00	METAL CHIP	100 5% 1/10W	R572	1-216-045-00	METAL CHIP	680 5% 1/10W

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

**AUDIO**   **PANEL**   **VOLUME**   **CONNECTOR**   **POWER SUPPLY**

**POWER AMP**   **TRANSFORMER(A)**   **TRANSFORMER(B)**   **JACK**

**TRANSFORMER(C)**   **SPEAKER**   **CONNECTOR(A)**   **CONNECTOR(B)**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R573	1-216-045-00	METAL CHIP	680 5% 1/10W	S564	1-572-198-11	SWITCH, KEY BOARD (DBFB)	
R574	1-216-045-00	METAL CHIP	680 5% 1/10W	S565	1-572-198-11	SWITCH, KEY BOARD (PRESET ▷)	
R575	1-216-045-00	METAL CHIP	680 5% 1/10W	S567	1-572-198-11	SWITCH, KEY BOARD (PRESET ◁)	
R576	1-216-045-00	METAL CHIP	680 5% 1/10W			< CRYSTAL >	
R577	1-216-037-00	METAL CHIP	330 5% 1/10W	X501	1-577-364-11	VIBRATOR, CERAMIC (12MHz)	
R581	1-216-049-00	METAL CHIP	1K 5% 1/10W	*****			
R582	1-216-049-00	METAL CHIP	1K 5% 1/10W	* A-4341-583-A	POWER SUPPLY BOARD, COMPLETE (AEP, UK, AUS)		
R583	1-216-049-00	METAL CHIP	1K 5% 1/10W	* A-4341-579-A	POWER SUPPLY BOARD, COMPLETE (E)		
R584	1-216-049-00	METAL CHIP	1K 5% 1/10W	* A-4341-594-A	POWER SUPPLY BOARD, COMPLETE (G, IT)		
R585	1-216-049-00	METAL CHIP	1K 5% 1/10W	* A-4341-844-A	POWER SUPPLY BOARD, COMPLETE (US, CND)		
R586	1-216-049-00	METAL CHIP	1K 5% 1/10W	* A-4345-699-A	POWER SUPPLY BOARD, COMPLETE (EA)		
R587	1-216-049-00	METAL CHIP	1K 5% 1/10W	*****			
R588	1-216-073-00	METAL CHIP	10K 5% 1/10W	* A-4345-441-A	POWER AMP BOARD, COMPLETE (AEP, UK, AUS)		
R591	1-216-049-00	METAL CHIP	1K 5% 1/10W	* A-4341-571-A	POWER AMP BOARD, COMPLETE (E, EA)		
R592	1-216-049-00	METAL CHIP	1K 5% 1/10W	* A-4345-438-A	POWER AMP BOARD, COMPLETE (G, IT)		
R593	1-216-043-00	METAL CHIP	560 5% 1/10W	* A-4345-763-A	POWER AMP BOARD, COMPLETE (US, CND)		
R594	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	*****			
R601	1-216-075-00	METAL CHIP	12K 5% 1/10W	* 1-638-553-11	TRANSFORMER (C) BOARD		
R602	1-216-049-00	METAL CHIP	1K 5% 1/10W	*****			
R603	1-216-075-00	METAL CHIP	12K 5% 1/10W	* 1-638-555-11	TRANSFORMER (A) BOARD		
R604	1-216-295-00	METAL CHIP	0 5% 1/10W	*****			
R606	1-216-021-00	METAL CHIP	68 5% 1/10W	* 1-638-556-11	TRANSFORMER (B) BOARD		
R651	1-216-075-00	METAL CHIP	12K 5% 1/10W	*****			
R652	1-216-049-00	METAL CHIP	1K 5% 1/10W	* 1-638-558-11	JACK BOARD		
R653	1-216-075-00	METAL CHIP	12K 5% 1/10W	*****			
R654	1-216-017-00	METAL CHIP	47 5% 1/10W	* 1-638-559-11	SPEAKER BOARD		
R923	1-216-025-00	METAL CHIP	100 5% 1/10W	*****			
R931	1-216-057-00	METAL CHIP	2.2K 5% 1/10W	* 1-638-560-11	CONNECTOR (A) BOARD		
R932	1-216-025-00	METAL CHIP	100 5% 1/10W	*****			
R933	1-216-073-00	METAL CHIP	10K 5% 1/10W	* 1-638-561-11	CONNECTOR (B) BOARD		
R934	1-216-073-00	METAL CHIP	10K 5% 1/10W	*****			
R941	1-216-073-00	METAL CHIP	10K 5% 1/10W	* 1-533-213-31	HOLDER, FUSE		
R951	1-216-073-00	METAL CHIP	10K 5% 1/10W	< CAPACITOR >			
R952	1-216-065-00	METAL CHIP	4.7K 5% 1/10W	C401	1-162-282-31	CERAMIC	100PF 10% 50V
R953	1-216-025-00	METAL CHIP	100 5% 1/10W	C451	1-162-282-31	CERAMIC	100PF 10% 50V
		< VARIABLE RESISTOR >		C605	1-161-379-00	CERAMIC	0.01uF 20% 25V
RV591	1-241-418-11	RES, VAR, CARBON 10K (VOLUME)		C611	1-162-294-31	CERAMIC	0.001uF 10% 50V
		< SWITCH >		C612	1-124-903-11	ELECT	1uF 20% 50V
S551	1-572-198-11	SWITCH, KEY BOARD (SYSTEM POWER)		C613	1-162-294-31	CERAMIC	0.001uF 10% 50V
S552	1-572-198-11	SWITCH, KEY BOARD (FUNCTION >>)		C614	1-124-120-11	ELECT	220uF 20% 25V
S553	1-572-198-11	SWITCH, KEY BOARD (FUNCTION <<)		C615	1-124-464-11	ELECT	0.22uF 20% 50V
S554	1-572-198-11	SWITCH, KEY BOARD (WAKE UP)		C616	1-162-294-31	CERAMIC	0.001uF 10% 50V
S555	1-572-198-11	SWITCH, KEY BOARD (DISPLAY)		C617	1-124-903-11	ELECT	1uF 20% 50V
S561	1-572-198-11	SWITCH, KEY BOARD (DIRECT)		C618	1-124-903-11	ELECT	1uF 20% 50V
S562	1-572-198-11	SWITCH, KEY BOARD (EQ)		C620	1-161-379-00	CERAMIC	0.01uF 20% 25V
S563	1-572-198-11	SWITCH, KEY BOARD (S-SUR)		C655	1-161-379-00	CERAMIC	0.01uF 20% 25V
				C701	1-126-176-11	ELECT	220uF 20% 10V
				C702	1-126-176-11	ELECT	220uF 20% 10V

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

## POWER SUPPLY

## POWER AMP

## TRANSFORMER(A)

## TRANSFORMER(B)

## JACK

## TRANSFORMER(C)

## SPEAKER

## CONNECTOR(A)

## CONNECTOR(B)

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C704	1-162-306-11	CERAMIC	0.01uF 20% 16V	CN904	* 1-569-502-11	PIN, CONNECTOR 7P	
C705	1-161-494-00	CERAMIC	0.022uF 25V	CN911	* 1-580-939-11	SOCKET, CONNECTOR 4P	
C706	1-124-927-11	ELECT	4.7uF 20% 100V	CN912	* 1-580-939-11	SOCKET, CONNECTOR 4P (E, EA)	
C707	1-124-478-11	ELECT	100uF 20% 25V	CN913	* 1-569-493-11	SOCKET, CONNECTOR 7P	
C801	1-124-907-11	ELECT	10uF 20% 50V	CN914	* 1-569-502-11	PIN, CONNECTOR 7P	
C802	1-162-290-31	CERAMIC	470PF 10% 50V (Except G, IT)	CN921	* 1-569-502-11	PIN, CONNECTOR 7P	
C803	1-124-122-11	ELECT	100uF 20% 35V	CN922	* 1-569-496-11	SOCKET, CONNECTOR 10P	
C804	1-162-282-31	CERAMIC	100PF 10% 50V	CN931	* 1-569-493-11	SOCKET, CONNECTOR 7P	
C806	1-124-910-11	ELECT	47uF 20% 50V	CN932	* 1-569-493-11	SOCKET, CONNECTOR 7P	
C807	1-124-122-11	ELECT	100uF 20% 50V			( DIODE )	
C809	1-126-233-11	ELECT	22uF 20% 50V	D701	8-719-912-20	DIODE 1SS120	
C810	1-136-165-00	FILM	0.1uF 5% 50V	D801	8-719-912-20	DIODE 1SS120	
C812	1-136-165-00	FILM	0.1uF 5% 50V	D811	8-719-912-20	DIODE 1SS120	
C813	1-136-165-00	FILM	0.1uF 5% 50V	D851	8-719-912-20	DIODE 1SS120	
C814	1-164-095-11	CERAMIC	0.01uF 10% 16V (G, IT)	D901	8-719-312-09	DIODE RBA-402	
C816	1-126-233-11	ELECT	22uF 20% 50V	D902	8-719-912-20	DIODE 1SS120	
C851	1-124-907-11	ELECT	10uF 20% 50V	D903	8-719-912-20	DIODE 1SS120	
C852	1-162-290-31	CERAMIC	470PF 10% 50V (Except G, IT)			( FUSE )	
C853	1-124-122-11	ELECT	100uF 20% 35V	F402	△ 1-532-782-21	FUSE, MICRO (SECONDARY) 4A (US, CND)	
C854	1-162-282-31	CERAMIC	100PF 10% 50V	F403	△ 1-532-782-21	FUSE, MICRO (SECONDARY) 4A (US, CND)	
C856	1-124-910-11	ELECT	47uF 20% 50V	F901	△ 1-532-285-00	FUSE T1. 25A (Except US, CND)	
C860	1-136-165-00	FILM	0.1uF 5% 50V	F901	△ 1-576-104-11	FUSE 2A (US, CND)	
C863	1-136-165-00	FILM	0.1uF 5% 50V	F902	△ 1-532-286-00	FUSE T2. 5A (E, EA)	
C866	1-126-233-11	ELECT	22uF 20% 50V	F911	△ 1-532-783-21	FUSE, MICRO (SECONDARY) 5A (US, CND)	
C891	1-136-165-00	FILM	0.1uF 5% 50V (G, IT)	F912	△ 1-532-783-21	FUSE, MICRO (SECONDARY) 5A (US, CND)	
C892	1-136-165-00	FILM	0.1uF 5% 50V (G, IT)			( IC )	
C901	1-126-224-11	ELECT	4700uF 20% 42V	IC701	8-759-111-68	IC uPC1237HA	
C902	1-126-224-11	ELECT	4700uF 20% 42V	IC801	8-749-900-96	IC STK4142MK2 (Except US, CND)	
C903	1-136-171-00	FILM	0.33uF 5% 50V	IC801	8-749-920-09	IC STK4152MK2 (US, CND)	
C904	1-136-171-00	FILM	0.33uF 5% 50V			( IC LINK )	
		( CONNECTOR )		ICP402	△ 1-532-845-21	LINK, IC (Except US, CND)	
CN411	* 1-580-739-11	SOCKET, CONNECTOR 15P		ICP403	△ 1-532-845-21	LINK, IC (Except US, CND)	
CN412	* 1-580-740-11	SOCKET, CONNECTOR 17P		ICP911	△ 1-532-846-21	LINK, IC (Except US, CND)	
CN413	1-563-314-11	CONNECTOR, BOARD TO BOARD 20P		ICP912	△ 1-532-846-21	LINK, IC (Except US, CND)	
CN601	* 1-569-504-11	PIN, CONNECTOR 9P				( JACK )	
CN701	1-563-310-11	CONNECTOR, BOARD TO BOARD 8P		J401	1-565-304-11	JACK, PIN 4P (E, EA)	
CN801	1-569-499-21	PIN, CONNECTOR 3P		J402	1-569-662-11	JACK, PIN 1P	
CN802	* 1-569-505-11	PIN, CONNECTOR 10P		J601	1-562-837-21	JACK	
CN811	1-569-490-11	SOCKET, CONNECTOR 3P		J611	1-562-837-21	JACK	
CN812	1-569-490-11	SOCKET, CONNECTOR 3P				( COIL )	
CN821	* 1-569-496-11	SOCKET, CONNECTOR 10P		L801	* 1-420-872-00	COIL, AIR CORE	
CN822	* 1-569-496-11	SOCKET, CONNECTOR 10P		L851	* 1-420-872-00	COIL, AIR CORE	
CN831	* 1-569-505-11	PIN, CONNECTOR 10P					
CN832	* 1-566-123-11	CONNECTOR, BOARD TO BOARD 8P					
CN901	△ 1-526-930-11	INLET, AC (US, CND, E)					
CN901	△ 1-526-931-11	INLET, AC (Except US, CND, E)					
CN902	* 1-580-940-11	PIN, CONNECTOR 4P					
CN903	* 1-580-940-11	PIN, CONNECTOR 4P (E, EA)					

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

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

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

**POWER SUPPLY**    **POWER AMP**    **TRANSFORMER(A)**    **TRANSFORMER(B)**  
**JACK**    **TRANSFORMER(C)**    **SPEAKER**    **CONNECTOR(A)**    **CONNECTOR(B)**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< LINE FILTER >							
LF901	△ 1-424-485-11	FILTER, LINE (G, IT)		R816	1-249-438-11	CARBON 56K 5% 1/4W	
< TRANSISTOR >							
0611	8-729-620-05	TRANSISTOR 2SC2603-EF		R851	1-249-417-11	CARBON 1K 5% 1/4W	
0612	8-729-620-05	TRANSISTOR 2SC2603-EF		R852	1-249-437-11	CARBON 47K 5% 1/4W	
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE		R853	1-249-414-11	CARBON 560 5% 1/4W	
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R854	1-249-437-11	CARBON 47K 5% 1/4W	
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R855	1-247-756-11	CARBON 2.2K 5% 1/2W	
< RESISTOR >							
R401	1-249-417-11	CARBON 1K 5% 1/4W		R856	1-247-756-11	CARBON 2.2K 5% 1/2W	
R451	1-249-417-11	CARBON 1K 5% 1/4W		R859	△ 1-217-151-00	RES, METAL PLATE 0.22 2W	
R605	1-249-405-11	CARBON 100 5% 1/4W		R862	△ 1-212-958-00	FUSIBLE 10 5% 1/2W F	
R606	1-249-429-11	CARBON 10K 5% 1/4W		R863	1-249-417-11	CARBON 1K 5% 1/4W	
R611	1-249-429-11	CARBON 10K 5% 1/4W		R864	1-249-431-11	CARBON 15K 5% 1/4W	
R612	1-249-417-11	CARBON 1K 5% 1/4W		R865	1-249-441-11	CARBON 100K 5% 1/4W	
R613	1-249-429-11	CARBON 10K 5% 1/4W		R866	1-249-437-11	CARBON 47K 5% 1/4W	
R614	1-249-441-11	CARBON 100K 5% 1/4W		R876	△ 1-212-881-11	FUSIBLE 100 5% 1/4W F	
R615	1-249-429-11	CARBON 10K 5% 1/4W		R891	△ 1-244-825-00	CARBON 10 5% 1/2W (G, IT)	
R616	1-249-429-11	CARBON 10K 5% 1/4W		R892	△ 1-244-825-00	CARBON 10 5% 1/2W (G, IT)	
R617	1-249-441-11	CARBON 100K 5% 1/4W		R901	△ 1-202-725-00	SOLID 3.3M 10% 1/2W (US, CND)	
R618	1-249-441-11	CARBON 100K 5% 1/4W		R902	1-249-429-11	CARBON 10K 5% 1/4W	
R619	1-247-903-00	CARBON 1M 5% 1/4W		R903	△ 1-212-881-11	FUSIBLE 100 5% 1/4W F	
R620	1-249-441-11	CARBON 100K 5% 1/4W		R921	△ 1-212-857-00	FUSIBLE 10 5% 1/4W F	
R655	1-249-405-11	CARBON 100 5% 1/4W		R925	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R701	1-249-433-11	CARBON 22K 5% 1/4W		< VARIABLE RESISTOR >			
R702	1-249-441-11	CARBON 100K 5% 1/4W		RV611	1-241-140-11	RES, VAR, CARBON 10K (MIC LEVEL)	
R703	1-249-433-11	CARBON 22K 5% 1/4W		< RELAY >			
R704	1-249-433-11	CARBON 22K 5% 1/4W		RY801	1-515-533-11	RELAY	
R705	1-249-429-11	CARBON 10K 5% 1/4W		RY901	1-515-626-11	RELAY	
R706	1-249-437-11	CARBON 47K 5% 1/4W		< VOLTAGE SELECTOR >			
R801	1-249-417-11	CARBON 1K 5% 1/4W		S901	△ 1-572-009-11	SELECTOR, VOLTAGE (E, EA)	
R802	1-249-437-11	CARBON 47K 5% 1/4W		< TERMINAL BOARD >			
R803	1-249-414-11	CARBON 560 5% 1/4W		TB801	1-537-276-21	TERMINAL BOARD (SP)	
R804	1-249-437-11	CARBON 47K 5% 1/4W		< TRANSFORMER >			
R805	1-247-756-11	CARBON 2.2K 5% 1/2W		T1	△ 1-450-380-11	TRANSFORMER, POWER (AEP, G, IT)	
R806	1-247-756-11	CARBON 2.2K 5% 1/2W		T1	△ 1-450-381-11	TRANSFORMER, POWER (UK, AUS)	
R807	△ 1-212-881-11	FUSIBLE 100 5% 1/4W F		T1	△ 1-450-382-11	TRANSFORMER, POWER (E, EA)	
R808	△ 1-212-881-11	FUSIBLE 100 5% 1/4W F		T1	△ 1-450-383-11	TRANSFORMER, POWER (US, CND)	
R809	△ 1-217-151-00	RES, METAL PLATE 0.22 2W		*****			
R810	1-247-752-11	CARBON 1K 5% 1/2W		MISCELLANEOUS			
R811	1-247-752-11	CARBON 1K 5% 1/2W		*****			
R812	△ 1-212-958-00	FUSIBLE 10 5% 1/2W F		* 1-535-706-11 PLUG, JUMPER (E, EA)			
R813	1-249-417-11	CARBON 1K 5% 1/4W		1-533-213-31 HOLDER, FUSE			
R814	1-249-431-11	CARBON 15K 5% 1/4W					
R815	1-249-441-11	CARBON 100K 5% 1/4W					

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

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

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





# TA-H2600

## SONY SERVICE MANUAL

*US Model*  
*Canadian Model*  
*AEP Model*  
*UK Model*  
*E Model*  
*Australian Model*

### SUPPLEMENT-1

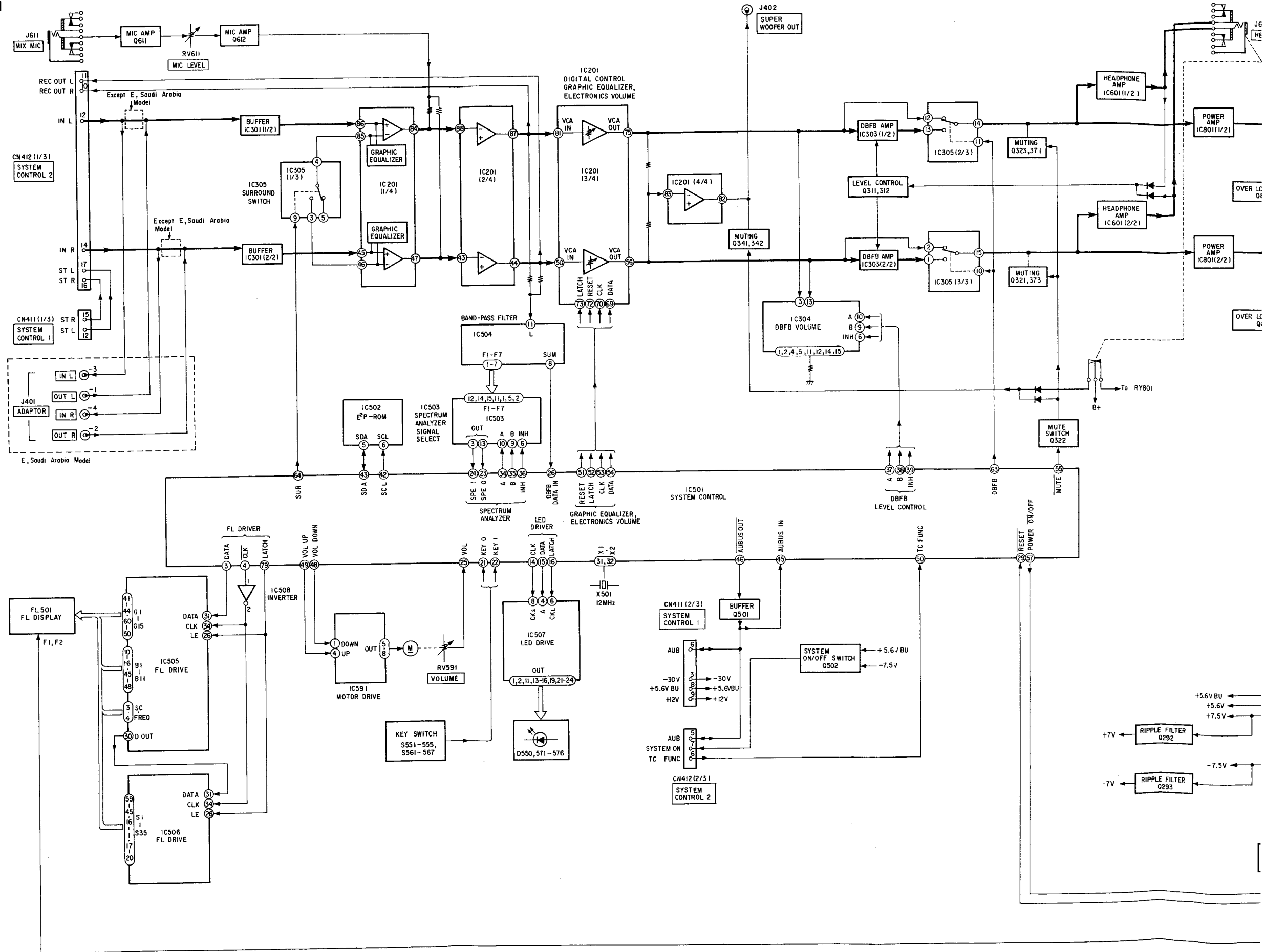
File this supplement with the service manual.

**Description Additional to the Block Diagram**

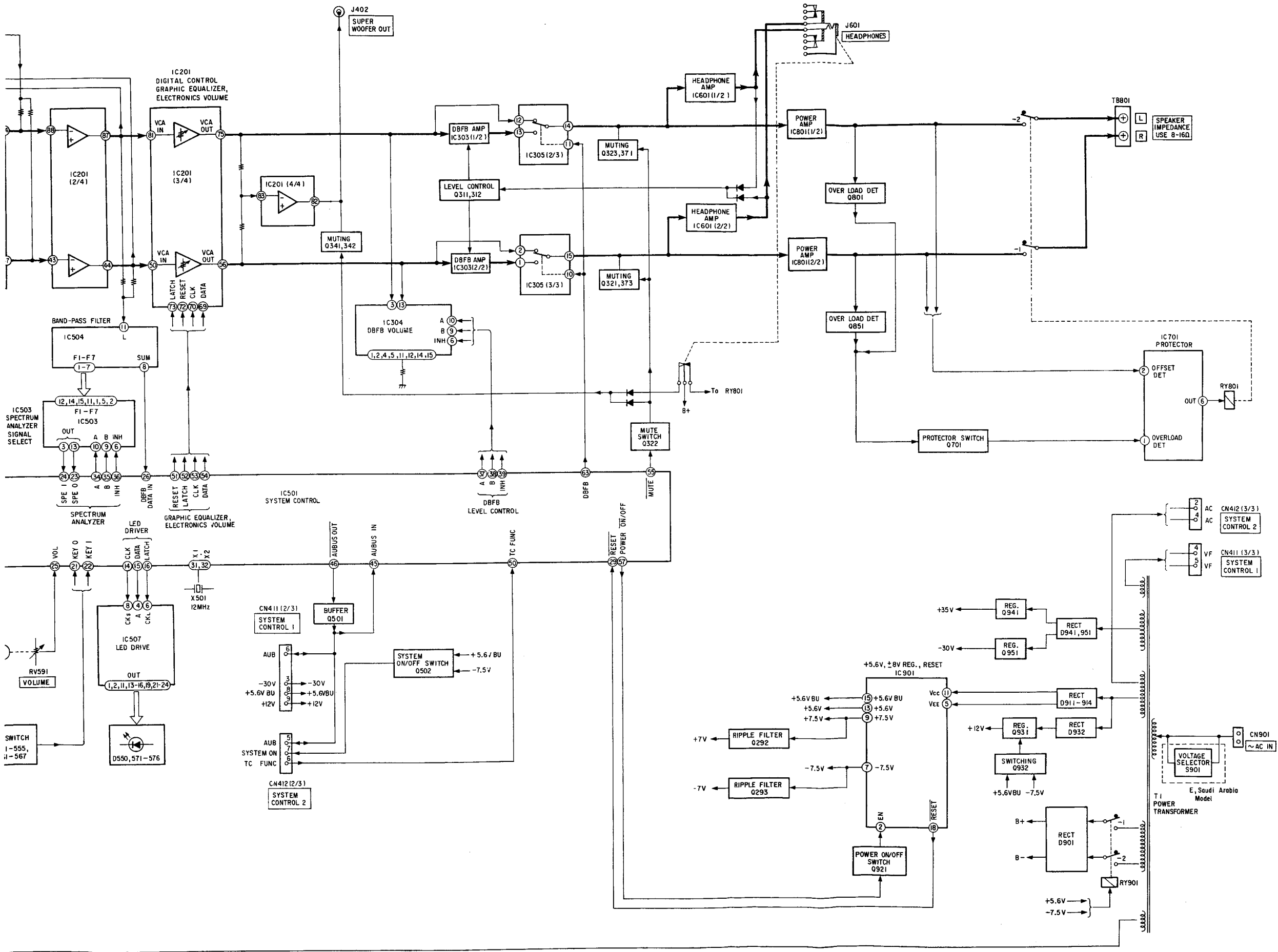
No block diagram is shown in the service manual, so it is contained in this supplement.

Refer also to the service manual for the TA-H2600.

BLOCK DIAGRAM



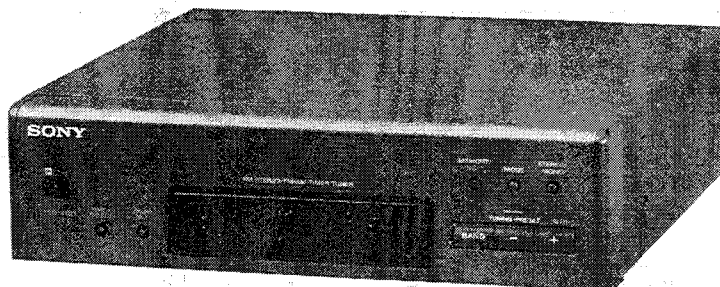




# ST-H3600/H6600

## SERVICE MANUAL

AEP Model  
UK Model



ST-H3600 and ST-H6600 are the tuner section in MHC-2600/3600 and MHC-5600/6600 respectively.

Photo : ST-H6600

### SPECIFICATIONS

System	FM stereo, FM/AM superheterodyne tuner
<b>FM tuner section</b>	
Tuning range	87.5 — 108 MHz
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz
<b>AM tuner section</b>	
Tuning range	For AEP, UK models MW: 531 — 1,602 kHz LW: 153 — 279 kHz For Italian model MW: 522 — 1,611 kHz LW: 144 — 288 kHz
Antenna	AM loop antenna. External antenna terminals
Intermediate frequency	450 kHz

Note :  
G : Germany model  
IT : Italian model

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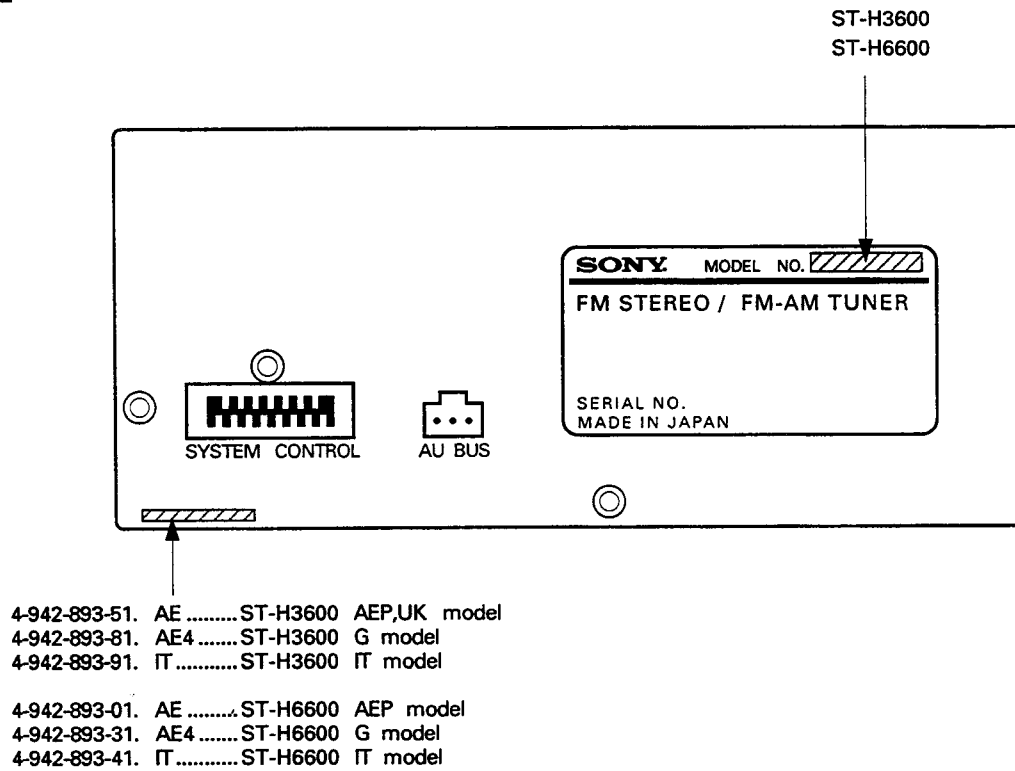
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FM STEREO/FM-AM TUNER  
**SONY**®

## MODEL IDENTIFICATION

- BACK PANEL -

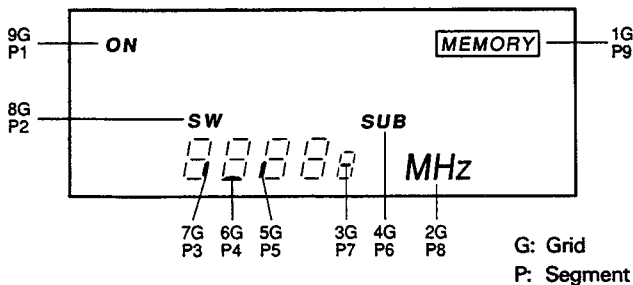


**SERVICE MODE TO CHECK FL TUBE AND KEY INPUT**

It is possible to check FL tube all ON grid, segment and key input.

- (1) Connect the equipment to the amplifier TA-H2600, H3600, H5600 or H6600 and remove the AC cord of the amplifier out of the AC receptacle.
- (2) While pressing 3 switches "BAND", "-" and "MEMORY/NEXT" at the same time, insert the AC cord of the amplifier into the receptacle.
- (3) Thus, all FL display tubes light up. By pressing "+" or "TIMER CONTROL" in this state, partial lighting or key input checking, respectively, is effected.

**Partial lighting:** Indicates the mode to check complete connection between the grid and segment of the FL tube. The condition is normal when the following indication is effected. By pressing "+" or "-" in the partial lighting mode, the status returns to key input checking or all ON in (3), respectively.



**Key input checking:** Shows the mode to check key input into 9 keys on the front panel. "0" is indicated at first and, every time a different key is pressed, indicated number is increased. After completion of pressing all 9 keys, "PASS" is indicated. (Once a key is pressed, pressing it again is rejected.)

- (4) After the completion of the checking, the equipment recovers normal operation by once removing the AC cord and inserting it again into the AC receptacle.

**HOW TO FORCEFULLY TURN POWER ON**

The equipment is not provided with any power switch. Therefore, power ON/OFF is controlled in the amplifier side. However, even without an amplifier, power is supplyable to the equipment according to the following methods provided any type of power is available, e.g. using a special jig or supplying the 4 types of voltages individually.

(When power is supplied from the amplifier, power is turned ON only for the tuner.)

- (1) Supply power.
- (2) Press 3 switches "STEREO/MONO", "-" and "MEMORY/NEXT" at the same time.  
(Press "STEREO/MONO" and "-" beforehand, and finally press "MEMORY/NEXT.")

However, when the equipment is started up by the methods above, service modes TIMER ON/OFF and FL tube and key input checking are not operable.

## SECTION 1

### SERVICING NOTES

#### SUPPLY OF POWER DURING SERVICES

Because the equipment is not provided with any power supply, it is operated with power supplied from the amplifier TA-H2600, H3600, H5600 or H6600 used in the series. The equipment requires the following 4 types of voltages. Therefore, connect the equipment to TA-H2600, H3600, H5600 or H6600 for services such as repairing with power supplied, because it will be too complicated to supply these voltages individually.

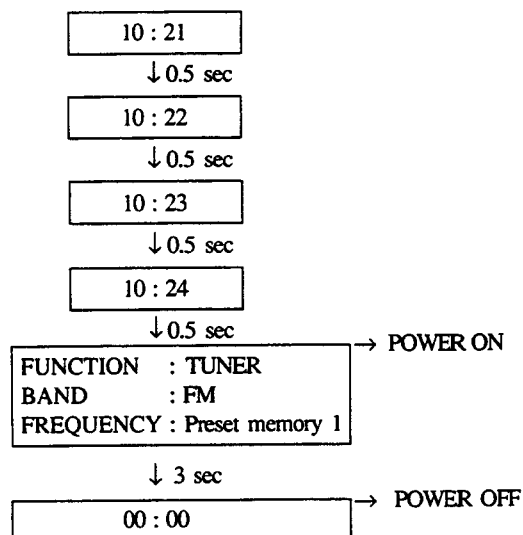
VOLTAGE	MAJOR CIRCUIT IN USE
AC 3.9V	FL tube filament voltage (VF)
DC -24V	Display controller IC701 grid voltage (VG)
DC -5.6V	Display controller IC701, Tuner PLL IC81 Vcc
DC 12V	Tuner RF, FM/AM DET IC21 Vcc

#### SERVICE MODE TO CHECK TIMER ON-OFF

It is possible to check whether the timer normally functions while being connected with an amplifier.

- (1) Connect the equipment to the amplifier TA-H2600, H3600, H5600 or H6600 and set the POWER switch to STANDBY state.
- (2) Set the time of the tuner to any time.
- (3) Press 3 switches "BAND", "-" and "MEMORY/NEXT" at the same time (while pressing "BAND" and "-" beforehand, finally press "MEMORY/NEXT")

(4) FL display tube



(5) Completion

**Note :** After completion of the checking above, data preset in the memory IC702 is erased while resetting the memory to the following state upon shipping from the works, so be sure to recover the same frequency as that before the repairing.

#### • Frequencies initially preset

	AEP/UK model			G/IT model		
	FM	MW	LW	FM	MW	LW
1	87.5MHz	531KHz	153KHz	87.5MHz	522KHz	144KHz
2	88.0MHz	603KHz	162KHz	88.0MHz	603KHz	162KHz
3	98.0MHz	999KHz	216KHz	98.0MHz	999KHz	216KHz
4	100.0MHz	1404KHz	270KHz	100.0MHz	1404KHz	270KHz
5	108.0MHz	1602KHz	279KHz	108.0MHz	1611KHz	288KHz
6 - 20	*1	*2	*2	*1	*2	*2

\*1 The same frequency values are set for the preset memory No.6 - No.10, No.11 - No.15 and No.16 - No.20 as for No.1 - No.5 respectively.

\*2 The same frequency values are set for the preset memory No.6 -No.10 as for No.1 - No.5.

## SECTION 2 GENERAL

This section is extracted from  
instruction manual.

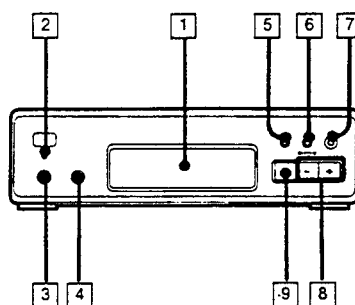
# Parts Identification

Refer to the pages indicated in ● for use  
of the buttons.

### Tuner Section **A**

- 1 Display window
- 2 CLOCK SET button ●
- 3 TIMER SELECT button ●
- 4 TIMER SET button ●
- 5 MEMORY/NEXT button ● ● ●
- 6 MODE button ● ●
- 7 STEREO/MONO (stereo/monaural)  
button
- 8 TUNING PRESET/TIMER -/+ buttons
- 9 BAND selector ●

### A



## Clock Setting

### Setting the Clock

Example: Set to 9:25 in the morning.

- 1 Press **CLOCK SET**.
- 2 Set the hour with the **-** or **+** button.
- 3 Press **MEMORY/NEXT**.
- 4 Set the minute with the **-** or **+** button.
- 5 Press **MEMORY/NEXT**.  
The clock starts operating.

### Information on the time

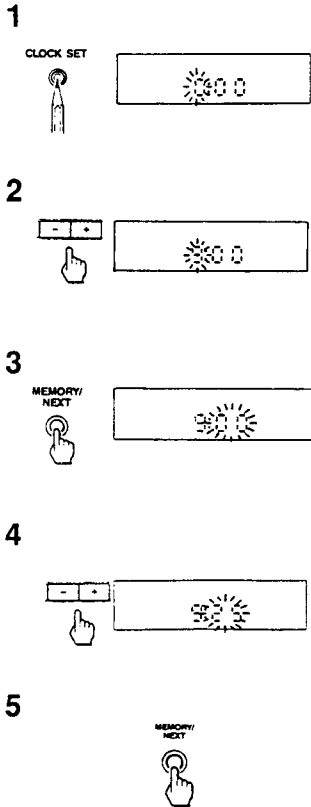
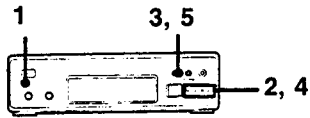
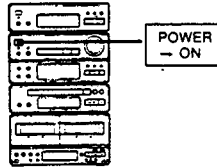
The European and U.K. model shows the time in 24-hour cycle.  
The model for other countries shows the time in 12-hour cycle.  
AM 12:00 = midnight  
PM 12:00 = noon

### When a power interruption occurs

If the power is recovered within several hours, there is no need to reset the clock, timer, and Wake Up Volume settings. If the power interruption is long, all the above settings are erased, and "0:00" ("AM 12:00") will flash on the display.

### To change the frequency display to the time display

Press **CLOCK DISP.** on the remote commander. Press it again to change to the frequency display.



## Radio

The automatic tuning allows you to receive stations whose signal is strong enough. When the signal is too weak, use the manual tuning.

### Tuning in Automatically

- 1 Press **BAND** repeatedly until the desired band appears.  
As you press **BAND**, the band changes as follows:  
European and U.K. model:  
FM → MW → LW  
Model for other countries:  
FM → SW → MW
- 2 Press **MODE** so that the **TUNING** indicator lights up.
- 3 Keep **-** or **+** depressed for more than 1 second.  
"AUTO" appears on the display and the unit tunes in a station automatically.

Repeat step 3 until the desired station appears.

### Tuning in Manually

- 1 Press **BAND** repeatedly until the desired band appears.
- 2 Press **MODE** so that the **TUNING** indicator lights up.
- 3 Press **-** or **+** repeatedly until the desired station appears.

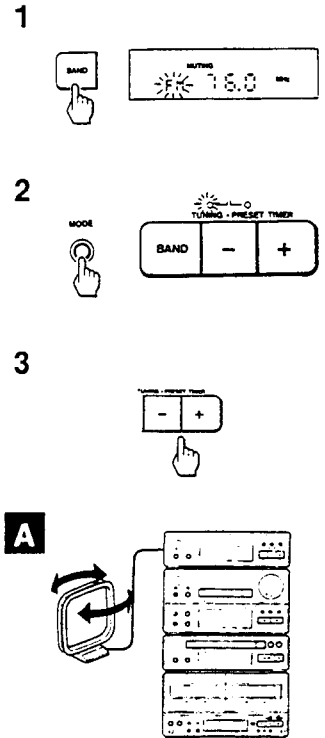
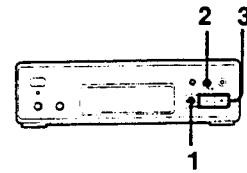
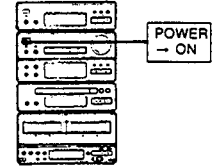
### Indicator on the display

**TUNED:** Appears when a station of sufficient signal strength is tuned in.

**STEREO:** Appears when an FM stereo program of sufficient signal strength is received.

### Antenna adjustment **A**

For MW and LW (SW) reception, find the best location for the supplied AM loop antenna.



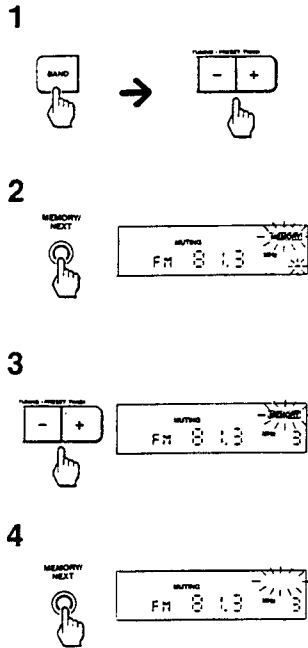
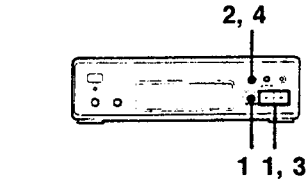
# Radio

## Storing Stations

You can store up to 20 FM stations and 10 MW stations and 10 LW (SW) stations in a desired sequence, so that you can tune in the stored station directly by entering the preset station number. This operation is not possible with the remote commander.

- 1 Tune in the desired station.
- 2 Press MEMORY/NEXT. "MEMORY" and the preset station numbers appear on the display.
- 3 While "MEMORY" is on (for several seconds), press - or + to select a desired preset number.
- 4 Press MEMORY/NEXT. "MEMORY" disappears, and the station is stored.

Repeat step 1 to 4 for each station to be stored.



If you cannot store a station successfully Press MEMORY/NEXT again so that "MEMORY" appears, and then proceed with steps 3 and 4 above. Be sure to operate while "MEMORY" is on (about 4 seconds).

When you have selected the wrong preset station number Press MEMORY/NEXT again and then proceed with the steps 3 and 4.

To change the preset station Store a desired station at the desired preset number by proceeding with the above steps. The station previously preset will be erased. Erasing only is not possible.

# Radio

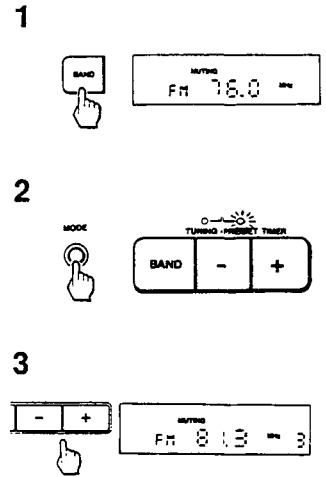
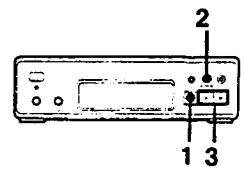
## To Tune in a Preset Station

- Notes:
- When you use the remote commander for the following operations make sure that the display of the remote commander shows "TUNER". If not, press TUNER on the remote commander.
  - You cannot operate the buttons on the lid if the lid is open.

- 1 Press BAND to select a desired band.
- 2 Press MODE so that the PRESET indicator lights up.
- 3 Press - or + (◀ or ▶) on the remote commander) to select the desired preset station number.

### To tune in a preset station directly

- Possible only with the remote commander.
- 1 Press BAND to select a desired band.
  - 2 Press the numeric buttons to select the desired preset station number.





## SECTION 3 ELECTRICAL ADJUSTMENTS

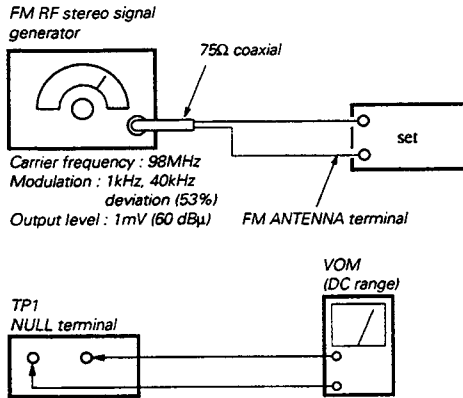
### PRECAUTIONS IN REPAIRING

If the front end unit fails, it is difficult to repair the inner circuits, so replace the entire front end unit.

### FM SECTION

#### FM DISCRIMINATOR ALIGNMENT (NULL CHECK)

Setting :



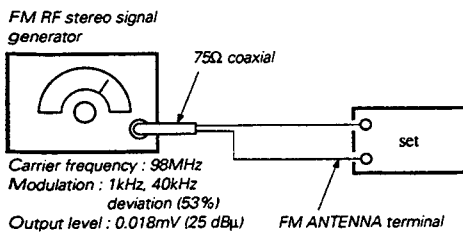
Procedure :

1. Tune the set to 98MHz.
2. Adjust T21 for 0V reading on the VOM.

**Note :** FM TUNING LEVEL adjustment should be made after FM discriminator alignment.

#### FM TUNING LEVEL ADJUSTMENT

Setting :

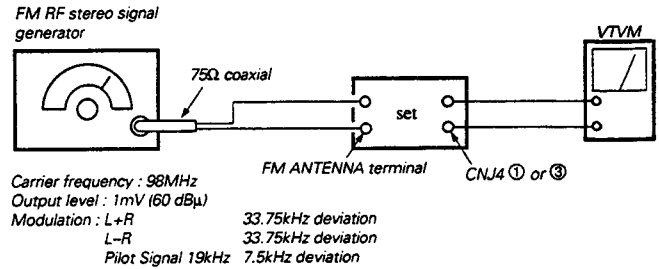


Procedure :

1. Tune the set to 98MHz.
2. Adjust T24 so that the TUNED LED goes on.

#### FM STEREO SEPARATION ADJUSTMENT

Setting :



Procedure :

Tune the set to 98MHz.

FM stereo Signal generator Output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV21 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV21 for minimum reading.

L-CH Stereo separation : Ⓐ - Ⓑ

R-CH Stereo separation : Ⓒ - Ⓓ

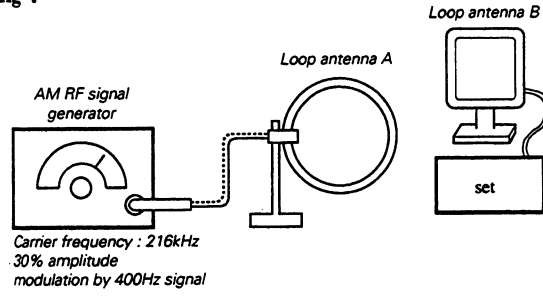
The separations of both channels should be equal.

SECTION 4  
DIAGRAMS

AM SECTION

AM TUNING LEVEL ADJUSTMENT

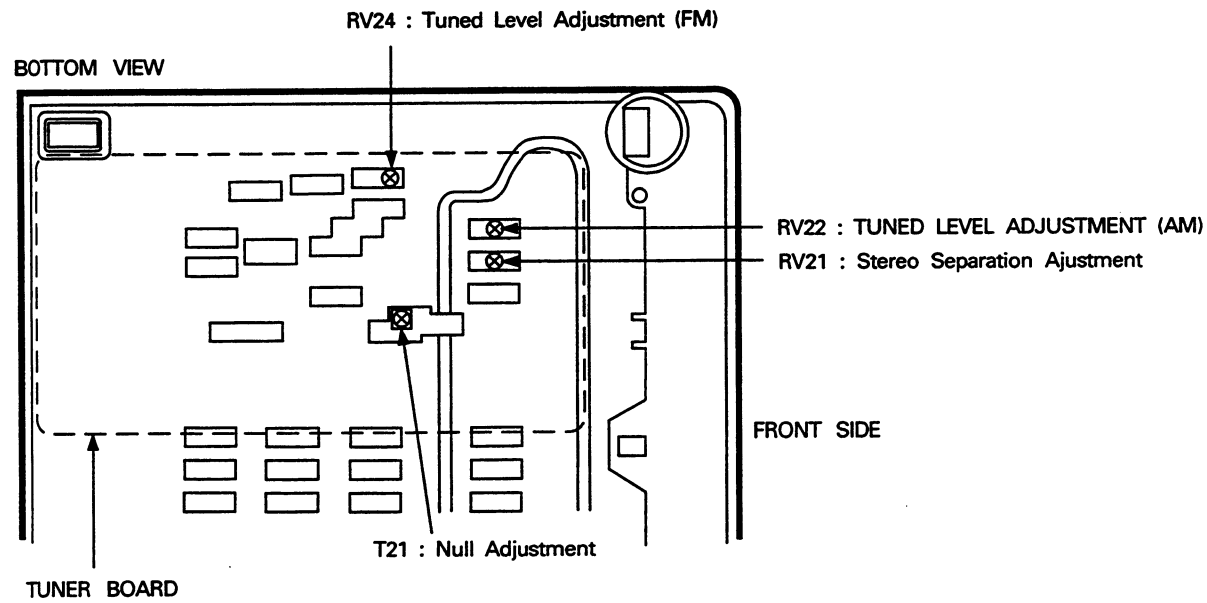
Setting :



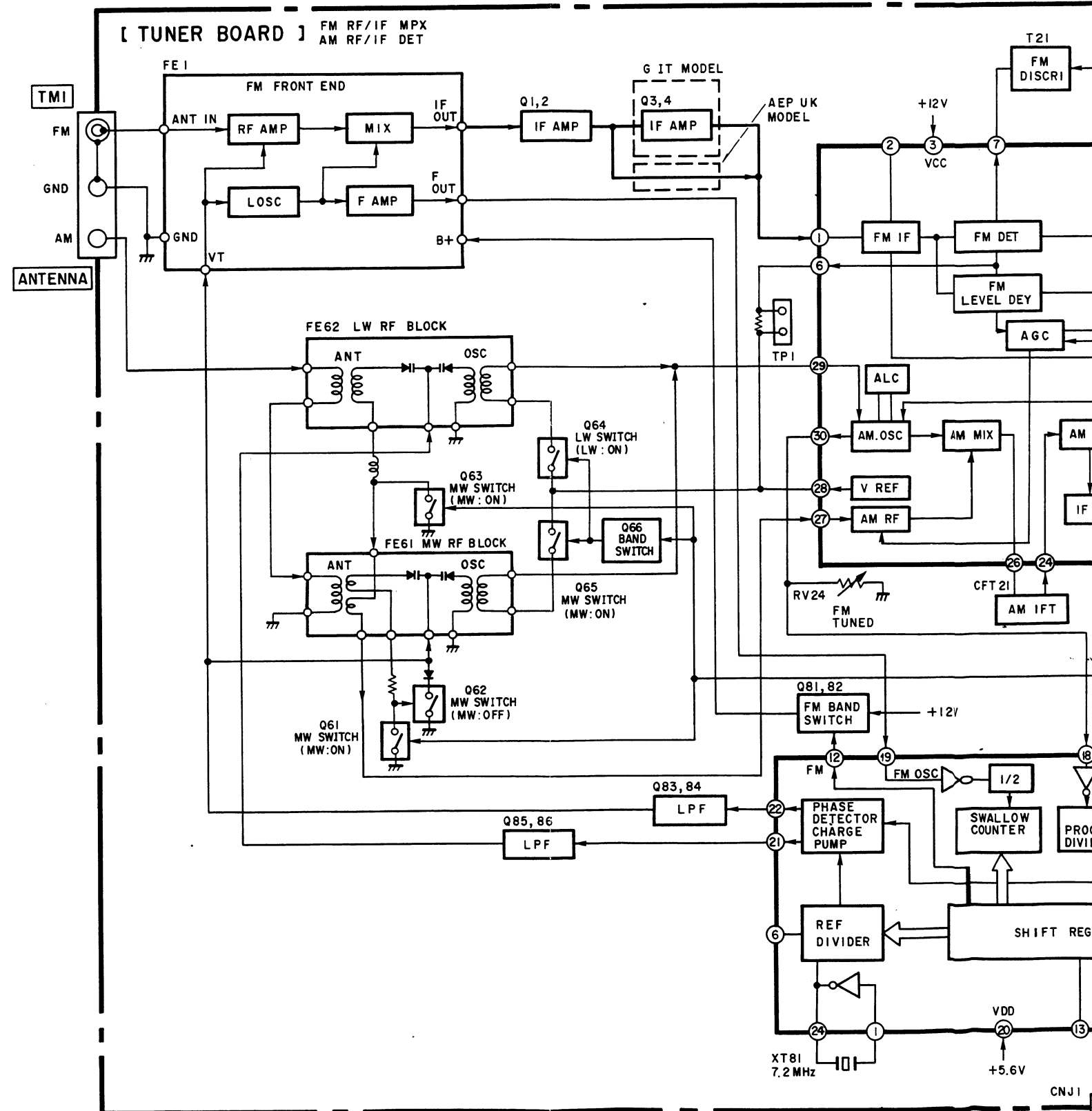
Procedure :

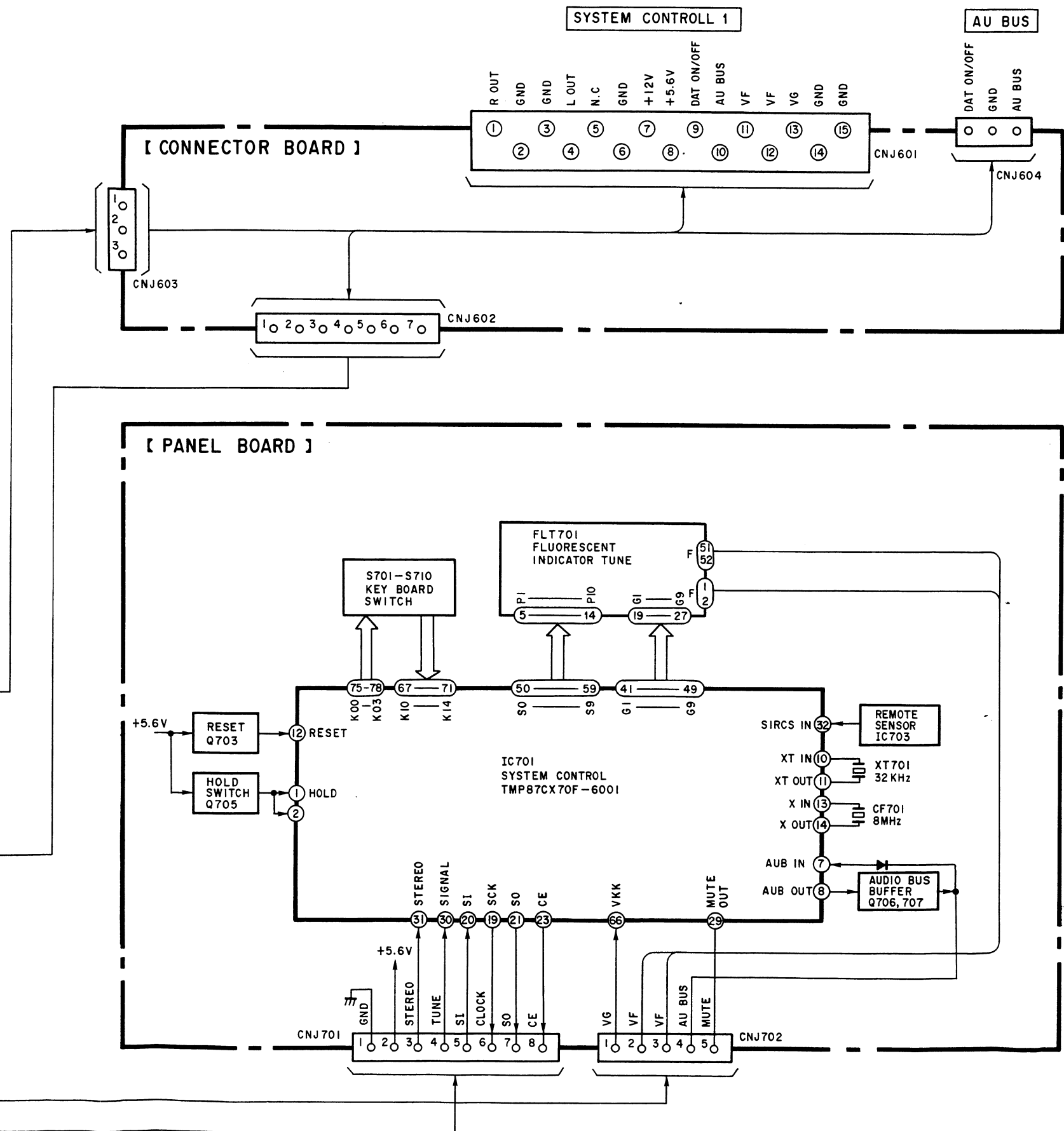
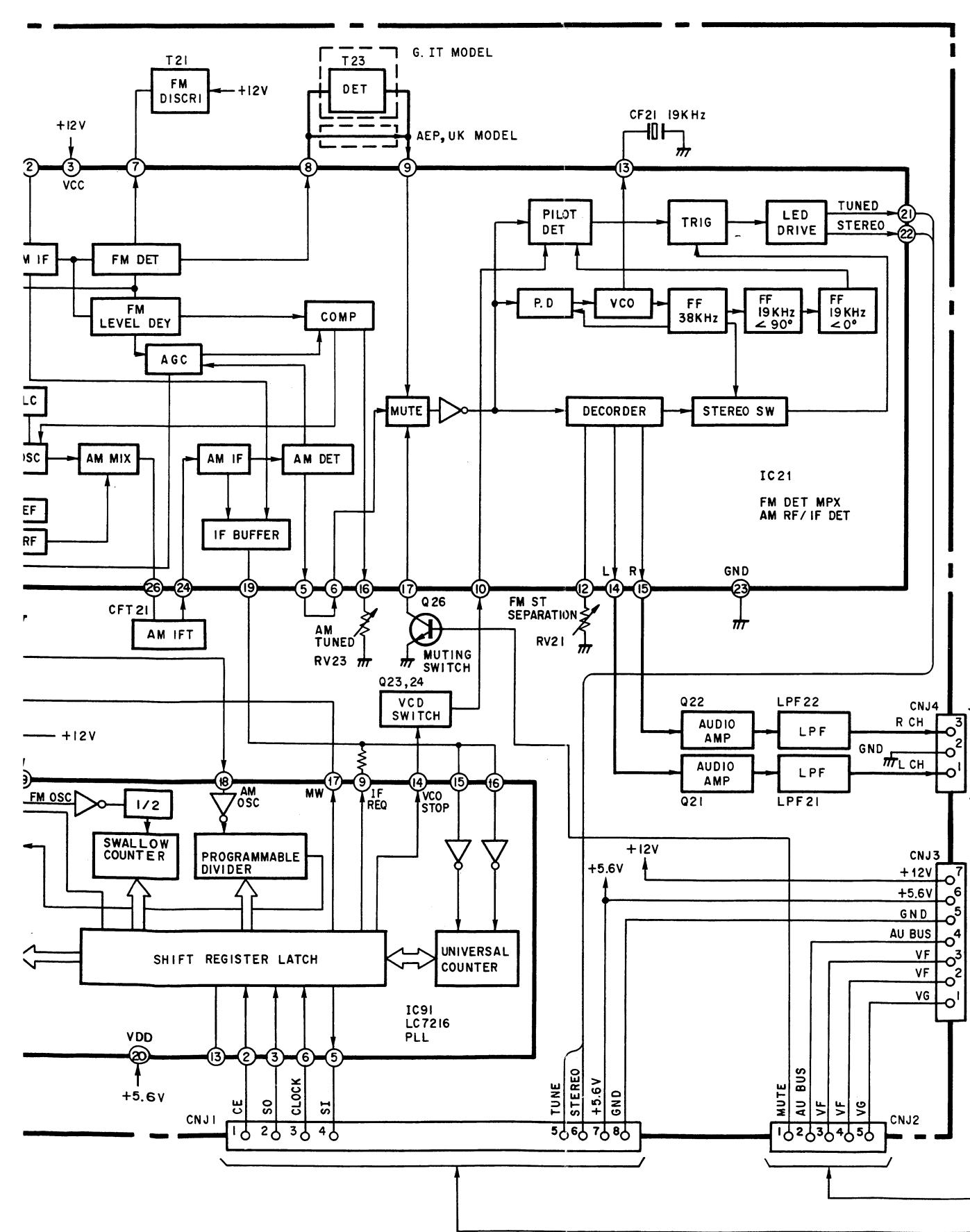
1. Set loop antenna A so that the loop antenna B input level becomes 2.5mV (68dB/m).
2. Tune the set to 216kHz.
3. Adjust the RV22 so that the TUNED LED goes on.

[ PARTS ARRANGEMENT DIAGRAM FOR ADJUSTMENT ]

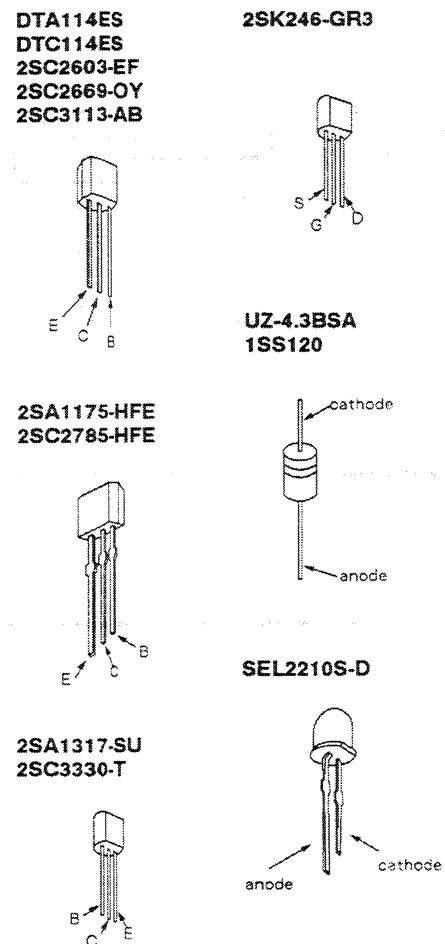


4-1. BLOCK DIAGRAM





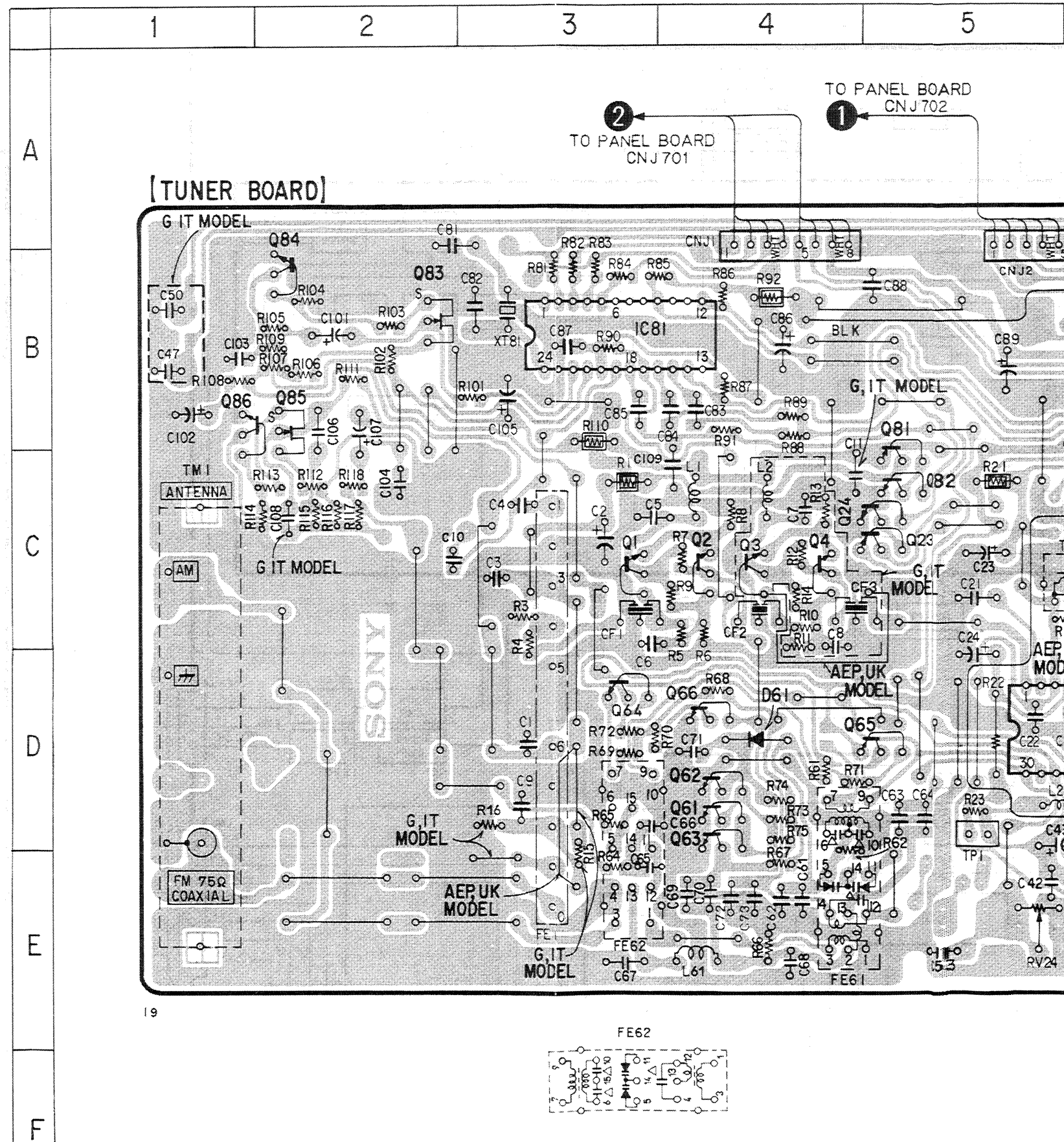
4-2. SEMICONDUCTOR LEAD LAYOUTS



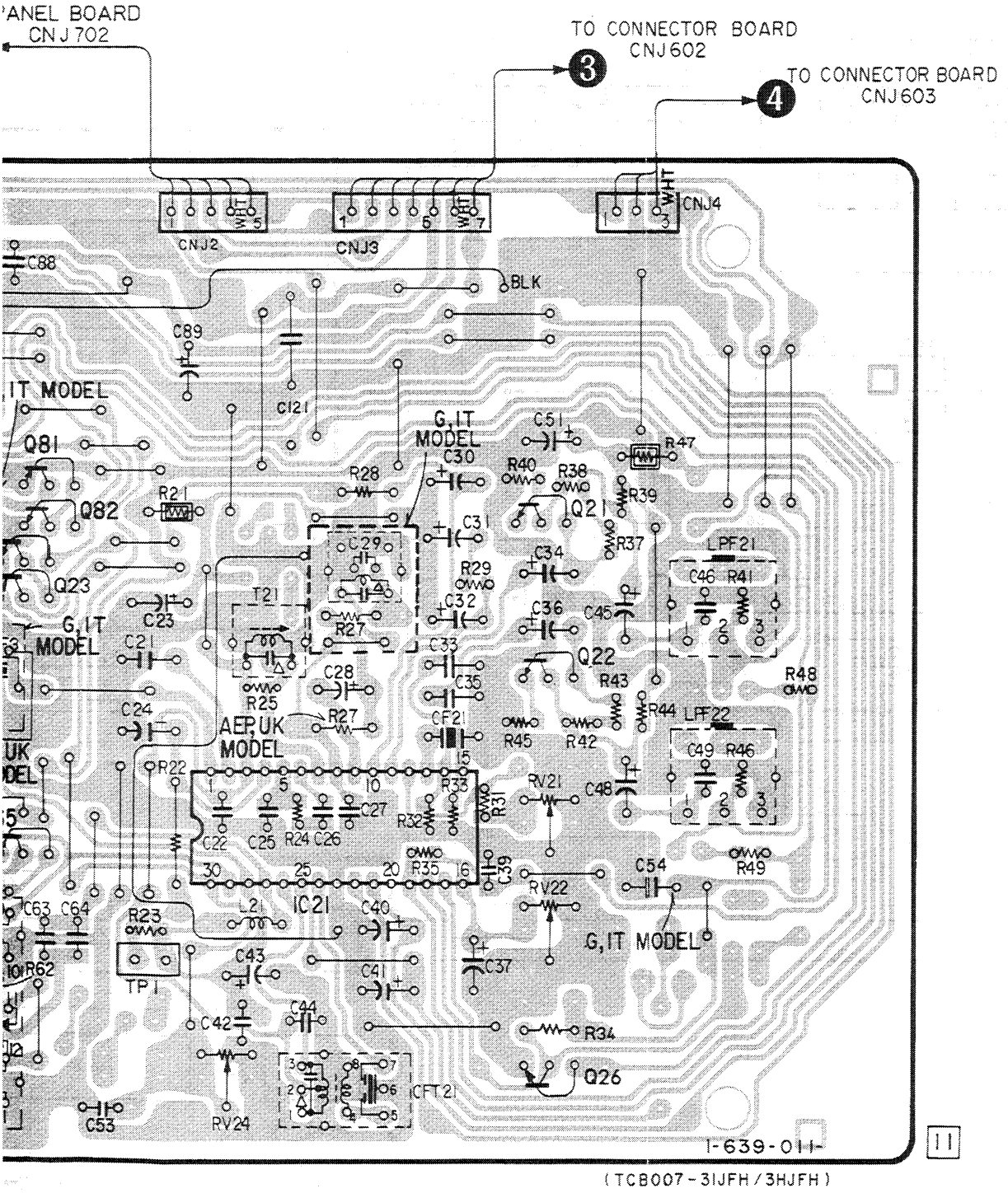
● SEMICONDUCTOR LOCATION

Ref. No	Location	
	H3600	H6600
D61	D-4	D-4
D701	G-4	B-5
D702	G-4	B-2
D707	H-4	B-3
D710	G-2	B-2
D711	G-3	B-3
D712	G-7	A-9
D714	G-9	B-5
D715	G-10	B-9
D716	G-9	B-9
D717	G-8	A-9
D718	G-8	B-2
IC21	C-5	C-5
IC81	C-5	C-5
IC701	G-6	B-6
IC702	G-9	B-9
IC703	G-7	B-9
Q1	C-3	C-3
Q2	C-4	C-4
Q3	C-4	C-4
Q4	C-4	C-4
Q21	C-7	C-7
Q22	C-7	C-7
Q23	C-4	C-4
Q24	C-4	C-4
Q26	E-7	E-7
Q61	D-4	D-4
Q62	D-4	D-4
Q63	D-4	D-4
Q64	D-3	D-3
Q65	D-5	D-5
Q66	D-4	D-4
Q81	C-5	C-5
Q82	C-5	C-5
Q701	G-3	A-2
Q702	F-3	A-2
Q703	G-8	B-8
Q705	H-9	B-8
Q706	G-8	B-9
Q707	G-9	B-9

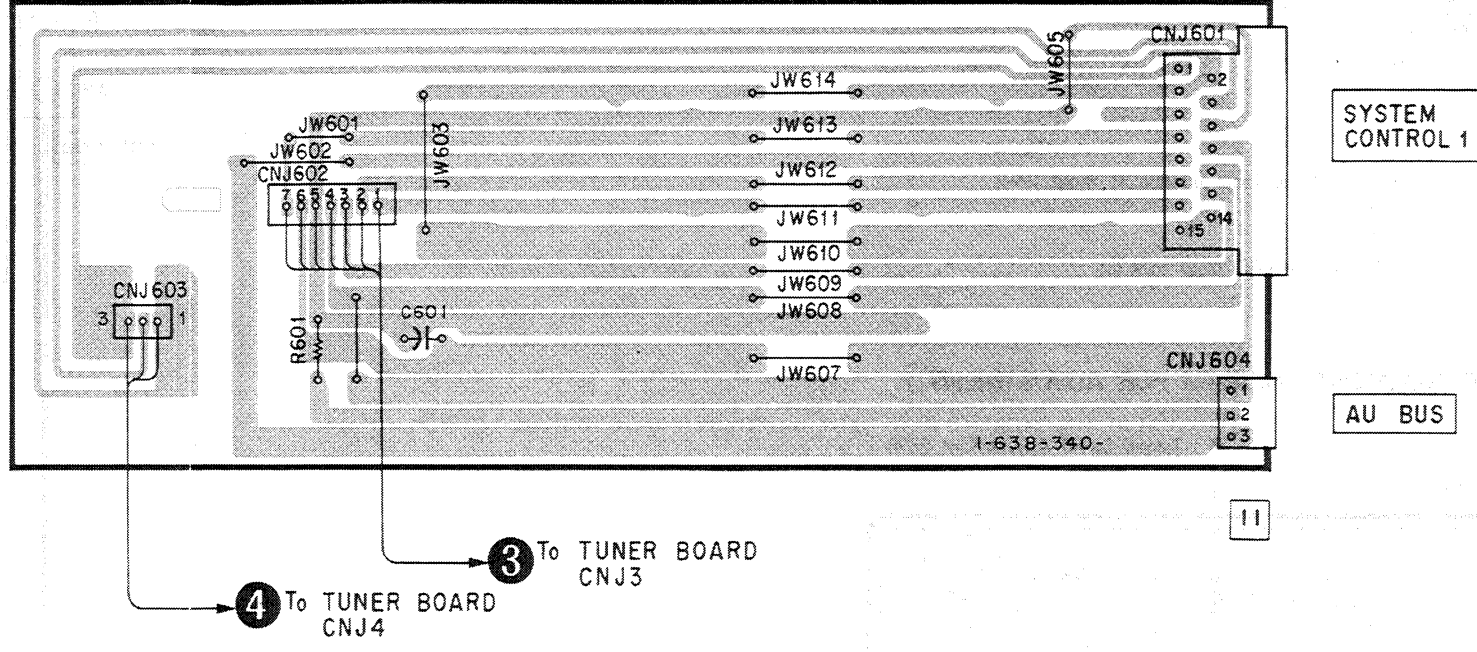
4-3. PRINTED WIRING BOARD - TUNER SECTION -



5 6 7 8 9 10 11 12 13



**[CONNECTOR BOARD]**



**Note for schematic diagram:**

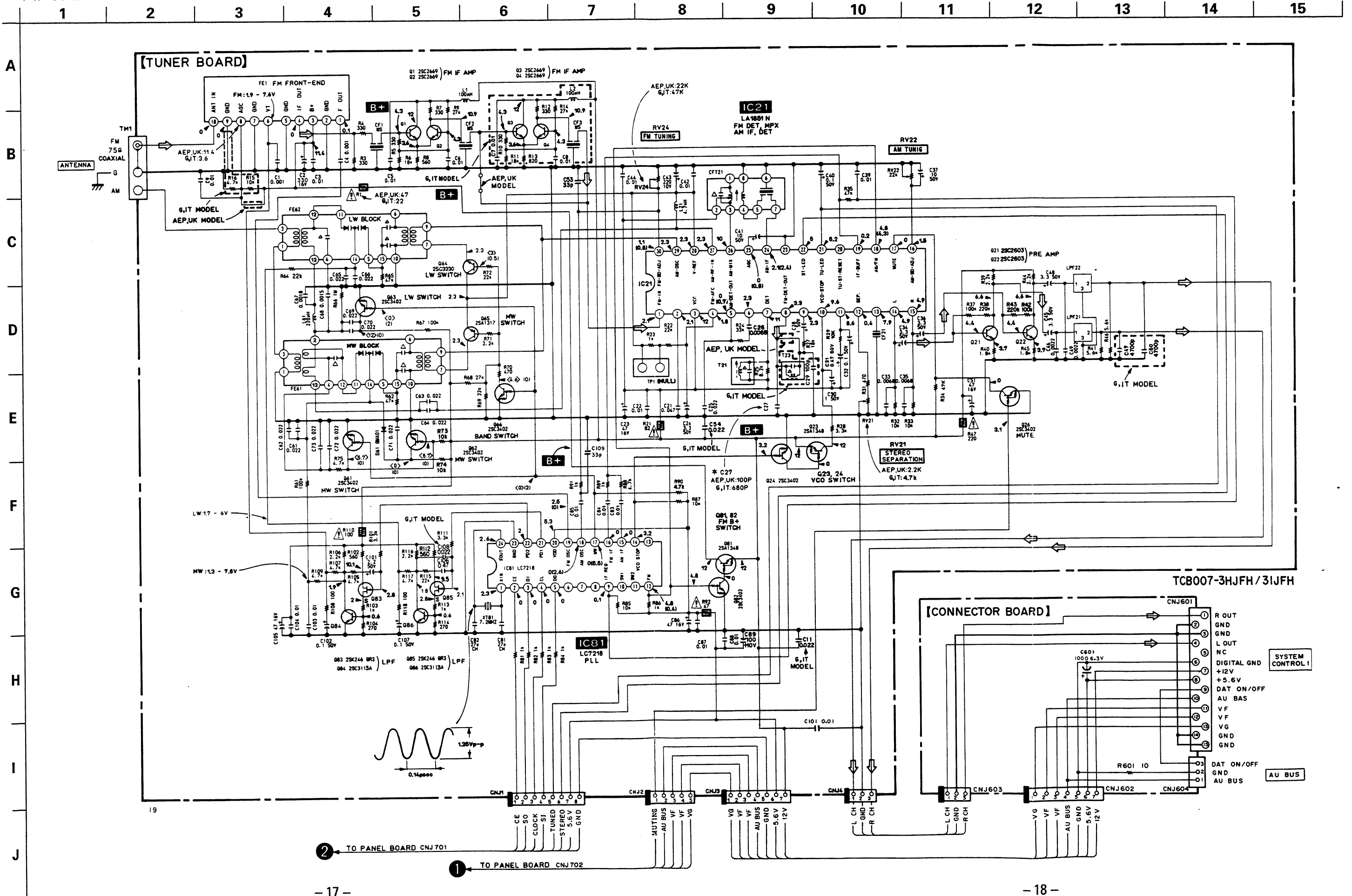
- : indicated a lead wire mounted on the component side.
- : indicates side identified with part number.
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{pF}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms, 1/4W or less unless otherwise noted.
- △ : internal component.
- ⊞ : nonflammable resistor

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

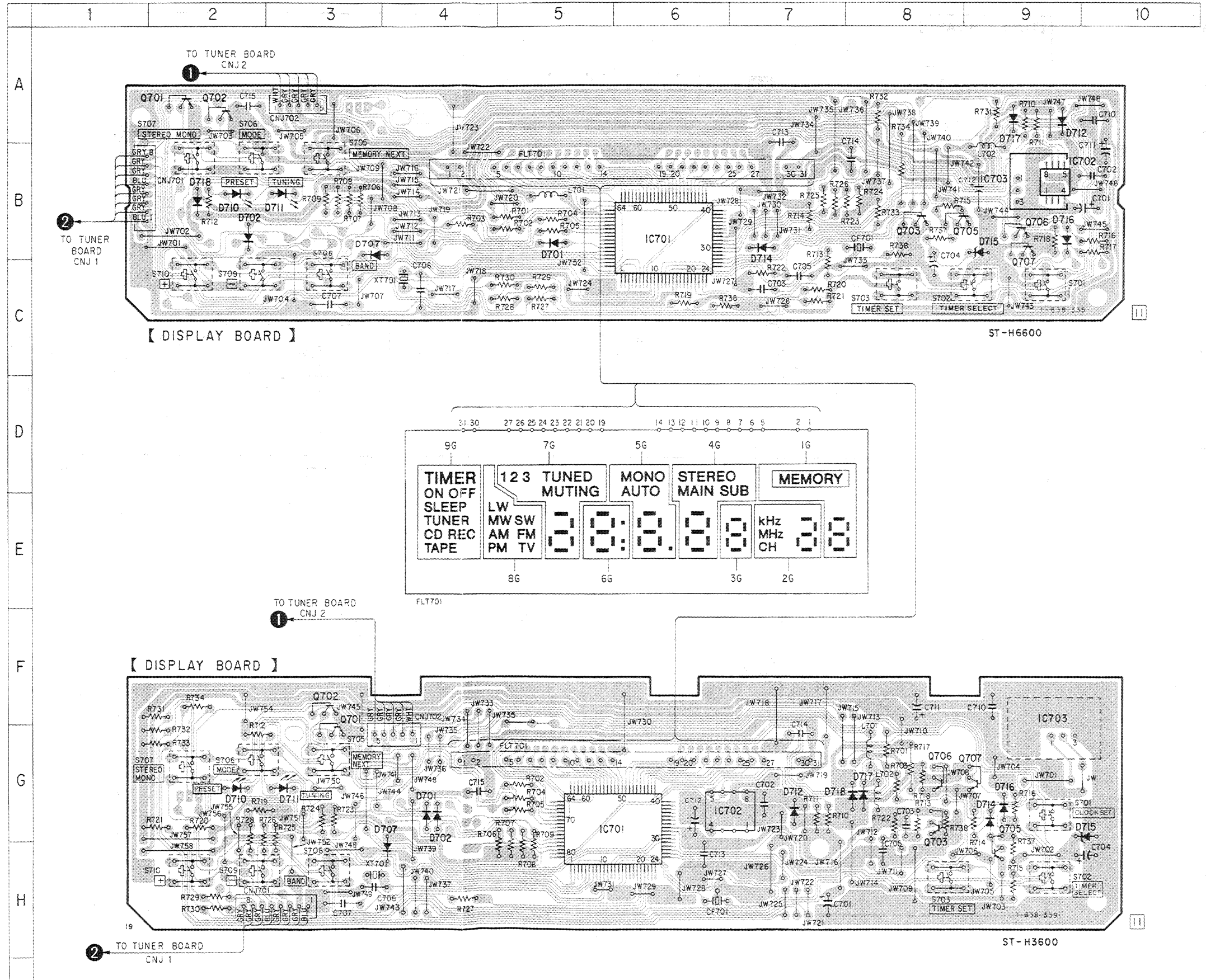
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- ( ) : MW
- < > : LW
- Voltages are taken with a VOM (input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path
- : FM
- G : Germany Model
- IT : Italian Model



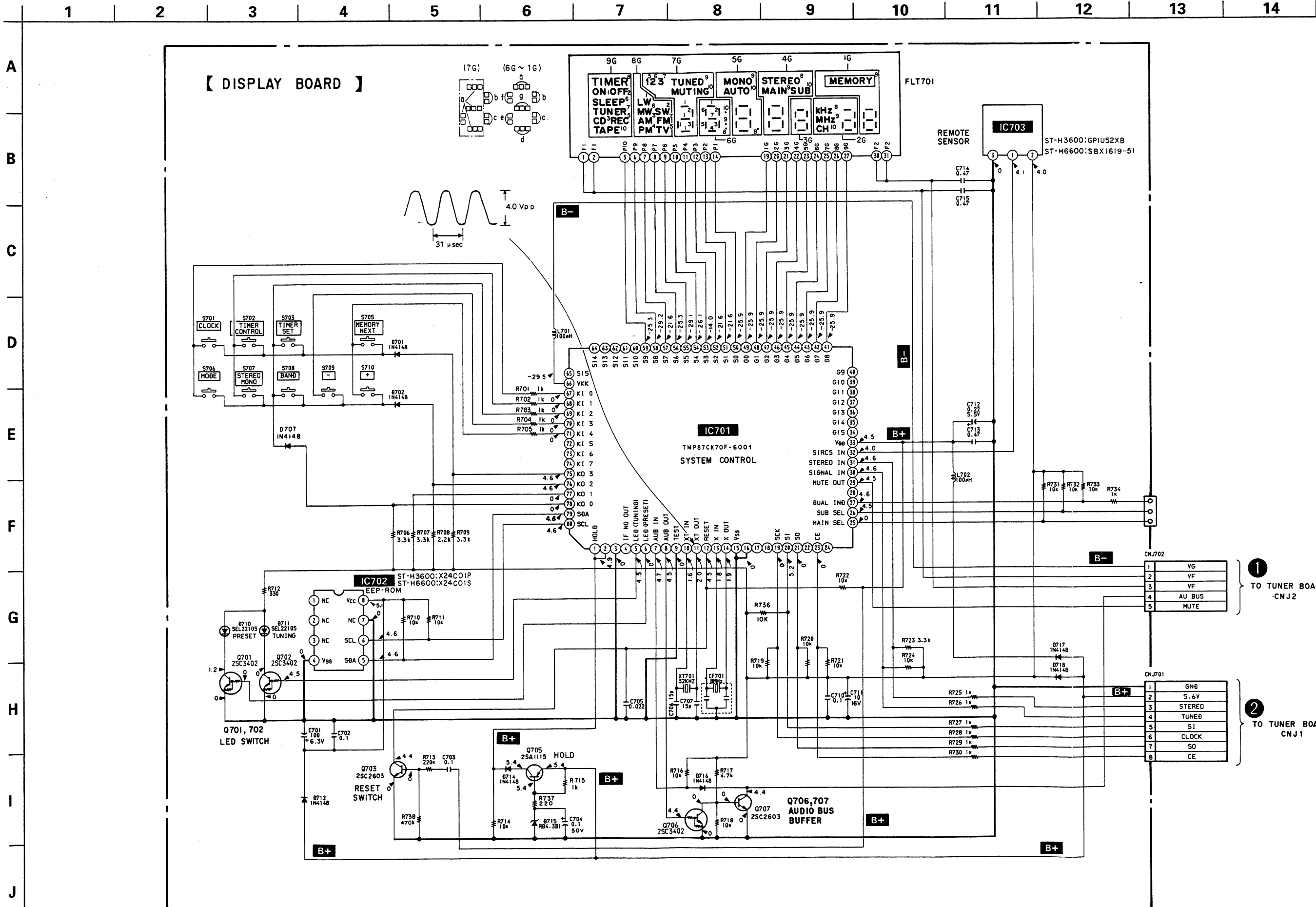
4.4. SCHEMATIC DIAGRAM - TUNER SECTION -



4-5. PRINTED WIRING BOARD - DISPLAY SECTION - • See page 13 for semiconductor Location.



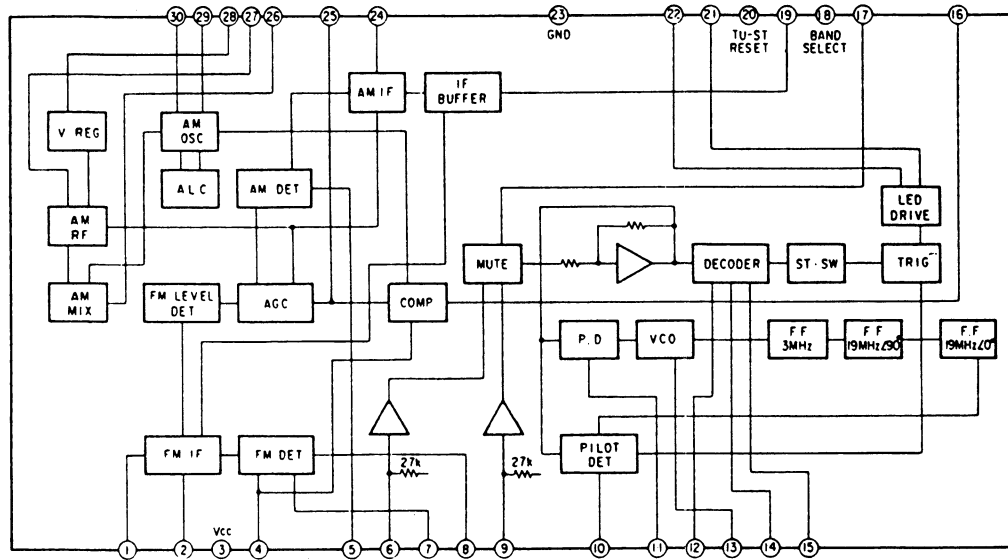
4-6. SCHEMATIC DIAGRAM - DISPLAY SECTION - See page 16 for note.



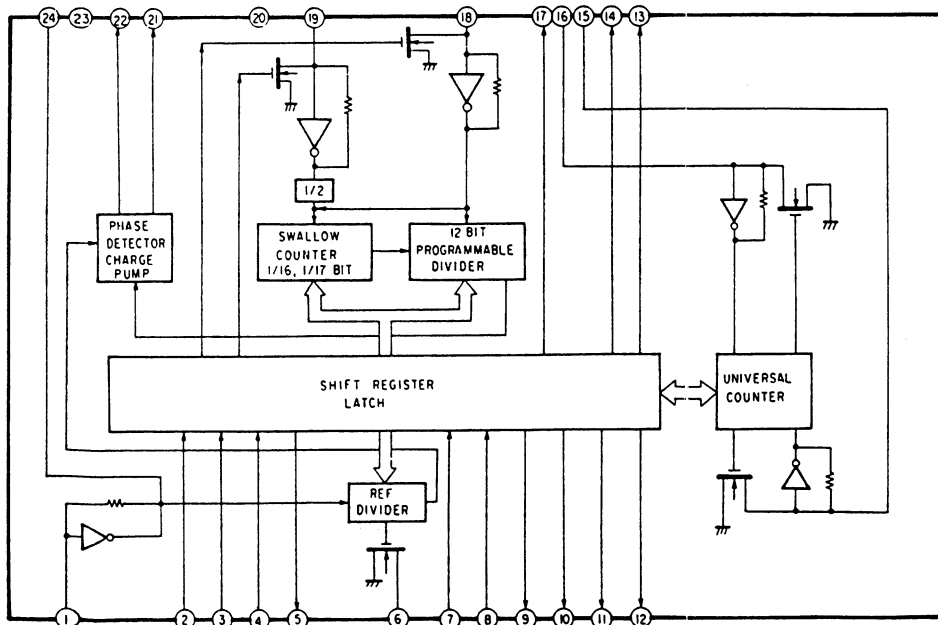


4-7. IC BLOCK DIAGRAMS

IC21 LA1851N



IC81 LC7218



4-8. PIN FUNCTION OF IC701 SYSTEM CONTROLLER (TMP87CK70F-6001)

The terminals work to control tuner section (IC21, 81), FL tube display and reading and writing of IC702 (preset data), etc. according to key input and signal from the remote controller.

PIN No.	PIN NAME	I/O	ACTIVE	PIN FUNCTION
1	HOLD	I	↓	HOLD detecting interrupt terminal
2	HOLD RESET	I	↑	HOLD resetting interrupt terminal
3		I		Not in use
4	IF NGOUT	O	H	IF count NG output
5	LED1	O	H	TUNING LED ON
6	LED2	O	H	PRESET LED ON
7	AUB IN	I	L	AUDIO BUS input
8	AUB OUT	O	L	AUDIO BUS output
9	TEST	I	H	Test terminal
10	XT IN	I		Low frequency oscillator connection terminal (32KHz)
11	XT OUT	O		Low frequency oscillator connection terminal (32KHz)
12	RESET	I	L	Reset signal input
13	X IN	I		High frequency oscillator connection terminal (8MHz)
14	X OUT	O		High frequency oscillator connection terminal (8MHz)
15	VSS			GND
16		I		Not in use
17, 18		O		Not in use
19	SCK	O		PLL serial clock output
20	SI	I		PLL serial data input
21	SO	O		PLL serial data output
22				Not in use
23	CE	O	H	PLL chip enable
24				Not in use
25	MAIN SEL	O	L	Main sound selection terminal (Not in use)
26	SUB SEL	O	L	Sub sound selection terminal (Not in use)
27	DUAL IND	I	L	Sound dual signal detection terminal (Not in use)
28				Not in use
29	MUTE OUT	O	L	MUTING output
30	SIGNAL IN	I	L	TUNED input
31	STEREO IN	I	L	STEREO input
32	SIRCS IN	I	L	SIRCS input
33	VDD			+5V
34 - 40		O		Not in use
41 - 49	G0 - G8	O	H	FL tube digit output
50 - 59	S0 - S9	O	H	FL tube segment output
60 - 65		O	H	Not in use
66	VKK			FL tube driving power supply
67 - 71	KI0 - KI4	I	H	Key input
72		I		Not in use
73, 74				Not in use
75 - 78	KO0 - KO3	O	H	Key output
79	SDA	I/O		Data input/output for EEPROM
80	SCL	O		Clock output for EEPROM

## SECTION 5 EXPLODED VIEW

## NOTE:

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

- Color Indication of Appearance Parts

Example:

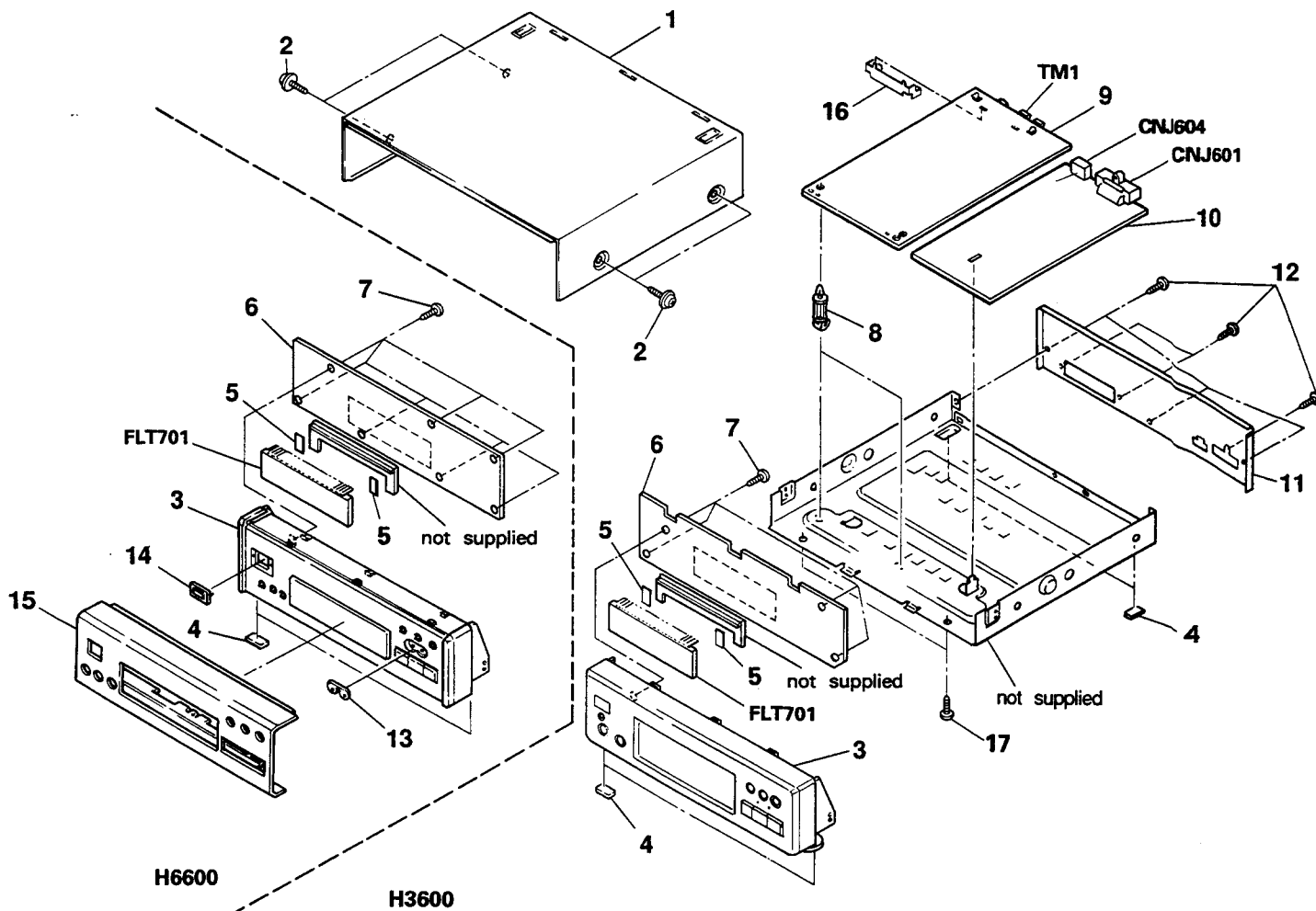
KNOB, BALANCE (WHITE)... (RED)

↑                    ↑  
Parts color    Cabinet's color

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

- The mechanical parts with no reference number in the exploded views are not supplied.

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

**(1) CHASSIS SECTION**

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-944-423-11	CASE (K206522) (H3600)		10	1-638-340-11	CONNECTOR BOARD (H3600)	
	4-932-844-01	CASE (H6600)			1-638-336-11	CONNECTOR BOARD (H6600)	
2	3-363-099-01	SCREW (CASE +3X8 TP2)					
3	X-4941-544-1	PANEL ASSY, ASSY (H3600)		11	* 4-942-893-51	PANEL, BACK (H3600: AEP, UK)	
	X-4942-523-1	PANEL ASSY, ASSY (H6600)			* 4-942-893-81	PANEL, BACK (H3600: G)	
4	4-930-336-01	FOOT (FELT)			* 4-942-893-91	PANEL, BACK (H3600: IT)	
5	* 4-932-810-11	CUSHION (FL)			* 4-942-893-01	PANEL, BACK (H6600: AEP, UK)	
6	* A-4341-562-A	DISPLAY BOARD, COMPLETE (H3600: AEP, UK)			* 4-942-893-31	PANEL, BACK (H6600: G)	
	* A-4341-563-A	DISPLAY BOARD, COMPLETE (H3600: G, IT)			* 4-942-893-41	PANEL, BACK (H6600: IT)	
	* A-4341-554-A	DISPLAY BOARD, COMPLETE (H6600: AEP, UK)		12	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
	* A-4341-556-A	DISPLAY BOARD, COMPLETE (H6600: G, IT)		13	4-944-427-01	INDICATOR (H6600)	
7	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S		14	4-944-425-01	FILTER (H6600)	
8	* 4-914-008-01	HOLDER, PCB		15	4-944-429-11	PANEL (ST), FRONT (H6600)	
9	A-4303-367-A	TUNER BOARD (TCB007-3HJFH), COMPLETE (AEP, UK)		16	* 4-924-988-11	PLATE (ST), GROUND	
	A-4303-368-A	TUNER BOARD (TCB007-3IJFH), COMPLETE (G, IT)		17	7-682-547-09	SCREW +BVTT 3X6(S) (H6600)	

## SECTION 6

## TUNER

## ELECTRICAL PARTS LIST

## NOTE:

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL : Metal-film resistor  
METAL OXIDE : Metal Oxide-film resistor  
F : nonflammable
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u :  $\mu$ , for example :  
uA...:  $\mu$ A..., uPA...:  $\mu$ PA...,  
uPB...:  $\mu$ PB..., uPC...:  $\mu$ PC...,  
uPD...:  $\mu$ PD...
- CAPACITORS  
uF :  $\mu$ F
- COILS  
uH :  $\mu$ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	A-4303-367-A	TUNER BOARD(TCB007-3HJFH), COMPLETE(AEP, UK)		C36	1-123-382-00	ELECT	3.3uF 20% 100V
	A-4303-368-A	TUNER BOARD(TCB007-3IJFH), COMPLETE(G, IT)		C37	1-124-907-11	ELECT	10uF 20% 50V
	*****			C39	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V
				C40	1-124-463-00	ELECT	0.1uF 20% 50V
				C41	1-124-907-11	ELECT	10uF 20% 50V
	* 4-924-988-11	PLATE (ST), GROUND					
		< CAPACITOR >		C42	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V
C1	1-162-294-11	CERAMIC CHIP	0.001uF 20% 25V	C43	1-126-176-11	ELECT	220uF 20% 10V
C2	1-124-477-11	ELECT	330uF 20% 16V	C44	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V
C3	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	C45	1-123-382-00	ELECT	3.3uF 20% 100V
C4	1-162-294-31	CERAMIC CHIP	0.001uF 20% 25V	C46	1-161-375-00	CERAMIC CHIP	0.0022uF 20% 25V
C5	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	C47	1-163-170-00	CERAMIC CHIP	0.0047uF 20% 25V (G, IT)
C6	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	C48	1-123-382-00	ELECT	3.3uF 20% 100V
C7	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V (G, IT)	C49	1-161-375-00	CERAMIC CHIP	0.0022uF 20% 25V
C8	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V (G, IT)	C50	1-163-170-00	CERAMIC CHIP	0.0047uF 20% 25V (G, IT)
C9	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	C51	1-124-477-11	ELECT	47uF 20% 25V
C11	1-101-005-00	CERAMIC	0.022uF 50V (G, IT)	C53	1-163-105-00	CERAMIC CHIP	33pF 5% 50V
C21	1-101-006-00	CERAMIC	0.047uF 50V	C54	1-101-005-00	CERAMIC	0.022uF 50V (G, IT)
C22	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	C61	1-163-063-00	CERAMIC MELF	0.022uF 25V
C23	1-124-477-11	ELECT	47uF 20% 25V	C62	1-163-063-00	CERAMIC MELF	0.022uF 25V
C24	1-123-382-00	ELECT	3.3uF 20% 100V	C63	1-163-063-00	CERAMIC MELF	0.022uF 25V
C25	1-163-063-00	CERAMIC MELF	0.022uF 25V	C64	1-163-063-00	CERAMIC MELF	0.022uF 25V
C26	1-163-019-00	CERAMIC CHIP	0.0068uF 20% 12V	C65	1-163-063-00	CERAMIC MELF	0.022uF 25V
C27	1-162-516-11	CERAMIC CHIP	100pF 10% 50V (AEP, UK)	C66	1-163-063-00	CERAMIC MELF	0.022uF 25V
C27	1-163-007-11	CERAMIC CHIP	680pF 20% 50V (G, IT)	C67	1-102-120-00	CERAMIC	0.0018uF 10% 50V
C28	1-124-903-11	ELECT	1.0uF 20% 50V	C68	1-163-111-11	CERAMIC CHIP	0.0015uF 20% 25V
C29	1-162-516-11	CERAMIC CHIP	100pF 10% 50V (G, IT)	C69	1-163-063-00	CERAMIC MELF	0.022uF 25V
C30	1-124-903-11	ELECT	1.0uF 20% 50V	C70	1-163-063-00	CERAMIC MELF	0.022uF 25V
C31	1-124-902-00	ELECT	0.47uF 20% 50V	C71	1-163-063-00	CERAMIC MELF	0.022uF 25V
C32	1-124-463-00	ELECT	0.1uF 20% 50V	C72	1-163-063-00	CERAMIC MELF	0.022uF 25V
C33	1-130-481-00	MYLAR	0.0068uF 5% 50V	C73	1-163-063-00	CERAMIC MELF	0.022uF 25V
C34	1-123-382-00	ELECT	3.3uF 20% 100V	C81	1-102-961-00	CERAMIC	27pF 5% 50V
C35	1-130-481-00	MYLAR	0.0068uF 5% 50V	C82	1-102-961-00	CERAMIC	27pF 5% 50V
				C83	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V
				C84	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V

## TUNER

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C85	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V			( INDUCTOR )	
C86	1-124-477-11	ELECT	47uF 20% 25V				
C87	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	L1	1-410-645-31	MICRO INDUCTOR 100uH	
C88	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	L2	1-410-645-31	MICRO INDUCTOR 100uH (G, IT)	
C89	1-124-443-00	ELECT	100uF 20% 10V	L21	1-407-500-00	MICRO INDUCTOR 4.7mH	
				L61	1-410-525-11	MICRO INDUCTOR 220uH	
C101	1-124-925-11	ELECT	2.2uF 20% 100V			( LOW PASS FILTER )	
C102	1-124-463-00	ELECT	0.1uF 20% 50V				
C103	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	LPF21	1-235-164-00	FILTER, LOW PASS	
C104	1-163-059-00	CERAMIC MELF	0.01uF 20% 16V	LPF22	1-235-164-00	FILTER, LOW PASS	
C105	1-124-477-11	ELECT	47uF 20% 25V			( TRANSISTOR )	
C106	1-136-173-00	FILM	0.47uF 5% 50V				
C107	1-124-463-00	ELECT	0.1uF 20% 50V	Q1	8-729-230-99	TRANSISTOR 2SC2669-0Y	
C108	1-163-063-00	CERAMIC MELF	0.022uF 25V (G, IT)	Q2	8-729-230-99	TRANSISTOR 2SC2669-0Y	
C109	1-162-211-31	CERAMIC	33pF 5% 50V	Q3	8-129-230-99	TRANSISTOR 2SC2669-0Y (G, IT)	
C121	1-161-379-00	CERAMIC	0.01uF 30% 16V (G, IT)	Q4	8-129-230-99	TRANSISTOR 2SC2669-0Y (G, IT)	
		( FILTER )		Q21	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CF1	1-567-389-11	FILTER, CERAMIC		Q22	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CF2	1-567-389-11	FILTER, CERAMIC		Q23	8-729-900-61	TRANSISTOR DTA114ES	
CF3	1-567-389-11	FILTER, CERAMIC (G, IT)		Q24	8-729-900-80	TRANSISTOR DTC114ES	
		( OSCILLATOR )		Q26	8-729-900-80	TRANSISTOR DTC114ES	
CF21	1-577-075-11	OSCILLATOR, CERAMIC (19KHz)		Q61	8-729-900-80	TRANSISTOR DTC114ES	
		( IF TRANSFORMER )		Q62	8-729-900-80	TRANSISTOR DTC114ES	
CFT21	1-404-853-11	TRANSFORMER, IF (CERAMIC FILTER)		Q63	8-729-900-80	TRANSISTOR DTC114ES	
		( CONNECTOR )		Q64	8-729-820-24	TRANSISTOR 2SC3330-T	
CNJ1	* 1-564-342-11	SOCKET, CONNECTOR 8P		Q65	8-729-119-76	TRANSISTOR 2SA1175-HFE	
CNJ2	* 1-564-339-00	PIN, CONNECTOR 5P		Q66	8-729-900-80	TRANSISTOR DTC114ES	
CNJ3	* 1-564-341-11	PIN, CONNECTOR 7P		Q81	8-729-900-61	TRANSISTOR DTA114ES	
CNJ4	* 1-564-337-00	PIN, CONNECTOR 3P		Q82	8-729-900-80	TRANSISTOR DTC114ES	
		( DIODE )		Q83	8-729-202-67	TRANSISTOR 2SK246GR3	
D61	8-719-912-20	DIODE ISS120		Q84	8-729-230-93	TRANSISTOR 2SC3113-AB	
		( FM FRONT END )		Q85	8-729-202-67	TRANSISTOR 2SK246GR3	
FE1	1-463-857-11	FRONT END, FM (G, IT)		Q86	8-729-230-93	TRANSISTOR 2SC3113-AB	
FE1	1-463-862-21	FRONT END, FM (AEP, UK)				( RESISTOR )	
		( ENCAPSULATED COMPONENT )		R1	△ 1-249-397-11	CARBON (SMALL) 22 5% 1/4W F (G, IT)	
FE61	1-236-462-11	ENCAPSULATED COMPONENT (MW RF)		R1	△ 1-249-401-11	CARBON (SMALL) 47 5% 1/4W F (AEP, UK)	
FE62	1-236-463-11	ENCAPSULATED COMPONENT (LW RF)		R3	1-249-329-11	CARBON MELF 330 5% 1/8W	
		( IC )		R4	1-249-329-11	CARBON MELF 330 5% 1/8W	
IC21	8-759-821-45	IC LA1851N		R5	1-249-329-11	CARBON MELF 330 5% 1/8W	
IC81	8-759-820-91	IC LC7218		R6	1-249-350-11	CARBON MELF 18K 5% 1/8W	
				R7	1-249-329-11	CARBON MELF 330 5% 1/8W	
				R8	1-249-332-11	CARBON MELF 560 5% 1/8W	
				R9	1-249-352-11	CARBON MELF 27K 5% 1/8W	
				R10	1-249-329-11	CARBON MELF 330 5% 1/8W (G, IT)	
				R11	1-249-350-11	CARBON MELF 18K 5% 1/8W (G, IT)	
				R12	1-249-329-11	CARBON MELF 330 5% 1/8W (G, IT)	
				R13	1-249-334-11	CARBON MELF 820 5% 1/8W (G, IT)	
				R14	1-249-352-11	CARBON MELF 27K 5% 1/8W (G, IT)	

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

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



<b>CONNECTOR</b>	<b>DISPLAY</b>
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
						( INDICATOR )	
		* A-4341-562-A DISPLAY BOARD, COMPLETE (H3600: AEP, UK)		FLT701	△ 1-519-651-11	INDICATOR TUBE, FLUORESCENT	
		* A-4341-563-A DISPLAY BOARD, COMPLETE (H3600: G, IT)				( IC )	
		* A-4341-554-A DISPLAY BOARD, COMPLETE (H6600: AEP, UK)		IC701	8-759-246-31	IC TMP87CK70F-6001	
		* A-4341-556-A DISPLAY BOARD, COMPLETE (H6600: G, IT)		IC702	8-759-500-31	IC X24C01P (H3600)	
		*****		IC702	8-759-504-12	IC X24C01S (H6600)	
				IC703	8-749-920-83	IC GP1U52XB (H3600)	
				IC703	8-741-100-63	IC SBX1619-51 (H6600)	
		* 4-932-810-11 CUSHION (FL)				( COIL )	
		( CAPACITOR )		L701	1-410-521-11	INDUCTOR 100uH	
C601	1-124-471-00	ELECT	1000uF 20% 6.3V	L702	1-410-521-11	INDUCTOR 100uH	
C701	1-126-177-11	ELECT	100uF 20% 10V			( TRANSISTOR )	
C702	1-164-159-11	CERAMIC	0.1uF 50V	Q701	8-729-900-80	TRANSISTOR DTC114ES	
C703	1-164-159-11	CERAMIC	0.1uF 50V	Q702	8-729-900-80	TRANSISTOR DTC114ES	
C704	1-124-463-00	ELECT	0.1uF 20% 50V	Q703	8-729-620-05	TRANSISTOR 2SC2603-EF	
				Q705	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C705	1-161-494-00	CERAMIC	0.022uF 25V			( RESISTOR )	
C706	1-162-203-31	CERAMIC	15PF 5% 50V	Q706	8-729-900-80	TRANSISTOR DTC114ES	
C707	1-162-203-31	CERAMIC	15PF 5% 50V	Q707	8-729-620-05	TRANSISTOR 2SC2603-EF	
C710	1-164-159-11	CERAMIC	0.1uF 50V				
C711	1-126-157-11	ELECT	10uF 20% 16V				
C712	1-125-624-11	DUBLE LAYERS	0.22F 5.5V				
C713	1-136-173-00	FILM	0.47uF 5% 50V				
C714	1-136-173-00	FILM	0.47uF 5% 50V				
C715	1-136-173-00	FILM	0.47uF 5% 50V				
		( CERAMIC VIBRATOR )					
CF701	1-579-125-11	VIBRATOR, CERAMIC (8MHz)		R601	1-249-393-11	CARBON 10 5% 1/4W	
		( CONNECTOR )		R701	1-249-417-11	CARBON 1K 5% 1/4W	
CNJ601	* 1-566-859-11	SOCKET, CONNECTOR 15P		R702	1-249-417-11	CARBON 1K 5% 1/4W	
CNJ602	* 1-564-341-11	PIN, CONNECTOR 7P		R703	1-249-417-11	CARBON 1K 5% 1/4W	
CNJ603	* 1-564-337-00	PIN, CONNECTOR 3P		R704	1-249-417-11	CARBON 1K 5% 1/4W	
CNJ604	* 1-565-561-11	PIN, CONNECTOR 3P					
				R705	1-249-417-11	CARBON 1K 5% 1/4W	
CNJ701	* 1-564-342-11	PIN, CONNECTOR 8P		R706	1-249-423-11	CARBON 3.3K 5% 1/4W	
CNJ702	* 1-564-339-00	PIN, CONNECTOR 5P		R707	1-249-423-11	CARBON 3.3K 5% 1/4W	
		( DIODE )		R708	1-249-421-11	CARBON 2.2K 5% 1/4W	
D701	8-719-912-20	DIODE 1SS120		R709	1-249-423-11	CARBON 3.3K 5% 1/4W	
D702	8-719-912-20	DIODE 1SS120					
D707	8-719-912-20	DIODE 1SS120		R710	1-249-429-11	CARBON 10K 5% 1/4W	
D710	8-719-301-39	DIODE SEL2210S-D (PRESET)		R711	1-249-429-11	CARBON 10K 5% 1/4W	
D711	8-719-301-39	DIODE SEL2210S-D (TUNING)		R712	1-249-411-11	CARBON 330 5% 1/4W	
				R713	1-247-887-00	CARBON 220K 5% 1/4W	
D712	8-719-912-20	DIODE 1SS120		R714	1-249-429-11	CARBON 10K 5% 1/4W	
D714	8-719-912-20	DIODE 1SS120					
D715	8-719-010-28	DIODE UZ-4.3BSA		R715	1-249-417-11	CARBON 1K 5% 1/4W	
D716	8-719-912-20	DIODE 1SS120		R716	1-249-429-11	CARBON 10K 5% 1/4W	
				R717	1-249-425-11	CARBON 4.7K 5% 1/4W	
D717	8-719-912-20	DIODE 1SS120		R718	1-249-429-11	CARBON 10K 5% 1/4W	
D718	8-719-912-20	DIODE 1SS120		R719	1-249-429-11	CARBON 10K 5% 1/4W	
				R720	1-249-429-11	CARBON 10K 5% 1/4W	
				R721	1-249-429-11	CARBON 10K 5% 1/4W	
				R722	1-249-429-11	CARBON 10K 5% 1/4W	
				R723	1-249-423-11	CARBON 3.3K 5% 1/4W	
				R724	1-249-429-11	CARBON 10K 5% 1/4W	

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

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

## CONNECTOR

## DISPLAY

Ref. No.	Part No.	Description	Remarks		
R725	1-249-417-11	CARBON	1K	5%	1/4W
R726	1-249-417-11	CARBON	1K	5%	1/4W
R727	1-249-417-11	CARBON	1K	5%	1/4W
R728	1-249-417-11	CARBON	1K	5%	1/4W
R729	1-249-417-11	CARBON	1K	5%	1/4W
R730	1-249-417-11	CARBON	1K	5%	1/4W
R731	1-249-429-11	CARBON	10K	5%	1/4W
R732	1-249-429-11	CARBON	10K	5%	1/4W
R733	1-249-429-11	CARBON	10K	5%	1/4W
R734	1-249-417-11	CARBON	1K	5%	1/4W
R736	1-249-429-11	CARBON	10K	5%	1/4W
R737	1-249-409-11	CARBON	220	5%	1/4W
R738	1-247-895-00	CARBON	470K	5%	1/4W

## &lt; SWITCH &gt;

S701	1-554-303-21	SWITCH, TACTILE (CLOCK)
S702	1-554-303-21	SWITCH, TACTILE (TIMER CONTROL)
S703	1-554-303-21	SWITCH, TACTILE (TIMER SET)
S705	1-554-303-21	SWITCH, TACTILE (MEMORY NEXT)
S706	1-554-303-21	SWITCH, TACTILE (MODE)
S707	1-554-303-21	SWITCH, TACTILE (STEREO/MONO)
S708	1-554-303-21	SWITCH, TACTILE (BAND)
S709	1-554-303-21	SWITCH, TACTILE (TUNING -)
S710	1-554-303-21	SWITCH, TACTILE (TUNING +)

## &lt; CRYSTAL VIBRATOR &gt;

XT701	1-527-997-22	VIBRATOR, CRYSTAL (32kHz)
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XC 257

# ST-H3600/H6600

## SONY SERVICE MANUAL

4/18  
AEP Model  
UK Model

### CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT	
25	No. 3	Part No. X-4941-544-1 X-4942-523-1	Description PANEL ASSY, ASSY (H3600) PANEL ASSY, ASSY (H6600)	Part No. X-4941-544-1 X- <del>4941</del> -523-1	Description PANEL ASSY, ASSY (H3600) PANEL ASSY, ASSY (H6600)





# SS-H2600

## SERVICE MANUAL

US Model  
Canadian Model  
AEP Model  
E Model

### SPECIFICATIONS

Speaker system	3-way
Speaker units	Woofer: 14cm(5 <sup>1</sup> / <sub>2</sub> in.) cone type Tweeter: 6cm(2 <sup>3</sup> / <sub>8</sub> in.) cone type Super Tweeter: 2cm(1 <sup>3</sup> / <sub>16</sub> in.) dome type
Power handling capacity	Maximum input power 70W
Sensitivity	89dB/W/m
Effective frequency range	55-20,000 Hz
Rated impedance	6 ohms
Dimensions	Approx. 185x365x225mm(w/h/d) (7 <sup>3</sup> / <sub>8</sub> x 14 <sup>3</sup> / <sub>8</sub> x 8 <sup>7</sup> / <sub>8</sub> in.)
Weight	Approx. 4.5 kg per speaker (9 lb 15 oz)

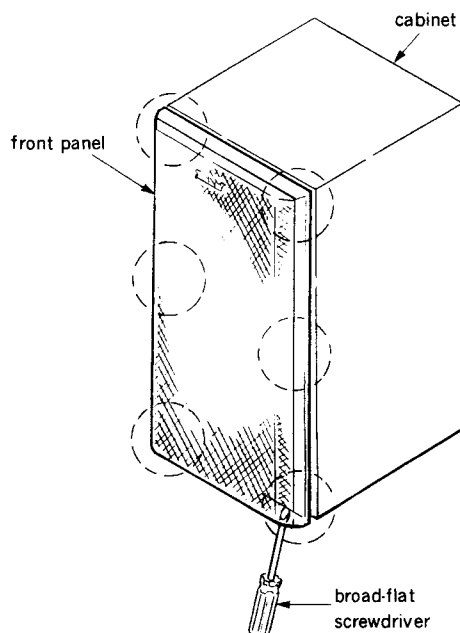
Design and specifications subject to change without notice.



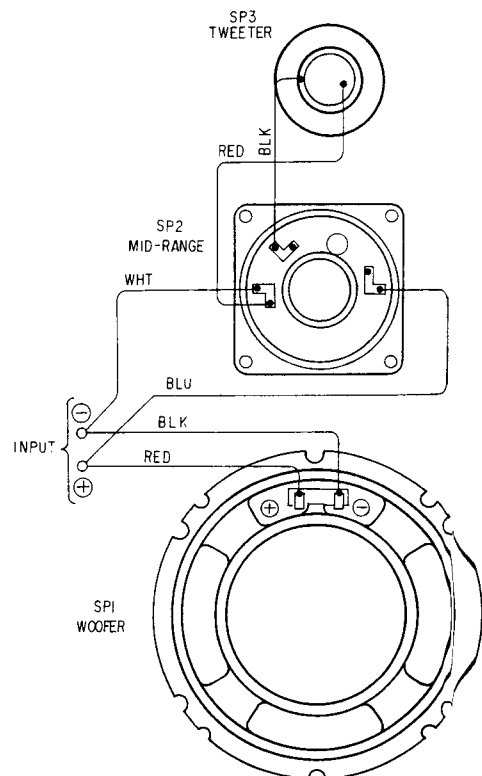
This set is the speaker system in MHC-2600.

### 1. FRONT PANEL REMOVAL

Note: Be careful not to scratch the cabinet.



### 2. WIRING DIAGRAM

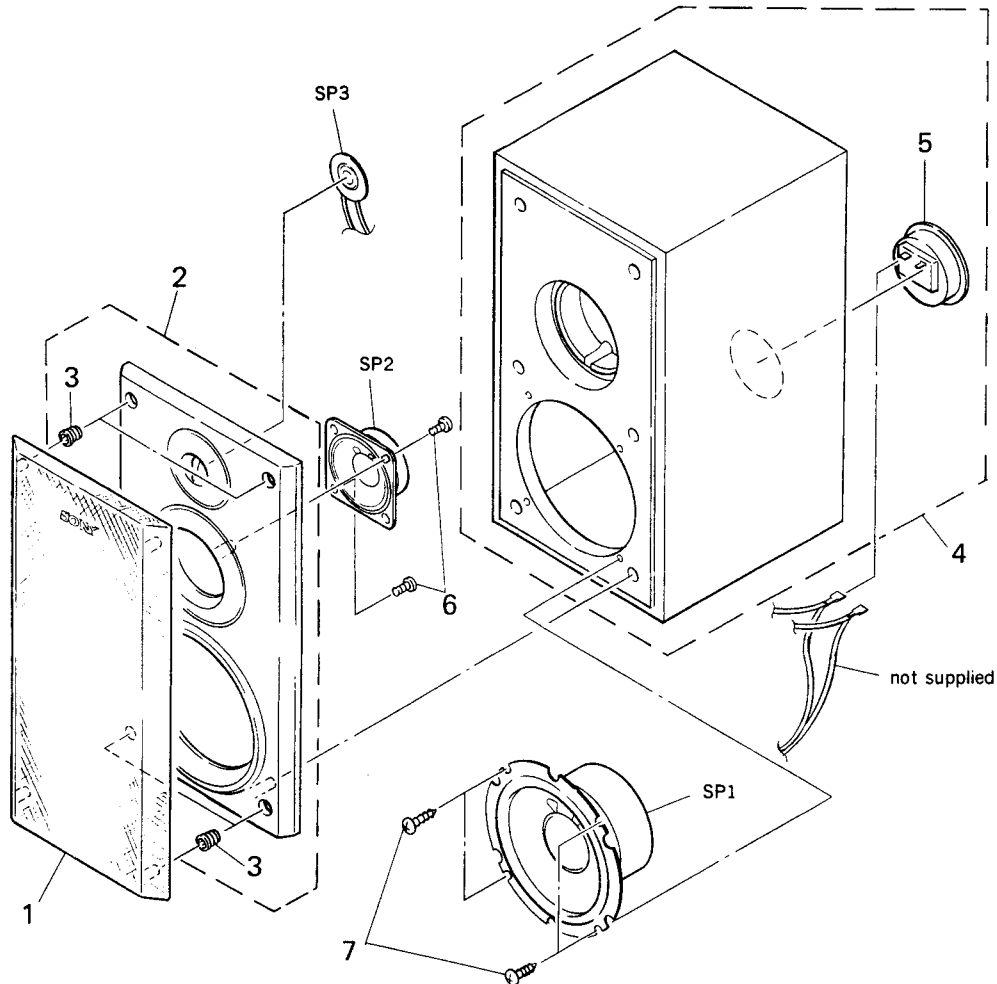


SPEAKER SYSTEM  
**SONY**®

3. EXPLODED VIEW AND PARTS LIST

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- 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 differences from the original one.
- Color Indication of Appearance Parts  
Example:  
KNOB, BALANCE (WHITE)...(RED)  
Parts Color      Cabinet's Color



Ref.No	Part No.	Description	Remarks	Ref.No	Part No.	Description	Remarks
1	X-4941-328-1	FRAME ASSY, GRILLE		6	3-703-564-01	SCREW, TAPPING	
2	X-4941-403-1	PANEL ASSY, FRONT		7	4-874-614-11	SCREW (4) (3.5×14), TAPPING	
3	*4-912-253-01	CATCHER		SP1	1-544-277-11	SPEAKER (13CM) (EXCEPT FOR US)	
4	X-4941-329-2	CABINET ASSY, SPEAKER (Canadian, AEP, E)		SP1	1-544-425-11	SPEAKER (13CM) (US)	
4	X-4941-404-2	CABINET ASSY, SPEAKER (Germany)		SP2	1-544-460-11	SPEAKER (6CM)	
4	X-4941-438-2	CABINET ASSY, SPEAKER (US)		SP3	1-544-293-11	SPEAKER (2CM)	
5	1-537-145-11	TERMINAL BOARD (SPEAKER)					

ACCESSORY & PACKING MATERIAL  
\*\*\*\*\*

- 1-575-495-11 CORD, SPEAKER (AEP, Germany)
- 3-753-187-11 MANUAL, INSTRUCTION (AEP, Germany)
- \*4-857-137-01 CUSHION
- 3-694-922-01 SHEET, PROTECTION

Sony Corporation  
Audio Group

English  
91C0482-1