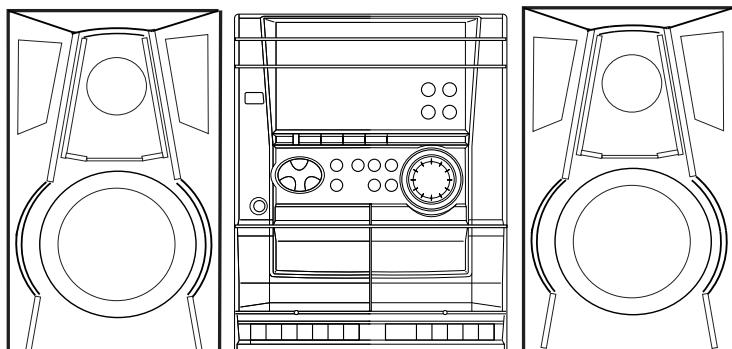




NSX-SZ4 K
NSX-SZ5 KEZ V
NSX-SZ7 EZ



SERVICE MANUAL

COMPACT DISC
STEREO CASSETTE RECEIVER

BASIC CD MECHANISM : AZG-1 ZA3RNM
BASIC TAPE MECHANISM : ZZM-2 PR1NM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-SZ4	CX-NSZ4	SX-NSZ4	RC-ZAS17
NSX-SZ5	CX-NSZ5	SX-NSZ5	RC-ZAS02
NSX-SZ7	CX-NSZ7	SX-NSZ7	

- If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3NC).

aiwa
S/M Code No. 09-006-429-1N1



SPECIFICATIONS

K MODEL (NSX-SZ4/SZ5)

Main unit CX-NSZ5/CX-NSZ4		Compact disc player section
FM tuner section		Laser Semiconductor laser ($\lambda = 780$ nm)
Tuning range	87.5 MHz to 108 MHz	D/A converter 1 bit dual
Usable sensitivity (IHF)	16.8 dBf	Signal-to-noise ratio 85 dB (1 kHz, 0 dB)
Antenna terminals	75 ohms (unbalanced)	Harmonic distortion 0.05% (1 kHz, 0 dB)
MW tuner section		General
Tuning range	531 kHz to 1602 kHz (9 kHz step)	Power requirements 230 V AC, 50 Hz
Usable sensitivity	530 kHz to 1710 kHz (10 kHz step)	Power consumption 42 W
Antenna	350 μ V/m	Power consumption in standby mode 14 W with power-economizing mode off 0.9 W with power-economizing mode on
LW tuner section		Dimensions (W × H × D) 260 × 324 × 346 mm
Tuning range	144 kHz to 290 kHz	Weight 4.7 kg
Usable sensitivity	1400 μ V/m	
Antenna	Loop antenna	
Amplifier section		Speaker system SX-NSZ5/SX-NSZ4
Power output	Rated: 6.4 W + 6.4 W (6 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 8 W + 8 W (6 ohms, T.H.D. 10%, 1 kHz/DIN 45324)	Speaker system 2 way, bass reflex (magnetic shielded type)
Total harmonic distortion	0.1% (3 W, 1 kHz, 6 ohms, DIN AUDIO)	Speaker units Woofer: 120 mm cone type Tweeter: 20 mm ceramic type
Inputs	VIDEO/AUX: 500 mV	Impedance 6 ohms
Outputs	SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more	Sensitivity 87 dB/W/m
Cassette deck section		Dimensions (W × H × D) 220 × 324 × 204 mm
Track format	4 tracks, 2 channels stereo	Weight 2.0 kg
Frequency response	50 Hz – 8000 Hz	
Recording system	AC bias	
Heads	Deck 1: Recording/playback head × 1, erase head × 1 Deck 2: Playback head × 1	

- Design and specifications are subject to change without notice.

EZ MODEL (NSX-SZ5)

Main unit CX-NSZ5		Compact disc player section
FM tuner section		Laser Semiconductor laser ($\lambda = 780$ nm)
Tuning range	87.5 MHz to 108 MHz	D/A converter 1 bit dual
Usable sensitivity (IHF)	16.8 dBf	Signal-to-noise ratio 85 dB (1 kHz, 0 dB)
Antenna terminals	75 ohms (unbalanced)	Harmonic distortion 0.05% (1 kHz, 0 dB)
MW tuner section		General
Tuning range	531 kHz to 1602 kHz (9 kHz step)	Power requirements 230 V AC, 50 Hz
Usable sensitivity	530 kHz to 1710 kHz (10 kHz step)	Power consumption 42 W
Antenna	350 μ V/m	Power consumption in standby mode 14 W with power-economizing mode off 0.9 W with power-economizing mode on
LW tuner section		Dimensions (W × H × D) 260 × 324 × 346 mm
Tuning range	144 kHz to 290 kHz	Weight 4.7 kg
Usable sensitivity	1400 μ V/m	
Antenna	Loop antenna	
Amplifier section		Speaker system SX-NSZ5
Power output	Rated: 6.4 W + 6.4 W (6 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 8 W + 8 W (6 ohms, T.H.D. 10%, 1 kHz/DIN 45324) DIN MUSIC POWER: 15 W + 15 W	Speaker system 2 way, bass reflex (magnetic shielded type)
Total harmonic distortion	0.1% (3 W, 1 kHz, 6 ohms, DIN AUDIO)	Speaker units Woofer: 120 mm cone type Tweeter: 20 mm ceramic type
Inputs	VIDEO/AUX: 500 mV	Impedance 6 ohms
Outputs	SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more	Sensitivity 87 dB/W/m
Cassette deck section		Dimensions (W × H × D) 220 × 324 × 204 mm
Track format	4 tracks, 2 channels stereo	Weight 2.0 kg
Frequency response	50 Hz – 8000 Hz	
Recording system	AC bias	
Heads	Deck 1: Recording/playback head × 1, erase head × 1 Deck 2: Playback head × 1	

- Design and specifications are subject to change without notice.

EZ MODEL (NSX-SZ7)

Main unit CX-NSZ7		Compact disc player section
FM tuner section		Laser Semiconductor laser ($\lambda = 780$ nm)
Tuning range	87.5 MHz to 108 MHz	D/A converter 1 bit dual
Usable sensitivity (IHF)	16.8 dBf	Signal-to-noise ratio 85 dB (1 kHz, 0 dB)
Antenna terminals	75 ohms (unbalanced)	Harmonic distortion 0.05% (1 kHz, 0 dB)
MW tuner section		General
Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)	Power requirements 230 V AC, 50 Hz
Usable sensitivity	350 μ V/m	Power consumption 42 W
Antenna	Loop antenna	Power consumption in standby mode 14 W with power-economizing mode off 0.9 W with power-economizing mode on
LW tuner section		Dimensions (W × H × D) 260 × 324 × 346 mm
Tuning range	144 kHz to 290 kHz	Weight 4.7 kg
Usable sensitivity	1400 μ V/m	
Antenna	Loop antenna	
Amplifier section		Speaker system SX-NSZ7
Power output	Rated: 6.4 W + 6.4 W (6 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 8 W + 8 W (6 ohms, T.H.D. 10%, 1 kHz/DIN 45324) DIN MUSIC POWER: 15 W + 15 W	Speaker system 2 way, bass reflex (magnetic shielded type)
Total harmonic distortion	0.1% (3 W, 1 kHz, 6 ohms, DIN AUDIO)	Speaker units Woofer: 120 mm cone type Tweeter: 20 mm ceramic type
Inputs	VIDEO/AUX: 500 mV	Impedance 6 ohms
Outputs	SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more	Sensitivity 87 dB/W/m Dimensions (W × H × D) 220 × 324 × 204 mm Weight 2.0 kg
Cassette deck section		
Track format	4 tracks, 2 channels stereo	
Frequency response	50 Hz – 8000 Hz	
Recording system	AC bias	
Heads	Deck 1: Recording/playback head × 1, erase head × 1 Deck 2: Playback head × 1	

- Design and specifications are subject to change without notice.

V MODEL (NSX-SZ5)

Main unit CX-NSZ5		Compact disc player section
FM tuner section		Laser Semiconductor laser ($\lambda = 780$ nm)
Tuning range	FM1 (OIRT) 65 MHz to 74 MHz (10 kHz step) FM2 (CCIR) 87.5 MHz to 108 MHz (50 kHz step)	D/A converter 1 bit dual
Usable sensitivity (IHF)	FM1: 15.3 dBf FM2: 12.8 dBf	Signal-to-noise ratio 85 dB (1 kHz, 0 dB)
Antenna terminal	75 ohms (unbalanced)	Harmonic distortion 0.05% (1 kHz, 0 dB)
AM tuner section		General
Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)	Power requirements 230 V AC, 50 Hz
Usable sensitivity	350 μ V/m	Power consumption 42 W
Antenna	Loop antenna	Power consumption in standby mode 14 W with power-economizing mode off 0.9 W with power-economizing mode on
Amplifier section		Dimensions (W × H × D) 260 × 324 × 346 mm
Power output	Rated: 6.4 W + 6.4 W (6 ohms, T.H.D. 1%, 1 kHz/DIN 45500) Reference: 8 W + 8 W (6 ohms, T.H.D. 10%, 1 kHz/DIN 45324)	Weight 4.7 kg
Total harmonic distortion	0.1% (3 W, 1 kHz, 6 ohms, DIN AUDIO)	
Inputs	VIDEO/AUX: 500 mV	
Outputs	SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack): accepts headphones of 32 ohms or more	
Cassette deck section		Speaker system SX-NSZ5
Track format	4 tracks, 2 channels stereo	Speaker system 2 way, bass reflex (magnetic shielded type)
Frequency response	50 Hz – 8000 Hz	Speaker units Woofer: 120 mm cone type Tweeter: 20 mm ceramic type
Recording system	AC bias	Impedance 6 ohms
Heads	Deck 1: Recording/playback head × 1, erase head × 1 Deck 2: Playback head × 1	Sensitivity 87 dB/W/m Dimensions (W × H × D) 220 × 324 × 204 mm Weight 2.0 kg
Cassette deck section		
Track format	4 tracks, 2 channels stereo	
Frequency response	50 Hz – 8000 Hz	
Recording system	AC bias	
Heads	Deck 1: Recording/playback head × 1, erase head × 1 Deck 2: Playback head × 1	

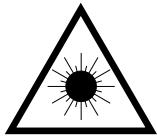
- Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käytöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylit-täälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the figure below.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

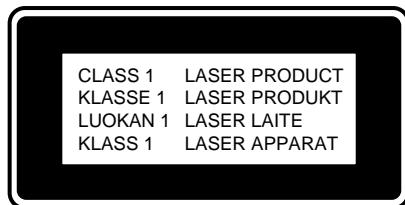
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

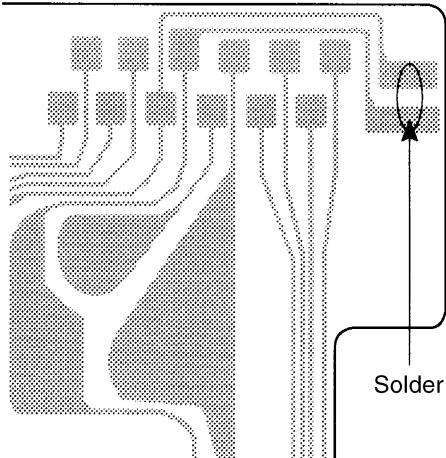
This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

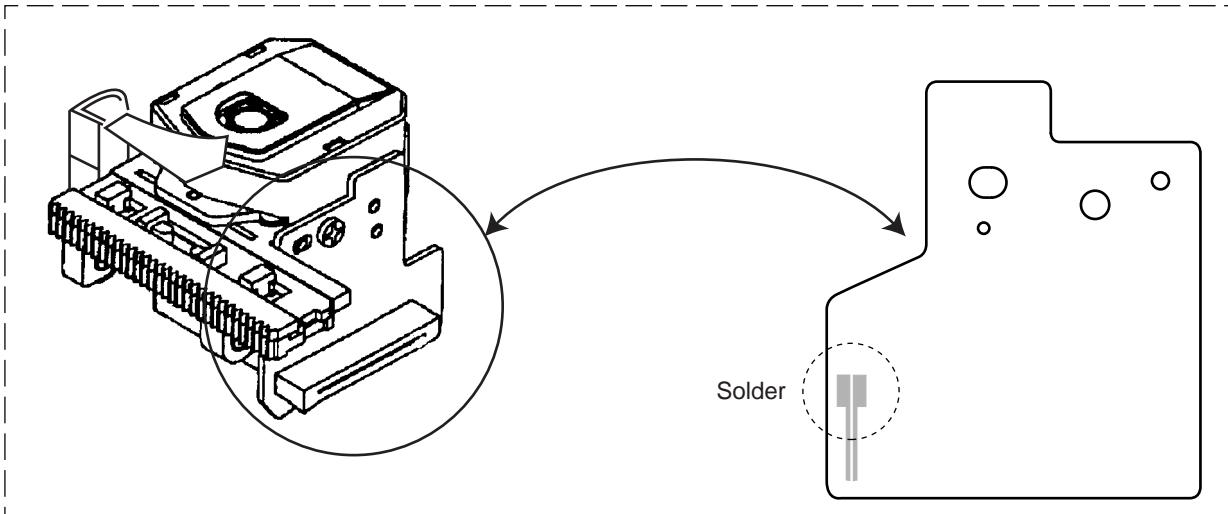


ZA3/ZA4 MODEL (KSS-213F)

PICK-UP Assy P.C.B



ZA8 MODEL



NOTE ON BEFORE STARTING REPAIR

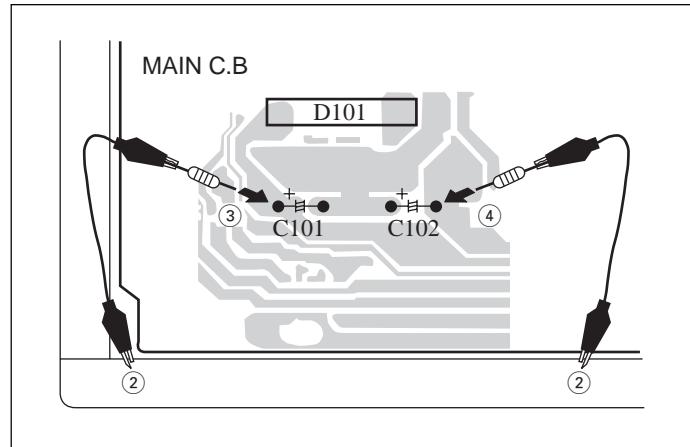
1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.

In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

- ① Remove the AC power cord.
- ② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
- ③ Contact the other end of the discharging resistor to the positive (+VH) side of C101. (For two seconds)
- ④ Contact the same end of the discharging resistor as step ③ to the negative (-VH) side of C102 in the same way. (For two seconds)
- ⑤ Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.



Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.

When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

• Good or no good judgement of the MICROCOMPUTER

- ① Turn on the AC main power.
- ② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
- ③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

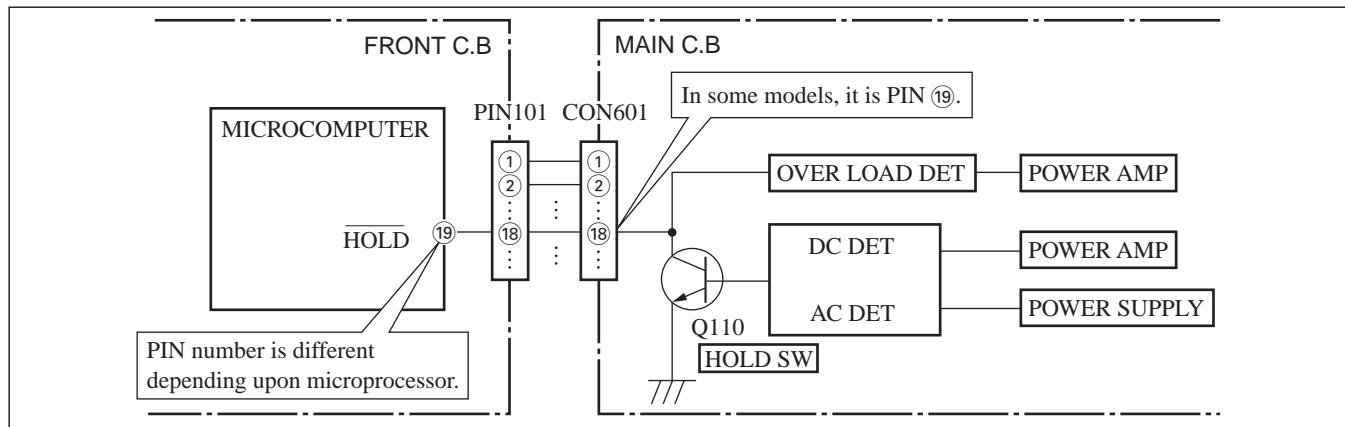


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.

When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

- ① Remove the AC power cord.

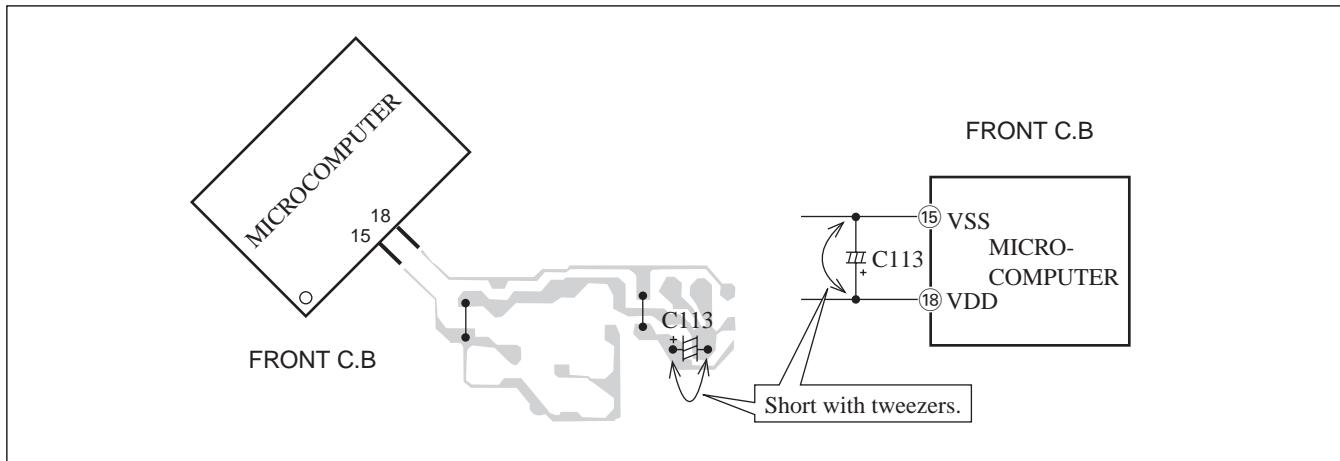


Fig-2-2

- ② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
- ③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C104	87-010-545-080		CAP, ELECT 0.22-50V
8A-NFA-615-010	C-IC,M38B57MCH-E236FP<EXCEPT 7EZ>			C105	87-010-186-080		CAP, CHIP 4700P
8A-NFA-615-010	C-IC,M38B57MCH-E236FP<EXCEPT 7EZ>			C106	87-010-186-080		CAP, CHIP 4700P
87-A21-482-010	IC,RPM6938-H4			C107	87-010-403-080		CAP, ELECT 3.3-50V
87-A21-419-040	C-IC,NUM14558MD-TE2			C108	87-010-403-080		CAP, ELECT 3.3-50V
87-A21-443-040	C-IC,M62495Afp			C109	87-010-322-080		C-CAP,S 100P-50 CH<EXCEPT 5V>
87-A21-560-010	IC,LA1844L-A			C110	87-010-322-080		C-CAP,S 100P-50 CH<EXCEPT 5V>
87-A20-440-040	C-IC,BU1920FS<7EZ>			C111	87-010-260-080		CAP, ELECT 47-25V
87-070-127-110	IC,LC72131 D			C112	87-010-260-080		CAP, ELECT 47-25V
				C113	87-010-322-080		C-CAP,S 100P-50 CH
TRANSISTOR				C114	87-010-322-080		C-CAP,S 100P-50 CH
87-026-609-080	TR,KTA1266GR			C119	87-010-197-080		CAP, CHIP 0.01 DM
89-213-702-010	TR,2SB1370 (1.8W)			C120	87-010-197-080		CAP, CHIP 0.01 DM
87-026-610-080	TR,KTC3198GR			C123	87-010-197-080		CAP, CHIP 0.01 DM
87-A30-076-080	C-TR,2SC3052F			C125	87-010-196-080		CHIP CAPACITOR,0.1-25
87-A30-075-080	C-TR,2SA1235F			C126	87-010-196-080		CHIP CAPACITOR,0.1-25
87-A30-090-080	FET,2SK2541			C127	87-010-196-080		CHIP CAPACITOR,0.1-25
87-A30-484-080	C-TR,KRA102S			C128	87-010-196-080		CHIP CAPACITOR,0.1-25
87-A30-468-080	C-TR,KRC102S-RTK			C133	87-010-186-080		CAP, CHIP 4700P
89-420-613-010	TR,2SD2061F			C140	87-010-182-080		C-CAP,S 2200P-50 B
89-213-703-010	TR,2SB1370F			C301	87-010-179-080		CAP, CHIP S B1200P
87-A30-091-080	FET,2SJ460			C302	87-010-179-080		CAP, CHIP S B1200P
87-A30-062-080	C-TR,KRC104S			C303	87-010-178-080		CHIP CAP 1000P
87-A30-495-080	TR,2SA1981Y<4K,5V>			C304	87-010-178-080		CHIP CAP 1000P
87-A30-318-080	TR,CSA952K<5K,5EZ,7EZ>			C305	87-010-198-080		CAP, CHIP 0.022
87-A30-492-080	TR,2SC5343G			C307	87-010-263-080		CAP, ELECT 100-10V
87-A30-234-080	TR,CSC4115BC			C308	87-010-263-080		CAP, ELECT 100-10V
89-327-143-080	TR,2SC2714 (0.1W)			C309	87-010-311-080		CAP 12P
87-A30-489-080	C-TR,KRA107S			C310	87-010-314-080		C-CAP,S 22P-50V
87-A30-086-070	C-TR,CSD1306E<EXCEPT 5V>			C311	87-010-598-080		C-CAP,S 0.068-16VRK
89-503-602-080	C-FET,2SK360E<EXCEPT 5V>			C312	87-010-598-080		C-CAP,S 0.068-16VRK
				C313	87-010-188-080		CAP, CHIP 6800P
				C314	87-010-188-080		CAP, CHIP 6800P
DIODE				C315	87-010-263-080		CAP, ELECT 100-10V
87-A40-535-080	DIODE,1N5393-GOODARK			C317	87-010-546-080		CAP, ELECT 0.33-50V
87-A40-553-080	DIODE,1N4003 LES			C318	87-010-546-080		CAP, ELECT 0.33-50V
87-A40-774-080	ZENER,UZ24BSD			C320	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT 5V>
87-020-465-080	DIODE,1SS133 (110MA)			C321	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT 5V>
87-A40-764-080	ZENER,UZ10BSC			C324	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT 5V>
87-A40-752-080	ZENER,UZ6.2BSC			C325	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT 5V>
87-A40-270-080	C-DIODE,MC2838			C326	87-010-198-080		CAP, CHIP 0.022
87-A40-269-080	C-DIODE,MC2836			C327	87-010-196-080		CHIP CAPACITOR,0.1-25
87-A40-739-080	ZENER,UZ2.7BSA			C350	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT 5V>
87-017-149-080	ZENER,HZS6A2L			C360	87-010-401-080		CAP, ELECT 1-50V
MAIN C.B				C363	87-010-197-080		CAP, CHIP 0.01 DM
C9	87-010-196-080		CHIP CAPACITOR,0.1-25	C399	87-012-140-080		CAP 470P
C10	87-010-196-080		CHIP CAPACITOR,0.1-25	C401	87-010-544-080		CAP, ELECT 0.1-50V
C11	87-010-196-080		CHIP CAPACITOR,0.1-25	C402	87-010-544-080		CAP, ELECT 0.1-50V
C12	87-010-196-080		CHIP CAPACITOR,0.1-25	C403	87-010-321-080		CHIP CAPACITOR,82P(J)
C21	87-016-495-090		CAP,E 3300-25 SMG	C404	87-010-321-080		CHIP CAPACITOR,82P(J)
C22	87-A10-831-080		CAP,E 1000-25 M SMG	C405	87-010-197-080		CAP, CHIP 0.01 DM
C25	87-010-383-080		CAP, ELECT 33-25V	C406	87-010-197-080		CAP, CHIP 0.01 DM
C26	87-010-383-080		CAP, ELECT 33-25V	C407	87-010-197-080		CAP, CHIP 0.01 DM
C30	87-010-384-080		CAP, ELECT 100-25V	C408	87-010-197-080		CAP, CHIP 0.01 DM
C31	87-010-263-080		CAP, ELECT 100-10V	C409	87-010-182-080		C-CAP,S 2200P-50 B
C32	87-010-197-080		CAP, CHIP 0.01 DM	C410	87-010-182-080		C-CAP,S 2200P-50 B
C34	87-010-247-080		CAP, ELECT 100-50V	C411	87-010-405-080		CAP, ELECT 10-50V
C35	87-010-406-080		CAP, ELECT 22-50	C412	87-010-405-080		CAP, ELECT 10-50V
C36	87-010-381-080		CAP, ELECT 330-16V	C452	87-010-382-080		CAP, ELECT 22-25V
C38	87-010-190-020		C-CAP,S 0.01-50 Z F GRM<4K,5V>	C453	87-010-183-080		C-CAP,S 2700P-50 B
C38	87-A11-567-080		S CHIP F 0.01<5K,5EZ,7EZ>	C454	87-010-183-080		C-CAP,S 2700P-50 B
C50	87-010-384-080		CAP, ELECT 100-25V	C455	87-010-183-080		C-CAP,S 2700P-50 B
C60	87-010-403-080		CAP, ELECT 3.3-50V	C456	87-010-197-080		CAP, CHIP 0.01 DM
C61	87-010-260-080		CAP, ELECT 47-25V	C458	87-010-178-080		CHIP CAP 1000P
C101	87-010-185-080		C-CAP,S 3900P-50 B	C459	87-010-175-080		CAP 560P
C102	87-010-185-080		C-CAP,S 3900P-50 B	C460	87-010-196-080		CHIP CAPACITOR,0.1-25
C103	87-010-545-080		CAP, ELECT 0.22-50V	C461	87-012-158-080		C-CAP,S 390P-50 CH
				C462	87-012-158-080		C-CAP,S 390P-50 CH
				C470	87-018-127-080		CAP, CER 470P-50V<4K,5V>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C605	87-010-179-080	CAP, CHIP S B1200P		C869	87-010-197-080	CAP, CHIP 0.01 DM<7EZ>	
C606	87-010-179-080	CAP, CHIP S B1200P		C870	87-010-178-080	CHIP CAP 1000P<7EZ>	
C609	87-010-213-080	C-CAP,S 0.015-50 B		C871	87-012-156-080	C-CAP,S 220P-50 CH<7EZ>	
C610	87-010-213-080	C-CAP,S 0.015-50 B		C872	87-012-156-080	C-CAP,S 220P-50 CH<7EZ>	
C611	87-010-545-080	CAP, ELECT 0.22-50V		C873	87-012-140-080	CAP 470P<7EZ>	
C612	87-010-545-080	CAP, ELECT 0.22-50V		C874	87-010-405-080	CAP, ELECT 10-50V<7EZ>	
C613	87-010-545-080	CAP, ELECT 0.22-50V		C875	87-010-196-080	CHIP CAPACITOR,0.1-25<7EZ>	
C614	87-010-545-080	CAP, ELECT 0.22-50V		C876	87-010-405-080	CAP, ELECT 10-50V<7EZ>	
C615	87-010-154-080	CAP CHIP 10P		C877	87-010-197-080	CAP, CHIP 0.01 DM<7EZ>	
C616	87-010-248-080	CAP, ELECT 220-10V		C878	87-010-316-080	C-CAP,S 33P-50 CH<7EZ>	
C617	87-010-248-080	CAP, ELECT 220-10V		C879	87-010-314-080	C-CAP,S 22P-50V<7EZ>	
C618	87-010-405-080	CAP, ELECT 10-50V		C940	87-010-197-080	CAP, CHIP 0.01 DM<EXCEPT 5V>	
C630	87-016-669-080	C-CAP,S 0.1-25 K B		C942	87-010-149-080	C-CAP,S 5P-50 CH<EXCEPT 5V>	
C669	87-010-322-080	C-CAP,S 100P-50 CH<5K,5EZ,7EZ>		C947	87-010-197-080	CAP, CHIP 0.01 DM<EXCEPT 5V>	
C670	87-010-322-080	C-CAP,S 100P-50 CH<EXCEPT 5V>		C948	87-012-140-080	CAP 470P<EXCEPT 5V>	
C677	87-010-197-080	CAP, CHIP 0.01 DM		C952	87-010-197-080	CAP, CHIP 0.01 DM<EXCEPT 5V>	
C771	87-010-263-080	CAP, ELECT 100-10V		C957	87-010-311-080	CAP 12P<EXCEPT 5V>	
C772	87-010-197-080	CAP, CHIP 0.01 DM		C958	87-010-152-080	C-CAP,S 8P-50 CH GRM<5V>	
C779	87-010-971-080	C-CAP,S 4700P-50 B J<5K,5EZ,7EZ>		C958	87-010-197-080	CAP, CHIP 0.01 DM<EXCEPT 5V>	
C779	87-010-322-080	C-CAP,S 4700P-50 J B GRM<4K>		C959	87-010-196-080	CHIP CAPACITOR,0.1-25	
C780	87-010-971-080	C-CAP,S 4700P-50 B J<5K,5EZ,7EZ>		C960	87-010-196-080	CHIP CAPACITOR,0.1-25	
C780	87-010-322-080	C-CAP,S 4700P-50 J B GRM<4K>		C961	87-010-152-080	C-CAP,S 8P-50 CH<5V>	
C782	87-010-197-080	CAP, CHIP 0.01 DM		C962	87-010-401-080	CAP, ELECT 1-50V<EXCEPT 5V>	
C783	87-010-197-080	CAP, CHIP 0.01 DM		C963	87-015-785-080	CHIP CAPACITOR, 0.1FZ-25Z	
C784	87-010-197-080	CAP, CHIP 0.01 DM		C971	87-010-381-080	CAP, ELECT 330-16V	
C785	87-010-197-080	CAP, CHIP 0.01 DM		C972	87-010-404-080	CAP, ELECT 4.7-50V	
C786	87-010-197-080	CAP, CHIP 0.01 DM		C973	87-010-197-080	CAP, CHIP 0.01 DM	
C788	87-010-149-080	C-CAP,S 5P-50 CH		C974	87-010-197-080	CAP, CHIP 0.01 DM	
C789	87-A10-801-080	C-CAP,S 0.022-16 J B CM<4K,5V>		C979	87-010-322-080	C-CAP,S 100P-50 CH	
C789	87-A11-532-080	C-CAP,S 0.022-16 J B CM<5K,5EZ,7EZ>		C981	87-010-260-080	CAP, ELECT 47-25V	
C790	87-A10-801-080	C-CAP,S 0.022-16 J B CM<4K,5V>		C982	87-010-196-080	CHIP CAPACITOR,0.1-25	
C790	87-A11-532-080	C-CAP,S 0.022-16 J B CM<5K,5EZ,7EZ>		C983	87-010-197-080	CAP, CHIP 0.01 DM	
C791	87-010-196-080	CHIP CAPACITOR,0.1-25		C984	87-010-197-080	CAP, CHIP 0.01 DM	
C792	87-010-197-080	CAP, CHIP 0.01 DM		C985	87-010-322-080	C-CAP,S 100P-50 CH<EXCEPT 5V>	
C793	87-010-404-080	CAP, ELECT 4.7-50V		C987	87-010-197-080	CAP, CHIP 0.01 DM	
C794	87-010-322-080	C-CAP,S 100P-50 CH<EXCEPT 5V>		C989	87-010-197-080	CAP, CHIP 0.01 DM	
C795	87-010-197-080	CAP, CHIP 0.01 DM		C991	87-010-312-080	C-CAP,S 15P-50 CH	
C796	87-010-197-080	CAP, CHIP 0.01 DM		C992	87-010-312-080	C-CAP,S 15P-50 CH	
C797	87-010-405-080	CAP, ELECT 10-50V		C993	87-010-178-080	CHIP CAP 1000P	
C798	87-010-197-080	CAP, CHIP 0.01 DM		C995	87-010-178-080	CHIP CAP 1000P	
C799	87-010-407-080	CAP, ELECT 33-50V		C997	87-010-196-080	CHIP CAPACITOR,0.1-25	
C800	87-012-369-080	C-CAP,S 0.047-50F		C998	87-010-260-080	CAP, ELECT 47-25V	
C801	87-010-403-080	CAP, ELECT 3.3-50V		C999	87-A11-155-080	CAP, TC U 0.01-16 Z F	
C802	87-012-369-080	C-CAP,S 0.047-50F		CF831	87-008-423-010	CERAMIC FILTER, SFE10.7 <EXCEPT 5V>	
C803	87-010-198-080	CAP, CHIP 0.022		CF831	87-008-261-010	FILTER, SFE10.7MA5-A<5V>	
C804	87-010-263-080	CAP, ELECT 100-10V		CF832	82-785-747-010	CF MS2 GHY R<EXCEPT 5V>	
C807	87-010-400-080	CAP, ELECT 0.47-50V		CF832	87-008-261-010	FILTER, SFE10.7MA5-A<5V>	
C808	87-010-401-080	CAP, ELECT 1-50V		CN301	87-A60-620-010	CONN,3P V 2MM JMT	
C809	87-010-401-080	CAP, ELECT 1-50V		CN351	87-A60-625-010	CONN,8P V 2MM JMT	
C810	87-010-196-080	CHIP CAPACITOR,0.1-25		CN601	87-099-719-010	CONN,30P TYK-B(X)	
C814	87-010-197-080	CAP, CHIP 0.01 DM		CN602	87-099-194-010	CONN,6P 6216V	
C815	87-010-403-080	CAP, ELECT 3.3-50V		FB301	87-008-372-080	FILTER, EMI BL OIRNI<EXCEPT 5V>	
C816	87-010-403-080	CAP, ELECT 3.3-50V		FB602	87-008-372-080	FILTER, EMI BL OIRNI	
C818	87-010-180-080	C-CER 1500P<EXCEPT 5V>		J101	87-A60-602-010	JACK,DIA6.3 BLK ST W/SW TC	
C821	87-010-405-080	CAP, ELECT 10-50V		J103	87-A60-238-010	TERMINAL,SP 4P (MSC)	
C823	87-012-349-080	C-CAP,S 1000P-50 CH		J602	87-A60-881-010	JACK,PIN 2P MSP 242V05 PBSN	
C824	87-010-404-080	CAP, ELECT 4.7-50V		J831	87-A60-202-010	TERMINAL,ANT 4P MSP-154V-02<5V>	
C825	87-010-596-080	CAP, S 0.047-16		J832	87-A60-403-010	TERMINAL,ANT PAL 2P HSP-312V05 <EXCEPT 5V>	
C831	87-010-406-080	CAP, ELECT 22-50<EXCEPT 5V>		L101	87-003-383-010	COIL,1UH K<5K,5EZ,7EZ>	
C842	87-010-197-080	CAP, CHIP 0.01 DM		L101	87-A50-610-010	COIL,1UH K(MDEC)<4K,5V>	
C844	87-010-197-080	CAP, CHIP 0.01 DM		L102	87-003-383-010	COIL,1UH K<5K,5EZ,7EZ>	
C850	87-010-260-080	CAP, ELECT 47-25V		L102	87-A50-610-010	COIL,1UH K(MDEC)<4K,5V>	
C851	87-010-197-080	CAP, CHIP 0.01 DM		I451	87-007-342-010	COIL,OSC 85K BIAS	
C852	87-010-197-080	CAP, CHIP 0.01 DM		L801	87-A50-608-010	COIL,FM DET-N(TOK)	
C853	87-010-197-080	CAP, CHIP 0.01 DM		L802	87-A91-551-010	FLTR,PCFJZH-450 L(TOK)	
C858	87-010-196-080	CHIP CAPACITOR,0.1-25		L811	87-005-847-080	COIL,2.2UH(CECS)	
C859	87-010-196-080	CHIP CAPACITOR,0.1-25		L832	87-005-847-080	COIL,2.2UH(CECS)	
C860	87-010-197-080	CAP, CHIP 0.01 DM		L861	87-005-847-080	COIL,2.2UH(CECS)<7EZ>	

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
L941	87-A50-020-010	COIL,ANT LW(COI)<EXCEPT 5V>		CN801	87-099-015-010	CONN,13P 6216V	
L942	87-A50-019-010	COIL,OSC LW(COI)<EXCEPT 5V>		FL201	8A-NFA-604-010	FL,10-BT-224GNK	
L951	8A-NF8-668-010	COIL,AM PACK 2(TOK)<EXCEPT 5V>		L101	87-A50-050-010	COIL,CLK 4.19M(COI)<EXCEPT 5V>	
L951	8A-NF8-667-010	COIL,AM PACK 4(TOK)<5V>		L101	87-A50-434-010	COIL,CLK 4.19M(TOKO)<5V>	
R653	87-A11-144-080	C-CAP,S 0.1-25 K B		LED101	87-A40-317-080	LED,SLR-342VCT31 RED	
R654	87-A11-144-080	C-CAP,S 0.1-25 K B		S101	87-A91-555-010	SW,RTRY EC12E24504	
R790	87-010-197-080	CAP, CHIP 0.01 DM		S301	87-A90-164-080	SW,TACT SKQAB(N)	
R991	87-010-322-080	C-CAP,S 100P-50 CH		S302	87-A90-164-080	SW,TACT SKQAB(N)	
R993	87-010-322-080	C-CAP,S 100P-50 CH		S303	87-A90-164-080	SW,TACT SKQAB(N)	
R995	87-010-322-080	C-CAP,S 100P-50 CH		S304	87-A90-164-080	SW,TACT SKQAB(N)	
TC942	87-011-253-080	TRIMER,30P LAR<EXCEPT 5V>		S305	87-A90-164-080	SW,TACT SKQAB(N)	
W181	85-NF5-628-010	F-CABLE 7P-2.5		S306	87-A90-164-080	SW,TACT SKQAB(N)	
WH1	87-A90-460-010	HLDR, WIRE 2.5-7P		S307	87-A90-164-080	SW,TACT SKQAB(N)	
X861	87-A70-091-010	VIB,XTAL 4.332MHZ CSA-309<7EZ>		S308	87-A90-164-080	SW,TACT SKQAB(N)	
X991	87-A70-061-010	VIB,XTAL 4.500MHZ CSA-309		S309	87-A90-164-080	SW,TACT SKQAB(N)	
FRONT C.B				S310	87-A90-164-080	SW,TACT SKQAB(N)<7EZ>	
C101	87-010-196-080	CHIP CAPACITOR,0.1-25		S311	87-A90-164-080	SW,TACT SKQAB(N)<7EZ>	
C102	87-012-369-080	C-CAP,S 0.047-50F		S312	87-A90-164-080	SW,TACT SKQAB(N)<7EZ>	
C103	87-010-374-040	CAP,E 47-10		S321	87-A90-164-080	SW,TACT SKQAB(N)	
C104	87-A10-797-040	CAP,E 47-35 M 5L SRM		S322	87-A90-164-080	SW,TACT SKQAB(N)	
C105	87-010-192-080	C-CAP,S 0.022-50 F		S323	87-A90-164-080	SW,TACT SKQAB(N)	
C107	87-010-196-080	CHIP CAPACITOR,0.1-25		S324	87-A90-164-080	SW,TACT SKQAB(N)	
C108	87-010-178-080	CHIP CAP 1000P		S325	87-A90-164-080	SW,TACT SKQAB(N)	
C109	87-012-369-080	C-CAP,S 0.047-50F		S326	87-A90-164-080	SW,TACT SKQAB(N)	
C110	87-010-197-080	CAP, CHIP 0.01 DM		S327	87-A90-164-080	SW,TACT SKQAB(N)	
C111	87-010-196-080	CHIP CAPACITOR,0.1-25		S328	87-A90-164-080	SW,TACT SKQAB(N)	
C113	87-010-178-080	CHIP CAP 1000P		S329	87-A90-164-080	SW,TACT SKQAB(N)	
C114	87-010-154-080	CAP CHIP 10P		S330	87-A90-164-080	SW,TACT SKQAB(N)	
C115	87-010-175-080	CAP 560P		S331	87-A90-164-080	SW,TACT SKQAB(N)	
C116	87-010-400-040	CAP,E 0.47-50		SFR701	87-024-431-080	SFR,3.3K RH063EC	
C117	87-016-460-080	C-CAP,S 0.22-16 B		PT C.B			
C118	87-A10-189-040	CAP,E 220-10		C183	87-010-387-080	CAP,E 470-25 SME	
C119	87-A10-189-040	CAP,E 220-10		C184	87-010-403-080	CAP, ELECT 3.3-50V	
C120	87-012-156-080	C-CAP,S 220P-50 CH		C185	87-018-209-080	CAP, CER 0.1-50V	
C123	87-010-196-080	CHIP CAPACITOR,0.1-25		△PT1	8A-NFB-611-010	PT,ANFB EZ LOW	
C124	87-010-196-080	CHIP CAPACITOR,0.1-25		△PT181	8A-NFB-662-010	PT,SUB ANF-8 (E)	
C125	87-010-405-040	CAP,E 10-50		△RY181	87-A90-976-010	RELAY,AC12V SDT-S-112LMR	
C126	87-010-196-080	CHIP CAPACITOR,0.1-25		△T181	87-A60-317-010	TERMINAL, 1P MSC	
C129	87-010-374-040	CAP,E 47-10		△T182	87-A60-317-010	TERMINAL, 1P MSC	
C210	87-012-156-080	C-CAP,S 220P-50 CH		WH181	87-A90-460-010	HLDR,WIRE 2.5-7P	
C212	87-010-404-040	CAP,E 4.7-50 SME					
C213	87-010-404-040	CAP,E 4.7-50 SME					
C701	87-010-384-040	CAP,E 100-25 SME					
C702	87-010-178-080	CHIP CAP 1000P					
CN101	87-099-720-010	CONN,30P TYK-B(P)					
CN701	87-A60-673-010	CONN,9P H 2MM JMT					

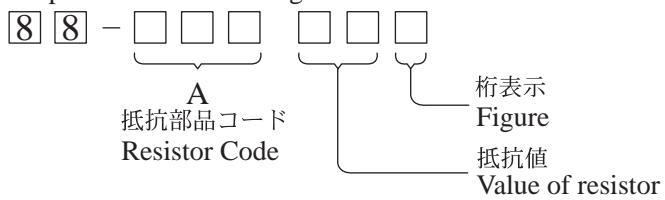
- Regarding connectors, they are not stocked as they are not the initial order items.

The connectors are available after they are supplied from connector manufacturers upon the order is received.

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding



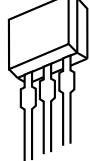
チップ抵抗 Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)			抵抗コード Resistor Code : A	
				外形／Form	L	W		
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



E C B
CSA952
CSC4115
KTA1266
KTC3198
KTC3199



S D G
2SJ460
2SK2541



E C B
DTC114ES



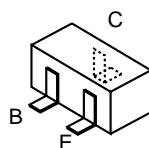
B C E
2SB1370
2SB1342
2SD1933



B C E
2SC3331

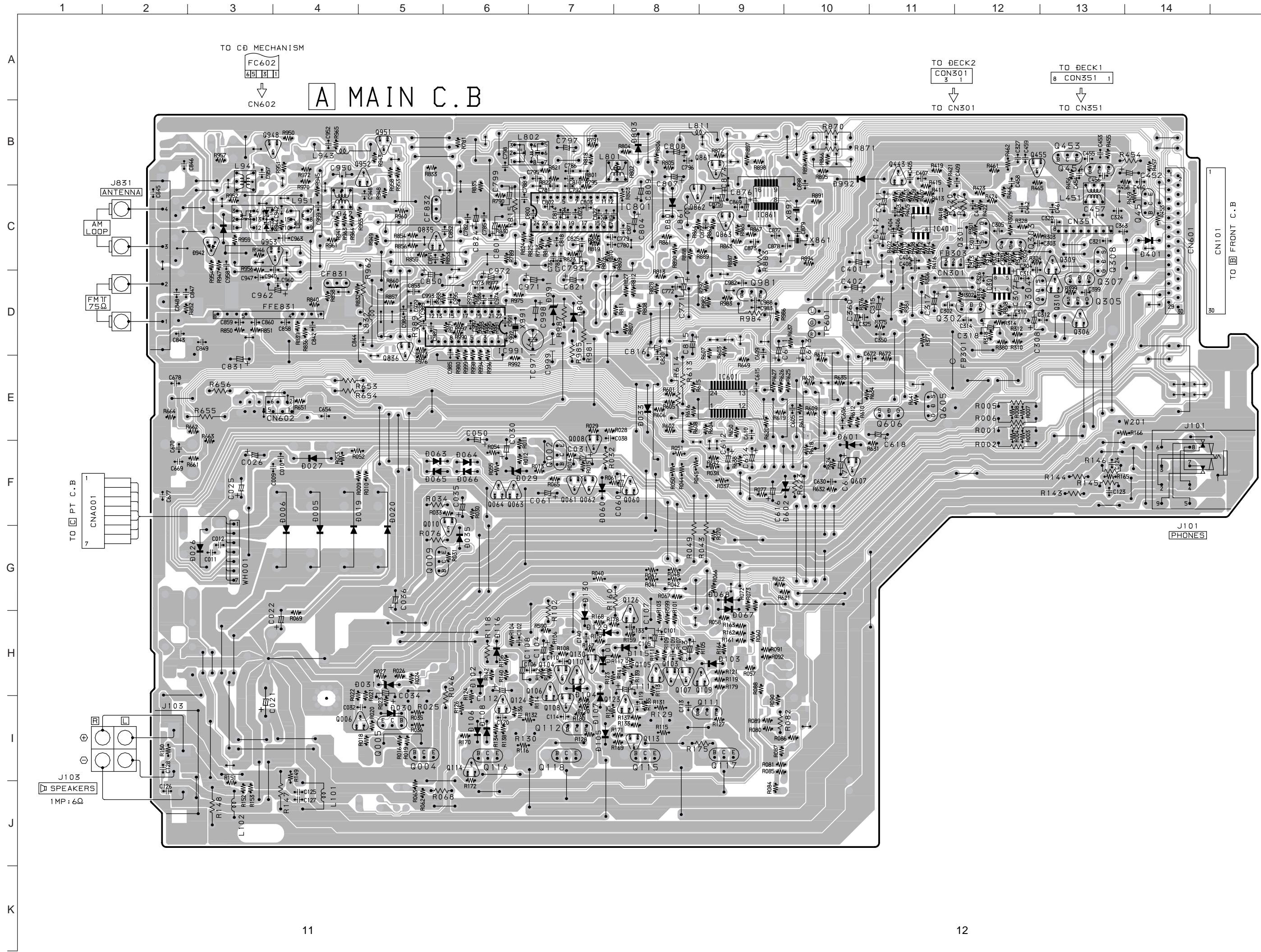


E B C
CC5551

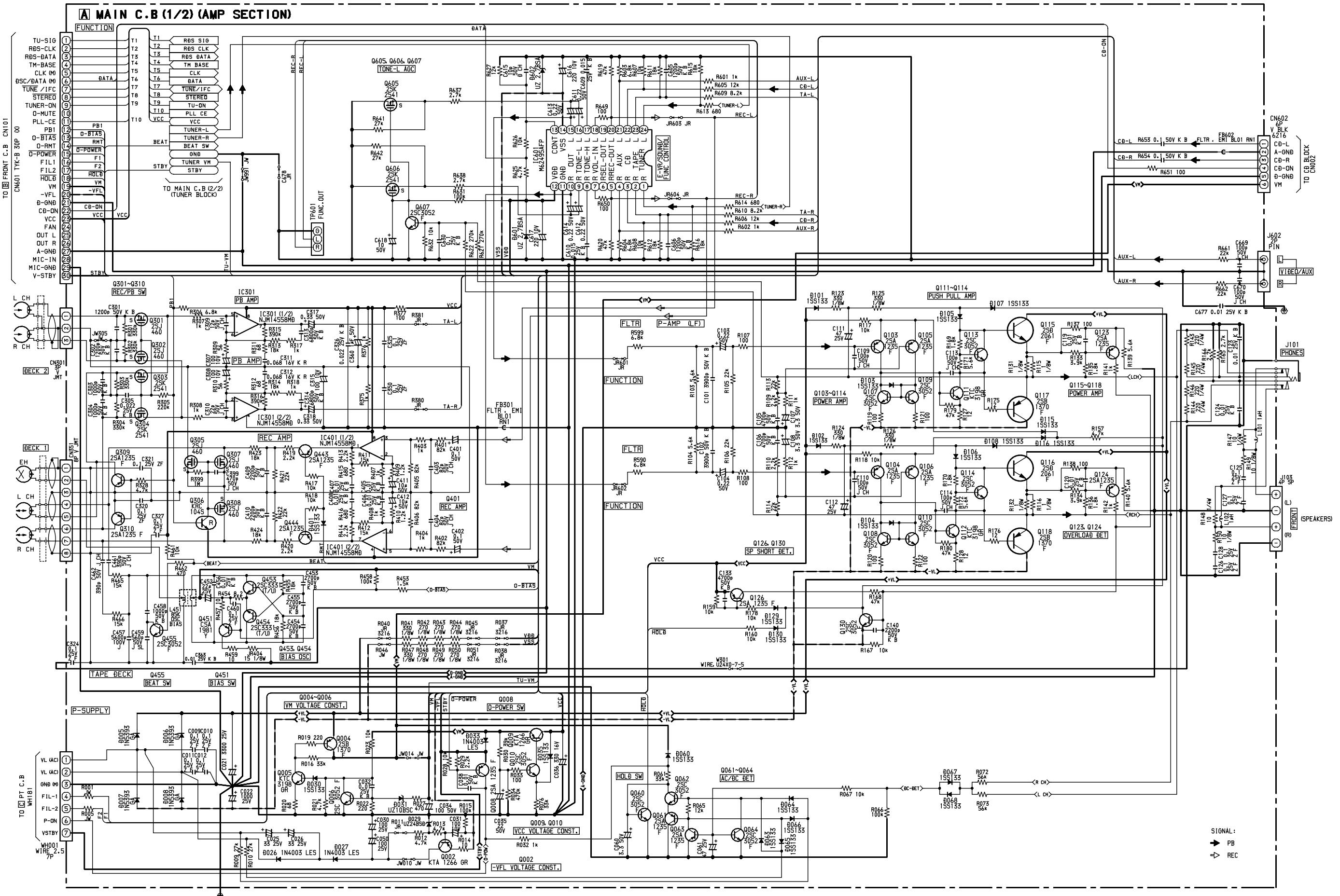


B C E
2SA1235 KRA102
2SC2714 KRA107
2SC3052 KRC102
CMBT5401 KRC104
CMBT5551

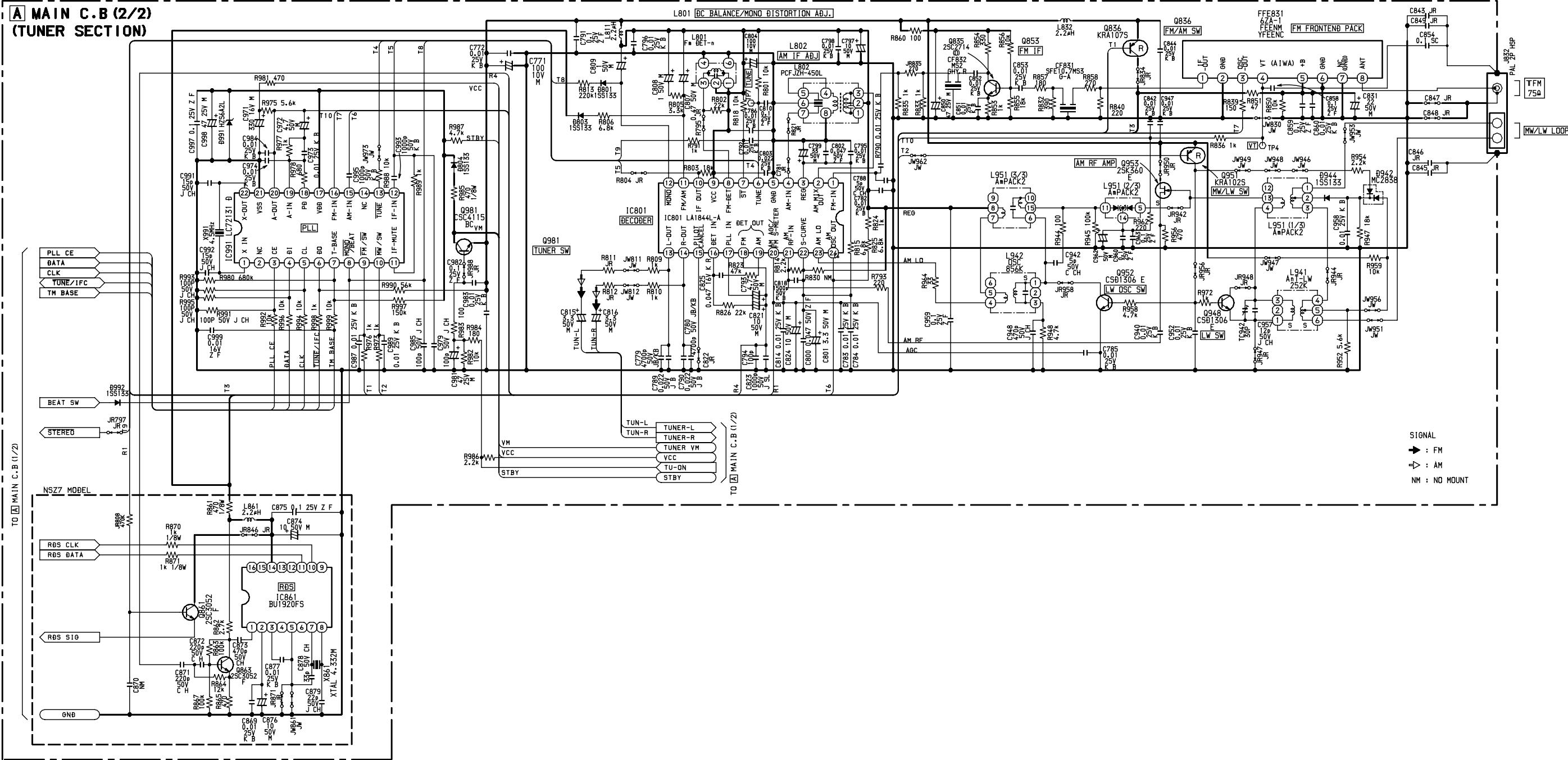
WIRING-1 (MAIN)



SCHEMATIC DIAGRAM-1 (MAIN 1/2)



SCHEMATIC DIAGRAM-2 (MAIN 2/2)



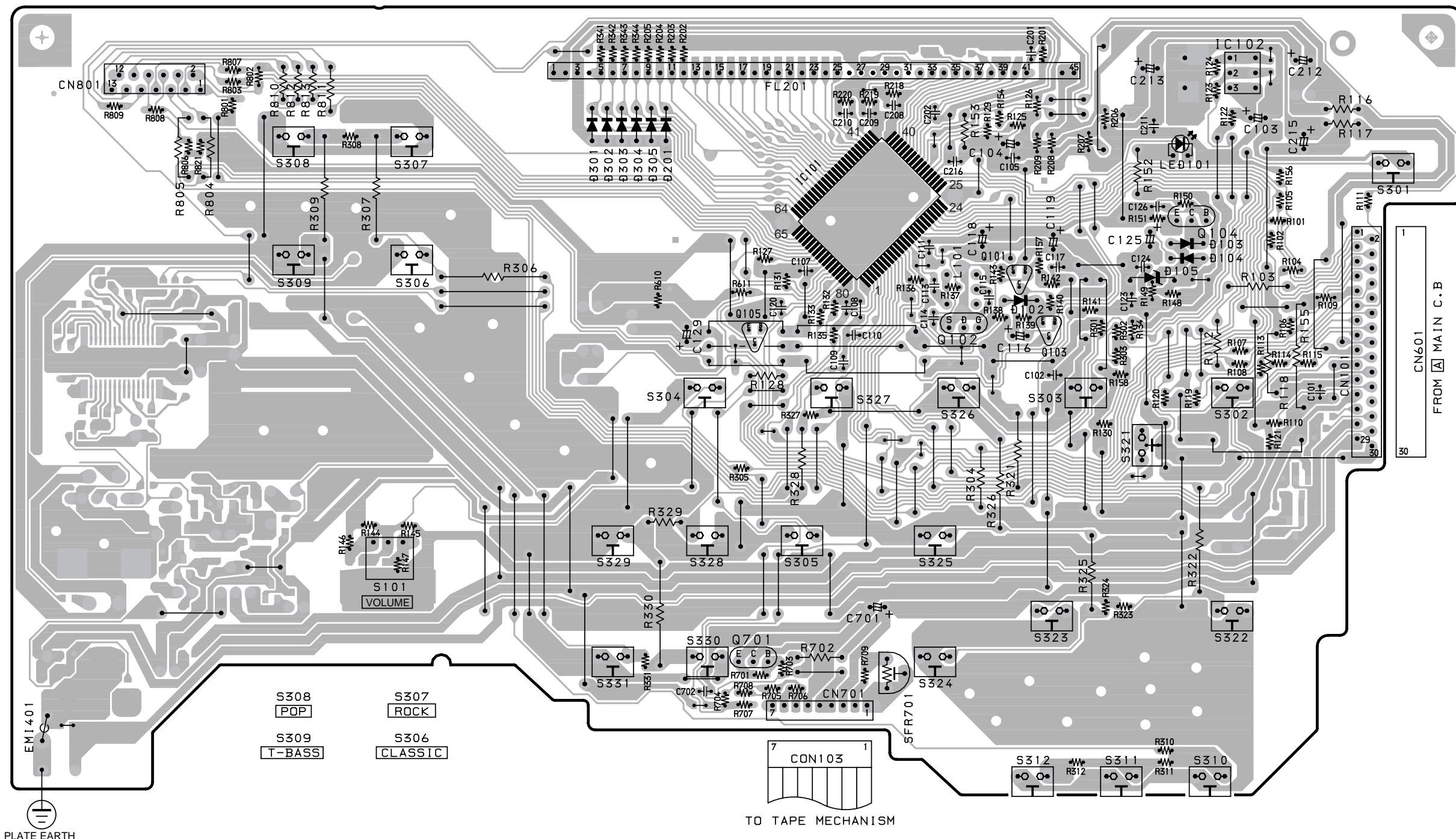
WIRING-2 (FRONT)

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

TO CD MECHANISM

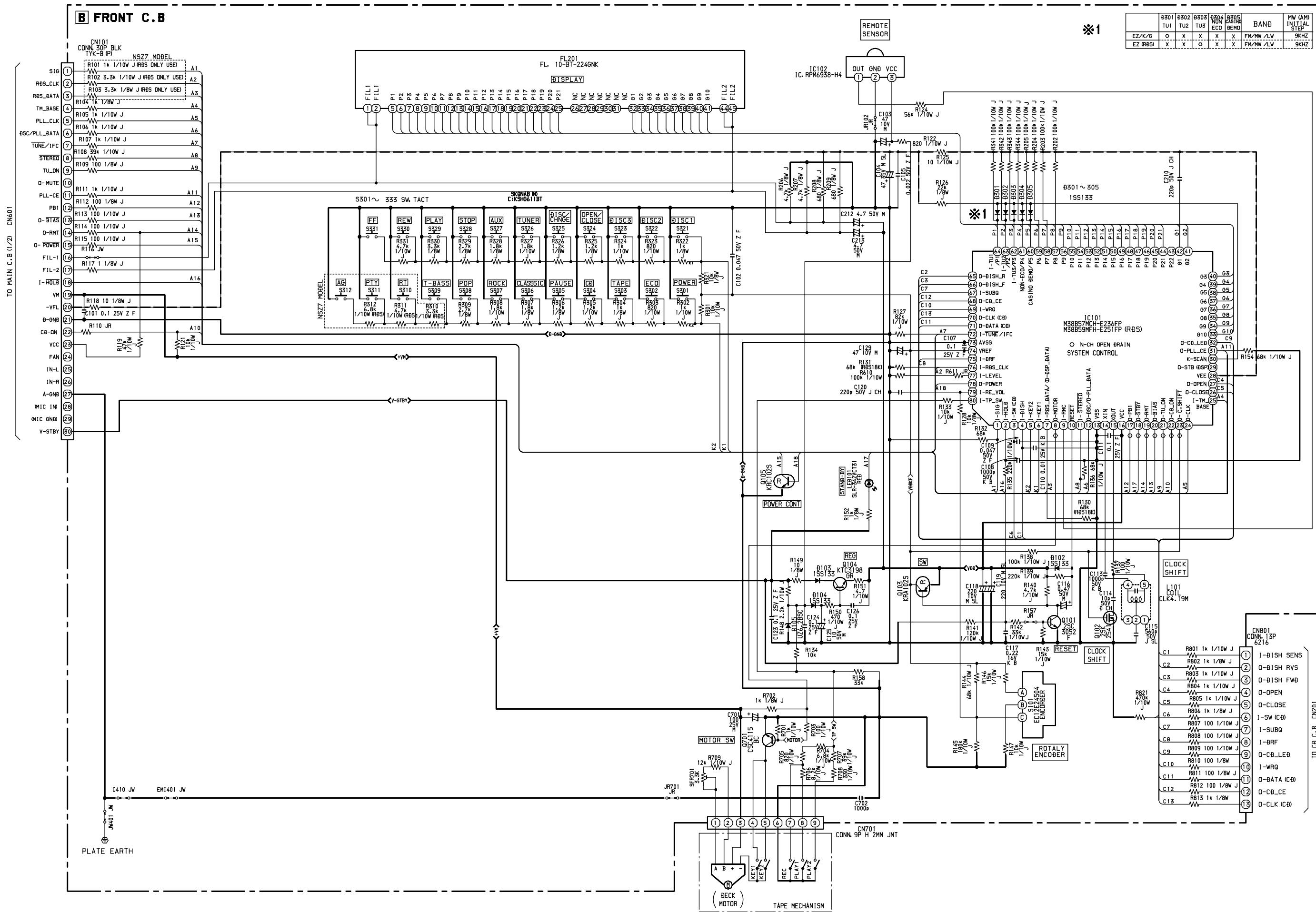
B FRONT C. E

FL201
(DISPLAY)



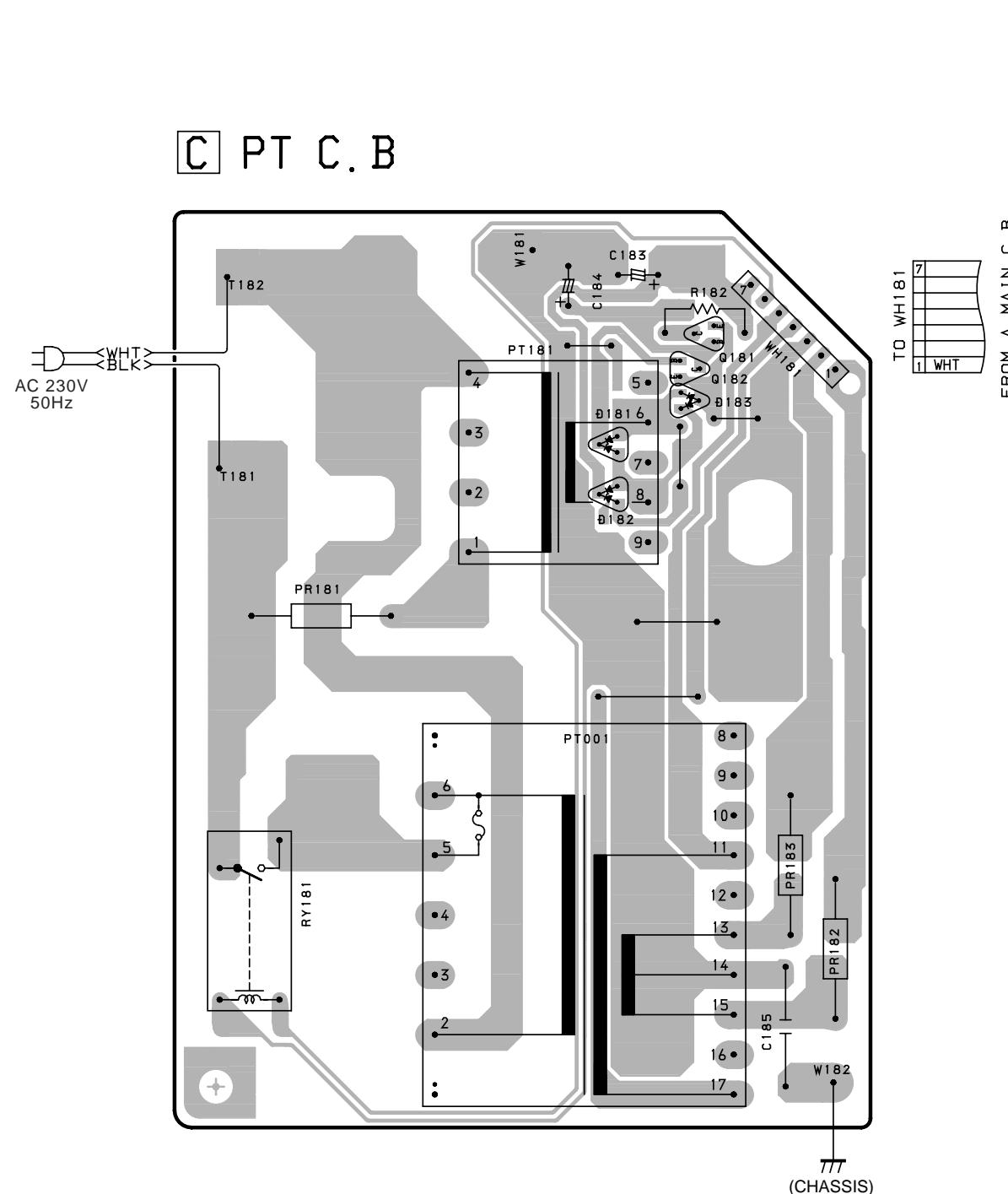
TO TAPE MECHANIC

SCHEMATIC DIAGRAM-3 (FRONT)

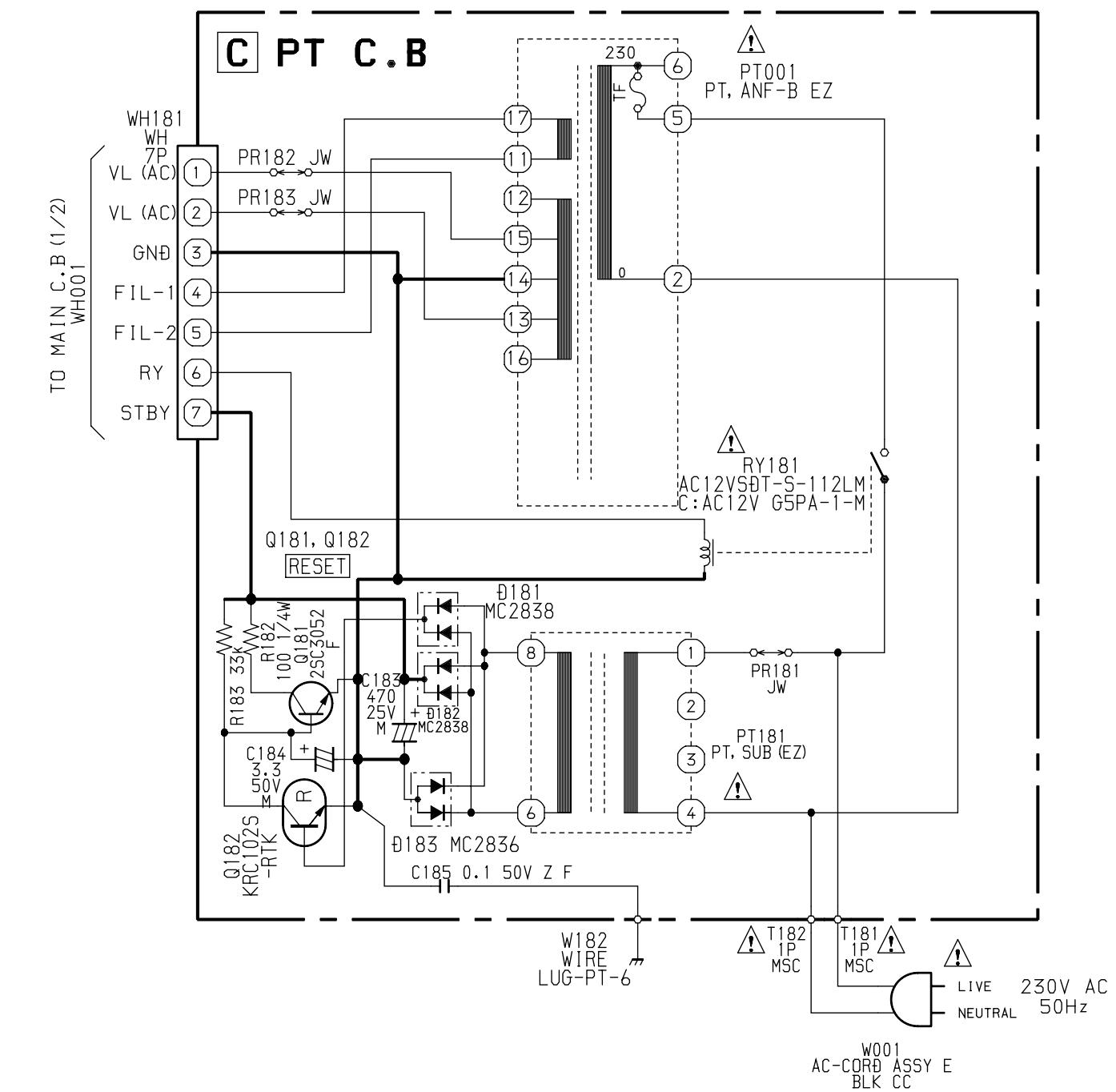


WIRING-3 (PT)

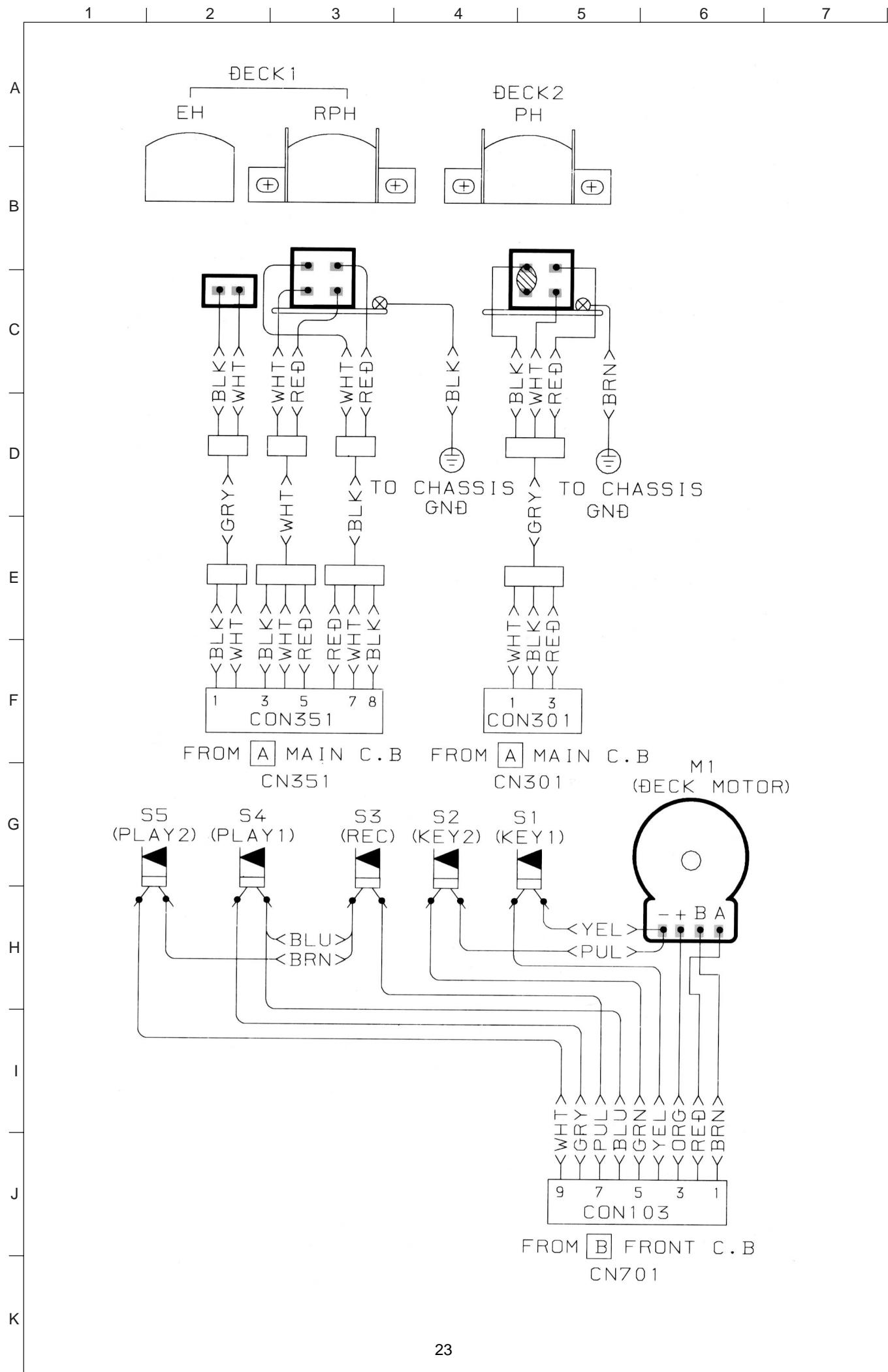
1 | 2 | 3 | 4 | 5 | 6 | 7



SCHEMATIC DIAGRAM-4 (PT)

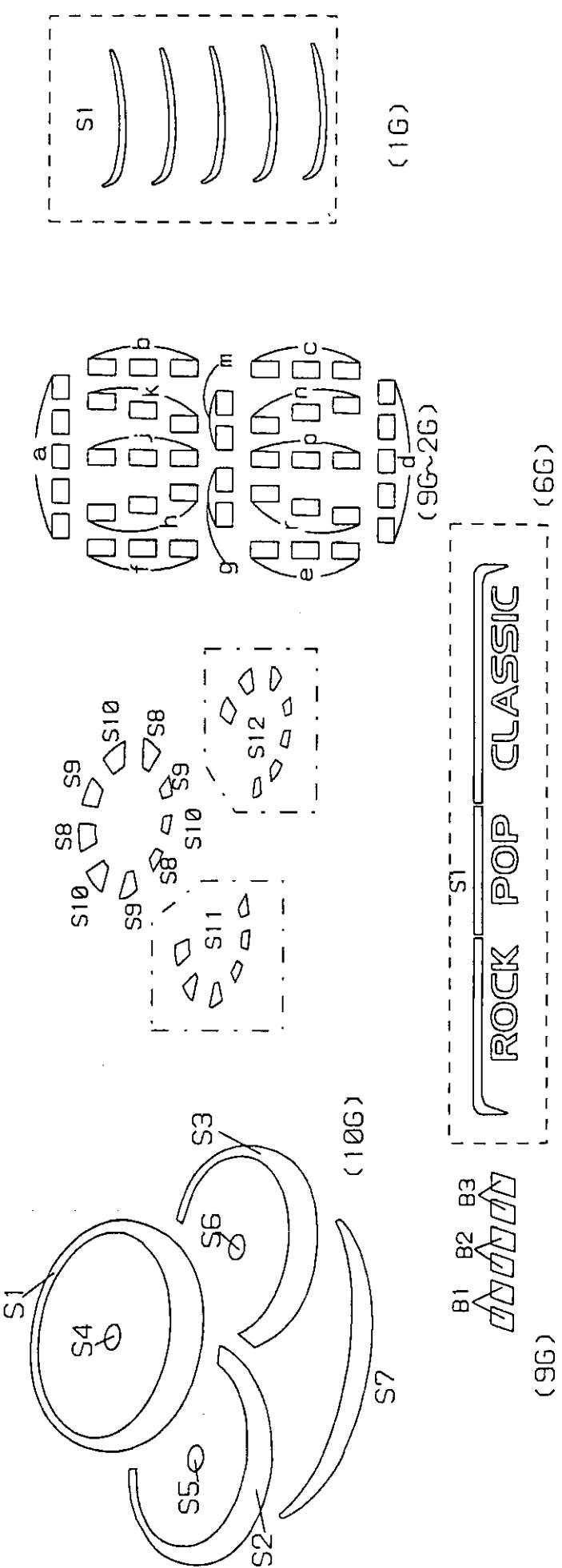
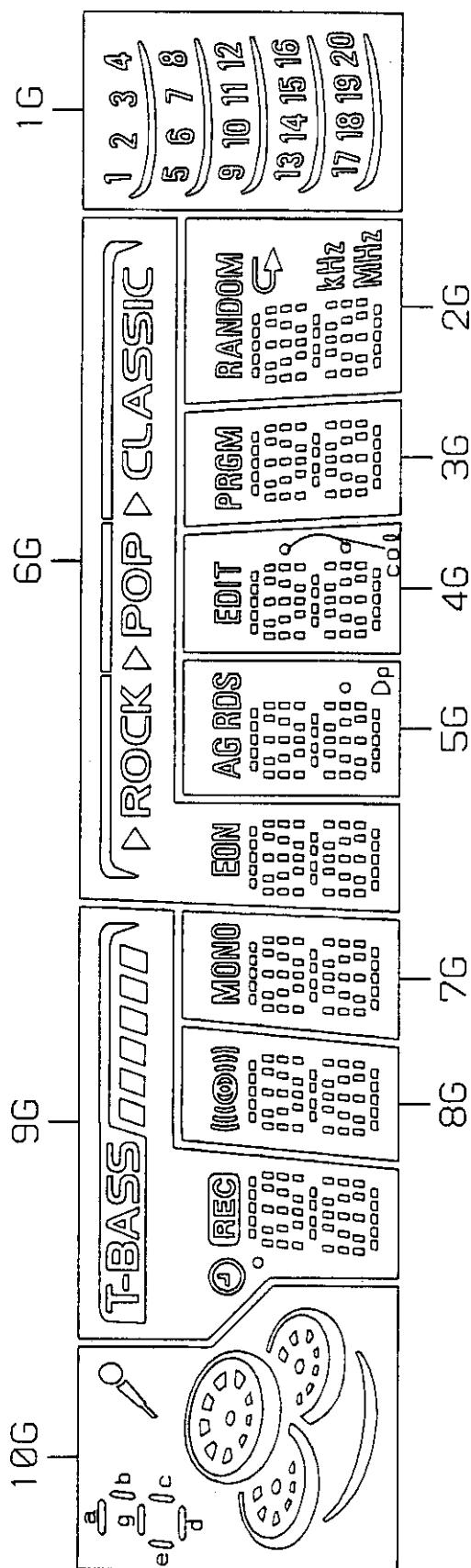


WIRING-4 (DECK)



FL (10-BT-224GNK) GRID ASSIGNMENT/ANODE CONNECTION

GRID ASSIGNMENT

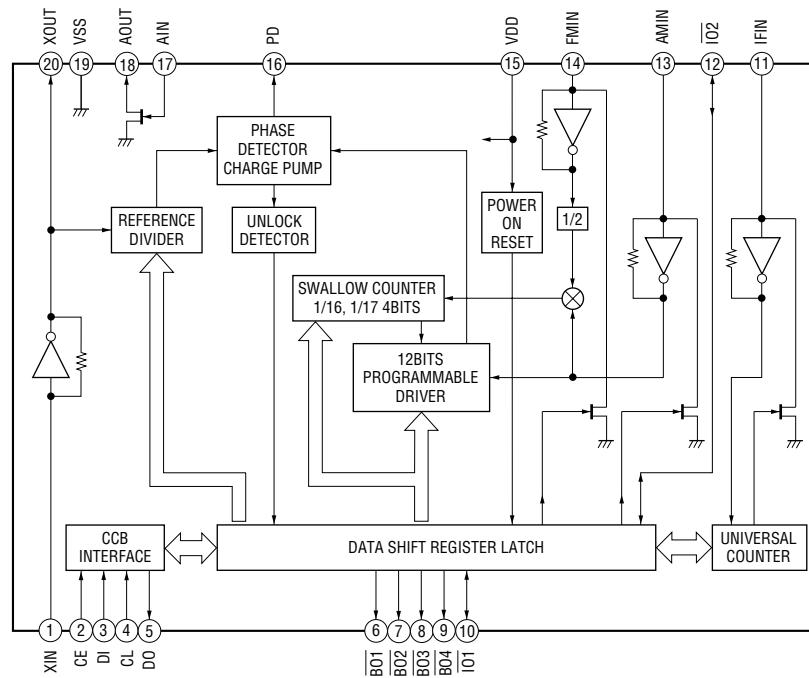


ANODE CONNECTION

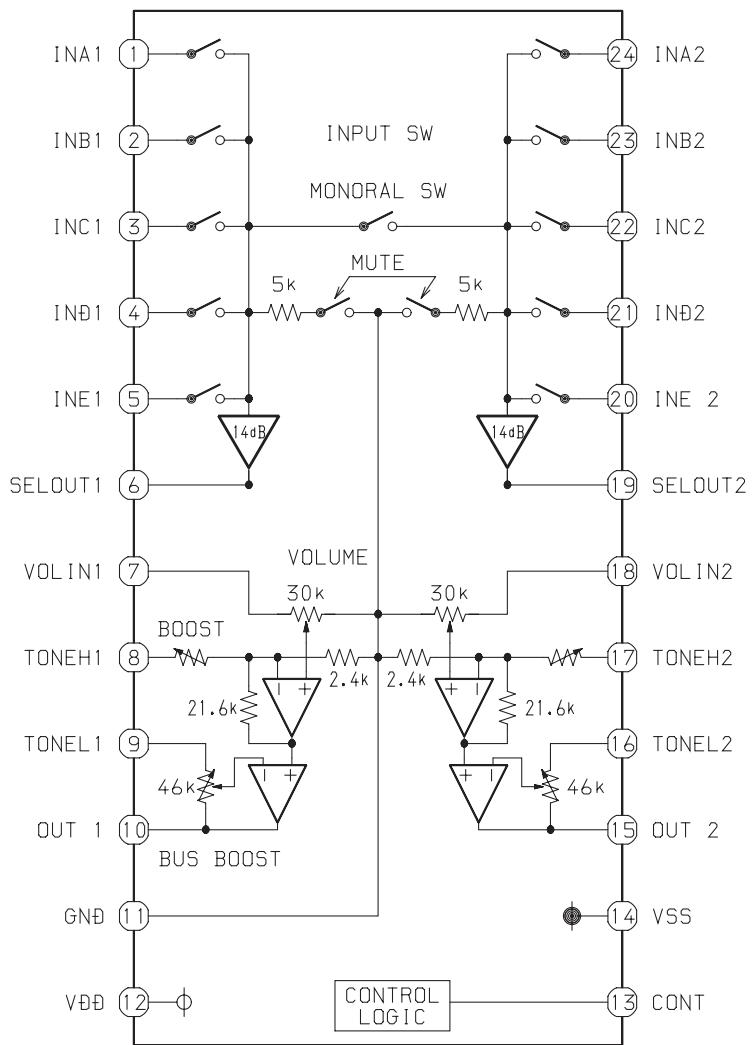
	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	-	d	d	d	d	d	d	d	d	20
P2	S7	n	n	n	n	n	n	n	n	19
P3	-	p	p	p	p	p	p	p	p	18
P4	S11	r	r	r	r	r	r	r	r	17
P5	S5	e	e	e	e	e	e	e	e	16
P6	S2	c	c	c	c	c	c	c	c	15
P7	S12	g	g	g	g	g	g	g	g	14
P8	S6	m	m	m	m	m	m	m	m	13
P9	S3	f	f	f	f	f	f	f	f	12
P10	S10	b	b	b	b	b	b	b	b	11
P11	S9	k	k	k	k	k	k	k	k	10
P12	S8	j	j	j	j	j	j	j	j	9
P13	S4	h	h	h	h	h	h	h	h	8
P14	S1	a	a	a	a	a	a	a	a	7
P15	-	REC	-	-	MONO	EON	Dp	col (F)	-	MHz
P16	-	○	-	-	AG	col (L)	-	-	-	KHz
P17	♂	-	-	△(CLASSIC)	RDS	EDIT	PRGM	◀	4	3
P18	a, d, g	TAPE	-	-	△(ROCK)	-	-	-	-	2
P19	b	B1	-	-	△(POP)	-	-	-	-	RANDOM
P20	c	B2	-	-	S1	-	-	-	-	1
P21	e	B3	-	-	-	-	-	-	-	S1

IC BLOCK DIAGRAM

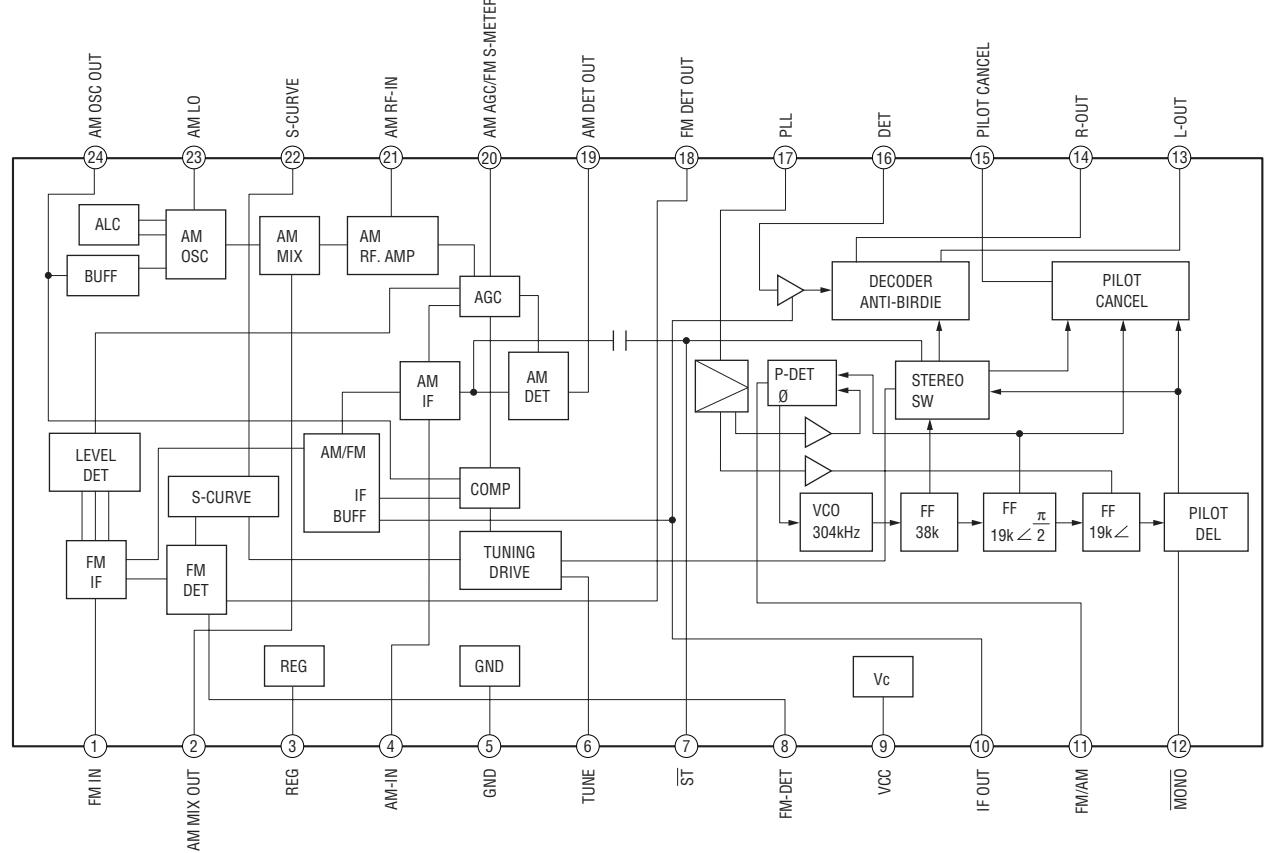
IC, LC72131D



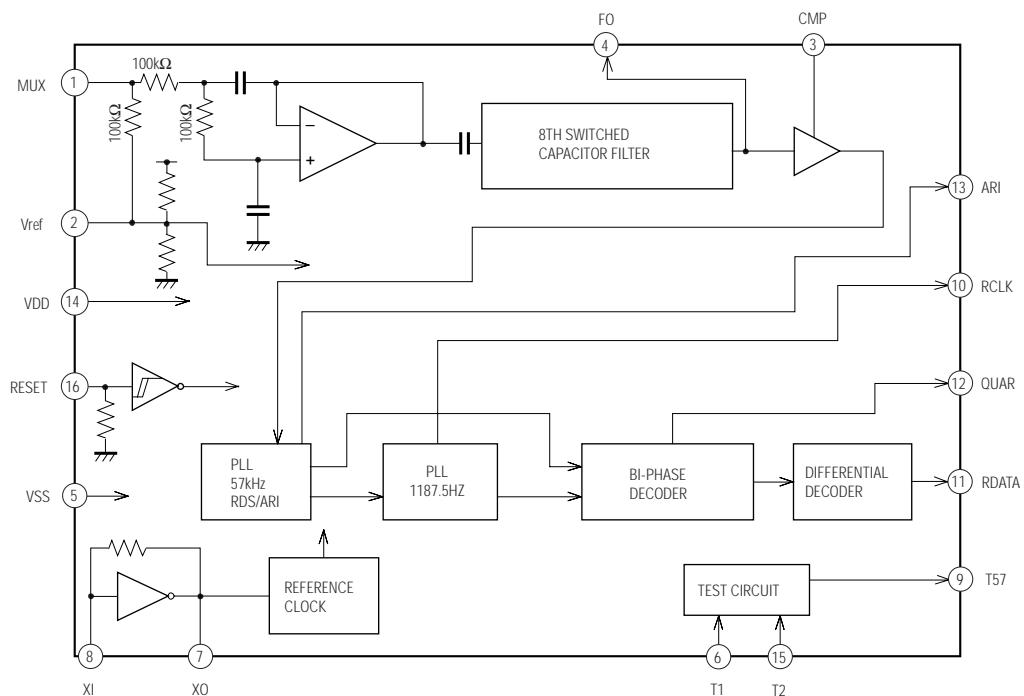
IC, M62495AFP



IC, LA1844L-A

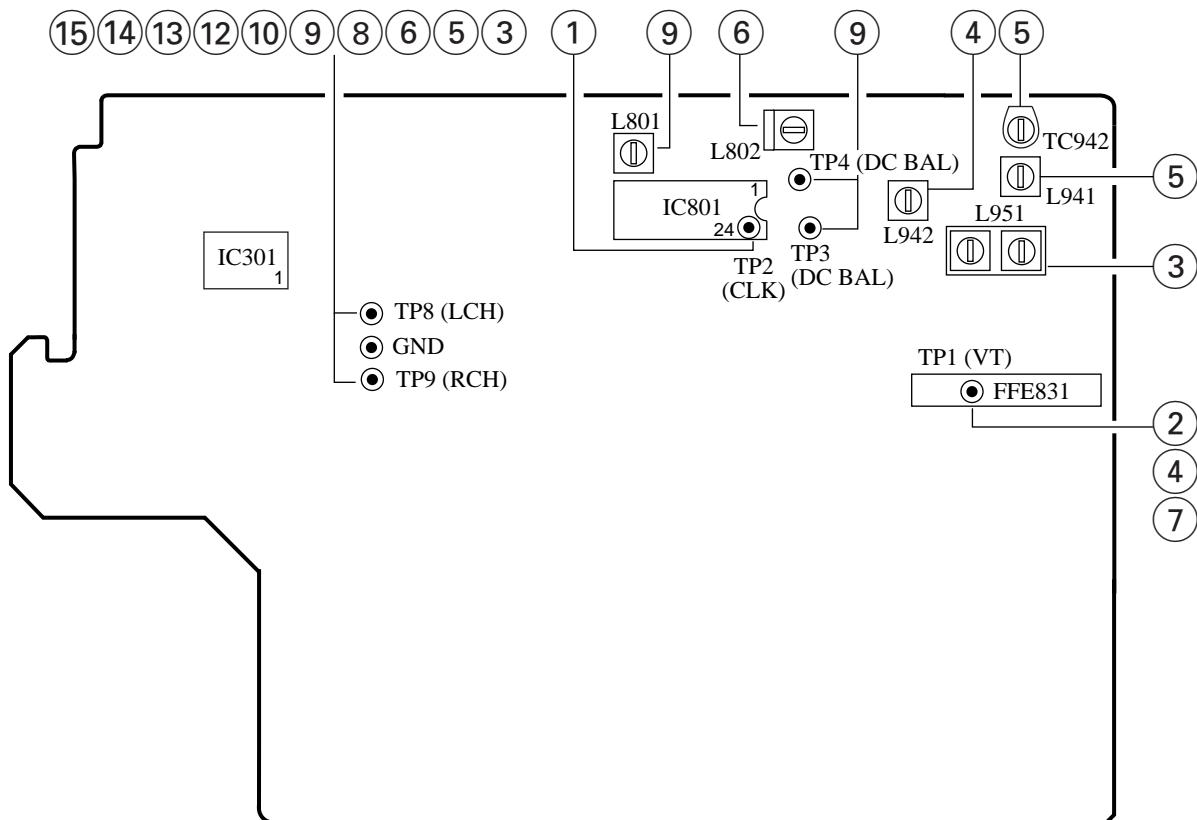


IC, BU1920FS

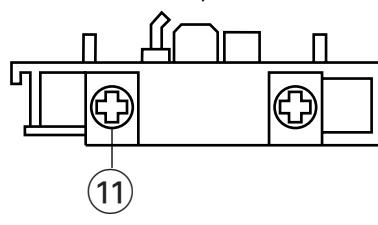


ELECTRICAL ADJUSTMENT

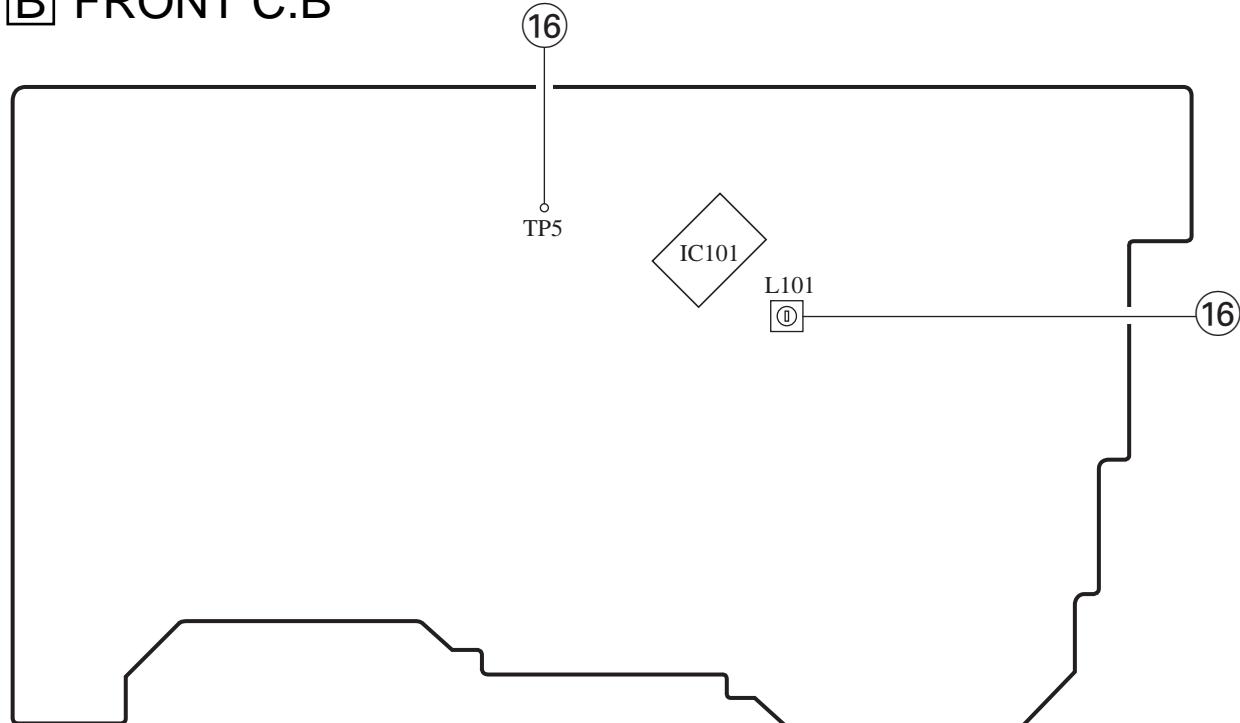
A MAIN C.B



DECK-1 R/P/E, DECK-2 P HEAD



B FRONT C.B



< TUNER SECTION >

1. Clock Frequency Check

Settings: • Test point: TP2 (CLK)

Method: Set to MW 1602kHz and check that the test point is 2052kHz±45Hz.
2. MW VT Check

Settings: • Test point: TP1 (VT)

Method: Set to MW 1602kHz and check that the test point is less than 8.0V. Then set to MW 531kHz and check that the test point is more than 0.6V.
3. MW Tracking Adjustment

Settings: • Test point: TP8 (Lch), TP9 (Rch)
• Adjustment location: L951 (1/3)

Method: Set to MW 999kHz and adjust L951 (1/3) so that the test point becomes maximum.
4. LW VT Adjustment

Settings: • Test point: TP1 (VT)
• Adjustment location: L942

Method: Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V±0.05V.
Then set to LW 290kHz and check that the test point is less than 8.0V.
5. LW Tracking Adjustment

Settings: • Test point: TP8 (Lch), TP9 (Rch)
• Adjustment location:
L941 144kHz
TC942 290kHz

Method: Set up TC942 to center before adjustment.
The level at 144kHz is adjusted to maximum by L941. Then the level at 290kHz is adjusted to maximum by TC942.
6. AM IF Adjustment

Settings: • Test point: TP8 (Lch), TP9 (Rch)
• Adjustment location:
L802 450kHz
7. FM VT Check

Settings: • Test point: TP1 (VT)

Method: Set to FM 108.0MHz and check that the test point is less than 8.0V (V model: 9.5V). Then set to FM 87.5MHz (V model: 65.0MHz) and check that the test point is more than 0.5V (V model: 1.0V).
8. FM Tracking Check

Settings: • Test point: TP8 (Lch), TP9 (Rch)

Method: Set to FM 98.0MHz and check that the test point is less than 13dB μ V (V model: 8dB μ V).
9. DC Balance/Mono Distortion Adjustment

Settings: • Test point: TP3, TP4 (DC balance)
TP8 (Lch), TP9 (Rch) (Distortion)
• Adjustment location: L801
• Input level: 60dB μ V

Method: Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V±0.04V.
Next, check that the distortion is less than 1.3%.

< DECK SECTION >

10. Tape Speed Adjustment (DECK 1)

Settings: • Test tape: TTA-100
• Test point: TP8 (Lch), TP9 (Rch)
• Adjustment location: SFR701

Method: Play back the test tape and adjust SFR701 so that the frequency counter reads 3000Hz±5Hz.
11. Head Azimuth Adjustment (DECK 1, DECK 2)

Settings: • Test tape: TTA-330
• Test point: TP8 (Lch), TP9 (Rch)
• Adjustment location: Head azimuth adjustment screw

Method: Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.
Next, perform on REV PLAY mode.
12. PB Frequency Response Check (DECK 1, DECK 2)

Settings: • Test tape: TTA-330
• Test point: TP8 (Lch), TP9 (Rch)

Method: Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 4dB.
13. PB Sensitivity Check (DECK 1, DECK 2)

Settings: • Test tape: TTA-200
• Test point: TP8 (Lch), TP9 (Rch)

Method: Play back the test tape and check that the output level of the test point is 110mV±3.5dB.
14. REC/PB Frequency Response Check (DECK 1)

Settings: • Test tape: TTA-602
• Test point: TP8 (Lch), TP9 (Rch)
• Input signal: 1kHz/8kHz (LINE IN)

Method: Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the test points becomes -20VU. Record and play back the 1kHz and 8kHz signals and check that the output of the 8kHz signals is 0dB±5dB with respect to that of the 1kHz signal.
15. REC/PB Sensitivity Check (DECK 1)

Settings: • Test tape: TTA-602
• Test point: TP8 (Lch), TP9 (Rch)
• Input signal: 1kHz (LINE IN)

Method: Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU. Record and play back the 1kHz signals and check that the output is -2dB±3.5dB.

< FRONT SECTION >

16. u-CON OSC Adjustment

Settings: • Test point: TP5
• Adjustment location: L101

Method: Insert AC plug with pressing of TUNER function key and POWER key. Adjust L101 so that the frequency across the test point is 58.350Hz±0.02Hz.

IC DESCRIPTION

IC, M38B57MCH-E236FP/M38B59MFH-E250FP

Pin No.	Pin Name	I/O	Description
1	I-SIG	I	RDS signal level A/D input. (Not used)
2	I-HOLD	I	Hold voltage level A/D input.
3	I-SW (CD)	I	CD mecha SW A/D input.
4	I-DISH	I	CD turn-table position check A/D input.
5	I-KEY2	I	KEY2 A/D input.
6	I-KEY1	I	KEY1 A/D input.
7	I-RDS-DATA/ (O-DSP_DATA)	I/O	RDS data input/DSP IC data (V-CD) output. (Not used)
8	O-MOTOR	O	Deck motor supply ON/OFF output.
9	I-RMC	I	System remote control signal input. ("L"=ACTIVE)
10	RESET	I	System reset input. ("L"=RESET)
11	I-STEREO	I	Tuner stereo input. ("L"=STEREO)
12	O-DSC/O-PLL_DATA	O	Function IC control & PLL data output.
13	VSS	—	GND.
14, 15	XIN, XOUT	I/O	4.19MHz system CLK input/output.
16	VCC	—	Power supply input.
17	O-PB1	O	Deck 1/2 switch output. ("L"=PLAYBACK DECK 1)
18	O-STBY	O	Standby LED ON/OFF output. ("L"=ON)
19	O-RMT	O	REC mute output. ("H"=MUTE)
20	O-BIAS	O	Record bias ON/OFF output. ("L"=ON)
21	O-TU_ON	O	Tuner supply ON/OFF output. ("H"=ON)
22	O-CD_ON	O	CD supply ON/OFF output. ("H"= ON)
23	O-C.SHIFT	O	MICON clock shift output. ("L"=SHIFT)
24	O-PLL-CLK	O	PLL IC CLK output.
25	I-TM_BASE	I	8 Hz time base input.
26	O-CLOSE	O	CD door close output.
27	O-CD-OPEN	O	CD door open output.
28	VEE	—	Power supply input for FL display.
29	O-STB (DSP)	O	DSP IC strobe output. (Not used)
30	K-SCAN	O	Initial key scan output.
31	O-PLL_CE	O	CD PLL IC chip enable output.
32	O-CD_LED	O	CD flash window LED output.
33-42	G10-G1	O	FL grid output (G10-G1).
43	P22	O	FL segment output (P22). (Not used)
44-58	P21-P7	O	FL segment output (P21-P7).
59	PHONO/P6	I/O	PHONO diode input/FL segment output (P6).
60	CASINO DEMO/P5	I/O	CASINO DEMO diode input (Not used)/FL segment output (P5).
61	NON-ECO/P4	I/O	ECO OFF diode input/FL segment output (P4).
62	I-TU3/P3	I/O	TU 3 diode input (Not used)/FL segment output (P3).
63	I-TU2/P2	I/O	TU 2 diode input (Not used)/FL segment output (P2).
64	I-TU1/P1	I/O	TU 1 diode input (Not used)/FL segment output (P1).

Pin No.	Pin Name	I/O	Description
65	O-DISH_R	O	CD turn-table reverse turn output.
66	O-DISH_F	O	CD turn-table forward turn output.
67	I-SUBQ	I	Sub code-Q data input.
68	O-CD_CE	O	CD DSP chip enable output.
69	I-WRQ	I	CD WRQ input.
70	O-CLK (CD)	O	CD control clock output .
71	O-DATA (CD)	O	CD control data output.
72	I-TUNE/IFC	I	Tuner SD input/IF count input.
73	AVSS	—	GND.
74	VREF	—	Reference voltage.
75	I-DRF	I	CD DRF input.
76	I-RDS_CLK	I	RDS clock input. (Not used)
77	I-LEVEL	I	Connected to GND through a resistor.
78	O-POWER	O	SYSTEM Power ON/OFF output. (“H”=ON)
79	I-RE_VOL	I	Rotary encoder A/D input.
80	I-TP_SW	I	Deck mecha SW A/D input.

MECHANICAL PARTS LIST 1/1

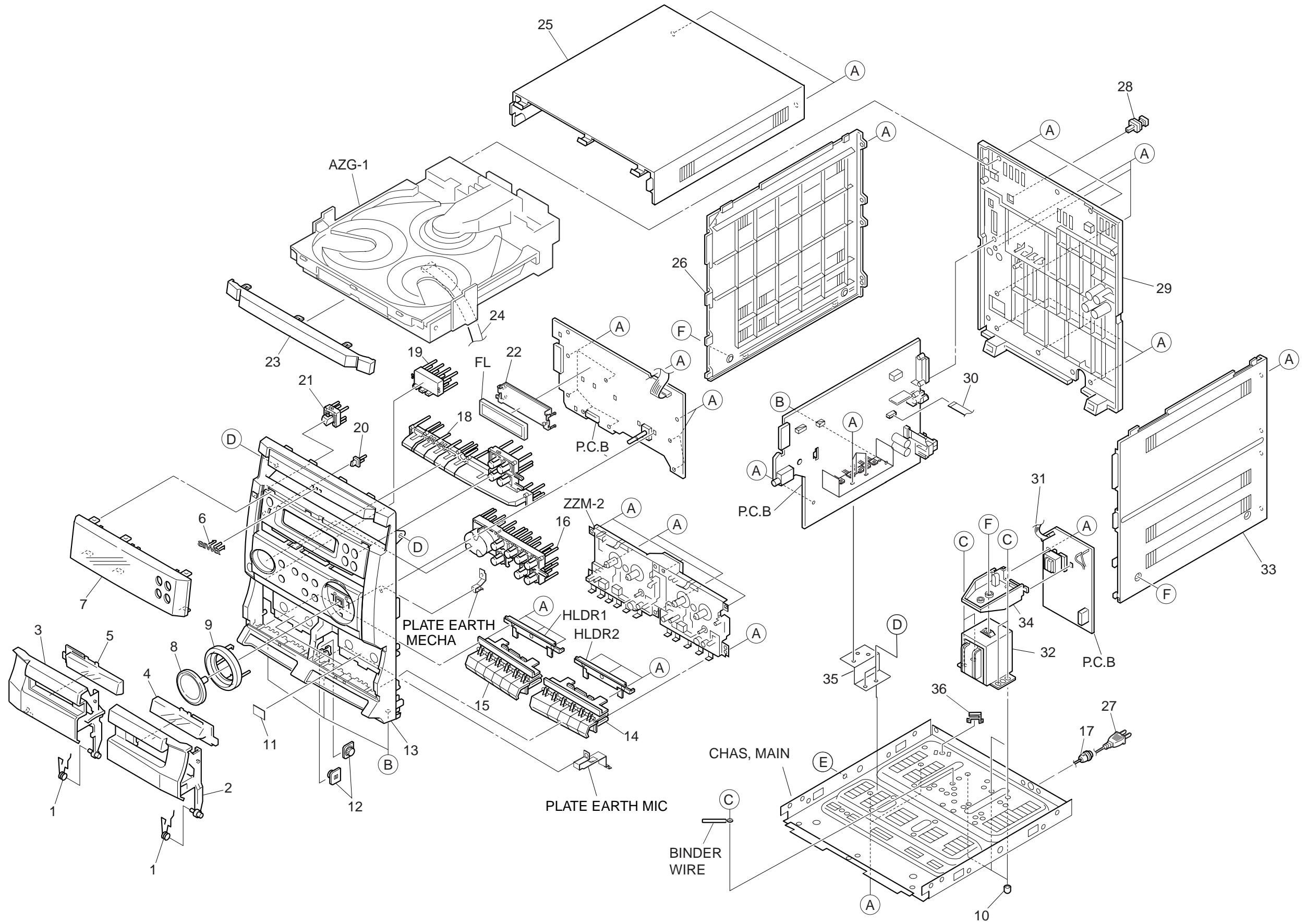
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	82-NF7-218-010		SPR-T,CASS	23	8A-NFA-049-010		PANEL,TRAY BLK<NSZ4 KBM>
2	8A-NFA-004-010		BOX,CASS 2<EXCEPT NSZ4 KBM>	23	8A-NFA-002-010		PANEL,TRAY H<EXCEPT NSZ4 KBM>
2	8A-NFA-048-010		BOX,CASS 2 BLK<NSZ4 KBM>	24	88-913-221-110		FF-CABLE, 13P 1.25 220MM
3	8A-NFA-003-010		BOX,CASS 1<EXCEPT NSZ4 KBM>	25	8A-NFA-062-010		PANEL, TOP V-2<EXCEPT NSZ4 KBM>
3	8A-NFA-047-010		BOX,CASS 1 BLK<NSZ4 KBM>	25	8A-NFA-064-010		PANEL, TOP V-2 B<NSZ4 KBM>
4	8A-NFA-007-010		WINDOW,CASS 2<EXCEPT NSZ4 KBM>	26	8A-NFA-068-010		PANEL,RIGHT V-2 B PL<NSZ4 KBM>
4	8A-NFA-072-010		WINDOW,CASS 2 BLK<NSZ4 KBM>	26	8A-NFA-067-010		PANEL,RIGHT V-2 PL <EXCEPT NSZ4 KBM>
5	8A-NFA-006-010		WINDOW,CASS 1<EXCEPT NSZ4 KBM>	▲ 27	87-A80-157-010		AC CORD ASSY,E BLK CC
5	8A-NFA-071-010		WINDOW,CASS 1 BLK<NSZ4 KBM>	28	84-ZG1-245-210		CAP,OPTICAL
6	87-CE3-023-010		BADGE,AIWA 30N SILV	29	8A-NFB-011-010		CABI,REAR EZSM<NSZ5 EZSM>
7	8A-NFB-001-010		WINDOW,DISP EZ <EXCEPT NSZ4 KBM,NSZ7 EZSM>	29	8A-NFB-013-010		CABI,REAR EZSM SZ7<NSZ7 EZSM>
7	8A-NFB-002-010		WINDOW,DISP EZ SZ7<NSZ7 EZSM>	29	8A-NFB-015-010		CABI,REAR KBM SZ4<NSZ4 KBM>
7	8A-NFB-003-010		WINDOW,DISP K SZ4<NSZ4 KBM>	29	8A-NFB-012-010		CABI,REAR KSM<NSZ5 KSM>
8	8A-NFA-011-010		KNOB,RTRY VOL<EXCEPT NSZ4 KBM>	29	8A-NFB-014-010		CABI,REAR VJSM<NSZ5 VJSM>
8	8A-NFA-055-010		KNOB,RTRY VOL BLK<NSZ4 KBM>	30	88-906-251-110		FF-CABLE,6P 1.25
9	8A-NFA-012-010		RING,VOL	▲ 31	85-NF5-628-010		F-CABLE 7P-2.5
10	8Z-NB8-240-010		COVER, PL	32	8A-NFB-611-010		PT,ANF-B EZ LOW
11	81-532-080-010		LABEL, CASS. COMPT<NSZ4 KBM>	33	8A-NFA-063-010		PANEL,LEFT V-2<EXCEPT NSZ4 KBM>
12	86-NFZ-231-010		DMPR,70	33	8Z-NFA-035-110		PANEL,LEFT V-2 B<NSZ4 KBM>
13	8A-NFA-042-010		CABI,FR EZ<NSZ7 EZSM>	34	8A-NF9-211-010		HLDR,PWB PT HI
13	8A-NFA-044-010		CABI,FR BLK<NSZ4 KBM>	35	8A-NFB-202-010		HLDR,HT-SINK S STEEL
13	8A-NFA-091-010		CABI,FR K <EXCEPT NSZ4 KBM,NSZ7 EZSM>	36	87-NF4-221-010		HLDR,CABLE
14	8A-NFA-014-110		KEY,CASS 2P<EXCEPT NSZ4 KBM>	A	87-067-703-010		TAPPING SCREW, BVT2+3-10
14	8A-NFA-020-110		KEY,CASS 2P BLK<NSZ4 KBM>	B	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
15	8A-NFA-013-110		KEY,CASS 1<EXCEPT NSZ4 KBM>	C	87-078-191-010		S-SCREW,IT+4-10
15	8A-NFA-019-110		KEY,CASS 1 BLK<NSZ4 KBM>	D	87-721-097-410		QT2+3-12 GLD
16	8A-NFA-010-110		KEY,OPE<EXCEPT NSZ4 KBM>	E	87-067-688-010		BVTT+3-6
16	8A-NFA-057-110		KEY,OPE BLK<NSZ4 KBM>	F	87-067-641-010		UTT2+3-8(W/O SLOT)BL
17	87-085-185-010		BUSHING, AC CORD (E)				
18	8A-NFA-009-010		KEY,FUN<EXCEPT NSZ4 KBM>				
18	8A-NFA-056-010		KEY,FUN BLK<NSZ4 KBM>				
19	8A-NFA-016-010		KEY,RDS<NSZ7 EZSM>				
20	8A-NFA-018-010		REFLECTOR,ECO				
21	8A-NFA-008-010		KEY,POWER				
22	8A-NFA-208-010		GUIDE,FL 100-25 ANFA				

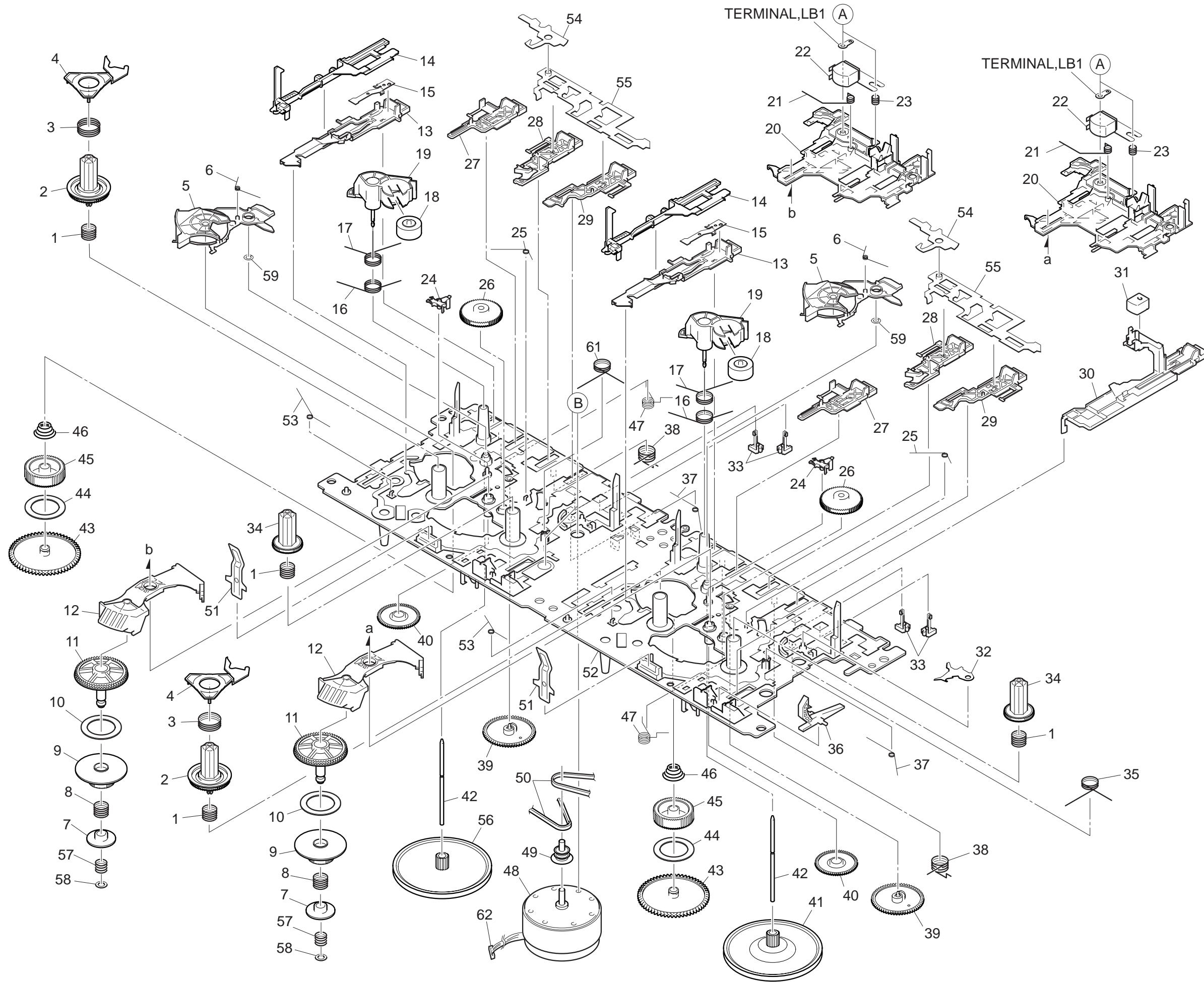
COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink

MECHANICAL EXPLODED VIEW 1/1



TAPE MECHANISM EXPLODED VIEW 1/1



TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

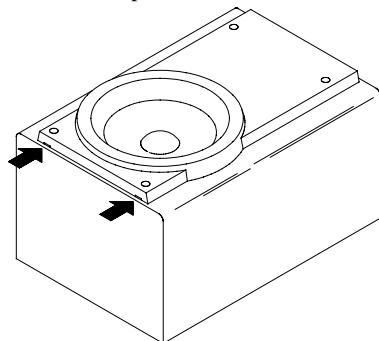
REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM1-254-210	SPR-C,REEL R		36	8Z-ZM1-220-110	LEVER,REC SENSOR	
2	8Z-ZM1-225-110	GEAR,REEL R		37	8Z-ZM1-249-010	SPR-T,FR	
3	8Z-ZM1-253-110	SPR-C,AUTO SENSOR		38	8Z-ZM1-242-110	SPR-T,FF/REW	
4	8Z-ZM1-217-110	LEVER,AUTO SENSOR		39	8Z-ZM1-229-010	GEAR,CAM	
5	8Z-ZM1-212-110	LEVER,T-UP		40	8Z-ZM1-232-010	GEAR,IDL FF/REW	
6	8Z-ZM1-245-010	SPR-T,AUTO		41	8Z-ZM1-234-010	FLY-WHL,ZZM-1	
7	8Z-ZM1-236-010	CLR,SLIP FF/REW		42	8Z-ZM1-267-010	SHAFT,CAPSTAN 2	
8	8Z-ZM1-252-010	SPR-C,FF/REW		43	8Z-ZM1-228-010	GEAR,SLIP T-UP B	
9	8Z-ZM1-230-010	GEAR,SLIP FF/REW A		44	8Z-ZM1-265-010	FELT,T-UP	
10	8Z-ZM1-269-010	FELT,FF/REW 2		45	8Z-ZM1-227-010	GEAR,SLIP T-UP A	
11	8Z-ZM1-238-110	GEAR,SLIP FF/REW B 2		46	8Z-ZM1-251-110	SPR-C,T-UP SLIP	
12	8Z-ZM1-237-010	LEVER,FF/REW 2		47	8Z-ZM1-243-210	SPR-T,STOP/PAUSE	
13	8Z-ZM1-209-210	LEVER,PAUSE		48	87-A91-532-010	MOT,MS15U2LW1A	
14	8Z-ZM1-218-110	LEVER,E-LOCK H		49	8Z-ZM1-235-010	PULLEY,MOT	
15	8Z-ZM1-256-010	SPR-P,PAUSE		50	8Z-ZM2-216-010	BELT,MAIN M	
16	8Z-ZM1-244-010	SPR-T,T-UP		51	8Z-ZM1-260-010	SPR-P,CASSETTE	
17	8Z-ZM1-247-210	SPR-T,PINCH		52	8Z-ZM2-201-010	CHAS ASSY,ZZM-2	
18	8Z-ZM1-261-110	ROLLER ASSY,PINCH		53	8Z-ZM1-255-110	SPR-T,E-LOCK	
19	8Z-ZM1-221-010	LEVER,PINCH		54	8Z-ZM2-219-010	LEVER,E-OPEN ZZM-2	
20	8Z-ZM1-205-210	LEVER,PLAY		55	8Z-ZM1-214-110	LEVER,LOCK	
21	8Z-ZM1-248-110	SPR-T,BRG		56	8Z-ZM2-211-010	FLY-WHL,ZZM-2	
22	87-A90-403-110	HEAD,RPH MS15R		57	8Z-ZM1-257-110	SPR-C,F/R	
23	84-ZM2-227-310	SPR-C,AZIMUTH		58	8Z-ZM1-275-010	W-L,1.47-4-0.25	
24	8Z-ZM1-216-010	LEVER,AUTO		59	80-ZM6-243-010	SH 1.75-3.6-0.5 SLT	
25	8Z-ZM1-246-010	SPR-T,AUTO 2		60	87-A91-494-010	SW,LEAF MSW17820	
26	8Z-ZM2-214-010	GEAR,IDL REW ZZM-2		61	8Z-ZM1-241-010	SPR-T,PLAY	
27	8Z-ZM2-212-010	LEVER,STOP ZZM-2		62	8Z-ZM2-601-010	CONN ASSY,9P ZZM-2	
28	8Z-ZM1-207-010	LEVER,FF		A	84-ZM2-242-010	S-SCREW,AZ1-2-6.4	
29	8Z-ZM1-206-010	LEVER,REW		B	8Z-ZM2-220-110	V+2.6 ZZM-2	
30	8Z-ZM1-210-010	LEVER,REC					
31	87-A90-404-010	HEAD,EH LE15B					
32	8Z-ZM2-218-010	LEVER,REC LOCK ZZM-2					
33	87-A91-492-010	SW,LEAF MSW18560					
34	8Z-ZM1-226-010	GEAR,REEL L					
35	8Z-ZM1-241-010	SPR-T,PLAY					

MODEL NO. SX-NSZ4/NSZ5/NSZ7

SPEAKER DISASSEMBLY INSTRUCTIONS

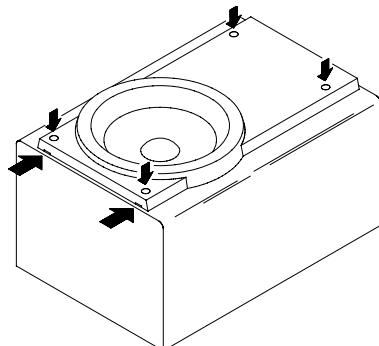
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



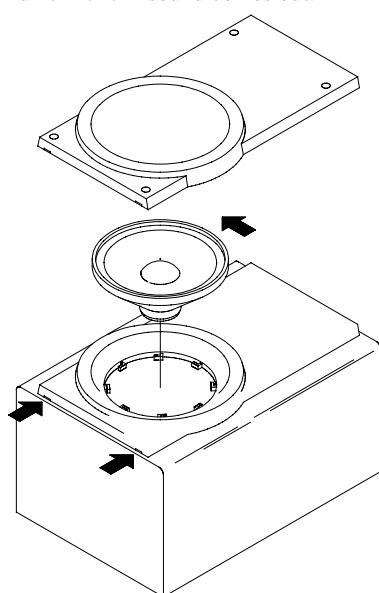
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hold where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

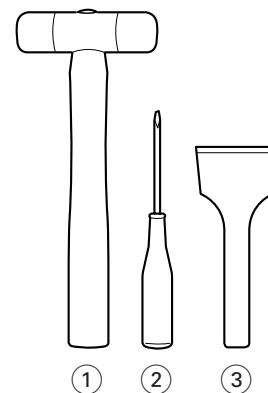


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

- (1) Plastic head hammer
- (2) (⊖) flat head screwdriver
- (3) Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.
2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.
3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

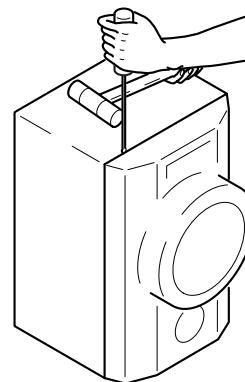


Fig-1

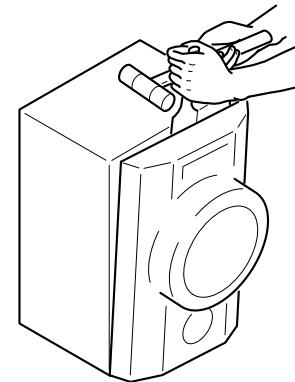


Fig-2

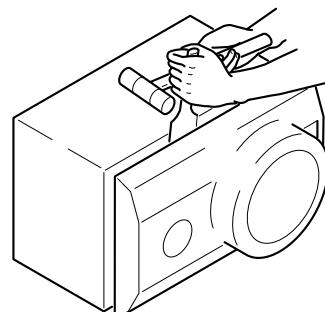


Fig-3

How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SPEAKER PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NSL-012-010		PANEL,FR B<NSZ4>
1	8A-NSL-001-010		PANEL,FR<EXCEPT NSZ4>
2	8A-NSL-003-010		GRILLE, FRAME ASSY<EXCEPT NSZ7>
2	8A-NSL-021-010		GRILLE, FRAME ASSY L<NSZ7>
3	8A-NSL-606-010		SPKR, W 120
3	8Z-NSL-601-110		SPKR, W 120<NSZ5YJS,NSZ7>
4	87-NS7-611-010		CORD,SPKR<NSZ4>
4	8A-NSL-017-010		CORD,SPKR<NSZ5YS>

ACCESSORIES/PACKAGE LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NFB-906-010		IB,EZ(9L)M<5EZ>
1	8A-NFB-916-110		IB,EZ(9L)M -SZ7(RDS)<7EZ,2V>
1	8A-NFB-905-010		IB,K(E)M<5K,4K>
1	8A-NFB-907-010		IB,V(ER)M<5V>
2	87-043-115-010		ANT,FEEDER FM<5V>
2	87-A90-118-010		ANT,WIRE FM (Z)<EXCEPT 5V>
3	87-006-225-010		AM LOOP ANT NC2
4	8Z-NF9-701-210		RC UNIT,ZAS02<EXCEPT 4K>
4	8Z-NF9-703-110		RC UNIT,ZAS17<4K>



アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
AIWA CO.,LTD. 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111