

# SERVICE MANUAL

COMPACT DISC STEREO  
CASSETTE RECEIVER

BASIC TAPE MECHANISM: 6ZM-3 YPR2N  
BASIC CD MECHANISM: AZG-1 YZA3RDM

SYSTEM	CD-CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-SZ60	CX-NSZ60	SX-WNSZ71	RC-ZAS01

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" NSX-SZ60<EZ>, (S/M Code No. 09-004-432-9T1).
- If requiring information about the CD mechanisim, see Service Manual of AZG-1 (S/M Code No. 09-001-335-3NC).

# SPECIFICATIONS

## <FM tuner section>

**Tuning range** 87.5 MHz to 108 MHz  
**Usable sensitivity(IHF)** 13.2 dBf  
**Antenna terminals** 75 ohms (unbalanced)

## <MW tuner section>

**Tuning range** 531 kHz to 1602 kHz (9 kHz step)  
 530 kHz to 1710 kHz (10 kHz step)  
**Usable sensitivity** 350 uV/m  
**Antenna** Loop antenna

## <LW tuner section>

**Tuning range** 144 kHz to 290 kHz  
**Usable sensitivity** 1400 uV/m  
**Antenna** Loop antenna

## <Amplifier section>

### Mid-high frequency amplifier

**Power output** Rated: 20 W + 20 W  
 (8 ohms, T.H.D. 1 %, 1 kHz/DIN 45500)  
 Reference: 25 W + 25 W  
 (8 ohms, T.H.D. 10 %, 1 kHz/DIN 45324)  
 DIN MUSIC POWER:  
 40 W + 40 W  
**Total harmonic distortion** 0.1 % (10 W, 1 kHz, 8 ohms, DIN AUDIO)

### Low frequency amplifier

**Power output** Rated: 60 W + 60 W (6 ohms, T.H.D. 1 %, 130 Hz/DIN 45500)  
 Reference: 75 W + 75 W (6 ohms, T.H.D. 10 %, 130 Hz/DIN 45324)  
 DIN MUSIC POWER:  
 130 W + 130 W  
**Total harmonic distortion** 0.1 % (35 W, 130 Hz, 6 ohms, DIN AUDIO)

### Inputs Outputs

VIDEO/AUX : 500 mV  
 SPEAKERS HIGH FREQ :  
 accept speakers of 8 ohms or more  
 SPEAKERS LOW FREQ :  
 accept speakers of 6 ohms or more  
 SURROUND SPEAKERS :  
 accept speakers of 8 to 16 ohms  
 LINE OUT: 210 mV  
 PHONES (stereo jack) : accepts headphones of 32 ohms or more

## <Cassette deck section>

**Track format** 4 tracks, 2 channels stereo  
**Frequency response** 50 Hz – 15000 Hz  
**Recording system** AC bias  
**Heads** Deck 1: Playback head x 1  
 Deck 2: Recording/Playback head x 1, erase head x 1

## <Compact disc player section>

**Laser** Semiconductor laser ( $\lambda = 780$  nm)  
**D-A converter** 1 bit dual  
**Signal-to-noise ratio** 85 dB (1 kHz, 0 dB)  
**Harmonic distortion** 0.05 % (1 kHz, 0 dB)  
**Wow and flutter** Unmeasurable

## <Speaker system SX-WNSZ71>

**Speaker system** 3 way, Built-in subwoofer(magnetic shielded type)  
**Speaker units** Subwoofer :  
 160 mm cone type  
 Full range:  
 100 mm cone type  
 Super Tweeter :  
 20 mm ceramic type  
**Impedance** 6 ohms / 8 ohms  
**Sensitivity** 87 dB/W/m  
**Dimensions (W x H x D)** 240 x 324 x 281 mm  
**Weight** 5.2 kg

## <General>

**Power requirements** 230 V AC, 50 Hz  
**Power consumption** 150W  
**Power consumption in standby mode** If the power-economizing mode is ECO OFF: 20 W  
 If the power-economizing mode is ECO ON or ECO AUTO: 0.9 W  
**Dimensions (W x H x D)** 260 x 330 x 345 mm  
**Weight** 8.5 kg

- Design and specifications are subject to change without notice.

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## ACCESSORIES / PACKAGE LIST

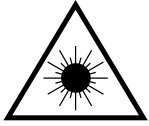
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NFH-906-010		IB, EZ (9L) E
2	87-006-225-010		AM LOOP ANT NC2
3	87-A90-118-010		ANT, WIRE FM (Z)
4	8Z-NF8-702-010		RC UNIT, RC-ZAS01

## 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 käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

### WARNING!

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.

### CAUTION

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

### ATTENTION

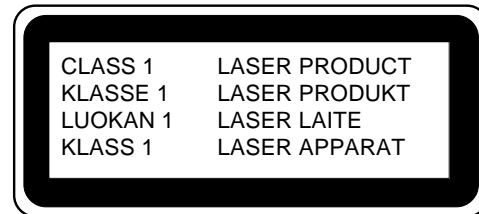
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

### 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.

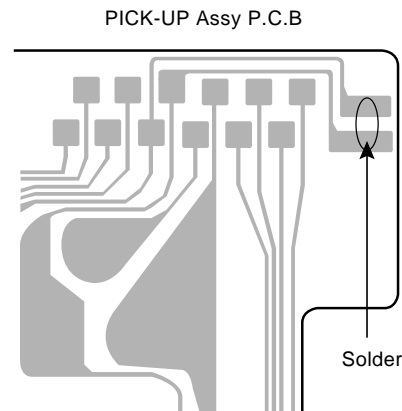


## Precaution to replace Optical block

### (KSS-213F)

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 right figure.



## 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 (+) side (+VH) of C101. (For two seconds)
- ④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) 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.

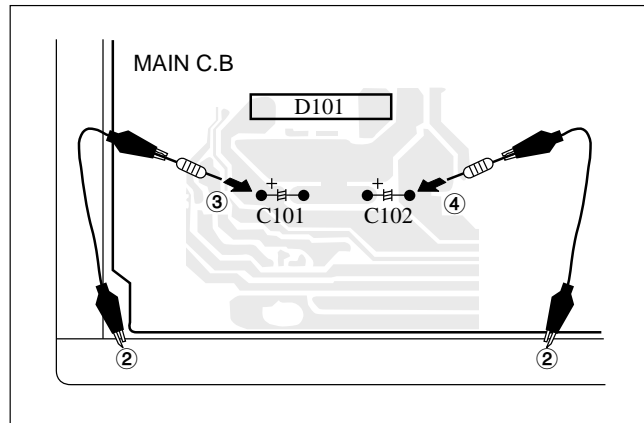


Fig-1

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.

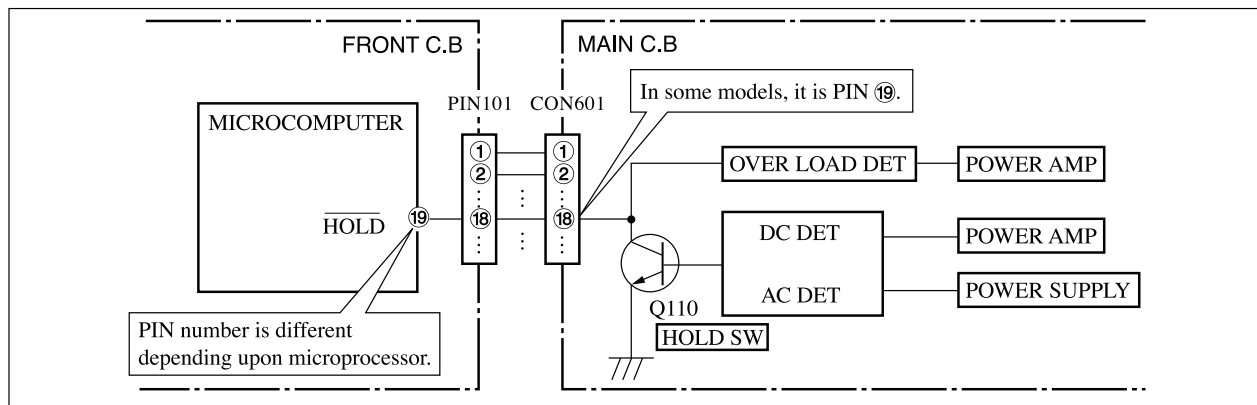


Fig-2-1

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.

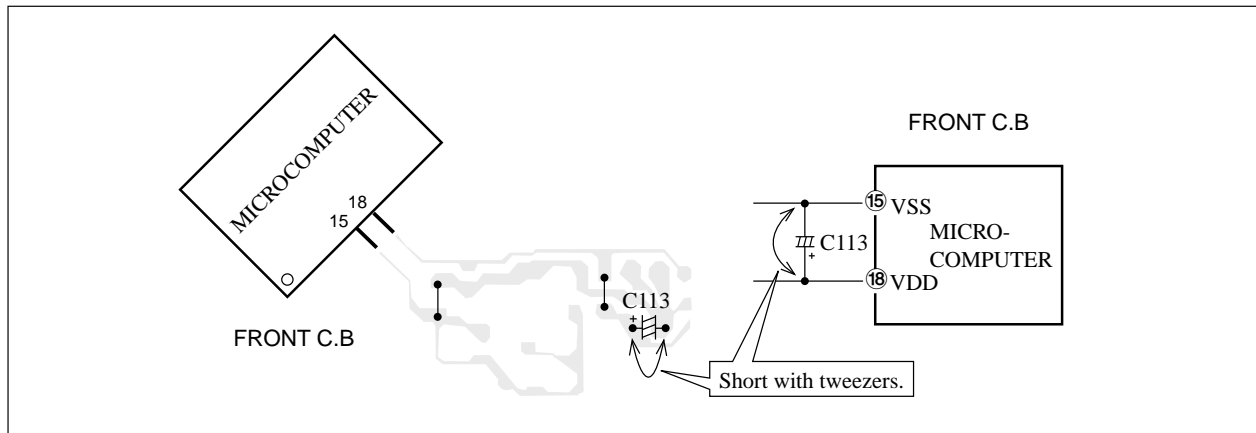


Fig-2-2

- 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.

# ELETRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C12	87-012-368-080		C-CAP,S 0.1-50 F
	87-020-454-010	IC, DN6851		C15	87-012-368-080		C-CAP,S 0.1-50 F
	87-A21-417-010	IC, STK490-310		C16	87-012-368-080		C-CAP,S 0.1-50 F
	8A-NF8-611-110	C-IC, LC866560W-5P41		C17	87-012-368-080		C-CAP,S 0.1-50 F
	87-A21-396-010	IC, STK490-040		C18	87-012-368-080		C-CAP,S 0.1-50 F
	87-A21-482-010	IC, RPM6938-H4		C19	87-016-520-000		CAP,E 3300-65 M SMG
	87-A21-419-040	C-IC, NJM14558MD-TE2		C20	87-016-520-000		CAP,E 3300-65 M SMG
	87-A21-023-040	C-IC, BA3835F		C21	87-016-051-000		CAP,E 2200-35 M SMG
	87-070-289-040	C-IC, BU2092F		C22	87-016-051-000		CAP,E 2200-35 M SMG
	87-A21-401-040	C-IC, M61503FP		C23	87-016-658-000		CAP,E 4700-35 M SMG
	87-A21-415-010	IC, LA1843		C24	87-016-658-000		CAP,E 4700-35 M SMG
	87-A20-440-040	C-IC, BU1920FS		C25	87-010-408-080		CAP, ELECT 47-50V
	87-070-127-110	IC, LC72131 D		C26	87-010-247-080		CAP, ELECT 100-50V
				C30	87-010-430-080		CAP, ELECT 100-63
				C31	87-010-263-080		CAP, ELECT 100-10V
TRANSISTOR				C32	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-609-080	TR, KTA1266GR		C34	87-010-260-080		CAP, ELECT 47-25V
	89-213-702-010	TR, 2SB1370 (1.8W)		C35	87-010-380-080		CAP, ELECT 47-16V
	87-026-610-080	TR, KTC3198GR		C36	87-010-381-080		CAP, ELECT 330-16V
	87-A30-076-080	C-TR, 2SC3052F		C38	87-010-197-080		CAP, CHIP 0.01 DM
	87-A30-075-080	C-TR, 2SA1235F		C60	87-010-403-080		CAP, ELECT 3.3-50V
	87-026-245-080	TR, DTC114ES		C61	87-010-260-080		CAP, ELECT 47-25V
	87-A30-198-080	TR, KTC3199GR		C101	87-010-183-080		C-CAP,S 2700P-50 B
	87-026-463-080	TR, 2SA933SRS		C102	87-010-183-080		C-CAP,S 2700P-50 B
	87-A30-107-070	C-TR, CMBT5401		C103	87-010-545-080		CAP, ELECT 0.22-50V
	87-A30-106-040	C-TR, CMBT5551		C104	87-010-545-080		CAP, ELECT 0.22-50V
	87-A30-087-080	C-FET, 2SK2158		C107	87-010-405-080		CAP, ELECT 10-50V
	87-A30-074-080	C-TR, RT1P 141C		C108	87-010-405-080		CAP, ELECT 10-50V
	87-A30-091-080	FET, 2SJ460		C109	87-010-179-080		C-CAP,S 1200P-50 K B GRM
	87-A30-318-080	TR, CSA952K		C110	87-010-179-080		C-CAP,S 1200P-50 K B GRM
	87-A30-090-080	FET, 2SK2541		C111	87-010-405-080		CAP, ELECT 10-50V
	87-A30-329-080	TR, CD1585BC		C112	87-010-405-080		CAP, ELECT 10-50V
	87-A30-104-080	C-TR, RT1N 441C		C113	87-010-866-080		CAP, ELECT 10-63
	87-A30-073-080	C-TR, RT1N 141C		C114	87-010-866-080		CAP, ELECT 10-63
	89-333-317-880	TR, 2SC3331 (0.5W)		C119	87-010-197-080		CAP, CHIP 0.01 DM
	87-A30-269-040	C-FET, 2S4461-T1		C120	87-010-197-080		CAP, CHIP 0.01 DM
	89-327-143-080	TR, 2SC2714 (0.1W)		C123	87-010-176-080		C-CAP,S 680P-50 SL
	87-A30-489-080	C-TR, KRA107S		C124	87-010-176-080		C-CAP,S 680P-50 SL
	87-A30-086-070	C-TR, CSD1306E		C125	87-012-368-080		C-CAP,S 0.1-50 F
	87-A30-484-080	C-TR, KRA102S		C126	87-012-368-080		C-CAP,S 0.1-50 F
	89-503-602-080	C-FET, 2SK360E		C127	87-012-368-080		C-CAP,S 0.1-50 F
	87-A30-234-080	TR, CSC4115BC		C128	87-012-368-080		C-CAP,S 0.1-50 F
				C129	87-010-191-080		C-CAP,S 0.015-50 F
				C130	87-010-191-080		C-CAP,S 0.015-50 F
				C131	87-010-197-080		CAP, CHIP 0.01 DM
DIODE				C132	87-010-197-080		CAP, CHIP 0.01 DM
	87-A40-393-090	DIODE, 1N5402GW (F20)		C133	87-010-186-080		CAP, CHIP 4700P
	87-020-465-080	DIODE, 1SS133		C140	87-010-182-080		C-CAP,S 2200P-50 B
	87-A40-547-090	DIODE, D5SBA20		C141	87-010-196-080		CHIP CAPACITOR, 0.1-25
	87-A40-455-080	DIODE, RL203 GW		C203	87-010-182-080		C-CAP,S 2200P-50 B
	87-A40-553-080	DIODE, 1N4003 LES		C204	87-010-182-080		C-CAP,S 2200P-50 B
	87-A40-776-080	ZENER, UZ27BSD		C205	87-010-179-080		C-CAP,S 1200P-50 K B GRM
	87-A40-764-080	ZENER, UZ10BSC		C206	87-010-179-080		C-CAP,S 1200P-50 K B GRM
	87-A40-313-080	C-DIODE, MC 2840		C209	87-010-402-080		CAP, ELECT 2.2-50V
	87-A40-270-080	C-DIODE, MC2838		C210	87-010-402-080		CAP, ELECT 2.2-50V
	87-A40-269-080	C-DIODE, MC2836		C211	87-010-184-080		CHIP CAPACITOR 3300P(K)
	87-A40-768-080	ZENER, UZ16BSA		C212	87-010-184-080		CHIP CAPACITOR 3300P(K)
	87-A40-802-080	ZENER, UZ5.1BSC		C213	87-010-402-080		CAP, ELECT 2.2-50V
	87-A40-739-080	ZENER, UZ2.7BSA		C214	87-010-402-080		CAP, ELECT 2.2-50V
	87-017-149-080	ZENER, HZS6A2L		C217	87-010-405-080		CAP, ELECT 10-50V
				C218	87-010-405-080		CAP, ELECT 10-50V
MAIN C.B				C220	87-010-405-080		CAP, ELECT 10-50V
				C223	87-010-190-080		S CHIP F 0.01
C3	87-012-368-080	C-CAP,S 0.1-50 F		C224	87-010-190-080		S CHIP F 0.01
C4	87-012-368-080	C-CAP,S 0.1-50 F		C228	87-010-405-080		CAP, ELECT 10-50V
C5	87-012-368-080	C-CAP,S 0.1-50 F		C229	87-010-196-080		CHIP CAPACITOR, 0.1-25
C6	87-012-368-080	C-CAP,S 0.1-50 F		C230	87-010-196-080		CHIP CAPACITOR, 0.1-25
C9	87-012-368-080	C-CAP,S 0.1-50 F		C231	87-010-196-080		CHIP CAPACITOR, 0.1-25
C10	87-012-368-080	C-CAP,S 0.1-50 F		C232	87-010-196-080		CHIP CAPACITOR, 0.1-25
C11	87-012-368-080	C-CAP,S 0.1-50 F		C233	87-010-190-080		S CHIP F 0.01

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C234	87-010-190-080		S CHIP F 0.01	C617	87-010-385-080		CAP, ELECT 220-25V
C237	87-010-322-080		C-CAP,S 100P-50 CH	C618	87-010-405-080		CAP, ELECT 10-50V
C238	87-010-322-080		C-CAP,S 100P-50 CH	C620	87-010-263-080		CAP, ELECT 100-10V
C239	87-010-196-080		CHIP CAPACITOR,0.1-25	C630	87-016-669-080		C-CAP,S 0.1-25 K B
C270	87-010-197-080		CAP, CHIP 0.01 DM	C631	87-010-185-080		C-CAP,S 3900P-50 B
C301	87-010-178-080		CHIP CAP 1000P	C632	87-010-185-080		C-CAP,S 3900P-50 B
C302	87-010-178-080		CHIP CAP 1000P	C633	87-016-369-080		C-CAP,S 0.033-25 B K
C303	87-010-178-080		CHIP CAP 1000P	C634	87-016-369-080		C-CAP,S 0.033-25 B K
C304	87-010-178-080		CHIP CAP 1000P	C661	87-012-157-080		C-CAP,S 330P-50 CH
C307	87-010-263-080		CAP, ELECT 100-10V	C662	87-012-157-080		C-CAP,S 330P-50 CH
C308	87-010-263-080		CAP, ELECT 100-10V	C669	87-010-180-080		C-CER 1500P
C309	87-010-318-080		C-CAP,S 47P-50 CH	C670	87-010-180-080		C-CER 1500P
C310	87-010-318-080		C-CAP,S 47P-50 CH	C677	87-010-197-080		CAP, CHIP 0.01 DM
C313	87-010-188-080		CAP,CHIP 6800P	C771	87-010-263-080		CAP, ELECT 100-10V
C314	87-010-188-080		CAP,CHIP 6800P	C772	87-010-197-080		CAP, CHIP 0.01 DM
C315	87-010-263-080		CAP, ELECT 100-10V	C779	87-010-186-080		C-CAP,S 4700P-50 K B C2012
C317	87-010-546-080		CAP, ELECT 0.33-50V	C780	87-010-186-080		C-CAP,S 4700P-50 K B C2012
C318	87-010-546-080		CAP, ELECT 0.33-50V	C782	87-010-197-080		CAP, CHIP 0.01 DM
C326	87-010-198-080		CAP, CHIP 0.022	C783	87-010-197-080		CAP, CHIP 0.01 DM
C327	87-012-368-080		C-CAP,S 0.1-50 F	C784	87-010-197-080		CAP, CHIP 0.01 DM
C360	87-010-401-080		CAP, ELECT 1-50V	C785	87-010-197-080		CAP, CHIP 0.01 DM
C365	87-010-197-080		CAP, CHIP 0.01 DM	C786	87-010-197-080		CAP, CHIP 0.01 DM
C399	87-012-140-080		CAP 470P	C788	87-010-149-080		C-CAP,S 5P-50 CH
C401	87-010-544-080		CAP, ELECT 0.1-50V	C789	87-A10-801-080		C-CAP,S 0.022-16 J B CM
C402	87-010-544-080		CAP, ELECT 0.1-50V	C790	87-A10-801-080		C-CAP,S 0.022-16 J B CM
C403	87-010-321-080		CHIP CAPACITOR,82P(J)	C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C404	87-010-321-080		CHIP CAPACITOR,82P(J)	C792	87-010-197-080		CAP, CHIP 0.01 DM
C405	87-010-197-080		CAP, CHIP 0.01 DM	C793	87-010-404-080		CAP, ELECT 4.7-50V
C406	87-010-197-080		CAP, CHIP 0.01 DM	C794	87-012-155-080		C-CAP,S 180P-50 J CH GRM
C407	87-010-197-080		CAP, CHIP 0.01 DM	C795	87-010-197-080		CAP, CHIP 0.01 DM
C408	87-010-197-080		CAP, CHIP 0.01 DM	C796	87-010-197-080		CAP, CHIP 0.01 DM
C409	87-010-182-080		C-CAP,S 2200P-50 B	C797	87-010-405-080		CAP, ELECT 10-50V
C410	87-010-182-080		C-CAP,S 2200P-50 B	C798	87-010-197-080		CAP, CHIP 0.01 DM
C411	87-010-405-080		CAP, ELECT 10-50V	C799	87-010-407-080		CAP, ELECT 33-50V
C412	87-010-405-080		CAP, ELECT 10-50V	C800	87-012-369-080		C-CAP,S 0.047-50F
C452	87-010-382-080		CAP, ELECT 22-25V	C801	87-010-403-080		CAP, ELECT 3.3-50V
C453	87-010-183-080		C-CAP,S 2700P-50 B	C802	87-010-194-080		CAP, CHIP 0.047
C454	87-010-183-080		C-CAP,S 2700P-50 B	C803	87-010-198-080		CAP, CHIP 0.022
C455	87-010-183-080		C-CAP,S 2700P-50 B	C804	87-010-263-080		CAP, ELECT 100-10V
C456	87-010-197-080		CAP, CHIP 0.01 DM	C807	87-010-400-080		CAP, ELECT 0.47-50V
C458	87-010-178-080		CHIP CAP 1000P	C808	87-010-401-080		CAP, ELECT 1-50V
C459	87-010-175-080		CAP 560P	C809	87-010-401-080		CAP, ELECT 1-50V
C460	87-010-196-080		CHIP CAPACITOR,0.1-25	C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C461	87-012-158-080		C-CAP,S 390P-50 CH	C814	87-010-197-080		CAP, CHIP 0.01 DM
C462	87-012-158-080		C-CAP,S 390P-50 CH	C815	87-010-400-080		CAP, ELECT 0.47-50V
C507	87-010-196-080		CHIP CAPACITOR,0.1-25	C816	87-010-400-080		CAP, ELECT 0.47-50V
C508	87-010-178-080		CHIP CAP 1000P	C818	87-010-180-080		C-CER 1500P
C509	87-A10-300-080		CAP,M 0.027-50 J	C821	87-010-405-080		CAP, ELECT 10-50V
C510	87-A10-300-080		CAP,M 0.027-50 J	C823	87-012-349-080		C-CAP,S 1000P-50 CH
C515	87-A10-300-080		CAP,M 0.027-50 J	C824	87-010-404-080		CAP, ELECT 4.7-50V
C516	87-A10-300-080		CAP,M 0.027-50 J	C825	87-010-596-080		CAP, S 0.047-16
C518	87-010-196-080		CHIP CAPACITOR,0.1-25	C831	87-010-406-080		CAP, ELECT 22-50
C519	87-010-401-080		CAP, ELECT 1-50V	C842	87-010-197-080		CAP, CHIP 0.01 DM
C520	87-010-401-080		CAP, ELECT 1-50V	C844	87-010-197-080		CAP, CHIP 0.01 DM
C521	87-010-546-080		CAP, ELECT 0.33-50V	C850	87-010-260-080		CAP, ELECT 47-25V
C522	87-010-546-080		CAP, ELECT 0.33-50V	C851	87-010-197-080		CAP, CHIP 0.01 DM
C523	87-010-545-080		CAP, ELECT 0.22-50V	C852	87-010-197-080		CAP, CHIP 0.01 DM
C524	87-010-545-080		CAP, ELECT 0.22-50V	C853	87-010-197-080		CAP, CHIP 0.01 DM
C525	87-010-545-080		CAP, ELECT 0.22-50V	C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C526	87-010-545-080		CAP, ELECT 0.22-50V	C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C605	87-010-179-080		CAP,CHIP S B1200P	C860	87-010-197-080		CAP, CHIP 0.01 DM
C606	87-010-179-080		CAP,CHIP S B1200P	C869	87-010-197-080		CAP, CHIP 0.01 DM
C609	87-010-213-080		C-CAP,S 0.015-50 B	C870	87-018-131-080		CAP,TC U 1000P
C610	87-010-213-080		C-CAP,S 0.015-50 B	C871	87-012-156-080		C-CAP,S 220P-50 CH
C611	87-010-545-080		CAP, ELECT 0.22-50V	C872	87-012-156-080		C-CAP,S 220P-50 CH
C612	87-010-545-080		CAP, ELECT 0.22-50V	C873	87-012-140-080		CAP 470P
C613	87-010-545-080		CAP, ELECT 0.22-50V	C874	87-010-405-080		CAP, ELECT 10-50V
C614	87-010-545-080		CAP, ELECT 0.22-50V	C875	87-010-196-080		CHIP CAPACITOR,0.1-25
C615	87-010-154-080		CAP CHIP 10P	C876	87-010-405-080		CAP, ELECT 10-50V
C616	87-010-385-080		CAP, ELECT 220-25V	C877	87-010-197-080		CAP, CHIP 0.01 DM

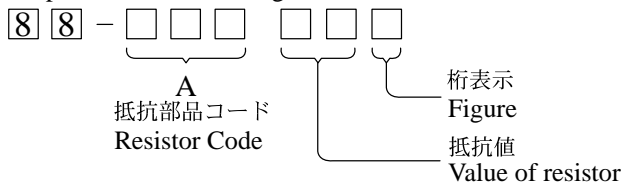
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C878	87-010-316-080		C-CAP,S 33P-50 CH	R995	87-010-322-080		C-CAP,S 100P-50 CH
C879	87-010-314-080		C-CAP,S 22P-50V	SFR451	87-A90-432-080		SFR,30K H NVZ6TLTA
C940	87-010-197-080		CAP, CHIP 0.01 DM	SFR452	87-A90-432-080		SFR,30K H NVZ6TLTA
C942	87-010-149-080		C-CAP,S 5P-50 CH GRM	TC942	87-011-253-080		TRIMER,30P IAR
C947	87-010-197-080		CAP, CHIP 0.01 DM	WH1	87-A91-179-010		HLDR,WIRE 2.5-11P
C948	87-012-140-080		CAP 470P	X861	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309
C952	87-010-197-080		CAP, CHIP 0.01 DM	X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
C957	87-010-311-080		CAP 12P				
C958	87-010-197-080		CAP, CHIP 0.01 DM				
C959	87-010-196-080		CHIP CAPACITOR,0.1-25	FRONT C.B			
C960	87-010-196-080		CHIP CAPACITOR,0.1-25	C201	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C962	87-010-401-080		CAP, ELECT 1-50V	C202	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z	C203	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C971	87-010-381-080		CAP, ELECT 330-16V	C204	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C972	87-010-404-080		CAP, ELECT 4.7-50V	C205	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C973	87-010-197-080		CAP, CHIP 0.01 DM	C206	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C974	87-010-197-080		CAP, CHIP 0.01 DM	C207	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C979	87-010-322-080		C-CAP,S 100P-50 CH	C208	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C981	87-010-260-080		CAP, ELECT 47-25V	C209	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C982	87-010-196-080		CHIP CAPACITOR,0.1-25	C210	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C983	87-010-197-080		CAP, CHIP 0.01 DM	C211	87-010-322-080		C-CAP,S 100P-50 J CH GRM
C984	87-010-197-080		CAP, CHIP 0.01 DM	C251	87-010-405-040		CAP,E 10-50 M 11L SME
C985	87-010-322-080		C-CAP,S 100P-50 CH	C253	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C987	87-010-197-080		CAP, CHIP 0.01 DM	C254	87-012-369-080		C-CAP,S 0.047-50 Z F
C989	87-010-197-080		CAP, CHIP 0.01 DM	C255	87-010-560-040		CAP,E 10-50 M 5L MA
C991	87-010-312-080		C-CAP,S 15P-50 CH	C256	87-010-405-040		CAP,E 10-50 M 11L SME
C992	87-010-312-080		C-CAP,S 15P-50 CH	C259	87-010-405-040		CAP,E 10-50 M 11L SME
C993	87-010-178-080		CHIP CAP 1000P	C273	87-010-178-080		C-CAP,S 1000P-50 K B C2012
C995	87-010-178-080		CHIP CAP 1000P	C274	87-010-178-080		C-CAP,S 1000P-50 K B C2012
C997	87-010-196-080		CHIP CAPACITOR,0.1-25	C301	87-010-182-080		C-CAP,S 2200P-50 K B C2012
C998	87-010-260-080		CAP, ELECT 47-25V	C302	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C999	87-A11-132-080		CAP,TC U 0.01-50 K B	C312	87-010-498-040		CAP,E 10-16 M 5L SRE
CF831	87-008-423-010		CERAMIC FILTER, SFE10.7	C314	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
CF832	82-785-747-010		CF MS2 GHY R	C315	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
CN301	87-A60-620-010		CONN,3P V 2MM JMT	C316	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
CN351	87-A60-625-010		CONN,8P V 2MM JMT	C321	87-012-393-080		C-CAP,S 0.22-16 K W5R CM
CN601	87-099-719-010		CONN,30P TYK-B(X)	C322	87-010-400-040		CAP,E 0.47-50 M 11L SME
CN602	87-A60-131-010		CONN,6P V FE	C325	87-A10-189-040		CAP,E 220-10 M 5L
CNA1	8A-NF8-654-010		CONN ASSY,11P TID-A(480)	C326	87-A10-189-040		CAP,E 220-10 M 5L
FFC602	88-906-251-110		FF-CABLE, 6P 1.25	C332	87-A11-551-080		C-CAP,S 1000P-50 K B C2012
FFE831	A8-6ZA-19C-170		6ZA-1 YFEENC	C334	87-010-312-080		C-CAP,S 15P-50 J CH GRM
J201	87-A60-483-010		JACK,DIA6.3 BLK ST W/S KM	C335	87-012-140-080		C-CAP,S 470P-50 J CH
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)	C336	87-012-155-080		C-CAP,S 180P-50 J CH GRM
J204	87-A61-153-010		JACK,PIN 4P R/W(BL) (SEPA) KM	C339	87-012-156-080		C-CAP,S 220P-50 J CH GRM
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN	C340	87-012-197-080		C-CAP,S 0.01-25 K B C2012
J832	87-A60-403-010		TERMINAL,ANT PAL 2P HSP-312V05	C341	87-010-194-080		C-CAP,S 0.047-25 Z F
L101	87-003-383-010		COIL,1UH-S	C351	87-010-382-040		CAP,E 22-25 M 11L SME
L102	87-003-383-010		COIL,1UH-S	C401	87-010-197-080		C-CAP,S 0.01-25 K B C2012
L201	87-003-383-010		COIL,1UH-S	C452	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
L202	87-003-383-010		COIL,1UH-S	C453	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
L451	87-007-342-010		COIL,OSC 85K BIAS	C454	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
L801	87-A50-540-010		COIL,FM DET(TOK)	C455	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)	C602	87-010-322-080		C-CAP,S 100P-50 J CH GRM
L811	87-005-847-080		COIL,2.2UH(CECS)	C603	87-010-322-080		C-CAP,S 100P-50 J CH GRM
L832	87-005-847-080		COIL,2.2UH(CECS)	C604	87-010-322-080		C-CAP,S 100P-50 J CH GRM
L861	87-005-847-080		COIL,2.2UH(CECS)	C605	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
L941	87-A50-020-010		COIL,ANT LW(COI)	CN101	87-099-720-010		CONN,30P BLK TYK-B(P)
L942	87-A50-019-010		COIL,OSC LW(COI)	CN102	87-099-015-010		CONN,13P V BLK 6216
L951	8A-NF8-668-010		COIL,AM PACK 2(TOK)	CN301	87-099-013-010		CONN,11P V BLK 6216
R129	87-A00-257-080		RES,M/F 0.15-1W J	FFC102	88-913-301-110		FF-CABLE,13P-1.25
R130	87-A00-257-080		RES,M/F 0.15-1W J	FFC301	88-911-101-110		FF-CABLE,11P 1.25
R143	87-A00-439-050		RES,180-1/2W J RP	FL401	8A-NF8-601-010		FL,HNA-11MM30 (ANF-8)
R144	87-A00-439-050		RES,180-1/2W J RP	JW309	87-008-372-080		FLTR,EMI BL01 RN1
R145	87-A00-439-050		RES,180-1/2W J RP	L331	87-A50-408-010		COIL,OSC 5.76 MHZ
R146	87-A00-439-050		RES,180-1/2W J RP	LED331	87-A40-589-040		LED,SLR-56VCT31 RED
R233	87-A00-258-080		RES,M/F 0.22-1W J	LED602	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
R234	87-A00-258-080		RES,M/F 0.22-1W J	LED603	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
R790	87-010-197-080		CAP, CHIP 0.01 DM	LED605	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
R991	87-010-322-080		C-CAP,S 100P-50 CH	LED606	87-A40-619-080		LED,SLR-56PT-TE7-W GRN
R993	87-010-322-080		C-CAP,S 100P-50 CH	LED607	87-A40-619-080		LED,SLR-56PT-TE7-W GRN



REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LED608	87-A40-619-080		LED,SLR-56PT-TE7-W GRN	PT C.B			
LED610	87-A40-678-010		LED,SELU1E10CXM BLUE-DEF	C1	87-010-387-080		CAP,E 470-25 SME
LED611	87-A40-678-010		LED,SELU1E10CXM BLUE-DEF	C2	87-A11-148-080		CAP,TC U 0.1-50 Z F
S401	87-A91-024-080		SW,TACT KSHG611BT	C31	87-010-403-040		CAP,E 3.3-50 SME
S402	87-A91-024-080		SW,TACT KSHG611BT	CN1	87-A61-122-010		CONN,11P V TID-A
S403	87-A91-024-080		SW,TACT KSHG611BT	△ PT1	8A-NF8-608-010		PT,ANF-8 EZ
S404	87-A91-024-080		SW,TACT KSHG611BT	△ PT2	8A-NF8-662-010		PT,SUB ANF-8 (E)
S405	87-A91-024-080		SW,TACT KSHG611BT	△ RY2	87-A91-418-010		RELAY,AC12V G5PA-1-M
S406	87-A91-024-080		SW,TACT KSHG611BT	△ T1	87-A60-317-010		TERMINAL, 1P MSC
S407	87-A91-024-080		SW,TACT KSHG611BT	△ T2	87-A60-317-010		TERMINAL, 1P MSC
S408	87-A91-024-080		SW,TACT KSHG611BT	DECK C.B			
S409	87-A91-024-080		SW,TACT KSHG611BT	CON105	87-099-753-010		CONN,11P 9604
S410	87-A91-024-080		SW,TACT KSHG611BT	SFR1	87-024-581-010		SFR,3.3K DIA 6H
S411	87-A91-024-080		SW,TACT KSHG611BT	SOL1	82-ZM1-618-410		SOL ASSY,27
S413	87-A91-024-080		SW,TACT KSHG611BT	SOL2	82-ZM1-618-410		SOL ASSY,27
S414	87-A91-024-080		SW,TACT KSHG611BT	SW1	87-A90-248-010		SW,MICRO ESE11SH2CXQ
S415	87-A91-024-080		SW,TACT KSHG611BT	SW2	87-A90-248-010		SW,MICRO ESE11SH2CXQ
S416	87-A91-024-080		SW,TACT KSHG611BT	SW3	87-A90-248-010		SW,MICRO ESE11SH2CXQ
S417	87-A91-024-080		SW,TACT KSHG611BT	SW4	87-036-110-010		SW,MICRO SPPB62
S418	87-A91-024-080		SW,TACT KSHG611BT	SW5	87-036-110-010		SW,MICRO SPPB62
S419	87-A91-024-080		SW,TACT KSHG611BT	W1	82-ZM3-601-010		RBN,CORD,4P-75
S421	87-A91-024-080		SW,TACT KSHG611BT	HEAD-1 C.B			
S422	87-A91-024-080		SW,TACT KSHG611BT		85-ZM3-602-010		PWB,FLEX A
S423	87-A91-024-080		SW,TACT KSHG611BT	CON301	85-MA2-615-010		CONN,ASSY 3P
S425	87-A91-024-080		SW,TACT KSHG611BT				
S426	87-A91-024-080		SW,TACT KSHG611BT				
S430	87-A91-024-080		SW,TACT KSHG611BT				
S431	87-A91-024-080		SW,TACT KSHG611BT				
S432	87-A91-024-080		SW,TACT KSHG611BT				
S433	87-A91-024-080		SW,TACT KSHG611BT				
S434	87-A91-024-080		SW,TACT KSHG611BT				
S435	87-A91-024-080		SW,TACT KSHG611BT				
SW252	87-A91-709-010		SW,RTRY 1-2-24 RE012103P				
SW253	87-A91-710-010		SW,RTRY 1-2-12 RE012103P				

○チップ抵抗部品コード/CHIP RESISTOR PART CODE

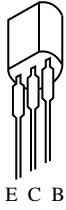
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Chip Resistor Part Coding



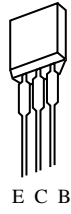
チップ抵抗  
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法/Dimensions (mm)			抵抗コード : A Resistor Code : A	
				外形/Form	L	W		t
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

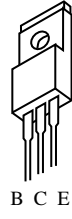
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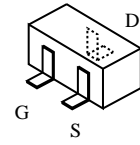
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 KTC3198GR    CSC4115BC  
 KTC3199GR  
 CSA952K



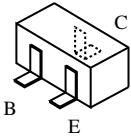
DTC114ES  
 2SA933



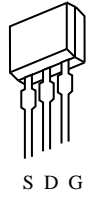
2SB1370



2SK2158  
 2SK360E  
 2SJ460  
 2SJ461-T1



2SA1235F    KRA102S  
 2SC2714    KRA107S  
 2SC3052F    RT1N141C  
 CMBT5551    RT1N441C  
 CMBT5401    RT1P141C  
 CSD1306E

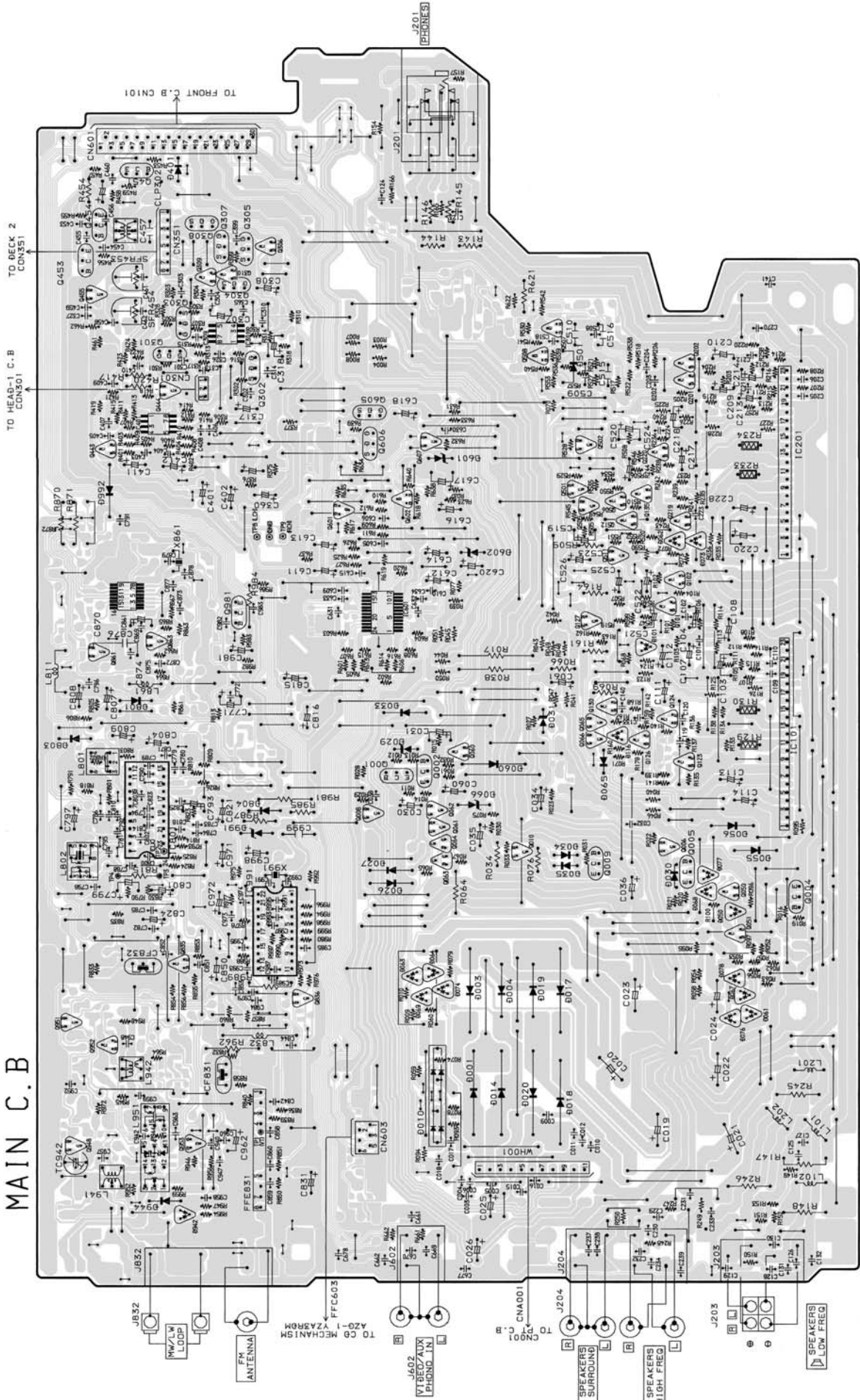


2SK2541



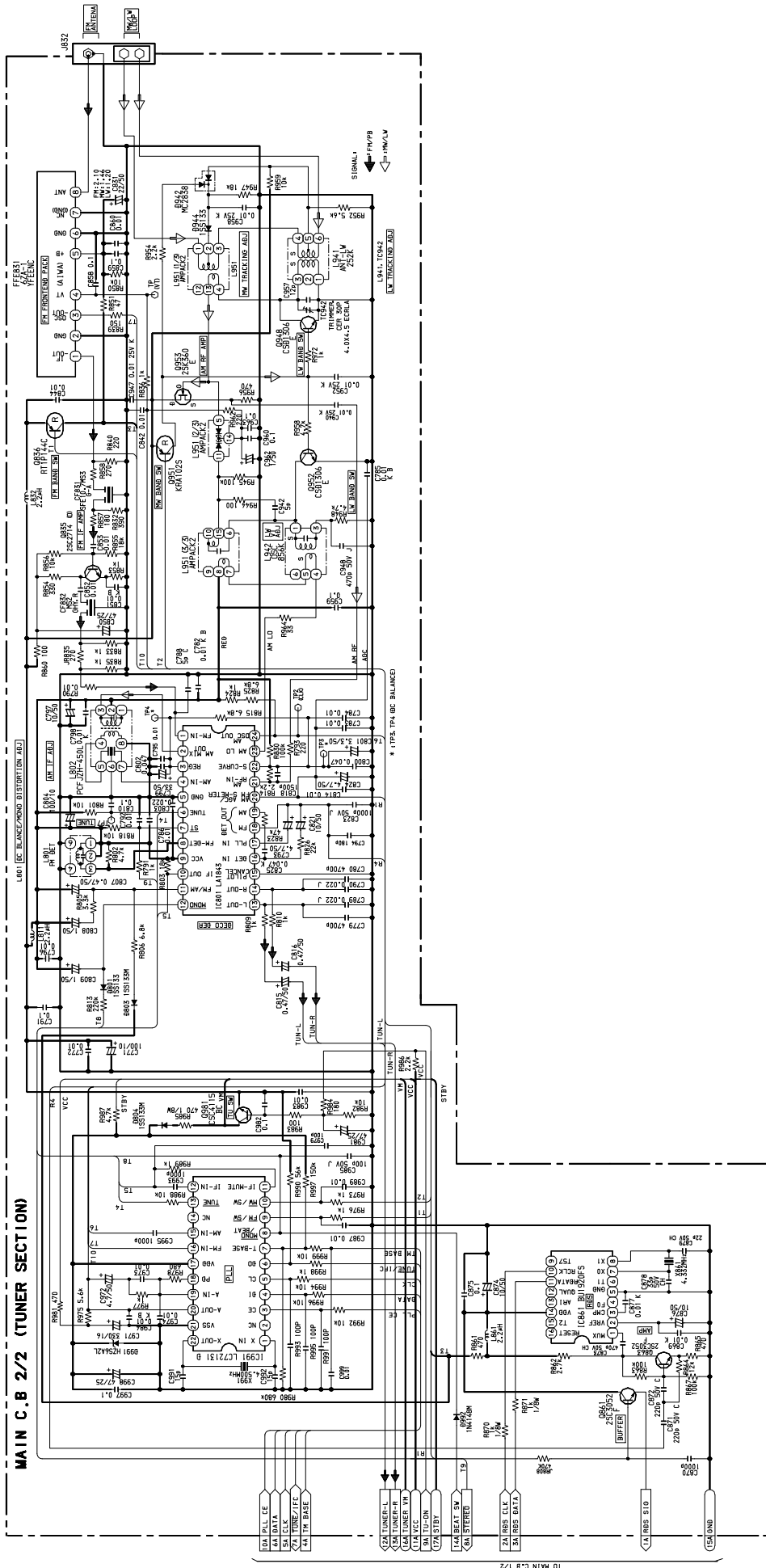
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MAIN C.B

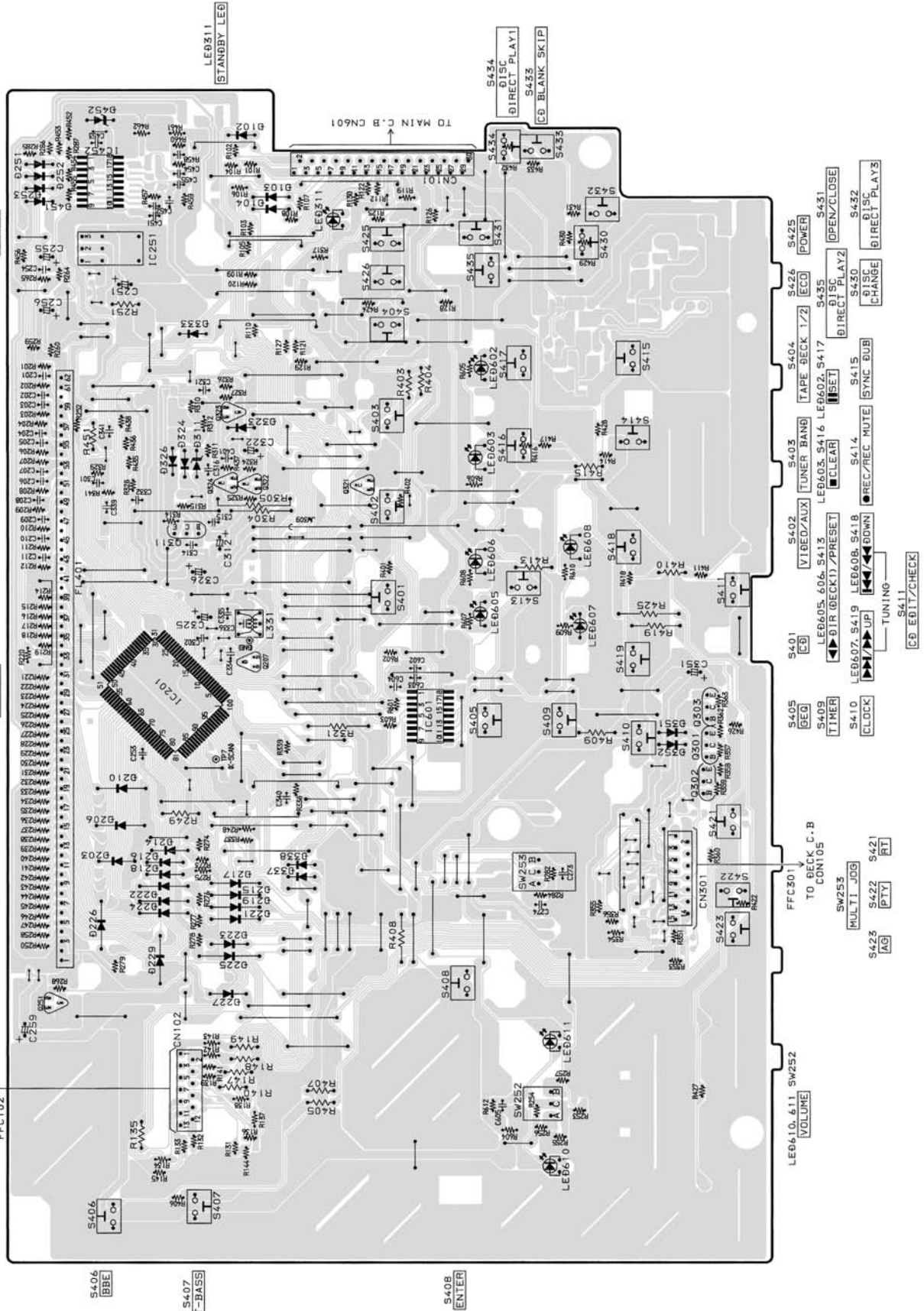




SCHEMATIC DIAGRAM - 2 (MAIN 1/2; TUNER SECTION)



FRONT C.B

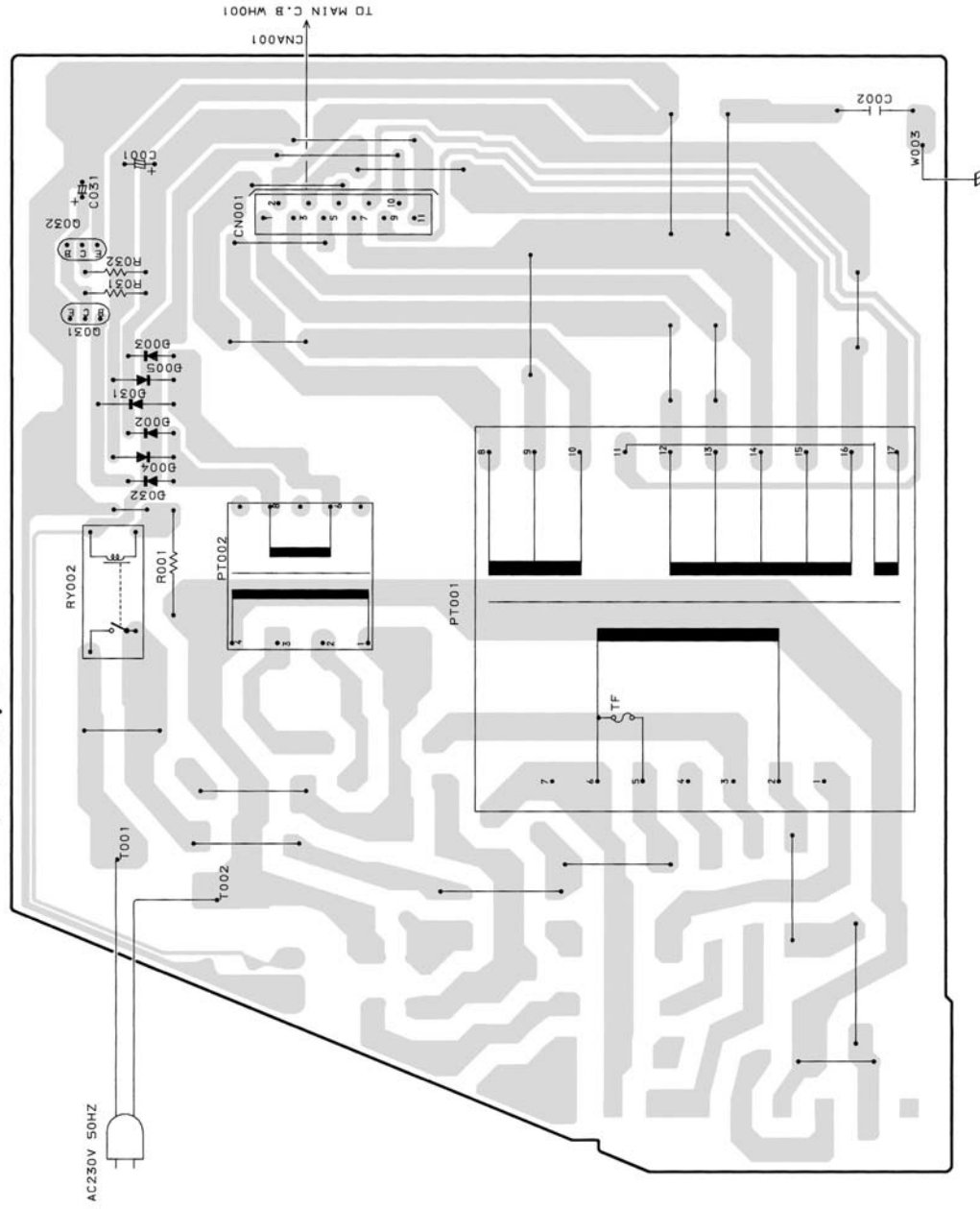




A B C D E F G H I J K L M N O P Q R S T U

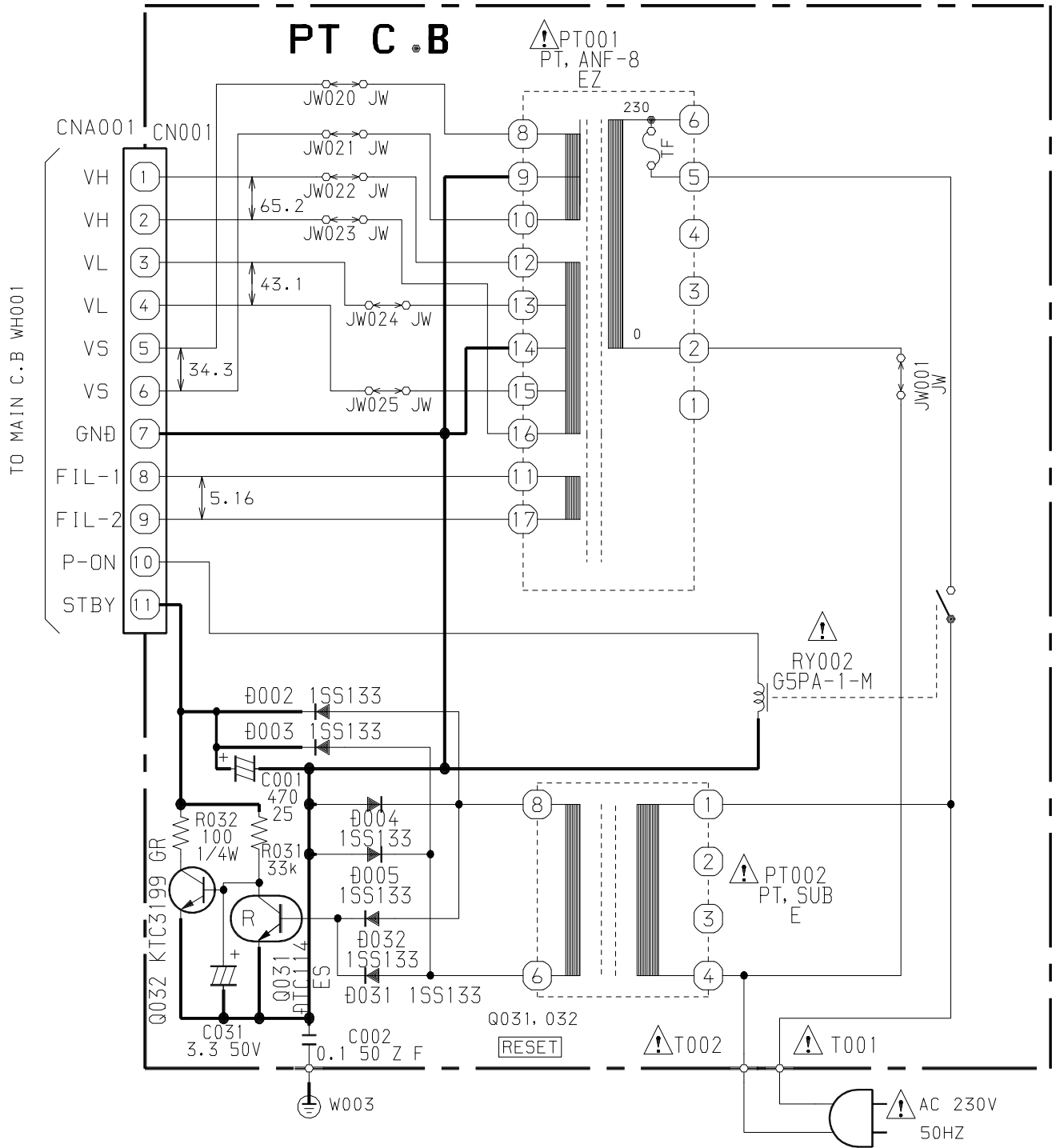
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# PT C.B





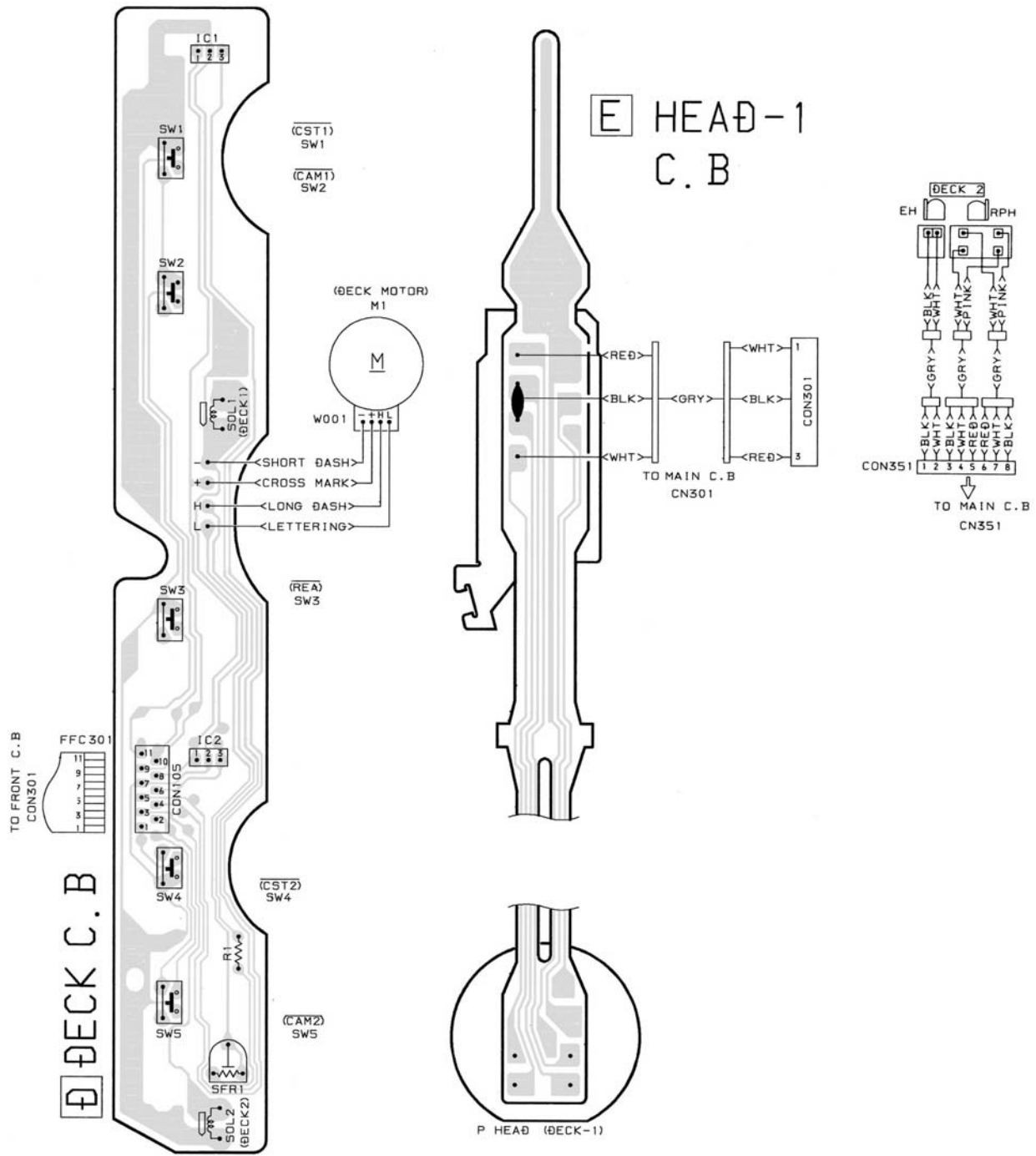
SCHEMATIC DIAGRAM - 4 (PT)



WIRING - 4 (DECK / HEAD-1)

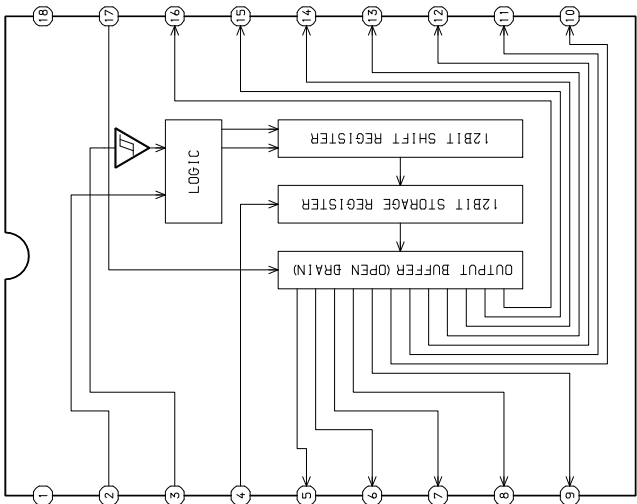
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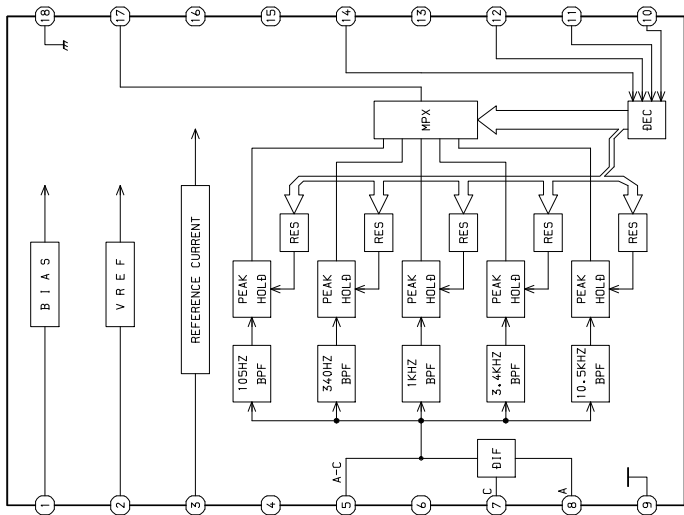


IC BLOCK DIAGRAM

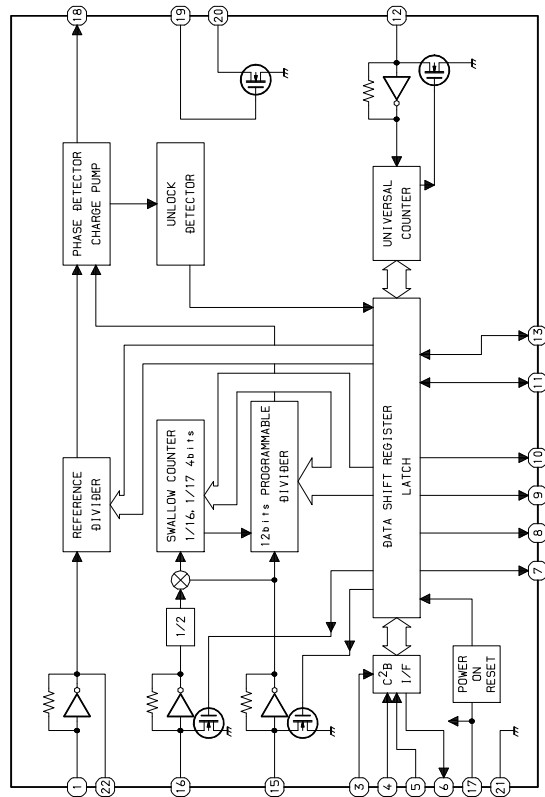
IC. BU2092F



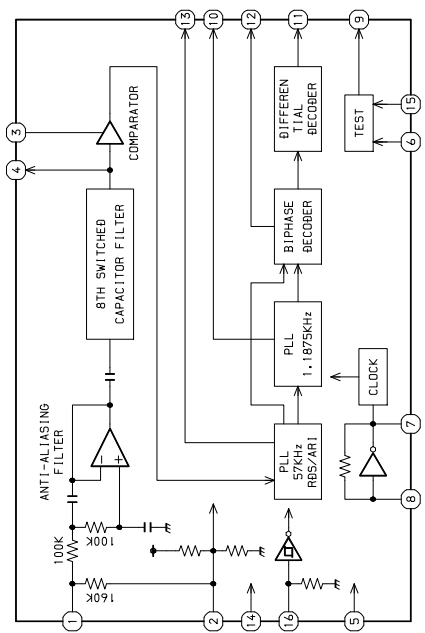
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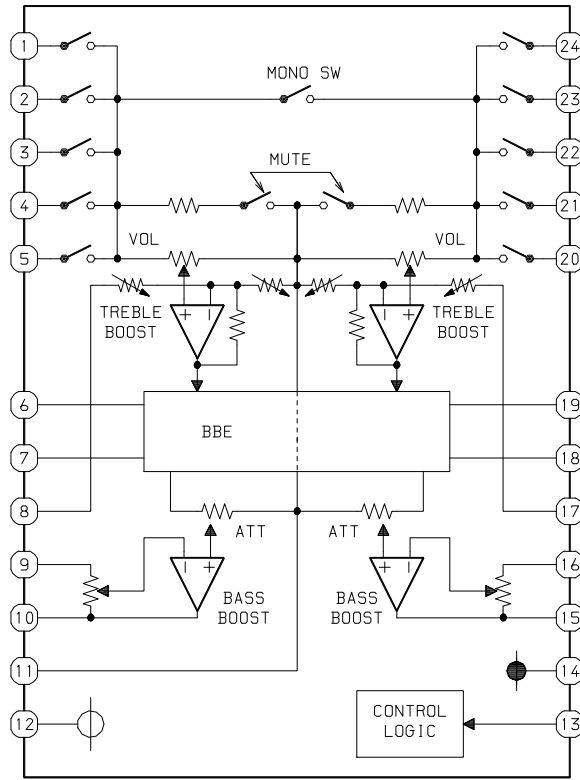
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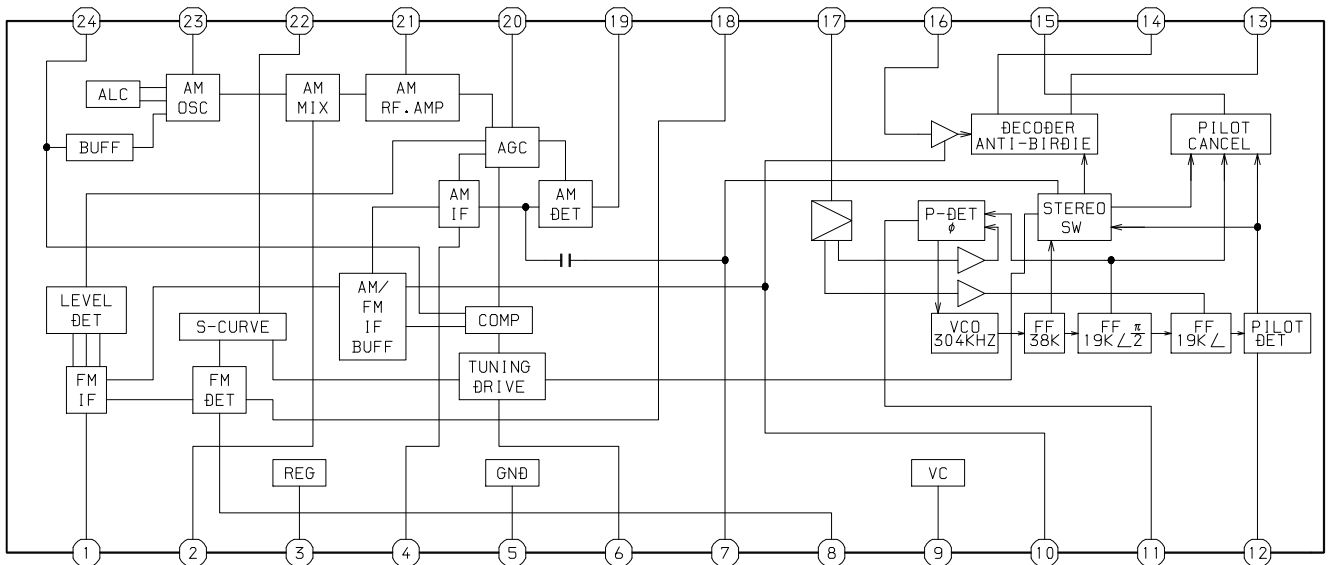
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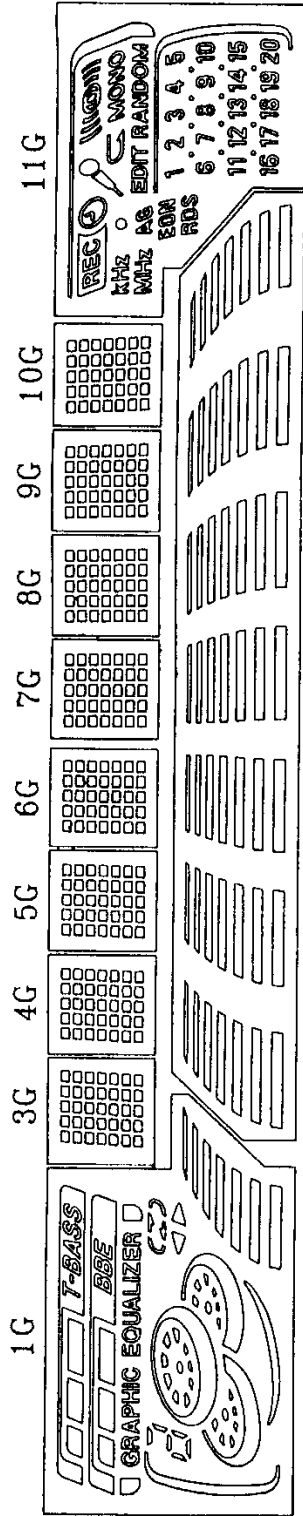
IC, M61503FP



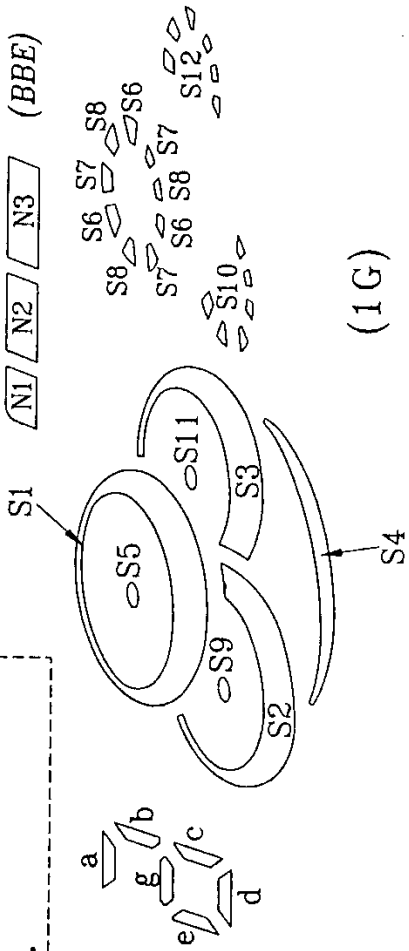
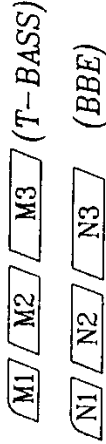
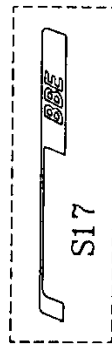
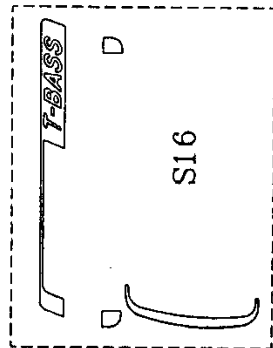
IC, LA1843



FL (HNA-11MM30) GRID ASSIGNMENT / ANODE CONNECTION  
 GRID ASSIGNMENT



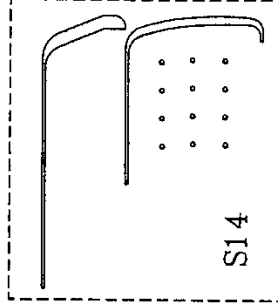
2G



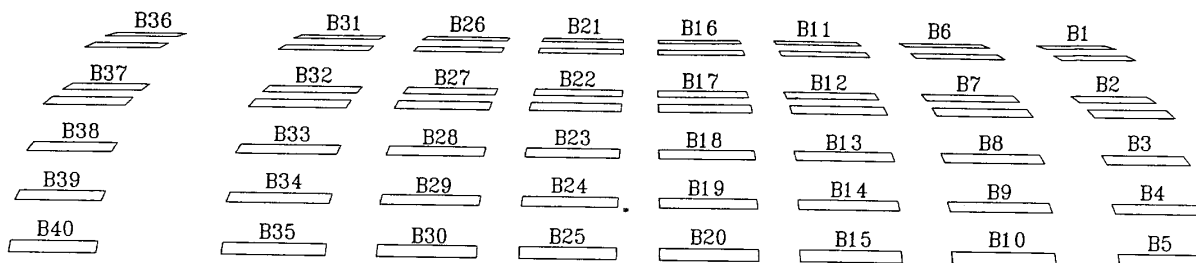
(1G)

1-1	2-1	3-1	4-1	5-1
1-2	2-2	3-2	4-2	5-2
1-3	2-3	3-3	4-3	5-3
1-4	2-4	3-4	4-4	5-4
1-5	2-5	3-5	4-5	5-5
1-6	2-6	3-6	4-6	5-6
1-7	2-7	3-7	4-7	5-7

(3G-10G)



(11G)



(1G)

(2G)

ANODE CONNECTION

	1G	2G	3G-10G	11G
P1	S17	B35	1-1	
P2	N1	B30	2-1	MONO
P3	N2	B25	3-1	RANDOM
P4	N3	B20	4-1	
P5	GRAPHIC EQUALIZER	B15	5-1	EDIT
P6		B10	1-2	
P7		B5	2-2	REC
P8		B34	3-2	KHz
P9		B29	4-2	MHz
P10		B24	5-2	o
P11	S4	B19	1-3	AG
P12	S2	B14	2-3	EON
P13	S10	B9	3-3	RDS
P14	S9	B4	4-3	S14
P15	S3	B33	5-3	20
P16	S12	B28	1-4	19
P17	S11	B23	2-4	18
P18	S1	B18	3-4	17

	1G	2G	3G-10G	11G
P19	S6	B13	4-4	16
P20	S7	B8	5-4	15
P21	S8	B3	1-5	14
P22	S5	B32	2-5	13
P23	S16	B27	3-5	12
P24	M1	B22	4-5	11
P25	M2	B17	5-5	10
P26	M3	B12	1-6	9
P27	e	B7	2-6	8
P28	a,g,d	B2	3-6	7
P29	b	B31	4-6	6
P30	c	B26	5-6	5
P31	B40	B21	1-7	4
P32	B39	B16	2-7	3
P33	B38	B11	3-7	2
P34	B37	B6	4-7	1
P35	B36	B1	5-7	

# IC DESCRIPTION

IC, LC866560W-5P41

Pin No.	Pin Name	I/O	Description
1	I-STEREO/I-DRF	I	Stereo detected input / CD DRF input.
2	I-IFC/I-SUBQ	I	Tune IF count serial data input / CD SUBQ input.
3	O-2PB	O	DECK2 playback switch output.
4	O-POWER	O	System power supply ON/OFF output.
5	O-CD-ON	O	CD power ON/OFF output.
6	O-PLL-DATA	O	LED driver, TUNER IC, FUNCTION IC data output.
7	O-RMT	O	DECK2 record mute output.
8	O-BIAS	O	DECK2 bias ON/OFF output.
9	O-MUTE	O	System mute ON/OFF output.
10	O-STB	O	Latch strobe output for LED driver IC.
11	O-CLK-SFT	O	Micon clock shift output.
12	RESET	I	System reset.
13	VDD	-	Power supply input.
14	I-DISH	I	Latch strobe output for FRONT shift register.
15	VSS1	-	GND.
16	CF1	-	5.76MHz oscillator circuit.
17	CF2	-	5.76MHz oscillator circuit.
18	VDD1	-	Power supply input.
19	I-HOLD	I	Power failure detected input.
20	I-KEY1	I	KEY input (A/D).
21	I-KEY2	I	KEY input (A/D).
22	I-KEY3	I	KEY input (A/D).
23	I-TU-SIG	I	Tuner signal input.
24	I-CDSW	I	CD mechanical switch A/D converter input.
25	I-SPEANA	I	A/D input for spectrum analyzer display.
26	I-RE-VOL	I	Rotary encoder input (VOL).
27	I-WRQ/I-RDS-CLK	I	CD WRQ input / Tune RDS clock input.
28	I-TM-BASE	I	Reference clock input for timer watch.
29	I-RMC	I	System remote control signal input.
30 ~ 40	G11 ~ G1	O	FL grid output G11 ~ G1
41	NC	-	Not connected.
42 ~ 45	P35 ~ P32	O	FL segment output P35 ~ P32.
46	VDD3	-	Power supply input.
47 ~ 48	P31 ~ P30	O	FL segment output P31 ~ P30.
49	P29/O-SPEANA-C	O	FL segment output P29 / Spectrum analyzer band switching output.
50	P28/O-SPEANA-B	O	FL segment output P28 / Spectrum analyzer band switching output.
51	-VFL	-	Power supply input for FL display.
52	P27/O-SPEANA-A	O	FL segment output P27 / Spectrum analyzer band switching output.
53	P26	O	FL segment output P26.
54	P25/I-NO-CASINO	O/I	FL segment output P25 / NO CASINO DEMO input to diode.
55	P24/I-KARAOKE	O/I	FL segment output P24 / KARAOKE input to diode (Not used).
56	P23/NO-DEMO	O/I	FL segment output P23 / NO DEMO input to diode (Not used).
57	P22/PRO LOGIC	O/I	FL segment output P22 / PRO LOGIC input to diode.(Not used)

Pin No.	Pin Name	I/O	Description
58	P21/RDS	O/I	FL segment output P21 / RDS input to diode.
59	P20/FM1	O/I	FL segment output P20 / FM1 input to diode (Not used).
60	P19/SW	O/I	FL segment output P19 / SW input to diode (Not used).
61	P18/LW	O/I	FL segment output P18 / LW input to diode.
62	P17/AMST	O/I	FL segment output P17 / AMST input to diode (Not used).
63	P16/AM10K	O/I	FL segment output P16 / AM10K input to diode (Not used).
64	P15/I-CST2	O/I	FL segment output P15 / DECK2 cassette detect switch data input.
65	P14/I-REB	O/I	FL segment output P14 / DECK2 side-B record OK switch data input (Not used).
66	P13/I-CAM2	O/I	FL segment P13 output / DECK2 CAM switch data input.
67	P12/I-AUTO1	O/I	FL segment P12 output / DECK1 AUTO STOP switch data input.
68	P11/I-AUTO2	O/I	FL segment P11 output / DECK2 AUTO STOP switch data input.
69	P10/I-CAM1	O/I	FL segment P10 output / DECK1 CAM STOP switch data input.
70	P9/I-CST1	O/I	FL segment P9 output / DECK1 cassette detect switch data input.
71	P8/I-REA	O/I	FL segment P8 output / DECK2 side A record OK switch data input.
72	VDD4	-	Power supply input.
73	P7/I-REV2	O/I	FL segment P7 output / DECK2 REVERSE mode input (Not used).
74	P6/I-REV1	O/I	FL segment P6 output / DECK1 REVERSE mode input.
75	P5/NO-ECO	O/I	FL segment P5 output / NO ECO mode input (Not used).
76 ~ 79	P4 ~ P1	O	FL segment output P4 ~ P1.
80	O-CD-CLOSE	O	CD TRAY CLOSE data input.
81	O-CD-OPEN	O	CD TRAY OPEN data input.
82	NC	-	Not connected.
83	I-JOG-A	I	Rotary encoder A input.
84	I-JOG-B	I	Rotary encoder B input.
85	O-DISH-FWD	O	CD turntable forward rotation output.
86	O-DISH-REV	O	CD turntable reverse rotation output.
87	O-PLL-CE	O	PLL IC chip enable output.
88	O-KSCAN	O	Switch scan timing output.
89	VSS2	-	GND.
90	VDD2	-	Power supply input.
91	LED-STBY	O	STANDBY LED output.
92	O-MOTOR	O	DECK MOTOR ON/OFF output.
93	O-SOL1	O	DECK1 solenoid output.
94	O-SOL2	O	DECK2 solenoid output.
95	O-CD-DATA	O	CD DATA output.
96	O-CD LED	O	CD LED output.
97	O-CD-CLK	O	CD clock output.
98	O-CD CE	O	CD chip enable output.
99	I-RDS-DATA	I	RDS data input.
100	O-PLL-CLK	O	PLL IC clock output.



## ADJUSTMENT

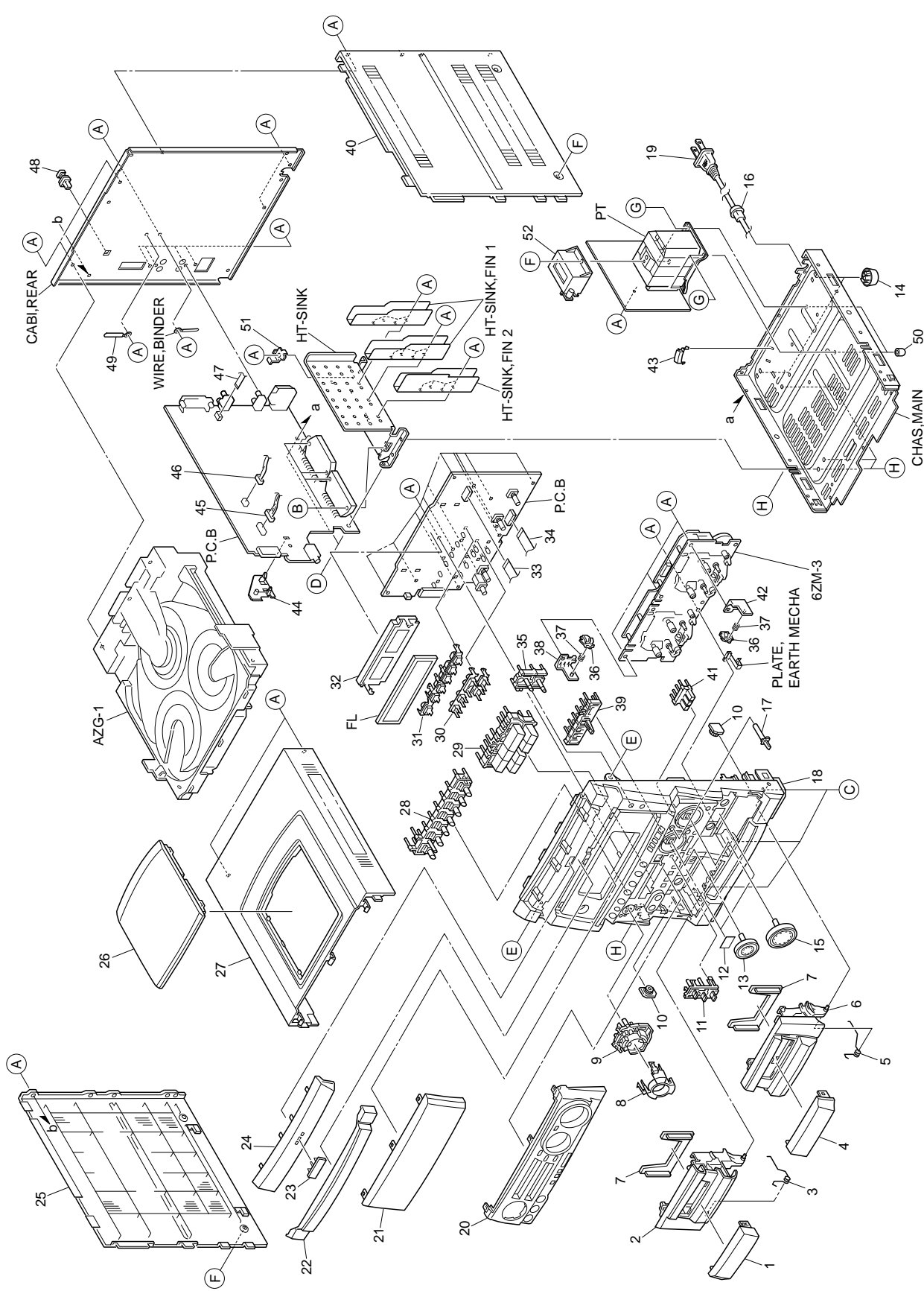
### < TUNER SECTION >

1. Clock frequency Check  
Settings : • Test point : TP2 (CLK)  
Method : Set to MW 1602kHz and check that the test point is 2052kHz  $\pm$  45Hz.
2. MW VT Check  
Settings : • Test point : TP1 (VT)  
Method : Set to MW 1602kHz, 531kHz and check that the test point is less than 8.0V (1602kHz) and more than 0.6V (531kHz).
3. 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  $\pm$  0.05V. Then set to LW 290kHz and check that the test point is less than 8.0V.
4. FM VT Check  
Settings : • Test point : TP1 (VT)  
Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 0.5V (87.5MHz) and less than 8.0V (108.0MHz).
5. MW Tracking Adjustment  
Settings : • Test point : TP8(Lch), TP9(Rch)  
• Adjustment location :  
L951(1/3) ..... 999kHz  
Method : Set to MW 999kHz and adjust L951(1/3) so that the level at the test point becomes maximum.
6. LW Tracking Adjustment  
Settings : • Test point : TP8 (Lch), TP9 (Rch)  
• Adjustment location :  
L941 ..... 144kHz  
TC942 ..... 290kHz  
Method : Set up TC942 to center before adjustment.  
Adjust L941 so that the level at 144kHz becomes maximum. Then adjust TC942 so that the level at 290kHz becomes maximum.
7. 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 $\mu$ V.
8. AM IF Adjustment  
Settings : • Test point : TP8(Lch), TP9(Rch)  
• Adjustment location :  
L802 ..... 999kHz
9. DC Balance / Mono Distortion Adjustment  
Settings : • Test point : TP3, TP4 (DC Balance)  
TP8(Lch), TP9(Rch) (Distortion)  
• Adjustment location : L801  
• Input level : 60dB $\mu$ V  
Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V  $\pm$  0.3V.  
Next, check that the distortion to be minimum.

### < DECK SECTION >

10. Tape Speed Adjustment (DECK 2)  
Settings : • Test tape : TTA-100  
• Test point : TP8(Lch), TP9(Rch)  
• Adjustment location : SFR1  
Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz  $\pm$  5Hz and  $\pm$ 45Hz (REV) with respect to forward speed.
  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-300  
• 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 5dB.
  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 130mV  $\pm$  3dB.
  14. REC/PB Frequency Response Adjustment (DECK 2)  
Settings : • Test tape : TTA-602  
• Test point : TP8(Lch), TP9(Rch)  
• Input signal : 1kHz / 8kHz (LINE IN)  
• Adjustment location : SFR451 (Lch)  
SFR452 (Rch)  
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes -20VU. Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes 0dB  $\pm$  0.5dB with respect to that of the 1kHz signal.
  15. REC/PB Sensitivity Check (DECK 2)  
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  $\pm$  3.0dB.
- ### < FRONT SECTION >
16.  $\mu$ -CON OSC Adjustment  
Settings : • Test point : TP7 (K-SCAN) and GND  
• Adjustment location : L331  
Method : Insert AC plug while pressing POWER and TUNER function keys. Adjust L331 so that the frequency at the test point is 153.84Hz  $\pm$  0.15Hz.

MECHANICAL EXPLODED VIEW 1 / 1



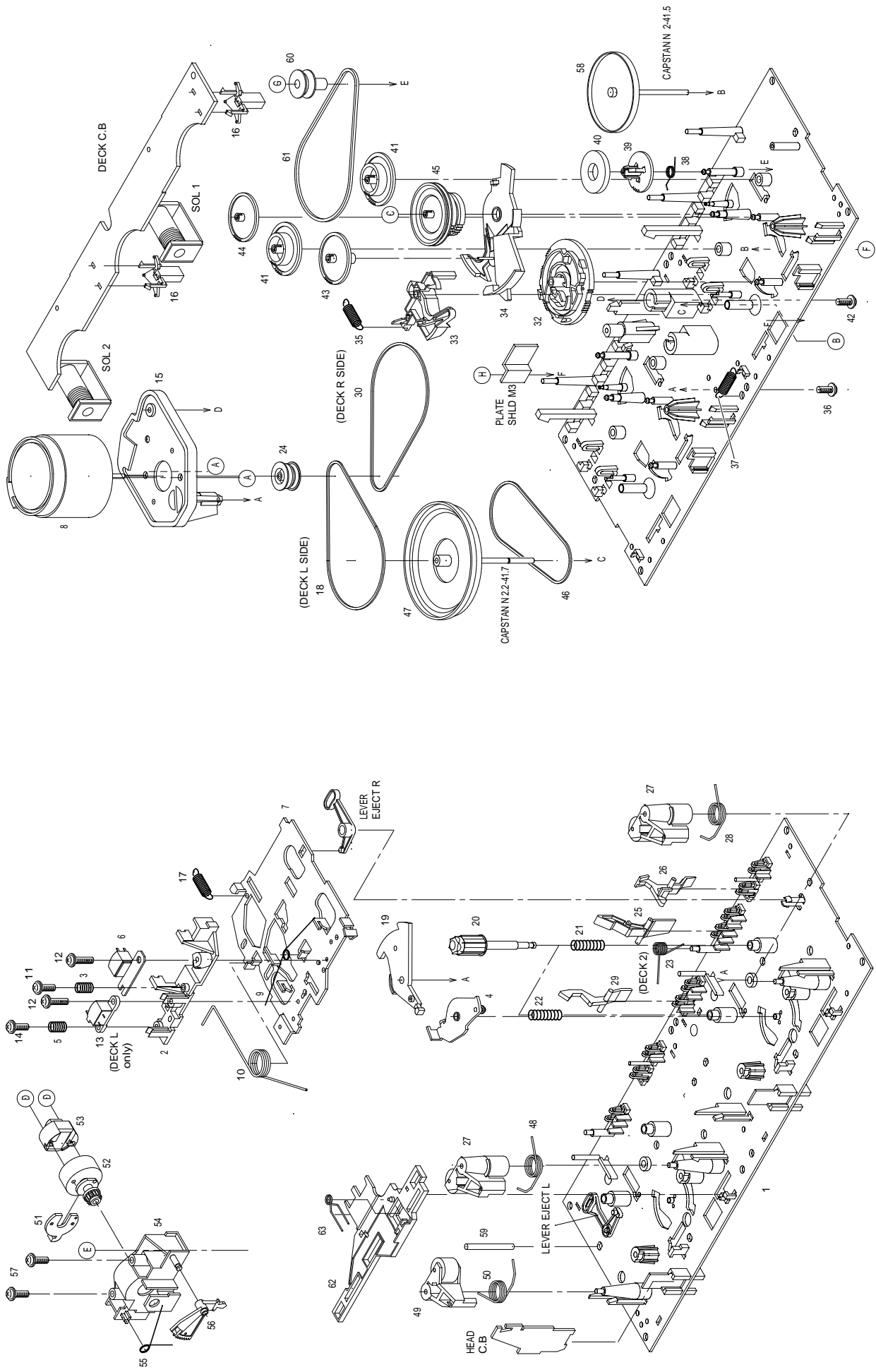
# MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NF7-010-010		WINDOW, CASS 1	31	8A-NF7-213-010		GUIDE, FUN
2	8A-NF7-003-010		BOX, CASS 1	32	87-NF5-203-110		GUIDE, FL (*)
3	8A-NF8-207-010		SPR-T, EJECT 1	33	85-NF5-618-010		CABLE, FFC 13P-1.25
4	8A-NF7-011-010		WINDOW, CASS 2	34	88-915-111-110		FF-CABLE, 15P 1.25
5	8A-NF8-208-010		SPR-T, EJECT 2	35	8A-NF7-021-110		KEY, BBE
6	8A-NFH-008-010		BOX, CASS 2 EZ LOW	36	82-NF5-229-010		PLATE, LOCK
7	86-NF6-061-010		REFLECTOR, CASS	37	86-NF9-224-010		SPR-C, LOCK
8	8A-NF7-012-010		PANEL, DIRECT	38	87-NF4-216-010		HLDR, LOCK 1
9	8A-NF7-041-010		KEY, ASSY CD	39	8A-NFH-004-010		KEY, EDIT
10	8A-NF8-209-010		OIL-DMPR, 120	40	8A-NF8-008-010		PANEL, RIGHT V-2
11	8A-NF7-029-010		KEY, GEQ	41	8A-NF7-033-010		KEY, RDS
12	81-532-080-010		LABEL, CASS. COMPT	42	87-NF4-217-110		HLDR, LOCK 2
13	8A-NF7-048-110		KNOB, RTRY ASSY JOG	43	87-NF4-221-010		HLDR, CABLE
14	87-085-221-010		FOOT, H13.5	44	8A-NF8-206-010		HLDR, PWB M
15	8A-NF7-049-010		KNOB, RTRY ASSY VOL	45	87-NF6-615-010		CONN ASSY, 3P PB
16	87-085-185-010		BUSHING, AC CORD (E)	46	87-NF6-616-010		CONN ASSY, 8P RPB
17	8A-NF7-023-010		KEY, ENTER	47	88-906-251-110		FF-CABLE, 6P 1.25
18	8A-NFH-001-110		CABI, FR EZ LOW	48	84-ZG1-245-210		CAP, OPTICAL
△ 19	87-A80-092-010		AC CORD ASSY, E BLK SUN FAI	49	87-064-185-010		HLDR, WIRE
20	8A-NFH-002-010		PANEL, ASSY FR EZ LOW	50	8Z-NB8-240-010		COVER, PL
21	8A-NFH-003-010		WINDOW, DISP EZ LOW	51	8A-NF8-205-010		HLDR, IC
22	8A-NF7-005-010		PANEL, TRAY U	52	8A-DB8-209-010		HLDR, PWB PT
23	87-CE3-023-010		BADGE, AIWA 30N SILV	A	87-067-703-010		TAPPING SCREW, BVT2+3-10
24	8A-NF7-008-010		PANEL, CD	B	87-067-581-010		TAPPING SCREW, BVT2+3-15
25	8A-NF8-007-010		PANEL, LEFT V-2	C	87-067-688-010		BVTT+3-6
26	8A-NF8-006-010		WINDOW, TOP	D	87-NF4-224-010		S-SCREW, IT3B+3-8 CU
27	8A-NF8-005-010		PANEL, TOP	E	87-721-097-410		QT2+3-12 GLD
28	8A-NF7-113-010		KEY, ASSY FUN LOW	F	87-067-641-010		UTT2+3-8 (W/O SLOT) BL
29	8A-NFH-009-010		KEY, ASSY OPE EZ LOW	G	87-078-191-010		S-SCREW, IT+4-10
30	8A-NF7-214-010		GUIDE, OPE	H	87-723-096-410		QT2+3-10W/O SLOT BL

## 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

TAPE MECHANISM EXPLODED VIEW 1 / 1



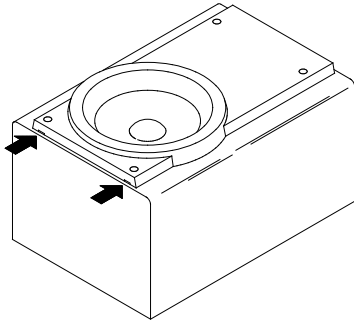
# TAPE MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-ZM3-215-010		CHAS ASSY,RS	41	82-ZM1-216-310		GEAR, REEL
2	86-ZM3-202-010		BASE, HEAD S	42	86-ZM3-213-010		S-SCREW, HLDR, MOT 3
3	86-ZM3-205-010		SPR-C, RPH S	43	82-ZM1-225-210		GEAR, FR
4	82-ZM1-333-210		PLATE, LINK 2	44	82-ZM1-226-010		GEAR, REW
5	86-ZM3-206-010		SPR-C, EH S	45	82-ZM3-333-310		SLIP DISK ASSY 2
6	87-A90-403-010		HEAD, RPH MS15R	46	82-ZM1-338-010		BELT FR4
7	86-ZM3-201-010		CHAS, HEAD S (DECK L)	47	82-ZM1-237-010		FLY-WHL ASSY, RW
7	82-ZM3-206-910		BELT, R	47	09-001-420-010		FLY-WHL, R ASSY
8	87-045-347-010		MOT, SHU2L 70 (M1)	48	82-ZM1-259-210		SPR-T, PINCH R
9	82-ZM1-269-210		SPR-T, BRG	49	82-ZM1-341-110		LVR ASSY, PINCH L2
10	82-ZM1-219-110		SPR-T, LINK	50	82-ZM1-258-210		SPR-T, PINCH L
11	86-ZM3-209-010		S-SCREW, ASIMUTHS	51	82-ZM1-314-110		PLATE, HEAD
12	86-ZM3-207-010		S-SCREW, RPH	52	82-ZM1-208-310		HLDR, HEAD
13	87-A90-404-010		HEAD, EH LE15B	53	87-A90-366-010		HEAD, PH YK50P-BF414
14	86-ZM3-208-010		S-SCREW, EH	54	82-ZM1-207-810		GUIDE TAPE
15	86-ZM3-203-010		HLDR, MOTS	55	82-ZM1-213-010		SPR-T, HEAD
16	82-ZM1-245-210		HLDR, IC	56	82-ZM1-210-110		GEAR, HT
17	82-ZM1-218-010		SPR-E, HB	57	86-ZM4-206-010		S-SCREW AZIMUTH L
18	86-ZM3-214-010		BELT, SUB RR	58	82-ZM1-234-310		FLY-WHL, L ASSY
19	82-ZM1-222-210		LVR, PLAY	59	82-ZM3-339-010		SHAFT, COUPLER N3
20	82-ZM1-217-410		REEL TABLE	60	82-ZM3-335-210		PULLEY, COUPLER M3
21	82-ZM1-244-510		SPR-C, BT	61	86-ZM1-206-010		BELT, MAIN L
22	82-ZM1-285-410		SPR-C, BT L	62	82-ZM1-266-110		LVR, DIR
23	82-ZM1-257-010		SPR-T, CAS	63	82-ZM1-214-010		SPR-T, DIR
24	82-ZM3-221-010		PULLEY, MOT 2M	A	87-251-071-410		U+2.6-4
25	82-ZM1-242-010		LVR, CAS	B	80-ZM6-243-010		SH, 1.75-3.6-0.5 SLT
26	82-ZM1-243-010		LVR, STOP	C	82-ZM3-334-010		PW, 2.16-6-0.4
27	82-ZM1-344-110		LVR ASSY, PINCH	D	80-ZM6-207-010		V+1.6-7
28	86-ZM3-204-010		SPR-T, PINCHDS	E	85-ZM3-202-010		S-SCREW TG
29	82-ZM1-240-110		LVR, REC (DECK 2)	F	82-ZM1-288-010		SH, 1.63-3.2-0.5 SLT
30	86-ZM3-210-010		BELT, RS	G	87-B10-043-010		W-P, 0.99-4-0.25 SLT
32	82-ZM3-305-110		GEAR, CAM M2	H	87-571-032-410		VIT+2-3
33	82-ZM1-227-310		LVR, TRIG				
34	82-ZM3-306-110		LVR, FR M2				
35	82-ZM1-265-110		SPR-E, TRIG				
36	87-761-073-410		VFT2+2.6-6 W/O SLOT				
37	82-ZM1-255-310		SPR-E, LVR DIR				
38	82-ZM1-322-010		SPR-T, FR60				
39	82-ZM1-220-210		GEAR, IDLER				
40	82-ZM3-616-010		RING MAGNET 4				

# SPEAKER DISASSEMBLY INSTRUCTIONS

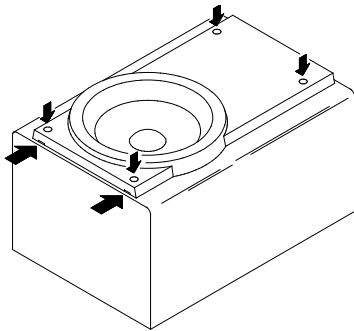
## Type.1

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.



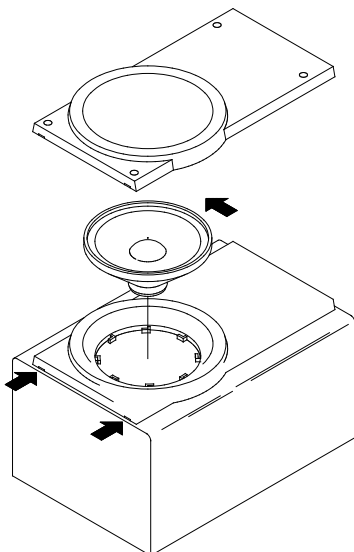
## Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole 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.

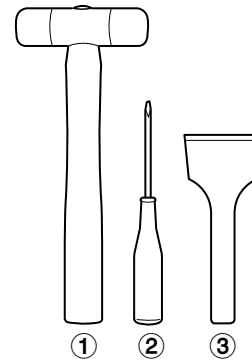


## Type.3

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.

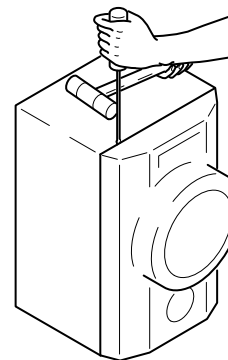


Fig-1

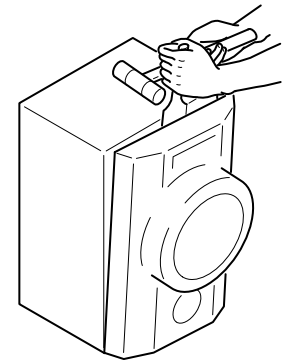


Fig-2

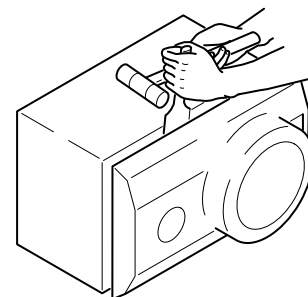


Fig-3

## 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 SX-WNSZ71 (YSL)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-NS6-606-110		SPKR, W 160
2	8A-NS7-604-010		SPKR, M 100
3	88-NSK-610-010		SPKR, CERAMIC ASSY
4	8Z-NSJ-006-010		BADGE, AIWA S35
5	8A-NS7-017-010		PROTECTOR,
6	88-NS5-610-010		CORD, SPKR
7	88-NS5-611-010		CORD, SPKR B/L
8	8A-NS7-001-010		PANEL, FR
9	8A-NS7-004-010		PANEL, DUCT
10	8A-NS7-018-010		GRILLE, FRAME ASSY 71



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