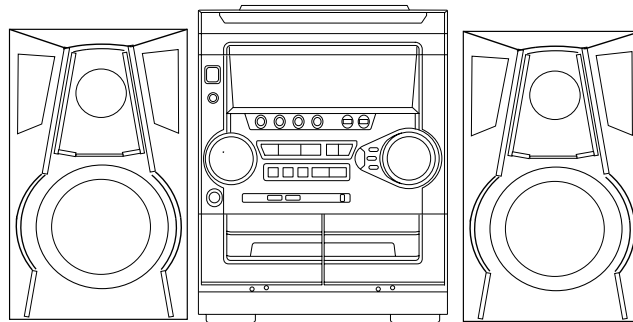


SIMPLE-2

A part of contents is adequate.
Re-issuing is under request.



SERVICE MANUAL

COMPACT DISC
STEREO SYSTEM

BASIC TAPE MECHANISM : ZZM-3 PR1NM
BASIC CD MECHANISM : AZG-1 ZD8RDM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-DP25	CX-NDP25	SX-NDP24 SX-R277 SX-C607	RC-ZAS10

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual", (S/M Code No. 09-004-428-0T3).
- If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3N6).

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 μ V/m
Antenna Loop antenna

<LW tuner section>

Tuning range 144 kHz to 290 kHz
Usable sensitivity 1400 μ V/m
Antenna Loop antenna

<Amplifier section>

Power output

Front
 Rated: 50 W + 50 W (6 ohms, THD 1%, 1 kHz/DIN 45500)
 Reference: 60 W + 60 W (6 ohms, THD 10%, 1 kHz/DIN 45324)
 DIN MUSIC POWER: 120 W + 120 W

Rear (Surround)
 Rated: 20 W + 20 W (8 ohms, THD 1%, 1 kHz/DIN 45500)
 Reference: 25 W + 25 W (8 ohms, THD 10%, 1 kHz/DIN 45324)
 DIN MUSIC POWER: 50 W + 50 W

Center
 Rated: 20 W (8 ohms, THD 1%, 1 kHz/DIN 45500)
 Reference: 25 W (8 ohms, THD 10%, 1 kHz/DIN 45324)
 DIN MUSIC POWER: 70 W

Total harmonic distortion 0.1% (25 W, 1 kHz, 6 ohms, DIN AUDIO/Front)

Inputs
Outputs VIDEO/AUX : 300 mV (adjustable)
 SPEAKERS : accept speakers of 6 ohms or more
 SURROUND SPEAKERS : accept speakers of 8 ohms to 16 ohms
 CENTER SPEAKER : accept speakers of 8 ohms or more
 SUBWOOFER : 1.6 V
 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)

<Speaker system SX-NDP24>

Speaker system 2 way, bass reflex (magnetic shielded type)
Speaker units Woofer: 140 mm cone type
 Tweeter: 60mm cone type


Impedance 6 ohms
Output sound pressure level 87 dB/W/m
Dimensions (W x H x D) 230 x 324 x 254 mm
Weight 3.8 kg

<General>

Power requirements 230 V AC, 50 Hz
Power consumption 140 W
Power consumption in standby mode with power-economizing mode off: 20 W
 with power-economizing mode on: 0.9 W
Dimensions of main unit (W x H x D) 260 x 328 x 390 mm
Weight of main unit 9.0 kg

- Design and specifications are subject to change without notice.

- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc.
 Under license from BBE Sound, Inc.

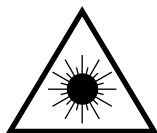
- Manufactured under license from Dolby Laboratories Licensing Corporation.
 "DOLBY", the double-D symbol  and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

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!

Laitteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän 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

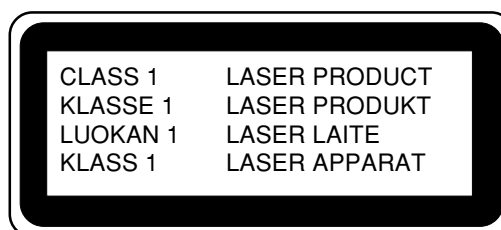
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

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.

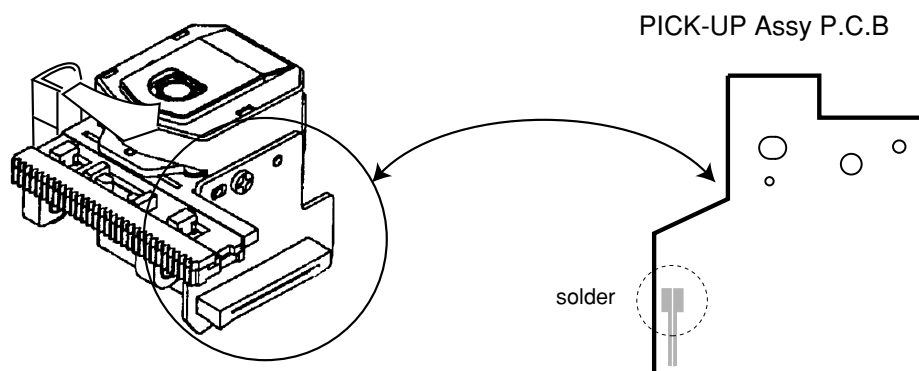
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Precaution to replace Optical block (KSM-880CAB)

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 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.

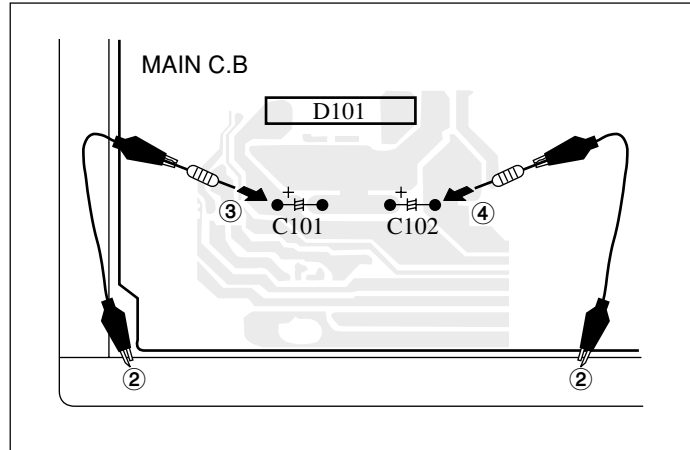


Fig-1

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.

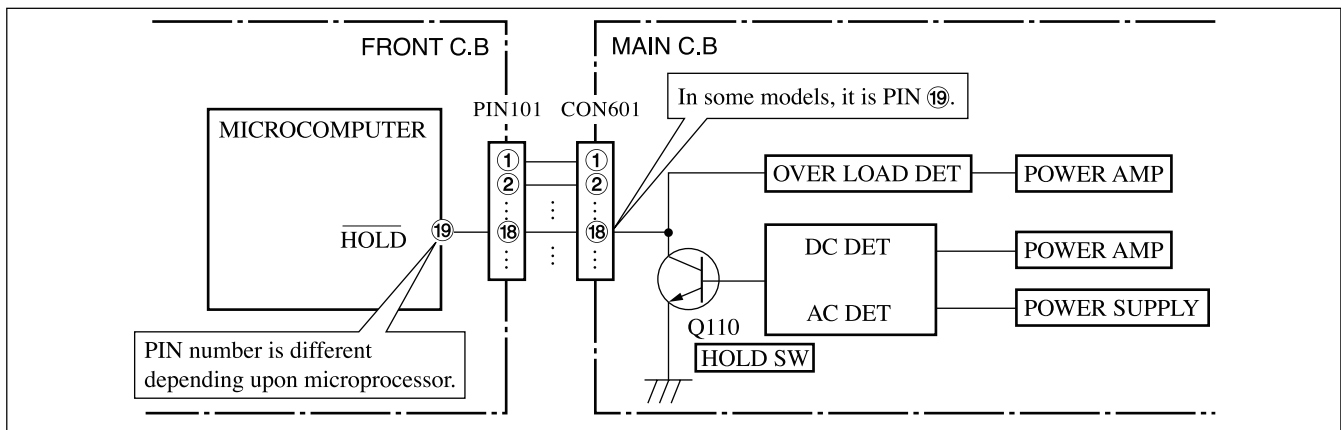


Fig-2-1

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.

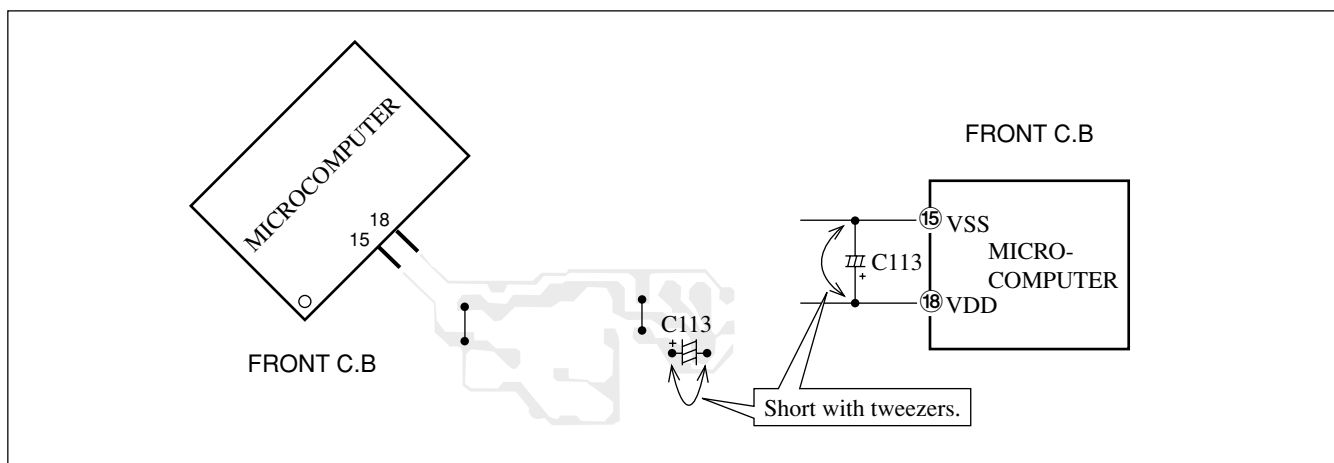


Fig-2-2

- 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.

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C39	87-010-384-080		CAP, ELECT 100-25V
	87-A21-398-010		IC,STK490-110	C40	87-010-197-080		CAP, CHIP 0.01 DM
	87-A20-783-040		C-IC,BA7762AFS	C60	87-010-403-080		CAP, ELECT 3.3-50V
	87-A21-097-040		C-IC,M62463AFP	C115	87-010-404-080		CAP, ELECT 4.7-50V
	87-A21-452-030		C-IC,BD3876KS2	C116	87-010-404-080		CAP, ELECT 4.7-50V
	87-A21-560-010		IC,LA1844L-A	C151	87-010-382-080		CAP, E 22-25
	8A-NFW-601-010		C-IC,UPD780228GF-060-3BA	C161	87-010-176-080		C-CAP,S 680P-50 J SL
	87-A21-482-010		IC,RPM6938-H4	C162	87-010-176-080		C-CAP,S 680P-50 J SL
	87-070-127-110		IC,LC72131 D	C163	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-440-040		C-IC,BU1920FS	C171	87-012-368-080		C-CAP,S 0.1-50 F
	87-A21-269-010		IC,EW732	C172	87-012-368-080		C-CAP,S 0.1-50 F
				C173	87-012-368-080		C-CAP,S 0.1-50 F
				C174	87-012-368-080		C-CAP,S 0.1-50 F
				C175	87-010-213-080		C-CAP,S 0.015-25 KB
				C176	87-010-213-080		C-CAP,S 0.015-25 KB
TRANSISTOR				C177	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-245-080		TR,DTC114ES	C178	87-010-197-080		CAP, CHIP 0.01 DM
	87-026-609-080		TR,KTA1266GR	C301	87-010-318-080		C-CAP,S 47P-50 CH
	87-A30-198-080		TR,KTC3199GR	C302	87-010-318-080		C-CAP,S 47P-50 CH
	89-213-702-010		TR,2SB1370 (1.8W)	C303	87-012-157-080		C-CAP,S 330P-50 CH
	87-026-610-080		TR,KTC3198GR	C304	87-012-157-080		C-CAP,S 330P-50 CH
	87-A30-076-080		C-TR,2SC3052F	C305	87-012-157-080		C-CAP,S 330P-50 CH
	87-A30-075-080		C-TR,2SA1235F	C306	87-012-157-080		C-CAP,S 330P-50 CH
	87-A30-318-080		TR,CSA952K	C307	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A30-107-070		C-TR,CMBT5401	C309	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A30-074-080		C-TR,RT1P 141C	C310	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A30-468-080		C-TR,KRC102S-RTK	C311	87-010-198-080		CAP, CHIP 0.022
	87-A30-106-080		C-TR,CMBT5551	C312	87-010-198-080		CAP, CHIP 0.022
	87-A30-087-080		C-FET,2SK2158	C313	87-010-180-080		C-CER 1500P
	87-A30-063-080		C-TR,KRA104S	C314	87-010-180-080		C-CER 1500P
	87-A30-086-040		C-TR,CSD1306E	C315	87-010-182-080		C-CAP,S 2200P-50 B
	87-A30-329-080		TR,CD1585BC	C316	87-010-182-080		C-CAP,S 2200P-50 B
	89-327-143-080		TR,2SC2714 (0.1W)	C321	87-012-142-080		CAP, S 0.33-16
	87-A30-072-080		C-TR,RT1P 144C	C322	87-012-142-080		CAP, S 0.33-16
	87-A30-234-080		TR,CSC4115BC	C324	87-010-260-080		CAP, ELECT 47-25V
	89-503-602-080		C-FET,2SK360E	C325	87-010-370-080		CAP,E 330-6.3 SME
				C327	87-010-404-080		CAP, ELECT 4.7-50V
				C328	87-010-404-080		CAP, ELECT 4.7-50V
				C332	87-010-196-080		CHIP CAPACITOR,0.1-25
				C335	87-010-401-080		CAP, ELECT 1-50V
				C336	87-010-401-080		CAP, ELECT 1-50V
				C337	87-010-196-080		CHIP CAPACITOR,0.1-25
				C339	87-010-196-080		CHIP CAPACITOR,0.1-25
				C340	87-010-196-080		CHIP CAPACITOR,0.1-25
				C351	87-012-140-080		CAP 470P
				C352	87-012-140-080		CAP 470P
				C354	87-010-175-080		CAP 560P
				C355	87-012-349-080		C-CAP,S 1000P-50 J CH GRM
				C356	87-010-260-080		CAP, ELECT 47-25V
				C357	87-010-197-080		CAP, CHIP 0.01 DM
				C358	87-010-183-080		C-CAP,S 2700P-50 B
				C359	87-010-183-080		C-CAP,S 2700P-50 B
				C360	87-010-183-080		C-CAP,S 2700P-50 B
				C370	87-010-196-080		CHIP CAPACITOR,0.1-25
				C373	87-016-083-080		C-CAP,S 0.15-16 RK
				C374	87-016-083-080		C-CAP,S 0.15-16 RK
				C378	87-010-196-080		CHIP CAPACITOR,0.1-25
				C379	87-010-382-080		CAP, ELECT 22-25V
				C380	87-010-382-080		CAP, ELECT 22-25V
				C381	87-010-197-080		CAP, CHIP 0.01 DM
				C382	87-010-312-080		C-CAP,S 15P-50 CH
				C383	87-010-197-080		CAP, CHIP 0.01 DM
				C384	87-010-402-080		CAP, ELECT 2.2-50V
				C386	87-010-196-080		CHIP CAPACITOR,0.1-25
				C387	87-012-145-080		CAP, CHIP S 270P CH
				C388	87-012-156-080		C-CAP,S 220P-50 CH
				C391	87-010-319-080		C-CAP,S 56P-50 CH
				C392	87-010-319-080		C-CAP,S 56P-50 CH
				C393	87-010-319-080		C-CAP,S 56P-50 CH
				C394	87-010-319-080		C-CAP,S 56P-50 CH
MAIN C.B							
C3	87-012-368-080		C-CAP,S 0.1-50 F				
C4	87-012-368-080		C-CAP,S 0.1-50 F				
C21	87-016-495-000		CAP,E 3300-25 M SMG				
C22	87-016-495-000		CAP,E 3300-25 M SMG				
C25	87-010-382-080		CAP, ELECT 22-25V				
C26	87-010-382-080		CAP, ELECT 22-25V				
C27	87-010-382-080		CAP, ELECT 22-25V				
C28	87-010-382-080		CAP, ELECT 22-25V				
C31	87-010-263-080		CAP, ELECT 100-10V				
C32	87-010-197-080		CAP, CHIP 0.01 DM				
C34	87-010-260-080		CAP, ELECT 47-25V				
C35	87-010-406-080		CAP, ELECT 22-50V				
C36	87-010-381-080		CAP, ELECT 330-16V				
C38	87-010-384-080		CAP, ELECT 100-25V				

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C401	87-010-176-080		C-CAP,S 680P-50 SL	C631	87-010-185-080		C-CAP,S 3900P-50 B
C402	87-010-176-080		C-CAP,S 680P-50 SL	C632	87-010-185-080		C-CAP,S 3900P-50 B
C403	87-010-958-080		CHIP -CAP,S 0.01-25BJ	C634	87-010-196-080		CHIP CAPACITOR,0.1-25
C404	87-010-958-080		CHIP -CAP,S 0.01-25BJ	C635	87-A10-307-080		CAP,M 0.1-50 J
C405	87-010-958-080		CHIP -CAP,S 0.01-25BJ	C636	87-A10-307-080		CAP,M 0.1-50 J
C406	87-010-958-080		CHIP -CAP,S 0.01-25BJ	C637	87-A10-307-080		CAP,M 0.1-50 J
C407	87-010-401-080		CAP, ELECT 1-50V	C638	87-A10-307-080		CAP,M 0.1-50 J
C408	87-010-401-080		CAP, ELECT 1-50V	C639	87-010-405-080		CAP, ELECT 10-50V
C409	87-010-190-080		CHIP CAPACITOR,0.01-50	C643	87-010-196-080		CHIP CAPACITOR,0.1-25
C410	87-010-112-080		CAP, ELECT 100-16V	C644	87-010-401-080		CAP, ELECT 1-50V
C411	87-010-400-080		CAP, ELECT 0.47-50V	C671	87-010-322-080		C-CAP,S 100P-50 CH
C412	87-010-400-080		CAP, ELECT 0.47-50V	C672	87-010-322-080		C-CAP,S 100P-50 CH
C413	87-010-400-080		CAP, ELECT 0.47-50V	C673	87-010-197-080		CAP, CHIP 0.01 DM
C414	87-010-401-080		CAP, ELECT 1-50V	C675	87-016-669-080		C-CAP,S 0.1-25 K B
C417	87-010-221-080		CAP, ELECT 470-10V	C679	87-010-196-080		CHIP CAPACITOR,0.1-25
C418	87-A10-891-080		CAP,E 4.7-25 SME(K)	C680	87-010-197-080		CAP, CHIP 0.01 DM
C419	87-A10-800-080		C-CAP,S 6800P-16 J B CM	C682	87-010-196-080		CHIP CAPACITOR,0.1-25
C420	87-010-374-080		CAP, ELECT 47-10V	C685	87-010-196-080		CHIP CAPACITOR,0.1-25
C421	87-010-190-080		CHIP CAPACITOR,0.01-50	C771	87-010-263-080		CAP, ELECT 100-10V
C422	87-A11-537-080		C-CAP,S 0.1-25 J B	C772	87-010-197-080		CAP, CHIP 0.01 DM
C424	87-010-374-080		CAP, ELECT 47-10V	C779	87-010-188-080		C-CAP,S 6800P-50 JR
C425	87-010-196-080		CHIP CAPACITOR,0.1-25	C780	87-010-188-080		C-CAP,S 6800P-50 JR
C428	87-012-156-080		C-CAP,S 220P-50J	C782	87-010-197-080		CAP, CHIP 0.01 DM
C430	87-A10-201-080		CAP, S 0.33-16 K B	C783	87-010-197-080		CAP, CHIP 0.01 DM
C431	87-010-971-080		C-CAP,S 4700P-50 B J	C784	87-010-197-080		CAP, CHIP 0.01 DM
C432	87-012-349-080		C-CAP,S 1000P-50 J CH	C785	87-010-197-080		CAP, CHIP 0.01 DM
C433	87-A11-183-080		C-CAP,S 0.12-16 J B	C786	87-010-197-080		CAP, CHIP 0.01 DM
C434	87-A11-182-080		C-CAP,S 0.27-16 J B	C788	87-010-149-080		C-CAP,S 5P-50 CH
C435	87-A11-182-080		C-CAP,S 0.27-16 J B	C789	87-A10-592-080		C-CAP,S 0.015-50 J B
C436	87-A11-183-080		C-CAP,S 0.12-16 J B	C790	87-A10-592-080		C-CAP,S 0.015-50 J B
C437	87-010-971-080		C-CAP,S 4700P-50 B J	C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C438	87-012-349-080		C-CAP,S 1000P-50 J CH	C792	87-010-197-080		CAP, CHIP 0.01 DM
C439	87-A11-733-080		C-CAP,S 1-16 Z F	C793	87-010-404-080		CAP, ELECT 4.7-50V
C440	87-010-401-080		CAP, ELECT 1-50V	C794	87-012-155-080		C-CAP,S 180P-50 J CH GRM
C441	87-A10-799-080		C-CAP,S 5600P-16 J B CM	C795	87-010-197-080		CAP, CHIP 0.01 DM
C442	87-A10-802-080		C-CAP,S 0.047-16 J B CM	C796	87-010-197-080		CAP, CHIP 0.01 DM
C443	87-A10-229-080		C-CAP,S 0.68-10 K W5	C797	87-010-405-080		CAP, ELECT 10-50V
C444	87-012-393-080		C-CAP,S 0.22-16 R K	C798	87-010-197-080		CAP, CHIP 0.01 DM
C445	87-012-393-080		C-CAP,S 0.22-16 R K	C799	87-010-407-080		CAP, ELECT 33-50V
C446	87-010-404-080		CAP, ELECT 4.7-50V	C800	87-010-194-080		CAP, CHIP 0.047
C447	87-010-404-080		CAP, ELECT 4.7-50V	C801	87-010-403-080		CAP, ELECT 3.3-50V
C448	87-012-393-080		C-CAP,S 0.22-16 R K	C802	87-010-194-080		CAP, CHIP 0.047
C449	87-012-393-080		C-CAP,S 0.22-16 R K	C803	87-010-198-080		CAP, CHIP 0.022
C450	87-016-669-080		C-CAP,S 0.1-25 K B	C804	87-010-263-080		CAP, ELECT 100-10V
C451	87-A10-802-080		C-CAP,S 0.047-16 J B CM	C807	87-010-400-080		CAP, ELECT 0.47-50V
C452	87-A10-802-080		C-CAP,S 0.047-16 J B CM	C808	87-010-401-080		CAP, ELECT 1-50V
C453	87-016-669-080		C-CAP,S 0.1-25 K B	C809	87-010-401-080		CAP, ELECT 1-50V
C454	87-016-669-080		C-CAP,S 0.1-25 K B	C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C455	87-A10-801-080		C-CAP,S 0.022-16 J B	C811	87-010-403-080		CAP, ELECT 3.3-50V
C456	87-A10-801-080		C-CAP,S 0.022-16 J B	C812	87-010-403-080		CAP, ELECT 3.3-50V
C457	87-016-669-080		C-CAP,S 0.1-25 K B	C814	87-010-197-080		CAP, CHIP 0.01 DM
C489	87-010-545-080		CAP, ELECT 0.22-50V	C815	87-010-400-080		CAP, ELECT 0.47-50V
C492	87-010-402-080		CAP, ELECT 2.2-50V	C816	87-010-400-080		CAP, ELECT 0.47-50V
C609	87-010-181-080		CAP,CHIP S 1800P	C818	87-010-180-080		C-CAP,S 1500P-50 K B C2012
C610	87-010-181-080		CAP,CHIP S 1800P	C821	87-010-405-080		CAP, ELECT 10-50V
C611	87-010-598-080		C-CAP,S 0.068-16VRK	C823	87-012-349-080		C-CAP,S 1000P-50 J CH GRM
C612	87-016-369-080		C-CAP,S 0.033-25 B K	C824	87-010-404-080		CAP, ELECT 4.7-50 M
C613	87-010-197-080		CAP, CHIP 0.01 DM	C825	87-010-596-080		CAP, S 0.047-16
C614	87-016-669-080		C-CAP,S 0.1-25 K B	C831	87-010-406-080		CAP, E 22-50 M
C618	87-010-401-080		CAP, ELECT 1-50V	C842	87-010-197-080		CAP, CHIP 0.01 DM
C619	87-010-263-080		CAP, ELECT 100-10V	C843	87-010-197-080		CAP, CHIP 0.01 DM
C620	87-016-669-080		C-CAP,S 0.1-25 K B	C844	87-010-197-080		CAP, CHIP 0.01 DM
C621	87-010-197-080		CAP, CHIP 0.01 DM	C845	87-010-197-080		CAP, CHIP 0.01 DM
C623	87-010-401-080		CAP, ELECT 1-50V	C846	87-010-197-080		CAP, CHIP 0.01 DM
C624	87-010-401-080		CAP, ELECT 1-50V	C847	87-010-197-080		CAP, CHIP 0.01 DM
C626	87-010-596-080		CAP, S 0.047-16	C848	87-010-197-080		CAP, CHIP 0.01 DM
C627	87-010-400-080		CAP, ELECT 0.47-50V	C849	87-010-197-080		CAP, CHIP 0.01 DM
C628	87-010-400-080		CAP, ELECT 0.47-50V	C850	87-010-260-080		CAP, ELECT 47-25V
C629	87-010-596-080		CAP, S 0.047-16	C851	87-010-197-080		CAP, CHIP 0.01 DM
C630	87-010-263-080		CAP, ELECT 100-10V	C852	87-010-197-080		CAP, CHIP 0.01 DM

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C853	87-010-197-080		CAP, CHIP 0.01 DM	L811	87-005-847-080		COIL, 2.2UH (CECS)
C858	87-010-196-080		CHIP CAPACITOR, 0.1-25	L832	87-005-847-080		COIL, 2.2UH (CECS)
C859	87-010-196-080		CHIP CAPACITOR, 0.1-25	L861	87-005-847-080		COIL, 2.2UH (CECS)
C860	87-010-197-080		CAP, CHIP 0.01 DM	L941	87-A50-020-010		COIL, ANT LW (COI) 252KHZ
C869	87-010-197-080		C-CAP, S 0.01-25 K B C2012	L942	87-A50-019-010		COIL, OSC LW (COI) 856KHZ
C871	87-012-156-080		C-CAP, S 220P-50 J CH GRM	L951	8Z-ZA1-665-010		COIL, AM PACK2 (TOK)
C872	87-012-156-080		C-CAP, S 220P-50 J CH GRM	R161	87-A00-440-050		RES, 220-1/2W J RP
C873	87-012-140-080		C-CAP, S 470P-50 J CH	R162	87-A00-440-050		RES, 220-1/2W J RP
C874	87-010-405-080		CAP, E 10-50 M 11L SME	R163	87-A00-440-050		RES, 220-1/2W J RP
C875	87-010-196-080		C-CAP, S 0.1-25 Z F C2012	R164	87-A00-440-050		RES, 220-1/2W J RP
C876	87-010-405-080		CAP, E 10-50 M 11L SME	R790	87-010-197-080		CAP, CHIP 0.01 DM
C877	87-010-197-080		C-CAP, S 0.01-25 K B C2012	R991	87-010-322-080		C-CAP, S 100P-50 CH
C878	87-010-316-080		C-CAP, S 33P-50 J CH GRM	R993	87-010-322-080		C-CAP, S 100P-50 CH
C879	87-010-314-080		C-CAP, S 22P-50 J CH GRM	R995	87-010-322-080		C-CAP, S 100P-50 CH
C940	87-010-197-080		C-CAP, S 0.01-25 K B C2012	SFR351	87-A90-433-080		SFR, 50K H NVZ6TLTA
C942	87-010-149-080		C-CAP, S 5P-50 C CH GRM	SFR352	87-A90-433-080		SFR, 50K H NVZ6TLTA
C947	87-010-197-080		C-CAP, S 0.01-25 K B C2012	WH1	87-A90-510-010		HLDR, WIRE 2.5-9P
C948	87-012-140-080		C-CAP, S 470P-50 J CH	X861	87-A70-091-010		VIB, XTAL 4.332MHZ CSA-309
C952	87-010-197-080		C-CAP, S 0.01-25 K B C2012	X991	87-A70-061-010		VIB, XTAL 4.500MHZ CSA-309
C957	87-010-311-080		C-CAP, S 12P-50 J CH GRM				
C958	87-010-197-080		C-CAP, S 0.01-25 K B C2012	FRONT C.B			
C959	87-010-196-080		CHIP CAPACITOR, 0.1-25				
C960	87-010-196-080		CHIP CAPACITOR, 0.1-25	C101	87-010-196-080		CHIP CAPACITOR, 0.1-25
C962	87-010-401-080		CAP, ELECT 1-50V	C102	87-010-196-080		CHIP CAPACITOR, 0.1-25
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z	C103	87-010-498-040		CAP, E 10-16 GAS
C971	87-010-381-080		CAP, ELECT 330-16V	C104	87-010-196-080		CHIP CAPACITOR, 0.1-25
C972	87-010-404-080		CAP, ELECT 4.7-50V	C107	87-010-493-040		CAP, E 0.47-50 GAS
C973	87-010-197-080		CAP, CHIP 0.01 DM				
C974	87-010-197-080		CAP, CHIP 0.01 DM	C108	87-012-393-080		C-CAP, S 0.22-16 R K
C979	87-010-322-080		C-CAP, S 100P-50 CH	C153	87-010-198-080		CAP, CHIP 0.022
C981	87-010-260-080		CAP, ELECT 47-25V	C154	87-010-246-040		CAP, E 47-35 SME
C982	87-010-196-080		CHIP CAPACITOR, 0.1-25	C155	87-010-404-040		CAP, E 4.7-50 SME
C983	87-010-197-080		CAP, CHIP 0.01 DM	C156	87-010-404-040		CAP, E 4.7-50 SME
C984	87-010-197-080		CAP, CHIP 0.01 DM				
C985	87-010-322-080		C-CAP, S 100P-50 J CH GRM	C361	87-010-178-080		CHIP CAP 1000P
C987	87-010-197-080		CAP, CHIP 0.01 DM	C362	87-010-178-080		CHIP CAP 1000P
C989	87-010-197-080		CAP, CHIP 0.01 DM	C371	87-010-178-080		CHIP CAP 1000P
C991	87-010-312-080		C-CAP, S 15P-50 CH	C372	87-010-178-080		CHIP CAP 1000P
C992	87-010-312-080		C-CAP, S 15P-50 CH	C601	87-010-382-040		CAP, E 22-25 SME
C993	87-010-178-080		CHIP CAP 1000P				
C995	87-010-178-080		CHIP CAP 1000P	C801	87-010-195-080		C-CAP, S 0.068-25 F
C997	87-010-196-080		CHIP CAPACITOR, 0.1-25	C802	87-010-195-080		C-CAP, S 0.068-25 F
C998	87-010-260-080		CAP, ELECT 47-25V	C803	87-010-402-040		CAP, E 2.2-50 SME
C999	87-A11-155-080		CAP, TC U 0.01-16 Z F	C804	87-010-402-040		CAP, E 2.2-50 SME
CF831	87-008-423-010		FILTER, CF SFE10.7MS3G-A	C805	87-010-196-080		CHIP CAPACITOR, 0.1-25
CF832	82-785-747-010		CF, MS2 GHY, R	C806	87-010-196-080		CHIP CAPACITOR, 0.1-25
CN1	87-A60-996-010		CONN, 13P V BLK TAC-L13X-A3	C901	87-010-322-080		C-CAP, S 100P-50 CH
CN101	87-A60-996-010		CONN, 13P V BLK TAC-L13X-A3	C902	87-010-322-080		C-CAP, S 100P-50 CH
CN301	87-A60-620-010		CONN, 3P V 2MM JMT	C903	87-010-322-080		C-CAP, S 100P-50 CH
CN351	87-A60-625-010		CONN, 8P V 2MM JMT	C904	87-010-322-080		C-CAP, S 100P-50 CH
CN601	87-099-719-010		CONN, 30P TYK-B (X)				
CN602	87-A60-131-010		CONN, 6P V FE	C905	87-010-322-080		C-CAP, S 100P-50 CH
CNA1	8A-NF8-653-010		CONN ASSY, 9P TTD-A (480)	C906	87-010-322-080		C-CAP, S 100P-50 CH
D101	87-A11-148-080		CAP, TC U 0.01-50	C907	87-010-322-080		C-CAP, S 100P-50 CH
FB161	87-008-474-080		F-BEAD, BL02RN1-R62T2 EMI	C908	87-010-322-080		C-CAP, S 100P-50 CH
FB162	87-008-474-080		F-BEAD, BL02RN1-R62T2 EMI	C909	87-010-322-080		C-CAP, S 100P-50 CH
FB301	87-008-372-010		FLTR, EMIBLO1 RN1				
FFB831	A8-6ZA-191-130		6ZA-1 FEENM	C910	87-010-322-080		C-CAP, S 100P-50 CH
J102	87-A60-238-010		TERMINAL, SP 4P (MSC)	C911	87-010-178-080		CHIP CAP 1000P
J103	87-A60-483-010		JACK, DIA6.3 BLK ST W/S KM	C912	87-010-196-080		CHIP CAPACITOR, 0.1-25
J604	87-A60-881-010		JACK, PIN 2P MSP 242V05 PBSN	C913	87-010-248-040		CAP, E 220-10 SME
J832	87-A60-403-010		TERMINAL, ANT PAL 2P HSP	C914	87-010-248-040		CAP, E 220-10 SME
JW416	87-008-372-010		FLTR, EMIBLO1 RN1				
L101	87-A50-610-010		COIL, 1UH K (MDEC)	C915	87-010-196-080		CHIP CAPACITOR, 0.1-25
L102	87-A50-610-010		COIL, 1UH K (MDEC)	C916	87-010-196-080		CHIP CAPACITOR, 0.1-25
L301	87-A50-049-010		COIL, TRAP 85K (COI)	C917	87-010-196-080		CHIP CAPACITOR, 0.1-25
L302	87-A50-049-010		COIL, TRAP 85K (COI)	C919	87-010-197-080		CAP, CHIP 0.01 DM
L351	87-007-342-010		COIL, OSC 85K BIAS	C920	87-012-369-080		C-CAP, S 0.047-50F
L801	87-A50-608-010		COIL, FM DET-N (TOK)				
L802	87-A91-551-010		FLTR, PCFJZH-450 L (TOK)	C921	87-010-186-080		CAP, CHIP 4700P
				C951	87-010-312-080		C-CAP, S 15P-50 CH
				C952	87-012-155-080		C-CAP 180P-50CH
				C953	87-012-140-080		CAP 470P
				C961	87-010-378-040		CAP, E 10-16
				C962	87-012-157-080		C-CAP, S 330P-50 CH
				C963	87-010-196-080		CHIP CAPACITOR, 0.1-25
				CN104	87-A60-057-010		CONN, 11P V 9604S-11C

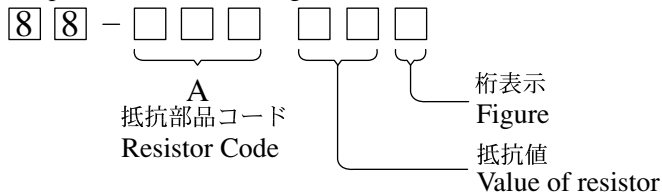
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
CN701	87-099-720-010		CONN,30P TYK-B (P)	C210	87-010-178-080		CHIP CAP 1000P
CN731	87-099-015-010		CONN,13P 6216V	C211	87-010-403-080		CAP, ELECT 3.3-50V
FL901	8A-NF9-605-010		FL,HNA-10S512	C212	87-010-403-080		CAP, ELECT 3.3-50V
L951	87-A50-434-010		COIL,CLK 4.19M(TOKO)	C215	87-012-140-080		CAP 470P-50 J CH
LED201	87-A40-619-040		LED,SLR-56PT-T31-W GRN	C216	87-012-140-080		CAP 470P-50 J CH
LED202	87-A40-619-040		LED,SLR-56PT-T31-W GRN	C217	87-010-405-080		CAP, ELECT 10-50V
LED204	87-A40-619-040		LED,SLR-56PT-T31-W GRN	C218	87-010-405-080		CAP, ELECT 10-50V
LED205	87-A40-619-040		LED,SLR-56PT-T31-W GRN	C219	87-010-190-080		S CHIP F 0.01
LED207	87-A40-266-080		LED,SLH-56VCT31 RED	C221	87-010-405-080		CAP, ELECT 10-50V
LED208	87-A40-266-080		LED,SLH-56VCT31 RED	C222	87-010-405-080		CAP, ELECT 10-50V
LED209	87-A40-317-080		LED,SLR-342VCT31 RED	C223	87-010-197-080		CAP, CHIP 0.01 DM
LED210	87-A40-619-040		LED,SLR-56PT-T31-W GRN	C224	87-010-197-080		CAP, CHIP 0.01 DM
S301	87-A90-164-080		SW,TACT SKQAB (N)	C251	87-010-993-080		C-CAP,S 0.056-25 B
S302	87-A90-164-080		SW,TACT SKQAB (N)	C252	87-010-993-080		C-CAP,S 0.056-25 B
S303	87-A90-164-080		SW,TACT SKQAB (N)	C253	87-010-196-080		CHIP CAPACITOR,0.1-25
S304	87-A90-164-080		SW,TACT SKQAB (N)	C254	87-010-196-080		CHIP CAPACITOR,0.1-25
S305	87-A90-164-080		SW,TACT SKQAB (N)	C255	87-010-190-080		S CHIP F 0.01
S306	87-A90-164-080		SW,TACT SKQAB (N)	C256	87-010-190-080		S CHIP F 0.01
S307	87-A90-164-080		SW,TACT SKQAB (N)	C257	87-010-190-080		S CHIP F 0.01
S308	87-A90-164-080		SW,TACT SKQAB (N)	C258	87-010-190-080		S CHIP F 0.01
S309	87-A90-164-080		SW,TACT SKQAB (N)	C259	87-010-190-080		S CHIP F 0.01
S310	87-A90-164-080		SW,TACT SKQAB (N)	C260	87-010-190-080		S CHIP F 0.01
S321	87-A90-164-080		SW,TACT SKQAB (N)	C401	87-010-260-080		CAP, ELECT 47-25V
S322	87-A90-164-080		SW,TACT SKQAB (N)	CN101	87-A61-011-010		CONN,13P H BLK TAC-L13P-A3
S323	87-A90-164-080		SW,TACT SKQAB (N)	CN102	87-A61-011-010		CONN,13P H BLK TAC-L13P-A3
S324	87-A90-164-080		SW,TACT SKQAB (N)	CNA101	8A-NF8-656-010		CONN ASSY,5P TID-A 400
S325	87-A90-164-080		SW,TACT SKQAB (N)	J201	87-A61-159-010		JACK,PIN 4P R/W/B/O KM
S326	87-A90-164-080		SW,TACT SKQAB (N)	L251	87-A50-610-010		COIL,1UH K(MDEC)
S327	87-A90-164-080		SW,TACT SKQAB (N)	L252	87-A50-610-010		COIL,1UH K(MDEC)
S328	87-A90-164-080		SW,TACT SKQAB (N)	R129	87-A00-669-080		RES,M/F 0.22-2W J RA
S329	87-A90-164-080		SW,TACT SKQAB (N)	R130	87-A00-669-080		RES,M/F 0.22-2W J RA
S341	87-A90-164-080		SW,TACT SKQAB (N)	R181	87-A00-669-080		RES,M/F 0.22-2W J RA
S342	87-A90-164-080		SW,TACT SKQAB (N)	R182	87-A00-669-080		RES,M/F 0.22-2W J RA
S343	87-A90-164-080		SW,TACT SKQAB (N)	R231	87-A00-258-080		RES,M/F 0.22-1W J
S344	87-A90-164-080		SW,TACT SKQAB (N)	R232	87-A00-257-080		RES,M/F 0.15-1W J
S345	87-A90-164-080		SW,TACT SKQAB (N)	WH101	87-A90-459-010		HLDR,WIRE 2.5-5P
S346	87-A90-164-080		SW,TACT SKQAB (N)				
S347	87-A90-164-080		SW,TACT SKQAB (N)				
S348	87-A90-164-080		SW,TACT SKQAB (N)	PT C.B			
S349	87-A90-164-080		SW,TACT SKQAB (N)				
S350	87-A90-164-080		SW,TACT SKQAB (N)	C1	87-010-387-080		CAP,E 470-25 SME
S361	87-A91-633-010		SW,RTRY XRE012103PVB25FINA 1-2	C2	87-A11-148-080		CAP,TC U 0.1-50 Z F
S371	87-A91-632-010		SW,RTRY XRE012103PVB25FINB 1-2	C4	87-A11-148-080		CAP,TC U 0.1-50 Z F
				C5	87-A11-148-080		CAP,TC U 0.1-50 Z F
				C6	87-A10-627-090		CAP,E 2200-50 M SMG
AMP 1F C.B				C7	87-A10-627-090		CAP,E 2200-50 M SMG
C101	87-010-185-080		C-CAP,S 3900P-50 B	C8	87-A11-148-080		CAP,TC U 0.1-50 Z F
C102	87-010-185-080		C-CAP,S 3900P-50 B	C9	87-A11-148-080		CAP,TC U 0.1-50 Z F
C103	87-010-545-080		CAP, ELECT 0.22-50V	C10	87-A11-148-080		CAP,TC U 0.1-50 Z F
C104	87-010-545-080		CAP, ELECT 0.22-50V	C11	87-A11-148-080		CAP,TC U 0.1-50 Z F
C105	87-010-188-080		CAP,CHIP 6800P	C12	87-A12-036-000		CAP,E 2200-63 SMG
C106	87-010-188-080		CAP,CHIP 6800P	C13	87-A12-036-000		CAP,E 2200-63 SMG
C107	87-010-404-080		CAP, ELECT 4.7-50V	C14	87-A11-148-080		CAP,TC U 0.1-50 Z F
C108	87-010-404-080		CAP, ELECT 4.7-50V	C15	87-A11-148-080		CAP,TC U 0.1-50 Z F
C111	87-010-179-080		C-CAP,S 1200P-50 K B GRM	C16	87-010-403-080		CAP, ELECT 3.3-50V
C112	87-010-179-080		C-CAP,S 1200P-50 K B GRM	CN1	87-A61-110-010		CONN,9P V TID-A
C113	87-010-405-080		CAP, ELECT 10-50V	CN2	87-A61-108-010		CONN,5P V TID-A
C114	87-010-405-080		CAP, ELECT 10-50V	△ PT1	8A-NFW-617-010		PT,ANF-29 EZ
C115	87-010-405-080		CAP, ELECT 10-50V	△ PT2	8A-NF8-662-010		PT,SUB ANF-8 (E)
C116	87-010-405-080		CAP, ELECT 10-50V	△ RY2	87-A91-418-010		RELAY,AC12V G5PA-1-M
C117	87-010-196-080		CHIP CAPACITOR,0.1-25	△ T1	87-A60-317-010		TERMINAL, 1P MSC
				△ T2	87-A60-317-010		TERMINAL, 1P MSC
C119	87-010-197-080		CAP, CHIP 0.01 DM				
C120	87-010-197-080		CAP, CHIP 0.01 DM	DECK C.B			
C133	87-010-197-080		CAP, CHIP 0.01 DM				
C153	87-010-188-080		CAP,CHIP 6800P	CN1	87-099-753-010		CONN,11P H 9604
C205	87-010-183-080		C-CAP,S 2700P-50 B	HL1	8Z-ZM3-214-010		HLDR,IC
C206	87-010-183-080		C-CAP,S 2700P-50 B	SFR1	87-024-581-010		SFR,3.3K DIA6V K0A
C207	87-010-545-080		CAP, ELECT 0.22-50V	SW1	87-A90-673-010		SW,MICRO ESE11SH1C
C208	87-010-545-080		CAP, ELECT 0.22-50V	SW2	87-A91-500-010		SW,MICRO MPU11470MLB0
C209	87-010-178-080		CHIP CAP 1000P	SOL1	82-ZM1-618-010		SOL ASSY, 27
				SOL2	82-ZM1-618-010		SOL ASSY, 27

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
SW3	87-A91-500-010		SW, MICRO MPU11470MLB0
SW4	87-A91-500-010		SW, MICRO MPU11470MLB0
SW5	87-A90-673-010		SW, MICRO ESE11SH1C

○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 : 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

TRANSISTOR ILLUSTRATION



E C B

CD1585BC
CSA952K
KTA1266GR
KTC3198GR



E C B

DTC114ES
KTC3199GR



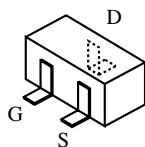
E C B

CSC4115BC

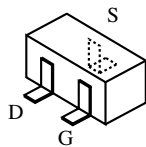


B C E

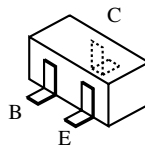
2SB1370



2SK2158



2SK360E

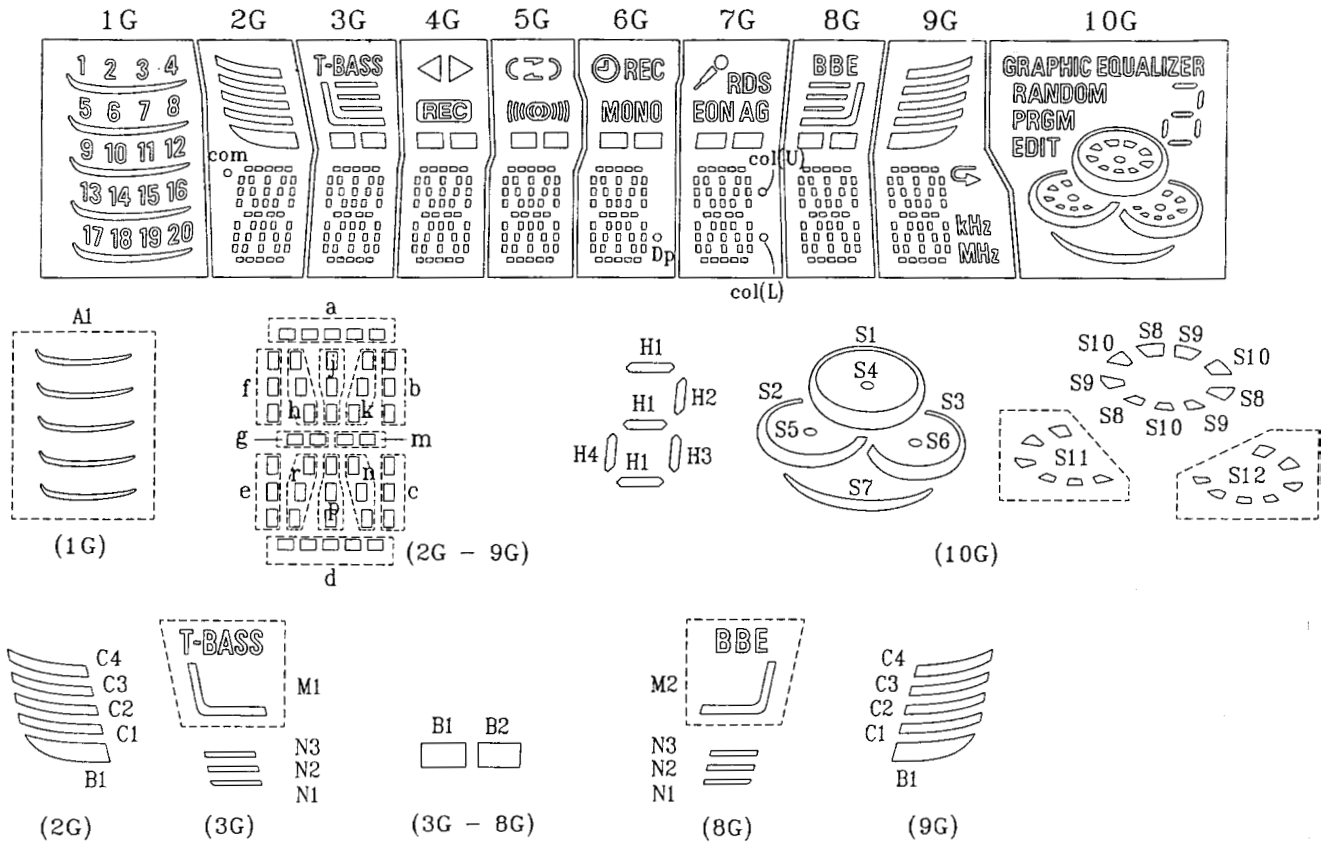


2SA1235F
2SC2714
2SC3052F
CMBT5401
CMBT5551

CSD1306E
KRA104S
KRC102S-RTK
RT1P141C
RT1P144C

FL (HNA-10SS12) GRID ASSIGNMENT AND ANODE CONNECTION

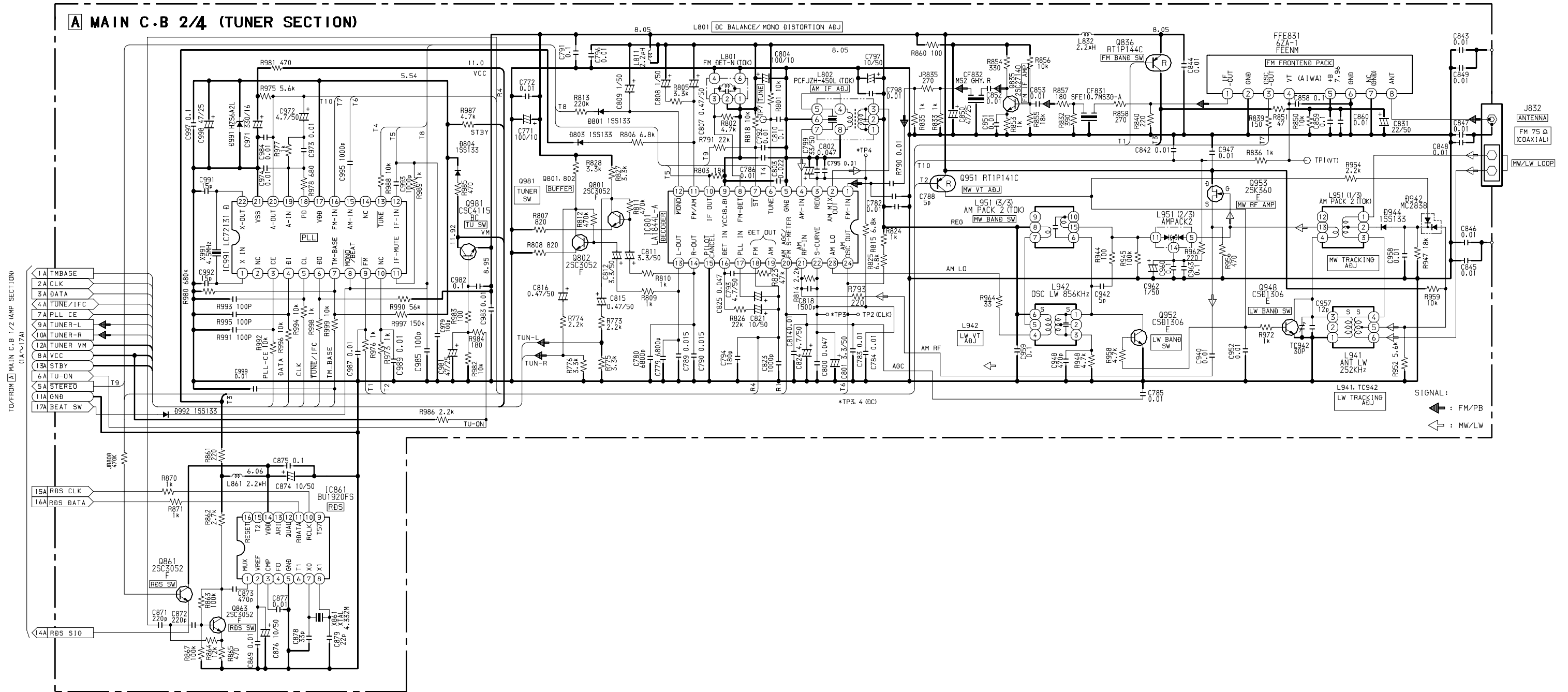
GRID ASSIGNMENT

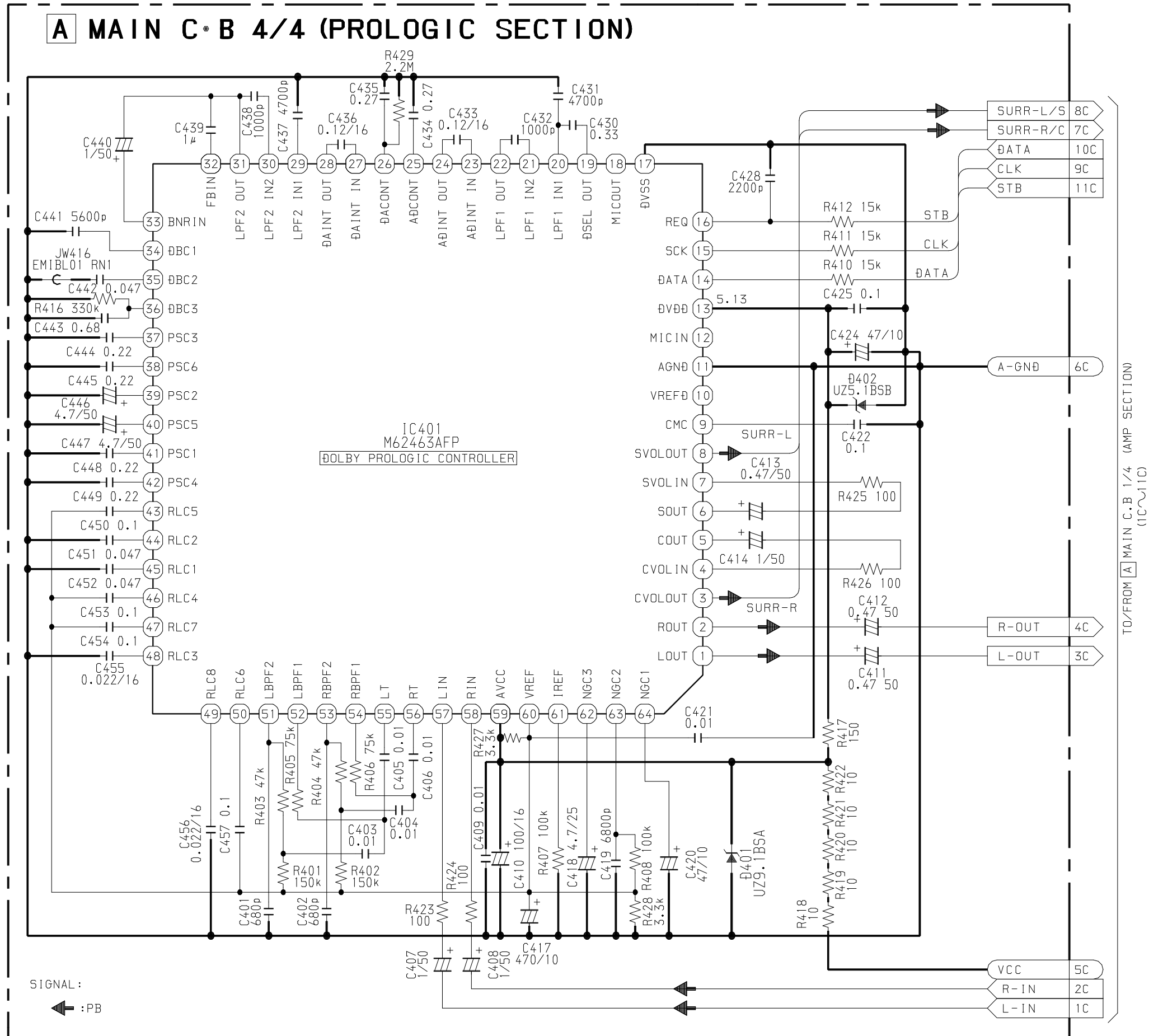


ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G
P1	20	d	d	d	d	d	d	d	d	S1
P2	19	n	n	n	n	n	n	n	n	S2
P3	18	p	p	p	p	p	p	p	p	S3
P4	17	r	r	r	r	r	r	r	r	S4
P5	16	e	e	e	e	e	e	e	e	S5
P6	15	c	c	c	c	c	c	c	c	S6
P7	14	g	g	g	g	g	g	g	g	S7
P8	13	m	m	m	m	m	m	m	m	S8
P9	12	f	f	f	f	f	f	f	f	S9
P10	11	b	b	b	b	b	b	b	b	S10
P11	10	k	k	k	k	k	k	k	k	S11
P12	9	j	j	j	j	j	j	j	j	S12
P13	8	h	h	h	h	h	h	h	h	EDIT
P14	7	a	a	a	a	a	a	a	a	PRGM
P15	6	B1	B1	B1	B1	B1	B1	B1	B1	RANDOM
P16	5	C1	B2	B2	B2	B2	B2	B2	C1	GRAPHIC EQUALIZER
P17	4	C2	M1	REC	MONO	Dp	col(U)	M2	C2	H1
P18	3	C3	N1	<	C	MONO	col(L)	N1	C3	H2
P19	2	C4	N2	>	REC	REC	EON	N2	C4	H3
P20	1	com	N3			AG	AG	N3		H4
P21	A1						RDS		kHz	
P22								MHz		

SCHEMATIC DIAGRAM-2 (MAIN 2/4:TUNER)



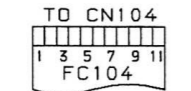
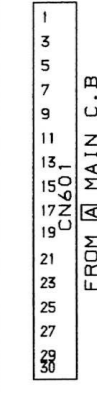
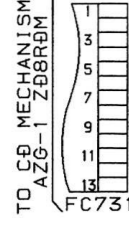
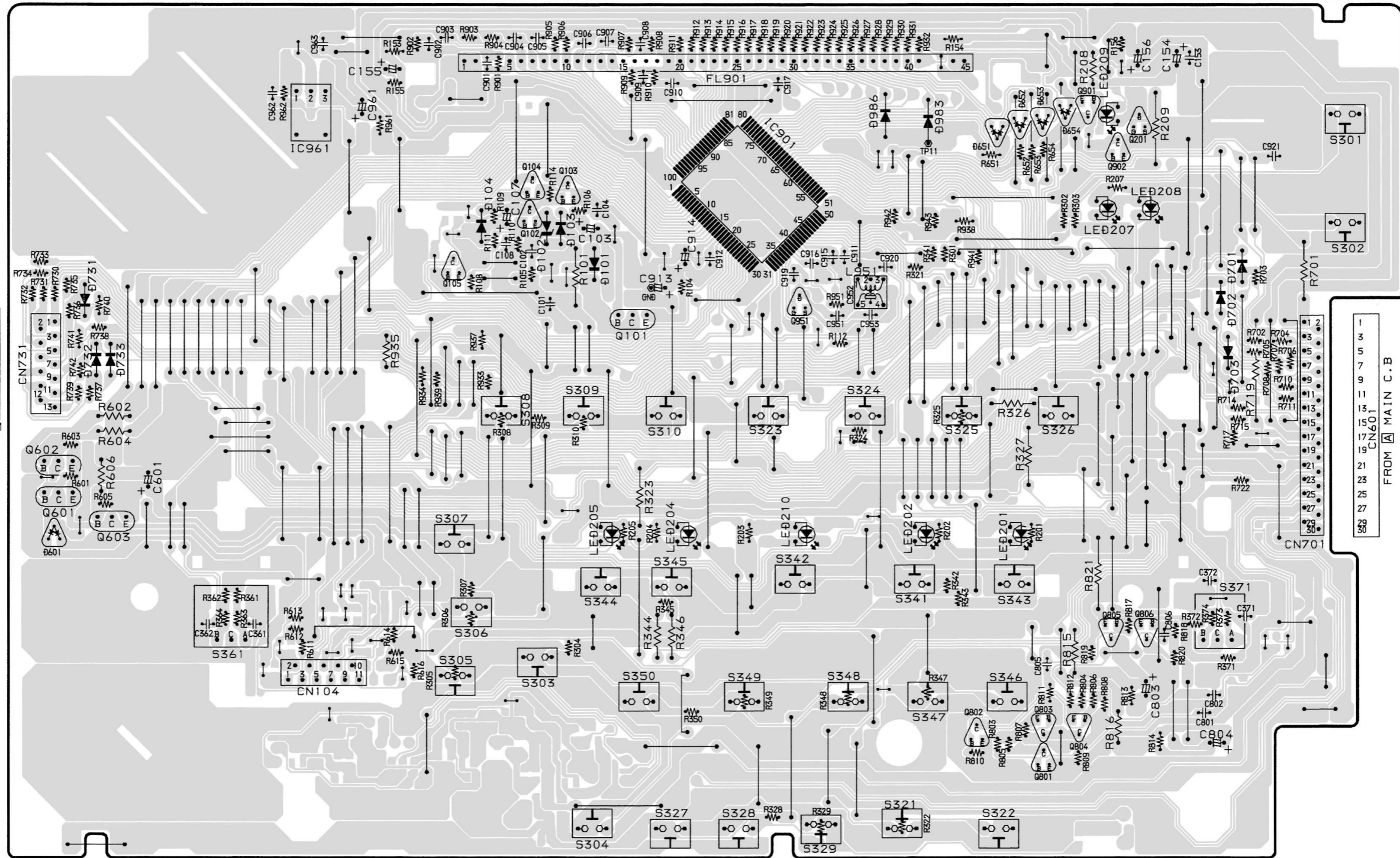


32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

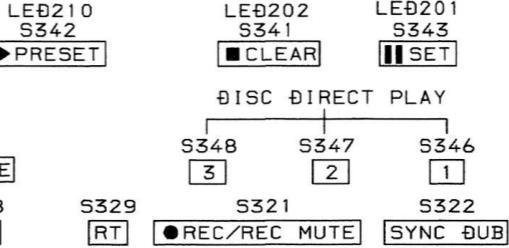
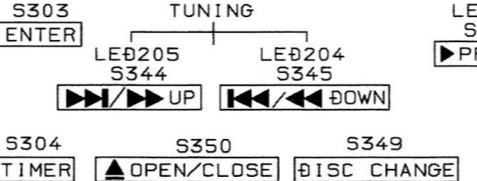
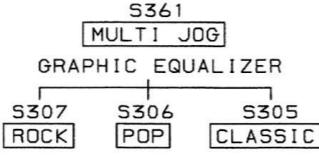
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B FRONT C. B

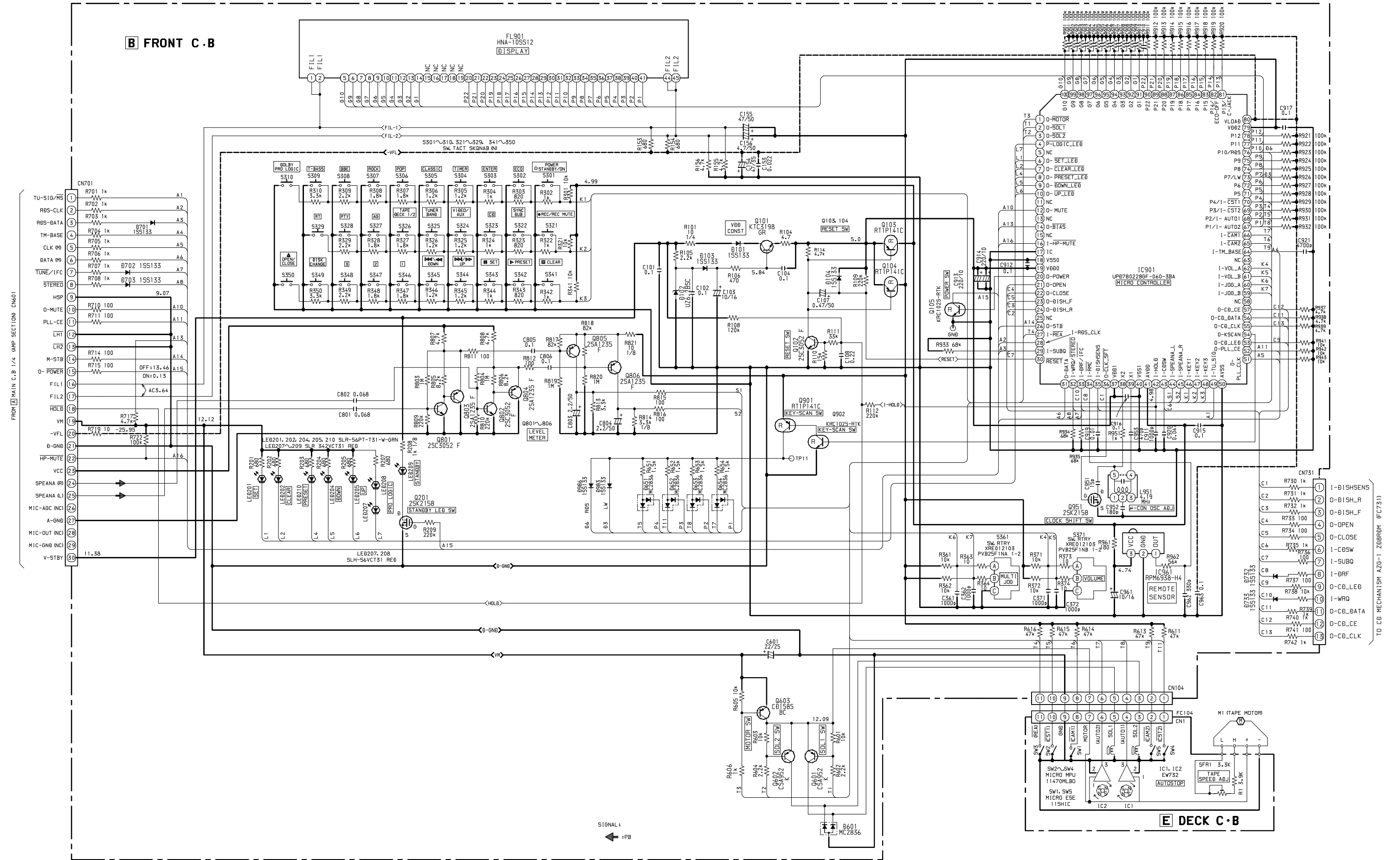
IC961 (REMOTE SENSOR) S308 [BBE] S309 [T-BASS] S310 [DOLBY PRD LOGIC] FL901 (DISPLAY) S323 [C] S324 [VIDEO/AUX] S325 [TUNER BAND] S326 [TAPE DECK 1/2] LE0209 (STANDBY) LE0207, 208 (PRO LOGIC) S302 [ECO] S301 [POWER STANDBY/ON]



TO [E] BECK C. B CN1



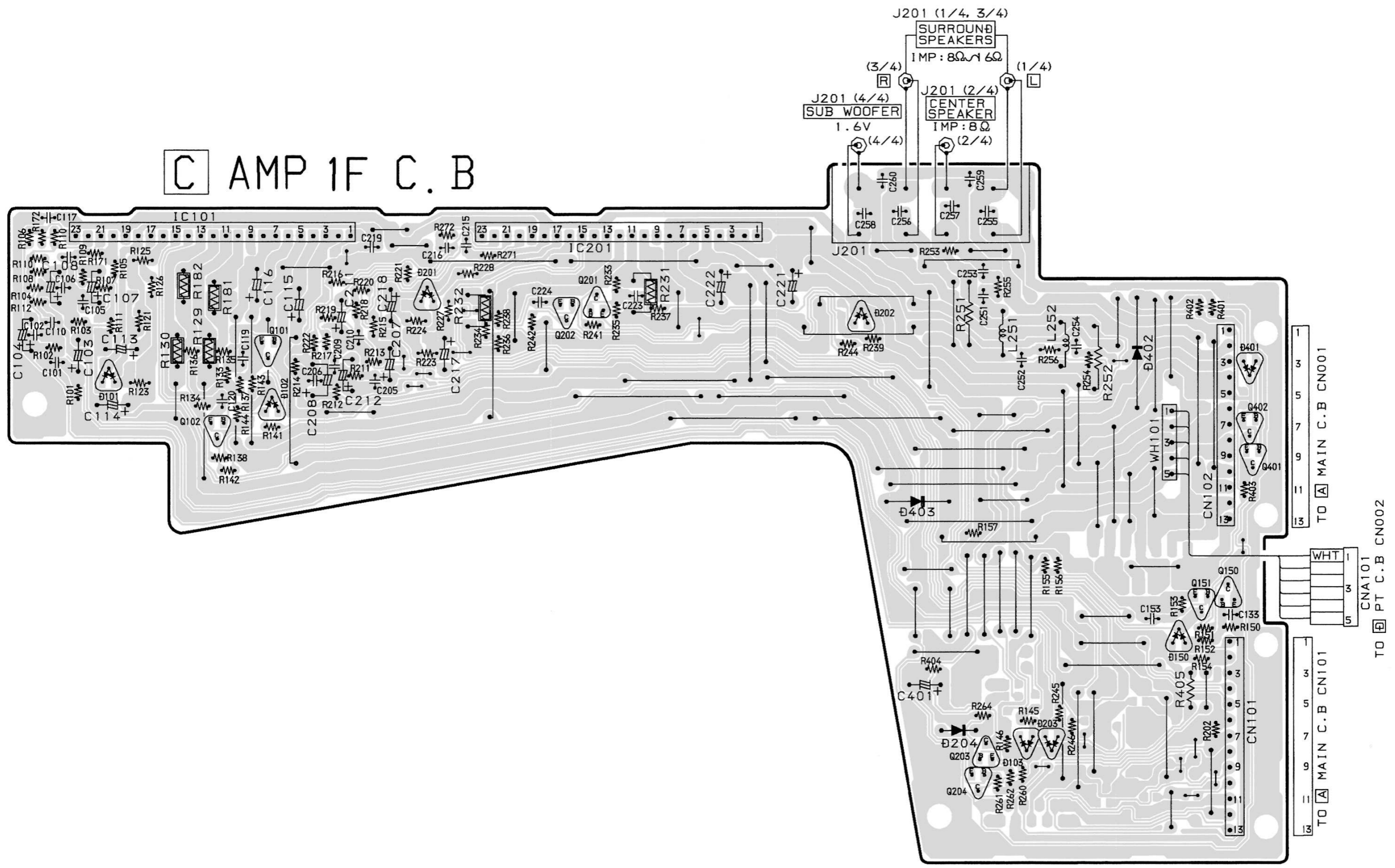
SCHEMATIC DIAGRAM - 5 (FRONT)



32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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C AMP 1F C.B

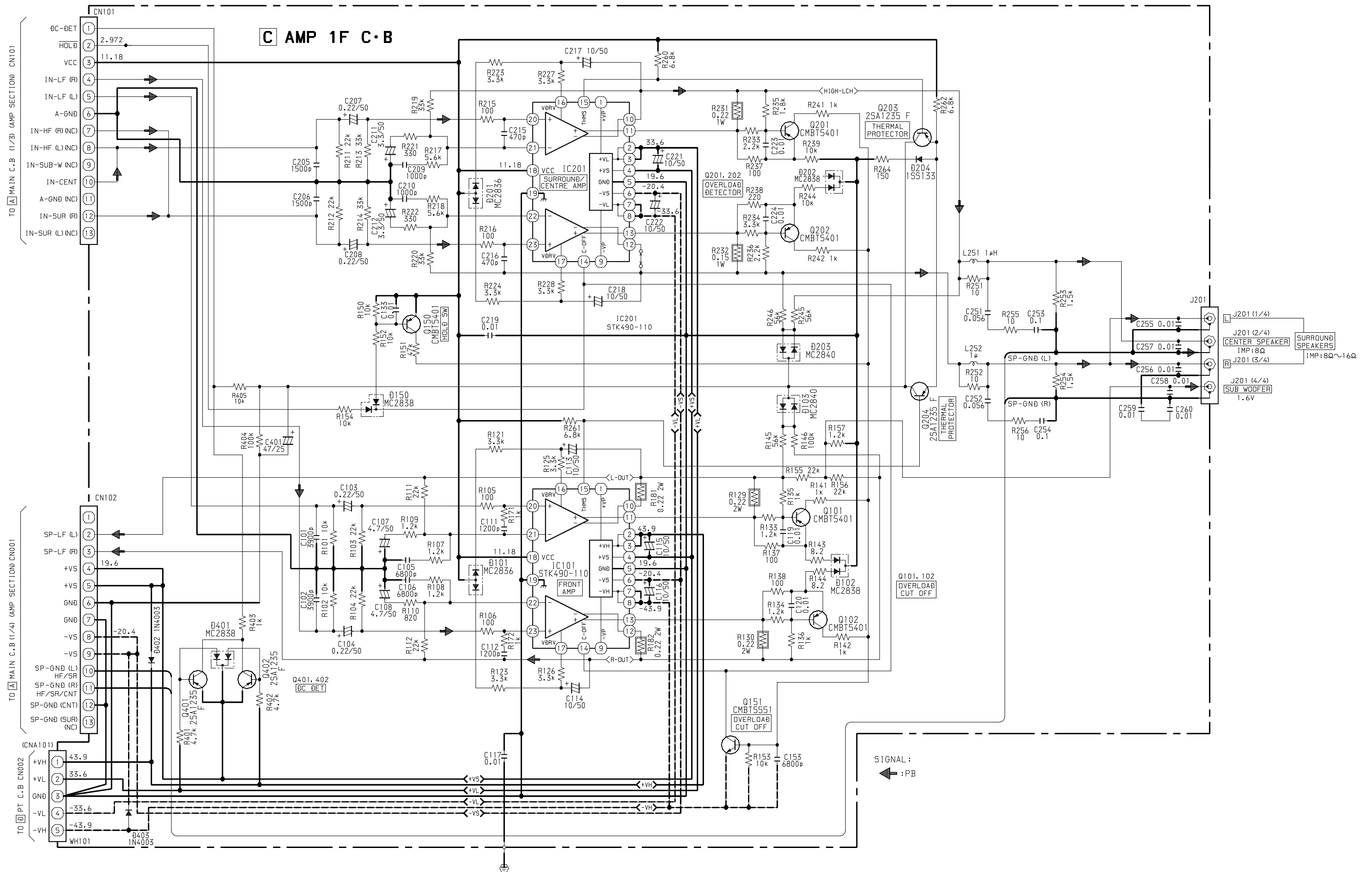


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TO MAIN C.B CN001

WHT 1
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CN101
TO PT C.B CN002

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TO MAIN C.B CN101

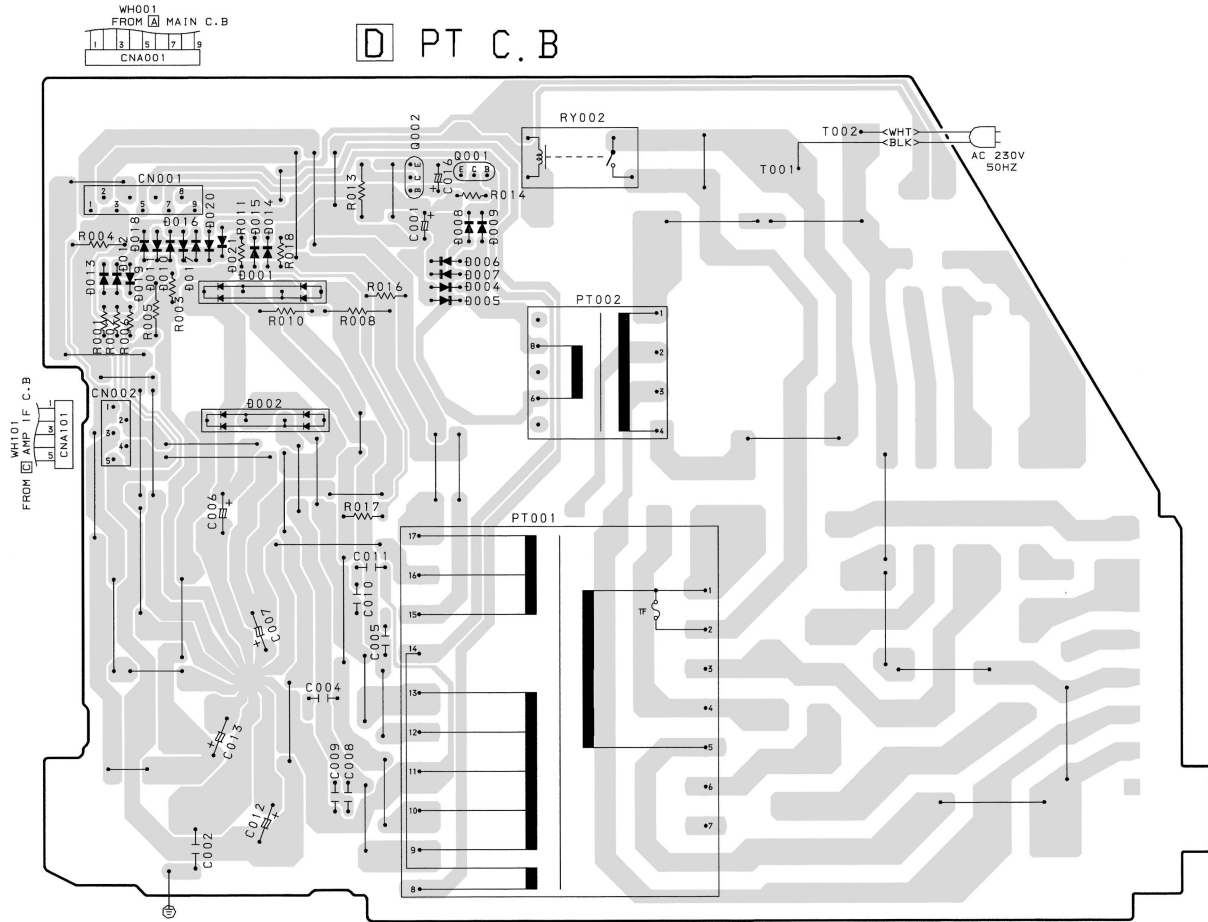
SCHEMATIC DIAGRAM - 6 (AMP 1F)



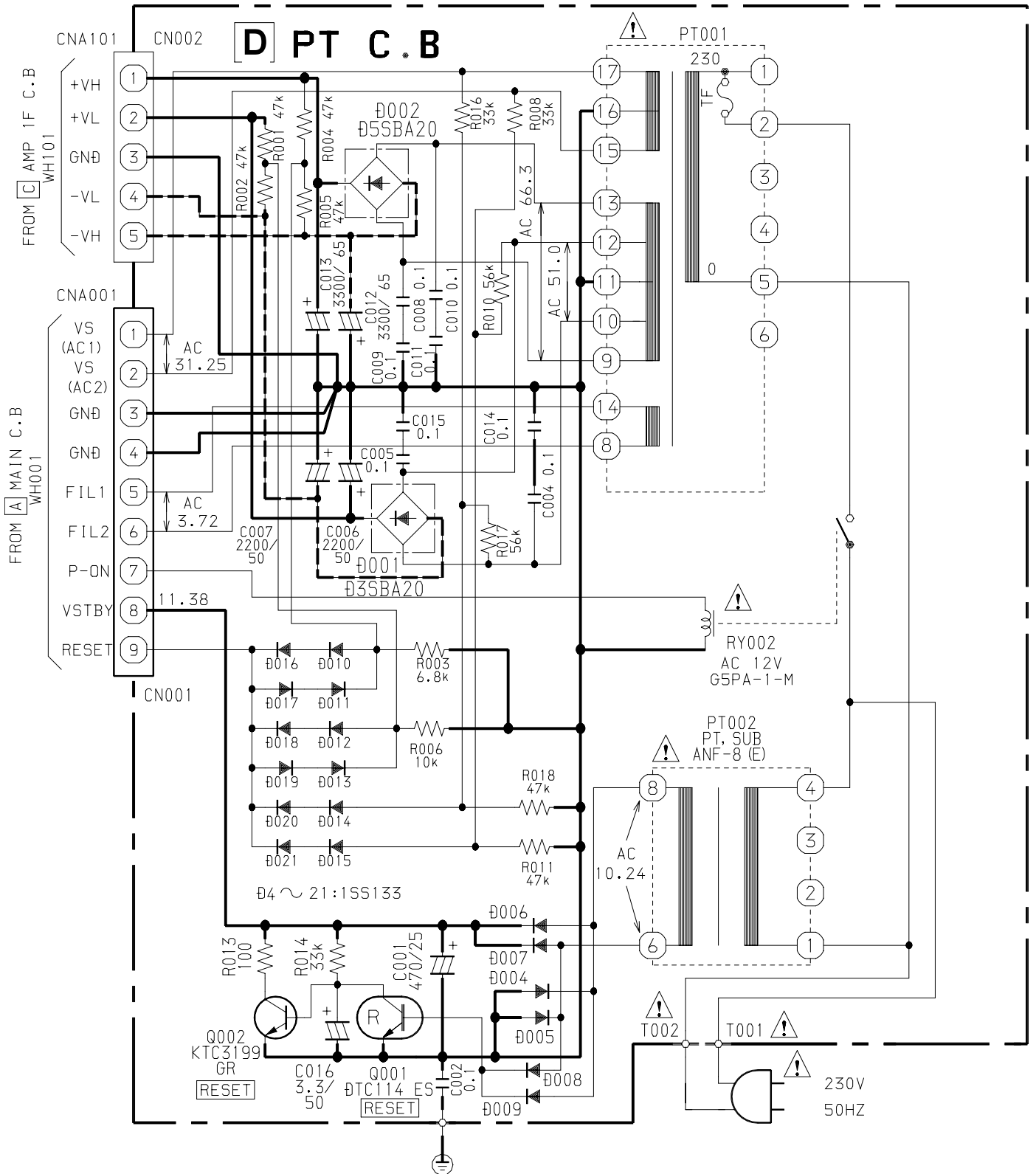
WIRING - 4 (PT)

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SCHEMATIC DIAGRAM - 7

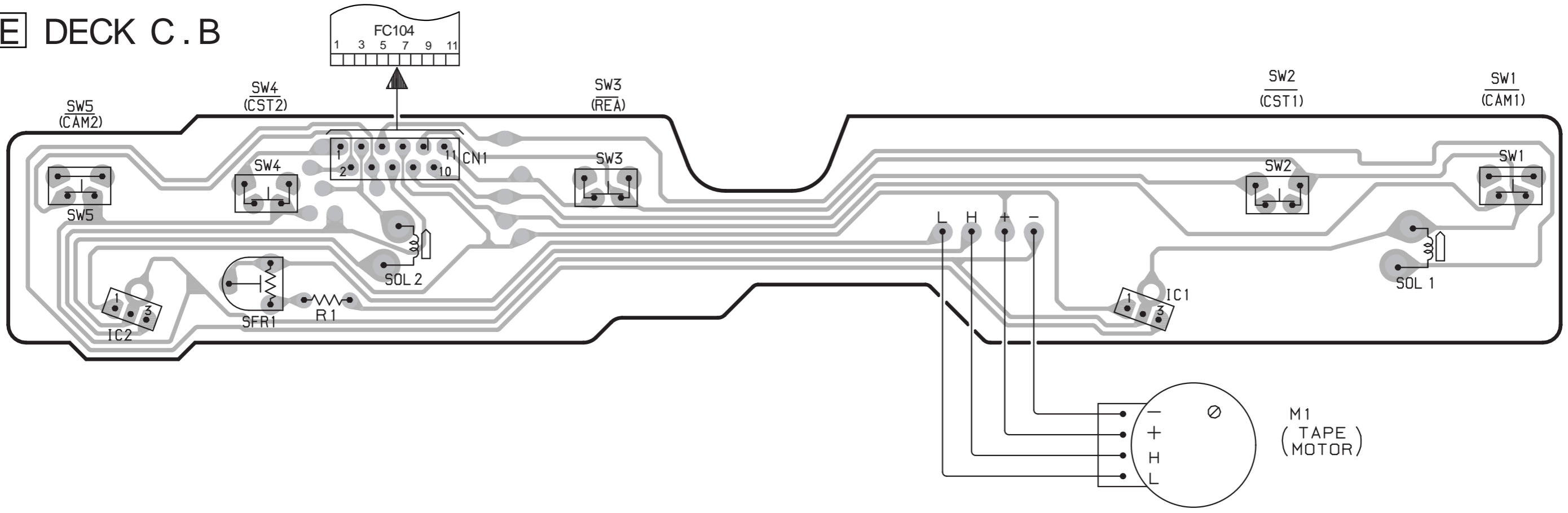


32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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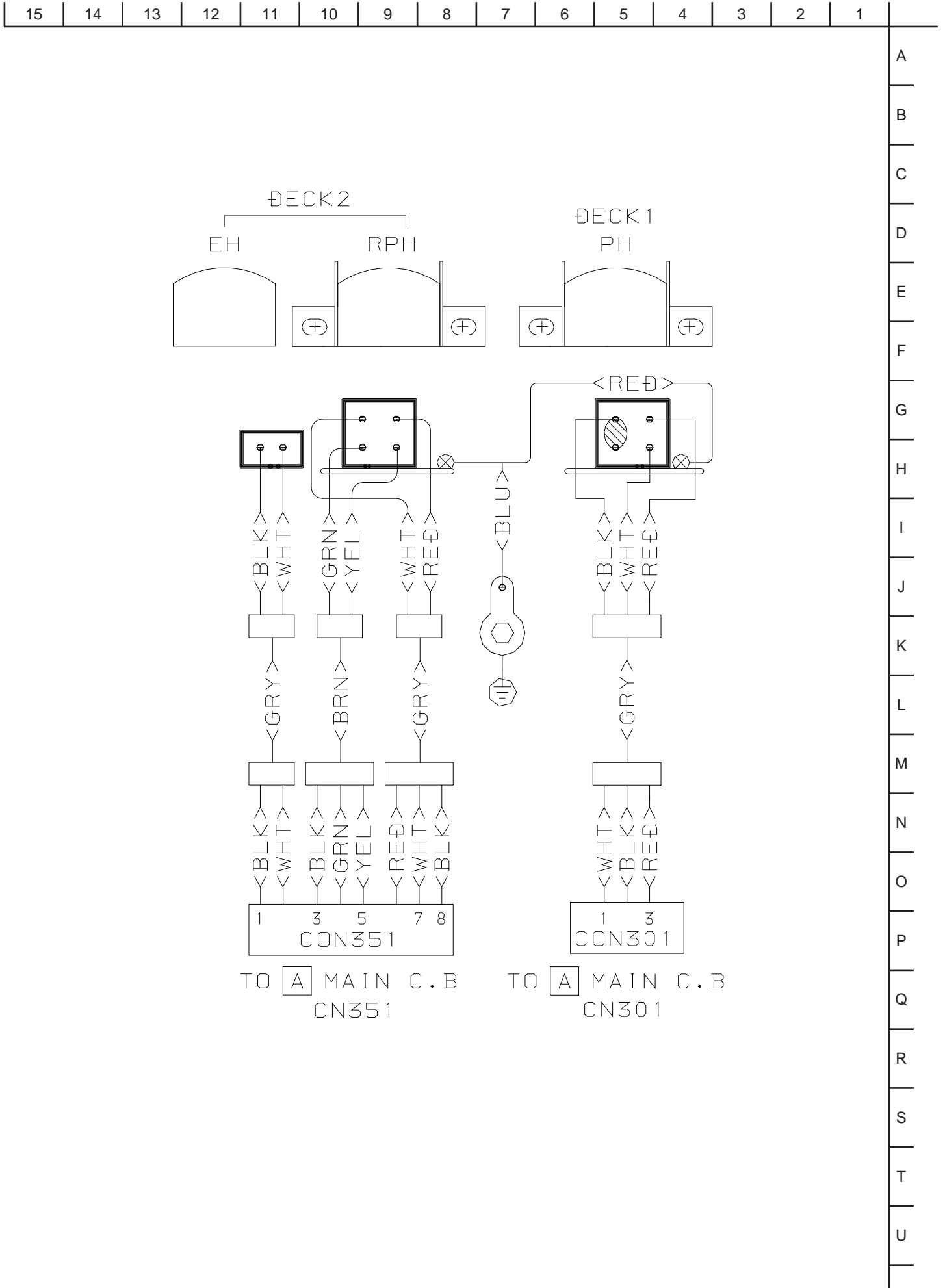
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E DECK C. B

FROM **B** FRONT C. B CN104



WIRING - 6 (HEAD)



IC DESCRIPTION

IC, μ PD780228GF-060-3BA

Pin No.	Pin Name	I/O	Description
1	O-MOTOR	O	DECK MOTOR ON/OFF output.
2	O-SOL1	O	DECK1 solenoid output.
3	O-SOL2	O	DECK2 solenoid output.
4	P-LOGIC_LED	O	PRO LOGIC LED ON/OFF output.
5	NC	–	Not connected.
6	O-SET_LED	O	SET LED ON/OFF output.
7	O-CLEAR_LED	O	CLEAR LED ON/OFF output.
8	O-PRESET_LED	O	PRESET LED ON/OFF output.
9	O-DOWN_LED	O	DOWN LED ON/OFF output.
10	O-UP_LED	O	UP LED ON/OFF output.
11	NC	–	Not connected.
12	O-MUTE	O	MUTE output.
13	NC	–	Not connected.
14	O-BIAS	O	BIAS ON output.
15	NC	–	Not connected.
16	I-HP-MUTE	I	Head phones connect detect input.
17	IC	–	Internal connection (connected to GND).
18	VSSO	–	GND.
19	VDDO	–	Power supply.
20	O-POWER	O	System power supply ON/OFF output.
21	O-OPEN	O	CD tray open data output.
22	O-CLOSE	O	CD tray close data output.
23	O-DISH_F	O	CD turntable forward rotation output.
24	O-DISH_R	O	CD turntable reverse rotation output.
25	NC	–	Not connected.
26	O-STB	O	Strobe output for MAIN C.B.
27	I-REA	I	Deck 2 side-A recordable switch data input. "L"=REC.
28	I-RDS_CLK	I	Tuner RDS clock input.
29	I-SUBQ/I-RDS_DATA	I	CD SUBQ data input / Tuner RDS data input.
30	RESET	–	System reset.
31	O-DATA	O	Data output for MAIN.
32	I-WRQ/STEREO	I	CD WRQ input / Tuner stereo input.
33	I-DRF/IFC	I	CD DRF input / Tune IF count serial data input.
34	I-RMC	I	System remote control input.
35	I-DISHSENS	I	CD turntable photo sensor input.
36	O-CLK_SFT	O	Micon clock shift output.
37	VDD1	–	Power supply.
38	X2	–	4.19MHz oscillator circuit.
39	X1	–	4.19MHz oscillator circuit.
40	VSS1	–	GND.
41	AVDD	–	Power supply.
42	I-HOLD	I	Power failure detected input.
43	I-CDSW	I	CD mecha switch input.

Pin No.	Pin Name	I/O	Description
44	I-SPEANA_L	I	A/D L-input for spectrum analyser level display.
45	I-SPEANA_R	I	A/D R-input for spectrum analyser level display.
46	I-KEY1	I	Key1 input.
47	I-KEY2	I	Key2 input.
48	I-KEY3	I	Key3 input.
49	I-TU_SIG	I	Tuner signal input.
50	AVSS	–	GND.
51	O-PLL_CLK	O	PLL clock enable output.
52	O-PLL_CE	O	Chip enable output for tuner PLL.
53	O-CD_LED	O	CD flash window LED ON/OFF output.
54	O-KSCAN	O	Key scan output.
55	O-CD_CLK	O	CD clock output.
56	O-CD_DATA	O	CD data output.
57	O-CD_CE	O	CD enable output.
58	NC	–	Not connected.
59	I-JOG_B	I	Dial jog rotary encoder input B.
60	I-JOG_A	I	Dial jog rotary encoder input A.
61	I-VOL_B	I	Volume rotary encoder input B.
62	I-VOL_A	I	Volume rotary encoder input A.
63	NC	–	Not connected.
64	I-TM_BASE	I	Base input for clock.
65	I-CAM2	I	DECK2 CAM switch data input.
66	I-CAM1	I	DECK1 CAM STOP switch data input.
67	P1/I-AUTO2	O/I	FL segment P1 output / DECK2 AUTO STOP switch data input.
68	P2/I-AUTO1	O/I	FL segment P2 output / DECK1 AUTO STOP switch data input.
69	P3/I-CST2	O/I	FL segment P3 output / DECK2 cassette detect switch data input.
70	P4/I-CST1	O/I	FL segment P4 output / DECK1 cassette detect switch data input.
71, 72	P5, P6	O	FL segment P5, P6 output.
73	P7/LW	O/I	FL segment P7 output / LW mode data input.
74, 75	P8, P9	O	FL segment P8, P9 output.
76	P10/RDS	O/I	FL segment P10 output / RDS data input.
77, 78	P11, P12	O	FL segment P11, P12 output.
79	VDD2	–	Power supply.
80	VLOAD	–	Power supply for FL display.
81 ~ 90	P13 ~ P22	O	FL segment P13 ~ P22 output.
91 ~100	G1 ~ G10	O	FL grid G1 ~ G10 output.

ADJUSTMENT <TUNER / DECK / FRONT>

< TUNER SECTION >

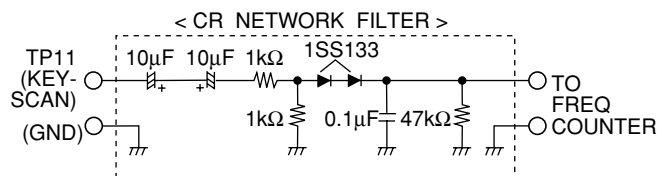
1. Clock frequency Check
Settings : • Test point : TP2 (CLK)
Method : Set to MW 1602kHz and check that the test point is 2052kHz \pm 45Hz.
2. MW VT Check
Settings : • Test point : TP1 (VT)
Method : Set to MW 1602kHz, 531kHz and check that the test point is less than 8.0V (1602kHz) and more than 0.6V (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) 1000kHz
Method : Set to MW 1000kHz and adjust L951(1/3) to MAX.
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 μ V.
8. AM IF Adjustment
Settings : • Test point : TP8(Lch), TP9(Rch)
• Adjustment location :
L802 450kHz
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 \pm 0.3V.
Next, check that the distortion is less than 1.3%.

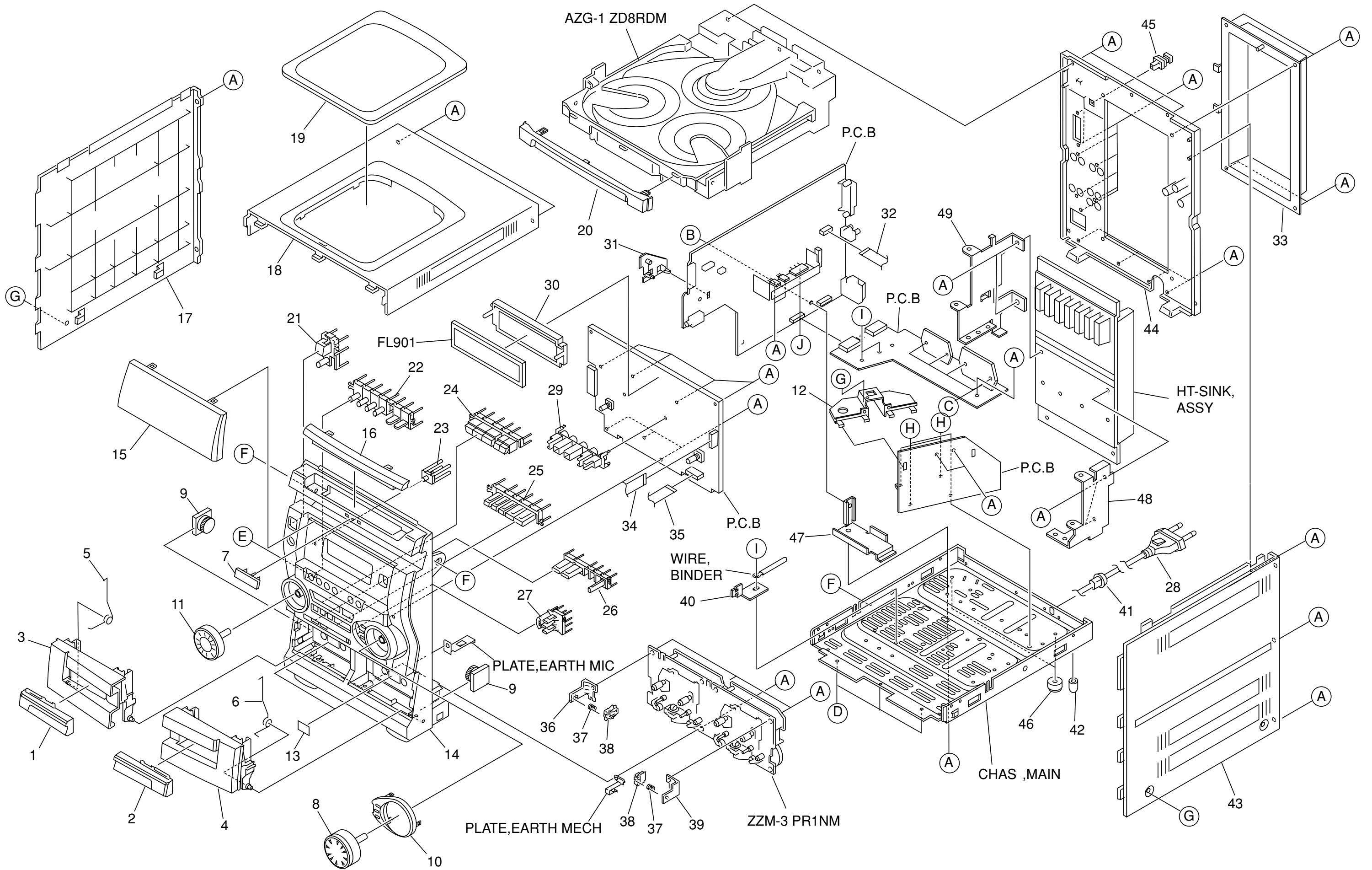
< DECK SECTION >

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 (FWD) and FWD SPEED \pm 45Hz (REV).
11. Head Azimuth Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA-330
• Test point : TP8(Lch), TP9(Rch)
• Adjustment location : 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 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 110mV \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 : SFR351 (Lch), SFR352 (Rch)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes -20VU (-26dBV). 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 (-6dBV). Record and play back the 1kHz signals and check that the output is -2dB \pm 3.5dB.

< FRONT SECTION >

16. μ -con OSC Adjustment
Settings : • Test point : TP11,(KEY-SCAN), GND
• Adjustment location : L951
Method : Connect a frequency counter across TP11 and GND via a CR network filter. Then adjust L951 so that the test point becomes 184.94Hz \pm 0.18Hz.





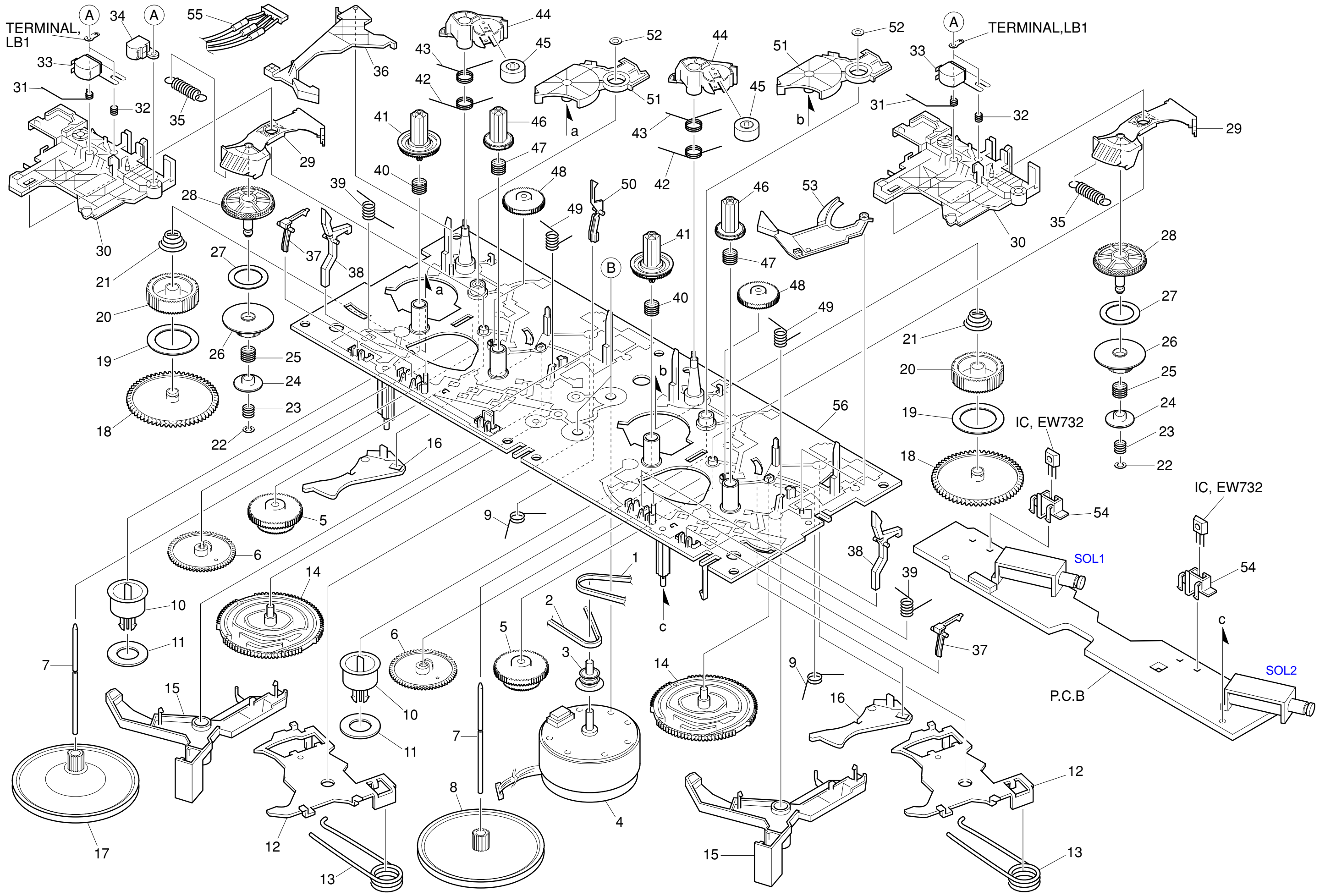
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NF9-006-010		WINDOW, CASS 1	31	8A-NF8-206-010		HLDR, PWB M
2	8A-NF9-007-010		WINDOW, CASS 2	32	88-906-251-110		FF-CABLE, 6P 1.25
3	8A-NF9-003-010		BOX, CASS 1	33	8A-NHU-053-010		COVER, REAR H
4	8A-NF9-004-010		BOX, CASS 2	34	88-913-301-110		FF-CABLE, 13P-1.25
5	8A-NF8-207-010		SPR-T, EJECT 1	35	88-911-101-110		FF-CABLE, 11P 1.25
6	8A-NF8-208-010		SPR-T, EJECT 2	36	87-NF4-216-010		HLDR, LOCK 1
7	87-CE3-023-010		BADGE, AIWA 30N SILV	37	86-NF9-224-010		SPR-C, LOCK
8	8A-NF9-018-010		KNOB, RTRY JOG	38	82-NF5-229-010		PLATE, LOCK
9	8A-NF8-209-010		OIL-DMPR, 120	39	87-NF4-217-110		HLDR, LOCK 2
10	8A-NF9-017-010		PANEL, JOG	40	8A-NFW-250-110		HLDR, PLATE
11	8A-NF9-016-010		KNOB, RTRY VOL	41	87-085-185-010		BUSHING, AC CORD (E)
12	8A-NF6-217-010		HLDR, PWB PT	42	8Z-NB8-254-010		COVER, PL M3
13	81-532-080-010		LABEL, CASS. COMPT	43	8A-NF7-112-010		PANEL, RIGHT V-2
14	8A-NFW-013-010		CABI, FR K R	44	8A-NFW-022-010		PANEL, REAR EZSM
15	8A-NFW-017-010		WINDOW, DISP H	45	84-ZG1-245-210		CAP, OPTICAL
16	8A-NF9-039-010		WINDOW, CD	46	87-085-221-010		FOOT, H13.5
17	8A-NF8-007-010		PANEL, LEFT V-2	47	8A-NF7-209-010		HLDR, PWB-M BTM
18	8A-NF8-005-010		PANEL, TOP	48	8A-NF7-208-010		HLDR, HT R
19	8A-NF8-006-010		WINDOW, TOP	49	8A-NF7-207-010		HLDR, HT L
20	8A-NF9-014-010		PANEL, TRAY	A	87-067-703-010		TAPPING SCREW, BVT2+3-10
21	8A-NF9-008-010		KEY, POWER	B	87-NF4-224-010		S-SCREW, IT3B+3-8 CU
22	8A-NFW-003-010		KEY, PRO	C	87-067-581-010		TAPPING SCREW, BVT2+3-15
23	8A-NF9-022-010		REFLECTOR, ECO	D	87-067-689-010		TAPPING SCREW, BVT+3-8
24	8A-NF9-010-110		KEY, ASSY OPE 1 WAY	E	87-723-096-410		QT2+3-10W/O SLOT BL
25	8A-NF9-020-010		KEY, CD	F	87-721-097-410		QT2+3-12 GLD
26	8A-NF9-050-010		KEY, RDS	G	87-067-641-010		UTT2+3-8 (W/O SLOT) BL
27	8A-NF9-026-110		KEY, ENTER	H	87-078-200-010		S-SCREW, ITC+4-8 R
28	87-A80-157-010		AC CORD ASSY, E BLK CC	I	87-067-584-010		BVT2+3-6 W/O SLOT
29	8A-NF9-201-010		GUIDE, OPE 1 WAY	J	87-067-001-010		S-SCREW, BVWST2+3-12
30	82-NF7-210-110		GUIDE, FL (*)				

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



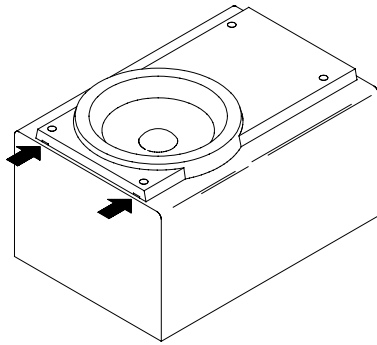
TAPE MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM3-227-010		BELT, MAIN M3	31	8Z-ZM3-233-010		SPR-T, BRG M3
2	8Z-ZM3-235-010		BELT, MAIN L	32	84-ZM2-227-310		SPR-C, AZIMUTH
3	8Z-ZM1-235-010		PULLEY, MOT	33	87-A90-403-110		HEAD, RPH MS15R
4	87-045-347-010		MOT, SHU2L 70	34	87-A90-404-010		HEAD, EH LE15B
5	8Z-ZM1-232-010		GEAR, IDL FF/REW	35	8Z-ZM3-239-010		SPR-E, FR
6	8Z-ZM3-244-010		GEAR, CAM TD20	36	8Z-ZM3-211-010		LEVER, EJECT R
7	8Z-ZM3-242-010		SHAFT, CAP M3	37	8Z-ZM3-225-010		LEVER, STOP
8	8Z-ZM3-228-010		FLY-WHL, M3	38	8Z-ZM3-221-010		LEVER, CAS
9	8Z-ZM3-231-010		SPR-T, TRIG	39	8Z-ZM3-234-010		SPR-T, LVR CAS
10	8Z-ZM3-213-010		CLR, MG	40	8Z-ZM3-223-010		SPR-C, REEL R M3
11	82-ZM3-616-010		RING MAGNET 4	41	8Z-ZM1-225-110		GEAR, REEL R
12	8Z-ZM3-243-010		LEVER ASSY, HD UP	42	8Z-ZM3-240-010		SPR-T, T-UP M3
13	8Z-ZM3-238-010		SPR-T, HD UP	43	8Z-ZM3-237-010		SPR-T, PINCH M3
14	8Z-ZM3-219-010		GEAR, CAM M3	44	8Z-ZM3-215-010		LEVER, PINCH M3
15	8Z-ZM3-206-010		LEVER, TRIG	45	8Z-ZM1-261-110		ROLLER ASSY, PINCH
16	8Z-ZM3-209-010		LEVER, CAM FR	46	8Z-ZM1-226-010		GEAR, REEL L
17	8Z-ZM2-211-010		FLY-WHL, ZZM-2	47	8Z-ZM3-222-010		SPR-C, REEL L M3
18	8Z-ZM1-228-010		GEAR, SLIP T-UP B	48	8Z-ZM3-251-010		GEAR, IDL REW M3
19	8Z-ZM1-265-010		FELT, T-UP	49	8Z-ZM3-236-010		SPR-T, PLAY M3
20	8Z-ZM1-227-010		GEAR, SLIP T-UP A	50	82-ZM1-240-110		LVR, REC (*)
21	8Z-ZM1-251-110		SPR-C, T-UP SLIP	51	8Z-ZM3-216-010		LEVER, T-UP M3
22	8Z-ZM1-275-010		W-L, 1, 47-4-0.25	52	87-B10-301-010		W-L, 1.63-3.2-05 SLIT
23	8Z-ZM1-257-010		SPR-C, F/R	53	8Z-ZM3-212-010		LEVER, EJECT L
24	8Z-ZM1-236-010		CLR, SLIP FF/REW	54	8Z-ZM3-214-010		HLDR, IC
25	8Z-ZM3-226-010		SPR-C, FR M3	55	86-ZM3-605-110		CONN ASSY, 8P -RPB
26	8Z-ZM3-250-010		GEAR, SLIP F/R A M3	56	8Z-ZM3-203-010		CHAS ASSY, M3
27	8Z-ZM1-269-010		FELT, FF/REW 2	A	84-ZM2-242-010		S-SCREW, AZ1-2-6.4
28	8Z-ZM1-238-110		GEAR, SLIP FF/REW B 2	B	8Z-ZM2-220-110		V+2.6 ZZM-2
29	8Z-ZM3-220-010		LEVER, FR M3				
30	8Z-ZM3-205-010		LEVER, PLAY M3				

SPEAKER DISASSEMBLY INSTRUCTIONS

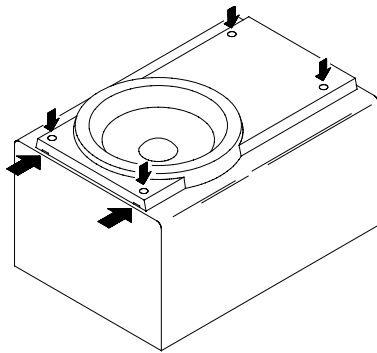
Type.1

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.



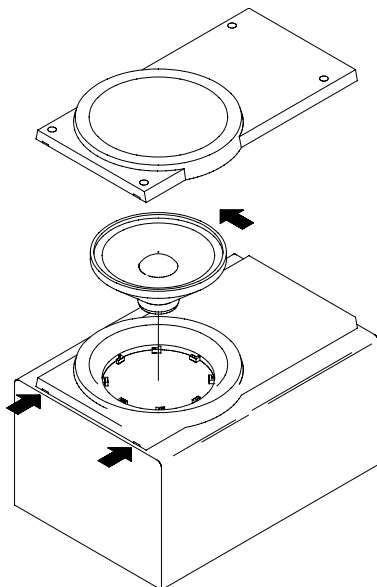
Type.2

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.

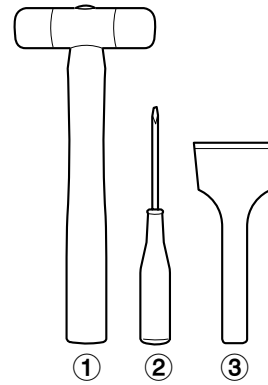


Type.3

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.

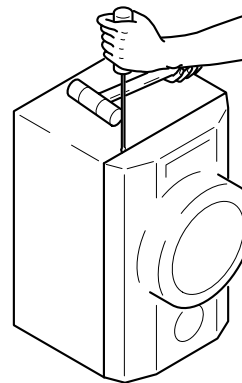


Fig-1

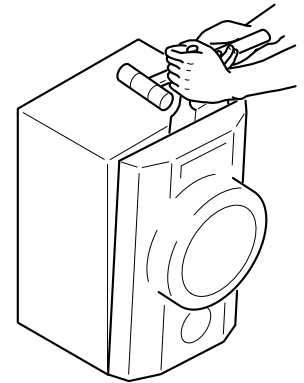


Fig-2

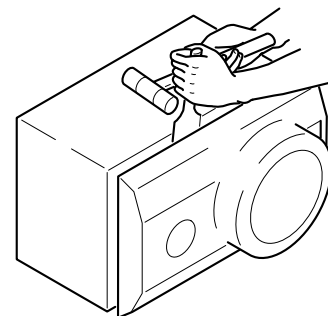


Fig-3

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-NDP24 (YBL, YTL)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NSW-001-010		GRILLE, FRAME ASSY
2	83-096-614-010		SPEAKER CODE
3	8Z-NSW-602-010		SPKR, W 140
4	8Z-NSW-604-010		SPKR, T 60
5	88-NS3-605-010		CAP

SX-R277 (YSTC)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-YS1-001-010		CABI, REAR
2	8Z-YS1-002-010		GRILLE, FRAME ASSY
3	81-VSA-009-010		CORD, BUSH
4	87-010-384-010		CAP, E 100-25 M SME
5	87-YS6-002-010		SPKR, CORD Y
6	8Z-YS1-601-010		SPKR, 100

SX-C607 (YSTC)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-YS7-012-010		PANEL, FR S
2	87-YS7-013-010		PANEL, REAR S
3	87-YS3-003-010		GRILLE, FRAME ASSY
4	81-VSA-009-010		CORD, BUSH
5	83-NSM-010-010		SPKR, CORD
6	87-YS7-602-010		SPKR, 100

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NFW-906-010		IB, EZ (9L)M
2	87-006-225-010		AM, LOOP ANT NC2
3	87-043-115-010		ANT, FEEDER FM
4	87-A90-118-010		ANT, WIRE FM (Z)
5	8Z-NFW-702-010		RC UNIT, ZAS10

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