

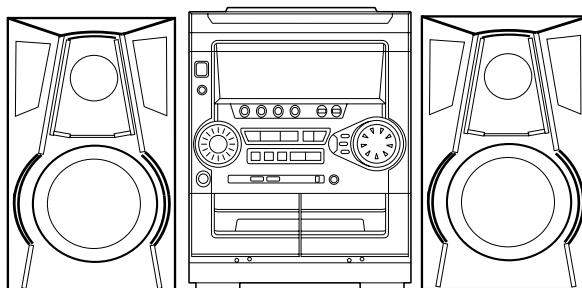


NSX-SZ30

NSX-SZ36

HS,HT

LH



SERVICE MANUAL

COMPACT DISC
STEREO SYSTEM

BASIC TAPE MECHANISM : 6ZM-3 PR2NM /
ZZM-3 YPR1NM
BASIC CD MECHANISM : AZG-1

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-SZ30	CX-NSZ30		RC-ZAS01
NSX-SZ36	CX-NSZ36	SX-NSZ52	RC-ZAS02

SYSTEM	TAPE MECHANISM	CD MECHANISM
NSX-SZ30	6ZM-3 PR2NM	AZG-1 ZD3RDM
NSX-SZ36	ZZM-3 YPR1NM	AZG-1 YZD3RDM

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" (S/M Code No. 09-007-423-3T3).
- If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3N8).

aiwa
S/M Code No. 09-007-423-3R1

REVISION
DATA

SPECIFICATIONS

<FM tuner section>

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

<AM/MW tuner section>

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

<SW tuner section> <HT only>

Tuning range	5.730 MHz to 17.900 MHz
Usable sensitivity	40 µV (IEC)
Antenna	Wire antenna

<Amplifier section>

Power output	LH: Rated: 65 W + 65 W (6 ohms, THD 1%, 1 kHz) Reference: 80 W + 80 W (6 ohms, THD 10%, 1 kHz) HS,HT: Rated: 40 W + 40 W (6 ohms, THD 1%, 1 kHz) Reference: 50 W + 50 W (6 ohms, THD 10%, 1 kHz) 0.08% (25 W, 1 kHz, 6 ohms, DIN AUDIO) HS,HT only: MIC: 1.0 mV (10 K ohms) SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more
Total harmonic distortion	

Inputs

Outputs	VIDEO/AUX: 500 mV HS,HT only: MIC: 1.0 mV (10 K ohms) SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more
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<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 15 kHz
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 ($\lambda = 780 \text{ nm}$)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)

<General>

Power requirements	LH,HT: 120 V/220-230 V/240 V AC (switchable), 50/60 Hz HS: 220 V AC, 60 Hz
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Power consumption

LH:	125 W
HS,HT:	80 W

Power consumption in standby mode

With power-economizing mode off	0.9 W
LH:	17 W
HS,HT:	13 W

With power-economizing mode on
0.9 W

260 x 328 x 335 mm

**Dimensions of main unit
(W x H x D)**
Weight of main unit

6.3 kg

<Speaker system SX-NSZ52>

Speaker system	3 way, bass reflex (magnetic shielded type)
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Speaker units

Woofer:

140 mm cone type

Tweeter:

60mm cone type

Super tweeter:

20 mm ceramic type

Impedance

6 ohms

Output sound pressure level

87 dB/W/m

Dimensions (W x H x D)

240 x 324 x 270 mm

Weight

4.0 kg

• Design and specifications are subject to change without notice.

• The word "BBE"and the "BBE symbol" are trademarks of BBE Sound, Inc.

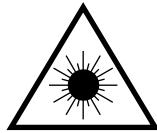
Under license from BBE Sound, Inc.

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 käytäjän turvallisuusluokan 1 ylittäville näkymättömälle lasersäteilylle.

VARNING!

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

CAUTION

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

ATTENTION

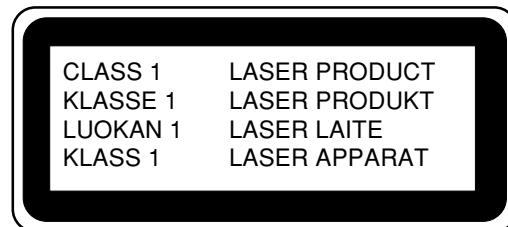
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

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.

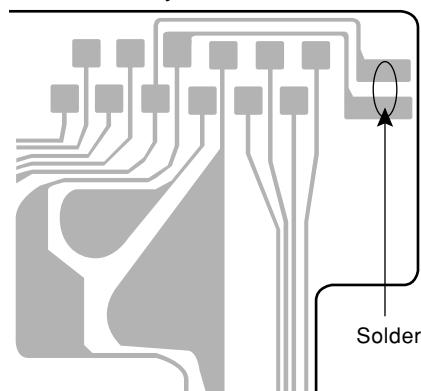


Precaution to replace Optical block (KSS-213F)

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 the right figure.

(KSS - 213F)
PICKUP Assy P.C.B.



NOTE ON BEFORE STARTING REPAIR

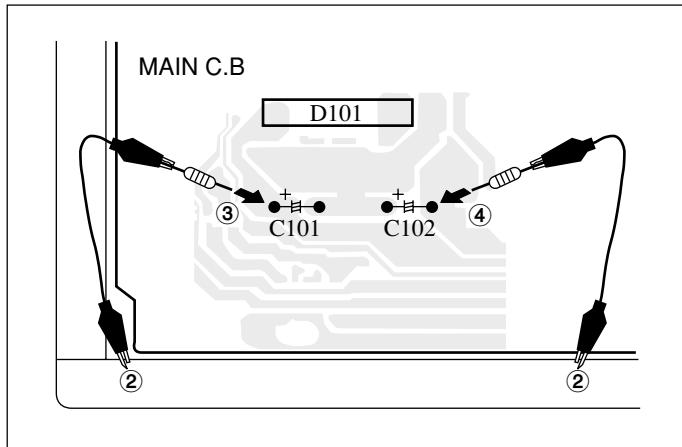
1. Forced discharge of electrolytic capacitor of power supply block

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.



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

Fig-1

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.

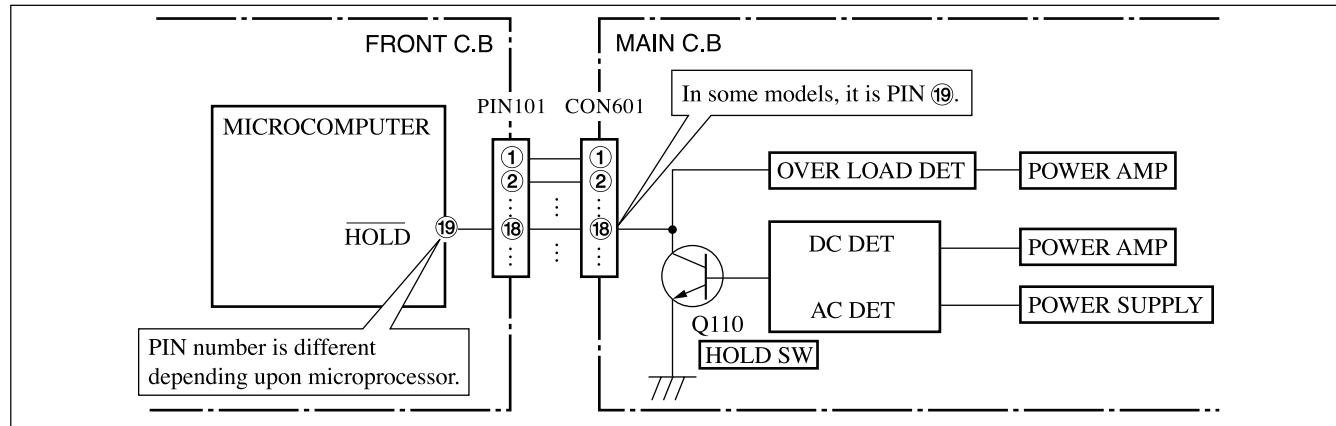


Fig-2-1

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.

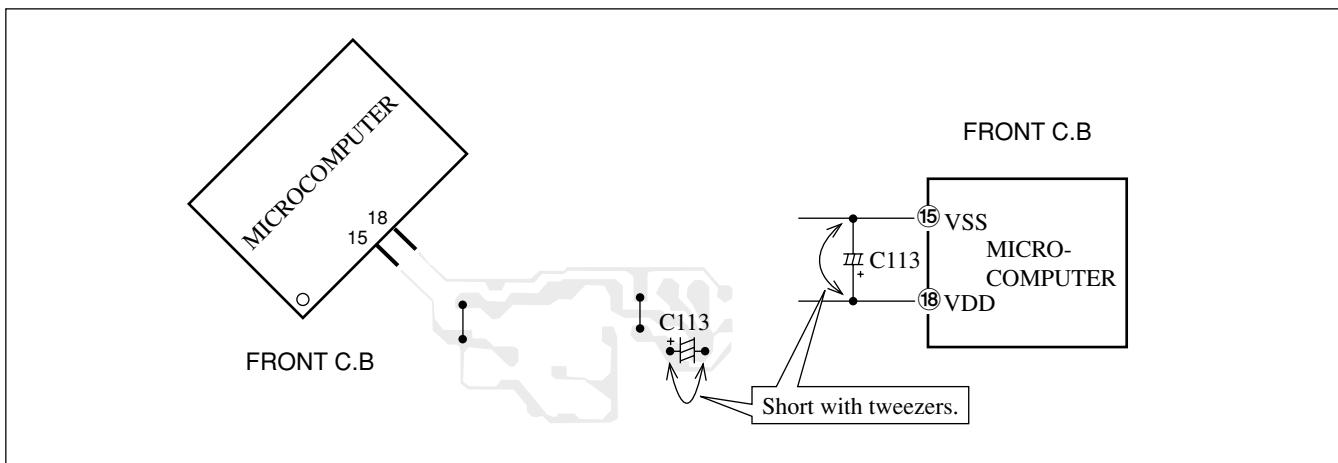


Fig-2-2

- 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				C31	87-010-263-080	CAP, ELECT 100-10V	
87-070-127-110	IC, LC72131 D			C32	87-010-197-080	CAP, CHIP 0.01-25 K B	
87-A21-398-010	IC, STK490-110			C34	87-010-247-080	CAP, ELECT 100-50V	
87-A21-401-040	C-IC, M61503FP			C35	87-010-380-080	CAP, ELECT 47-16 M	
87-A21-482-010	IC, RPM6938-H4			C36	87-010-381-080	CAP, ELECT 330-16V	
87-A21-560-010	IC, LA1844L-A			C38	87-010-197-080	CAP, CHIP 0.01-25 K B	
87-A21-419-040	C-IC, NJM14558MD-TE2			C60	87-010-403-080	CAP, ELECT 3.3-50V	
8A-NF9-604-110	C-IC, UPD780226GF-019-3BA			C61	87-010-260-080	CAP, ELECT 47-25V	
87-A21-269-010	IC, EW732<LH>			C97	87-010-196-080	CHIP CAPACITOR, 0.1-25	
87-020-454-010	IC, DN6851<HS, HT>			C101	87-010-185-080	C-CAP,S 3900P-50 B	
TRANSISTOR				C102	87-010-185-080	C-CAP,S 3900P-50 B	
87-026-609-080	TR, KTA1266GR			C103	87-010-545-080	CAP, E 0.22-50 M	
89-213-702-010	TR, 2SB1370 (1.8W)			C104	87-010-545-080	CAP, E 0.22-50 M	
87-026-610-080	TR, KTC3198GR			C105	87-010-187-080	CAP CHIP S5600P	
87-A30-076-080	C-TR, 2SC3052F			C106	87-010-187-080	CAP CHIP S5600P	
87-A30-075-080	C-TR, 2SA1235F			C107	87-010-404-080	CAP, ELECT 4.7-50V	
87-026-245-080	TR, DTC114ES			C108	87-010-404-080	CAP, ELECT 4.7-50V	
87-A30-198-080	TR, KTC3199GR			C109	87-010-179-080	C-CAP,S 1200P-50 K B	
87-A30-107-070	C-TR, CMBT5401			C110	87-010-179-080	C-CAP,S 1200P-50 K B	
87-A30-106-040	C-TR, CMBT5551			C111	87-010-391-080	CAP, E 10-35 SME	
87-A30-091-080	FET, 2SJ460			C112	87-010-391-080	CAP, E 10-35 SME	
87-A30-062-080	C-TR, KRC104S			C113	87-010-866-080	CAP, ELECT 10-63<LH>	
87-A30-090-080	FET, 2SK2541			C113	87-010-405-080	CAP, ELECT 10-50V<HS, HT>	
89-333-317-880	TR, 2SC3331 (0.5W)			C114	87-010-866-080	CAP, ELECT 10-63<LH>	
87-A30-318-080	TR, CSA952K			C114	87-010-405-080	CAP, ELECT 10-50V<HS, HT>	
87-A30-329-080	TR, CD1585BC			C119	87-012-369-080	C-CAP,S 0.047-50 ZF<HT>	
87-A30-074-080	C-TR, RT1P 141C			C119	87-016-369-080	C-CAP,S 0.033-25 KB<LH, HS>	
87-A30-468-080	C-TR, KRC102S-RTK			C120	87-012-369-080	C-CAP,S 0.047-50 ZF<HT>	
87-A30-087-080	C-FET, 2SK2158			C120	87-016-369-080	C-CAP,S 0.033-25 KB<LH, HS>	
87-A30-086-040	C-TR, CSD1306E<HT>			C125	87-012-368-080	C-CAP,S 0.1-50 F	
89-503-602-080	C-FET, 2SK360E<HT>			C126	87-012-368-080	C-CAP,S 0.1-50 F	
87-A30-234-080	TR, CSC4115BC			C127	87-012-368-080	C-CAP,S 0.1-50 F	
89-327-143-080	TR, 2SC2714(O) (0.1W)			C128	87-012-368-080	C-CAP,S 0.1-50 F	
87-A30-072-080	C-TR, RT1P 144C			C129	87-010-191-080	C-CAP,S 0.015-50 F	
DIODE				C130	87-010-191-080	C-CAP,S 0.015-50 F	
87-A40-455-090	DIODE, RL203 GW			C131	87-010-197-080	CAP, CHIP 0.01-25 K B	
87-A40-553-080	DIODE, 1N4003 LES			C132	87-010-197-080	CAP, CHIP 0.01-25 K B	
87-A40-776-080	ZENER, UZ27BSD			C133	87-010-186-080	CAP, CHIP 4700P-50 K	
87-A40-764-080	ZENER, UZ10BSC			C140	87-010-182-080	C-CAP,S 2200P-50 B	
87-A40-313-080	C-DIODE, MC 2840			C141	87-010-196-080	CHIP CAPACITOR, 0.1-25	
87-A40-270-080	C-DIODE, MC2838			C239	87-010-196-080	CHIP CAPACITOR, 0.1-25	
87-A40-269-080	C-DIODE, MC2836			C301	87-010-178-080	C-CAP,S 1000-50 K B	
87-A40-752-080	ZENER, UZ6.2BSC			C302	87-010-178-080	C-CAP,S 1000-50 K B	
87-A40-739-080	ZENER, UZ2.7BSA			C303	87-010-178-080	C-CAP,S 1000-50 K B	
87-020-465-080	DIODE, 1SS133			C304	87-010-178-080	C-CAP,S 1000-50 K B	
87-A40-854-080	ZENER, UZ15BSA			C307	87-010-263-080	CAP, ELECT 100-10V	
87-A40-535-080	DIODE, 1N5393-GOODARK<HS, HT>			C308	87-010-263-080	CAP, ELECT 100-10V	
87-017-149-080	ZENER, HZS6A2L			C309	87-010-318-080	C-CAP,S 47P-50 CH	
MAIN C.B				C310	87-010-318-080	C-CAP,S 47P-50 CH	
C3	87-012-368-080	C-CAP,S 0.1-50 F		C313	87-010-188-080	CAP, CHIP 6800P	
C4	87-012-368-080	C-CAP,S 0.1-50 F		C314	87-010-188-080	CAP, CHIP 6800P	
C5	87-012-368-080	C-CAP,S 0.1-50 F		C315	87-010-263-080	CAP, ELECT 100-10V	
C6	87-012-368-080	C-CAP,S 0.1-50 F		C317	87-010-546-080	CAP, ELECT 0.33-50V	
C9	87-012-368-080	C-CAP,S 0.1-50 F		C318	87-010-546-080	CAP, ELECT 0.33-50V	
C10	87-012-368-080	C-CAP,S 0.1-50 F		C326	87-010-198-080	CAP, CHIP 0.022-25 K	
C11	87-012-368-080	C-CAP,S 0.1-50 F		C327	87-012-368-080	C-CAP,S 0.1-50 F	
C12	87-012-368-080	C-CAP,S 0.1-50 F		C360	87-010-401-080	CAP, ELECT 1-50V	
C19	87-A12-036-000	CAP, E 2200-63 SMG		C399	87-012-140-080	C-CAP,S 470P-50 J	
C20	87-A12-036-000	CAP, E 2200-63 SMG		C401	87-010-544-080	CAP, ELECT 0.1-50V	
C21	87-A10-520-000	CAP, E 3300-35 M SMG		C402	87-010-544-080	CAP, ELECT 0.1-50V	
C22	87-A10-520-000	CAP, E 3300-35 M SMG		C403	87-010-321-080	CHIP CAPACITOR, 82P(J)	
C25	87-010-385-080	CAP, ELECT 220-25V		C404	87-010-321-080	CHIP CAPACITOR, 82P(J)	
C26	87-010-247-080	CAP, ELECT 100-50V		C405	87-010-197-080	CAP, CHIP 0.01-25 K B	
C30	87-010-430-080	CAP, ELECT 100-63		C406	87-010-197-080	CAP, CHIP 0.01-25 K B	
				C407	87-010-197-080	CAP, CHIP 0.01-25 K B	
				C408	87-010-197-080	CAP, CHIP 0.01-25 K B	
				C409	87-010-182-080	C-CAP,S 2200P-50 B	
				C410	87-010-182-080	C-CAP,S 2200P-50 B	
				C411	87-010-405-080	CAP, ELECT 10-50V	
				C412	87-010-405-080	CAP, ELECT 10-50V	

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C452	87-010-382-080		CAP, ELECT 22-25V	C844	87-010-197-080		CAP, CHIP 0.01-25 K B
C453	87-010-183-080		C-CAP,S 2700P-50 B	C850	87-010-260-080		CAP, ELECT 47-25V
C454	87-010-183-080		C-CAP,S 2700P-50 B	C851	87-010-197-080		CAP, CHIP 0.01-25 K B
C455	87-010-183-080		C-CAP,S 2700P-50 B	C852	87-010-197-080		CAP, CHIP 0.01-25 K B
C456	87-010-197-080		CAP, CHIP 0.01-25 K B	C853	87-010-197-080		CAP, CHIP 0.01-25 K B
C460	87-010-196-080		CHIP CAPACITOR,0.1-25	C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C461	87-012-158-080		C-CAP,S 390P-50 CH	C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C462	87-012-158-080		C-CAP,S 390P-50 CH	C860	87-010-197-080		CAP, CHIP 0.01-25 K B
C605	87-010-179-080		CAP, CHIP S 1200P-50 KB<HS,HT>	C940	87-010-197-080		CAP, CHIP 0.01 DM<HT>
C605	87-010-184-080		CAP, CHIP S 3300P-50 KB<LH>	C941	87-010-314-080		C-CAP,S 22P-50V<HT>
C606	87-010-179-080		CAP, CHIP S 1200P-50 KB<HS,HT>	C943	87-010-197-080		CAP, CHIP 0.01 DM<HT>
C606	87-010-184-080		CAP, CHIP S 3300P-50 KB<LH>	C945	87-010-197-080		CAP, CHIP 0.01 DM<HT>
C609	87-010-213-080		C-CAP,S 0.015-50 B	C946	87-010-971-080		C-CAP,S 4700P-50 B J<HT>
C610	87-010-213-080		C-CAP,S 0.015-50 B	C947	87-010-197-080		CAP, CHIP 0.01 DM<HT>
C611	87-010-545-080		CAP, ELECT 0.22-50V	C948	87-010-148-080		CAP, CHIP S 4P-50<HT>
C612	87-010-545-080		CAP, ELECT 0.22-50V	C952	87-010-197-080		CAP, CHIP 0.01 DM<HT>
C613	87-010-545-080		CAP, ELECT 0.22-50V	C953	87-010-197-080		CAP, CHIP 0.01 DM<HT>
C614	87-010-545-080		CAP, ELECT 0.22-50V	C954	87-010-400-080		CAP, ELECT 0.47-50V<HT>
C615	87-010-154-080		CAP CHIP 10P-50 CH	C956	87-010-263-080		CAP, ELECT 100-10V<HT>
C616	87-010-221-080		CAP, ELECT 470-10 M	C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C617	87-010-221-080		CAP, ELECT 470-10 M	C960	87-010-196-080		CHIP CAPACITOR,0.1-25<LH,HS>
C618	87-010-405-080		CAP, ELECT 10-50V	C961	87-010-152-080		C-CAP,S 8P-50 CH<LH,HS>
C630	87-016-669-080		C-CAP,S 0.1-25 K B	C962	87-010-401-080		CAP, ELECT 1-50V<HT>
C631	87-010-185-080		C-CAP,S 3900P-50 B	C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C632	87-010-185-080		C-CAP,S 3900P-50 B	C964	87-010-854-080		C-CAP,S 560PCH<HT>
C633	87-016-369-080		C-CAP,S 0.033-25 K B	C971	87-010-381-080		CAP, ELECT 330-16V
C634	87-016-369-080		C-CAP,S 0.033-25 K B	C972	87-010-404-080		CAP, ELECT 4.7-50V
C669	87-010-322-080		C-CAP,S 100P-50 CH	C973	87-010-197-080		CAP, CHIP 0.01-25 K B
C670	87-010-322-080		C-CAP,S 100P-50 CH	C974	87-010-197-080		CAP, CHIP 0.01-25 K B
C671	87-010-196-080		CHIP CAPACITOR,0.1-25<HS,HT>	C979	87-010-322-080		C-CAP,S 100P-50 CH
C672	87-010-196-080		CHIP CAPACITOR,0.1-25<HS,HT>	C981	87-010-260-080		CAP, ELECT 47-25V
C673	87-010-182-080		C-CAP,S 2200P-50 B<HS,HT>	C982	87-010-196-080		CHIP CAPACITOR,0.1-25
C677	87-010-197-080		CAP, CHIP 0.01-25 K B	C983	87-010-197-080		CAP, CHIP 0.01-25 K B
C771	87-010-263-080		CAP, ELECT 100-10V	C984	87-010-197-080		CAP, CHIP 0.01-25 K B
C772	87-010-197-080		CAP, CHIP 0.01-25 K B	C987	87-010-197-080		CAP, CHIP 0.01-25 K B
C782	87-010-197-080		CAP, CHIP 0.01-25 K B	C989	87-010-197-080		CAP, CHIP 0.01 DM<HT>
C783	87-010-197-080		CAP, CHIP 0.01-25 K B	C991	87-010-312-080		C-CAP,S 15P-50 CH
C784	87-010-197-080		CAP, CHIP 0.01-25 K B	C992	87-010-312-080		C-CAP,S 15P-50 CH
C785	87-010-197-080		CAP, CHIP 0.01-25 K B	C993	87-010-178-080		CHIP CAP 1000P-50 K B
C786	87-010-197-080		CAP, CHIP 0.01-25 K B	C995	87-010-178-080		CHIP CAP 1000P-50 K B
C788	87-010-149-080		C-CAP,S 5P-50 CH	C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C789	87-A10-801-080		C-CAP,S 0.022-16 J B<HS,HT>	C998	87-010-260-080		CAP, ELECT 47-25V
C789	87-A12-052-080		C-CAP,S 0.033-25 J B<LH>	C999	87-A11-155-080		CAP, TC U 0.01-16 Z F
C790	87-A10-801-080		C-CAP,S 0.022-16 J B<HS,HT>	CF831	87-008-261-010		FILTER, SFE10.7MA5-A
C790	87-A12-052-080		C-CAP,S 0.033-25 J B<LH>	CF832	87-008-261-010		FILTER, SFE10.7MA5-A
C791	87-010-196-080		CHIP CAPACITOR,0.1-25	CN301	87-A60-620-010		CONN,3P V 2MM JMT
C792	87-010-197-080		CAP, CHIP 0.01-25 K B	CN351	87-A60-625-010		CONN,8P V 2MM JMT
C793	87-010-404-080		CAP, ELECT 4.7-50V	CN601	87-099-719-010		CONN,30P TYK-B(X)
C795	87-010-197-080		CAP, CHIP 0.01-25 K B	CN602	87-A60-131-010		CONN,6P V FE
C796	87-010-197-080		CAP, CHIP 0.01-25 K B	CNA1	8A-NF8-653-010		CONN ASSY,9P TID-A(480)
C797	87-010-405-080		CAP, ELECT 10-50V	CON351	86-ZM3-605-110		CON ASSY,8P-PB
C798	87-010-197-080		CAP, CHIP 0.01-25 K B	D951	87-A40-618-080		VARI-CAP,SVC 348 (S/T) <HT>
C799	87-010-407-080		CAP, ELECT 33-50V	FC602	88-906-251-110		FF-CABLE,6P 1.25
C800	87-012-369-080		C-CAP,S 0.047-50F	FFE831	A8-8ZA-190-030		8ZA-1 FEUNM<HS,HT>
C801	87-010-403-080		CAP, ELECT 3.3-50V	FFE831	A8-8ZA-191-030		8ZA-1 YFEUNM<LH>
C802	87-010-194-080		CAP, CHIP 0.047-25 Z F	J202	87-A60-488-010		JACK,DIA6.3 BLK ST W/SW KM16AT
C803	87-010-198-080		CAP, CHIP 0.022-25 K B	J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
C804	87-010-263-080		CAP, ELECT 100-10V	J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
C807	87-010-400-080		CAP, ELECT 0.47-50V	J831	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
C808	87-010-401-080		CAP, ELECT 1-50V	J940	87-A60-633-010		CONN,2P H 2.5MM JMT<HT>
C809	87-010-401-080		CAP, ELECT 1-50V	L101	87-003-383-010		COIL,1UH-S
C810	87-010-196-080		CHIP CAPACITOR,0.1-25	L102	87-003-383-010		COIL,1UH-S
C814	87-010-197-080		CAP, CHIP 0.01-25 K B	L451	87-007-342-010		COIL,OSC 85K BIAS
C815	87-010-400-080		CAP, ELECT 0.47-50V	L801	87-A50-540-010		COIL,FM DET(TOK)
C816	87-010-400-080		CAP, ELECT 0.47-50V	L802	87-A91-552-010		FLTR,CFMT-450AL (TOK)<HT>
C821	87-010-405-080		CAP, ELECT 10-50V	L802	87-A91-551-010		FLTR,PCPJZH-450 L(TOK)<LH,HS>
C823	87-010-177-080		C-CAP,S 820P-50 SL	L811	87-005-847-080		COIL,2.2UH(CECS)
C824	87-010-404-080		CAP, ELECT 4.7-50 M	L832	87-005-847-080		COIL,2.2UH(CECS)
C825	87-010-596-080		CAP, S 0.047-16	L941	87-A50-022-010		COIL,ANT SW 7.96 MHZ(COI)<HT>
C842	87-010-197-080		CAP, CHIP 0.01-25 K B	L942	87-A50-550-010		COIL,OSC SW-2N(COI)<HT>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION		
L943	87-A50-522-080		COIL, 1MH K CEC<HT>	C911	87-010-178-080		CHIP CAP 1000P-50 K B		
L944	87-A50-159-010		COIL, 10MH K C2B<HT>	C912	87-010-196-080		CHIP CAPACITOR, 0.1-25		
L951	8A-NF8-667-010		COIL, AM PACK 4 (TOK) <LH, HS>	C913	87-010-248-040		CAP, E 220-10 SME		
L952	87-A50-430-010		COIL, ANT MW(3BSW)<HT>	C914	87-010-248-040		CAP, E 220-10 SME		
L953	87-A50-431-010		COIL, OSC MW(3BSW)<HT>	C915	87-010-196-080		CHIP CAPACITOR, 0.1-25		
R129	87-A00-669-080		RES, M/F 0.22-2W J RA<LH>	C916	87-010-196-080		CHIP CAPACITOR, 0.1-25		
R130	87-A00-669-080		RES, M/F 0.22-2W J RA<LH>	C917	87-010-196-080		CHIP CAPACITOR, 0.1-25		
R131	87-A00-669-080		RES, M/F 0.22-2W J RA	C919	87-010-197-080		CAP, CHIP 0.01-25 K B		
R132	87-A00-669-080		RES, M/F 0.22-2W J RA	C920	87-012-369-080		C-CAP, S 0.047-50F		
R143	87-A00-440-050		RES, 220-1/2W J RP	C921	87-010-186-080		CAP, CHIP 4700P-50 K B		
R144	87-A00-440-050		RES, 220-1/2W J RP	C951	87-010-312-080		C-CAP, S 15P-50 CH		
R145	87-A00-440-050		RES, 220-1/2W J RP	C952	87-012-155-080		C-CAP 180P-50CH		
R146	87-A00-440-050		RES, 220-1/2W J RP	C953	87-012-140-080		CAP 470P-50 CH		
R653	87-A11-144-080		CAP, TC U 0.1-50 K B	C961	87-010-378-040		CAP, E 10-16 M SME		
R654	87-A11-144-080		CAP, TC U 0.1-50 K B	C962	87-012-157-080		C-CAP, S 330P-50 CH		
R790	87-010-197-080		CAP, CHIP 0.01 DM	C963	87-010-196-080		CHIP CAPACITOR, 0.1-25		
R991	87-010-322-080		C-CAP, S 100P-50 CH	CN104	87-A60-057-010		CONN, 11P V 9604S-11C		
R993	87-010-322-080		C-CAP, S 100P-50 CH	CN701	87-099-720-010		CONN, 30P BLK TYK-B(P)		
R995	87-010-322-080		C-CAP, S 100P-50 CH	CN731	87-099-015-010		CONN, 13P V BLK 6216V		
SFR451	87-A90-432-080		SFR, 30K H NVZ6TLTA	EMI401	87-008-372-080		FILTER, EMI BL OIRNI<HS, HT>		
SFR452	87-A90-432-080		SFR, 30K H NVZ6TLTA	FC104	88-911-101-110		FF-CABLE, 11P 1.25		
TC941	87-011-254-080		TRIMER, 20P LAR<HT>	FC731	88-913-301-110		FF-CABLE, 13P-1.25		
TC943	87-011-253-080		TRIMER, 30P LAR<HT>	FL901	8A-NF9-605-010		FL, HNA-10SS12		
WH1	87-A90-510-010		HLDL, WIRE 2.5-9P	J401	87-A61-242-010		JACK, 6.3 BLK MONO W/SW V KM<HS, HT>		
X991	87-A70-061-010		VIB, XTAL 4.500MHz CSA-309	L951	87-A50-434-010		COIL, CLK 4.19M(TOKO)		
FRONT C.B									
C101	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED201	87-A40-619-040		LED, SLR-56PT-T31-W GRN		
C102	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED202	87-A40-619-040		LED, SLR-56PT-T31-W GRN		
C103	87-010-498-040		CAP, E 10-16 M 5L	LED203	87-A40-619-040		LED, SLR-56PT-T31-W GRN<HS, HT>		
C104	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED204	87-A40-619-040		LED, SLR-56PT-T31-W GRN		
C107	87-010-493-040		CAP, E 0.47-50 M 5L	LED205	87-A40-619-040		LED, SLR-56PT-T31-W GRN		
C108	87-012-393-080		C-CAP, S 0.22-16 R K	LED206	87-A40-619-040		LED, SLR-56PT-T31-W GRN<HS, HT>		
C153	87-010-198-080		CAP, CHIP 0.022-25 K B	LED209	87-A40-317-080		LED, SLR-342VCT31 RED		
C154	87-010-246-040		CAP, E 47-35 SME	LED210	87-A40-619-040		LED, SLR-56PT-T31-W GRN<LH>		
C155	87-010-404-040		CAP, E 4.7-50 SME	S301	87-A90-164-080		SW, TACT SKQAB (N)		
C156	87-010-404-040		CAP, E 4.7-50 SME	S302	87-A90-164-080		SW, TACT SKQAB (N)		
C361	87-010-178-080		CHIP CAP 1000P-50 K B	S303	87-A90-164-080		SW, TACT SKQAB (N)		
C362	87-010-178-080		CHIP CAP 1000P-50 K B	S304	87-A90-164-080		SW, TACT SKQAB (N)		
C371	87-010-178-080		CHIP CAP 1000P-50 K B	S305	87-A90-164-080		SW, TACT SKQAB (N)		
C372	87-010-178-080		CHIP CAP 1000P-50 K B	S306	87-A90-164-080		SW, TACT SKQAB (N)		
C401	87-010-186-080		CAP, CHIP 4700P<HS, HT>	S307	87-A90-164-080		SW, TACT SKQAB (N)		
C402	87-010-112-040		CAP, E 100-16<HS, HT>	S308	87-A90-164-080		SW, TACT SKQAB (N)		
C403	87-010-545-040		CAP, E 0.22-50 SME<HS, HT>	S309	87-A90-164-080		SW, TACT SKQAB (N)		
C404	87-010-320-080		CHIP CAP 68P<HS, HT>	S321	87-A90-164-080		SW, TACT SKQAB (N)		
C405	87-010-544-040		CAP, E 0.1-50 SME<HS, HT>	S322	87-A90-164-080		SW, TACT SKQAB (N)		
C406	87-010-544-040		CAP, E 0.1-50 SME<HS, HT>	S323	87-A90-164-080		SW, TACT SKQAB (N)		
C407	87-010-405-040		CAP, E 10-50<HS, HT>	S324	87-A90-164-080		SW, TACT SKQAB (N)		
C408	87-010-322-080		C-CAP, S 100P-50 CH<HS, HT>	S325	87-A90-164-080		SW, TACT SKQAB (N)		
C409	87-010-265-040		CAP, E 33-16 SME<HS, HT>	S326	87-A90-164-080		SW, TACT SKQAB (N)		
C410	87-012-369-080		C-CAP, S 0.047-50F<HS, HT>	S341	87-A90-164-080		SW, TACT SKQAB (N)		
C413	87-010-177-080		C-CAP, S 820P-50 SL<HS, HT>	S342	87-A90-164-080		SW, TACT SKQAB (N)		
C601	87-010-382-040		CAP, E 22-25 SME	S343	87-A90-164-080		SW, TACT SKQAB (N)		
C801	87-010-195-080		C-CAP, S 0.068-25 F	S344	87-A90-164-080		SW, TACT SKQAB (N)		
C802	87-010-195-080		C-CAP, S 0.068-25 F	S345	87-A90-164-080		SW, TACT SKQAB (N)		
C803	87-010-402-040		CAP, E 2.2-50 SME	S346	87-A90-164-080		SW, TACT SKQAB (N)		
C804	87-010-402-040		CAP, E 2.2-50 SME	S347	87-A90-164-080		SW, TACT SKQAB (N)		
C805	87-010-196-080		CHIP CAPACITOR, 0.1-25	S348	87-A90-164-080		SW, TACT SKQAB (N)		
C806	87-010-196-080		CHIP CAPACITOR, 0.1-25	S349	87-A90-164-080		SW, TACT SKQAB (N)		
C901	87-010-322-080		C-CAP, S 100P-50 CH	S350	87-A90-164-080		SW, TACT SKQAB (N)		
C902	87-010-322-080		C-CAP, S 100P-50 CH	S361	87-A91-633-010		SW, RTRY XRE012103PVB25FINA 1-2		
C903	87-010-322-080		C-CAP, S 100P-50 CH	S371	87-A91-632-010		SW, RTRY XRE012103PVB25FINB 1-2		
C904	87-010-322-080		C-CAP, S 100P-50 CH	VR401	86-NFA-607-010		VR, RTRY 10K15AX1 1V XV0121PVN<HS, HT>		
C905	87-010-322-080		C-CAP, S 100P-50 CH	PT C.B					
C906	87-010-322-080		C-CAP, S 100P-50 CH	C1	87-010-387-080		CAP, E 470-25 SME		
C907	87-010-322-080		C-CAP, S 100P-50 CH	C31	87-010-403-080		CAP, ELECT 3.3-50V		
C908	87-010-322-080		C-CAP, S 100P-50 CH	CN1	87-A61-110-010		CONN, 9P V TID-A		
C909	87-010-322-080		C-CAP, S 100P-50 CH	△ PT1	8A-NF9-614-010		PT, ANF-9 HR-HI<HS, HT>		
C910	87-010-322-080		C-CAP, S 100P-50 CH	△ PT1	8A-NF9-616-010		PT, ANF-9 LH-HI<LH>		

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
△ PT2	8A-NF8-673-010	PT, SUB ANF-8 (H) KAMI	
△ RY1	87-A91-339-010	RELAY, AC DC12V G5PA-2	
△ S1	87-A90-165-010	SW, SL 1-2-3 SWS2301<LH, HT>	
△ T1	87-A60-317-010	TERMINAL, 1P MSC	
△ T2	87-A60-317-010	TERMINAL, 1P MSC	

DECK C.B<LH>

CN1	87-099-753-010	CONN, 11P H 9604
HL1	8Z-ZM3-214-010	HLDL, IC
SFR1	87-024-581-010	SFR, 3.3K DIA6V K0A
SW1	87-A90-673-010	SW, MICRO ESE11SH1C
SW2	87-A91-500-010	SW, MICRO MPU11470MLB0
SW3	87-A91-500-010	SW, MICRO MPU11470MLB0
SW4	87-A91-500-010	SW, MICRO MPU11470MLB0
SW5	87-A90-673-010	SW, MICRO ESE11SH1C

DECK C.B<HS, HT>

CON105	87-099-753-010	CONN, 11P 9604
SFR1	87-024-581-010	SFR, 3.3K DIA 6H
SOL1	82-ZM1-618-410	SOL ASSY, 27
SOL2	82-ZM1-618-410	SOL ASSY, 27
SW1	87-A90-248-010	SW, MICRO ESE11SH2CXQ
SW2	87-A90-248-010	SW, MICRO ESE11SH2CXQ
SW3	87-A90-248-010	SW, MICRO ESE11SH2CXQ
SW4	87-A90-248-010	SW, MICRO ESE11SH2CXQ
SW5	87-A90-248-010	SW, MICRO ESE11SH2CXQ
W1	82-ZM3-601-010	RBN-CORD, 4P-75

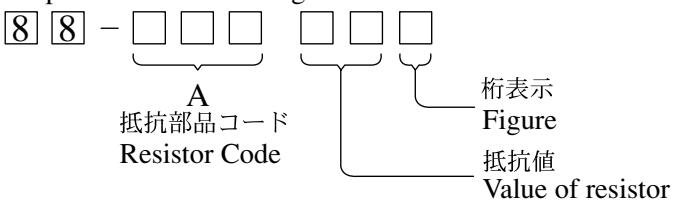
HEAD-1 C.B<HS, HT>

CON301	85-MA2-615-010	CONN, ASSY 3P-PBDECK C.B
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○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

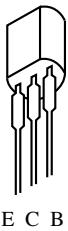
Chip Resistor Part Coding



チップ抵抗
Chip resistor

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

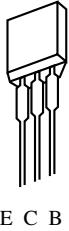
TRANSISTOR ILLUSTRATION



CD1585BC
CSA952K
CSC4115BC
KTA1266GR
KTC3198GR



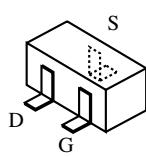
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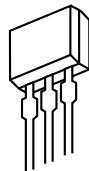
DTC114ES
KTC3199GR



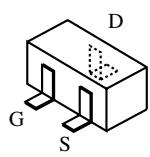
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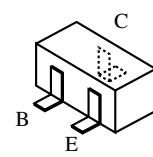
2SK360E



2SJ460
2SK2541



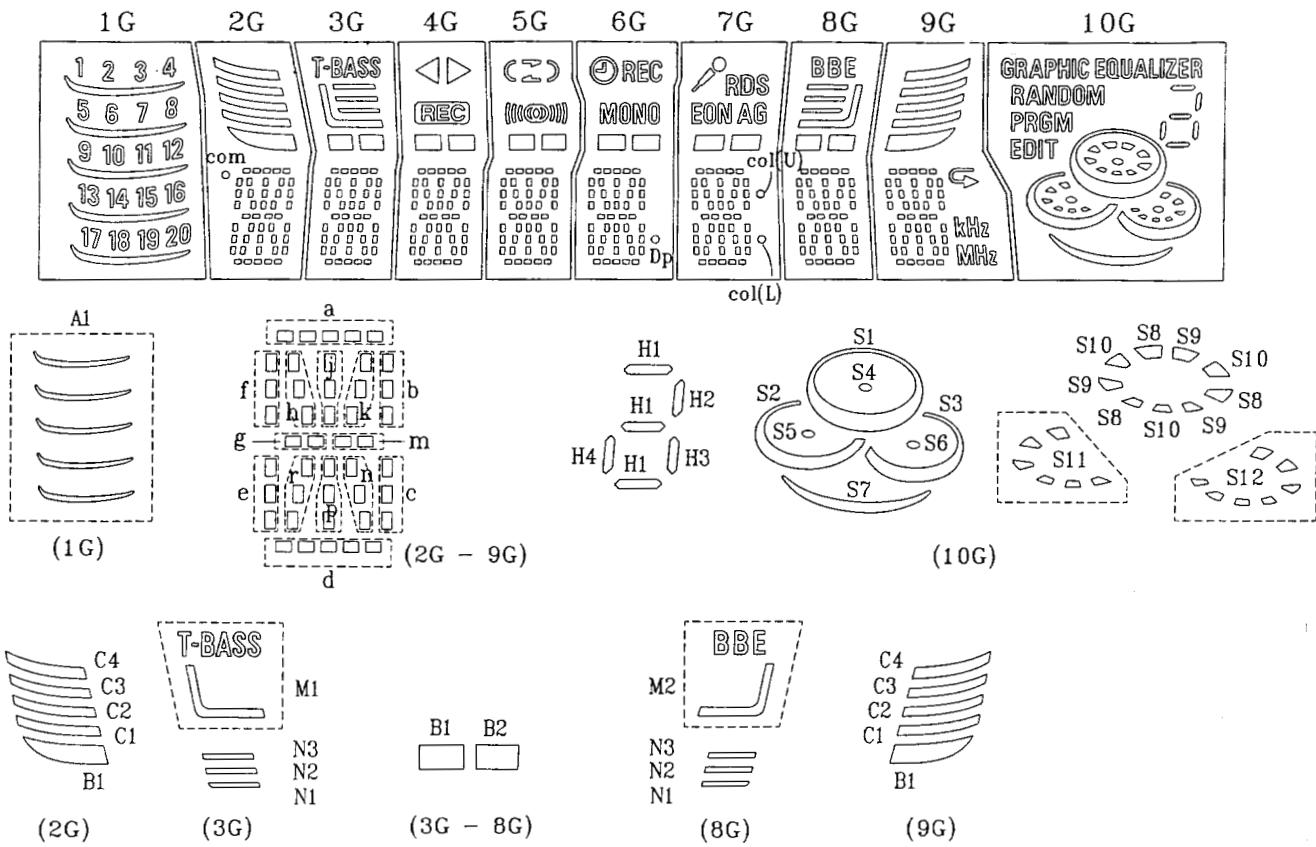
2SK2158



2SA1235F CSD1306E
2SC2714 KRC102S-RTK
2SC3052F KRC104S
CMBT5401 RT1P141C
CMBT5551 RT1P144C

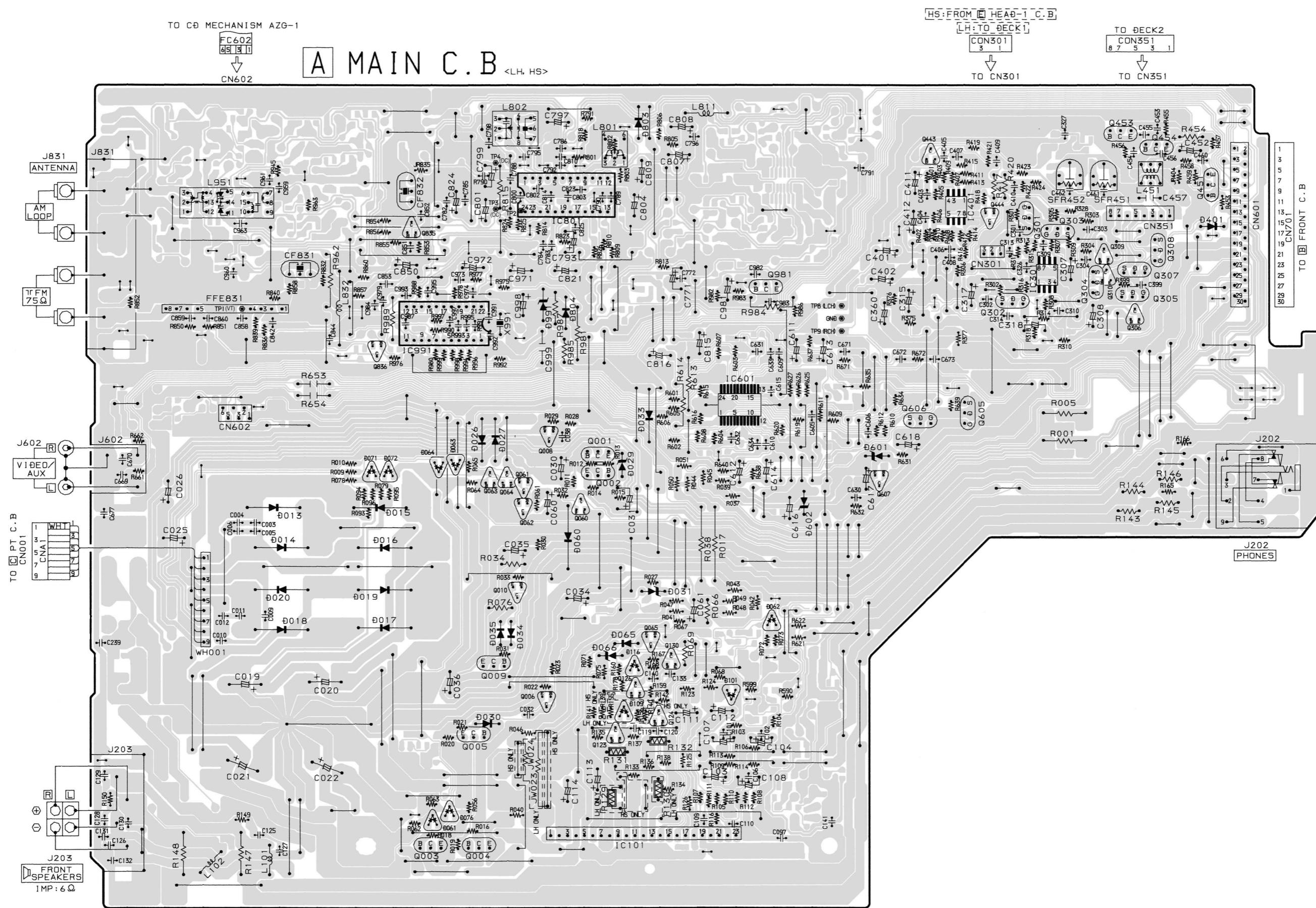
FL (HNA-10SS12) GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT

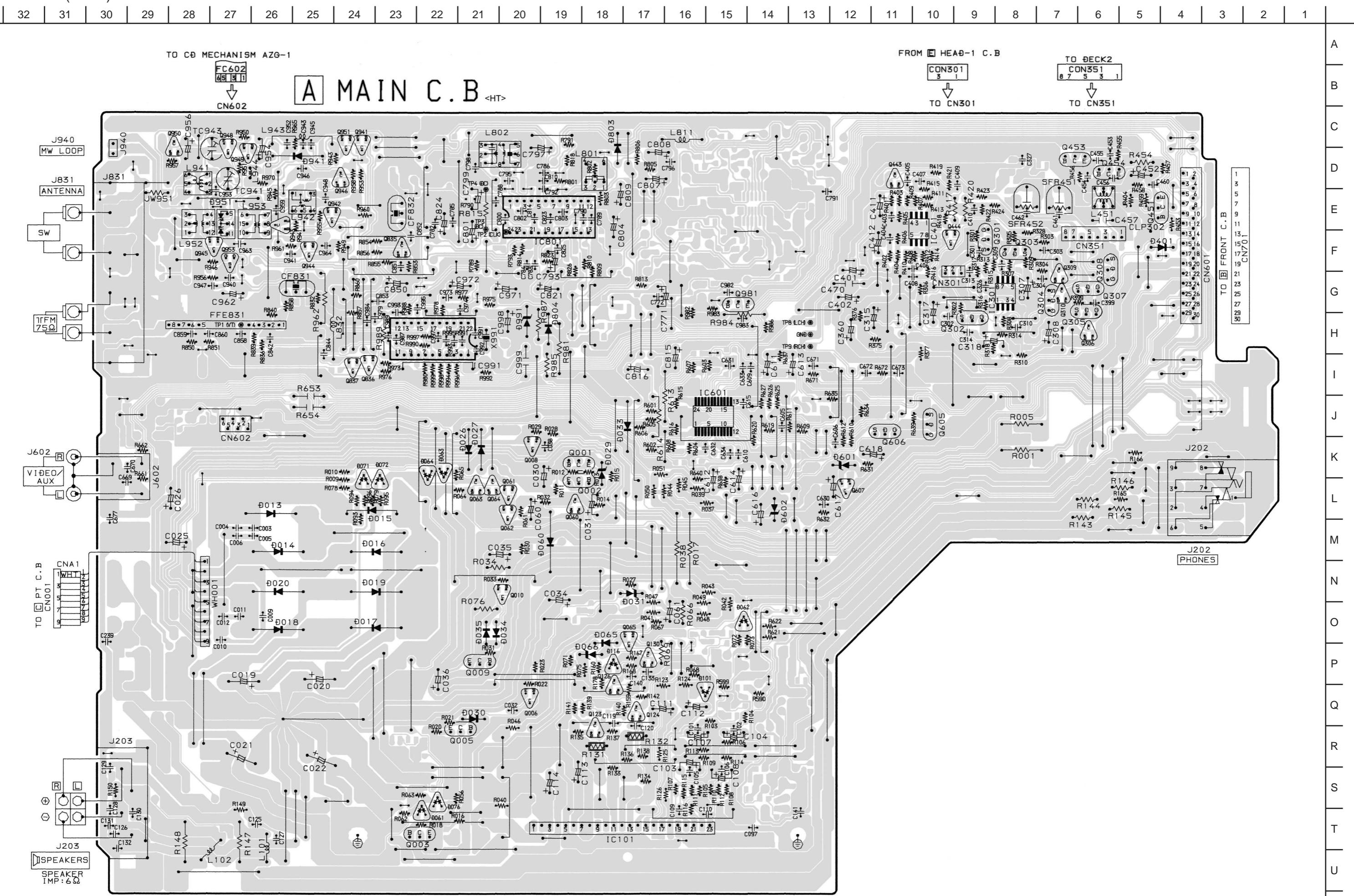


WIRING – 1 (MAIN)<LH,HS>

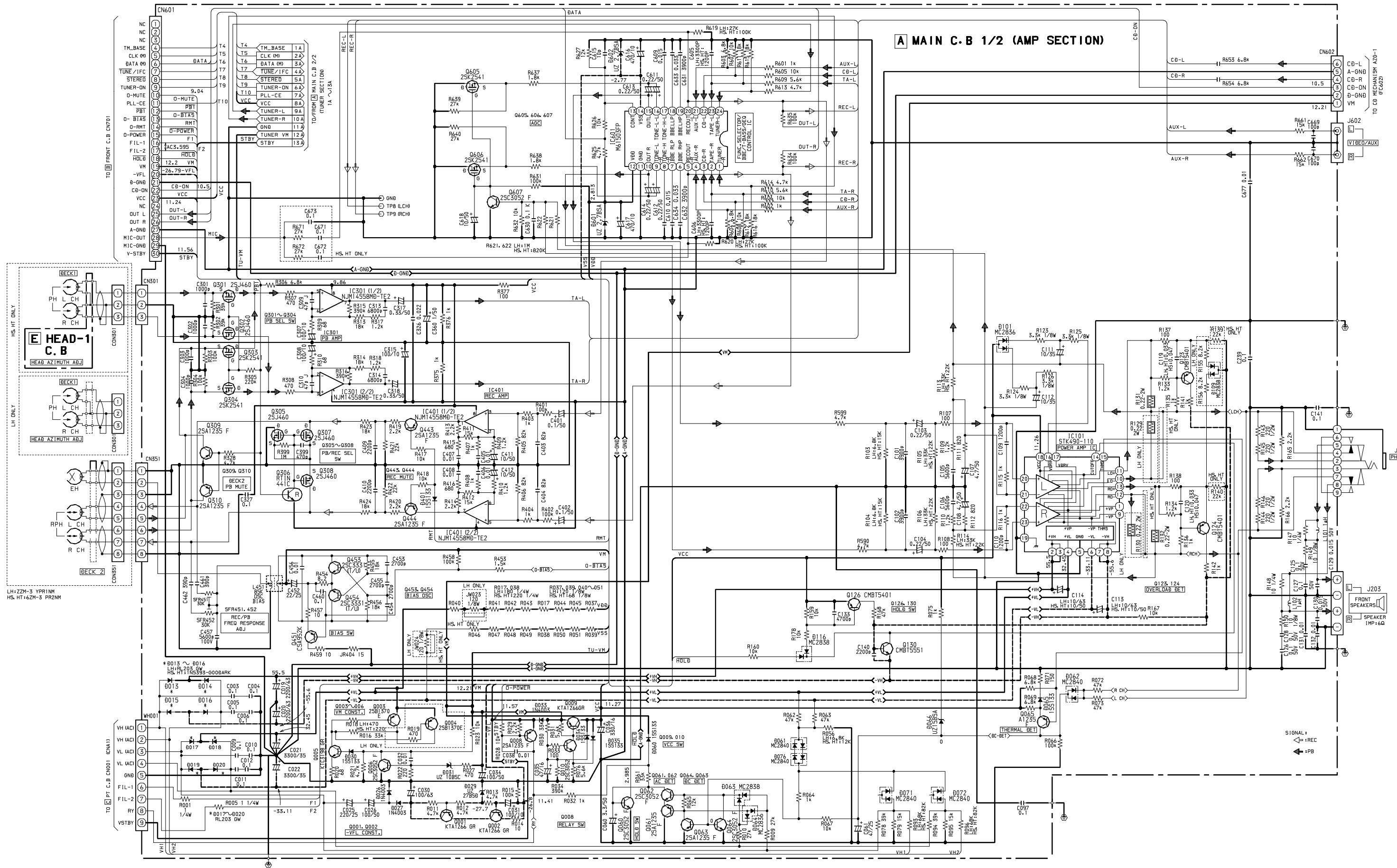
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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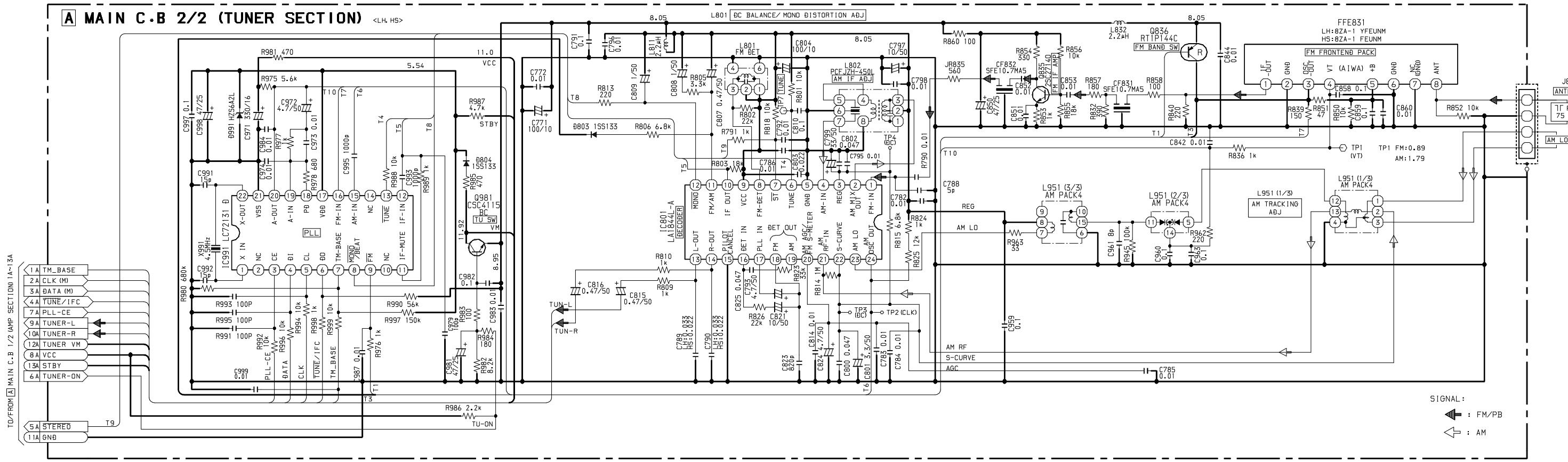
WIRING – 2 (MAIN)<HT>

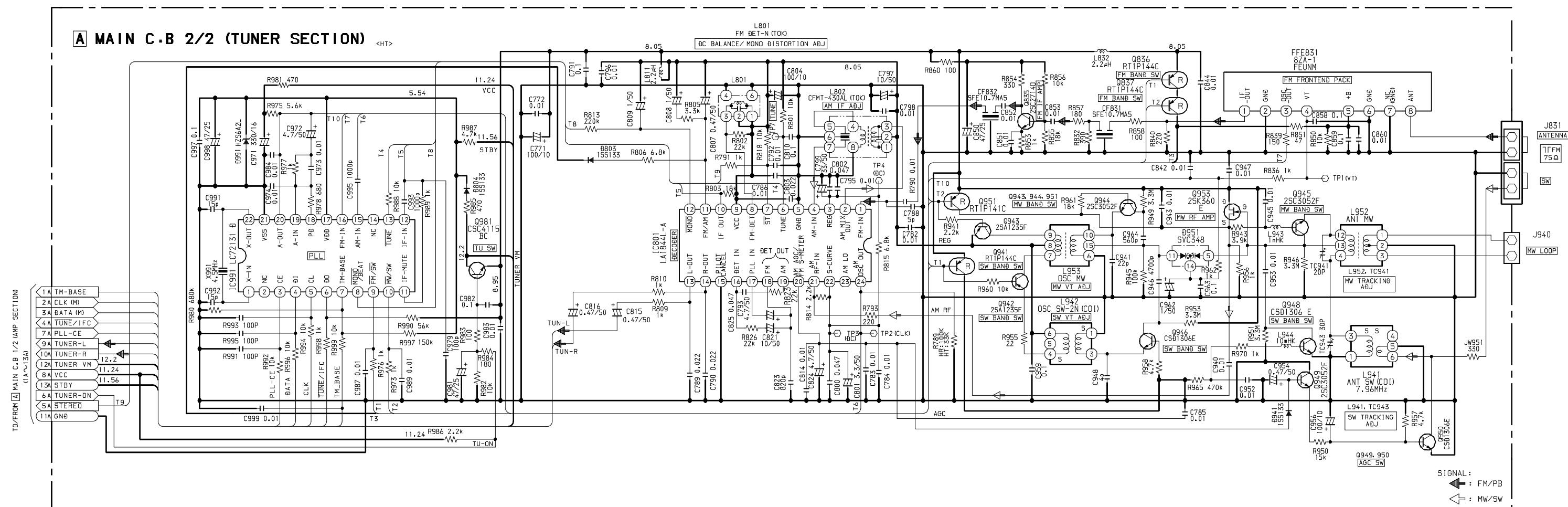


SCHEMATIC DIAGRAM – 1 (MAIN 1 / 2 : AMP / HEAD-1)



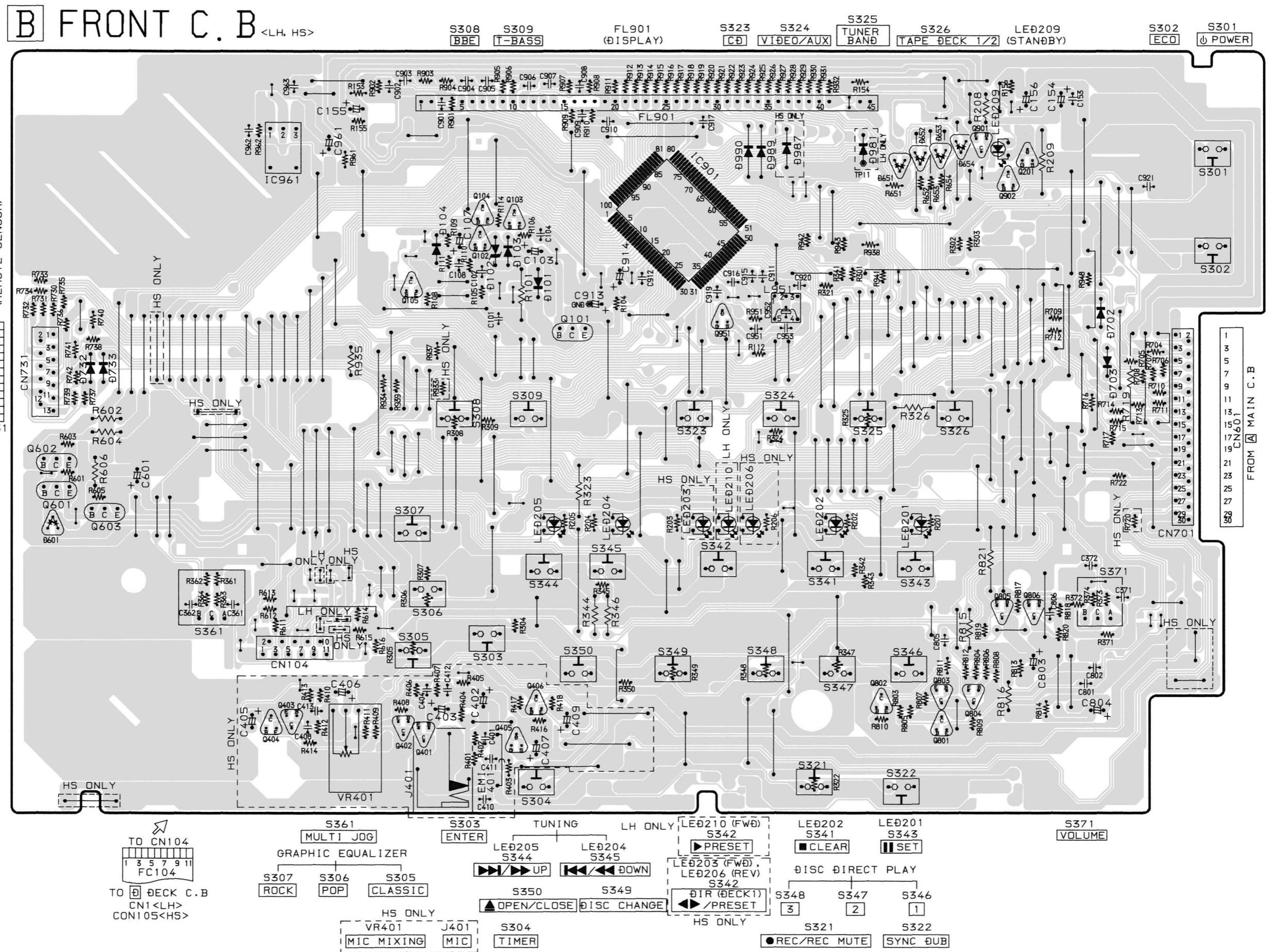
SCHEMATIC DIAGRAM – 2 (MAIN 2 / 2 : TUNER) < LH, HS >





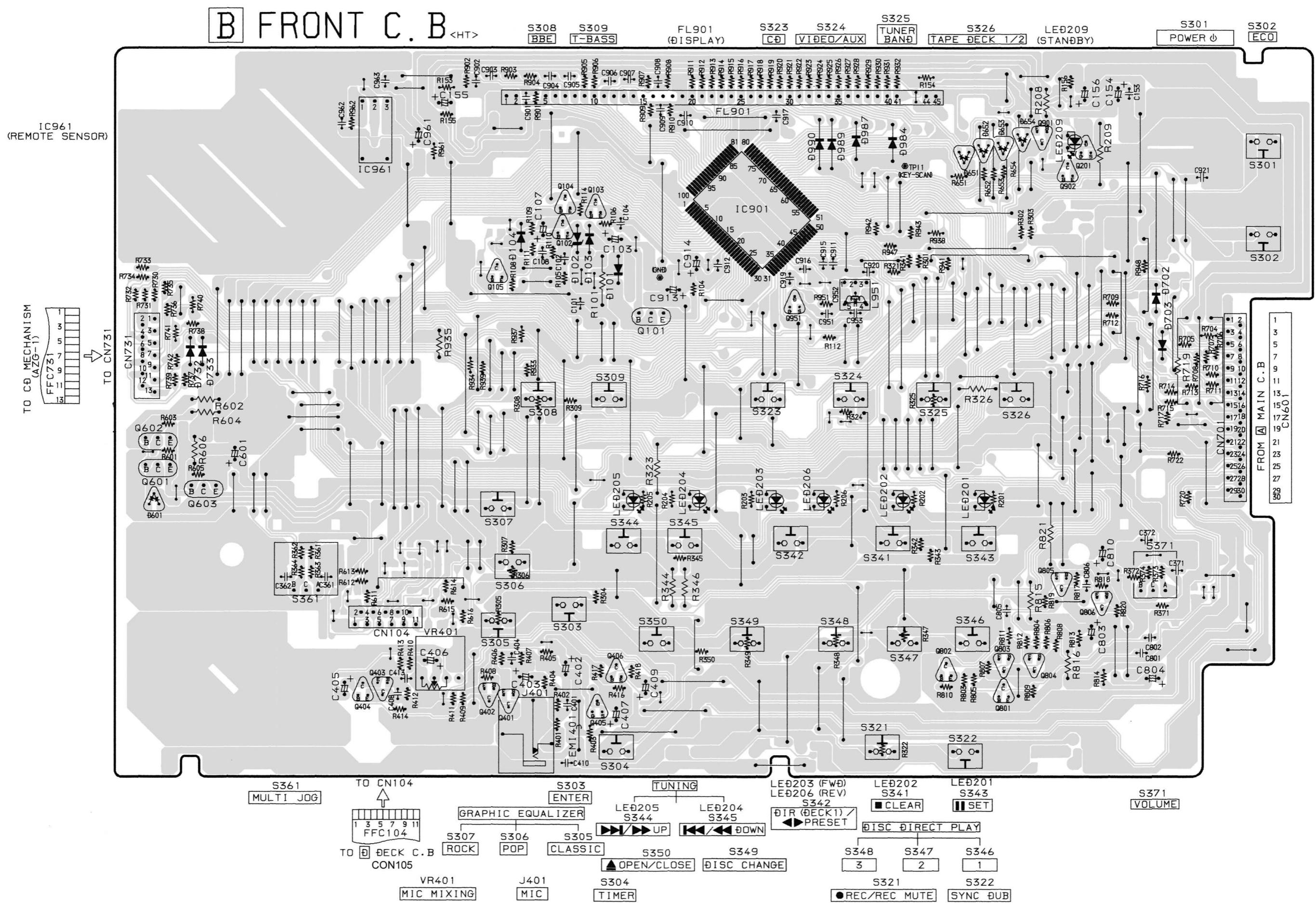
WIRING – 3 (FRONT)<LH,HS>

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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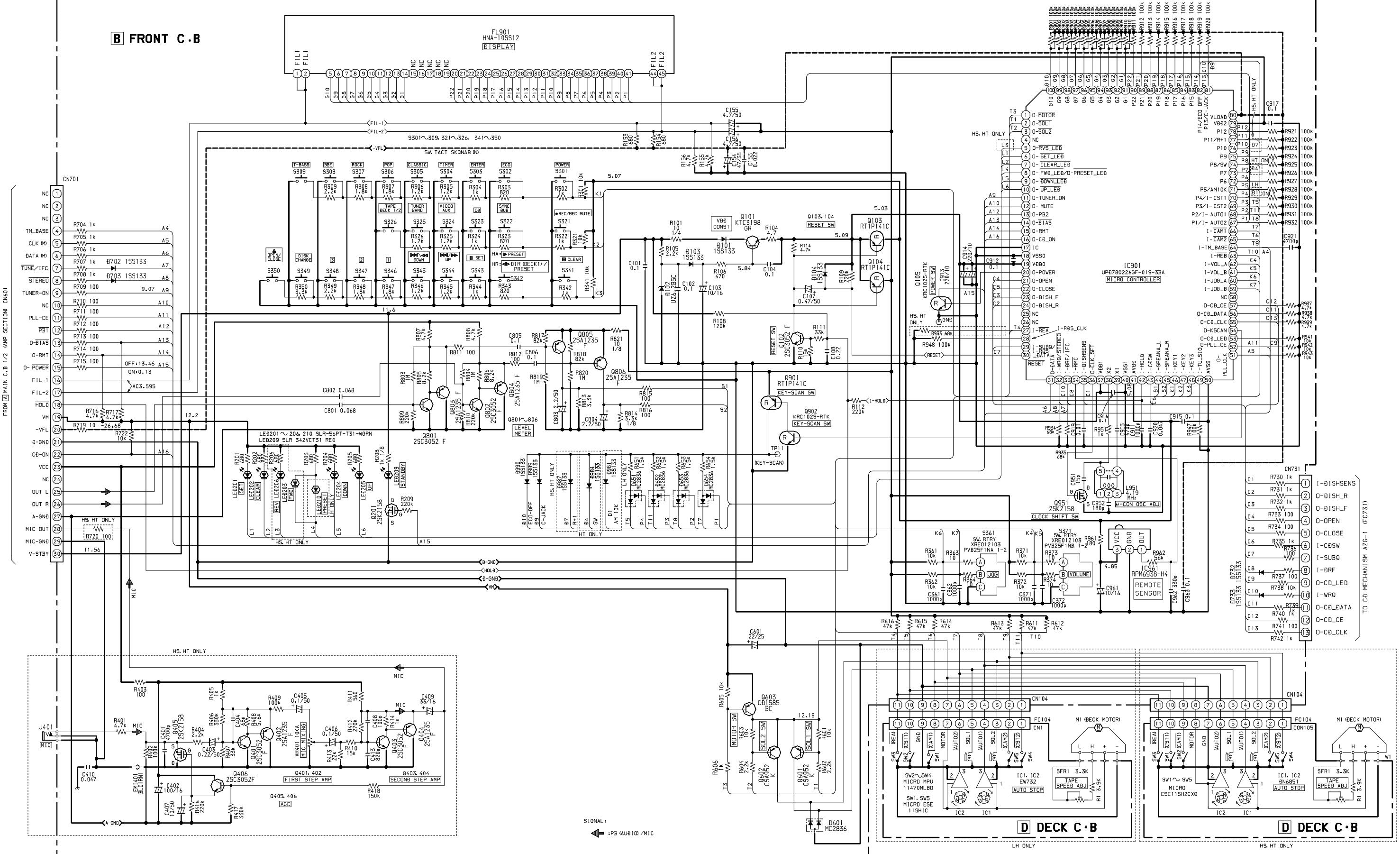


WIRING – 4 (FRONT)<HT>

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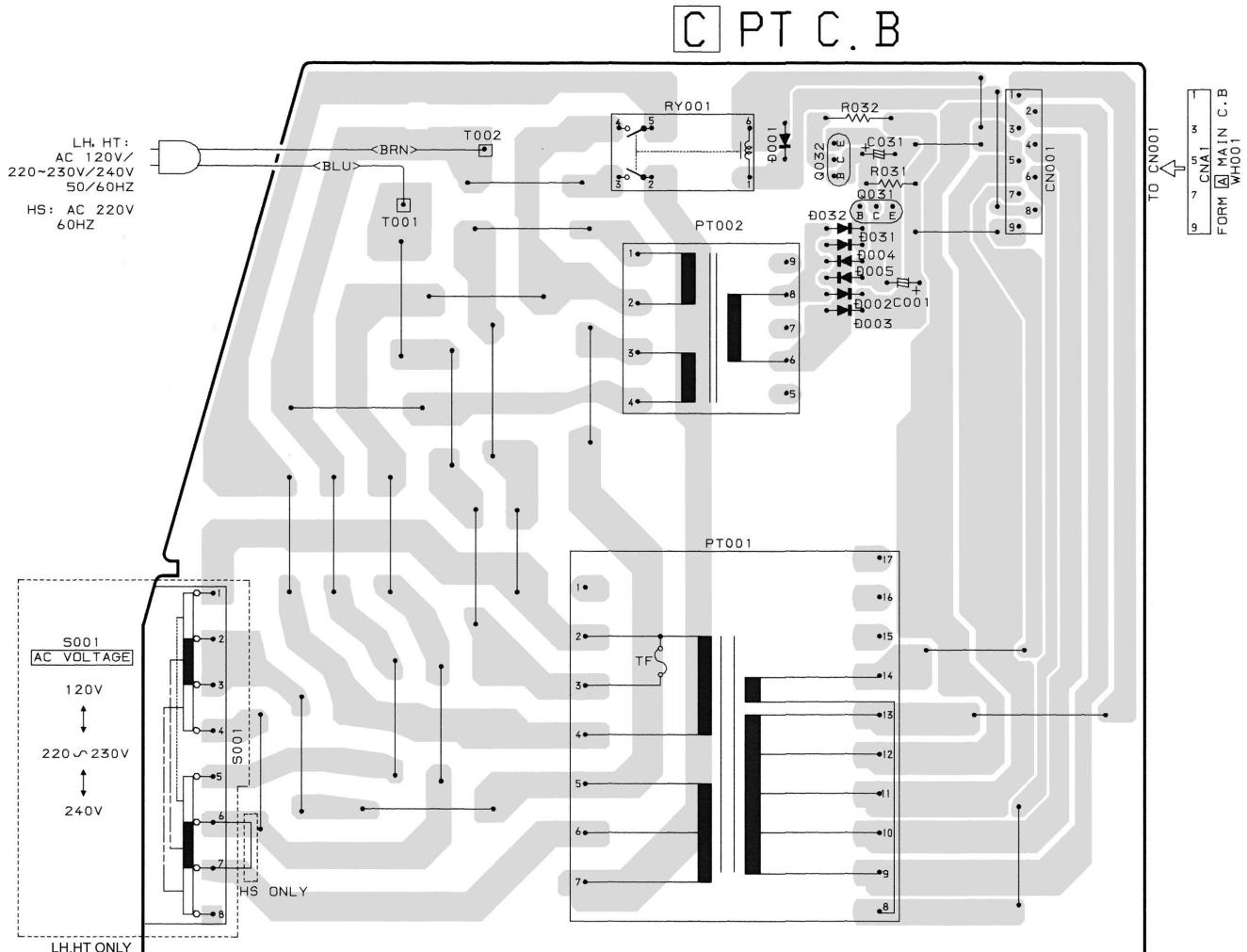


SCHEMATIC DIAGRAM – 4 (FRONT)

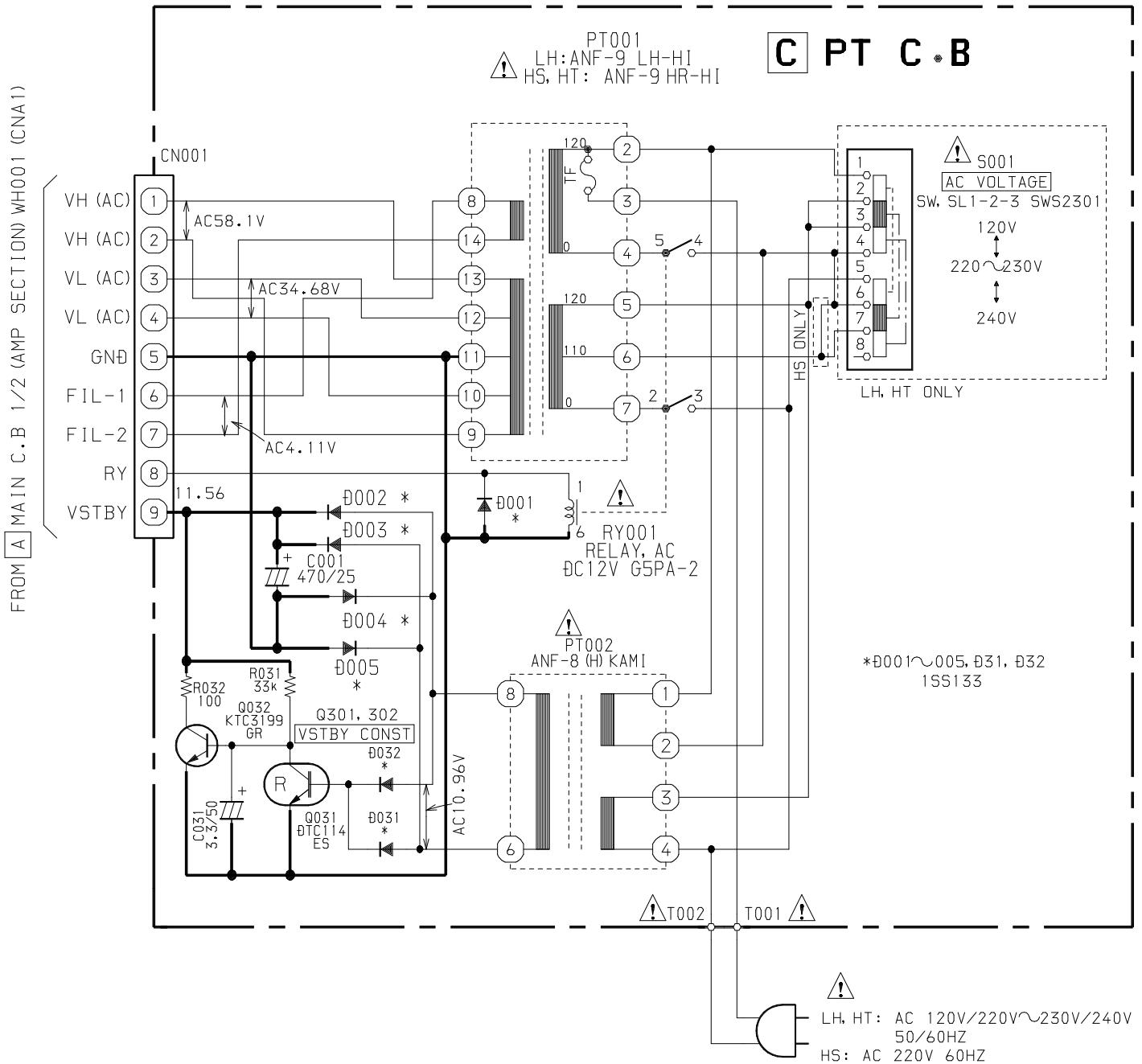


WIRING – 5 (PT)

15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1

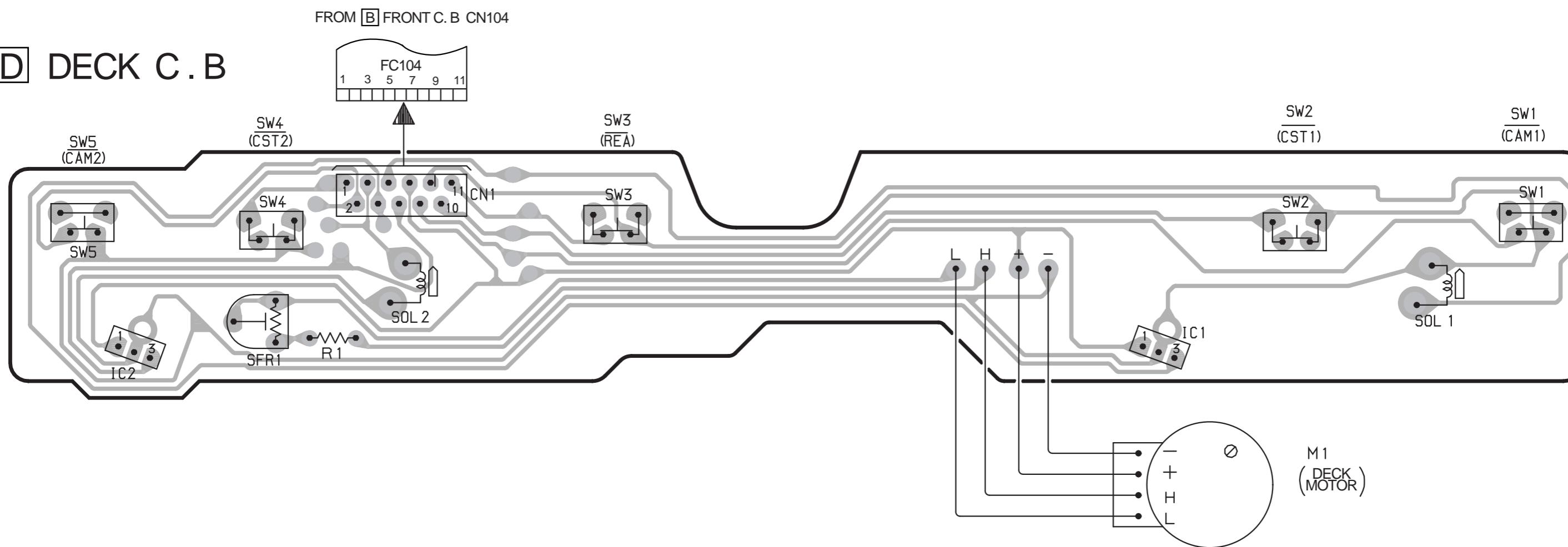


SCHEMATIC DIAGRAM – 5 (PT)

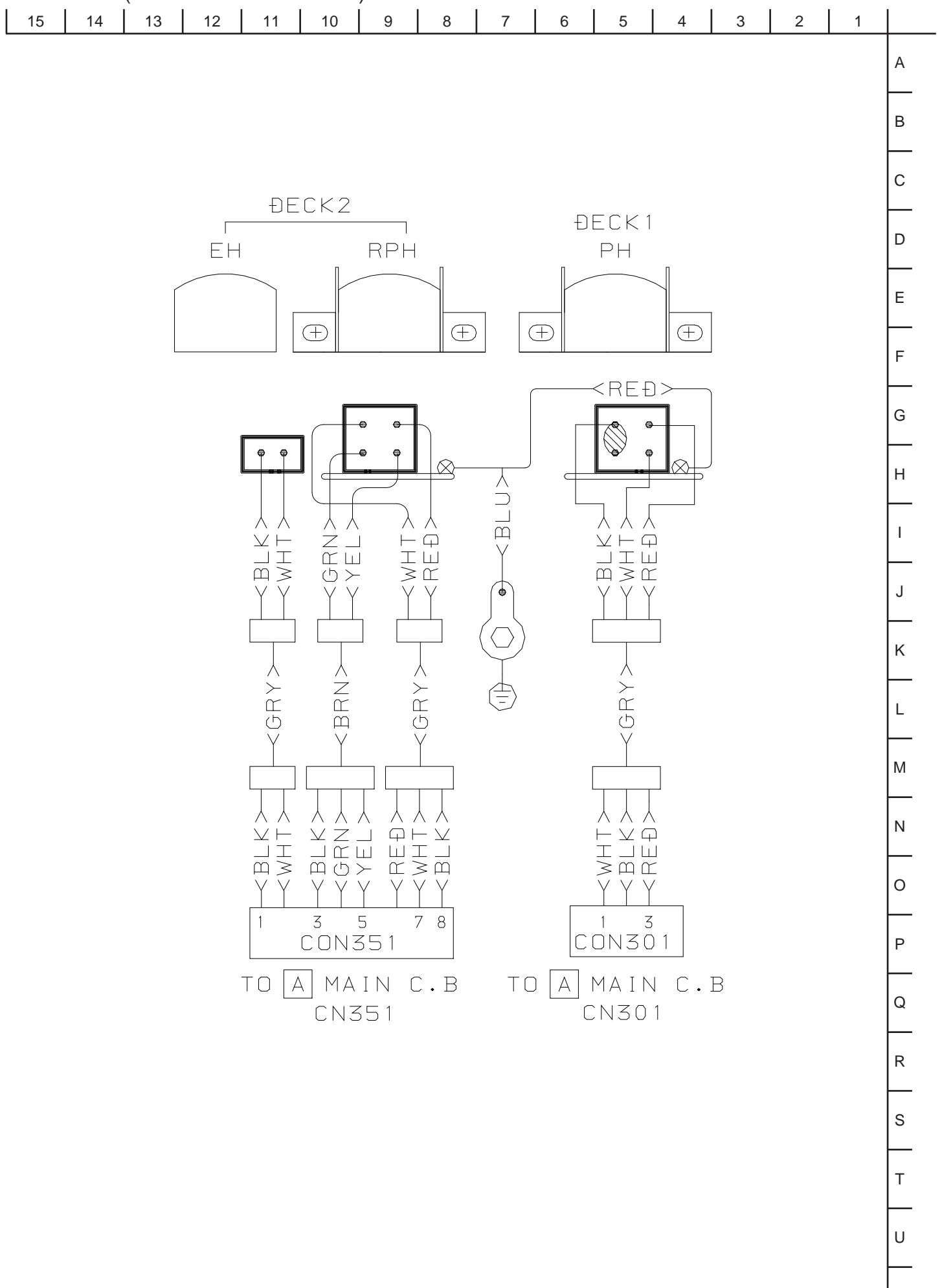


32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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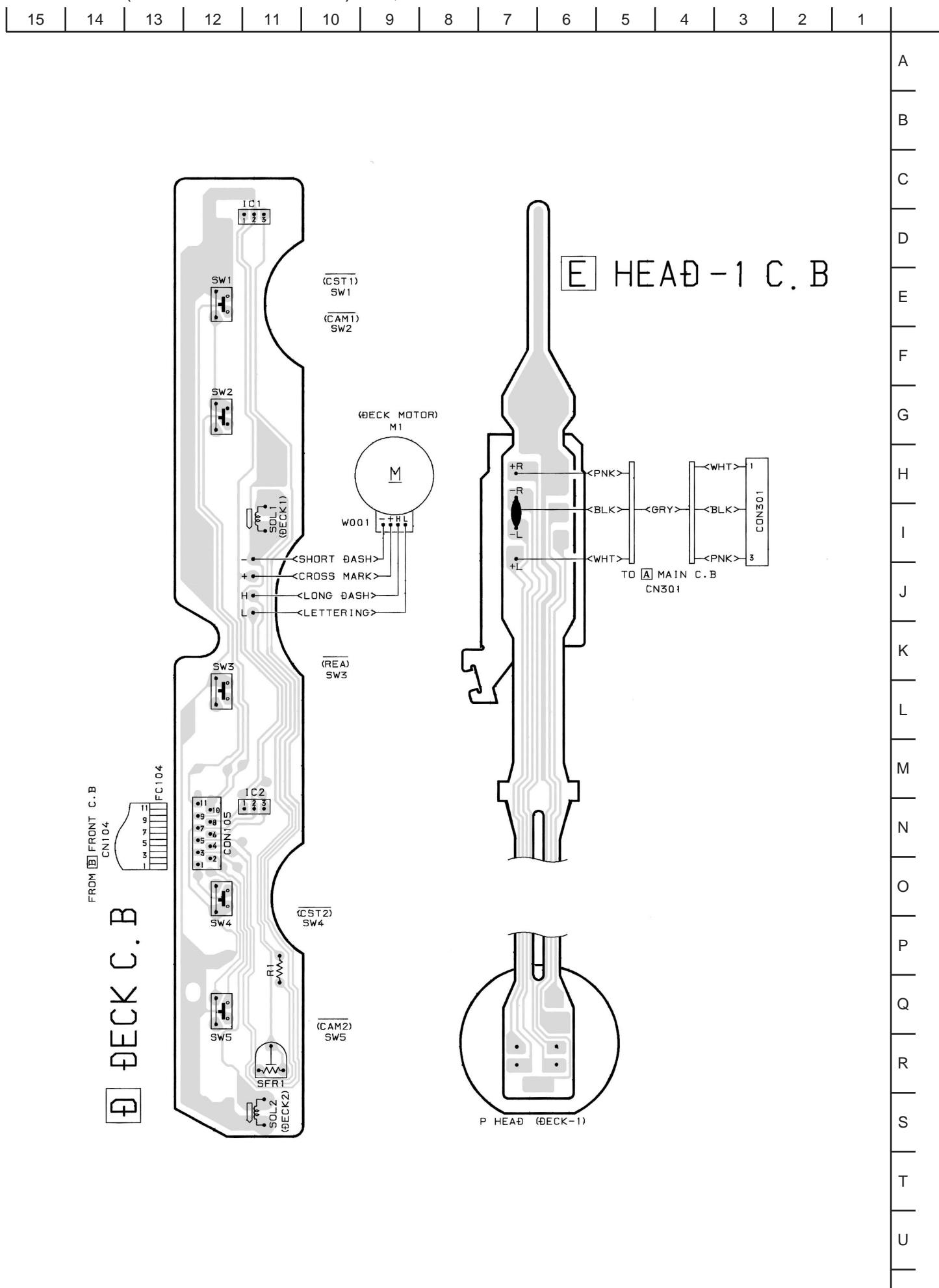
D DECK C . B



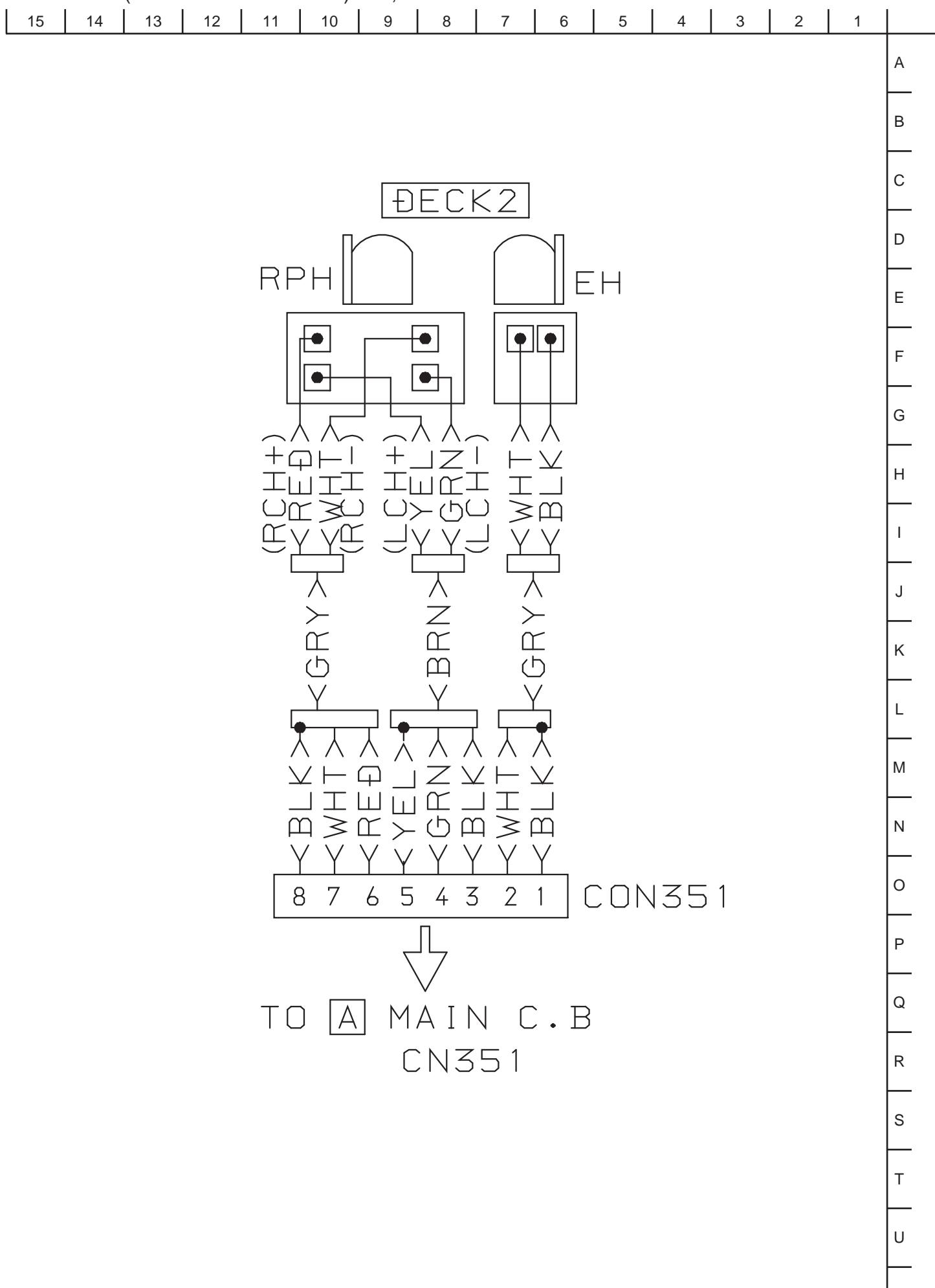
WIRING – 7 (HEAD : ZZM-3 YPR1NM)<LH>



WIRING – 8 (DECK : 6ZM-3 PR2NM)<HS,HT>

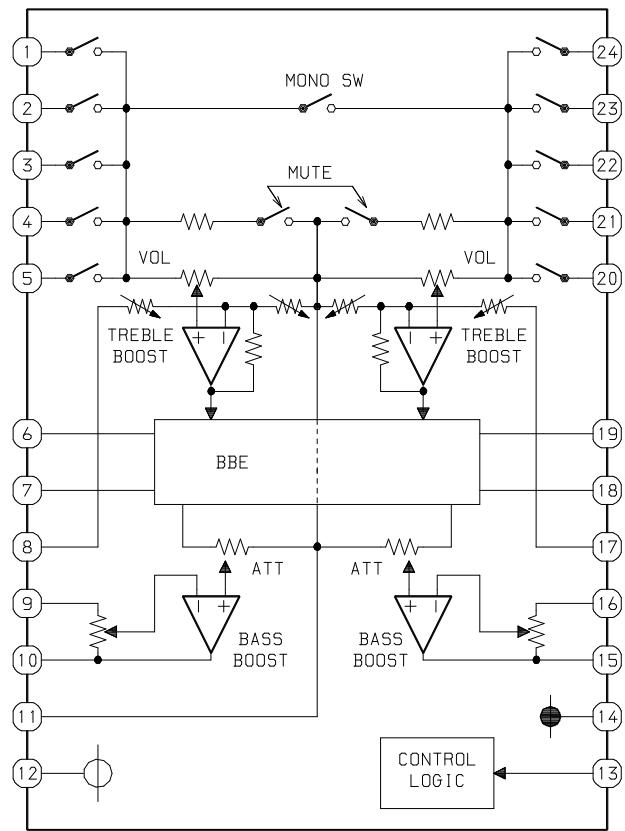


WIRING – 9 (HEAD : 6ZM-3 PR2NM)<HS,HT>

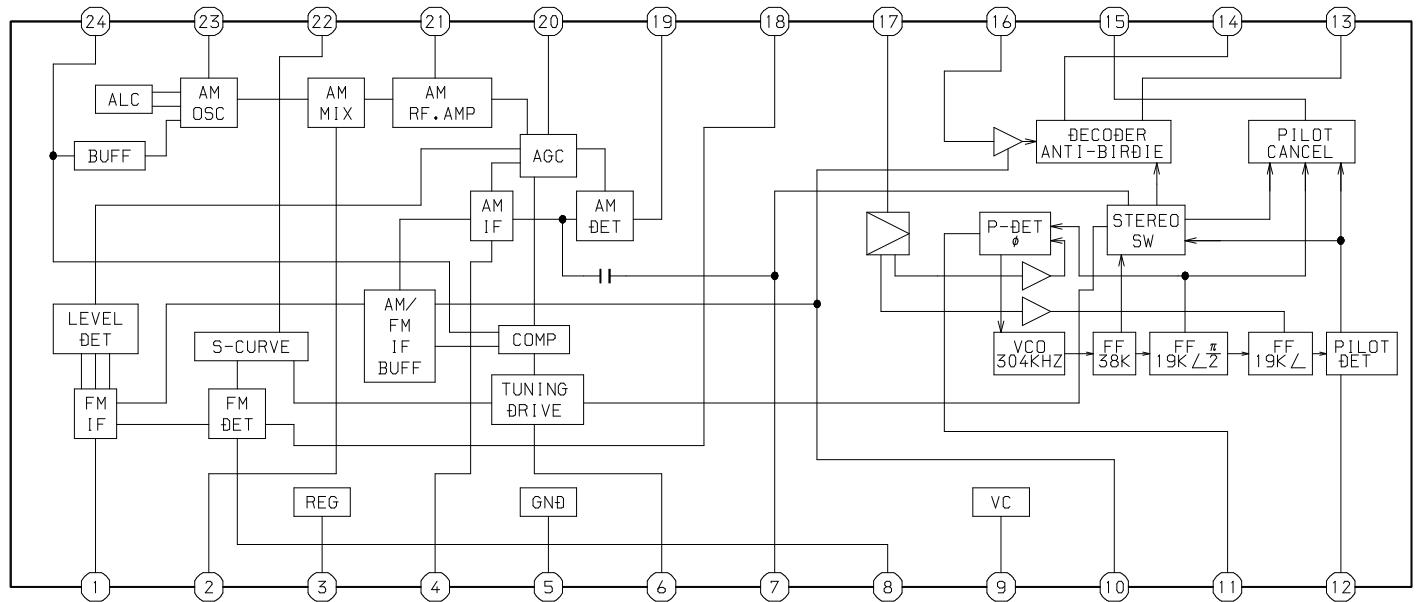


IC BLOCK DIAGRAM

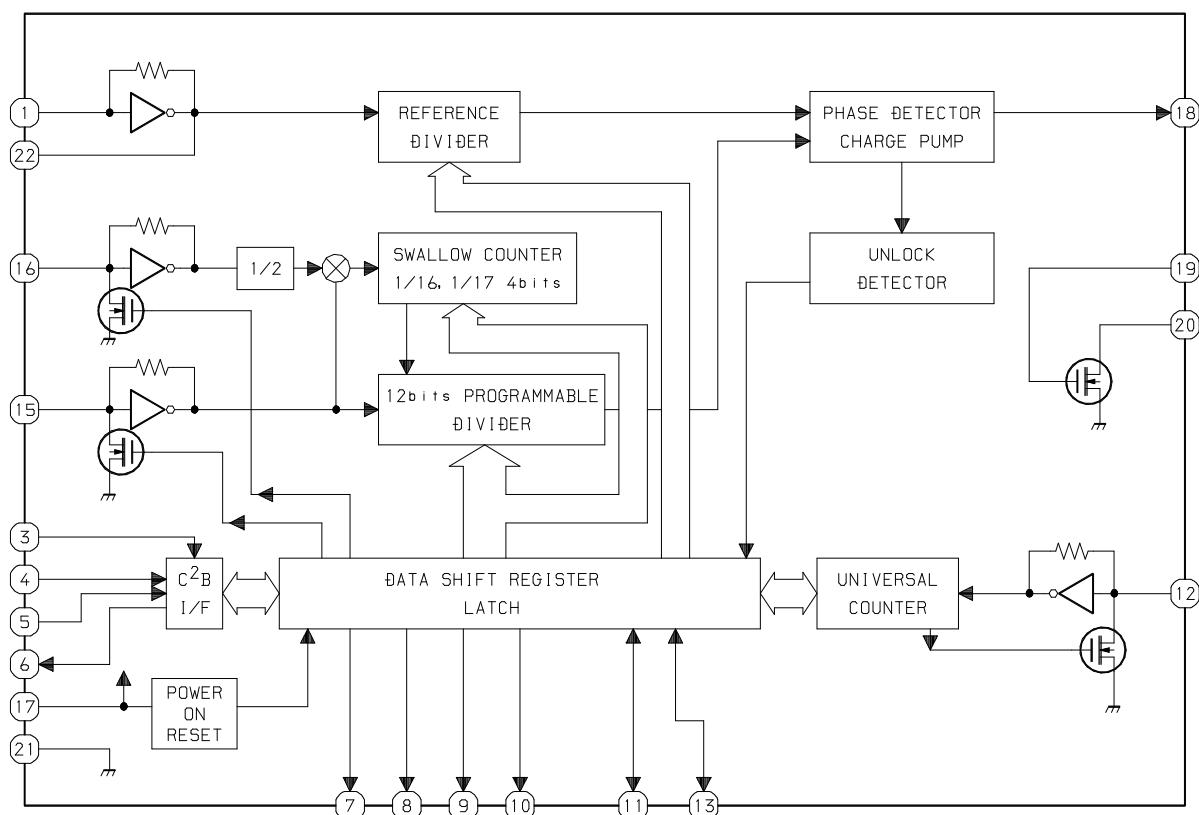
IC, M61503FP



IC, LA1844L-A



IC, LC72131D



IC DESCRIPTION
IC, μPD780226GF-019-3BA

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	NC	-	Not connected.
5	O-RVS_LED	O	PRESET (REV) LED ON/OFF output <HS,HT only>.
6	O-SET_LED	O	SET LED ON/OFF output.
7	O-CLEAR_LED	O	CLEAR LED ON/OFF output.
8	O-FWD_LED / O-PRESET_LED	O	PRESET (FWD) LED ON/OFF output <HS,HT only>/ PRESET LED ON/OFF output <LH only>.
9	O-DOWN_LED	O	DOWN LED ON/OFF output.
10	O-UP_LED	O	UP LED ON/OFF output.
11	O-TUNER_ON	O	TUNER ON output.
12	O-MUTE	O	MUTE output.
13	O-PB2	O	DECK2/DECK1 play output.
14	O-BIAS	O	BIAS ON output.
15	O-RMT	O	REC mute output.
16	O-CD_ON	O	CD ON output.
17	IC	-	Internal connection (connected to GND).
18	VSS0	-	GND.
19	VDD0	-	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	NC	-	Not connected.
27	I-REA	I	Volume jog AD input.
28	I-RDS_CLK	I	Connected to GND through Resistor.
29	I-SUBQ/I-RDS_DATA	I	CD SUBQ data input / Tuner RDS data input (not used).
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.

Pin No.	Pin Name	I/O	Description
43	I-CDSW	I	CD mecha switch input.
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	I-REB	I	DECK2 side-B recordable switch data input. "L" = REC.
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	P5/AM10K	O/I	FL segment P5 output / AM10K data input <LH only>.
72, 73	P6, P7	O	FL segment P6, P7 output.
74	P8/SW	O/I	FL segment P8 output / SW mode data input <HT only>.
75, 76	P9, P10	O	FL segment P9, P10 output.
77	P11/R+1	O/I	FL segment P10 output / REV data input <HS,HT only>.
78	P12	O	FL segment P12 output.
79	VDD2	-	Power supply.
80	VLOAD	-	Power supply for FL display.
81	P13/C-JACK	O/I	FL segment P13 output / C-JACK data input.
82	P14/ECO-OFF	O/I	FL segment P14 output / ECO-OFF data input.
83 ~ 90	P15 ~ P22	O	FL segment P15 ~ 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 : LH,HS: Set to AM 1710kHz and check that the test point is $2160\text{kHz} \pm 45\text{Hz}$.
HT: Set to MW 1602kHz and check that the test point is $2052\text{kHz} \pm 45\text{Hz}$.

2. AM VT Check <LH,HS>

Settings : • Test point : TP1 (VT)

Method : Set to AM 1710kHz, 530kHz and check that the test point is less than 8.5V (1710kHz) and more than 0.6V (530kHz).

3. MW VT Adjustment <HT>

Settings : • Test point : TP1 (VT)

• Adjustment location : L953

Method : Set to MW 1602kHz and adjust L953 so that the test point becomes $8.0\text{V} \pm 0.05\text{V}$. Then check that the test point is more than 0.3V (531kHz).

4. SW VT Adjustment <HT>

Settings : • Test point : TP1 (VT)

• Adjustment location : L942

Method : Set to SW 17.9MHz and adjust L942 so that the test point becomes $8.0\text{V} \pm 0.05\text{V}$. Then check that the test point is more than 0.3V (5.9MHz).

5. 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).

6. AM IF Adjustment

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

• Adjustment location :

L802 450kHz

7. AM Tracking Adjustment <LH,HS>

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

• Adjustment location :

L951(1/3) 1000kHz

Method : Set to AM 1000kHz and adjust L951(1/3) to MAX.

8. MW Tracking Adjustment <HT>

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

• Adjustment location :

L952 603kHz

TC941 1404kHz

Method : Set up TC941 to center before adjustment. The output level at 603kHz is adjusted to maximum by L952. Then the output level at 1404kHz is adjusted to maximum by TC941.

9. SW Tracking Adjustment <HT>

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

• Adjustment location :

L941 5.9MHz

TC943 17.9MHz

Method : Set up TC943 to center before adjustment. The output level at 5.9MHz is adjusted to maximum by L941. Then the output level at 17.9MHz is adjusted to maximum by TC943.

10. 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 $9\text{dB}\mu\text{V}$.

11. DC Balance / Mono Distortion Adjustment

Settings : • Test point : TP3, TP4 (DC Balance)

TP8(Lch), TP9(Rch) (Distortion)

• Adjustment location : L801

• Input level : $60\text{dB}\mu\text{V}$

Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes $0\text{V} \pm 300\text{mV}$, with minimum distortion.

< DECK SECTION >

12. 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 $3000\text{Hz} \pm 5\text{Hz}$ (FWD) and $\text{FWD SPEED} \pm 45\text{Hz}$ (REV).

13. 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.

14. 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 5.0dB.

15. 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 $110\text{mV} \pm 3.0\text{dB}$.

16. 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 (-26dBV). Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes $1.5\text{dB} \pm 0.5\text{dB}$ with respect to that of the 1kHz signal.

17. REC/PB Sensitivity Check (DECK 2)

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

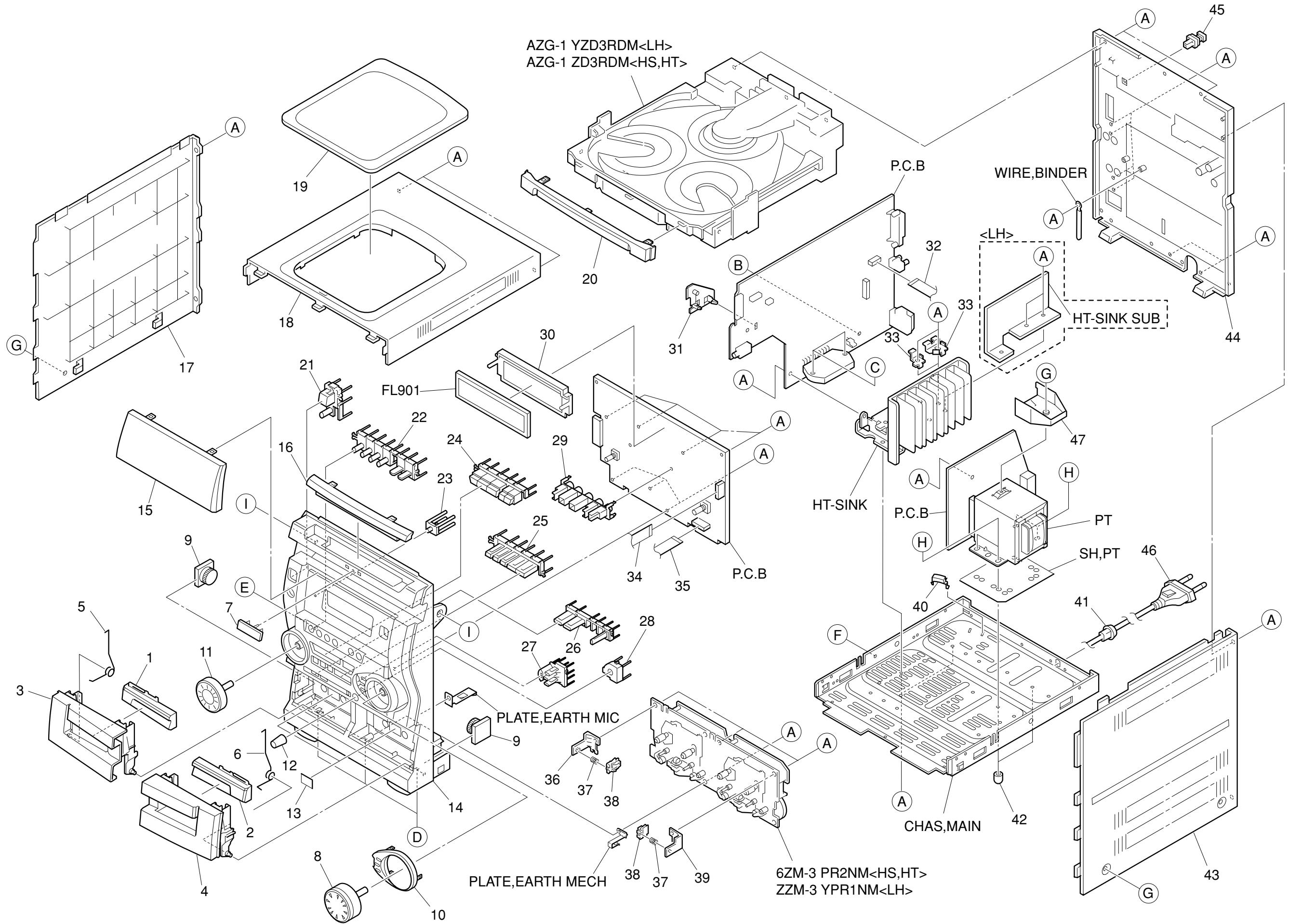
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU (-6dBV). Record and play back the 1kHz signals and check that the output is $-1\text{dB} \pm 3.5\text{dB}$.

< FRONT SECTION >

18. μ-con OSC Adjustment

- Settings : • Test point : TP11(KEY-SCAN), GND
• Adjustment location : L951

Method : Insert AC plug while pressing TUNER function key. Adjust L951 so that the frequency across the test point becomes $184.98\text{Hz} \pm 0.18\text{Hz}$.



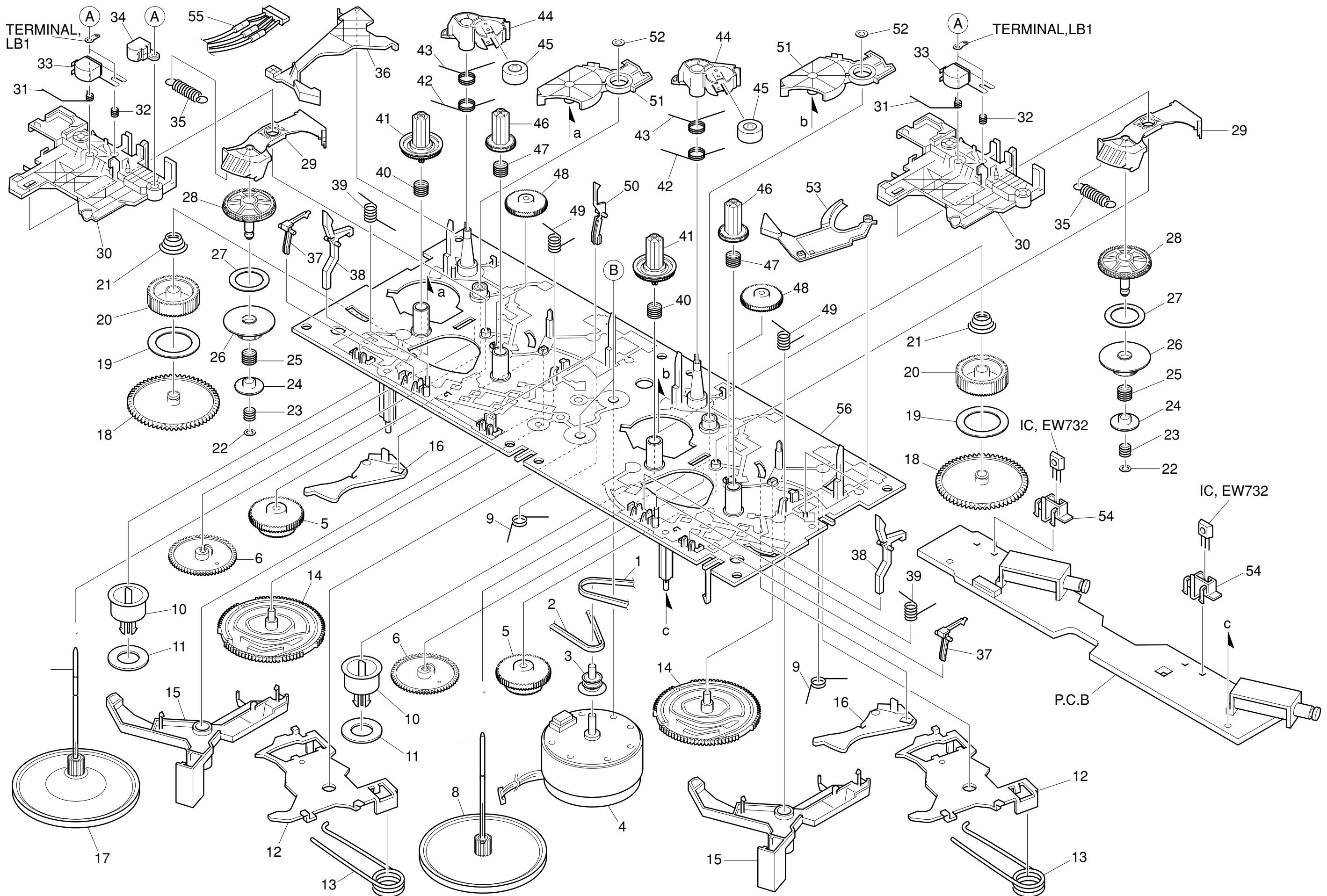
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NF9-006-010		WINDOW,CASS 1	30	82-NF7-210-110		GUIDE,FL (*)
2	8A-NF9-007-010		WINDOW,CASS 2	31	8A-NF8-206-010		HLDL,PWB M
3	8A-NF9-003-010		BOX,CASS 1< LH >	32	88-906-251-110		FF-CABLE,6P 1.25
3	8A-NF9-047-010		BOX,CASS 1 H< HS ,HT >	33	86-NF6-211-010		HLDL,IC T1.6< LH >
4	8A-NF9-004-010		BOX,CASS 2	33	8A-NF8-226-010		HLDL,IC T2< HS ,HT >
5	8A-NF8-207-010		SPR-T,EJECT 1	34	88-913-301-110		FF-CABLE,13P-1.25
6	8A-NF8-208-010		SPR-T,EJECT 2	35	88-911-101-110		FF-CABLE,11P 1.25
7	87-CE3-023-010		BADGE,AIWA 30N SILV	36	87-NF4-216-010		HLDL,LOCK 1
8	8A-NF9-018-010		KNOB,RTRY JOG	37	86-NF9-224-010		SPR-C,LOCK
9	8A-NF8-209-010		OIL-DMPR,120	38	82-NF5-229-010		PLATE,LOCK
10	8A-NF9-017-010		PANEL,JOGL	39	87-NF4-217-110		HLDL,LOCK 2
11	8A-NF9-016-010		KNOB,RTRY VOL	40	87-NF4-221-010		HLDL,CABLE
12	8A-NF9-015-010		KNOB,RTRY MIC< HS ,HT >	41	87-085-185-010		BUSHING, AC CORD (E)
13	81-532-080-010		LABEL,CASS. COMPT	42	8Z-NB8-240-010		COVER, PL
14	8A-NFX-006-010		CABI,FR H< HS ,HT >	43	8A-NF8-008-010		PANEL,RIGHT V-2
14	8A-NF9-001-010		CABI,FR U< LH >	44	8A-NFX-008-110		CABI,REAR HS W/O SPEC< HS >
15	8A-NFX-002-010		WINDOW,DISP LH< HS ,HT >	44	8A-NFX-005-110		CABI,REAR LH W/O SPEC< LH >
15	8A-NFX-016-010		WINDOW,DISP LH KIT< LH >	44	8A-NFX-018-010		CABI,REAR HR W/O SPEC< HT >
16	8A-NF9-039-010		WINDOW,CD	45	84-ZG1-245-210		CAP,OPTICAL
17	8A-NF8-007-010		PANEL,LEFT V-2	⚠ 46	87-A80-157-010		AC CORD ASSY,E BLK CC< LH ,HT >
18	8A-NF8-005-010		PANEL,TOP	⚠ 46	87-A80-155-010		AC CORD ASSY,HS TS< HS >
19	8A-NF8-006-010		WINDOW,TOP	47	8A-NF9-211-010		HLDL,PWB PT HI
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-NF9-009-010		KEY,FUN	C	87-067-581-010		TAPPING SCREW, BVT2+3-15
23	8A-NF9-022-010		REFLECTOR,ECO	D	87-067-689-010		TAPPING SCREW, BVT2+3-8
24	8A-NF9-010-110		KEY,ASSY OPE 1 WAY< LH >	E	87-723-096-410		QT2+3-10W/O SLOT BL
24	8A-NF9-023-010		KEY,ASSY OPE REV< HS ,HT >	F	87-721-096-410		QT2+3-10 GLD
25	8A-NF9-020-010		KEY,CD< HS ,LH >	G	87-067-641-010		UTT2+3-8 (W/O SLOT) BL
25	8A-NF9-020-110		KEY,CD< HT >	H	87-078-191-010		S-SCREW,IT4-4-10
26	8A-NF9-019-010		KEY,SYNC	I	87-721-097-410		QT2+3-12 GLD
27	8A-NF9-026-110		KEY,ENTER				
28	8A-NF9-021-010		PLATE,MIC< HS ,HT >				
29	8A-NF9-201-010		GUIDE,OPE 1 WAY< LH >				
29	8A-NF9-203-010		GUIDE,OPE REV< HS ,HT >				

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

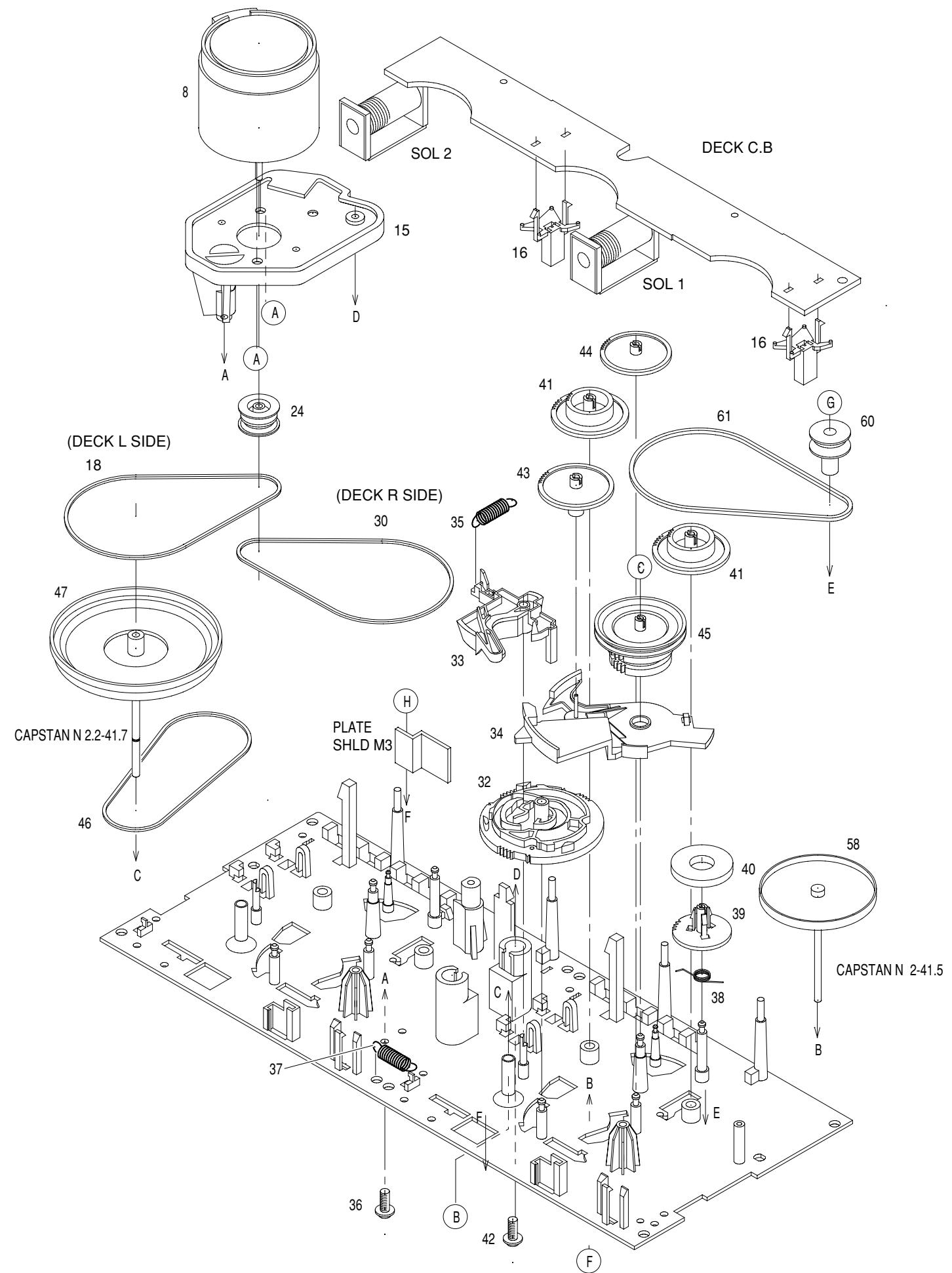
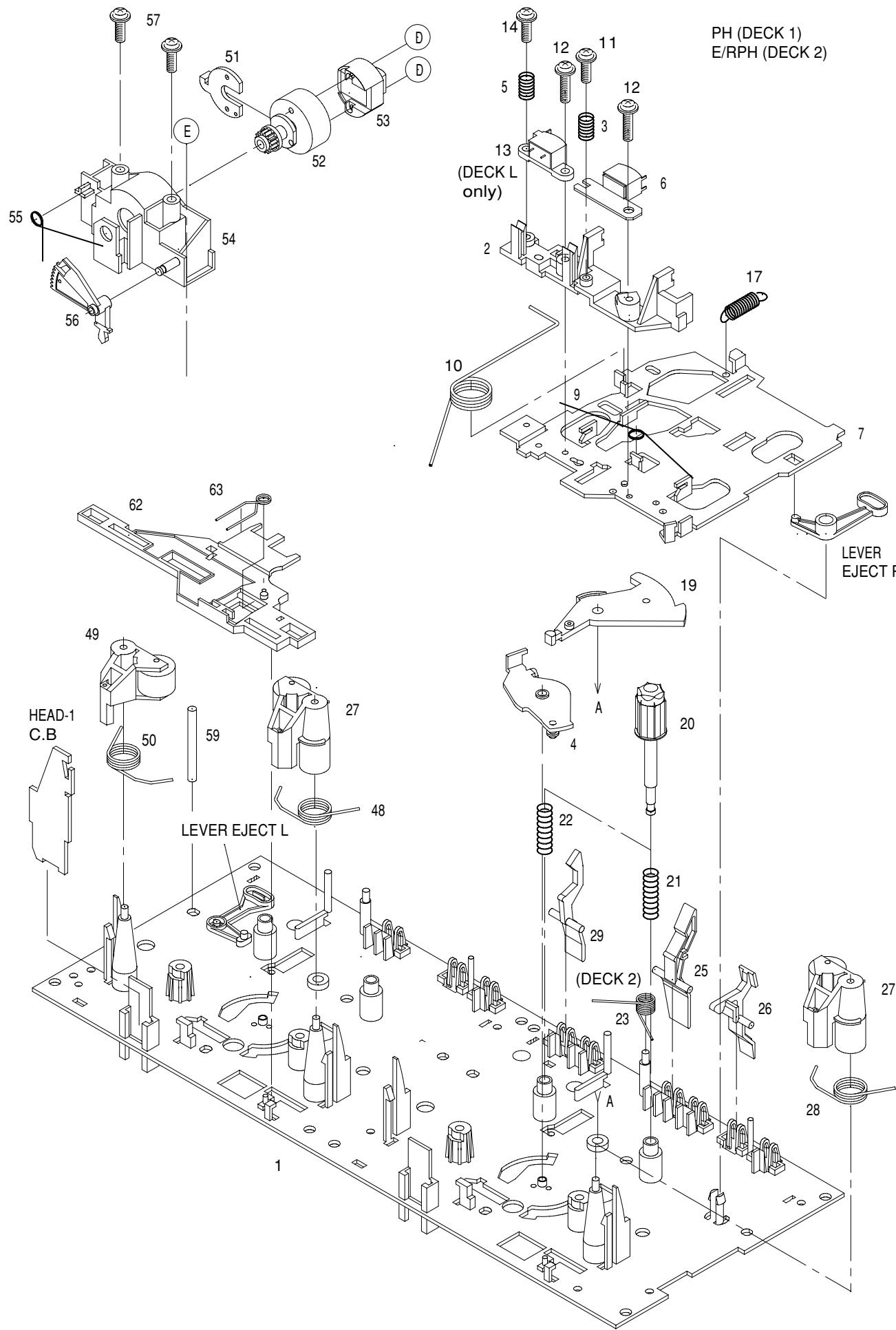
TAPE MECHANISM EXPLODED VIEW 1 / 1 <ZZM-3 YPR1NM>



TAPE MECHANISM PARTS LIST 1 / 1 <ZZM-3 YPR1NM>

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
8	8Z-ZM1-290-010		FLY-WHL ASSY, ZZZ-1	37	8Z-ZM3-225-010		LEVER, STOP
9	8Z-ZM3-231-010		SPR-T, TRIG	38	8Z-ZM3-221-010		LEVER, CAS
10	8Z-ZM3-213-010		CLR, MG	39	8Z-ZM3-234-010		SPR-T, LVR CAS
				40	8Z-ZM3-223-010		SPR-C, REEL R M3
11	8Z-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-ZM2-256-010		FLY-WHL ASSY, M3 R	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	8Z-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		HLDL, 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 ZZZ-2
29	8Z-ZM3-220-010		LEVER, FR M3				
30	8Z-ZM3-205-010		LEVER, PLAY M3				

TAPE MECHANISM EXPLODED VIEW 1 / 1 <6ZM-3 PR2NM>



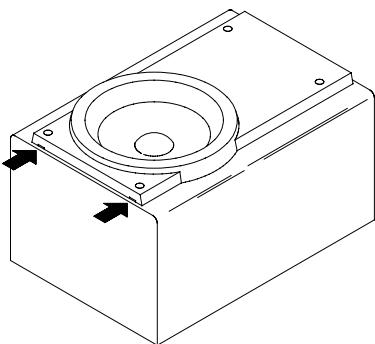
TAPE MECHANISM PARTS LIST 1 / 1 <6ZM-3 PR2NM>

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-ZM1-237-610		FLY-WHL ASSY, RW
7	82-ZM3-206-210		BELT, R	47	09-001-420-010		FLY-WHL ASSY, R3W
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

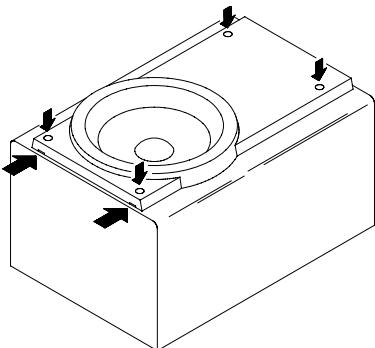
Type.1

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.



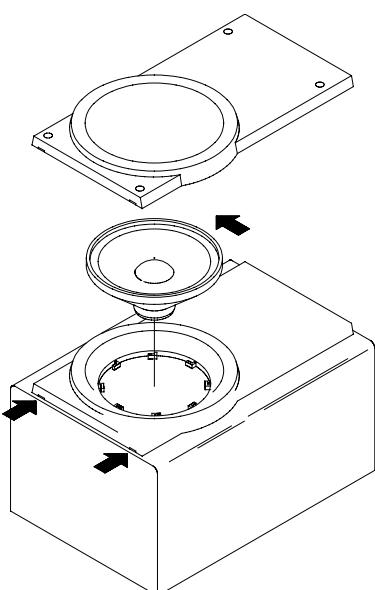
Type.2

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.

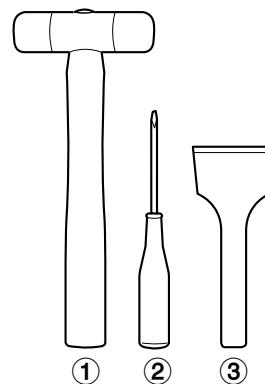


Type.3

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 (θ) flat head screwdriver
- ③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (θ) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (θ) 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.

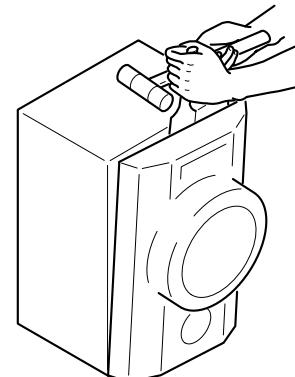
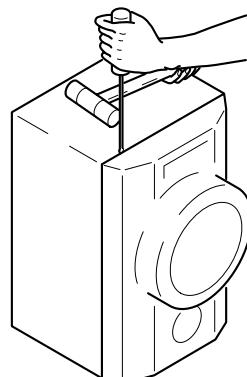


Fig-1

Fig-2

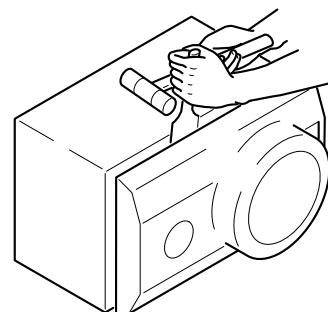


Fig-3

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-NSZ52 (Y1SL,YLSC2M)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NSJ-001-010		PANEL,FR R
2	8A-NSJ-002-010		PANEL,FR L
3	8A-NSJ-003-010		GRILLE,FRAME ASSY
4	8A-NSJ-008-010		PROTECTOR,TWA
5	8A-NSJ-602-010		SPKR,W 130
6	88-NS5-605-010		SPKR,T 60<Y1SL>
6	8A-NSK-604-010		SPKR,TW 60<YLSC2M>
7	88-MS1-608-010		SPKR,CERAMIC
8	87-NS7-611-010		CORD,SPKR
9	8Z-NSY-003-010		CORD,BUSH

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NFX-901-110		IB,H(ECA)M -30<HT>
1	8A-NFX-949-010		IB,H(ECA)M -30<HS>
1	8A-NF9-930-010		IB,LH(P)CCE<LH>
2	87-043-115-010		ANT,FEEDER FM
3	87-A90-119-010		ANT, WIRE SW(5M)<HT>
▲	4 87-A91-017-010		PLUG,CONVERSION JT-0476<HT>
5	8Z-NF8-701-210		RC UNIT,RC-ZAS01<HS,HT>
5	8Z-NF9-701-210		RC UNIT,ZAS02<LH>
6	87-006-225-010		AM LOOP ANT NC2<HS,LH>
6	87-006-226-010		AM-LOOPANT C0<HT>



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