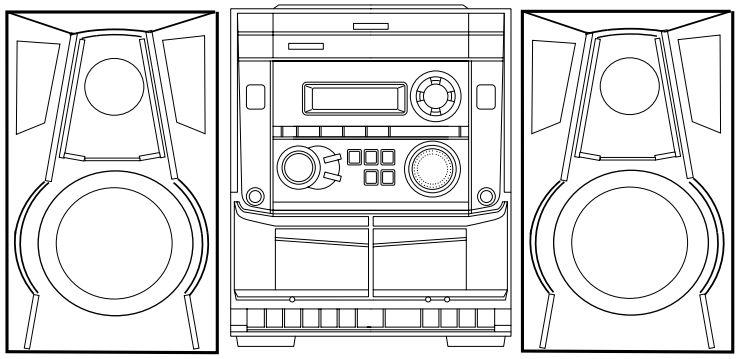
aiwa SERVICE

NSX-BL14 HR,V
NSX-BL13 LH



SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECEIVER

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

SYSTEM	CD CASSEIVER	BASIC CD MECHANISM	BASIC TAPE MECHANISM	SPEAKER	REMOTE CONTROLLER
NSX-BL13<LH>	CX-SNBL13	AZG-1 YZA3RNDM	ZZM-2 YPR1NM	SX-SNBL17	RC-ZAS02
NSX-BL14<HR>	CX-NBL14	AZG-1 ZA3RNDM	ZZM-2 PR1NM	SX-NBL11	
NSX-BL14<V>	CX-NBL14	AZG-1 ZA3RNDM	ZZM-2 PR1NM	SX-NBL11	

- This Service Manual is the “Revision Publishing” and replaces “Simple Manual” NSX-BL14(HR, V), (S/M Code No. 09-005-428-8T3) and NSX-BL13(LH), (S/M Code No. 09-005-428-8T4).
- If requiring information about the CD mechanism, see Service Manual of AZG-1 (S/M Code No. 09-001-335-3NC).

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S/M Code No. 09-006-428-8R3

REVISION DATA

SPECIFICATIONS

<FM tuner section><HR,LH>

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

<FM tuner section><V>

Tuning range	FM1 (OIRT) 65 MHz to 74 MHz(10 kHz step) FM2 (CCIR) 87.5 MHz to 108 MHz (50 kHz step)
Usable sensitivity (IHF)	FM1: 15.3 dBf FM2: 12.8 dBf
Antenna terminals	75 ohms (unbalanced)

<AM/MW tuner section>

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

<SW tuner section><HR>

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

<Amplifier section>

Power output	Rated LH: 28 W + 28 W (1 kHz, T.H.D. 1%,6 ohms) Reference: 35 W + 35 W (1 kHz, T.H.D. 10%, 6 ohms) HR: 17 W + 17 W (1 kHz, T.H.D. 1%,6 ohms) Reference: 20 W + 20 W (1 kHz, T.H.D. 10%, 6 ohms) V: 12 W + 12 W (1 kHz/DIN 45500, T.H.D. 1%, 6 ohms) Reference: 15 W + 15 W (1 kHz/DIN 45324, T.H.D. 10%, 6 ohms)
Total harmonic distortion	V: 0.1% (6 W, 1 kHz, 6 ohms, DIN AUDIO) LH: 0.1% (14 W, 1 kHz, 6 ohms, DIN AUDIO) HR: 0.1% (8 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 500 mV HR: MIC 1.8 mV(10 kohms)
Outputs	SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz - 8000 Hz
Recording system	AC bias
Heads	Deck 1 : Recording/Playback head x 1, erase head x 1 Deck 2 : Playback head x 1

<Compact disc player section>2

Laser	Semiconductor laser (λ =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-NBL11<HR>

Speaker System	2 way, bass reflex (magnetic shielded type)
Speaker units	Woofer: 120 mm cone type Tweeter: 20 mm ceramic type
Impedance	6 ohms
Sensitivity	87 dB/W/m
Dimensions (W x H x D)	220 x 324 x 211 mm
Weight	2.0 kg

<Speaker system>SX-NBL17<LH>,SX-NBL11<V>

Speaker System	2 way, bass reflex (magnetic shielded type)
Speaker units	Woofer: 120 mm cone type Tweeter: 20 mm ceramic type
Impedance	6 ohms
Sensitivity	87 dB/W/m
Dimensions (W x H x D)	220 x 324 x 211 mm
Weight	2.0 kg

<General>

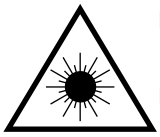
Power requirements	LH, HR: 120 V/220-230 V/240 V AC (switchable), 50/60 Hz V: 230 V AC 50 Hz
Power consumption	HR: 60 W LH: 55 W V: 45 W
Power consumption in standby mode	HR,V: With power-economizing mode off : 14 W LH:With power-economizing mode off : 12 W With power-economizing mode on : 0.9 W
Dimensions of main unit (W x H x D)	260 x 324 x 348 mm
Weight of main unit	HR: 5.0 kg LH: 5.7 kg V: 4.9 kg

• Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

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



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

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

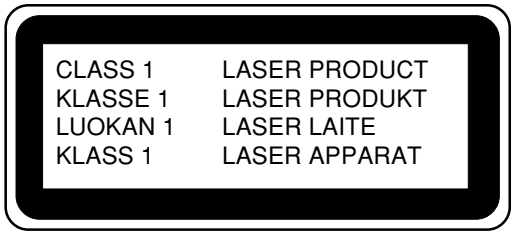
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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

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

ADVARSEL
Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

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

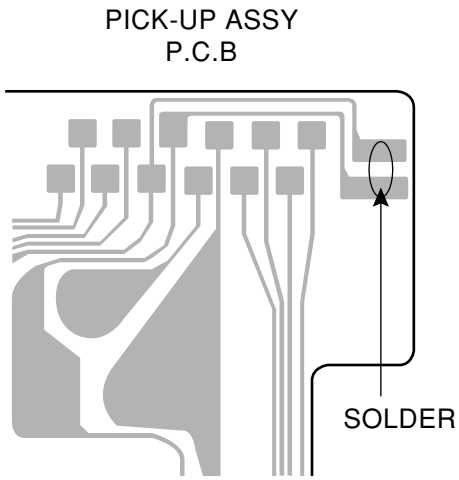


Precaution to replace Optical block

(KSS-213F)

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

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



NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

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

Discharge procedure

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

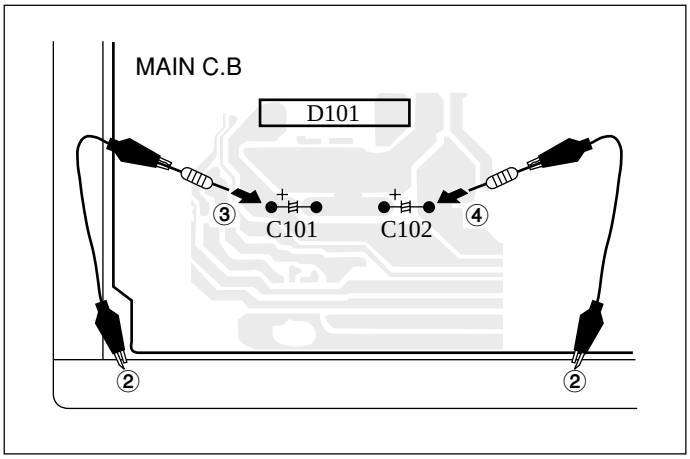


Fig-1

Select a discharging resistor referring to the following table.

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

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

2. Check items before exchanging the MICROCOMPUTER

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

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgement of the MICROCOMPUTER

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

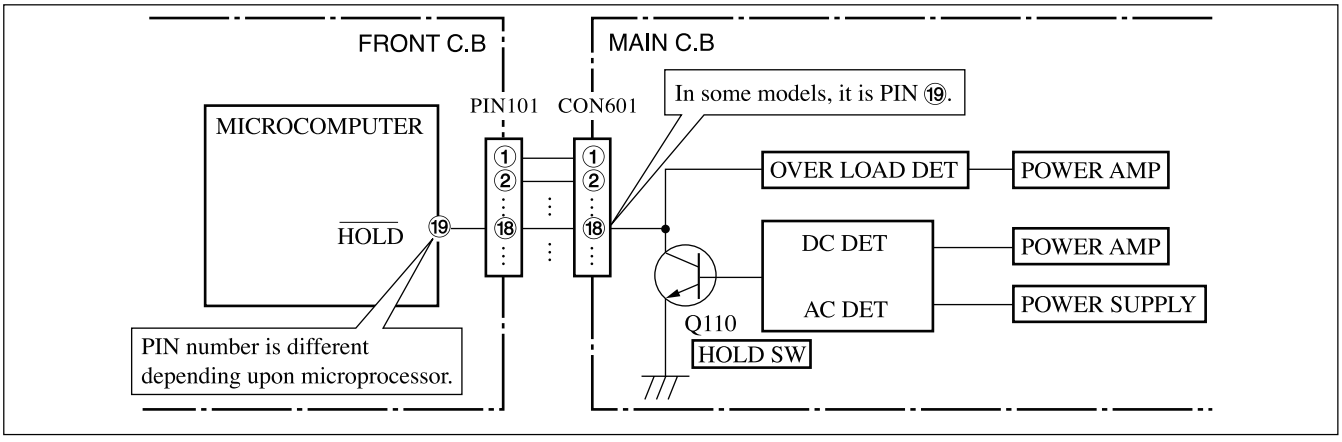


Fig-2-1

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

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

① Remove the AC power cord.

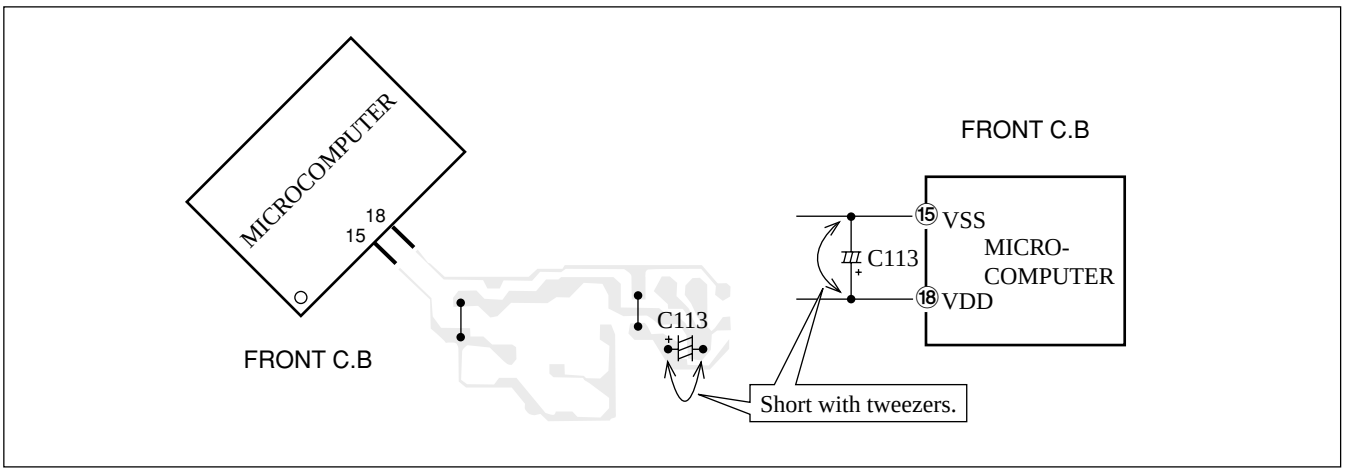


Fig-2-2

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

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

2-3. Confirmation of soldering state of MICROCOMPUTER

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

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	8A-NFA-615-010		C-IC,M38B57MCH-E236FP
	87-A21-397-010		IC,STK490-070<LH>
	87-A21-419-040		C-IC,NJM14558MD-TE2
	87-A21-443-040		C-IC,M62495AFP
	87-A21-560-010		IC,LA1844L-A
	87-070-127-110		IC,LC72131 D
	87-A21-629-010		IC,SPS-442-1-N
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	89-213-702-010		TR,2SB1370 (1.8W)
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-A30-255-010		C-TR,2SB1342<HR,V>
	87-A30-256-010		TR,2SD1933<HR,V>
	87-A30-190-080		TR,CC5551<HR,V>
	87-026-245-080		TR,DTC114ES<HR>
	87-A30-198-080		TR,KTC3199GR<HR>
	87-A30-090-080		FET,2SK2541
	87-A30-484-080		C-TR,KRA102S
	87-A30-468-080		C-TR,KRC102S-RTK
	87-A30-107-070		C-TR,CMBT5401<HR,LH>
	87-A30-106-040		C-TR,CMBT5551<HR,LH>
	87-A30-091-080		FET,2SJ460
	87-A30-062-080		C-TR,KRC104S
	87-A30-318-080		TR,CSA952K
	89-333-317-880		TR,2SC3331 (0.5W)
	87-A30-234-080		TR,CSC4115BC
	89-327-143-080		TR,2SC2714 (0.1W)
	87-A30-489-080		C-TR,KRA107S
	87-A30-086-070		C-TR,CSD1306E<HR>
	89-503-602-080		C-FET,2SK360E<HR>
DIODE			
	87-020-465-080		DIODE,1SS133 (110MA)
	87-A40-455-080		DIODE,RL203 GW
	87-A40-553-080		DIODE,1N4003 LES
	87-A40-774-080		ZENER,UZ24BSD
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-313-080		C-DIODE,MC 2840<LH>
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-768-080		ZENER,UZ16BSA<LH>
	87-A40-752-080		ZENER,UZ6.2BSC
	87-A40-739-080		ZENER,UZ2.7BSA
	87-017-149-080		ZENER,HZS6A2L
MAIN C.B			
C3	87-010-196-080		CHIP CAPACITOR,0.1-25<LH>
C4	87-010-196-080		CHIP CAPACITOR,0.1-25<LH>
C5	87-010-196-080		CHIP CAPACITOR,0.1-25<LH>
C6	87-010-196-080		CHIP CAPACITOR,0.1-25<LH>
C9	87-010-196-080		CHIP CAPACITOR,0.1-25
C10	87-010-196-080		CHIP CAPACITOR,0.1-25
C11	87-010-196-080		CHIP CAPACITOR,0.1-25
C12	87-010-196-080		CHIP CAPACITOR,0.1-25
C19	87-A10-627-000		CAP,E 2200-50 M SMG<LH>
C20	87-A10-627-000		CAP,E 2200-50 M SMG<LH>
C21	87-016-495-000		CAP,E 3300-25 M SMG<LH>
C21	87-A10-520-000		CAP,E 3300-35 M SMG<HR,V>
C22	87-016-495-000		CAP,E 3300-25 M SMG<LH>
C22	87-016-051-000		CAP,E 2200-35 SMG<HR,V>
C25	87-010-385-080		CAP, ELECT 220-25V<LH>
C25	87-010-406-080		CAP, ELECT 22-50 M 11L SME<HR>
C25	87-010-407-080		CAP, ELECT 33-50 M 11L SME<V>
C26	87-010-247-080		CAP, ELECT 100-50V<LH>
C26	87-010-406-080		CAP, ELECT 22-50<HR,V>
C30	87-010-247-080		CAP, ELECT 100-50V<LH>
C30	87-010-384-080		CAP, ELECT 100-25M11LSME<HR,V>
C31	87-010-263-080		CAP, ELECT 100-10V
C32	87-010-197-080		CAP, CHIP 0.01 DM
C33	87-010-263-080		CAP, ELECT 100-10V<LH>
C34	87-010-247-080		CAP, ELECT 100-50V
C35	87-010-406-080		CAP, ELECT 22-50
C36	87-010-381-080		CAP, ELECT 330-16V
C38	87-A11-567-080		C-CAP,S 0.01-50 K B<LH>
C38	87-010-190-080		C-CAP,S 0.01-50 ZF<HR,V>
C50	87-010-384-080		CAP, ELECT 100-25 M 11L SME<HR,V>
C60	87-010-403-080		CAP, ELECT 3.3-50V
C97	87-010-196-080		CHIP CAPACITOR,0.1-25<LH>
C100	87-018-127-080		CAP TC-U 470P
C101	87-010-183-080		C-CAP,S 2700P-50 B<LH>
C101	87-010-185-080		C-CAP,S 3900P-50 KB<HR,V>
C102	87-010-183-080		C-CAP,S 2700P-50 B<LH>
C102	87-010-185-080		C-CAP,S 3900P-50 KB<HR,V>
C103	87-010-545-080		CAP, ELECT 0.22-50V
C104	87-010-545-080		CAP, ELECT 0.22-50V
C105	87-010-178-080		CHIP CAP 1000P<LH>
C105	87-010-186-080		CAP,CHIP 4700P<HR,V>
C106	87-010-178-080		CHIP CAP 1000P<LH>
C106	87-010-186-080		CAP,CHIP 4700P<HR,V>
C107	87-010-404-080		CAP, ELECT 4.7-50V<LH>
C107	87-010-403-080		CAP, ELECT 3.3-50V<HR,V>
C108	87-010-404-080		CAP, ELECT 4.7-50V<LH>
C108	87-010-403-080		CAP, ELECT 3.3-50V<HR,V>
C109	87-010-179-080		C-CAP, S 1200P-50KB<LH>
C110	87-010-179-080		C-CAP, S 1200P-50KB<LH>
C111	87-010-391-080		CAP,E 10-35 SME<LH>
C111	87-010-406-080		CAP, ELECT 22-50<HR,V>
C112	87-010-391-080		CAP,E 10-35 SME<LH>
C112	87-010-406-080		CAP, ELECT 22-50<HR,V>
C113	87-010-405-080		CAP, ELECT 10-50V<LH>
C113	87-012-156-080		C-CAP, S 220P-50 J CH<V>
C113	87-A10-946-080		C-CAP, S 220P-100 J CH<HR>
C114	87-010-405-080		CAP, ELECT 10-50V<LH>
C114	87-012-156-080		C-CAP, S 220P-50 J CH<V>
C114	87-A10-946-080		C-CAP, S 220P-100 J CH<HR>
C119	87-010-197-080		CAP, CHIP 0.01 DM
C120	87-010-197-080		CAP, CHIP 0.01 DM
C123	87-010-197-080		CAP, CHIP 0.01 DM<V>
C124	87-010-197-080		CAP, CHIP 0.01 DM<V>
C125	87-012-368-080		C-CAP,S 0.1-50 F<LH>
C125	87-010-196-080		CHIP CAPACITOR,0.1-25<HR,V>
C126	87-012-368-080		C-CAP,S 0.1-50 F<LH>
C126	87-010-196-080		CHIP CAPACITOR,0.1-25<HR,V>
C127	87-012-368-080		C-CAP,S 0.1-50 F<LH>
C127	87-010-196-080		CHIP CAPACITOR,0.1-25<HR,V>
C128	87-012-368-080		C-CAP,S 0.1-50 F<LH>
C128	87-010-196-080		CHIP CAPACITOR,0.1-25<HR,V>
C129	87-A11-572-080		C-CAP,S 0.015-50 K B<LH>
C130	87-A11-572-080		C-CAP,S 0.015-50 K B<LH>
C131	87-010-197-080		CAP, CHIP 0.01 DM<LH>
C132	87-010-197-080		CAP, CHIP 0.01 DM<LH>
C133	87-010-186-080		CAP,CHIP 4700P
C140	87-010-182-080		C-CAP,S 2200P-50 B
C200	87-018-195-080		CAP TC-U 1200P
C300	87-018-195-080		CAP TC-U 1200P
C301	87-010-179-080		CAP,CHIP S B1200P
C302	87-010-179-080		CAP,CHIP S B1200P
C303	87-010-178-080		CHIP CAP 1000P
C304	87-010-178-080		CHIP CAP 1000P
C305	87-010-198-080		CAP, CHIP 0.022
C307	87-010-263-080		CAP, ELECT 100-10V
C308	87-010-263-080		CAP, ELECT 100-10V

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C311	87-010-598-080		C-CAP,S 0.068-16VRK
C312	87-010-598-080		C-CAP,S 0.068-16VRK
C313	87-010-188-080		CAP,CHIP 6800P
C314	87-010-188-080		CAP,CHIP 6800P
C315	87-010-263-080		CAP, ELECT 100-10V
C317	87-010-546-080		CAP, ELECT 0.33-50V
C318	87-010-546-080		CAP, ELECT 0.33-50V
C326	87-010-198-080		CAP, CHIP 0.022
C327	87-010-196-080		CHIP CAPACITOR,0.1-25
C360	87-010-401-080		CAP, ELECT 1-50V
C399	87-012-140-080		CAP 470P
C401	87-010-544-080		CAP, ELECT 0.1-50V
C402	87-010-544-080		CAP, ELECT 0.1-50V
C405	87-010-197-080		CAP, CHIP 0.01 DM
C406	87-010-197-080		CAP, CHIP 0.01 DM
C407	87-010-197-080		CAP, CHIP 0.01 DM
C408	87-010-197-080		CAP, CHIP 0.01 DM
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
C452	87-010-382-080		CAP, ELECT 22-25V
C453	87-010-183-080		C-CAP,S 2700P-50 B
C454	87-010-183-080		C-CAP,S 2700P-50 B
C455	87-010-183-080		C-CAP,S 2700P-50 B
C456	87-010-197-080		CAP, CHIP 0.01 DM
C458	87-010-178-080		CAP, CHIP 1000P-50KB<V>
C459	87-010-175-080		CAP, CHIP 560P-50J SL<V>
C460	87-010-196-080		CHIP CAPACITOR,0.1-25
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C605	87-010-179-080		CAP,CHIP S B1200P
C606	87-010-179-080		CAP,CHIP S B1200P
C609	87-010-213-080		C-CAP,S 0.015-50 B
C610	87-010-213-080		C-CAP,S 0.015-50 B
C611	87-010-545-080		CAP, ELECT 0.22-50V
C612	87-010-545-080		CAP, ELECT 0.22-50V
C613	87-010-545-080		CAP, ELECT 0.22-50V
C614	87-010-545-080		CAP, ELECT 0.22-50V
C615	87-010-154-080		CAP CHIP 10P
C616	87-010-385-080		CAP, ELECT 220-25V<LH>
C616	87-010-248-080		CAP, ELECT 220-10<HR,V>
C617	87-010-385-080		CAP, ELECT 220-25V<LH>
C617	87-010-248-080		CAP, ELECT 220-10<HR,V>
C618	87-010-405-080		CAP, ELECT 10-50V
C630	87-016-669-080		C-CAP,S 0.1-25 K B
C669	87-010-322-080		C-CAP,S 100P-50 CH<LH>
C670	87-010-322-080		C-CAP,S 100P-50 CH<LH>
C677	87-010-197-080		CAP, CHIP 0.01 DM
C771	87-010-263-080		CAP, ELECT 100-10V
C772	87-010-197-080		CAP, CHIP 0.01 DM
C782	87-010-197-080		CAP, CHIP 0.01 DM
C783	87-010-197-080		CAP, CHIP 0.01 DM
C784	87-010-197-080		CAP, CHIP 0.01 DM
C785	87-010-197-080		CAP, CHIP 0.01 DM
C786	87-010-197-080		CAP, CHIP 0.01 DM
C788	87-010-149-080		C-CAP,S 5P-50 CH
C789	87-A12-052-080		C-CAP,S 0.033-25 J B<LH>
C789	87-A11-532-080		C-CAP,S 0.022-50 J B<HR>
C789	87-A10-801-080		C-CAP,S 0.022-16 J B<V>
C790	87-A12-052-080		C-CAP,S 0.033-25 J B<LH>
C790	87-A11-532-080		C-CAP,S 0.022-50 J B<HR>
C790	87-A10-801-080		C-CAP,S 0.022-16 J B<V>
C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C792	87-010-197-080		CAP, CHIP 0.01 DM
C793	87-010-404-080		CAP, ELECT 4.7-50V
C795	87-010-197-080		CAP, CHIP 0.01 DM
C796	87-010-197-080		CAP, CHIP 0.01 DM
C797	87-010-405-080		CAP, ELECT 10-50V
C798	87-010-197-080		CAP, CHIP 0.01 DM
C799	87-010-407-080		CAP, ELECT 33-50V
C800	87-012-369-080		C-CAP,S 0.047-50F
C801	87-010-403-080		CAP, ELECT 3.3-50V
C802	87-012-369-080		C-CAP,S 0.047-50F
C803	87-010-198-080		CAP, CHIP 0.022
C804	87-010-263-080		CAP, ELECT 100-10V
C807	87-010-400-080		CAP, ELECT 0.47-50V
C808	87-010-401-080		CAP, ELECT 1-50V
C809	87-010-401-080		CAP, ELECT 1-50V
C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C814	87-010-197-080		CAP, CHIP 0.01 DM
C815	87-010-400-080		CAP, ELECT 0.47-50V<HR>
C815	87-010-403-080		CAP, ELECT 3.3-50V<LH,V>
C816	87-010-400-080		CAP, ELECT 0.47-50V<HR>
C816	87-010-403-080		CAP, ELECT 3.3-50V<LH,V>
C821	87-010-405-080		CAP, ELECT 10-50V
C823	87-010-177-080		C-CAP,S 820P-50 SL<LH,HR>
C823	87-012-349-080		C-CAP,S 1000P-50 J CH<V>
C824	87-010-404-080		CAP, ELECT 4.7-50<HR,V>
C824	87-010-405-080		CAP, ELECT 10-50V<LH>
C825	87-010-596-080		CAP, S 0.047-16
C842	87-010-197-080		CAP, CHIP 0.01 DM
C844	87-010-197-080		CAP, CHIP 0.01 DM
C851	87-010-197-080		CAP, CHIP 0.01 DM
C852	87-010-197-080		CAP, CHIP 0.01 DM
C853	87-010-197-080		CAP, CHIP 0.01 DM
C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C860	87-010-197-080		CAP, CHIP 0.01 DM
C940	87-010-197-080		CAP, CHIP S 0.01-25 KB<HR>
C941	87-010-314-080		CAP, CHIP S 22P-50 JCH<HR>
C943	87-010-197-080		CAP, CHIP S 0.01-25 KB<HR>
C945	87-010-197-080		CAP, CHIP S 0.01-25 KB<HR>
C946	87-010-971-080		CAP, CHIP S 4700P-50 JB<HR>
C947	87-010-197-080		CAP, CHIP S 0.01-25 KB<HR>
C948	87-010-148-080		CAP, CHIP S 4P-50 CH<HR>
C952	87-010-197-080		CAP, CHIP S 0.01-25 KB<HR>
C953	87-010-197-080		CAP, CHIP S 0.01-25 KB<HR>
C954	87-010-400-080		CAP, ELECT 0.47-50V<HR>
C956	87-010-263-080		CAP, ELECT 100-10 M 11L<HR>
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25<LH,V>
C961	87-010-152-080		C-CAP,S 8P-50 CH<LH,V>
C962	87-010-401-080		CAP, ELECT 1-50V<HR,LH>
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C964	87-010-854-080		C-CAP, S 560P-50J CH<HR>
C971	87-010-381-080		CAP, ELECT 330-16V
C972	87-010-404-080		CAP, ELECT 4.7-50V
C973	87-010-197-080		CAP, CHIP 0.01 DM
C974	87-010-197-080		CAP, CHIP 0.01 DM
C979	87-010-322-080		C-CAP,S 100P-50 CH
C982	87-010-196-080		CHIP CAPACITOR,0.1-25
C983	87-010-197-080		CAP, CHIP 0.01 DM
C984	87-010-197-080		CAP, CHIP 0.01 DM
C987	87-010-197-080		CAP, CHIP 0.01 DM
C989	87-010-197-080		CAP, CHIP 0.01 DM<HR,V>
C993	87-010-178-080		CHIP CAP 1000P
C995	87-010-178-080		CHIP CAP 1000P
C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C999	87-A11-155-080		CAP,TC U 0.01-16 Z F
CF831	87-008-261-010		FILTER, SFE10.7MA5-A
CF832	87-008-261-010		FILTER, SFE10.7MA5-A
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	87-099-719-010		CONN,30P TYK-B(X)
CN602	87-099-194-010		CONN,6P 6216V
CNA1	8A-NF8-652-010		CONN ASSY,7P TID-A(480)<HR,V>
CNA1	8A-NF8-653-010		CONN ASSY,9P TID-A(480)<LH>
D951	87-A40-618-080		VAR1-CAP,SVC 348(S/T)<HR>
FB602	87-008-372-080		FLTR,EMI BLOI RN1<V>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
FFE831	A8-8ZA-190-030		8ZA-1 FEUNM<HR>
FFE831	A8-8ZA-191-030		8ZA-1 YFEUNM<LH>
FFE831	A8-6ZA-193-130		6ZA-1 FEVNM<V>
J101	87-A60-602-010		JACK,DIA6.3 BLK ST W/SW TC
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)<LH>
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J831	87-A60-202-010		TERMINAL,ANT 4P MSP-154V02<LH>
J940	87-A60-633-010		CONN 2P H 2.5MM<HR>
L101	87-003-383-010		COIL,1UH-S<LH>
L101	87-A50-610-010		COIL,1UH-K(MDEC)<HR,V>
L102	87-003-383-010		COIL,1UH-S<LH>
L102	87-A50-610-010		COIL,1UH-K(MDEC)<HR,V>
L451	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-608-010		COIL,FM DET-N (TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)<LH,V>
L802	87-A91-552-010		FLTR,CFMT-450A L(TOK)<HR>
L811	87-005-847-080		COIL,2.2UH(CECS)
L832	87-005-847-080		COIL,2.2UH(CECS)
L941	87-A50-022-010		COIL,ANT SW COI<HR>
L942	87-A50-550-010		COIL,OSC SW-2NCOI<HR>
L943	87-A50-552-080		COIL,1MH K CEC<HR>
L944	87-A50-159-010		COIL,10MH K<HR>
L951	8A-NF8-667-010		COIL,AM PACK 4(TOK)<LH,V>
L952	87-A50-430-010		COIL,ANT MW<3BSW><HR>
L953	87-A50-431-010		COIL,OSC MW(3BSW)<HR>
R129	87-A00-258-080		RES,M/F 0.22-1W J<HR>
R130	87-A00-258-080		RES,M/F 0.22-1W J<HR>
R131	87-A00-258-080		RES,M/F 0.22-1W J<LH>
R132	87-A00-258-080		RES,M/F 0.22-1W J<LH>
R653	87-A11-144-080		CAP,TC U 0.1-50 K B
R654	87-A11-144-080		CAP,TC U 0.1-50 K B
R790	87-010-197-080		CAP, CHIP 0.01 DM
R991	87-010-322-080		C-CAP,S 100P-50 CH
R993	87-010-322-080		C-CAP,S 100P-50 CH
R995	87-010-322-080		C-CAP,S 100P-50 CH
TC941	87-011-254-080		TRIMMER,CER 20P 4.0X4.5<HR>
TC943	87-011-253-080		TRIMMER,CER 30P 4.0X4.5<HR>
W181	85-NF5-628-010		F-CABLE,7P 2.5<V>
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P<LH>
WH1	87-A90-460-010		HLDR,WIRE 2.5-7P<HR,V>
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

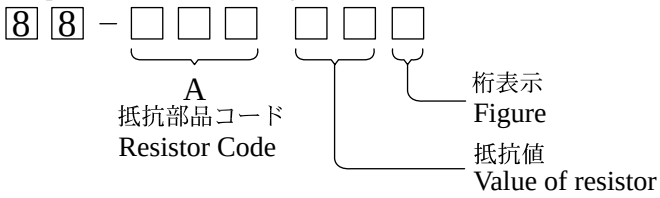
C101	87-010-196-080	CHIP CAPACITOR,0.1-25
C102	87-012-369-080	C-CAP,S 0.047-50F
C103	87-010-374-040	CAP, ELECT 47-10
C104	87-A10-797-040	CAP,E 47-35 M 5L SRM
C105	87-010-192-080	C-CAP,S 0.022-50 F
C107	87-010-196-080	CHIP CAPACITOR,0.1-25
C108	87-010-178-080	CHIP CAP 1000P
C109	87-012-369-080	C-CAP,S 0.047-50F
C110	87-010-197-080	CAP, CHIP 0.01 DM
C111	87-010-196-080	CHIP CAPACITOR,0.1-25
C113	87-010-178-080	CHIP CAP 1000P
C114	87-010-154-080	CAP CHIP 10P
C115	87-010-175-080	CAP 560P
C116	87-010-400-040	CAP,E 0.47-50
C117	87-016-460-080	C-CAP,S 0.22-16 B
C118	87-A10-189-040	CAP,E 220-10
C119	87-A10-189-040	CAP,E 220-10
C120	87-012-156-080	C-CAP,S 220P-50 CH
C123	87-010-196-080	CHIP CAPACITOR,0.1-25
C124	87-010-196-080	CHIP CAPACITOR,0.1-25
C125	87-010-405-040	CAP,E 10-50
C126	87-010-196-080	CHIP CAPACITOR,0.1-25
C129	87-010-374-040	CAP,E 47-10
C210	87-012-156-080	C-CAP,S 220P-50 CH
C212	87-010-404-040	CAP,E 4.7-50 SME
C213	87-010-404-040	CAP,E 4.7-50 SME
C401	87-010-186-080	C-CAP,S 4700P-50 K B<HR>
C402	87-010-060-040	CAP,E 100-16 M 7L SRA<HR>
C403	87-010-545-040	CAP,E 0.22-50 M 11L SME<HR>
C404	87-010-322-080	C-CAP,S 100P-50 J CH GRM<HR>
C405	87-010-545-040	CAP,E 0.22-50 M 11L SME<HR>
C406	87-016-669-080	C-CAP,S 0.1-25 K B<HR>
C407	87-010-405-040	CAP,E 10-50 M 11L SME<HR>
C408	87-010-322-080	C-CAP,S 100P-50 J CH GRM<HR>
C409	87-010-378-040	CAP,E 10-16 M 11L SME<HR>
C410	87-010-196-080	C-CAP,S 0.1-25 Z F<HR>
C412	87-010-177-080	C-CAP,S 820P-50 J SL<HR>
C701	87-010-384-040	CAP,E 100-25 SME
C702	87-010-178-080	C-CAP,S1000P-50KB<V>
CN101	87-099-720-010	CONN,30P TYK-B(P)
CN701	87-A60-673-010	CONN,9P H 2MM JMT
CN801	87-099-015-010	CONN,13P 6216V
EMI401	87-008-372-080	FLTR,EMI BL01 RN1<HR>
FL201	8A-NFA-604-010	FL,10-BT-224GNK
J401	87-A61-242-010	JACK,6.3 BLK MONO W/SW VKM<HR>
L101	87-A50-434-010	COIL,CLK 4.19M(TOKO)
LED101	87-A40-317-080	LED,SLR-342VCT31 RED
S101	87-A91-555-010	SW,RTRY EC12E24504
S301	87-A90-164-080	SW,TACT SKQAB(N)
S302	87-A90-164-080	SW,TACT SKQAB(N)
S303	87-A90-164-080	SW,TACT SKQAB(N)
S304	87-A90-164-080	SW,TACT SKQAB(N)
S305	87-A90-164-080	SW,TACT SKQAB(N)
S306	87-A90-164-080	SW,TACT SKQAB(N)
S307	87-A90-164-080	SW,TACT SKQAB(N)
S308	87-A90-164-080	SW,TACT SKQAB(N)
S309	87-A90-164-080	SW,TACT SKQAB(N)
S321	87-A90-164-080	SW,TACT SKQAB(N)
S322	87-A90-164-080	SW,TACT SKQAB(N)
S323	87-A90-164-080	SW,TACT SKQAB(N)
S324	87-A90-164-080	SW,TACT SKQAB(N)
S325	87-A90-164-080	SW,TACT SKQAB(N)
S326	87-A90-164-080	SW,TACT SKQAB(N)
S327	87-A90-164-080	SW,TACT SKQAB(N)
S328	87-A90-164-080	SW,TACT SKQAB(N)
S329	87-A90-164-080	SW,TACT SKQAB(N)
S330	87-A90-164-080	SW,TACT SKQAB(N)
S331	87-A90-164-080	SW,TACT SKQAB(N)
SFR701	87-024-431-080	SFR,3.3K RH063EC
VR401	87-NB7-602-010	VR,RTRY 10KAX1 1V<HR>

PT C.B

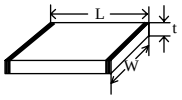
C1	87-010-387-080	CAP,E 470-25 SME<HR,LH>
C31	87-010-403-080	CAP, ELECT 3.3-50V<HR,LH>
C183	87-010-387-080	CAP, ELECT 470-25 M<V>
C184	87-010-403-080	CAP, ELECT 3.3-50V<V>
C185	87-018-209-080	CAP, TC U 0.1-50 ZF<V>
CN1	87-A61-110-010	CONN,9P V TID-A<LH>
CN1	87-A61-109-010	CONN,7P V TID-A<HR>
⚠ PT1	8A-NFA-606-010	PT,ANF-A HR<HR>
⚠ PT1	8A-NFA-608-010	PT,ANF-A EZ<V>
⚠ PT1	8A-NFA-609-010	PT,ANF-A LH<LH>
⚠ PT2	8A-NF8-673-010	PT,SUB ANF-8 (H)KAMI<HR,LH>
⚠ PT181	8A-NF8-662-010	PT,SUB ANF-8 (E)<V>
⚠ RY1	87-A91-281-010	RELAY,AC DC12V OSA-SS-212DM5<HR,LH>
⚠ RY181	87-A90-976-010	RELAY,AC12V SDT-S-112LMR<V>
⚠ S1	87-A90-165-010	SW,SL 1-2-3 SWS2301<HR,LH>
⚠ T1	87-A60-317-010	TERMINAL, 1P MSC<HR,LH>
⚠ T2	87-A60-317-010	TERMINAL, 1P MSC<HR,LH>
⚠ T181	87-A60-317-010	TERMINAL, 1P MSC<V>
⚠ T182	87-A60-317-010	TERMINAL, 1P MSC<V>
WH181	87-A90-460-010	HLDR,WIRE 2.5-7P<V>

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

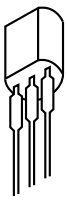
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

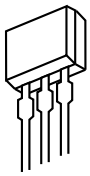
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード　：A Resistor Code：A
				外形／Form	L	W	t	
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



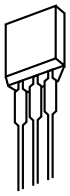
E C B

CSA952
CSC4115
KTA1266
KTC3198
KTC3199



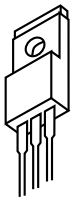
S D G

2SJ460
2SK2541



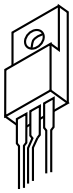
E C B

DTC114



B C E

2SB1342
2SB1370
2SD1933

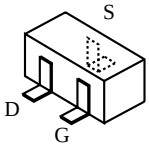


B C E

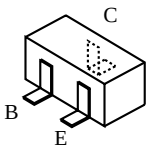
2SC3331

E C B

CC5551



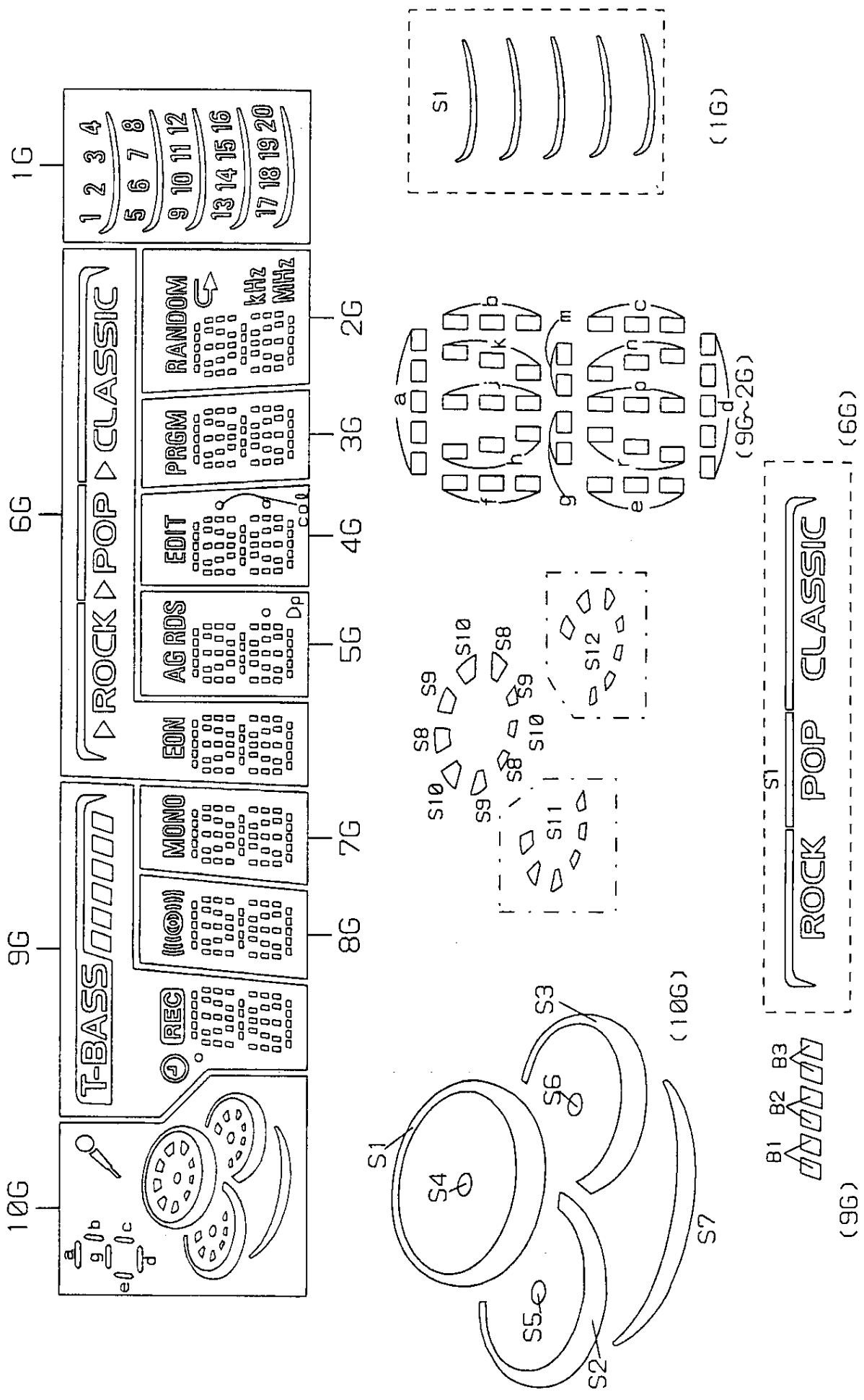
2SK360



2SA1235
2SC2714
2SC3052
CSD1306
CMBT5401
CMBT5551
KRA102
KRA107
KRC102
KRC104

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

GRID ASSIGNMENT

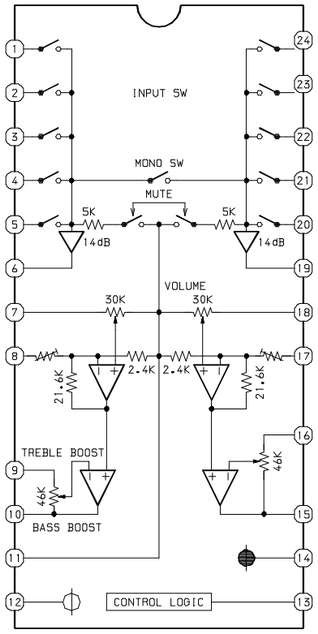


ANODE CONNECTION

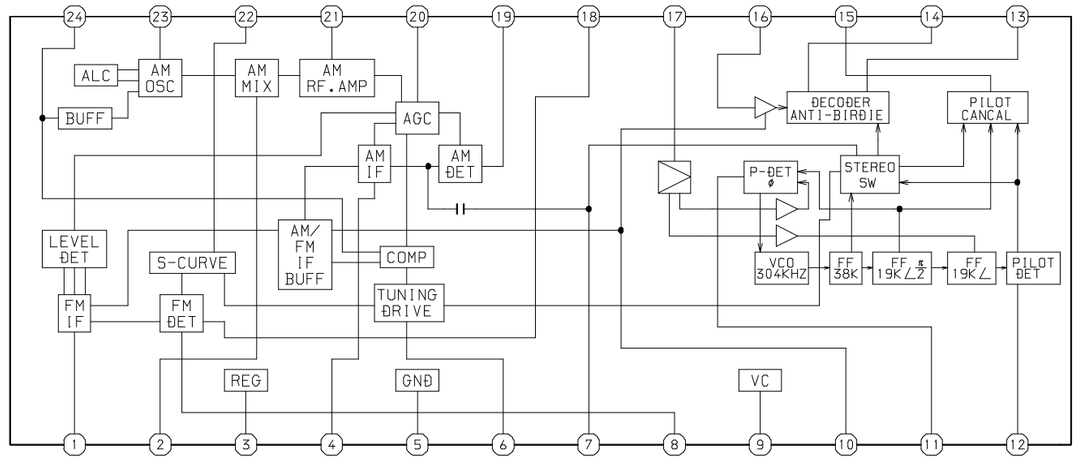
	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	–	d	d	d	d	d	d	d	d	20
P2	S7	n	n	n	n	n	n	n	n	19
P3	–	p	p	p	p	p	p	p	p	18
P4	S11	r	r	r	r	r	r	r	r	17
P5	S5	e	e	e	e	e	e	e	e	16
P6	S2	c	c	c	c	c	c	c	c	15
P7	S12	g	g	g	g	g	g	g	g	14
P8	S6	m	m	m	m	m	m	m	m	13
P9	S3	f	f	f	f	f	f	f	f	12
P10	S10	b	b	b	b	b	b	b	b	11
P11	S9	k	k	k	k	k	k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

IC BLOCK DIAGRAM

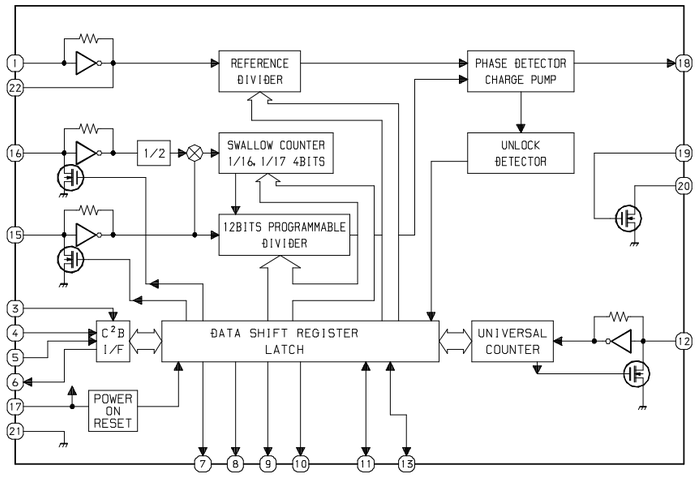
IC,M62495AFP



IC,LA1844L-A



IC,LC72131D



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

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

A MAIN C.B <HR>

TO CD MECHANISM AZG-1
FC602
CN602

TO DECK2
CON301
TO CN301

TO DECK1
CON351
TO CN351

J940 MW LOOP
J831 ANTENNA
SW
FM 75Ω

TO B FRONT C.B
CN701
CN601

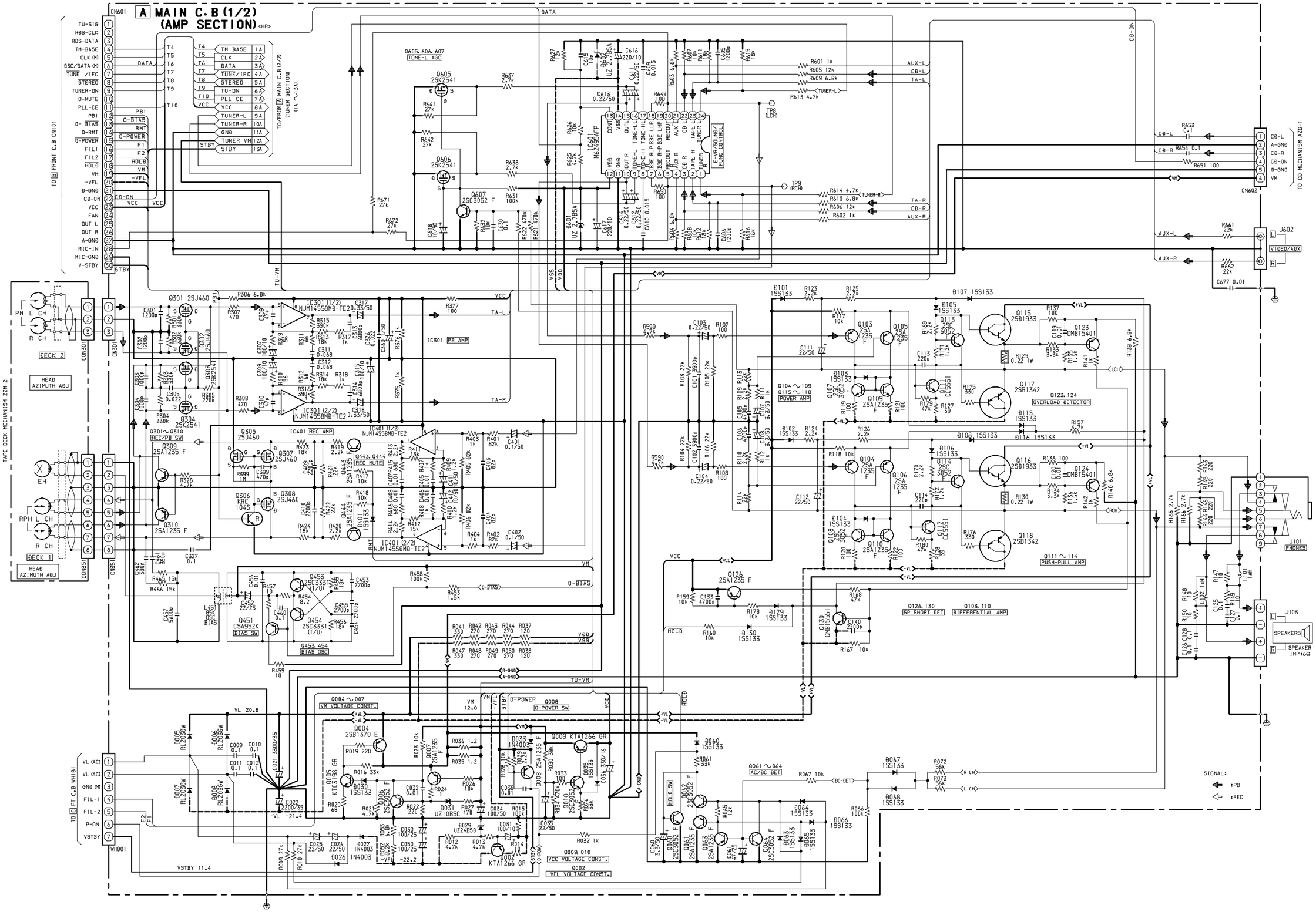
J602 VIDEO/AUX

TO C PT C.B
CN1
CNA1
WHT
WH001

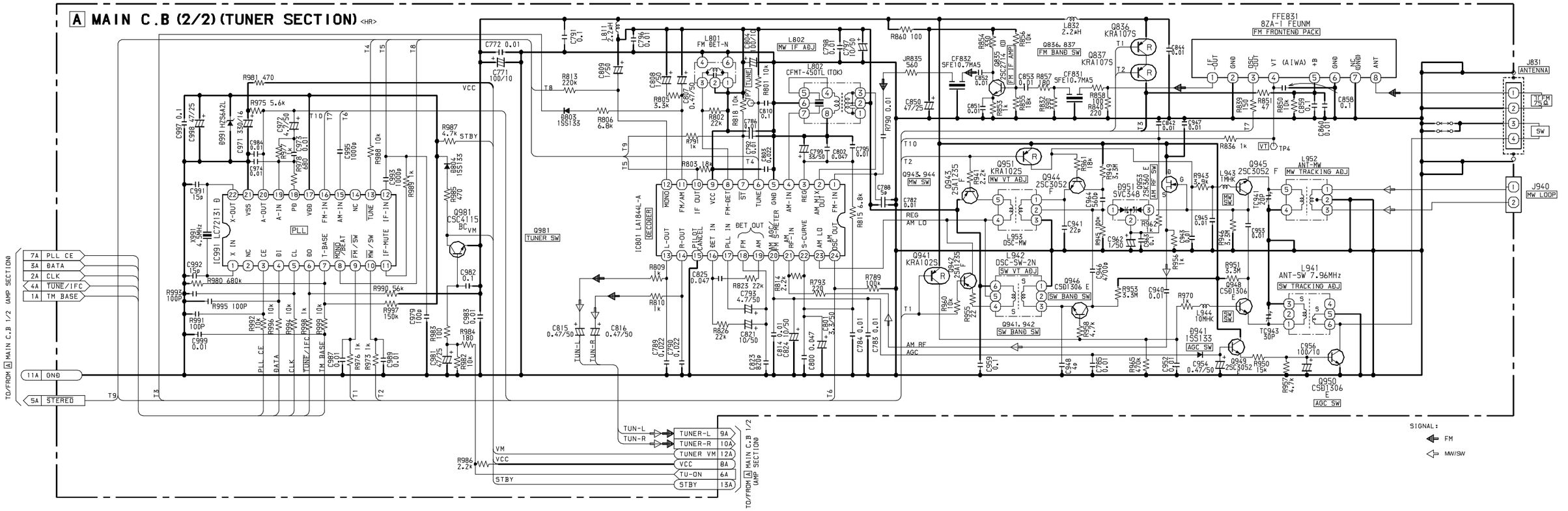
J103 SPEAKERS
SPEAKER IMP:6Ω

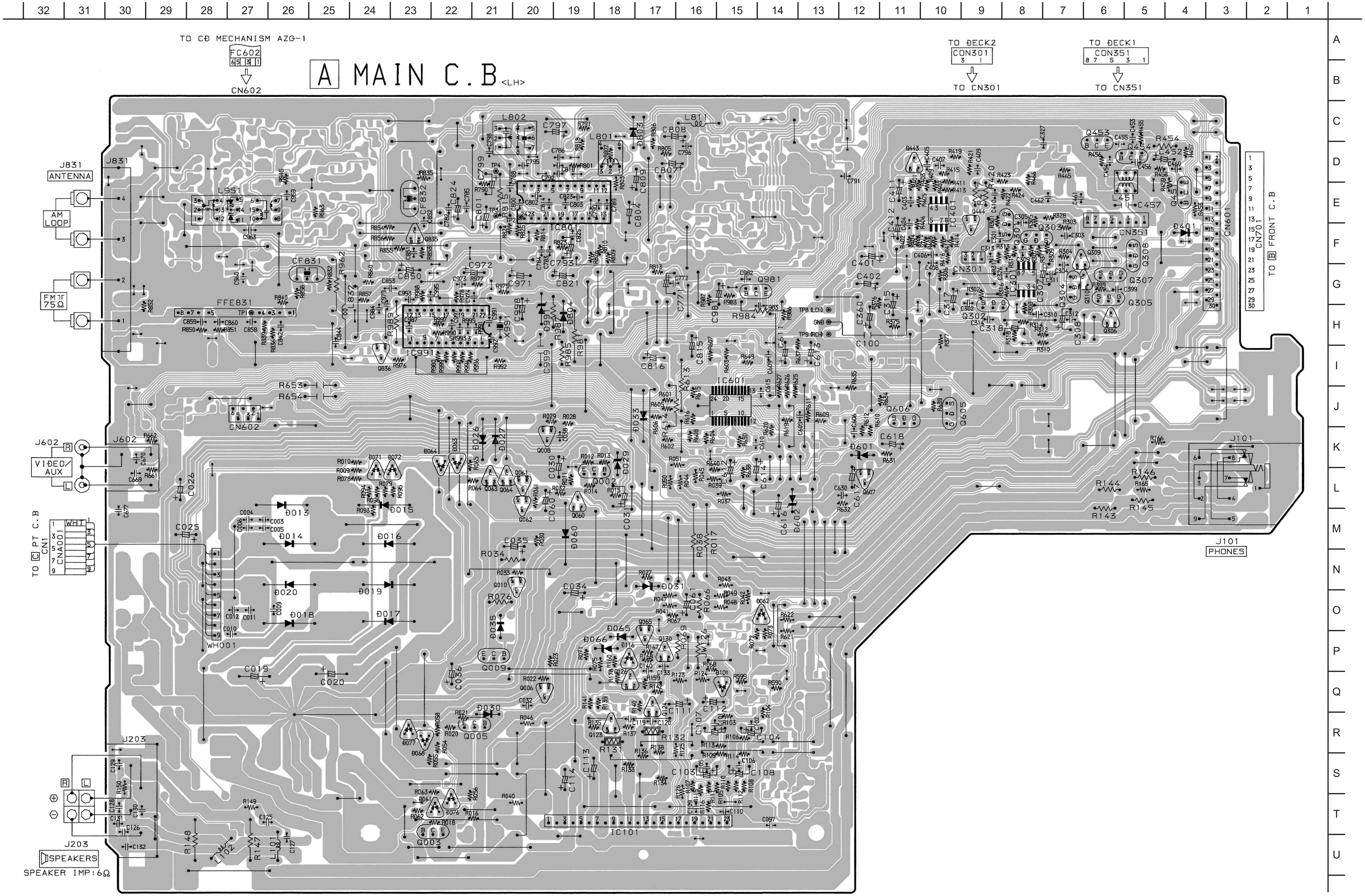
J101 PHONES

SCHEMATIC DIAGRAM – 1 (MAIN 1 / 2 : AMP SECTION)<HR>

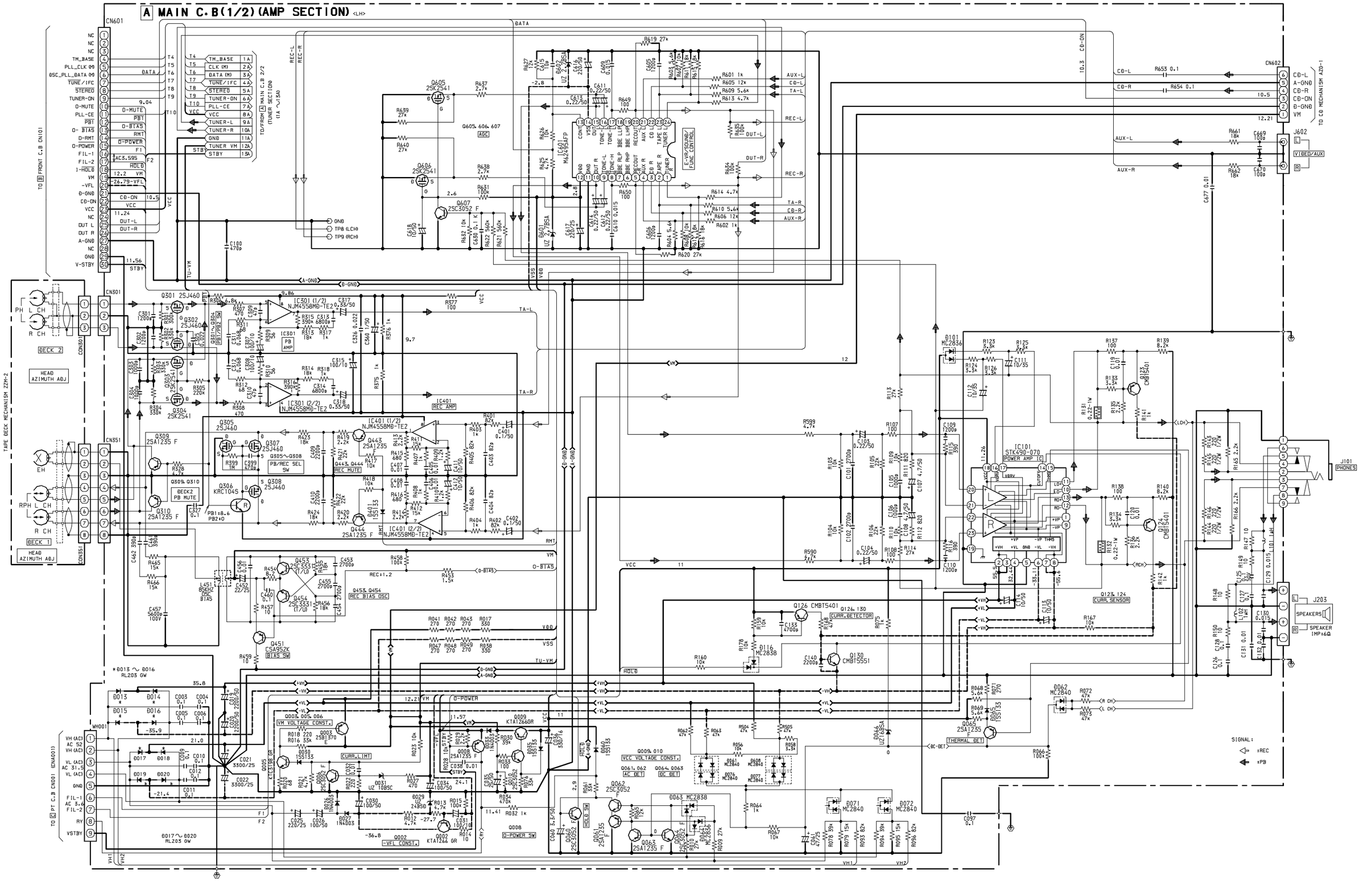


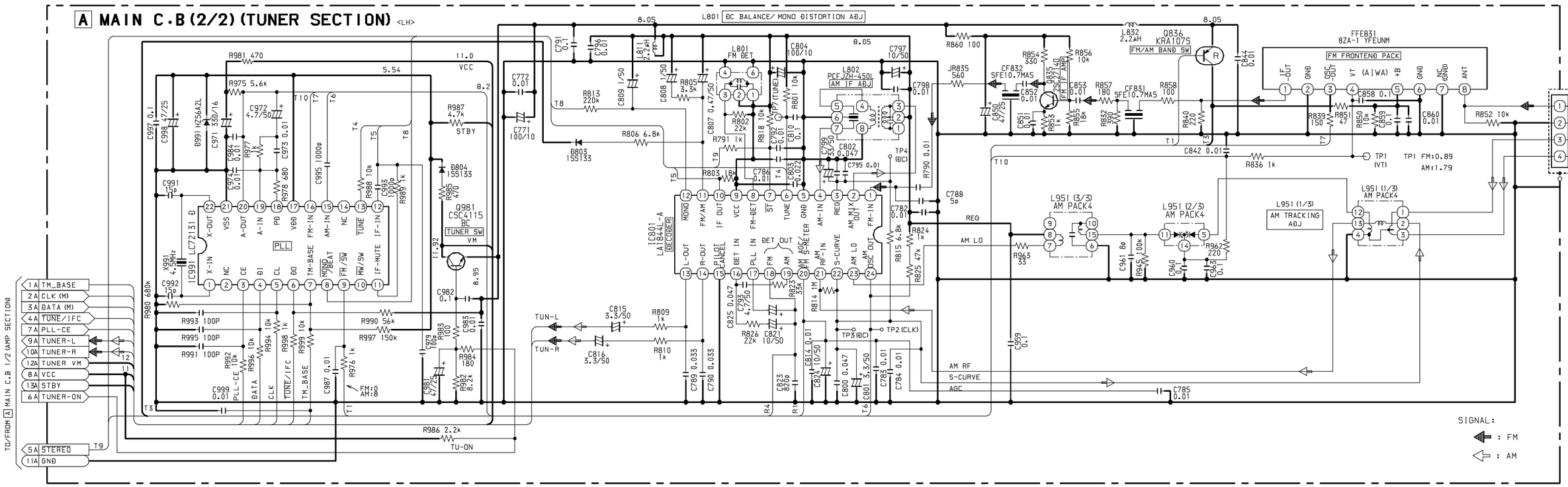
SCHEMATIC DIAGRAM – 2 (MAIN 2 / 2 : TUNER SECTION)<HR>




A MAIN C.B <LH>
TO CD MECHANISM AZG-1
FC602
CN602
TO DECK2
CON301
TO CN301
TO DECK1
CON351
TO CN351
J831 ANTENNA
AM LOOP
FM 75Ω
J602
VIDEO/ AUX
TO C PT C.B CN1 CNA001
WH001
J203
SPEAKERS
SPEAKER IMP:6Ω
TO B FRONT C.B CN701
CN601
J101 PHONES
IC101
IC601
IC801
IC991
IC401
IC301

SCHEMATIC DIAGRAM – 3 (MAIN 1 / 2 : AMP SECTION)<LH>




A MAIN C.B (2/2) (TUNER SECTION) <LH>
L801 BC BALANCE/ MONO DISTORTION ADJ
L801 FM DET
L802 PCF.IZH-450L AM IF ADJ
IC991 LC72131 D PLL
IC801 LA1837-A DECODER
Q991 HZ564L2
Q981 CSC4115 BC TUNER SW VM
Q836 KRA107S FM/AM BAND SW
FFE831 8ZA-I YFEUNM FM FRONTEND PACK
L951 (3/3) AM PACK4
L951 (2/3) AM PACK4
L951 (1/3) AM PACK4
L951 (1/3) AM TRACKING ADJ
J831 ANTENNA
TF FM 75 Ω
AM LOOP
TP1 (VT) TP1 FM:0.89 AM:1.79
TP2 (CLK)
TP3 (DC)
TP4 (DC)
VCC
STBY
TUNE/IFC
PLL-CE
DATA
CLK
TM_BASE
TU-ON
REG
AM LO
AM RF
S-CURVE
AGC
SIGNAL:
: FM
: AM
TO/FROM A MAIN C.B 1/2 (AMP SECTION)
1A TM_BASE
2A CLK (M)
3A DATA (M)
4A TUNE/IFC
7A PLL-CE
9A TUNER-L
10A TUNER-R
12A TUNER VM
8A VCC
13A STBY
6A TUNER-ON
5A STEREO
11A GND

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

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

A MAIN C.B <V>

TO CD MECHANISM AZG-1
FC602 (6 5 3 1)
CN602

TO DECK2
CON301 (3 1)
TO CN301

TO DECK1
CON351 (8 7 5 3 1)
TO CN351

J831 ANTENNA
AM LOOP
FM 75Ω

J602 VIDEO/AUX (R L)

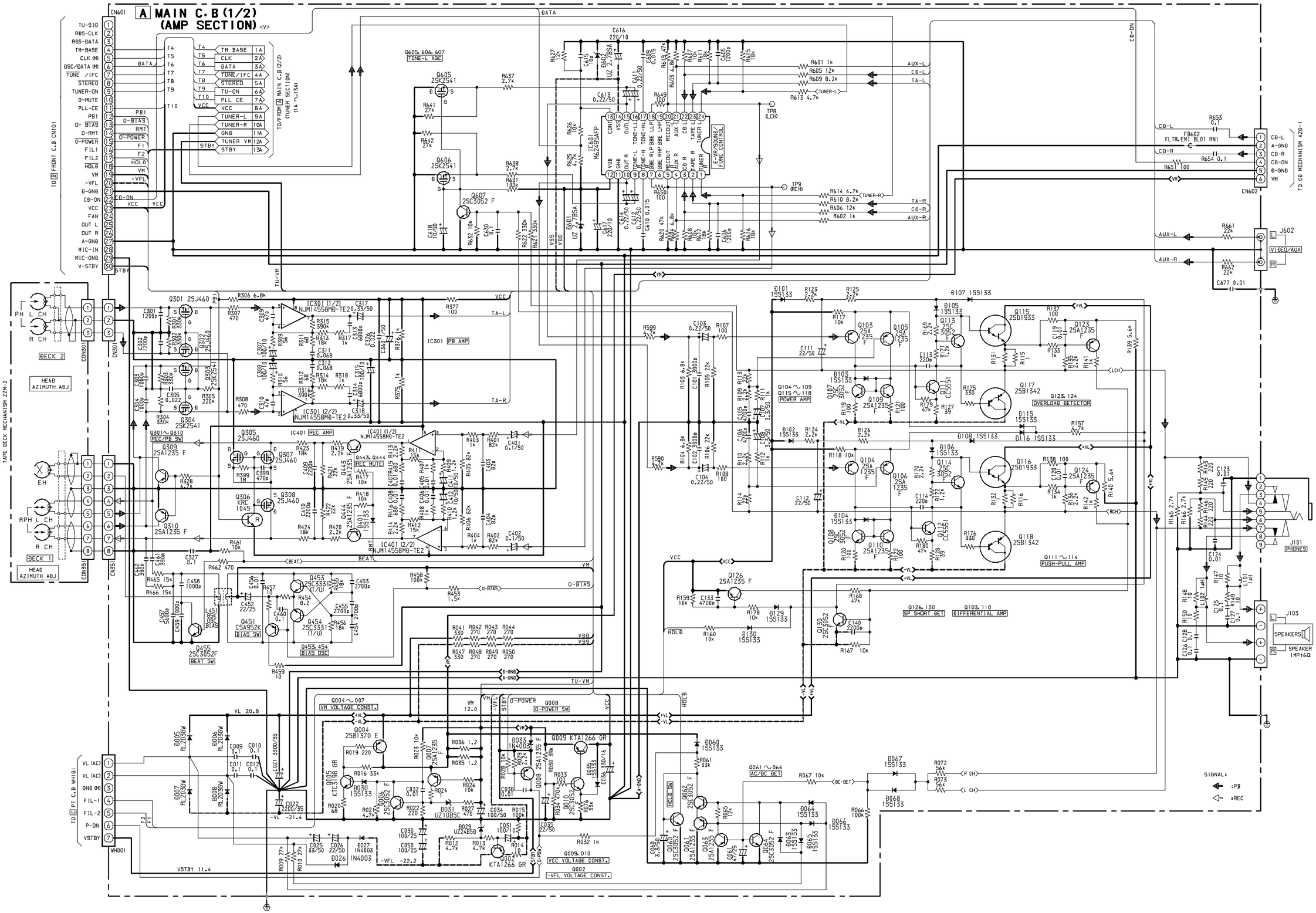
J103 SPEAKERS
SPEAKER IMP:6Ω

TO C PT C.B WH181 (WHT)
WH001

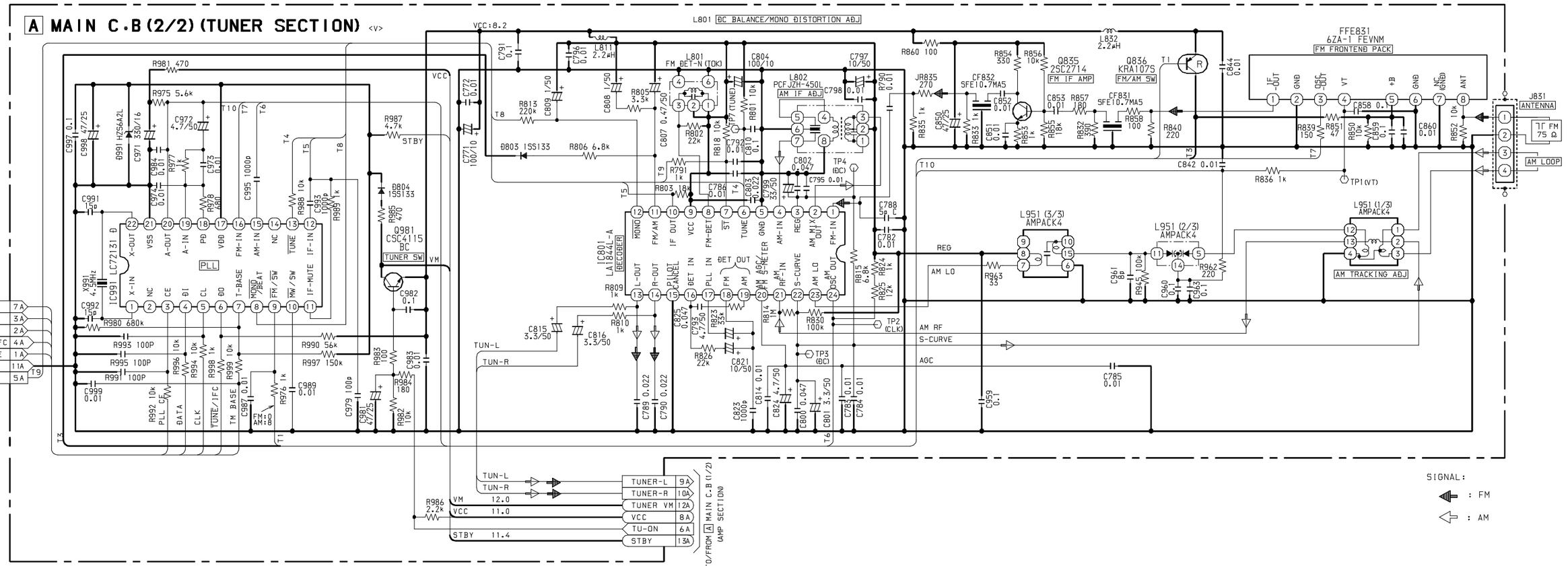
TO B FRONT C.B
CN701 — CN601

J101 PHONES

SCHEMATIC DIAGRAM – 5 (MAIN 1 / 2 : AMP SECTION)<V>

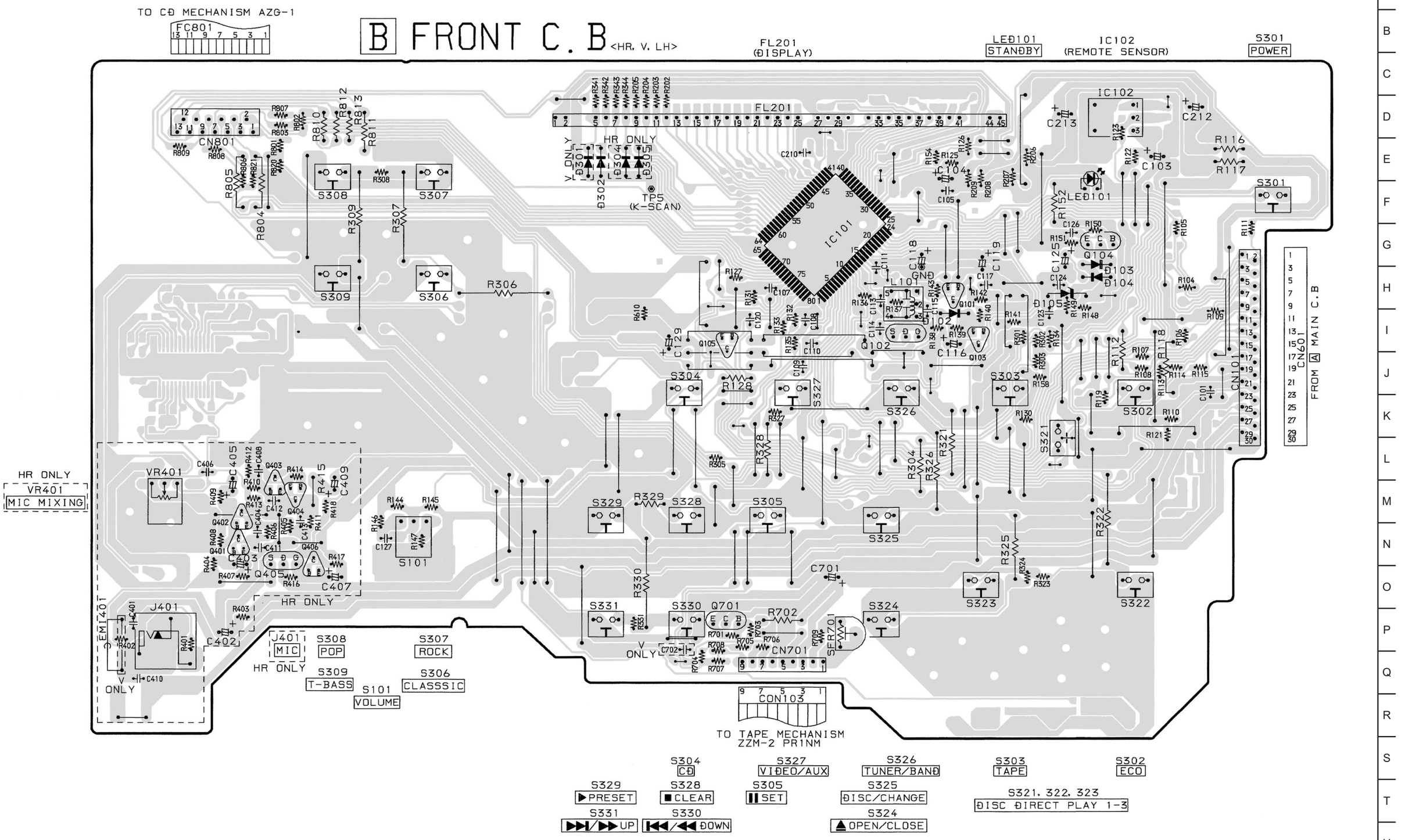


SCHEMATIC DIAGRAM – 6 (MAIN 2 / 2 : TUNER SECTION)<V>

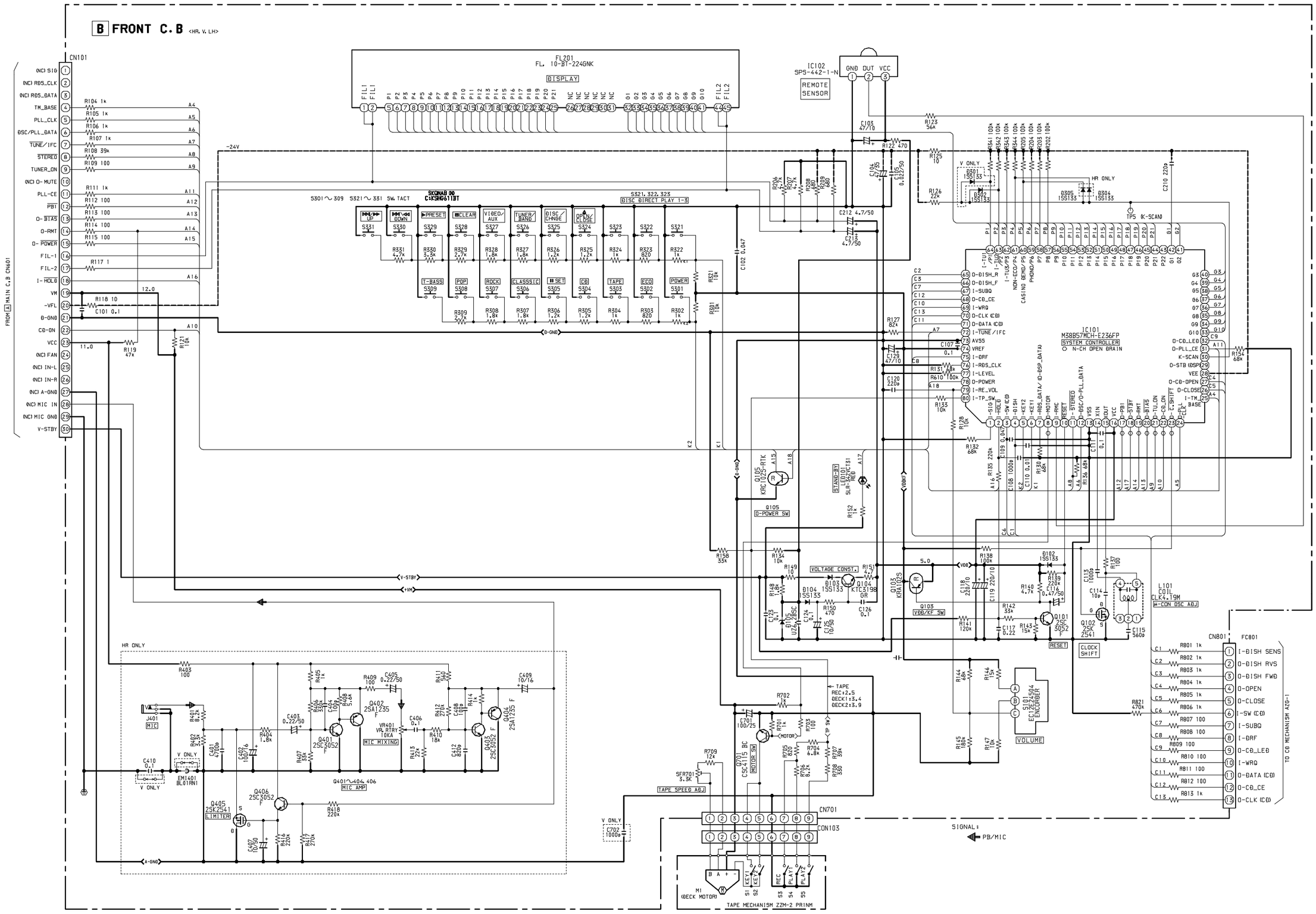


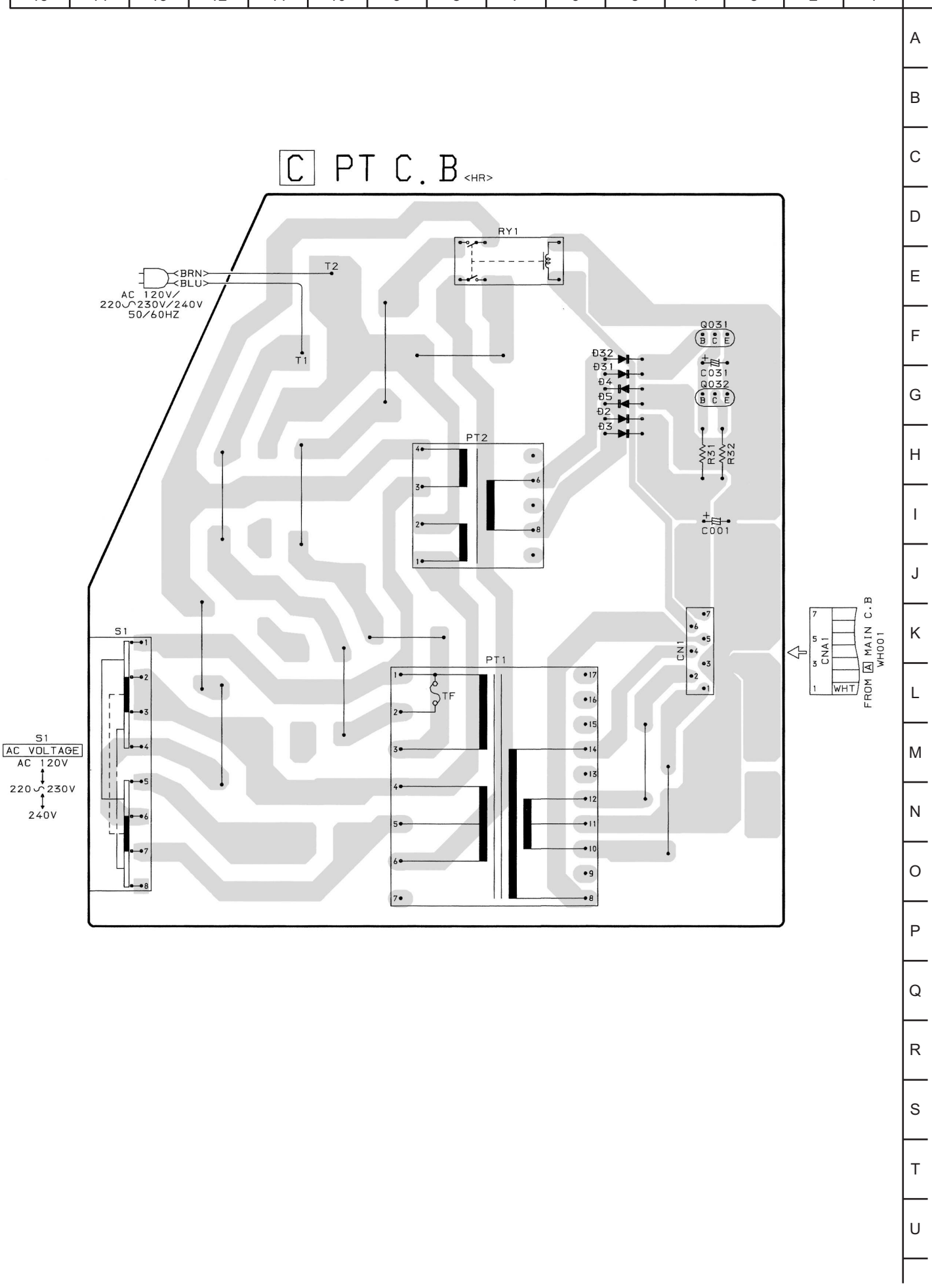
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

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

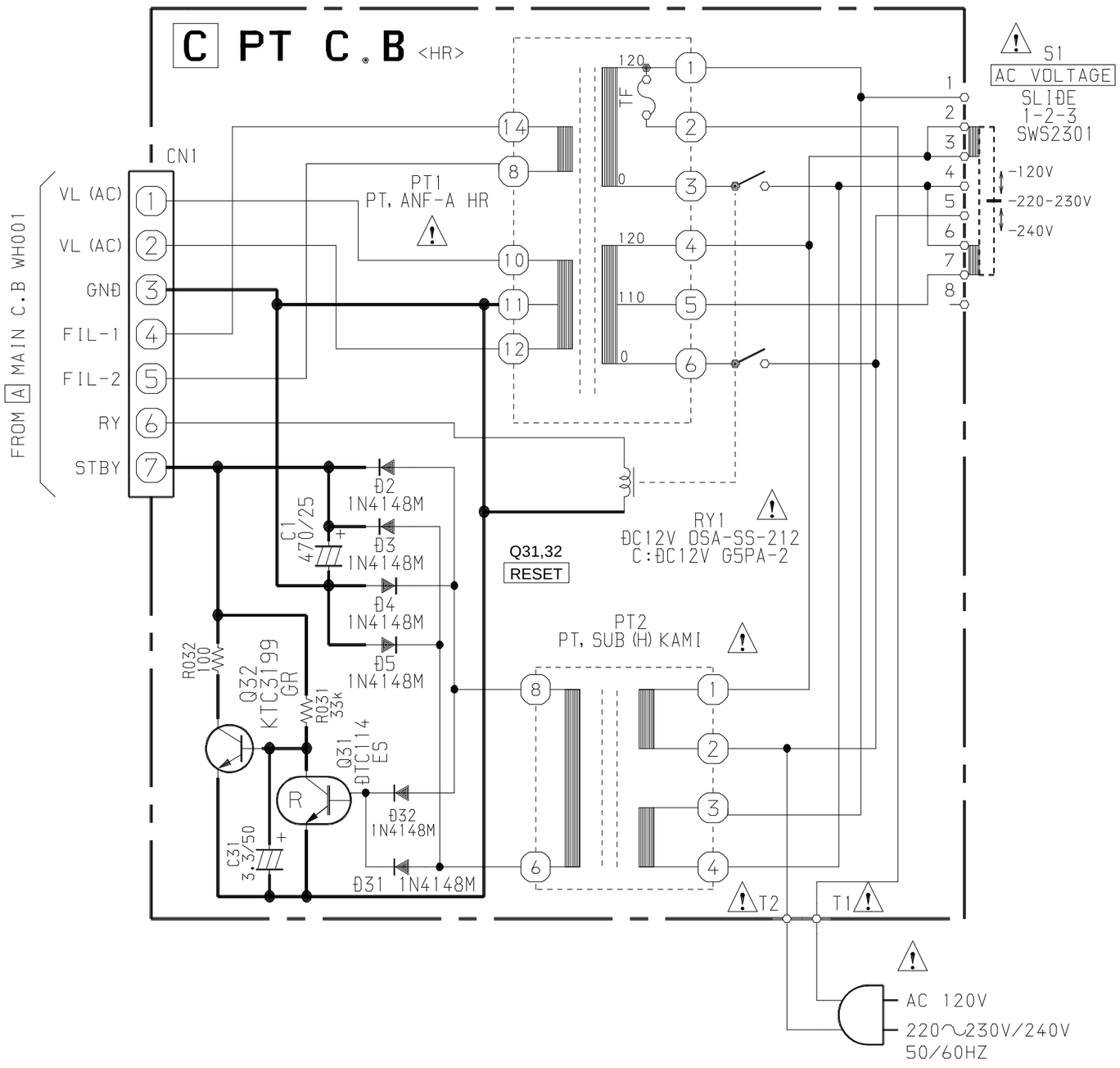


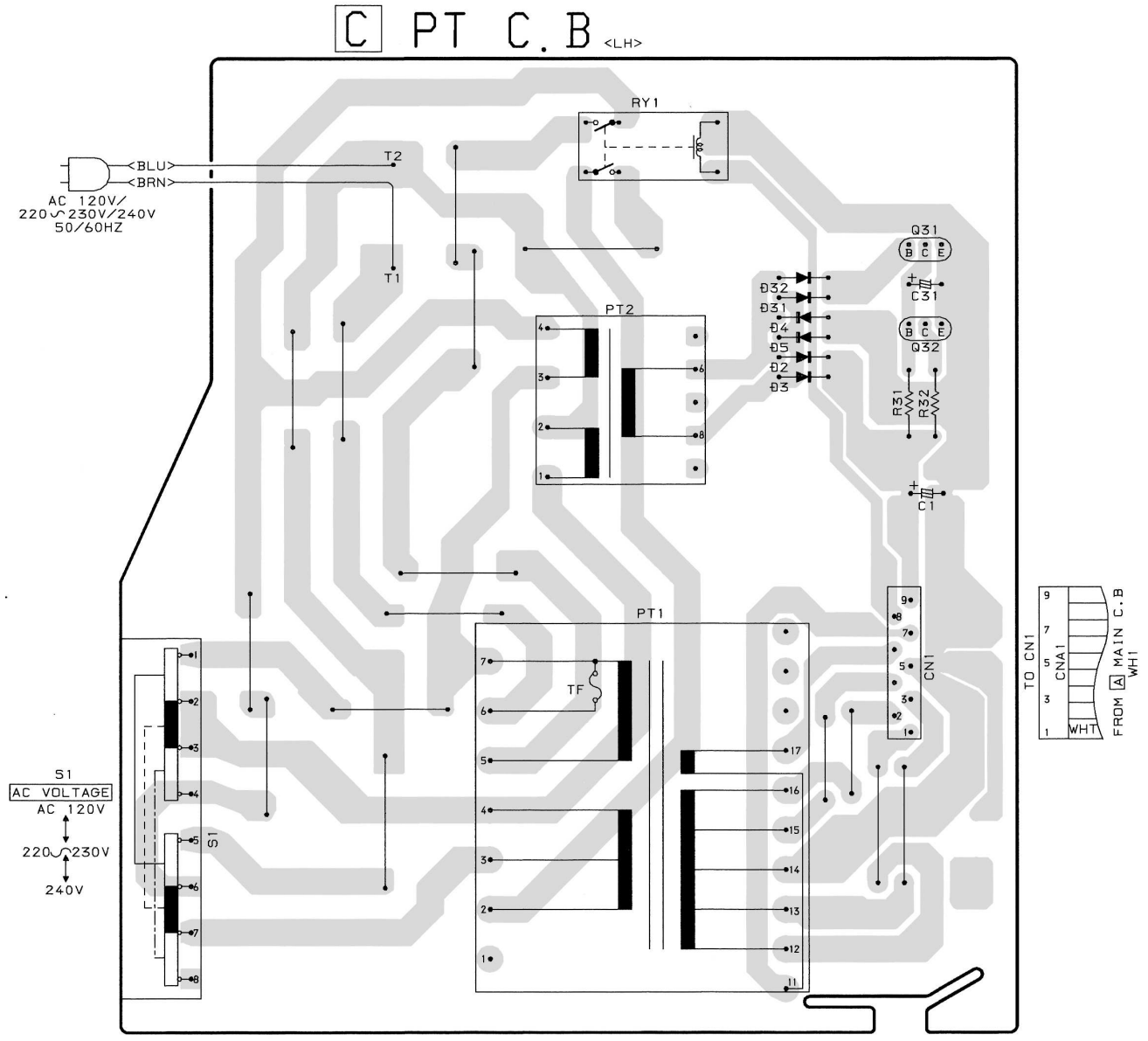
SCHEMATIC DIAGRAM – 7 (FRONT)



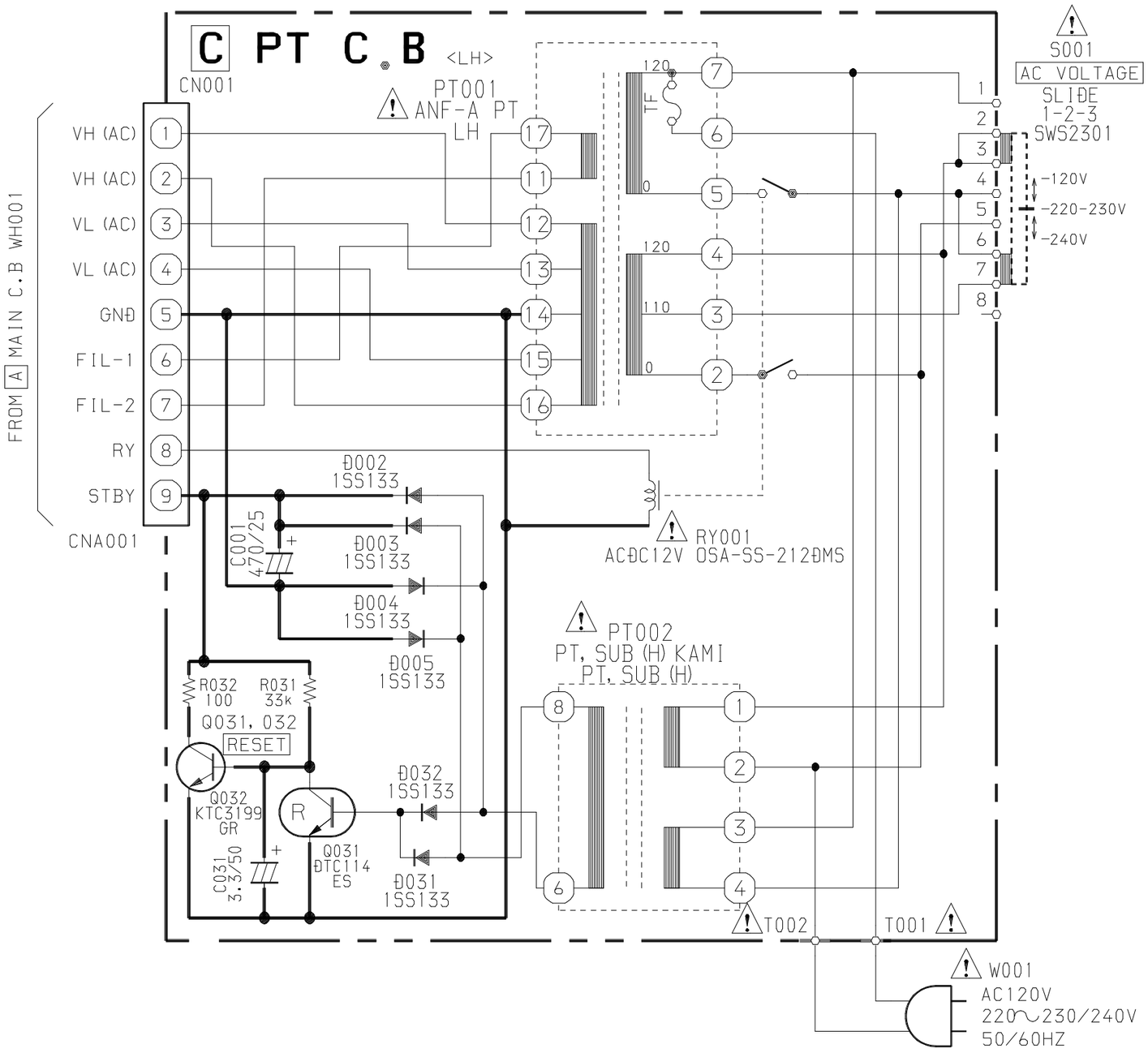

C PT C.B <HR>
RY1
T2
T1
<BRN>
<BLU>
AC 120V/
220~230V/240V
50/60HZ
Q031
C031
Q032
D32
D31
D4
D5
D2
D3
R31
R32
C001
PT2
PT1
TF
CN1
S1
AC VOLTAGE
AC 120V
220~230V
240V
CNA1
WHT
FROM A MAIN C.B
WH001

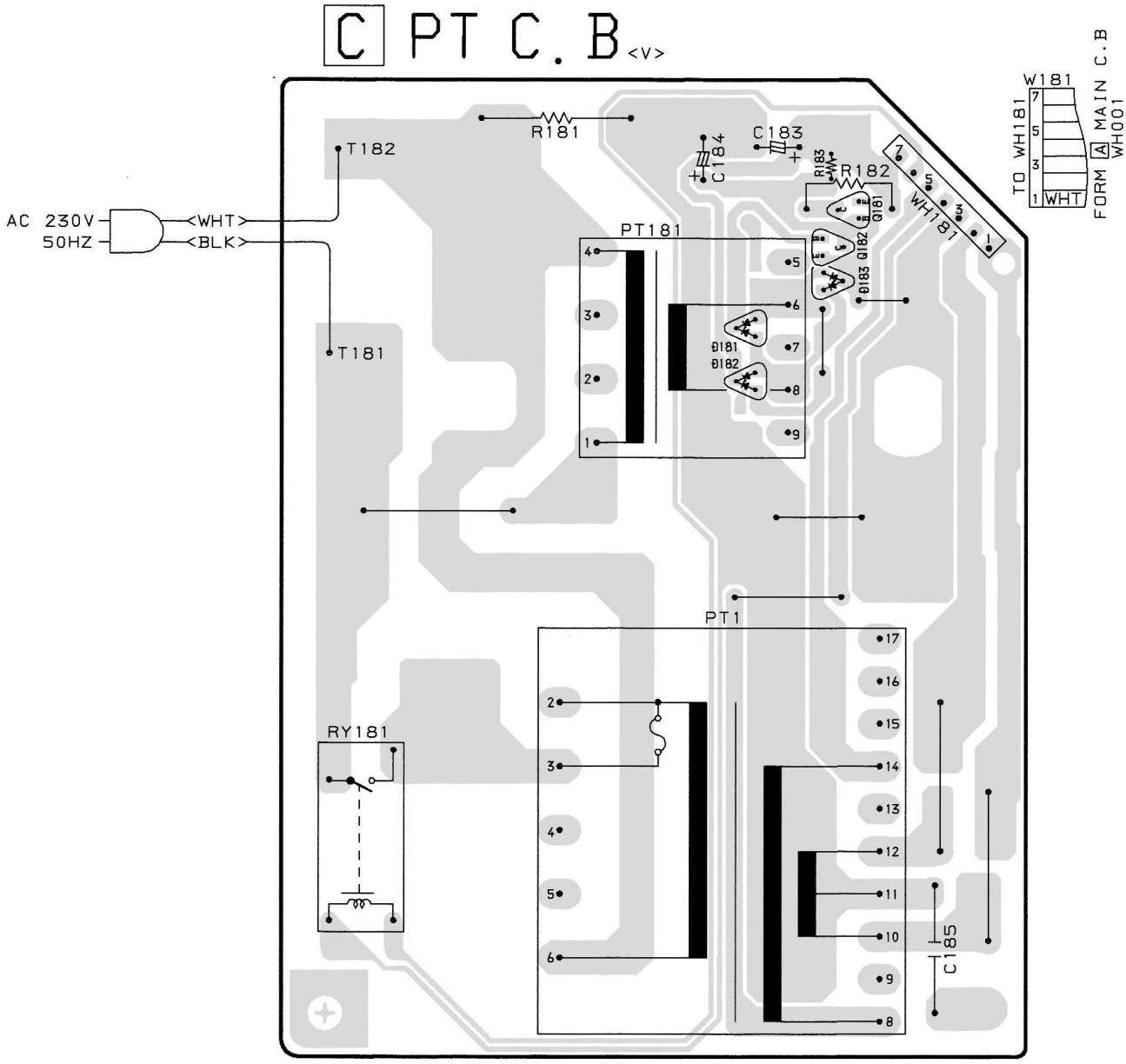
SCHEMATIC DIAGRAM – 8 (PT)<HR>



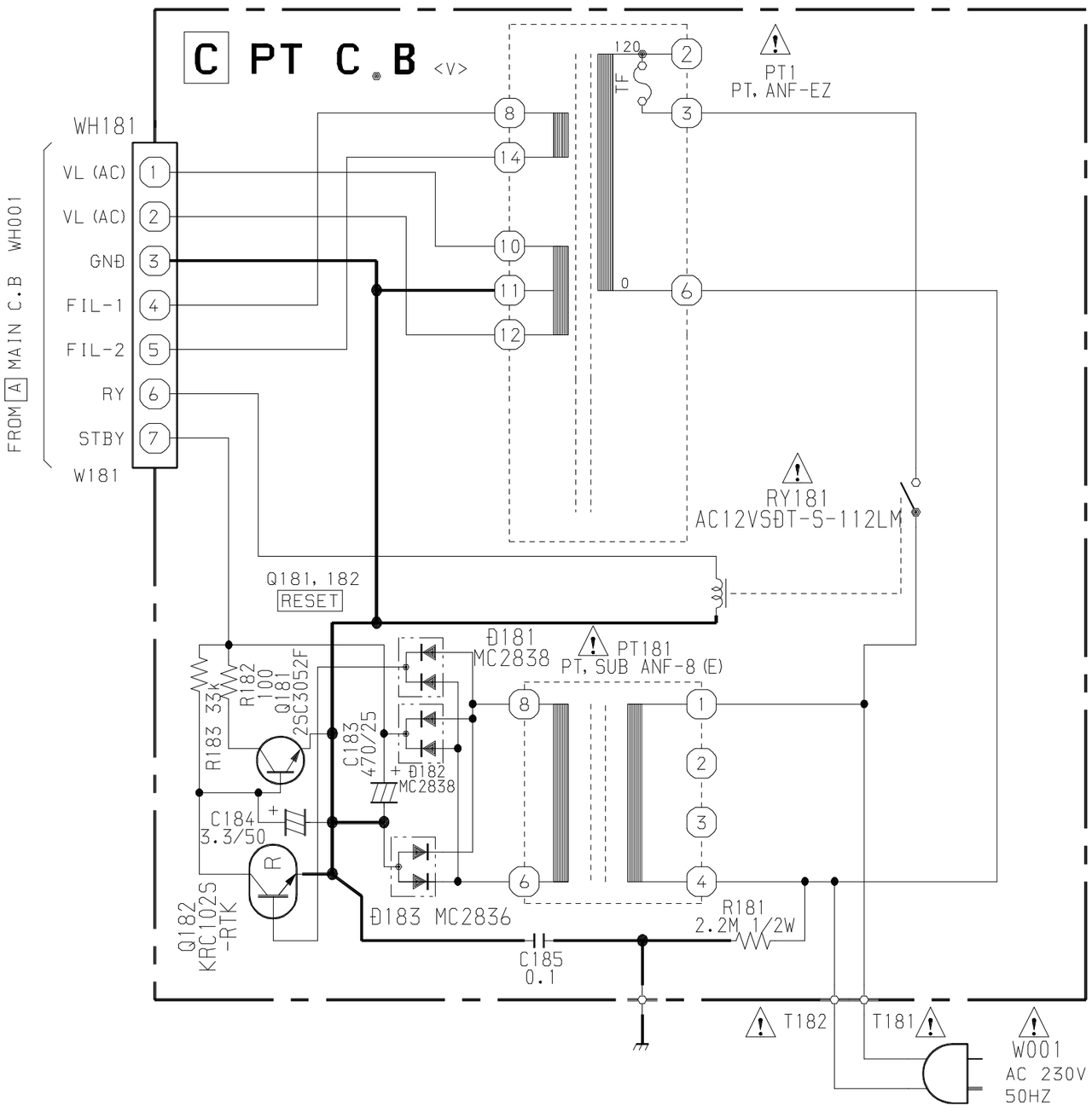

C PT C.B <LH>
RY1
T2
T1
<BLU>
<BRN>
AC 120V/
220~230V/240V
50/60HZ
PT2
PT1
TF
Q31
Q32
C31
C1
R31
R32
Đ32
Đ31
Đ4
Đ5
Đ2
Đ3
CN1
TO CN1
CNA1
FROM A MAIN C.B
WH1
WHT
S1
AC VOLTAGE
AC 120V
220~230V
240V

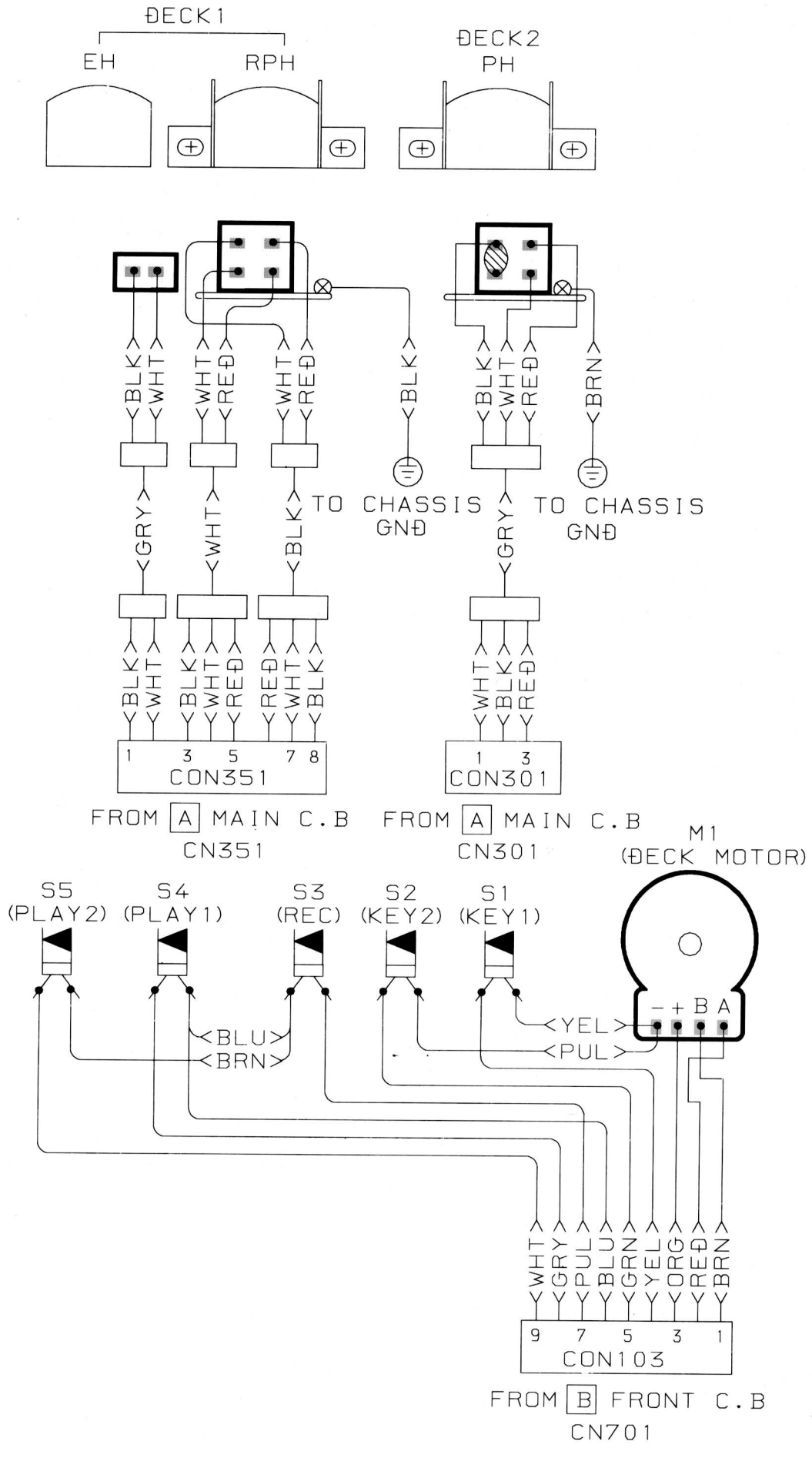
SCHEMATIC DIAGRAM – 9 (PT)<LH>




C PT C.B <V>
AC 230V
50HZ
<WHT>
<BLK>
T182
T181
R181
C184
C183
R183
R182
Q181
Q182
Q183
WH181
W181
TO WH181
FORM A MAIN C.B
WH001
PT181
D181
D182
PT1
RY181
C185

SCHEMATIC DIAGRAM – 10 (PT)<V>



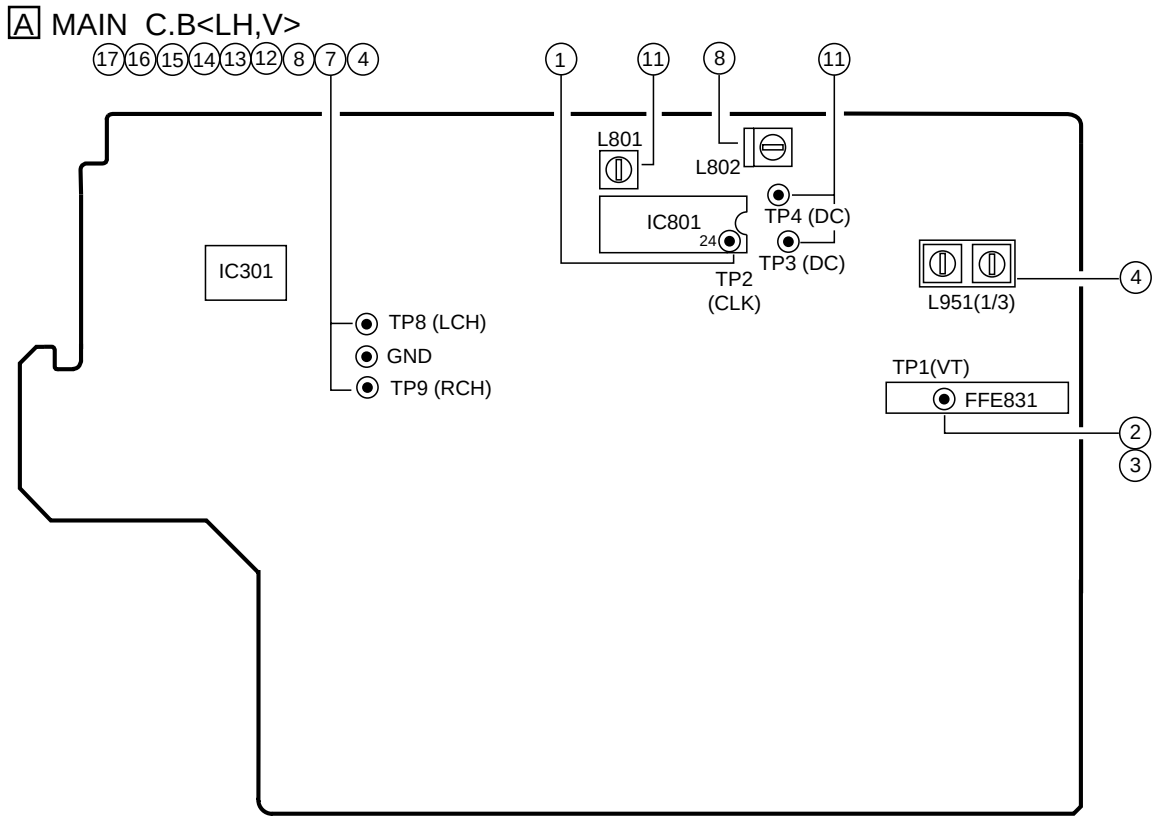

ĐECK1
EH
RPH
ĐECK2
PH
BLK
WHT
WHT
REĐ
WHT
REĐ
BLK
BLK
WHT
REĐ
BRN
GRY
WHT
BLK
TO CHASSIS
GNĐ
GRY
TO CHASSIS
GNĐ
BLK
WHT
BLK
WHT
REĐ
REĐ
WHT
BLK
WHT
BLK
REĐ
1 3 5 7 8
CON351
1 3
CON301
FROM A MAIN C.B
CN351
FROM A MAIN C.B
CN301
M1
(ĐECK MOTOR)
S5
(PLAY2)
S4
(PLAY1)
S3
(REC)
S2
(KEY2)
S1
(KEY1)
BLU
BRN
YEL
PUL
– + B A
WHT
GRY
PUL
BLU
GRN
YEL
ORG
REĐ
BRN
9 7 5 3 1
CON103
FROM B FRONT C.B
CN701

IC DESCRIPTION

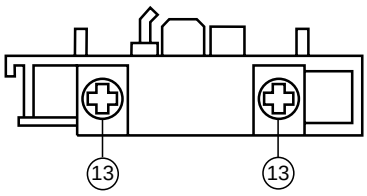
IC, M38B57MCH-E236FP

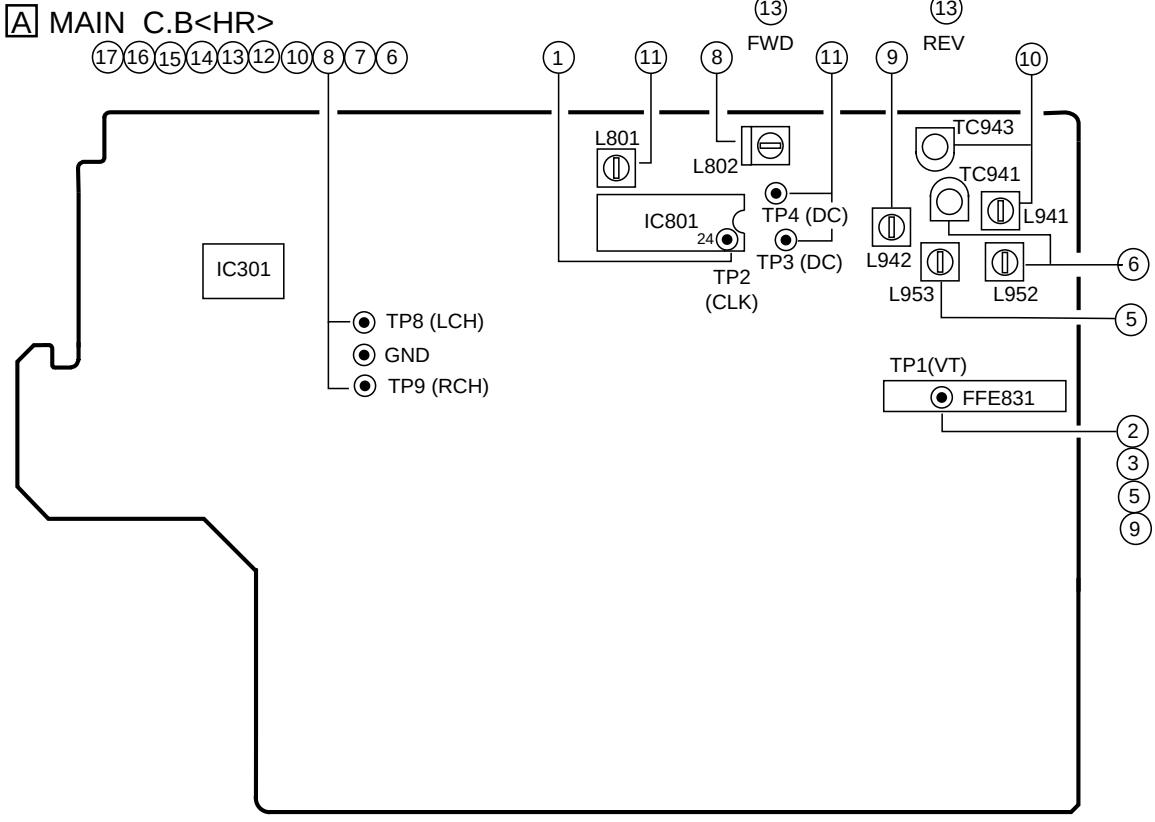
Pin No.	Pin Name	I/O	Description
1	I-SIG	I	RDS signal level A/D input. (Not used)
2	I-$\overline{\text{HOLD}}$	I	Hold voltage level A/D input.
3	I-SW (CD)	I	CD mecha SW A/D input.
4	I-DISH	I	CD turn-table position check A/D input.
5	I-KEY2	I	KEY2 A/D input.
6	I-KEY1	I	KEY1 A/D input.
7	I-RDS-DATA/ (O-DSP_DATA)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

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

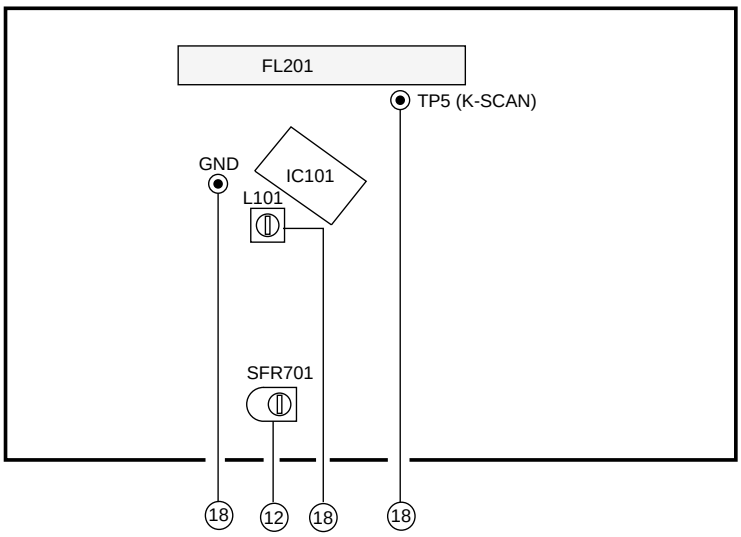


DECK–1 R/P/E, DECK-2 P HEAD





B FRONT C.B



< TUNER SECTION >

1. Clock frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to AM 1710kHz(LH), MW 1602kHz(HR,V) and check that the test point is 2160kHz ± 0.045kHz(LH), 2052kHz ± 0.045kHz(HR,V).

2. AM(MW) VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to AM 1710kHz(LH), MW 1602kHz(HR,V) and check that the test point is less than 8.5V(LH), less than 8.0V (HR,V).
   Then set to 530kHz(LH), 531kHz(HR,V) and check that the test point is more than 0.6V.

3. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : LH, HR:
   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).
   V:
   Set to FM 65.0MHz, 108.0MHz and check that the test point is more than 1.0V (65.0MHz) and less than 9.5V (108.0MHz).

4. AM(MW) Tracking Adjustment<LH,V>
   Settings : • Test point : TP8(Lch), TP9(Rch)
   • Adjustment location :
   L951 (1/3) 1000kHz
   Method : Set to AM(MW) 999kHz and adjust L951 (1/3) to MAX.

5. MW VT Adjustment<HR>
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L953
   Method : Set to MW 1710kHz and adjust L953 so that the test point becomes 8.0V ± 0.05V. Then set to MW 530kHz and check that the test point is more than 0.3V.

6. MW Tracking Adjustment<HR>
   Settings : • Test point : TP8(Lch), TP9(Rch)
   • Adjustment location :
   L952 ..... 603kHz
   TC941 ..... 1404kHz
   Method : Set up TC941 to center before adjustment.
   The level at 603kHz is adjust to max. by L952.
   Then the level at 1404kHz is adjust to max. by TC941.

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 9dBμV(LH,HR), less than 8dBμV(V).

8. AM(MW) IF Adjustment
   Settings : • Test point : TP8(Lch), TP9(Rch)
   • Adjustment location :
   L802 ..... 450kHz

9. SW VT Adjustment<HR>
   Settings : • Test point : TP1(VT)
   • Adjustment location : L942
   Method : Set to SW 17.9MHz and adjust L942 so that the test point becomes 8.0V ± 0.05V. Then set to SW 5.73MHz and check that the test point is more than 0.3V.

10. SW Tracking Adjustment<HR>
    Settings : • Test point : TP8(Lch), TP9(Rch)
    • Adjustment location :
    L941 ..... 5.9MHz
    TC943 ..... 17.9MHz
    Method : Set up TC943 to center before adjustment.
    The level at 5.9MHz is adjust to max. by L941.
    Then the level at 17.9MHz is adjust to max. by TC943.

11. DC Balance / Mono Distortion Adjustment
    Settings : • Test point : TP3, TP4 (DC Balance)
    • Adjustment location : L801
    • Input level : 60dBμV
    Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V ± 300 mV with minimum distortion.

< DECK SECTION >

12. Tape Speed Adjustment (DECK 1)
    Settings : • Test tape : TTA–100
    • Test point : TP8(Lch), TP9(Rch)
    • Adjustment location : SFR701
    Method : Play back the test tape and adjust SFR701 so that the frequency counter reads 3000Hz ± 5Hz.

13. Head Azimuth Adjustment (DECK 1, DECK 2)
    Settings : • Test tape : TTA–330
    • Test point : TP8(Lch), TP9(Rch)
    • Adjustment location : Head azimuth adjustment screw
    Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on REV PLAY mode.

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 4dB.

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 110mV ± 3.5dB.

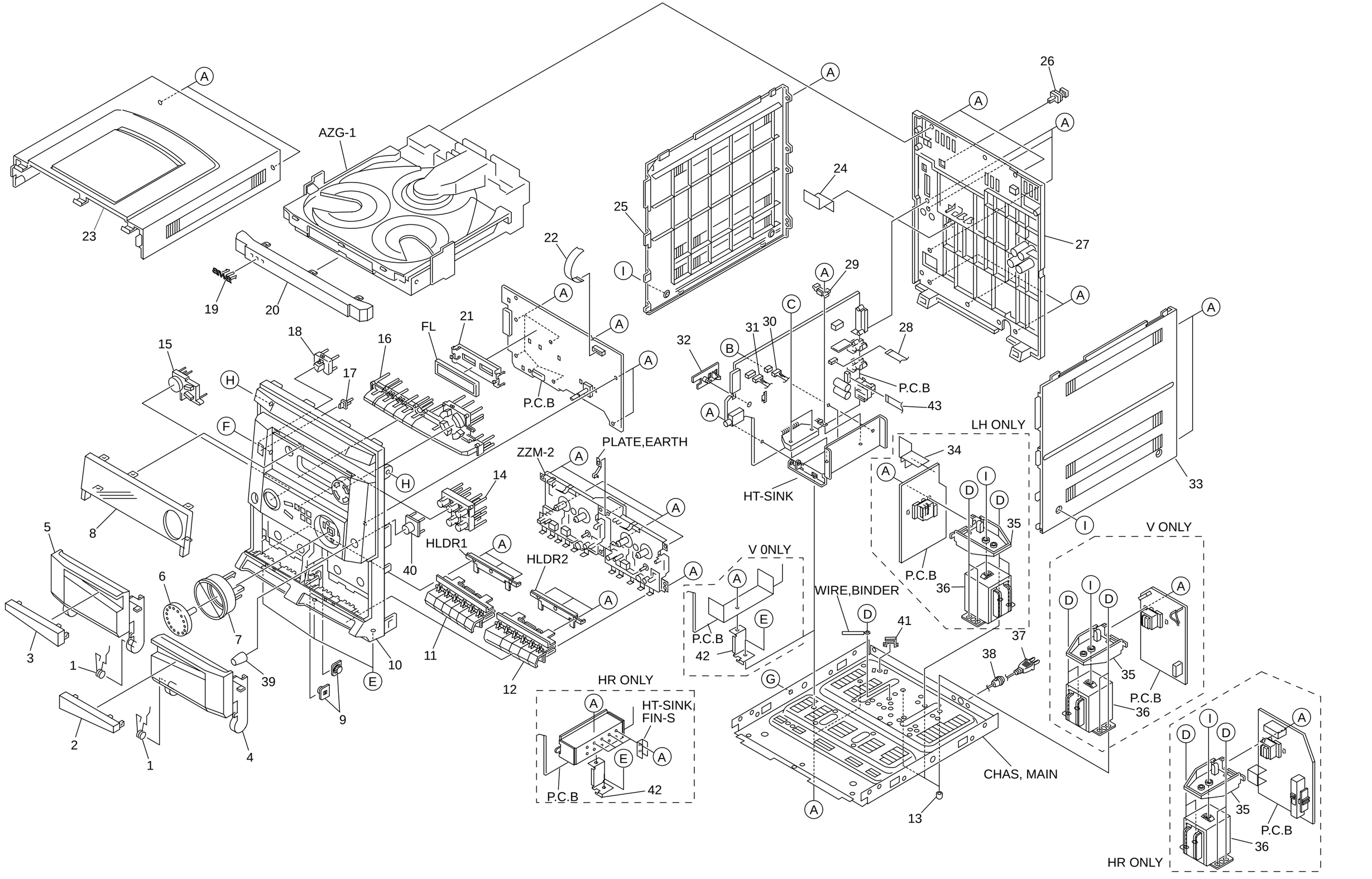
16. REC/PB Frequency Response Check (DECK 1)
    Settings : • Test tape : TTA–602
    • Test point : TP8(Lch), TP9(Rch)
    • Input signal : 1kHz / 8kHz (LINE IN)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the test points becomes -20VU. Record and play back the 1kHz and 8kHz signals and check that the output of the 8kHz signals is 0dB ± 5dB with respect to that of the 1kHz signal.

17. REC/PB Sensitivity Check (DECK 1)
    Settings : • Test tape : TTA–602
    • Test point : TP8(Lch), TP9(Rch)
    • Input signal : 1kHz (LINE IN)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU. Record and play back the 1kHz signals and check that the output is -2dB ± 3.5dB.

< FRONT SECTION >

18. u-CON OSC Adjustment
    Settings : • Test point : TP5(K-SCAN)
    • Adjustment location : L101
    Method : Insert AC plug with pressing of TUNER function key and POWER key. Adjust L101 so that the frequency across the test point is 58.350Hz ± 0.02Hz.

MECHANICAL EXPLODED VIEW 1 / 1



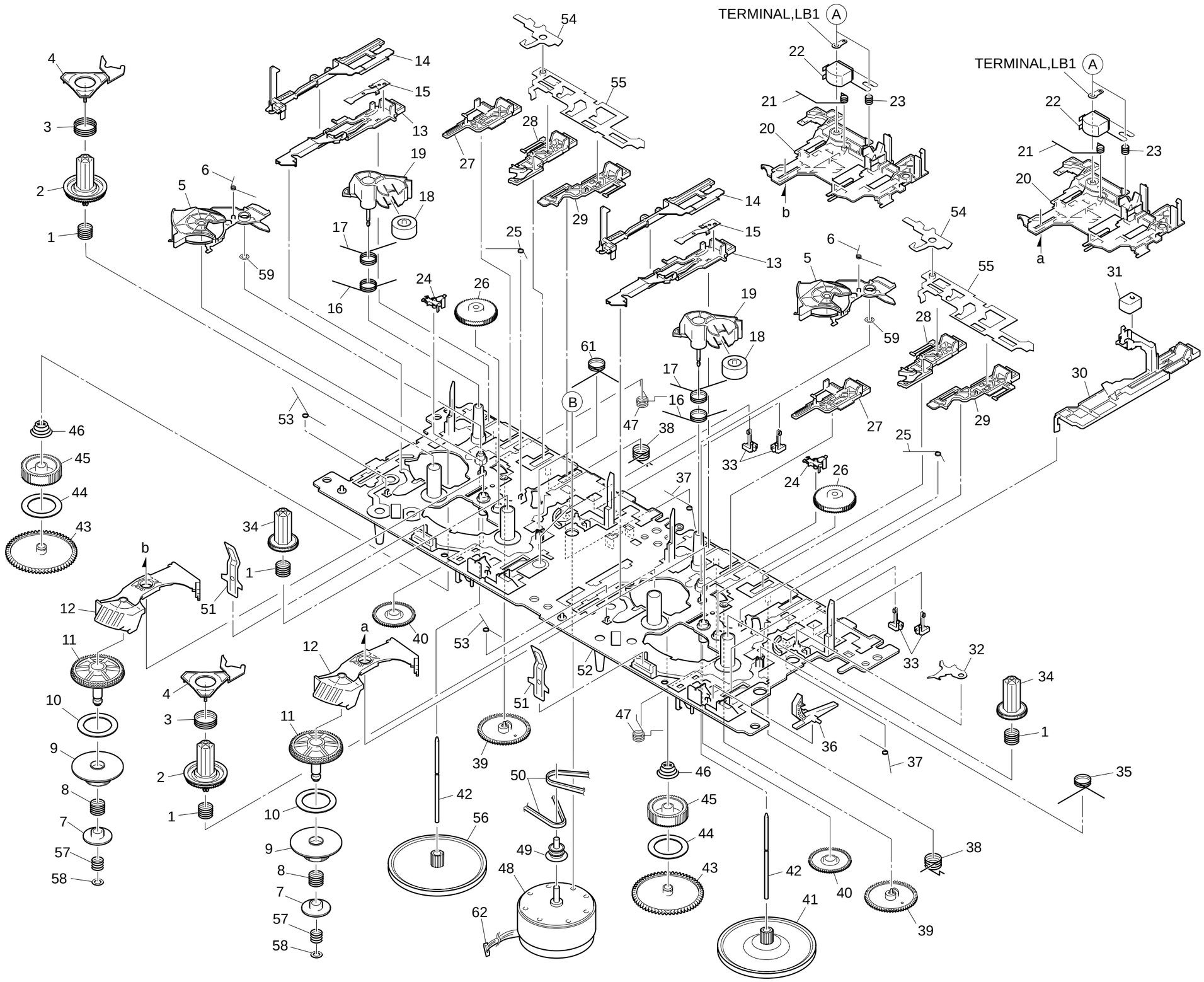
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-NF7-218-010		SPR-T,CASS
2	8A-NFZ-007-010		WINDOW,CASS 2
3	8A-NFZ-006-010		WINDOW,CASS 1
4	8A-NFZ-004-110		BOX,CASS 2
5	8A-NFZ-003-110		BOX,CASS 1
6	8A-NFZ-011-010		KNOB,RTRY VOL
7	8A-NFZ-012-010		RING,VOL
8	8A-NFZ-051-010		WINDOW,DISP H<HR,V>
8	8A-NFZ-057-010		WINDOW,DISP LH BL13<LH>
9	86-NFZ-231-010		DMPR,70
10	8A-NFZ-041-010		CABI,FR H<HR>
10	8A-NFZ-001-010		CABI,FR U<EXCEPT HR>
11	8A-NFZ-016-110		KEY,CASS 1
12	8A-NFZ-017-110		KEY,CASS 2P
13	8Z-NB8-240-010		COVER, PL<EXCEPT HR>
14	8A-NFZ-010-010		KEY,OPE
15	8A-NFZ-013-110		KEY,CD
16	8A-NFZ-009-010		KEY,FUN
17	8A-NFA-018-010		REFLECTOR,ECO
18	8A-NFZ-008-010		KEY,POWER
19	87-CE3-023-010		BADGE,AIWA 30N SILV
20	8A-NFZ-002-010		PANEL,TRAY H
21	8A-NFA-208-010		GUIDE,FL 100-25 ANFA
22	88-913-221-110		FF-CABLE, 13P 1.25 220MM
23	8A-NFA-062-010		PANEL,TOP V-2
24	8A-NFA-215-010		PLATE,PL HR<HR>
25	8A-NFA-063-010		PANEL,LEFT V-2
26	84-ZG1-245-210		CAP,OPTICAL
27	8A-NFA-040-010		CABI,REAR HR W/O SPEC<HR>
27	8A-NFA-030-010		CABI,REAR LH W/O SPEC<LH>
27	8A-NFZ-028-010		CABI,REAR VJSM<V>
28	88-906-251-110		FF-CABLE,6P 1.25
29	8A-NF8-205-010		HLDR,IC<LH>
30	8A-NFA-633-010		CONN ASSY,3P (PH)
31	8A-NFA-634-010		CONN ASSY,8P RPB
32	8A-NFA-214-010		HLDR,PWB M ANFA
33	8A-NFA-065-010		PANEL,RIGHT V-2<EXCEPT V>
33	8A-NFA-067-010		PANEL,RIGHT V-2 PL<V>
34	8A-NFA-212-010		PLATE,PL LH<LH>
35	8A-NF9-211-010		HLDR,PWB PT HI
⚠ 36	8A-NFA-608-010		PT,ANF-A EZ<V>
⚠ 36	8A-NFA-606-010		PT,ANF-A HR<HR>
⚠ 36	8A-NFA-609-010		PT,ANF-A LH<LH>
⚠ 37	87-A80-157-010		AC CORD ASSY,E BLK CC
38	87-085-185-010		BUSHING, AC CORD (E)
39	8A-NFZ-020-010		KNOB,RTRY MIC BL<HR>
40	8A-NFZ-047-010		PLATE,MIC BL<HR>
41	87-NF4-221-010		HLDR,CABLE<HR,V>
42	88-NF9-213-010		HLDR,PWB MAIN<HR,V>
43	85-NF5-628-010		F-CABLE 7P-2.5<V>
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
C	87-067-581-010		TAPPING SCREW, BVT2+3-15<LH>
D	87-078-191-010		S-SCREW,IT+4-10
E	87-067-688-010		BVTT+3-6
F	87-723-096-410		QT2+3-10W/O SLOT BL
G	87-721-096-410		QT2+3-10 GLD<LH>
H	87-721-097-410		QT2+3-12 GLD
I	87-067-641-010		UTT2+3-8(W/O SLOT)BL

COLOR NAME TABLE

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

TAPE MECHANISM EXPLODED VIEW 1 / 1



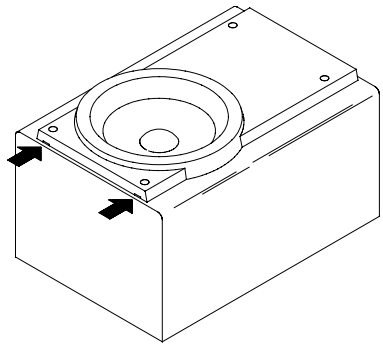
TAPE MECHANISM PARTS LIST 1 / 1

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

SPEAKER DISASSEMBLY INSTRUCTIONS

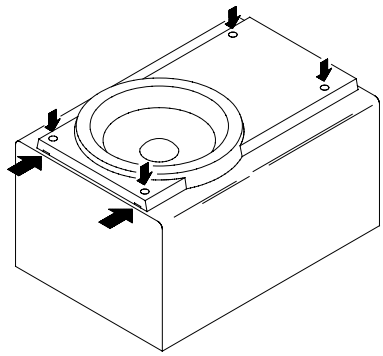
Type.1

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.



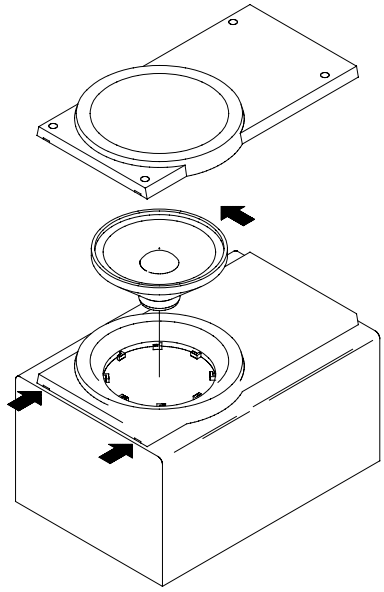
Type.2

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.

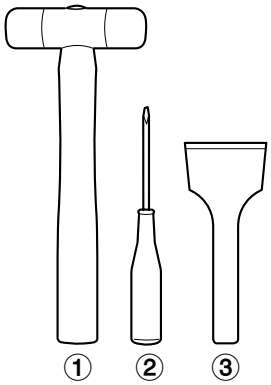


Type.3

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.

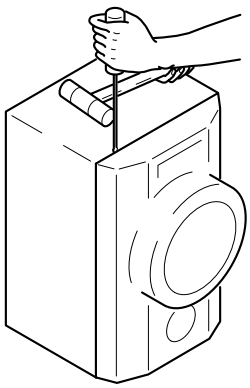


Fig-1

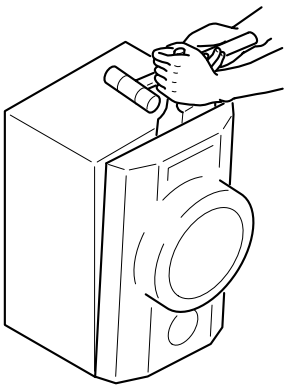


Fig-2

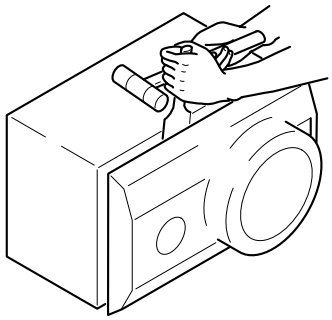


Fig-3

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-NBL11(Y1SL) / SX-NBL17(YJSC9,YJSC) / SX-SNBL17(YLSC2M)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NSB-001-010		PANEL,FR
2	8A-NSB-003-010		GRILLE,FRAME ASSY
3	8Z-NSL-603-010		SPKR, W 120<YJSC,YJSC9>
3	8A-NSL-603-010		SPKR, CERAMIC<YLSC2M>
3	8A-NSL-606-010		SPKR, W120<Y1SL>
4	87-NS7-611-010		CORD,SPKR<Y1SL,YLSC2M>
5	8A-NSL-602-010		SPKR, 120<YLSC2M>
6	8A-NSK-015-010		CORD,BUSH<YLSC2M>

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NFZ-901-010		IB,H(ECA)M -BL14<HR>
1	8A-NFZ-907-010		IB,V(ER)M -BL14<V>
1	8A-NFZ-920-010		IB,LH(P)CCE -BL14J<LH>
2	8Z-NF9-701-210		RC UNIT,ZAS02
3	87-043-115-010		ANT,FEEDER FM
4	87-006-225-010		AM LOOP ANT NC2<LH,V>
4	87-006-226-010		AM LOOP ANT C0<HR>
⚠ 5	87-A91-017-010		PLUG,CONVERSION JT-0476<HR>

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