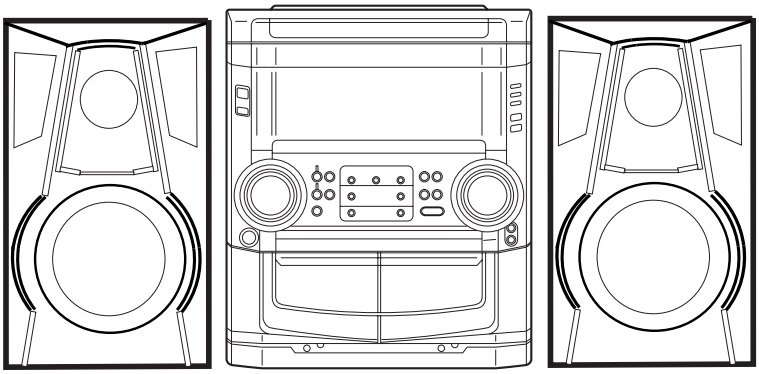
aiwa SERVICE

NSX-SZ900 LH



SERVICE MANUAL

COMPACT DISC
STEREO SYSTEM

BASIC TAPE MECHANISM : 2ZM-3MK2 PR7NM
BASIC CD MECHANISM : BZG-5 ZD3N1DM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-SZ900	CX-NSZ900	SX-WNSZ900	RC-BAS04
		SX-S85	

- This Service Manual is the “Revision Publishing” and replaces “Simple Manual” of CX-NSZ900 (LH), (S/M Code No. 09-013-444-1T1).
- If requiring information about the CD mechanism, see Service Manual of BZG-5, (S/M Code No. 09-00C-353-3N2).

aiwa

S/M Code No. 09-015-444-1R1

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 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

<Amplifier section>

Main amplifier

Power output	Rated: 172 W + 172 W (6 ohms, T.H.D. 1 %, 1 kHz) Reference: 215 W + 215 W (6 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	0.1 % (150 W, 1 kHz, 6 ohms, DIN AUDIO)

Satellite amplifier

Power output	Rated: 20 W + 20 W (8 ohms, T.H.D. 1 %, 1 kHz) Reference: 25 W + 25 W (8 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	0.2 % (8 W, 1 kHz, 8 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 300 mV (adjustable) MD: 300 mV (adjustable) MIC 1, MIC 2: 1.0 mV (10 kohms)
Outputs	SPEAKERS: 6 ohms or more SATELLITE SPEAKERS: 8 ohms or more LINE OUT: 210 mV CD DIGITAL OUT (OPTICAL) PHONES: 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	CrO_2 tape: 50 Hz – 16 kHz Normal tape: 50 Hz – 15 kHz
Recording system	AC bias
Heads	Deck 1: Playback x 1 Deck 2: Recording/playback x 1, erase x 1

<CD player section>

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)

<General>

Power requirements	120 V/ 220 V – 230 V/ 240 V AC (switchable) 50/60 Hz
Power consumption	250 W
Power consumption in standby mode	With ECO mode on: 0.6 W With ECO mode off: 40 W
Dimensions (W x H x D)	260 x 326 x 394 mm
Weight	10.5 kg

<Main speakers SX-WNSZ900>

Speaker system	3 way, Built-in subwoofer (magnetic shielded type)
Speaker units	Subwoofer: 200 mm cone type Full range: 100 mm cone type Super tweeter: 20 mm ceramic type x 2
Impedance	6 ohms
Dimensions (W x H x D)	240 x 324 x 294 mm
Weight	5.4 kg

<Satellite speakers SX-S85>

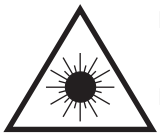
Speaker system	Full range (magnetic shielded type)
Speaker units	80 mm cone type
Impedance	8 ohms
Sensitivity	87 dB/W/m
Dimensions (W x H x D)	100 x 325 x 95 mm (with pedestal) 100 x 186 x 84 mm (without pedestal)
Weight	0.6 kg

- 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 saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

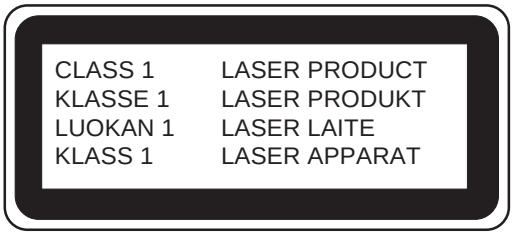
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herin 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.

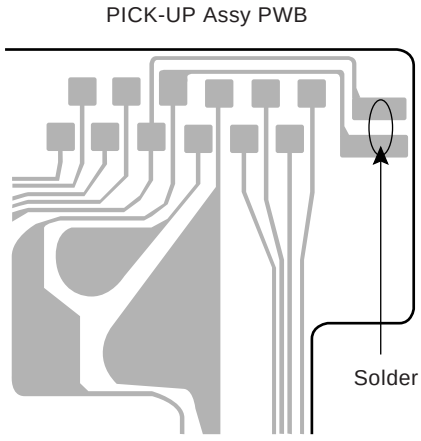


Precaution to replace Optical block

(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.

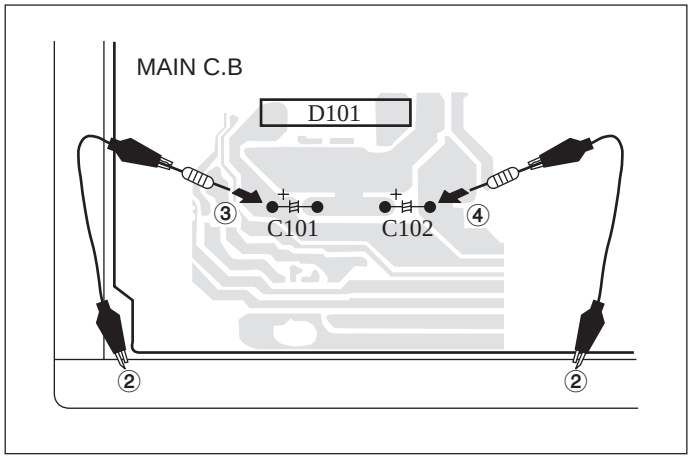


Fig-1

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.

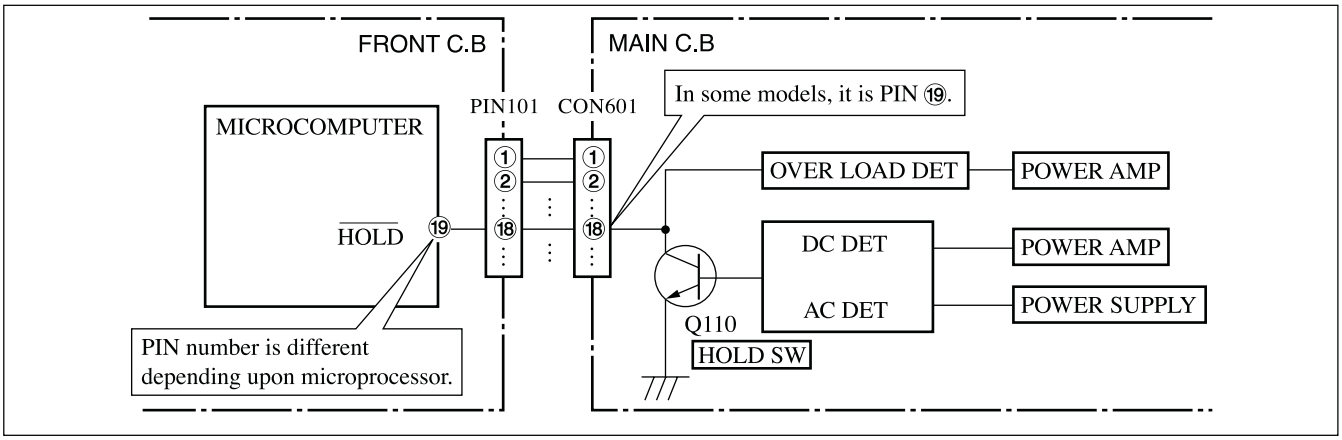


Fig-2-1

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.

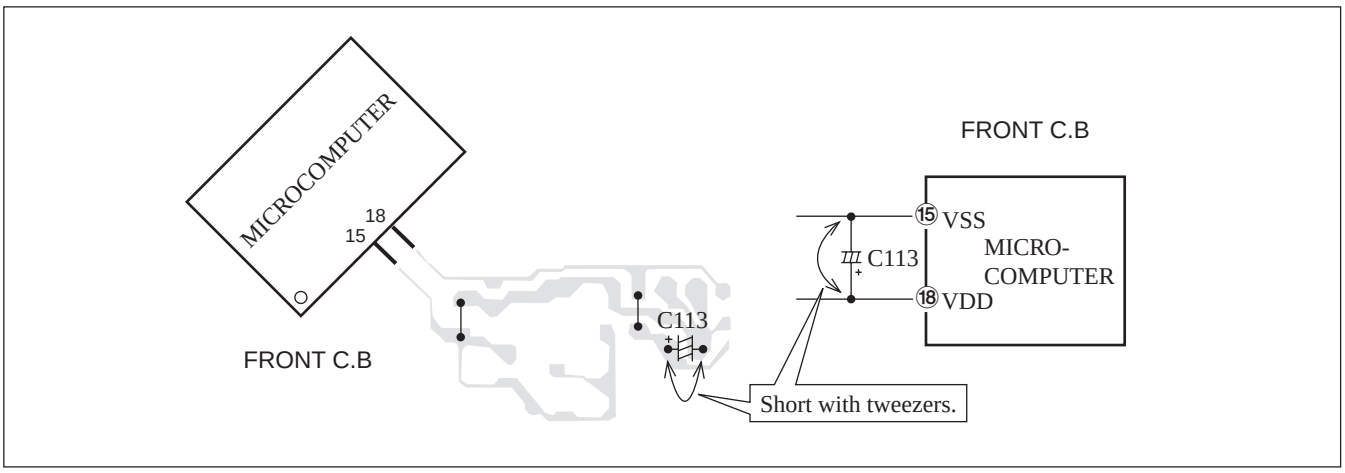


Fig-2-2

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			
	8B-NF6-601-030		C-IC,LC876670B-5V72
	87-A21-911-040		C-IC,M61515FP
	87-A21-023-040		C-IC,BA3835F
	87-A21-051-040		C-IC,BU9990-03FS
	87-A21-831-010		IC,SPS-422-1-F1
	87-A21-695-010		IC,LA1845L
	87-A21-928-010		IC,LC72131D-N
	87-A20-783-040		C-IC,BA7762AFS
	87-A21-018-040		C-IC,M65849BFP631D
	87-A21-948-030		C-IC,BD3877KS2
	87-A21-269-010		IC,EW732
TRANSISTOR			
	87-A30-559-010		TR,CSB1370EF
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-A30-186-010		FET,2SK3053
	87-A30-107-070		C-TR,CMBT5401
	87-A30-484-080		C-TR,KRA102S
	87-A30-106-040		C-TR,CMBT5551
	87-A30-190-080		TR,CC5551
	87-A30-204-010		TR,2SD2439
	87-A30-205-010		TR,2SB1588
	87-A30-086-040		C-TR,CSD1306E
	87-026-609-080		TR,KTA1266GR
	87-A30-468-080		C-TR,KRC102S-RTK
	87-A30-087-080		C-FET,2SK2158
	87-A30-256-010		TR,2SD1933
	87-A30-255-010		TR,2SB1342
	87-A30-071-080		C-TR,RT1N 144C
	87-A30-582-080		TR,CDA1585BC
	87-A30-495-080		TR,2SA1981Y
	87-A30-074-080		C-TR,RT1P 141C
	87-026-225-080		C-FET,2SJ106GR
	87-A30-494-080		TR,2SA1980G
	87-026-610-080		TR,KTC3198GR
	87-A30-234-080		TR,CSC4115BC
	87-A30-063-080		C-TR,KRA104S
	87-A30-216-080		TR,2SA933AS(R)
	87-A30-521-080		C-TR,2SC5345S(O)
	87-A30-489-080		C-TR,KRA107S
	89-503-602-080		C-FET,2SK360E
	89-327-143-080		C-TR,2S2714O
DIODE			
	87-017-149-080		ZENER,HZS6A2L
	87-A40-291-080		DIODE,1N4148M (CPT)
	87-A40-673-090		DIODE,D10XB20
	87-010-788-080		DIODE,1N4003 LES
	87-A40-646-010		DIODE,FMB-G16L
	87-A40-747-080		ZENER,UZ5.1BSB
	87-A40-749-080		ZENER,UZ5.6BSB
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-488-080		DIODE,1SS244
	87-A40-739-080		ZENER,UZ2.7BSA
	87-A40-748-080		ZENER,UZ5.6BSA
	87-A40-769-080		ZENER,UZ18BSB
	87-A40-802-080		ZENER,UZ5.1BSC
	87-A40-781-080		ZENER,UZ36BSA
	87-A40-553-080		DIODE,1N4003 LES
	87-A40-745-080		ZENER,UZ4.7BSA
	87-A40-530-080		DIODE,RB721Q-40
MAIN C.B			

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C11	87-012-368-080		C-CAP,S 0.1-50 Z F
C12	87-012-368-080		C-CAP,S 0.1-50 Z F
C13	87-012-368-080		C-CAP,S 0.1-50 Z F
C14	87-012-368-080		C-CAP,S 0.1-50 Z F
C20	87-010-918-090		CAP,E 4700-50 SMG
C21	87-A12-780-090		CAP,E 4700-35 M 85 SKR
C23	87-A10-231-090		CAP,E 3300-80
C24	87-A10-231-090		CAP,E 3300-80
C31	87-A12-062-080		CAP,E 100-10 SMG
C32	87-012-286-080		C-CAP,U 0.01-25 K B
C33	87-A12-071-080		CAP,E 47-25 SMG
C34	87-A12-089-080		CAP,E 3.3-50 SMG
C35	87-012-286-080		C-CAP,U 0.01-25 KB
C36	87-A12-062-080		CAP,E 100-10 SMG
C37	87-A12-072-080		CAP,E 100-25 SMG
C38	87-A12-092-080		CAP,E 22-50 SMG
C39	87-A12-067-080		CAP,E 330-16 SMG
C40	87-A12-074-080		CAP,E 470-25 SMG
C101	87-012-276-080		C-CAP,U 1500P-50 K B
C102	87-012-276-080		C-CAP,U 1500P-50 K B
C103	87-012-368-080		C-CAP,S 0.1-50 Z F
C104	87-012-368-080		C-CAP,S 0.1-50 Z F
C105	87-012-368-080		C-CAP,S 0.1-50 Z F
C106	87-012-368-080		C-CAP,S 0.1-50 Z F
C123	87-010-759-080		C-CAP,U 0.1-25 Z F
C124	87-010-759-080		C-CAP,U 0.1-25 Z F
C125	87-010-759-080		C-CAP,U 0.1-25 Z F
C126	87-010-759-080		C-CAP,U 0.1-25 Z F
C130	87-012-274-080		C-CAP,U 1000P-50 K B
C131	87-A12-087-080		CAP,E 1-50 SMG
C132	87-A12-071-080		CAP,E 47-25 SMG
C133	87-A12-071-080		CAP,E 47-25 SMG
C301	87-012-188-080		C-CAP,U 47P-50 CH
C302	87-012-188-080		C-CAP,U 47P-50 CH
C303	87-012-336-080		C-CAP,U 330P-50 J SL
C304	87-012-336-080		C-CAP,U 330P-50 J SL
C305	87-012-336-080		C-CAP,U 330P-50 J SL
C306	87-012-336-080		C-CAP,U 330P-50 J SL
C307	87-A10-262-080		C-CAP,U 1-10 Z F
C309	87-A10-260-080		C-CAP,U 0.1-16 K B
C310	87-A10-260-080		C-CAP,U 0.1-16 K B
C311	87-010-787-080		CAP,U 0.022-25 K B
C312	87-010-787-080		CAP,U 0.022-25 K B
C313	87-012-277-080		C-CAP,U 1800P-50 K B GRM
C314	87-012-277-080		C-CAP,U 1800P-50 K B GRM
C315	87-012-275-080		C-CAP,U 1200P-50 K B GRM
C316	87-012-275-080		C-CAP,U 1200P-50 K B GRM
C321	87-A10-828-080		C-CAP,U 0.33-6.3 K B
C322	87-A10-828-080		C-CAP,U 0.33-6.3 K B
C324	87-A12-071-080		CAP,E 47-25 SMG
C325	87-A12-057-080		CAP,E 330-6.3 SMG
C327	87-A12-090-080		CAP,E 4.7-50 SMG
C328	87-A12-090-080		CAP,E 4.7-50 SMG
C332	87-A10-262-080		C-CAP,U 1-10 Z F
C335	87-A12-087-080		CAP,E 1-50 SMG
C336	87-A12-087-080		CAP,E 1-50 SMG
C337	87-010-831-080		C-CAP,U 0.1-16 Z F
C339	87-010-831-080		C-CAP,U 0.1-16 Z F
C340	87-010-831-080		C-CAP,U 0.1-16 Z F
C351	87-A10-039-080		C-CAP,U 470P-50 J CH
C352	87-A10-039-080		C-CAP,U 470P-50 J CH
C354	87-010-175-080		C-CAP,S 560P-50 J SL
C355	87-012-274-080		C-CAP,U 1000P-50 K B
C356	87-A12-071-080		CAP,E 47-25 SMG
C357	87-012-286-080		CAP,U 0.01-25
C358	87-012-279-080		C-CAP,U 2700P-50 B
C359	87-012-279-080		C-CAP,U 2700P-50 B
C360	87-012-279-080		C-CAP,U 2700P-50 B
C363	87-A12-361-080		CAP,M 5600P-100 J CP
C370	87-010-831-080		C-CAP,U 0.1-16 Z F

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C373	87-A10-794-080		C-CAP,U 0.15-16 Z F
C374	87-A10-794-080		C-CAP,U 0.15-16 Z F
C378	87-010-831-080		C-CAP,U 0.1-16 Z F
C379	87-A12-069-080		CAP,E 22-25 SMG
C380	87-A12-069-080		CAP,E 22-25 SMG
C381	87-012-286-080		CAP,U 0.01-25
C382	87-012-176-080		C-CAP,U 15P-50 CH
C383	87-012-286-080		CAP,U 0.01-25
C384	87-A12-088-080		CAP,E 2.2-50 SMG
C386	87-010-831-080		C-CAP,U 0.1-16 Z F
C387	87-012-335-080		C-CAP,U 270P-50 J SL
C388	87-012-199-080		C-CAP,U 220P-50 J CH
C391	87-012-337-080		C-CAP,U 56P-50 J CH GRM
C392	87-012-337-080		C-CAP,U 56P-50 J CH GRM
C393	87-012-337-080		C-CAP,U 56P-50 J CH GRM
C394	87-012-337-080		C-CAP,U 56P-50 J CH GRM
C501	87-A12-062-080		CAP,E 100-10 SMG
C502	87-010-831-080		C-CAP,U 0.1- 16 Z F
C503	87-A10-353-080		C-CAP,U 0.22-10KB
C504	87-A10-353-080		C-CAP,U 0.22-10KB
C505	87-A10-025-080		C-CAP,U 0.22-16Z F
C506	87-012-280-080		CAP,U 3300P-50
C507	87-010-177-080		C-CAP,S 820P-50 J SL C2012
C508	87-A10-260-080		C-CAP,U 0.1-16 K B
C509	87-A10-260-080		C-CAP,U 0.1-16 K B
C510	87-012-280-080		CAP,U 3300P-50
C511	87-010-177-080		C-CAP,S 820P-50 J SL C2012
C512	87-A10-025-080		C-CAP,U 0.22-16 Z F
C513	87-A12-083-080		CAP,E 0.1-50 SMG
C514	87-A12-061-080		CAP,E 47-10 SMG
C515	87-A12-087-080		CAP,E 1-50 SMG
C516	87-A12-087-080		CAP,E 1-50 SMG
C517	87-012-279-080		C-CAP,U 2700P-50 B
C518	87-012-279-080		C-CAP,U 2700P-50 B
C531	87-A12-091-080		CAP,E 10-50 SMG
C532	87-010-831-080		C-CAP,U 0.1-16 Z F
C533	87-010-831-080		C-CAP,U 0.1-16 Z F
C534	87-012-199-080		C-CAP,U 220P-50 J CH
C535	87-012-274-080		C-CAP,U 1000P-50 K B
C536	87-010-831-080		C-CAP,U 0.1-16 Z F
C537	87-012-188-080		C-CAP,U 47P-50 CH
C538	87-012-188-080		C-CAP,U 47P-50 CH
C539	87-012-188-080		C-CAP,U 47P-50 CH
C541	87-012-274-080		C-CAP,U 1000P-50 K B
C609	87-012-277-080		C-CAP,U 1800P-50 B
C610	87-012-277-080		C-CAP,U 1800P-50 B
C611	87-010-956-080		C-CAP,S 0.068-25B
C612	87-A11-070-080		C-CAP,U 0.033-16 K B
C613	87-012-286-080		C-CAP,U 0.01-25
C614	87-012-286-080		C-CAP,U 0.01-25
C615	87-A10-260-080		C-CAP,U 0.1-16 K B
C616	87-A10-260-080		C-CAP,U 0.1-16 K B
C617	87-010-829-080		C-CAP,U 0.047-16
C618	87-A12-087-080		CAP,E 1-50 SMG
C619	87-A12-062-080		CAP,E 100-10 SMG
C620	87-012-280-080		C-CAP,U 3300P-50 K B
C623	87-A12-087-080		CAP,E 1-50 SMG
C624	87-A12-087-080		CAP,E 1-50 SMG
C626	87-A12-062-080		CAP,E 100-10 SMG
C627	87-A12-086-080		CAP,E 0.47-50 SMG
C628	87-A12-086-080		CAP,E 0.47-50 SMG
C629	87-A10-504-080		C-CAP,U 0.047-16 K B
C630	87-A10-504-080		C-CAP,U 0.047-16 K B
C631	87-012-281-080		C-CAP,U 3900P-50 B
C632	87-012-281-080		C-CAP,U 3900P-50 B
C633	87-010-831-080		C-CAP,U 0.1-16 Z F
C634	87-010-831-080		C-CAP,U 0.1-16 Z F
C635	87-A12-376-080		CAP,M 0.1-100 J CP
C636	87-A12-376-080		CAP,M 0.1-100 J CP
C637	87-A12-376-080		CAP,M 0.1-100 J CP
C638	87-A12-376-080		CAP,M 0.1-100 J CP
C639	87-A12-091-080		CAP,E 10-50 SMG
C641	87-A12-085-080		CAP,E 0.33-50 SMG
C642	87-A12-085-080		CAP,E 0.33-50 SMG
C643	87-010-831-080		C-CAP,U 0.1-16F
C644	87-A12-087-080		CAP,E 1-50 SMG
C647	87-A12-088-080		CAP,E 2.2-50 SMG
C648	87-A12-088-080		CAP,E 2.2-50 SMG
C671	87-012-195-080		C-CAP,U 100P-50CH
C672	87-012-195-080		C-CAP,U 100P-50CH
C673	87-012-286-080		CAP,U 0.01-25
C677	87-A12-085-080		CAP,E 0.33-50 SMG
C678	87-A12-085-080		CAP,E 0.33-50 SMG
C679	87-010-831-080		C-CAP,U 0.1-16 Z F
C680	87-012-286-080		C-CAP,U 0.01-25
C682	87-010-831-080		C-CAP,U 0.1-16 Z F
C698	87-012-172-080		C-CAP,U 10P-50 D CH
C699	87-012-195-080		C-CAP,U 100P-50CH
C771	87-A12-062-080		CAP,E 100-10 SMG
C772	87-012-286-080		CAP,U 0.01-25
C779	87-010-784-080		C-CAP,U 0.012-25 B
C780	87-010-784-080		C-CAP,U 0.012-25 B
C782	87-012-286-080		C-CAP,U 0.01-25
C783	87-012-286-080		C-CAP,U 0.01-25
C784	87-012-286-080		C-CAP,U 0.01-25
C785	87-012-286-080		C-CAP,U 0.01-25
C786	87-012-286-080		C-CAP,U 0.01-25
C788	87-012-167-080		C-CAP,U 5P-50 C CH
C789	87-016-116-080		C-CAP,U 0.015-25 J B CB
C790	87-016-116-080		C-CAP,U 0.015-25 J B CB
C791	87-010-831-080		C-CAP,U 0.1-16F
C792	87-012-286-080		C-CAP,U 0.01-25
C793	87-A12-090-080		CAP,E 4.7-50 SMG
C795	87-012-286-080		C-CAP,U 0.01-25
C796	87-012-286-080		C-CAP,U 0.01-25
C797	87-A12-091-080		CAP,E 10-50 SMG
C798	87-012-286-080		C-CAP,U 0.01-25
C799	87-A12-065-080		CAP,E 33-16 SMG
C800	87-010-829-080		C-CAP,U 0.047-16 F
C801	87-A12-089-080		CAP,E 3.3-50 SMG
C802	87-010-829-080		C-CAP,U 0.047-16 F
C803	87-010-787-080		C-CAP,U 0.022-25 B
C804	87-A12-062-080		CAP,E 100-10 SMG
C807	87-A12-086-080		CAP,E 0.47-50 SMG
C808	87-A12-087-080		CAP,E 1-50 SMG
C809	87-A12-087-080		CAP,E 1-50 SMG
C810	87-010-831-080		C-CAP,U 0.1-16F
C811	87-A12-089-080		CAP,E 3.3-50 SMG
C812	87-A12-089-080		CAP,E 3.3-50 SMG
C814	87-012-286-080		C-CAP,U 0.01-25
C815	87-A12-086-080		CAP,E 0.47-50 SMG
C816	87-A12-086-080		CAP,E 0.47-50 SMG
C821	87-A12-091-080		CAP,E 10-50 SMG
C823	87-010-177-080		C-CAP,S 820P-50 J SL C2012
C824	87-A12-090-080		CAP,E 4.7-50 SMG
C825	87-A10-504-080		C-CAP,U 0.047-16 K B
C842	87-012-286-080		C-CAP,U 0.01-25 B
C844	87-012-286-080		C-CAP,U 0.01-25 B
C850	87-A12-071-080		CAP,E 47-25 SMG
C851	87-012-286-080		C-CAP,U 0.01-25 B
C852	87-012-286-080		C-CAP,U 0.01-25 B
C853	87-012-286-080		C-CAP,U 0.01-25 B
C858	87-010-831-080		C-CAP,U 0.1-16F
C901	87-018-145-080		CAP,TC-U 6.8P-50 CH
C904	87-012-286-080		C-CAP,U 0.01-25 B
C905	87-012-286-080		C-CAP,U 0.01-25 B
C907	87-012-286-080		C-CAP,U 0.01-25 B
C908	87-A10-915-080		C-CAP,U 1000P-25 J CH
C909	87-012-286-080		C-CAP,U 0.01-25 B
C910	87-012-174-080		C-CAP,U 12P-50 CH

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C911	87-012-170-080		C-CAP,U 8P-50 D CH
C912	87-012-195-080		C-CAP,U 100P-50 J CH
C913	87-012-286-080		C-CAP,U 0.01-25 B
C914	87-012-166-080		C-CAP,U 4P-50 C CH
C915	87-012-174-080		C-CAP,U 12P-50 CH
C916	87-012-180-080		C-CAP,U 22P-50 CH
C917	87-012-186-080		C-CAP,U 39P-50 CH
C918	87-A10-039-080		C-CAP,U 470P-50 J CH
C921	87-012-195-080		C-CAP,U 100P-50 CH
C922	87-012-174-080		C-CAP,U 12P-50 CH
C959	87-010-831-080		C-CAP,U 0.1-16F
C960	87-010-831-080		C-CAP,U 0.1-16F
C961	87-012-167-080		C-CAP,U 5P-50 CH
C963	87-015-785-080		C-CAP,0.1-25 Z F C3216
C971	87-A12-067-080		CAP,E 330-16 SMG
C972	87-A12-090-080		CAP,E 4.7-50 SMG
C973	87-012-286-080		C-CAP,U 0.01-25
C974	87-012-286-080		C-CAP,U 0.01-25
C979	87-012-195-080		C-CAP,U 100P-50CH
C981	87-A12-071-080		CAP,E 47-25 SMG
C982	87-010-831-080		C-CAP,U 0.1-16F
C983	87-012-286-080		C-CAP,U 0.01-25
C984	87-012-286-080		C-CAP,U 0.01-25
C987	87-012-286-080		C-CAP,U 0.01-25
C991	87-012-176-080		C-CAP,U 15P-50 CH
C992	87-012-176-080		C-CAP,U 15P-50 CH
C993	87-012-274-080		C-CAP,U 1000P-50B
C995	87-012-274-080		C-CAP,U 1000P-50B
C997	87-010-831-080		C-CAP,U 0.1-16F
C998	87-A12-071-080		CAP,E 47-25 SMG
C999	87-A11-155-080		CAP,TC U 0.01-16 Z F
CF831	87-008-261-010		FILTER,CF SFE10.7MA5-A
CF832	87-008-261-010		FILTER,CF SFE10.7MA5-A
CN11	87-A60-996-010		CONN,13P V BLK TAC-L13X-A3
CN12	87-A61-108-010		CONN,5P V TID-A
CN131	87-A60-619-010		CONN,2P V 2MM JMT
CN132	87-A60-619-010		CONN,2P V 2MM JMT
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 V BLK 6216
CN604	87-099-749-010		CONN,9P V 9604SC
CN607	87-A60-996-010		CONN,13P V BLK TAC-L13X-A3
CNA11	8A-NF8-653-010		CONN ASSY,9P TID-A(480)
CNA12	8B-NF7-618-010		CONN ASSY,3P V PANO
CNA101	8B-NF6-660-010		CONN ASSY,2P V PANO(250)
D902	87-A40-128-080		C-VARI-CAP,HVA202A
D903	87-A40-128-080		C-VARI-CAP,HVA202A
FB501	87-008-372-080		FILTER, EMI BL 01 RN1
FFC602	88-906-251-110		FF-CABLE,6P 1.25
FFC604	88-909-141-110		FF-CABLE,9P 1.25 140MM
J101	87-A60-929-010		JACK,DIA6.3 BLK ST W/S TAI
J102	87-A60-238-010		TERMINAL,SP 4P (MSC)
J104	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J601	87-A60-885-010		JACK,PIN 6P R/W MSC
J831	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
L101	87-A50-610-010		COIL,1UH K(MDEC)
L102	87-A50-610-010		COIL,1UH K(MDEC)
L121	87-A50-610-010		COIL,1UH K(MDEC)
L122	87-A50-610-010		COIL,1UH K(MDEC)
L301	87-A50-625-010		COIL,TRAP 85KHZ (SANWA)
L302	87-A50-625-010		COIL,TRAP 85KHZ (SANWA)
L351	87-007-342-010		COIL,OSC 85KHZ BIAS
L801	87-A50-608-010		COIL,FM DET-N(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UH(CECS)
L832	87-005-847-080		COIL,2.2UH(CECS)
L902	88-ZA1-602-110		COIL,FM-RF-U2 2G
L903	88-ZA1-601-010		COIL,FM-RF-U1 2G
L904	87-005-847-080		COIL,2.2UH(CECS)
L905	88-ZA1-624-010		COIL,FM IFT 7-6.2(COILS)
L906	88-ZA1-603-010		COIL,FM-OSC-U 2G
L951	8A-NF8-667-010		COIL,AM PACK 4(TOK)
R151	87-A00-879-050		RES,M/F 270-1W J
R152	87-A00-879-050		RES,M/F 270-1W J
R153	87-A00-879-050		RES,M/F 270-1W J
R154	87-A00-879-050		RES,M/F 270-1W J
R790	87-012-286-080		C-CAP,U 0.01-25 B
R991	87-012-195-080		C-CAP,U 100P-50CH
R993	87-012-195-080		C-CAP,U 100P-50CH
R995	87-012-195-080		C-CAP,U 100P-50CH
SFR351	87-024-436-080		SFR,47K H RH063MC
SFR352	87-024-436-080		SFR,47K H RH063MC
WH11	87-A91-179-010		HLDR,WIRE 2.5-11P
X992	87-A70-306-010		VIB,XTAL 4.500MHZ CSA-309ST

FRONT C.B

C113	87-010-788-080		C-CAP,U 0.33-25 Z F
C201	87-016-083-080		C-CAP,S 0.15-16 K R
C202	87-012-270-080		CAP,U 470P-50 K B
C207	87-010-590-080		C-CAP,S 0.015-16 K R
C301	87-012-180-080		C-CAP,U 22P-50 J CH
C302	87-012-180-080		C-CAP,U 22P-50 J CH
C303	87-012-180-080		C-CAP,U 22P-50 J CH
C304	87-012-180-080		C-CAP,U 22P-50 J CH
C305	87-012-180-080		C-CAP,U 22P-50 J CH
C306	87-010-759-080		C-CAP,U 0.1-25 Z F
C307	87-A12-317-080		C-CAP,U 0.1-50 Z F
C351	87-012-188-080		C-CAP,U 47P-50 J CH
C352	87-012-188-080		C-CAP,U 47P-50 J CH
C353	87-012-188-080		C-CAP,U 47P-50 J CH
C354	87-012-188-080		C-CAP,U 47P-50 J CH
C355	87-012-188-080		C-CAP,U 47P-50 J CH
C383	87-010-759-080		C-CAP,U 0.1-25 Z F
C384	87-010-759-080		C-CAP,U 0.1-25 Z F
C385	87-010-759-080		C-CAP,U 0.1-25 Z F
C386	87-010-759-080		C-CAP,U 0.1-25 Z F
C387	87-010-759-080		C-CAP,U 0.1-25 Z F
C601	87-012-282-080		CAP,U 4700P-50 K B
C602	87-010-405-040		CAP,E 10-50 M 11L SME
C605	87-A12-317-080		C-CAP,U 0.1-50 Z F
C606	87-010-112-040		CAP,E 100-16 M 11L SME
C607	87-010-759-080		C-CAP,U 0.1-25 Z F
C611	87-012-274-080		C-CAP,U 1000P-50 K B
C612	87-010-546-040		CAP,E 0.33-50 M 11L SME
C613	87-012-191-080		C-CAP,U 68P-50 J CH
C614	87-012-274-080		C-CAP,U 1000P-50 K B
C652	87-012-279-080		C-CAP,U 2700P-50 K B GRM
C653	87-010-785-080		C-CAP,U 0.015-25 K B GRM
C701	87-010-406-040		CAP,E 22-50 M 11L SME
C901	87-010-759-080		C-CAP,U 0.1-25 Z F
C902	87-012-335-080		C-CAP,U 270P-50 J SL
C903	87-012-195-080		C-CAP,U 100P-50 J CH
C904	87-010-596-080		C-CAP,S 0.047-16 K R C2012
C905	87-012-176-080		C-CAP,U 15P-50 J CH
C906	87-A10-189-040		CAP,E 220-10 M 5L
C908	87-012-274-080		C-CAP,U 1000P-50 K B
C909	87-012-286-080		C-CAP,U 0.01-25 K B
C910	87-012-270-080		C-CAP,U 470P-50 K B
C911	87-012-199-080		C-CAP,U 220P-50 J CH
C912	87-012-199-080		C-CAP,U 220P-50 J CH
C913	87-012-199-080		C-CAP,U 220P-50 J CH
C914	87-012-199-080		C-CAP,U 220P-50 J CH
C915	87-012-199-080		C-CAP,U 220P-50 J CH
C916	87-012-199-080		C-CAP,U 220P-50 J CH
C917	87-012-199-080		C-CAP,U 220P-50 J CH
C918	87-012-199-080		C-CAP,U 220P-50 J CH
C919	87-012-199-080		C-CAP,U 220P-50 J CH
C920	87-012-199-080		C-CAP,U 220P-50 J CH

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C921	87-012-270-080		C-CAP,U 470P-50 K B
C923	87-010-759-080		C-CAP,U 0.1-25 Z F
C925	87-A12-317-080		C-CAP,U 0.1-50 Z F
C926	87-010-759-080		C-CAP,U 0.1-25 Z F
C927	87-010-759-080		C-CAP,U 0.1-25 Z F
C928	87-010-408-040		CAP,E 47-50 M 11L SME
C929	87-012-369-080		C-CAP,S 0.047-50 Z F
C931	87-010-404-040		CAP,E 4.7-50 M 11L SME
C933	87-010-404-040		CAP,E 4.7-50 M 11L SME
C991	87-010-405-040		CAP,E 10-50 M 11L SME
C992	87-012-336-080		C-CAP,U 330P-50 J SL
CN101	87-099-720-010		CONN,30P BLK TYK-B(P)
CN104	87-099-017-010		CONN,15P V BLK 6216
CN151	87-099-196-010		CONN,8P V BLK 6216
CN801	87-099-212-010		CONN,5P V BLK 6216
FB301	87-008-372-080		FLTR,EMI BL01 RN1
FB601	87-008-372-080		FLTR,EMI BL01 RN1
FFC104	88-915-181-110		FF-CABLE,15P 1.25 180MM
FFC151	88-908-301-110		FF-CABLE,8P 1.25
FFC801	88-905-061-110		FF-CABLE,5P 1.25 60MM
FL901	8B-NF7-621-010		FL,BJ815GNK
J601	87-A61-242-010		JACK,6.3 BLK MONO W/SW V KM
J602	87-A61-242-010		JACK,6.3 BLK MONO W/SW V KM
L901	87-A50-657-010		COIL,CLK 9.43MHZ (TOKO)7KLY
LED201	87-A40-317-080		LED,SLR-342VCT31 RED
LED401	87-A40-268-080		LED,SLH-56DCT31 ORN
LED402	87-A40-268-080		LED,SLH-56DCT31 ORN
LED403	87-A40-268-080		LED,SLH-56DCT31 ORN
LED404	87-A40-268-080		LED,SLH-56DCT31 ORN
LED405	87-A40-268-080		LED,SLH-56DCT31 ORN
S301	87-A90-164-080		SW,TACT SKQNAB(N)
S302	87-A90-164-080		SW,TACT SKQNAB(N)
S303	87-A90-164-080		SW,TACT SKQNAB(N)
S304	87-A90-164-080		SW,TACT SKQNAB(N)
S305	87-A90-164-080		SW,TACT SKQNAB(N)
S306	87-A90-164-080		SW,TACT SKQNAB(N)
S307	87-A90-164-080		SW,TACT SKQNAB(N)
S308	87-A90-164-080		SW,TACT SKQNAB(N)
S309	87-A90-164-080		SW,TACT SKQNAB(N)
S351	8B-NF6-218-010		HLDR,TS CRAMP
S352	8B-NF6-218-010		HLDR,TS CRAMP
S353	8B-NF6-218-010		HLDR,TS CRAMP
S354	8B-NF6-218-010		HLDR,TS CRAMP
S355	8B-NF6-218-010		HLDR,TS CRAMP
S356	8B-NF6-218-010		HLDR,TS CRAMP
S357	8B-NF6-218-010		HLDR,TS CRAMP
S358	8B-NF6-218-010		HLDR,TS CRAMP

KEY C.B

C501	87-010-759-080		C-CAP,U 0.1-25 Z F
C502	87-A12-317-080		C-CAP,U 0.1-50 Z F
C531	87-012-180-080		C-CAP,U 22P-50 J CH
C532	87-012-180-080		C-CAP,U 22P-50 J CH
C533	87-012-180-080		C-CAP,U 22P-50 J CH
C534	87-012-180-080		C-CAP,U 22P-50 J CH
C535	87-012-180-080		C-CAP,U 22P-50 J CH
C536	87-012-180-080		C-CAP,U 22P-50 J CH
C537	87-012-180-080		C-CAP,U 22P-50 J CH
C571	87-012-188-080		C-CAP,U 47P-50 J CH
C572	87-012-188-080		C-CAP,U 47P-50 J CH
C573	87-012-188-080		C-CAP,U 47P-50 J CH
C574	87-012-188-080		C-CAP,U 47P-50 J CH
C575	87-012-188-080		C-CAP,U 47P-50 J CH
C576	87-012-188-080		C-CAP,U 47P-50 J CH
C577	87-012-188-080		C-CAP,U 47P-50 J CH
C581	87-012-274-080		C-CAP,U 1000P-50 K B
C582	87-012-195-080		C-CAP,U 100P-50 J CH
C583	87-012-195-080		C-CAP,U 100P-50 J CH
C591	87-012-274-080		C-CAP,U 1000P-50 K B
C592	87-012-195-080		C-CAP,U 100P-50 J CH
C593	87-012-195-080		C-CAP,U 100P-50 J CH
C802	87-012-197-080		C-CAP,U 150P-50 J CH
C804	87-012-283-080		C-CAP,U 5600P-50 K B
C805	87-010-831-080		C-CAP,U 0.1-16 Z F
C806	87-010-401-040		CAP,E 1-50 M 11L SME
C808	87-010-831-080		C-CAP,U 0.1-16 Z F
C809	87-012-198-080		C-CAP,U 180P-50 J CH
C810	87-010-263-040		CAP,E 100-10 M 11L SME
C811	87-010-545-040		CAP,E 0.22-50 M 11L SME
C812	87-010-405-040		CAP,E 10-50 M 11L SME
CN501	8B-NF6-606-010		CONN ASSY,6P DADA
CN502	8B-NF6-607-010		CONN ASSY,7P DADA
CN503	8B-NF6-606-010		CONN ASSY,6P DADA
CN802	87-099-212-010		CONN,5P V BLK 6216
FB501	87-008-372-080		FLTR,EMI BL01 RN1
FB801	87-008-372-080		FLTR,EMI BL01 RN1
L801	87-A50-093-010		COIL,CLOCK OSC 5.76MHZ
L802	87-005-847-080		COIL,2.2UH K CECS
LED501	87-A40-496-040		LED,SLR-342PCT31 GRN
LED502	87-A40-496-040		LED,SLR-342PCT31 GRN
LED503	87-A40-496-040		LED,SLR-342PCT31 GRN
LED511	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED512	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED513	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED514	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED515	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED516	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED517	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED518	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED521	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED522	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED523	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED524	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED525	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED526	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED527	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED528	87-A40-619-040		LED,SLR-56PT-T31-W GRN
S531	87-A90-164-080		SW,TACT SKQNAB(N)
S532	87-A90-164-080		SW,TACT SKQNAB(N)
S533	87-A90-164-080		SW,TACT SKQNAB(N)
S534	87-A90-164-080		SW,TACT SKQNAB(N)
S535	87-A90-164-080		SW,TACT SKQNAB(N)
S536	87-A90-164-080		SW,TACT SKQNAB(N)
S537	87-A90-164-080		SW,TACT SKQNAB(N)
S538	87-A90-164-080		SW,TACT SKQNAB(N)
S539	87-A90-164-080		SW,TACT SKQNAB(N)
S541	87-A90-164-080		SW,TACT SKQNAB(N)
S542	87-A90-164-080		SW,TACT SKQNAB(N)
S543	87-A90-164-080		SW,TACT SKQNAB(N)
S544	87-A90-164-080		SW,TACT SKQNAB(N)
S545	87-A90-164-080		SW,TACT SKQNAB(N)
S546	87-A90-164-080		SW,TACT SKQNAB(N)
S547	87-A90-164-080		SW,TACT SKQNAB(N)
S548	87-A90-164-080		SW,TACT SKQNAB(N)
S549	87-A90-164-080		SW,TACT SKQNAB(N)
S571	8B-NF6-219-010		HLDR,TS CRAMP SLNT
S572	8B-NF6-219-010		HLDR,TS CRAMP SLNT
S573	8B-NF6-219-010		HLDR,TS CRAMP SLNT
S574	8B-NF6-219-010		HLDR,TS CRAMP SLNT
S575	8B-NF6-219-010		HLDR,TS CRAMP SLNT
S576	8B-NF6-219-010		HLDR,TS CRAMP SLNT
S577	8B-NF6-219-010		HLDR,TS CRAMP SLNT
S578	8B-NF6-219-010		HLDR,TS CRAMP SLNT
S581	87-A92-114-010		SW,RTRY EC12E24504 30MM
S591	87-A92-113-010		SW,RTRY EC12E12504 30MM

AMP 3M C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C1	87-010-759-080		C-CAP,U 0.1-25 Z F
C2	87-010-759-080		C-CAP,U 0.1-25 Z F
C3	87-010-759-080		C-CAP,U 0.1-25 Z F
C4	87-010-759-080		C-CAP,U 0.1-25 Z F
C15	87-010-759-080		C-CAP,U 0.1-25 Z F
C17	87-016-299-080		CAP,E 10-100 M SME
C18	87-010-866-080		CAP,E 10-63 M VX
C101	87-012-276-080		C-CAP,U 1500P-50 K B
C102	87-012-276-080		C-CAP,U 1500P-50 K B
C103	87-A12-085-080		CAP,E 0.33-50 SMG
C104	87-A12-085-080		CAP,E 0.33-50 SMG
C105	87-012-279-080		C-CAP,U 2700P-50 K B GRM
C106	87-012-279-080		C-CAP,U 2700P-50 K B GRM
C107	87-A12-090-080		CAP,E 4.7-50 SMG
C108	87-A12-090-080		CAP,E 4.7-50 SMG
C111	87-A12-077-080		CAP,E 33-35 SMG
C112	87-A12-077-080		CAP,E 33-35 SMG
C115	87-010-177-080		C-CAP,S 820P-50 J SL C2012
C116	87-010-177-080		C-CAP,S 820P-50 J SL C2012
C117	87-A10-596-080		C-CAP,S 100P-100 J CH
C118	87-A10-596-080		C-CAP,S 100P-100 J CH
C119	87-012-368-080		C-CAP,S 0.1-50 Z F
C120	87-012-368-080		C-CAP,S 0.1-50 Z F
C121	87-A10-596-080		C-CAP,S 100P-100 J CH
C122	87-A10-596-080		C-CAP,S 100P-100 J CH
C141	87-012-282-080		C-CAP,U 4700P-50 K B
C142	87-012-278-080		C-CAP,U 2200P-50 K B
C151	87-012-286-080		C-CAP,U 0.01-25 K B
C152	87-012-286-080		C-CAP,U 0.01-25 K B
C161	87-010-759-080		C-CAP,U 0.1-25 Z F
CN1	87-A61-011-010		CONN,13P H BLK TAC-L13P-A3
CN102	87-A61-011-010		CONN,13P H BLK TAC-L13P-A3
CNA1	8B-NF6-645-010		CONN ASSY,5P TID-A(110)
R171	87-A00-418-010		RES,M/F 0.15-3W J
R172	87-A00-418-010		RES,M/F 0.15-3W J
R173	87-A00-418-010		RES,M/F 0.15-3W J
R174	87-A00-418-010		RES,M/F 0.15-3W J
TH101	87-A91-042-080		C-THMS,100K 55001
TH102	87-A91-042-080		C-THMS,100K 55001
WH1	87-A90-459-010		HLDR,WIRE 2.5-5P

PANORAMA AMP C.B

C201	87-A12-088-080		CAP,E 2.2-50 SMG
C202	87-A12-088-080		CAP,E 2.2-50 SMG
C203	87-A12-062-080		CAP,E 100-10 SMG
C204	87-A12-062-080		CAP,E 100-10 SMG
C207	87-012-286-080		C-CAP,U 0.01-25 K B
C208	87-012-286-080		C-CAP,U 0.01-25 K B
C213	87-012-172-080		C-CAP,U 10P-50 D CH
C215	87-010-831-080		C-CAP,U 0.1-16 Z F
C216	87-010-831-080		C-CAP,U 0.1-16 Z F
C301	87-012-280-080		CAP,U 3300P-50 K B
C302	87-012-280-080		CAP,U 3300P-50 K B
C303	87-A12-084-080		CAP,E 0.22-50 SMG
C304	87-A12-084-080		CAP,E 0.22-50 SMG
C309	87-A12-089-080		CAP,E 3.3-50 SMG
C310	87-A12-089-080		CAP,E 3.3-50 SMG
C311	87-A12-092-080		CAP,E 22-50 SMG
C312	87-A12-092-080		CAP,E 22-50 SMG
C315	87-012-199-080		C-CAP,U 220P-50 J CH
C316	87-012-199-080		C-CAP,U 220P-50 J CH
C317	87-012-286-080		C-CAP,U 0.01-25 K B
C318	87-012-286-080		C-CAP,U 0.01-25 K B
C401	87-010-831-080		C-CAP,U 0.1-16 Z F
C402	87-010-831-080		C-CAP,U 0.1-16 Z F
C403	87-A12-091-080		CAP,E 10-50 SMG
C404	87-A12-091-080		CAP,E 10-50 SMG
C501	87-012-282-080		C-CAP,U 4700P-50 K B
C502	87-012-278-080		C-CAP,U 2200P-50 K B
CN101	87-099-197-010		CONN,9P V BLK 6216
CN102	87-099-043-010		CONN,2P V WHT EH
CN104	87-049-919-010		CONN,3P V WHT EH
R333	87-A00-258-080		RES,M/F 0.22-1W J
R334	87-A00-258-080		RES,M/F 0.22-1W J

PT C.B

CN1	87-A61-110-010		CONN,9P V TID-A
⚠ PT1	8B-NF6-611-010		PT,BNF-6 LH
⚠ PT2	8B-MA6-673-010		PT,SUB BMA H (VRK)
⚠ RY1	87-A91-339-010		RELAY,AC DC12V G5PA-2
⚠ S1	87-A90-165-010		SW,SL 1-2-3 SWS2301
⚠ T1	87-A60-317-010		TERMINAL,1P MSC
⚠ T2	87-A60-317-010		TERMINAL,1P MSC

DECK C.B

CON502	87-099-756-010		CONN,15P H 9604S F
SFR1	87-024-581-010		SFR,3.3K H KVSF637A
SOL1	82-ZM3-627-010		SOL ASSY,27 SO
SOL2	82-ZM3-627-010		SOL ASSY,27 SO
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	87-036-110-010		SW,MICRO SPPB62
SW5	87-036-110-010		SW,MICRO SPPB62
SW6	87-036-110-010		SW,MICRO SPPB62
SW8	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW9	87-A90-248-010		SW,MICRO ESE11SH2CXQ

HEAD-1 C.B

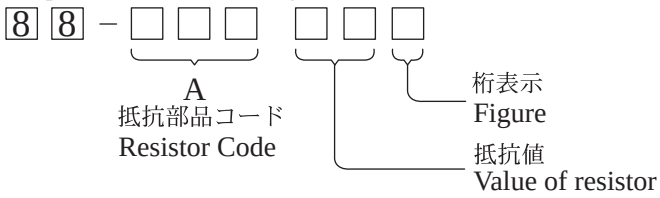
CON301	87-NF6-615-010		CONN ASSY,3P PB

HEAD-2 C.B

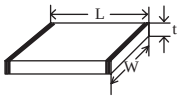
CON351	87-NF6-616-010		CONN ASSY,8P RPB

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

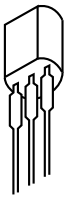
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

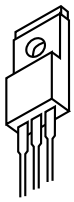
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード　：A Resistor Code：A
1/16W	1005	±5%	CJ		1.0	0.5	0.35	104
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

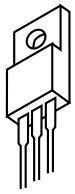


CDA1585BC
CSC4115BC
KTA1266GR
KTC3198GR

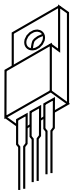
CC5551
2SA1980G
2SA1981Y



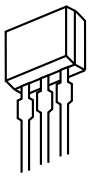
2SB1342
2SB1588
2SD1933
2SD2439



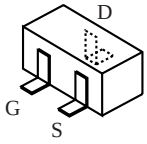
2SK3053



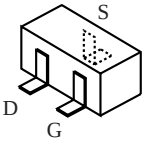
CSB1370EF



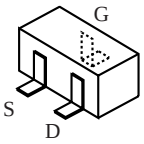
2SA933AS(R)



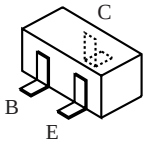
2SK2158



2SK360E



2SJ106GR



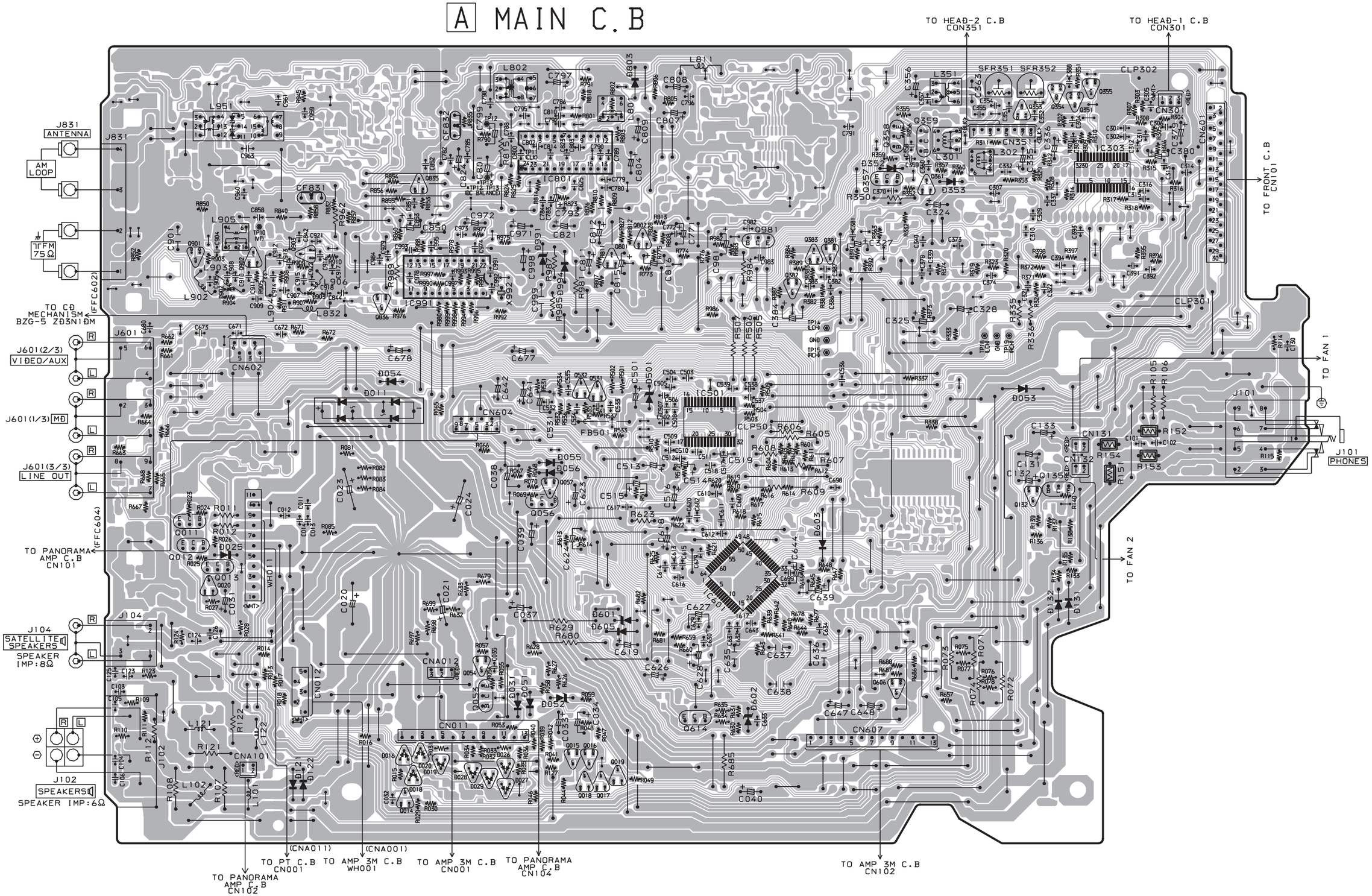
2SA1235F
2SC2714O
2SC3052F
2SC5345S(O)
CMBT5401
CMBT5551
CSD1306E

KRA102S
KRA104S
KRA107S
KRC102S-RTK
RT1N 144C
RT1P 141C

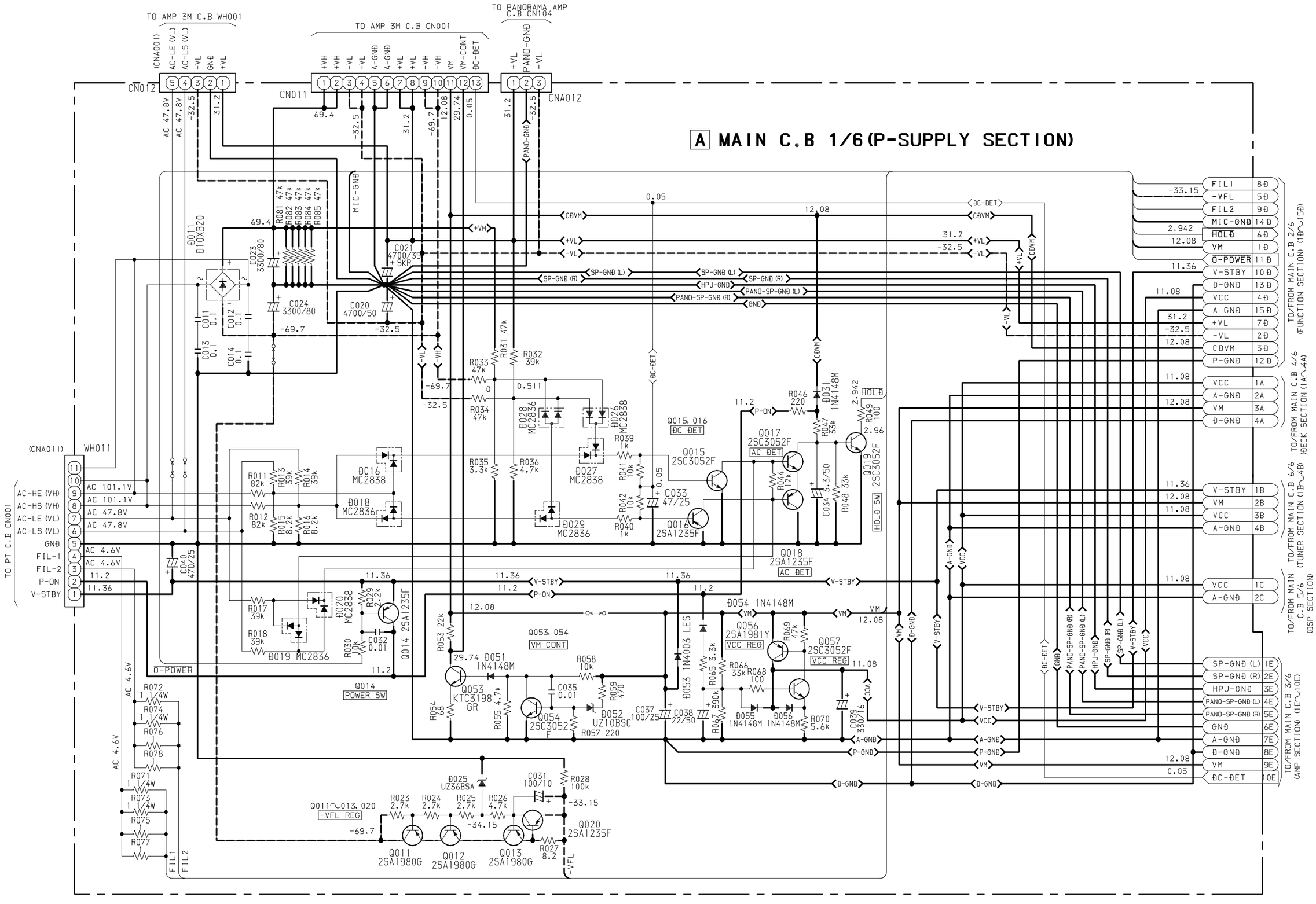
32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

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

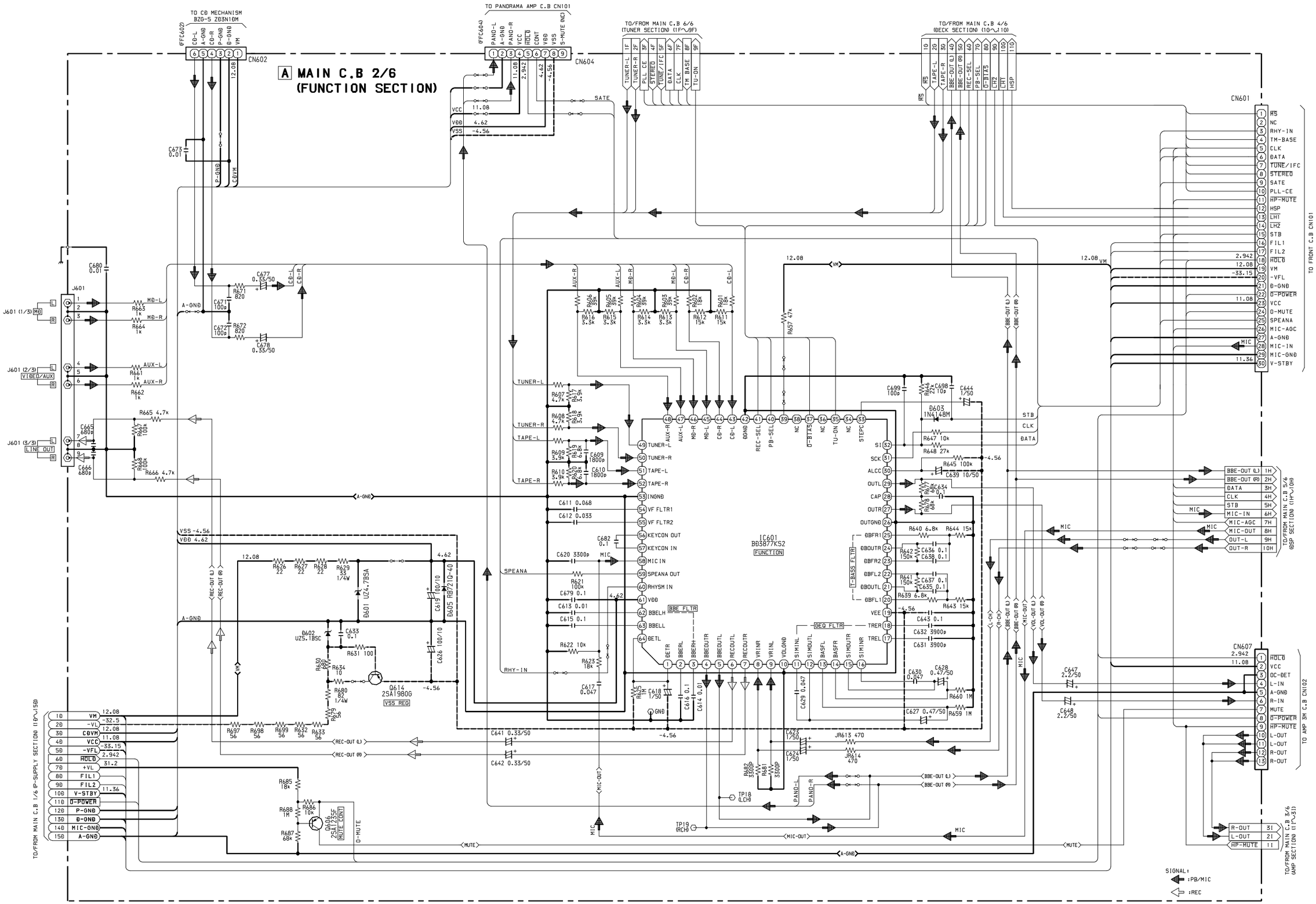
A MAIN C.B



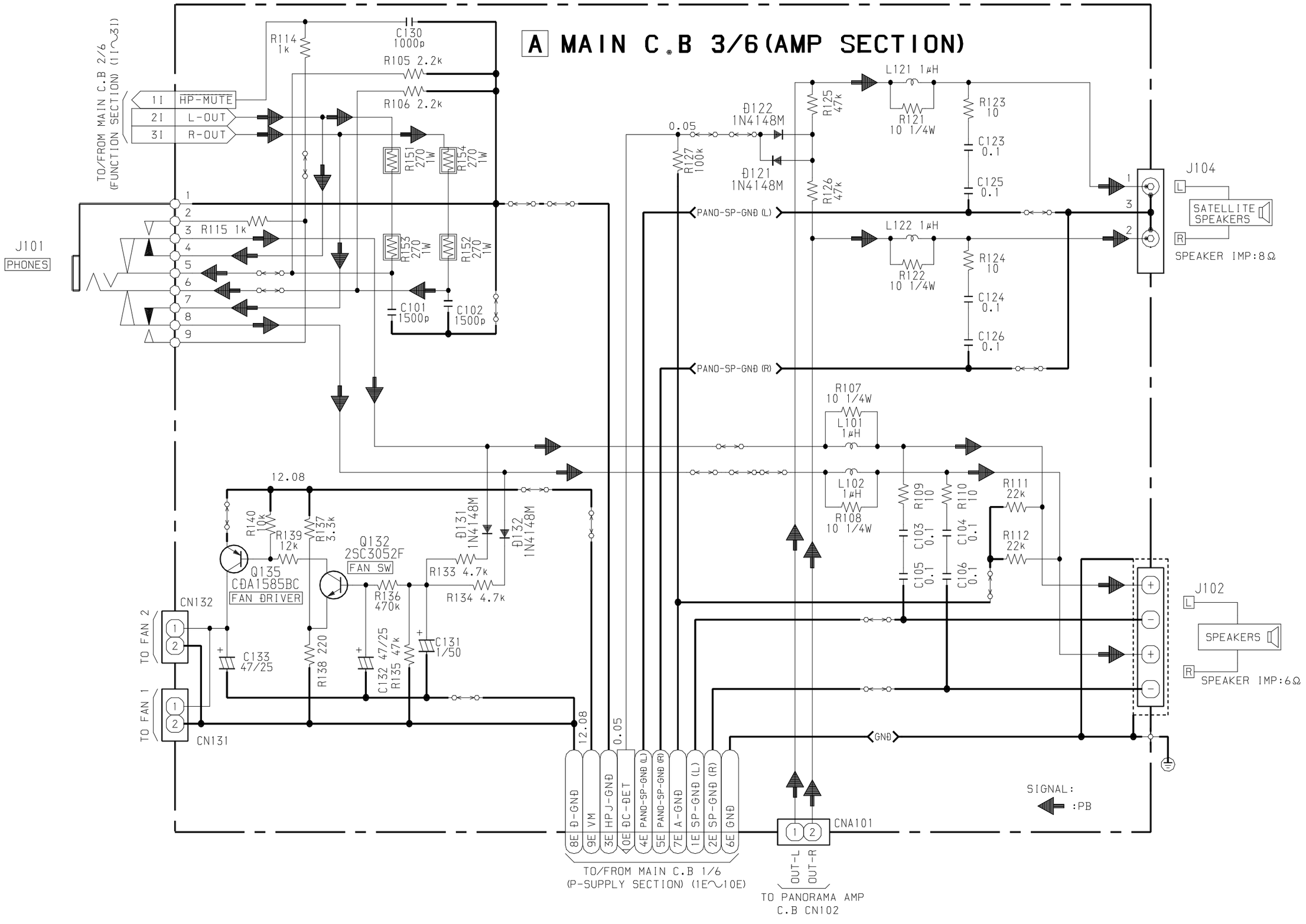
SCHEMATIC DIAGRAM – 1 (MAIN : 1 / 6 <P – SUPPLY SECTION>)



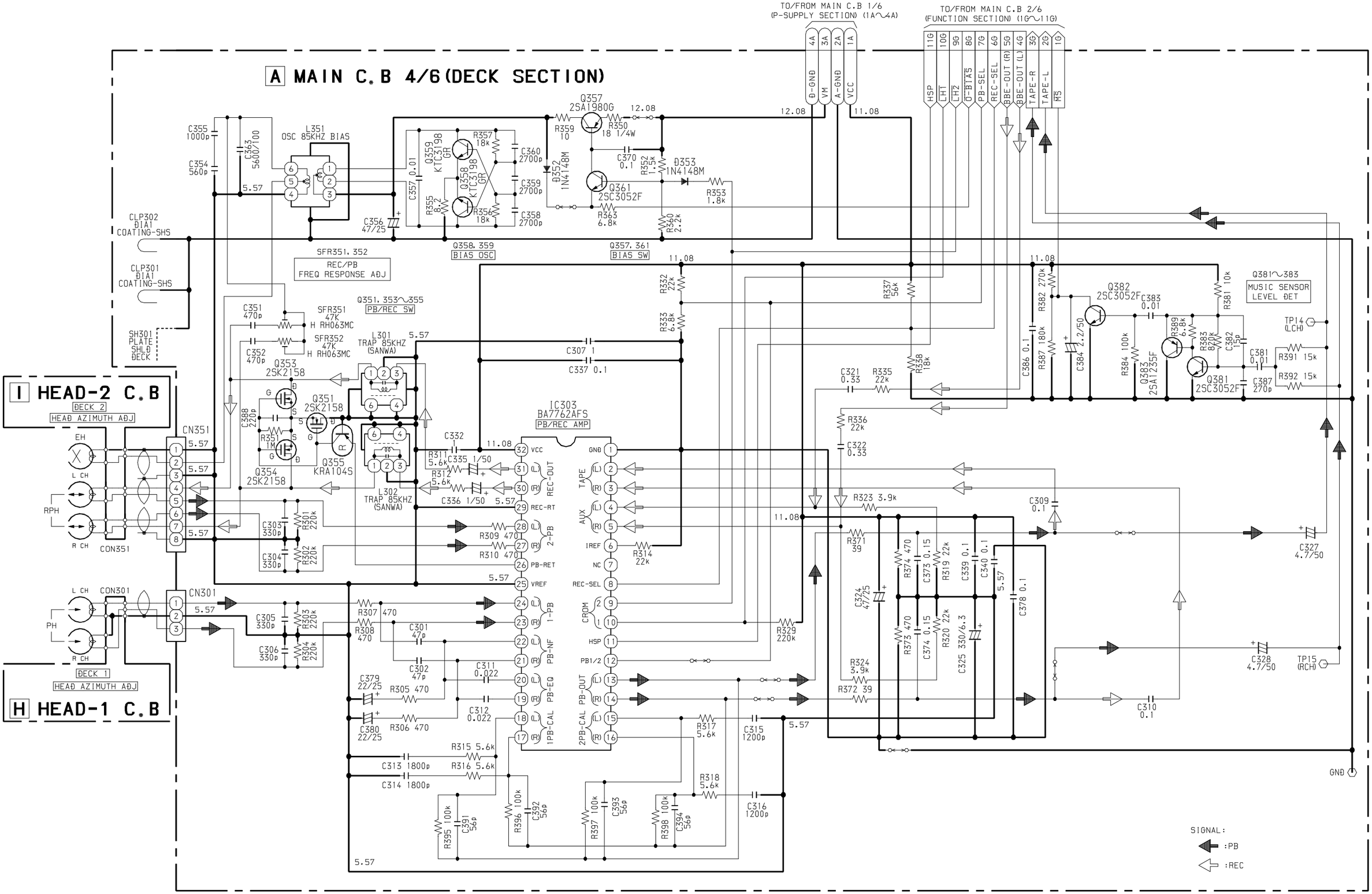
SCHEMATIC DIAGRAM – 2 (MAIN : 2/6 <FUNCTION SECTION>)

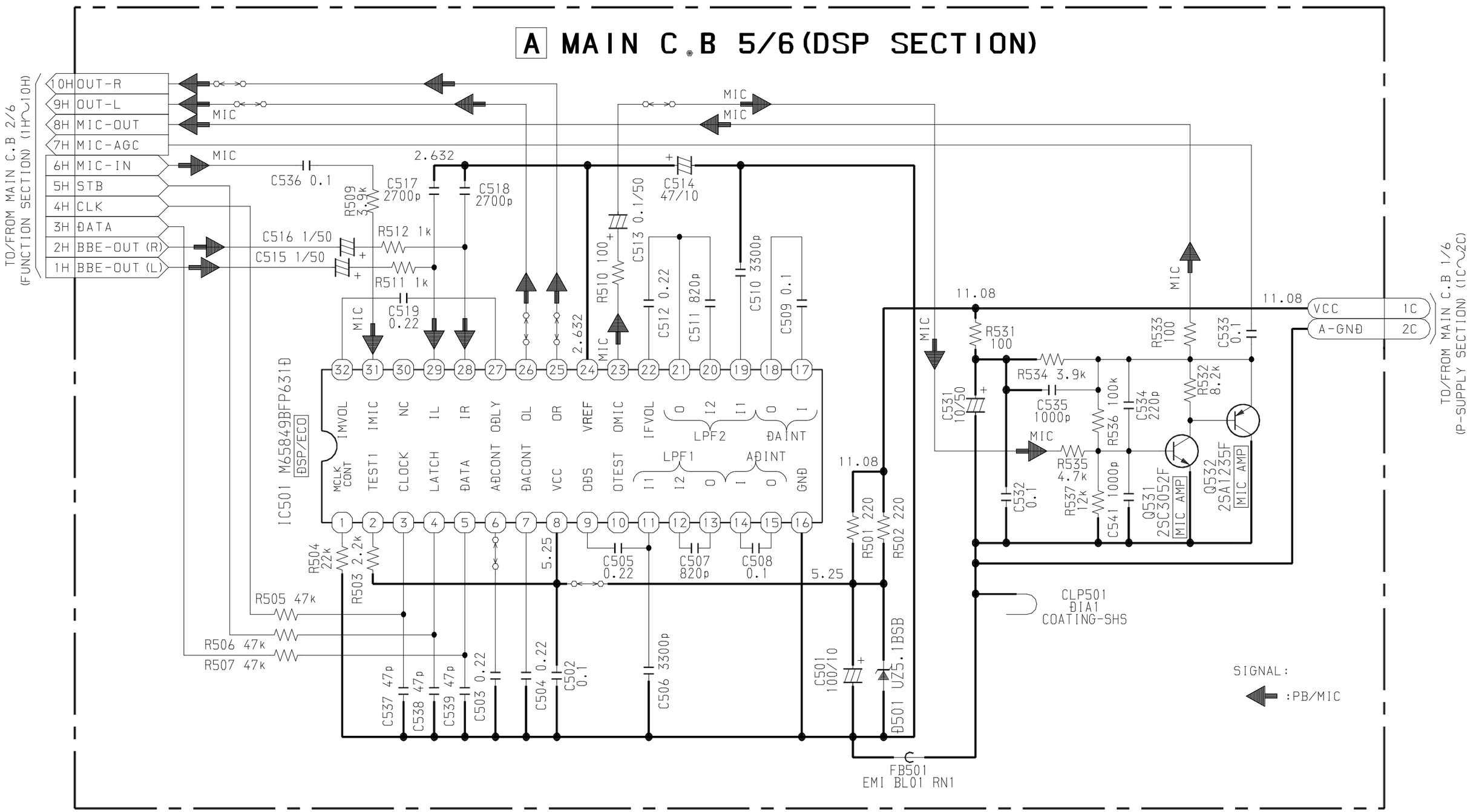


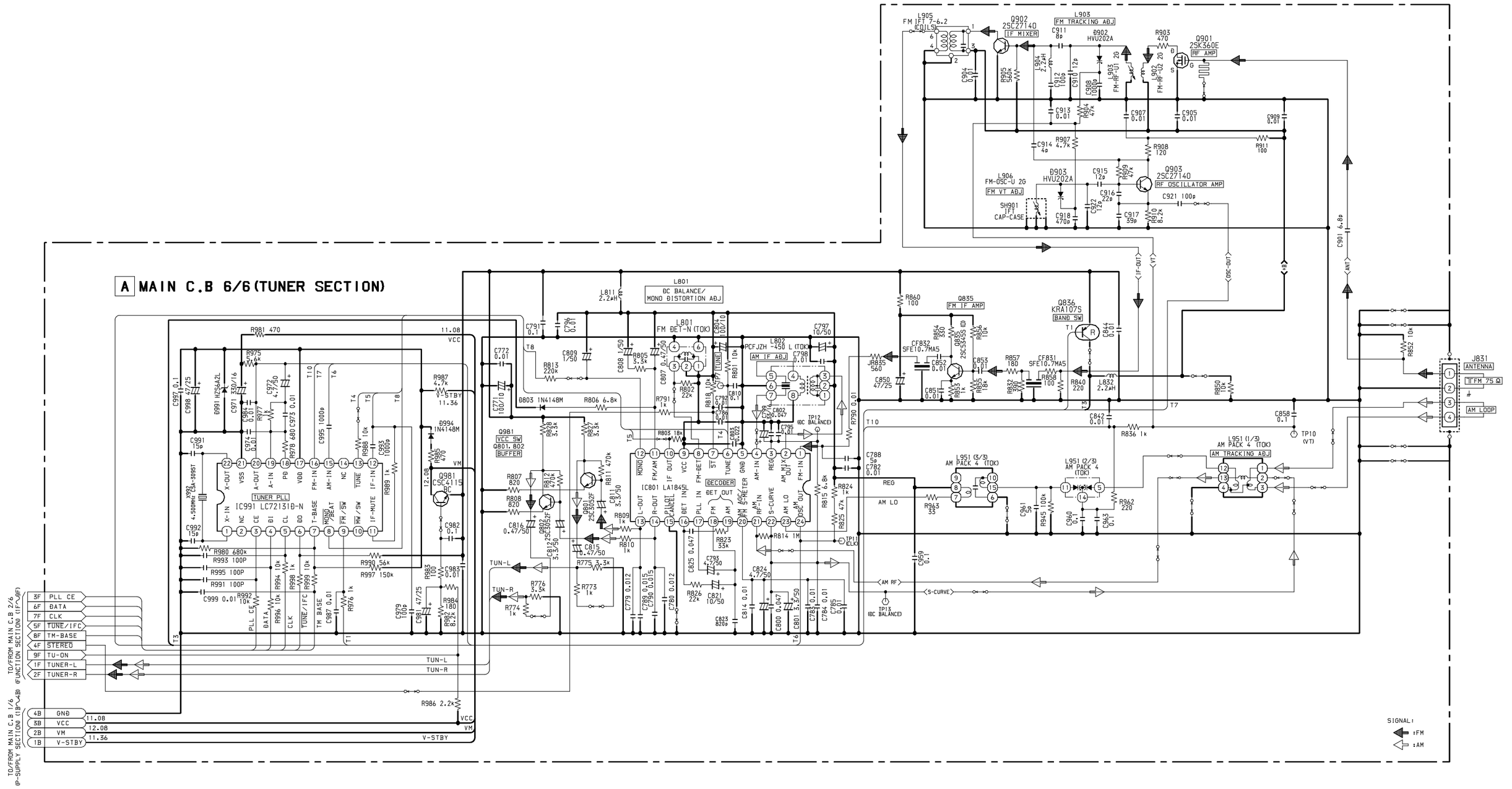
SCHEMATIC DIAGRAM – 3 (MAIN : 3 / 6 <AMP SECTION>)

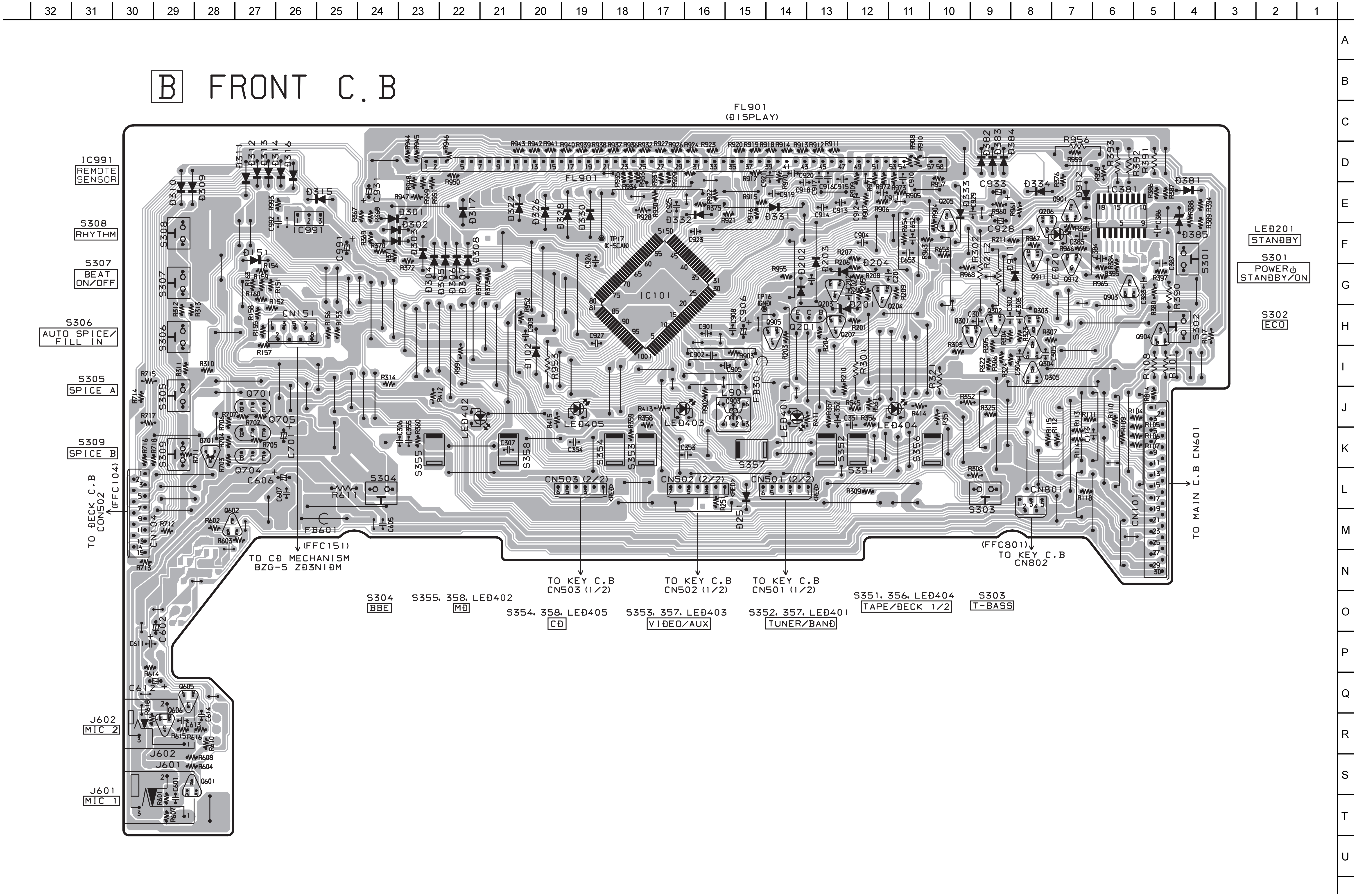


SCHEMATIC DIAGRAM – 4 (MAIN : 4 / 6 <DECK SECTION / HEAD – 1 / HEAD – 2>)




A MAIN C.B 5/6(DSP SECTION)
TO/FROM MAIN C.B 2/6 (FUNCTION SECTION) (1H~10H)
10H OUT-R
9H OUT-L
8H MIC-OUT
7H MIC-AGC
6H MIC-IN
5H STB
4H CLK
3H DATA
2H BBE-OUT (R)
1H BBE-OUT (L)
MIC
C536 0.1
R509 3.9k
C517 2700p
C518 2700p
2.632
C514 47/10
C516 1/50
C515 1/50
R512 1k
R511 1k
C519 0.22
R510 100
C513 0.1/50
C512 0.22
C511 820p
C510 3300p
C509 0.1
IC501 M65849BFP631Đ
ĐSP/ECO
MCLK CONT
TEST1
CLOCK
LATCH
ĐATA
AĐCONT
ĐACONT
VCC
OĐS
OTEST
I1
I2
GNĐ
IMVOL
IMIC
NC
IL
IR
OĐLY
OL
OR
VREF
OMIC
IFVOL
LPF1
LPF2
AĐINT
ĐAINT
R504 22k
R503 2.2k
R505 47k
R506 47k
R507 47k
C537 47p
C538 47p
C539 47p
C503 0.22
C504 0.22
C502 0.1
C505 0.22
C506 3300p
C507 820p
C508 0.1
5.25
11.08
R501 220
R502 220
C501 100/10
ĐZ5.1BSB
FB501
EMI BL01 RN1
R531 100
C531 10/50
R534 3.9k
C535 1000p
R536 100k
C534 220p
R533 100
C533 0.1
R532 8.2k
R535 4.7k
R537 12k
C541 10000p
C532 0.1
Q531 2SC3052F
MIC AMP
Q532 2SA1235F
MIC AMP
CLP501
ĐIA1
COATING-SHS
VCC 1C
A-GNĐ 2C
TO/FROM MAIN C.B 1/6 (P-SUPPLY SECTION) (1C~2C)
SIGNAL:
:PB/MIC


A MAIN C.B 6/6 (TUNER SECTION)
L905 FM IFT 7-6.2 (COIL 5)
Q902 2SC27140 IF MIXER
L903 FM TRACKING ADJ
D902 HVU202A
Q901 2SK360E RF AMP
L904 2.2uH
L902 FM-RF-U2 2G
L903 FM-RF-U1 2G
L906 FM-OSC-U 2G
FM VT ADJ
D903 HVU202A
Q903 2SC27140 RF OSCILLATOR AMP
SH901 IFT CAP-CASE
L801 DC BALANCE/ MONO DISTORTION ADJ
L801 FM DET-N (TOK)
L802 PCFJZH -450 L (TOK)
AM IF ADJ
L811 2.2uH
Q835 FM IF AMP
Q836 KRA107S BAND SW
CF832 SFE10.7MA5
CF831 SFE10.7MA5
IC991 LC72131D-N
TUNER PLL
IC801 LA1845L
DECODER
Q981 VCC SW Q801, 802 BUFFER
Q981 C5C4115 BC
Q801 2SC3052F
Q802 2SC3052F
L951 (1/3) AM PACK 4 (TOK)
AM TRACKING ADJ
L951 (2/3) AM PACK 4 (TOK)
L951 (3/3) AM PACK 4 (TOK)
J831 ANTENNA
FM 75 Ω
AM LOOP
TP10 (VT)
TP11 (CLK)
TP12 (DC BALANCE)
TP13 (DC BALANCE)
IF-OUT
VT
OSC-OUT
ANT
AM RF
S-CURVE
REG
AM LO
TUN-L
TUN-R
PLL CE
DATA
CLK
TUNE/IFC
TM BASE
FM/SW
MW/SW
IF-MUTE
MONO/BEAT
TO/FROM MAIN C.B 2/6 (FUNCTION SECTION) (1F~3F)
3F PLL CE
6F DATA
7F CLK
5F TUNE/IFC
8F TM-BASE
4F STEREO
9F TU-ON
1F TUNER-L
2F TUNER-R
TO/FROM MAIN C.B 1/6 (P-SUPPLY SECTION) (1B~4B)
4B GND
3B VCC
2B VM
1B V-STBY
11.08
12.08
11.36
SIGNAL:
:FM
:AM


B FRONT C.B
FL901
(DISPLAY)
IC991
REMOTE SENSOR
S308
RHYTHM
S307
BEAT ON/OFF
S306
AUTO SPICE/ FILL IN
S305
SPICE A
S309
SPICE B
TO DECK C.B CN502
(FFC104)
J602
MIC 2
J601
MIC 1
(FFC151)
TO CD MECHANISM
BZG-5 ZD3N1DM
TO KEY C.B
CN503 (1/2)
TO KEY C.B
CN502 (1/2)
TO KEY C.B
CN501 (1/2)
(FFC801)
TO KEY C.B
CN802
TO MAIN C.B CN601
LED201
STANDBY
S301
POWER STANDBY/ON
S302
ECO
S304
BBE
S355, 358, LED402
MD
S354, 358, LED405
CD
S353, 357, LED403
VIDEO/AUX
S352, 357, LED401
TUNER/BAND
S351, 356, LED404
TAPE/DECK 1/2
S303
T-BASS

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

C KEY C.B

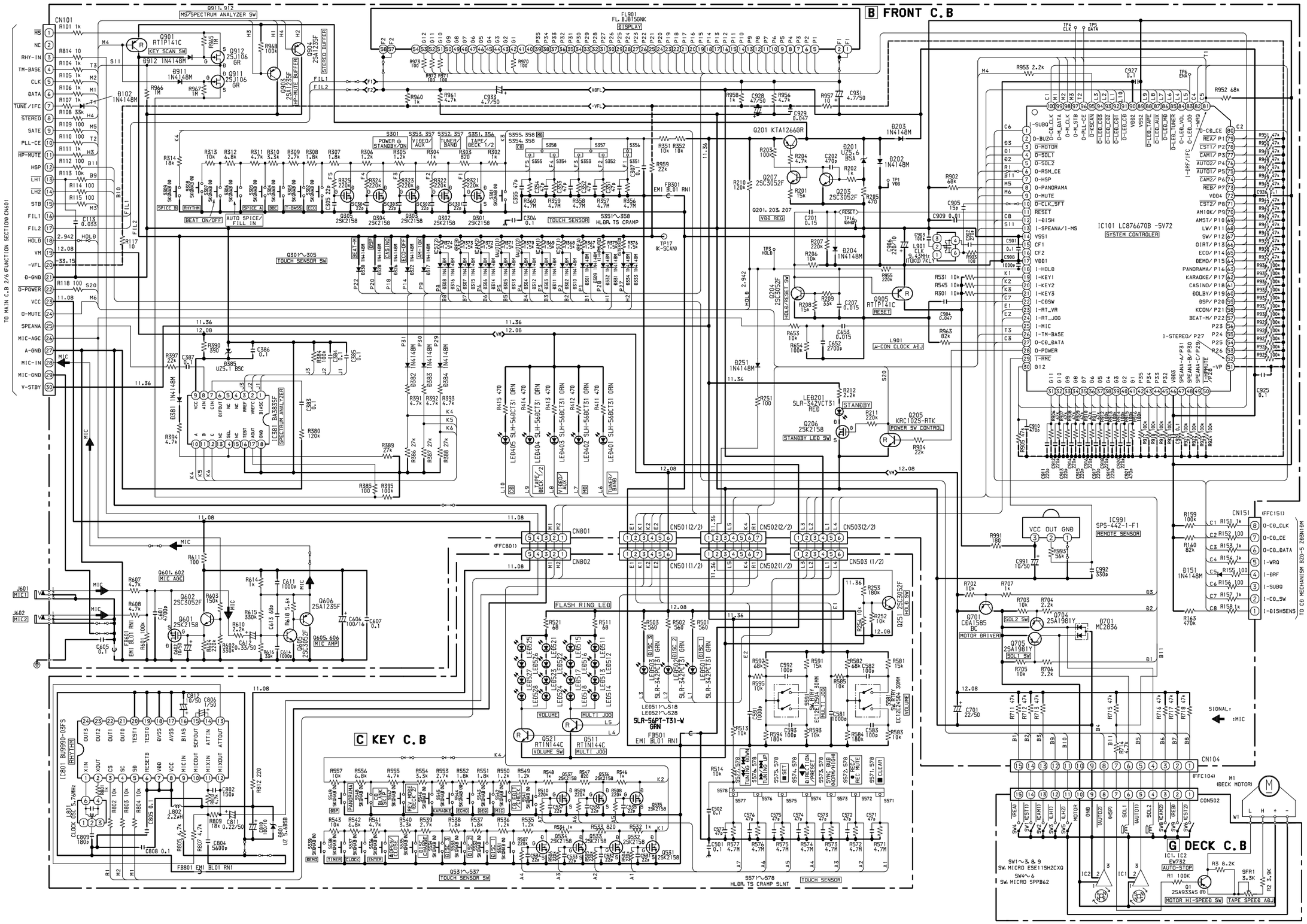
LED522 VOLUME
LED523 VOLUME
LED521 VOLUME
S581 VOLUME
LED524 VOLUME
LED525 VOLUME
LED528 VOLUME
LED526 VOLUME
LED527 VOLUME
S543 GEQ
S544 ECHO
S545 KARAOKE
S546 REV MODE (DECK 2)
S541 CD EDIT/ CHECK
S547 CD BLANK SKIP
S574, 578 ◀▶ DIRECTION/ PRESET
S572, 578 ● REC/REC MUTE
S576, 578 ▶▶/▶▌ TUNING UP
S571, 578 ■ CLEAR
S575, 578 ▌▌ SET
S573, 578 SYNC DUB (NORM/HIGH)
S535 ▲ OPEN/CLOSE
S534 DISC CHANGE
S577, 578 ◀◀/▌◀◀ TUNING DOWN
S531, LED501 DISC 1
S532, LED502 DISC 2
S533, LED503 DISC 3
DISC DIRECT PLAY
S539 DEMO
LED512 MULTI JOG
LED511 MULTI JOG
LED513 MULTI JOG
S591 MULTI JOG
LED515 MULTI JOG
LED514 MULTI JOG
LED516 MULTI JOG
LED518 MULTI JOG
LED517 MULTI JOG
S536 ENTER

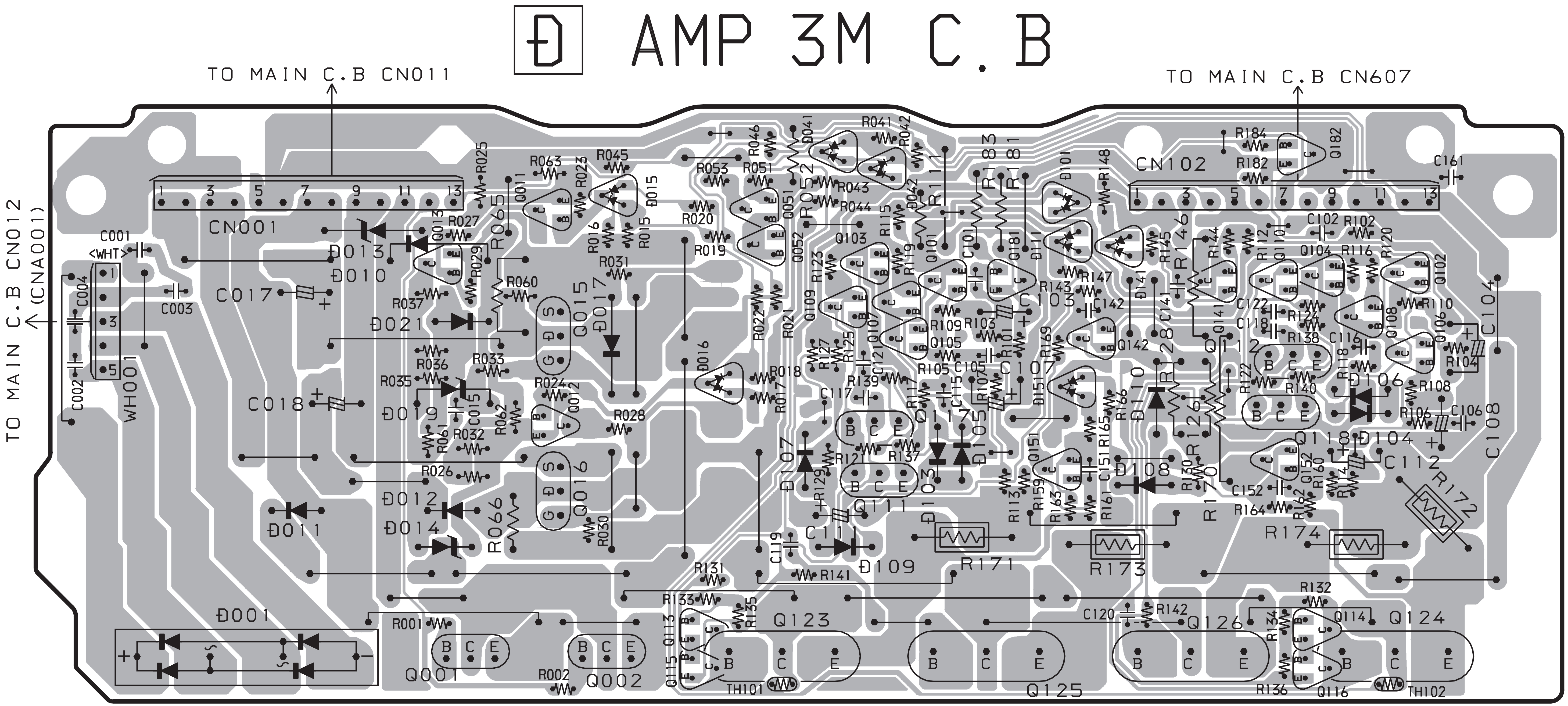
TO FRONT C.B CN503 (2/2)
TO FRONT C.B CN502 (2/2)
TO FRONT C.B CN501 (2/2)
TO FRONT C.B CN801 (FFC801)

CN503 (1/2)
CN502 (1/2)
CN501 (1/2)
CN802

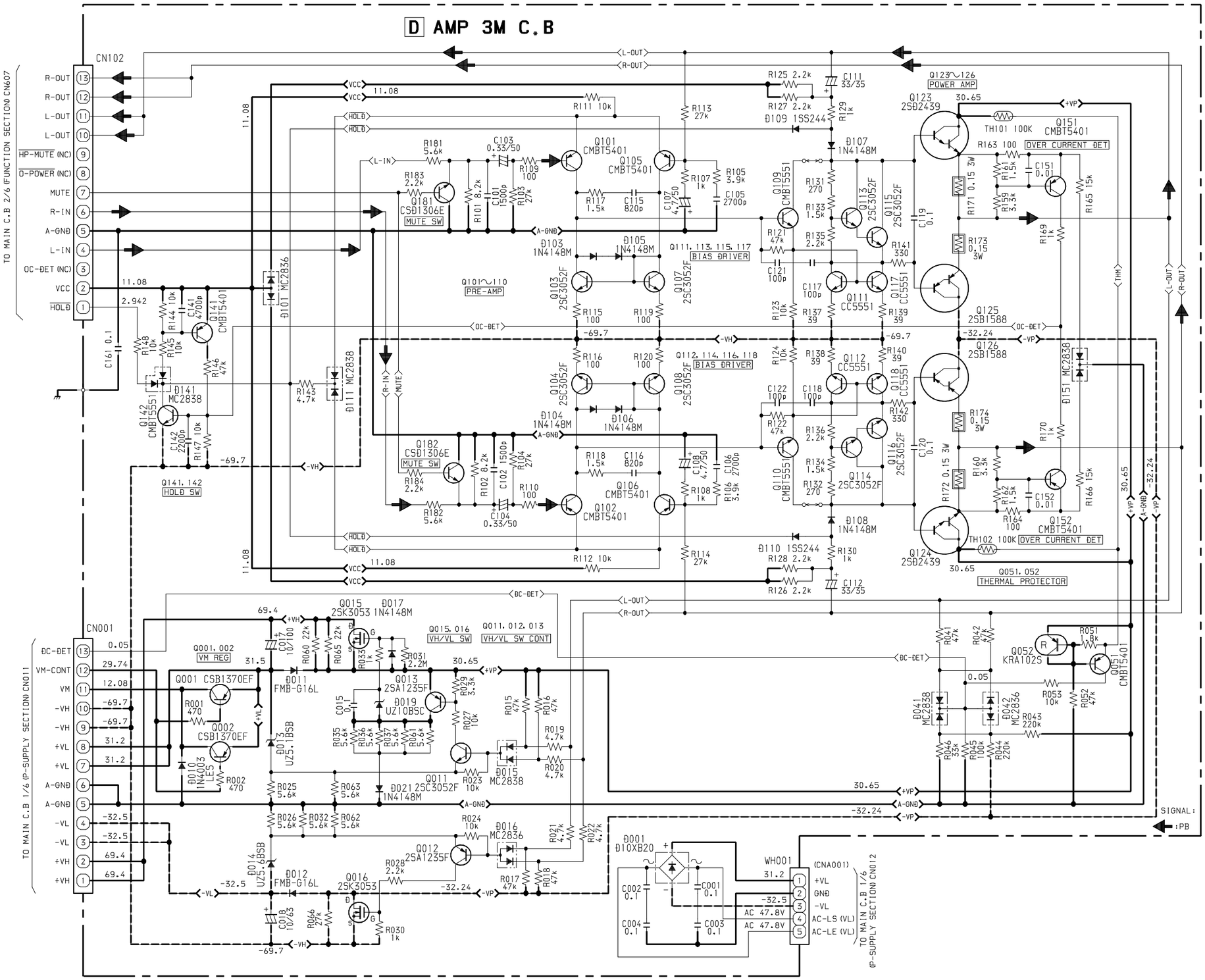
S542 MIC
S538 TIMER
S549 DSP
S548 PANORAMA
S537 CLOCK

SCHEMATIC DIAGRAM – 7 (FRONT / KEY / DECK)

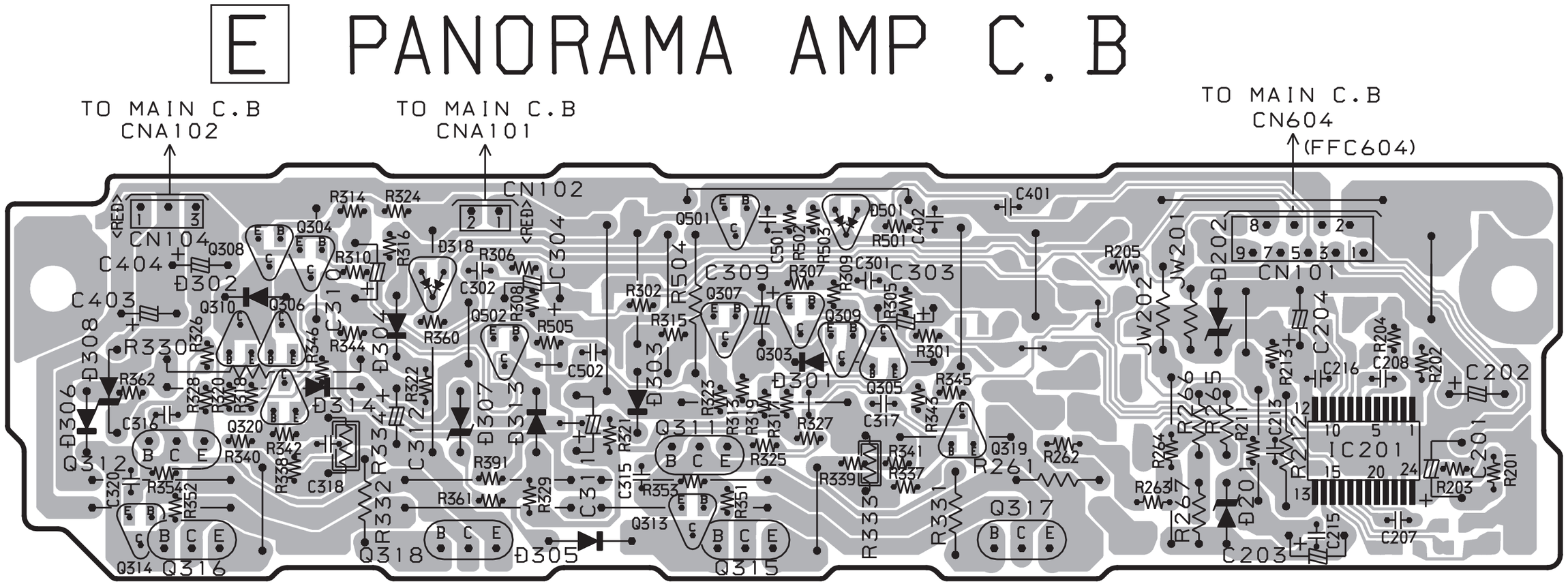



Ð AMP 3M C.B
TO MAIN C.B CN011
TO MAIN C.B CN607
TO MAIN C.B CN012 (CNA001)
CN001
CN102
WH001
Ð001

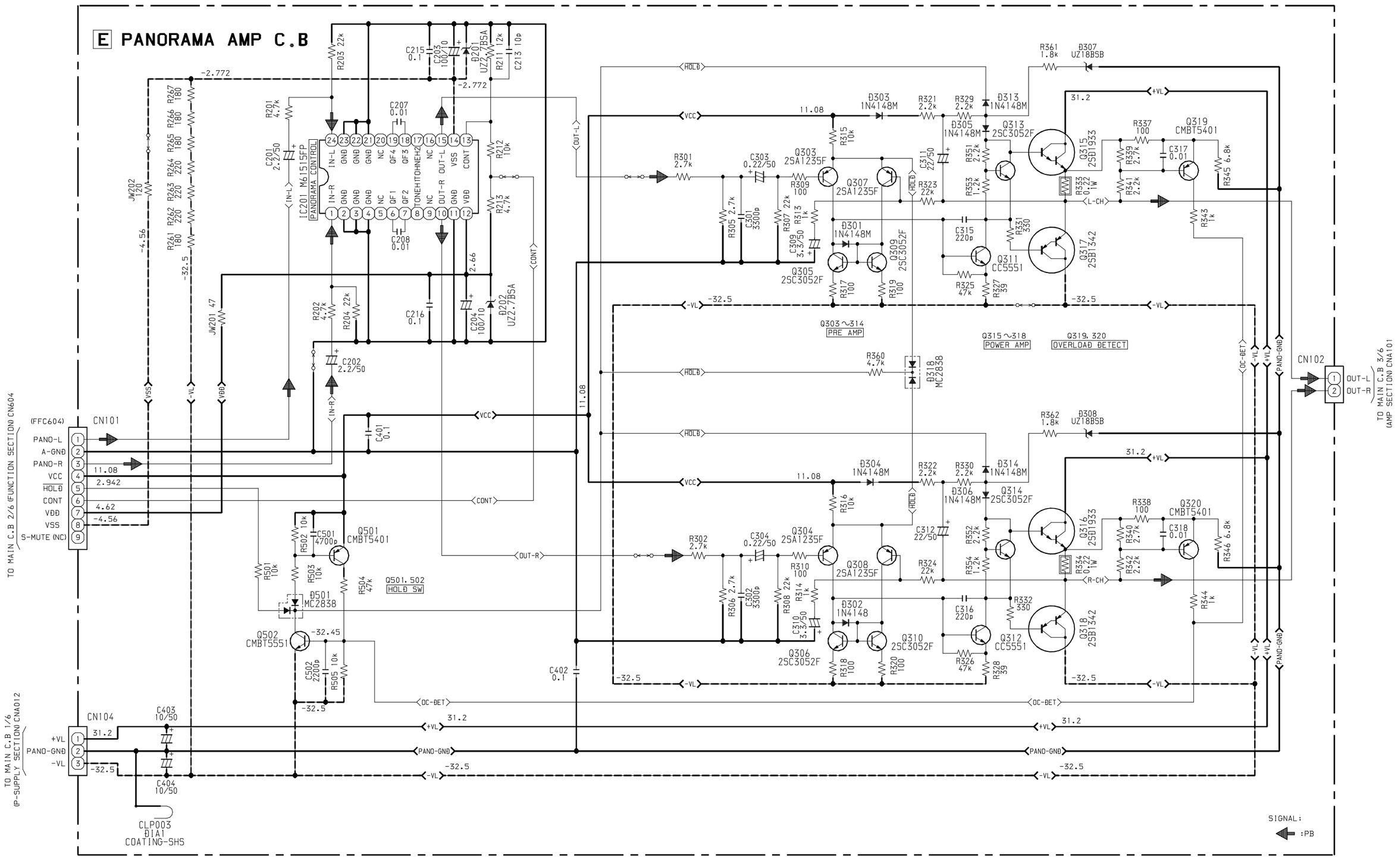
SCHEMATIC DIAGRAM – 8 (AMP 3M)



E PANORAMA AMP C.B



SCHEMATIC DIAGRAM – 9 (PANORAMA AMP)



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

F PT C.B

AC 120V/220-230V/240V
50/60HZ

T001
T002

PT002
1 2 3 4 9 8 7 6 5

D002
D003
D005
D004

PT001
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

TF

CN001
9 8 7 5 3 2 1
<WHT>

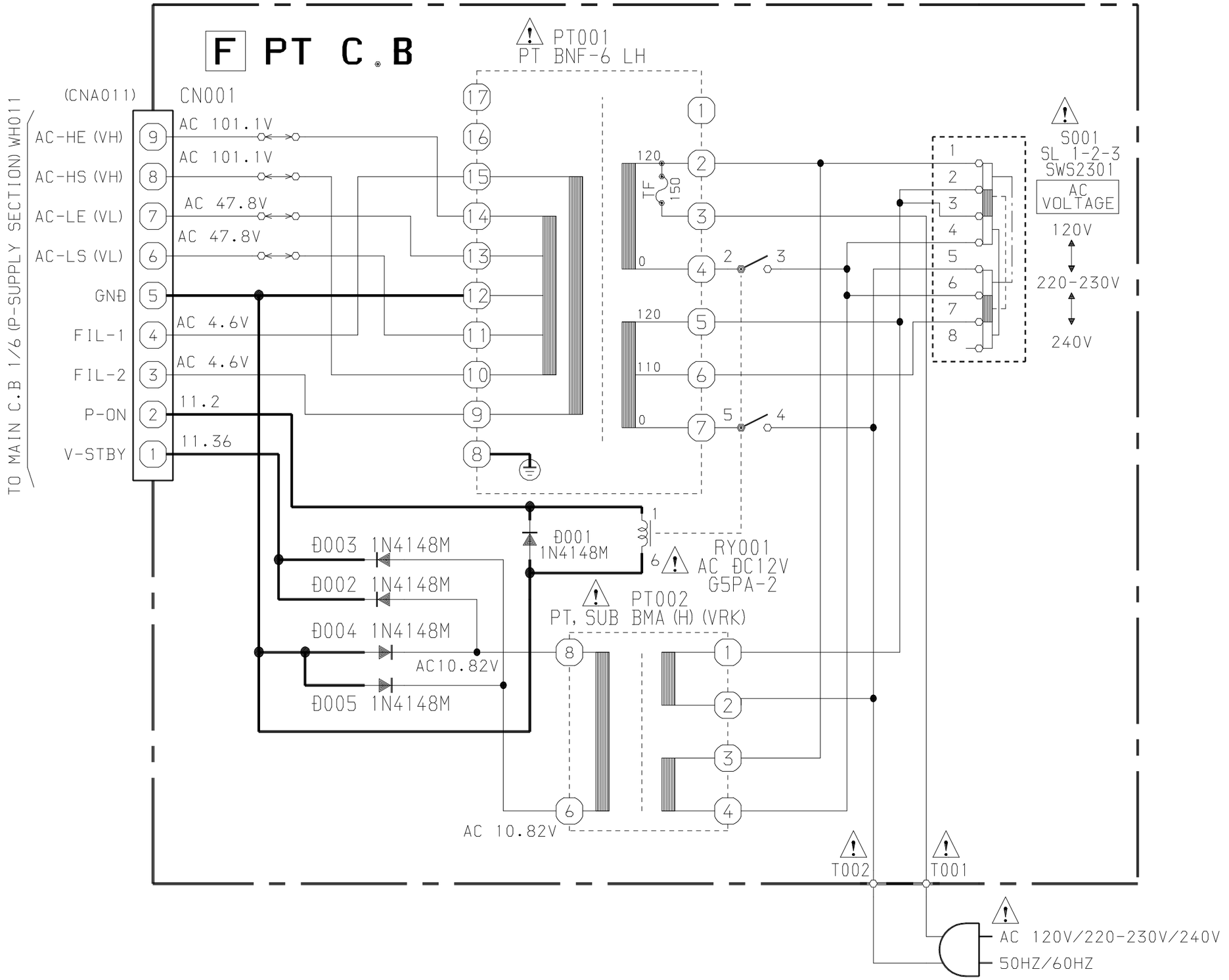
(CNA011)
TO MAIN C.B WH011

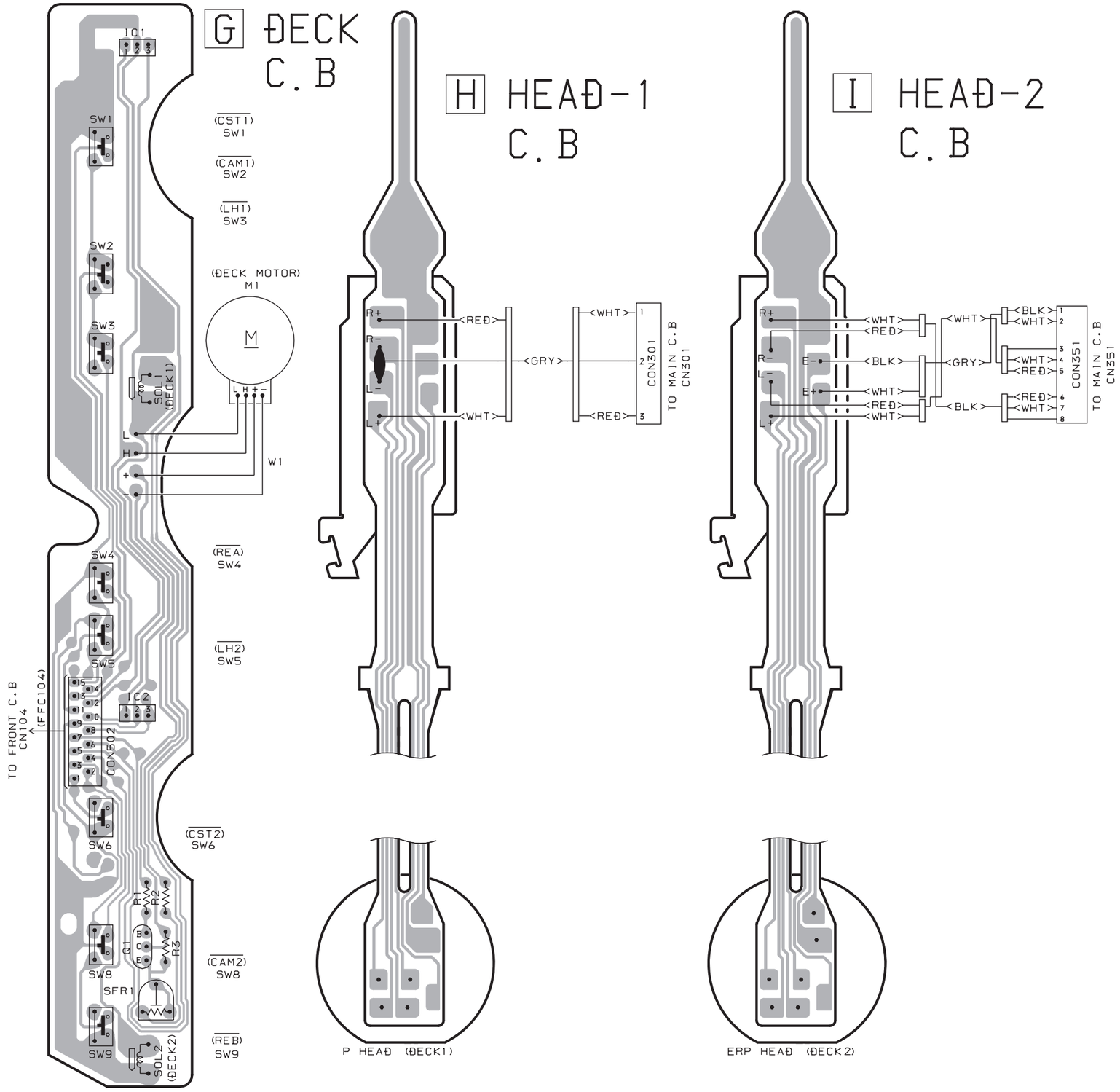
S001
AC VOLTAGE
120V
220~230V
240V

S001
1 2 3 4 5 6 7 8

RY001
3 2 1 4 5 6

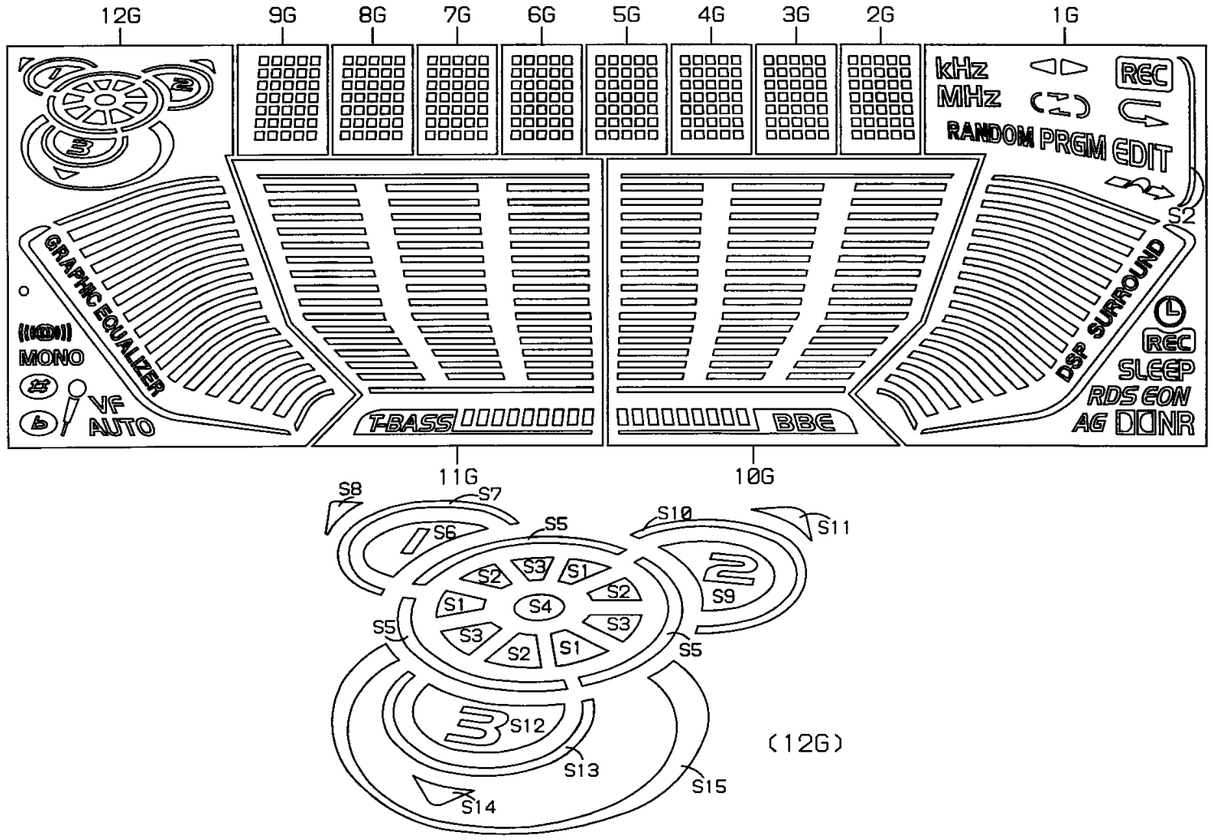
D001

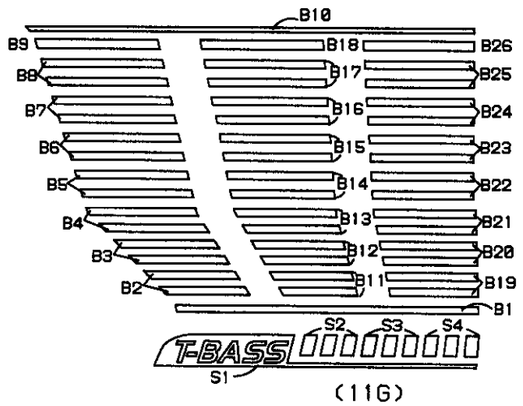

F PT C.B
PT001
PT BNF-6 LH
(CNA011)
CN001
TO MAIN C.B 1/6 (P-SUPPLY SECTION) WH011
AC-HE (VH)
AC-HS (VH)
AC-LE (VL)
AC-LS (VL)
GND
FIL-1
FIL-2
P-ON
V-STBY
AC 101.1V
AC 101.1V
AC 47.8V
AC 47.8V
AC 4.6V
AC 4.6V
11.2
11.36
TF
150
120
0
120
110
0
S001
SL 1-2-3
SWS2301
AC VOLTAGE
120V
220-230V
240V
Đ001 1N4148M
RY001
AC ĐC12V
G5PA-2
Đ003 1N4148M
Đ002 1N4148M
Đ004 1N4148M
Đ005 1N4148M
AC10.82V
PT002
PT, SUB BMA (H) (VRK)
AC 10.82V
T002
T001
AC 120V/220-230V/240V
50HZ/60HZ


G ĐECK C.B
H HEAĐ-1 C.B
I HEAĐ-2 C.B
IC1
SW1
SW2
SW3
SW4
SW5
SW6
SW8
SW9
(CST1) SW1
(CAM1) SW2
(LH1) SW3
(ĐECK MOTOR) M1
M
SOL1 (ĐECK1)
W1
(REA) SW4
(LH2) SW5
IC2
CON502
TO FRONT C.B CN104 (FFC104)
(CST2) SW6
R1
R2
R3
Q1
B
C
E
SFR1
(CAM2) SW8
(REB) SW9
SOL2 (ĐECK2)
R+
R-
L-
L+
REĐ
GRY
WHT
CON301
TO MAIN C.B CN301
E-
E+
BLK
CON351
TO MAIN C.B CN351
P HEAĐ (ĐECK1)
ERP HEAĐ (ĐECK2)

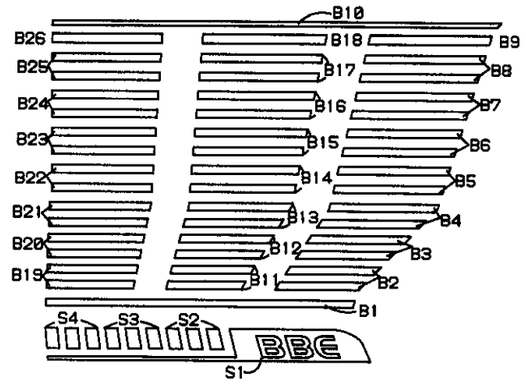
FL (BJ815GNK) GRID ASSIGNMENT / PIN CONNECTION / ANODE CONNECTION

GRID ASSIGNMENT

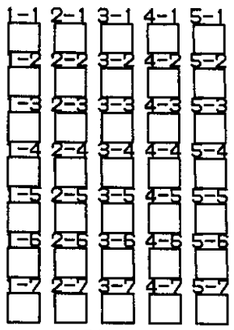




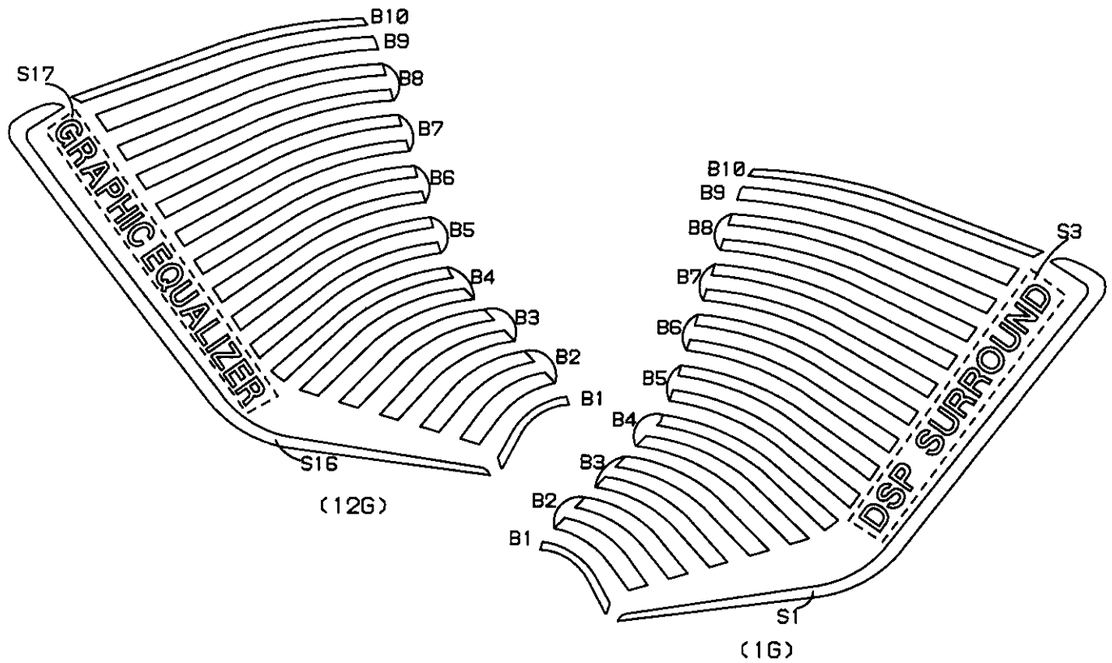
(11G)



(10G)



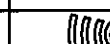
(9G~2G)



PIN CONNECTION

PIN NO.	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	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
CONNECTION	F	F	N	N	N	2	1	0	9	8	7	6	5	4	3	2	1	N	N	3	3	3	3	3	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	P	P	P	P	P	P	P	P	N	N	F	F
	22	P	P	C	G	G	G	G	G	G	G	G	G	G	G	G	C	C	54	32	10	98	76	54	32	10	98	76	54	32	10	98	76	54	32	10	98	76	54	32	10	98	76	54	32	10	98	76	54	32	1	P	P	11

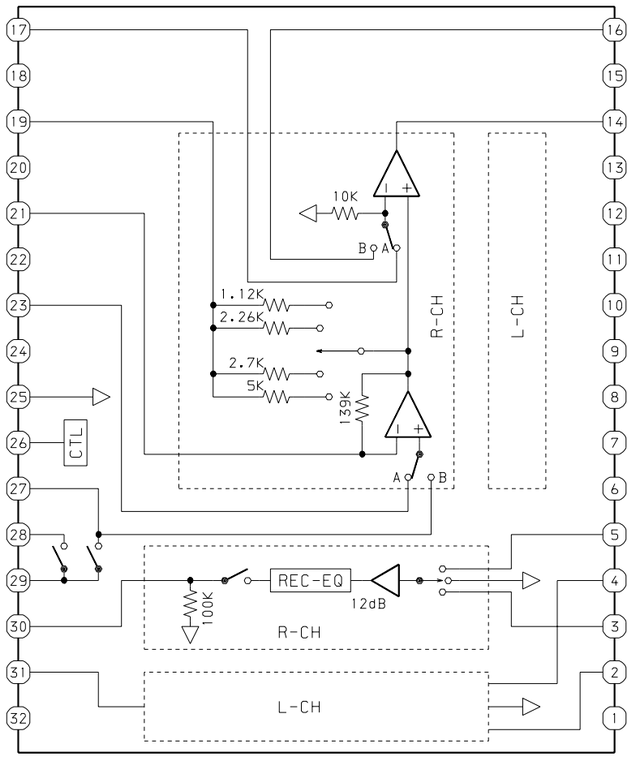
ANODE CONNECTION

	12G	11G	10G	9G~2G	1G
P1	S1	S1	S1	1-1	S1
P2	S2	S2	S2	2-1	S2
P3	S3	S3	S3	3-1	S3
P4	S4	S4	S4	4-1	
P5	S5	B1	B1	5-1	EDIT
P6	S6	–	–	1-2	
P7	S7	–	–	2-2	REC (上)
P8	S8	B2	B2	3-2	B1
P9	S9	B3	B3	4-2	B2
P10	S10	B4	B4	5-2	B3
P11	S11	B5	B5	1-3	B4
P12	S12	B6	B6	2-3	B5
P13	S13	B7	B7	3-3	B6
P14	S14	B8	B8	4-3	B7
P15	S15	B9	B9	5-3	B8
P16	○	B10	B10	1-4	B9
P17	S16	B11	B11	2-4	B10
P18	S17	B12	B12	3-4	PRGM
P19	B1	B13	B13	4-4	
P20	B2	B14	B14	5-4	
P21	B3	B15	B15	1-5	
P22	B4	B16	B16	2-5	
P23	B5	B17	B17	3-5	
P24	B6	B18	B18	4-5	RANDOM
P25	B7	B19	B19	5-5	MHz
P26	B8	B20	B20	1-6	kHz
P27	B9	B21	B21	2-6	–
P28	B10	B22	B22	3-6	–
P29		B23	B23	4-6	
P30	MONO	B24	B24	5-6	REC (下)
P31	VF	B25	B25	1-7	SLEEP
P32	AUTO	B26	B26	2-7	RDS
P33		–	–	3-7	EON
P34		–	–	4-7	AG
P35		–	–	5-7	DNR

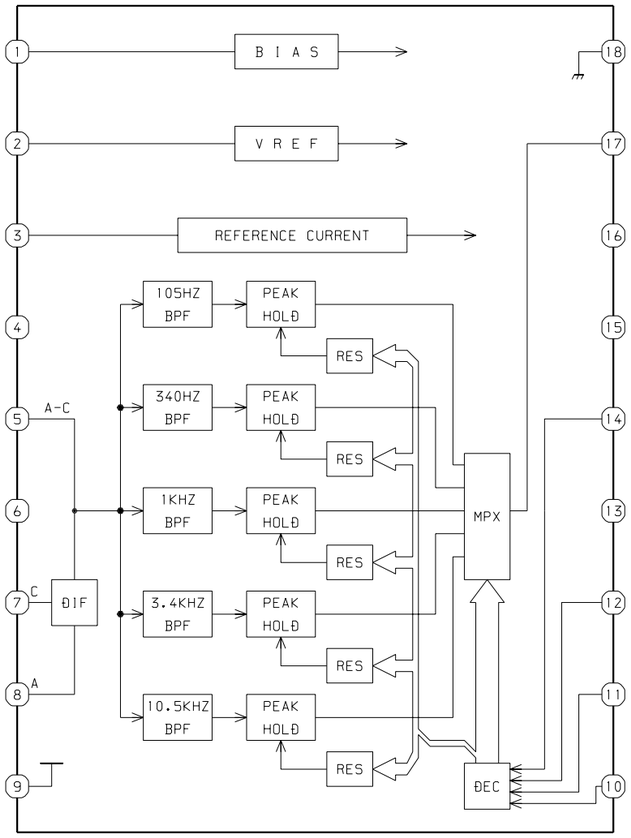
NOTE:
(上) = (UP)
(下) = (DOWN)

IC BLOCK DIAGRAM

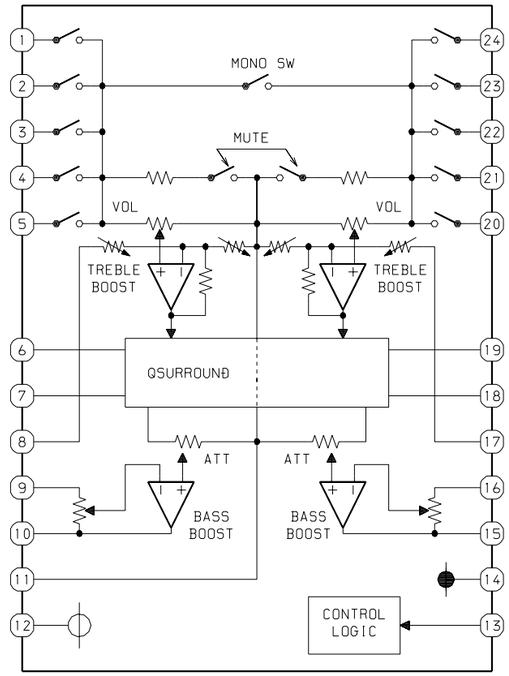
IC, BA7762AFS



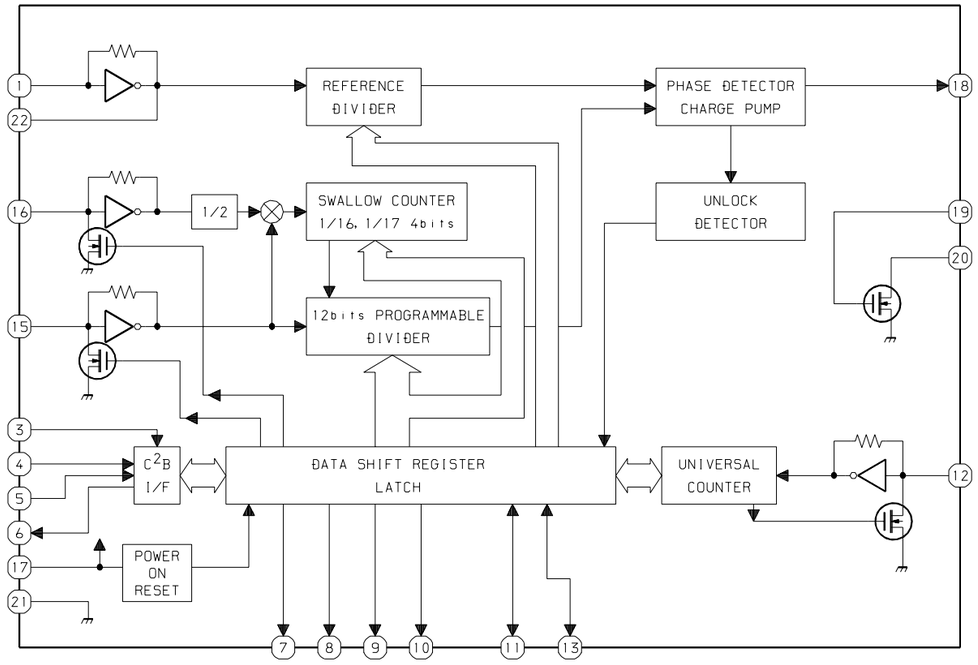
IC, BA3835F



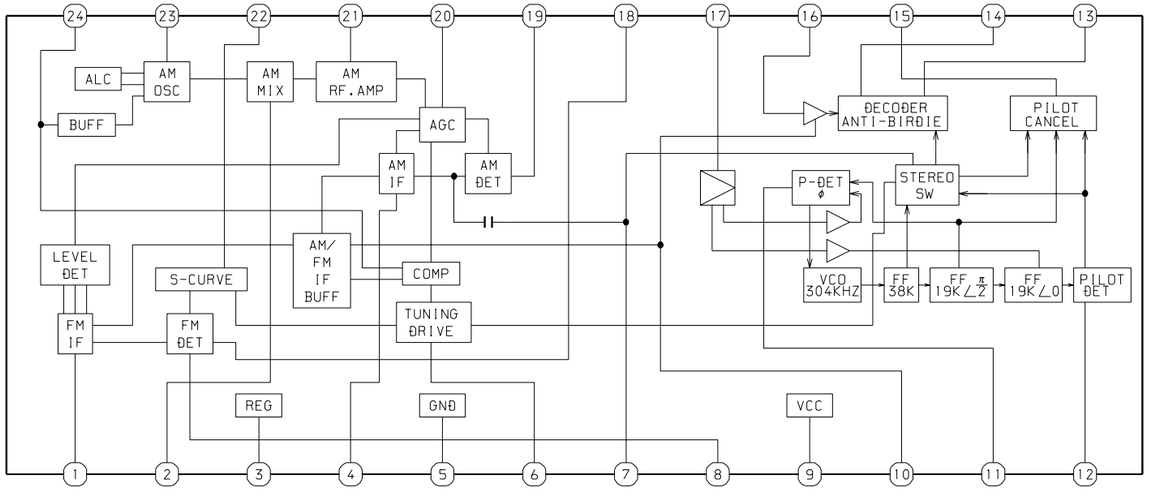
IC, M61515FP



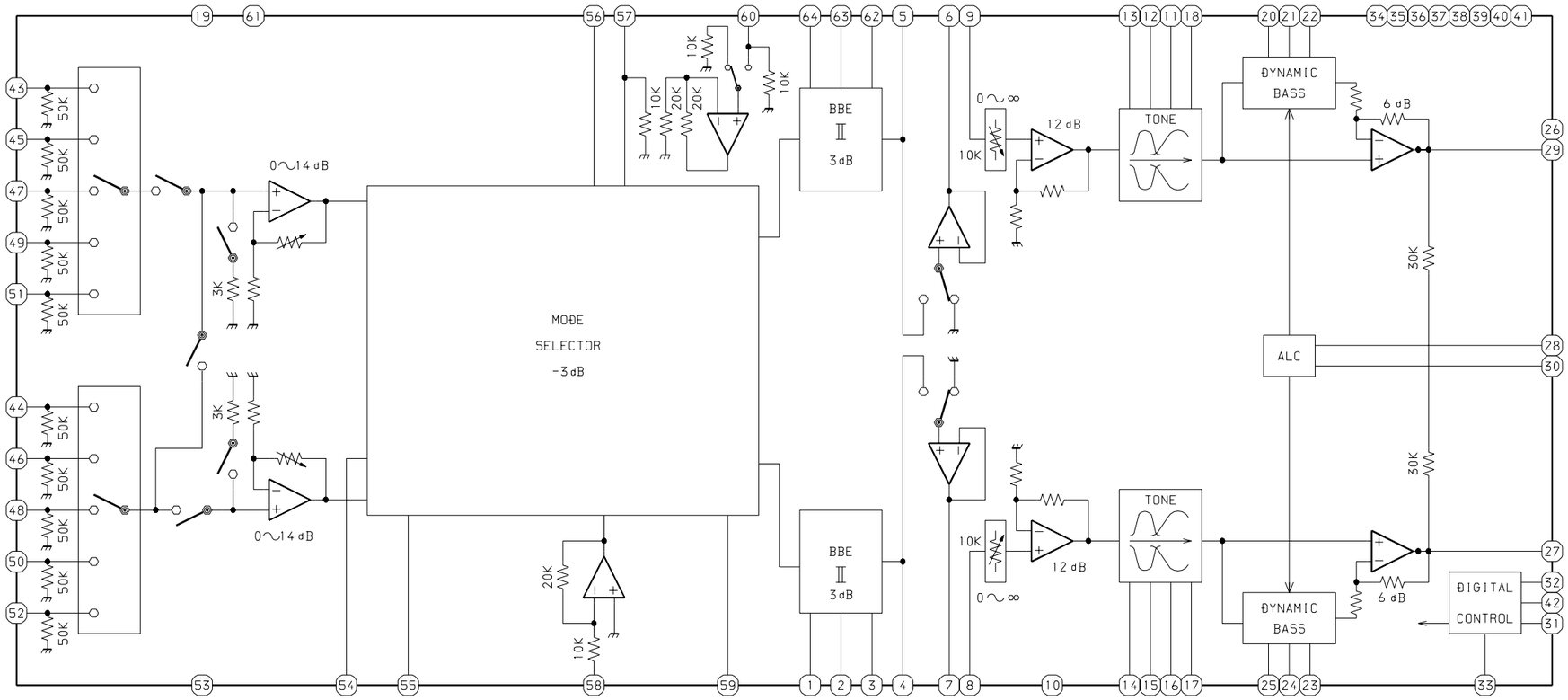
IC, LC72131D-N



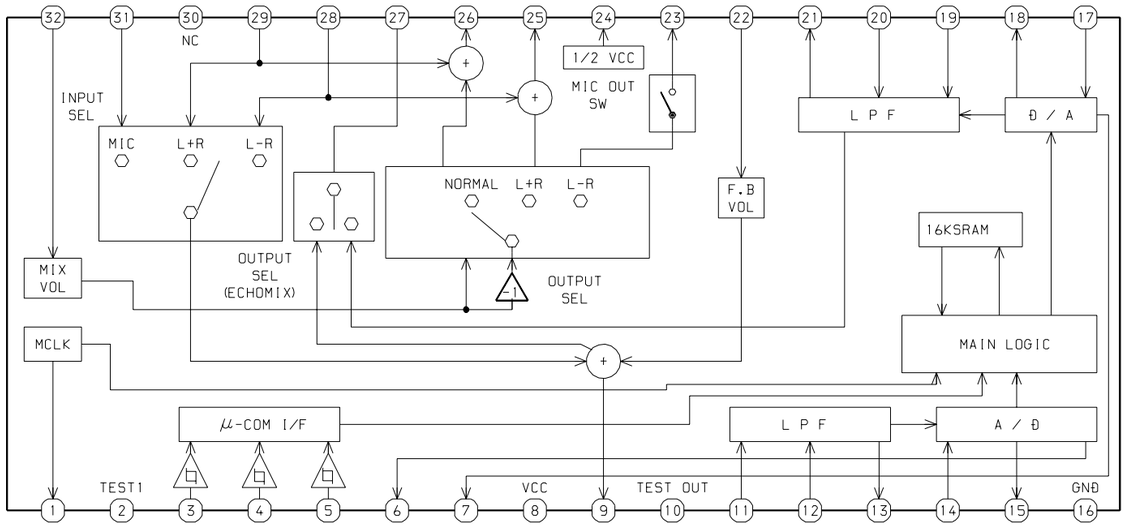
IC, LA1845L



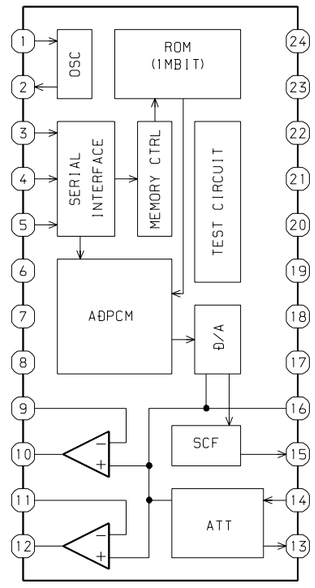
IC, BÐ3877KS2



IC, M65849BFP631Ð



IC, BU9990-03FS

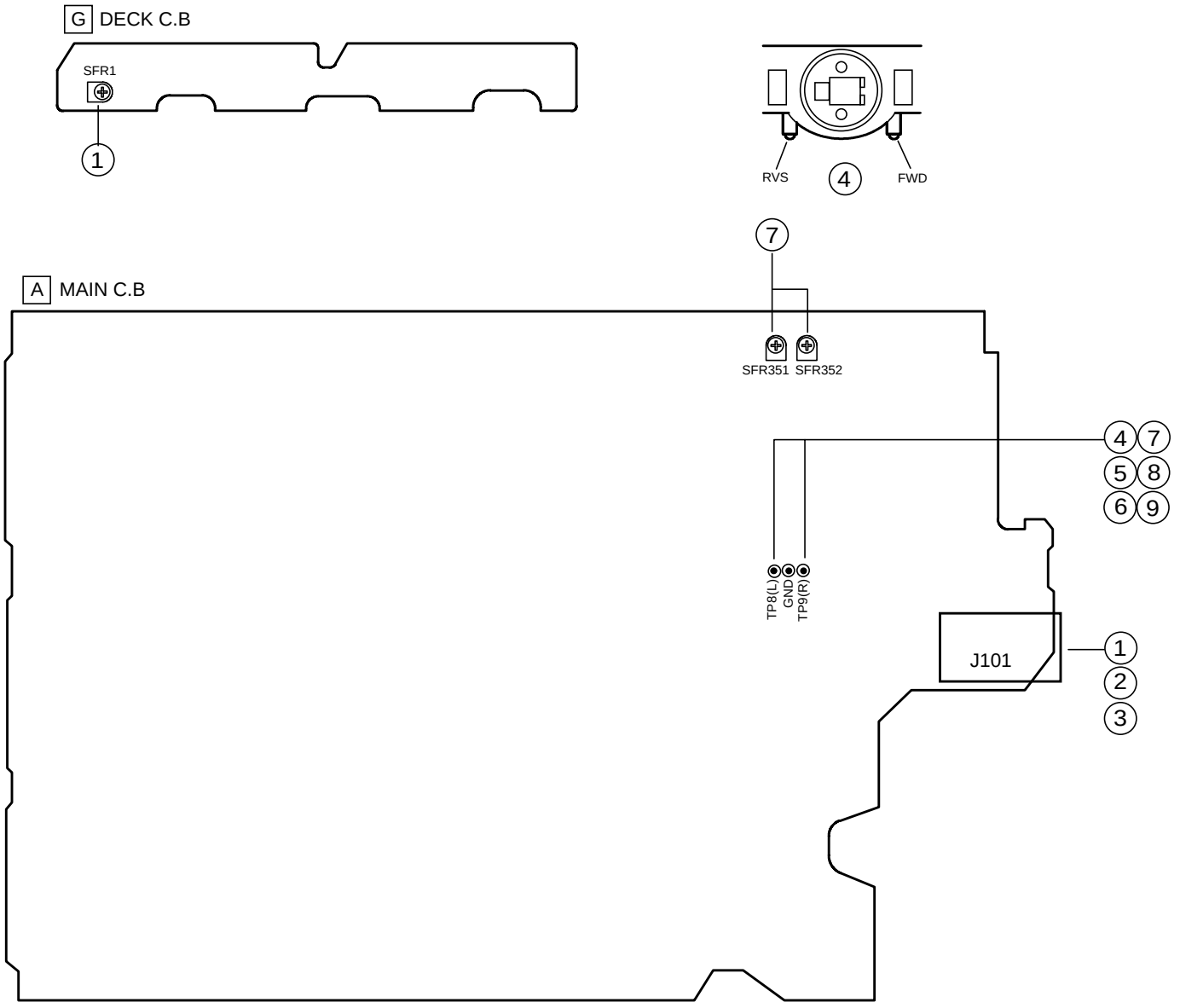


IC DESCRIPTION

IC, LC876670B–5V72

Pin No.	Pin Name	I/O	Description
1	I–SUBQ	I	CD sub-code input.
2	O–BUZ	O	Touch-sensor beep sound output. (Not used)
3	$\overline{\text{O–MOTOR}}$	O	Tape motor $\overline{\text{ON}}$/OFF.
4	$\overline{\text{O–SOL1}}$	O	Tape 1 plunger $\overline{\text{ON}}$/OFF.
5	$\overline{\text{O–SOL2}}$	O	Tape 2 plunger $\overline{\text{ON}}$/OFF.
6	O–RSM–CE	O	Rhythm IC chip enable output.
7	O–HSP	O	PLL-IC chip enable output.
8	O–PANORAMA	O	Panoramic IC data output.
9	O–MUTE	O	Mute ON/$\overline{\text{OFF}}$.
10	$\overline{\text{O–CLK–SFT}}$	O	System microcomputer clock shift $\overline{\text{ON}}$/OFF output.
11	$\overline{\text{RESET}}$	—	System reset.
12	I–DISH	I	CD turn-table position detection AD input.
13	I–SPEANA / I–MS	I	Spectrum analyzer level / MS input. AD input.
14	VSS1	—	Connected to GND.
15	CF1	I	Oscillator circuit input.
16	CF2	O	Oscillator circuit output.
17	VDD1	—	Connected to power supply.
18	I–HOLD	I	System power observation AD input.
19	I–KEY1	I	KEY 1 AD input.
20	I–KEY2	I	KEY 2 AD input.
21	I–KEY3	I	KEY 3 AD input.
22	I–CDSW	I	CD mechanical switch AD input.
23	I–RT–VR	I	VOLUME rotary encoder AD input.
24	I–RT–JOG	I	JOG rotary encoder AD input.
25	I–MIC	I	Auto VF microphone input. Small signal detection (MIC IN) input.
26	I–TM–BASE	I	Time base input.
27	O–CD–DATA	O	CD data output.
28	O–POWER	O	System power ON/$\overline{\text{OFF}}$ output.
29	$\overline{\text{I-RMC}}$	I	Remote-control signal reception input. Active at “L”.
30~41	G12~G1	O	FL grid G12~G1 output.
42~45	P35~P32	O	FL segment P35~P32 output.
46	VDD3	—	Connected to power supply.
47	SPEANA–A / P31	O	Spectrum analyzer band switching output A / FL segment P31 output.
48	SPEANA–B / P30	O	Spectrum analyzer band switching output B / FL segment P30 output.
49	SPEANA–C / P29	O	Spectrum analyzer band switching output C / FL segment P29 output.
50	$\overline{\text{I–HPMUTE}}$ / P28	I/O	Headphone MUTE input / FL segment P28 output.
51	–VP	—	Power supply for FL display.
52	I–STEREO / P27	I/O	Tuner stereo detect input / FL segment P27 output.
53~56	P26~P23	O	FL segment P26~P23 output.
57	BEAT–M / P22	I/O	Beat master diode input / FL segment P22 output.
58	KCON / P21	I/O	KCON enable diode input (Not used) / FL segment P21 output.
59	DSP / P20	I/O	DSP enable diode input / FL segment P20 output.

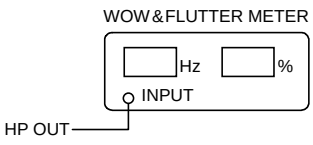
Pin No.	Pin Name	I/O	Description
60	DOLBY / P19	I/O	DOLBY enable diode input (Not used) / FL segment P19 output.
61	CASINO / P18	I/O	Casino DEMO diode input / FL segment P18 output.
62	KARAOKE / P17	I/O	Karaoke enable diode input (Not used) / FL segment P17 output.
63	PANORAMA / P16	I/O	Panorama enable diode input (Not used) / FL segment P16 output.
64	DEMO / P15	I/O	Demonstration OFF diode input (Not used) / FL segment P15 output.
65	ECO / P14	I/O	Initial echo OFF diode input / FL segment P14 output.
66	OIRT / P13	I/O	OIRT diode input (Not used) / FL segment P13 output.
67	SW / P12	I/O	SW diode input (Not used) / FL segment P12 output.
68	LW / P11	I/O	LW diode input (Not used) / FL segment P11 output.
69	AMST / P10	I/O	AMST diode input (Not used) / FL segment P10 output.
70	AM10K / P9	I/O	AM10K diode input / FL segment P9 output.
71	$\overline{\text{CST2}}$ / P8	I/O	$\overline{\text{CST2}}$ diode input / FL segment P8 output.
72	VDD4	—	Connected to power supply.
73	$\overline{\text{REB}}$ / P7	I/O	$\overline{\text{REB}}$ diode input / FL segment P7 output.
74	$\overline{\text{CAM2}}$ / P6	I/O	$\overline{\text{CAM2}}$ diode input / FL segment P6 output.
75	$\overline{\text{AUTO1}}$ / P5	I/O	$\overline{\text{AUTO1}}$ diode input / FL segment P5 output.
76	$\overline{\text{AUTO2}}$ / P4	I/O	$\overline{\text{AUTO2}}$ diode input / FL segment P4 output.
77	$\overline{\text{CAM1}}$ / P3	I/O	$\overline{\text{CAM1}}$ diode input / FL segment P3 output.
78	$\overline{\text{CST1}}$ / P2	I/O	$\overline{\text{CST1}}$ diode input / FL segment P2 output.
79	$\overline{\text{REA}}$ / P1	I/O	$\overline{\text{REA}}$ diode input / FL segment P1 output.
80	O–CD–CE	O	CD chip enable output.
81	I–DRF / IFC	I	CD DRF input / TUNER IFC input.
82	I–WRQ	I	CD write request input.
83	O–LED–JOG	O	JOG flash ring LED indicator ON/$\overline{\text{OFF}}$.
84	O–LED–VOL	O	VOL flash ring LED indicator ON/$\overline{\text{OFF}}$.
85	$\overline{\text{O–LED–TUNER}}$	O	TUNER function LED $\overline{\text{ON}}$/OFF.
86	$\overline{\text{O–LED–MD}}$	O	MD function LED $\overline{\text{ON}}$/OFF.
87	$\overline{\text{O–LED–AUX}}$	O	AUX function LED $\overline{\text{ON}}$/OFF.
88	$\overline{\text{O–LED–TAPE}}$	O	TAPE function LED $\overline{\text{ON}}$/OFF.
89	VSS2	—	Connected to GND.
90	VDD2	—	Connected to power supply.
91	$\overline{\text{O–LED–CD}}$	O	CD function LED $\overline{\text{ON}}$/OFF.
92	$\overline{\text{O–LED–CD1}}$	O	CD1 direct button LED $\overline{\text{ON}}$/OFF.
93	$\overline{\text{O–LED–CD2}}$	O	CD2 direct button LED $\overline{\text{ON}}$/OFF.
94	$\overline{\text{O–LED–CD3}}$	O	CD3 direct button LED $\overline{\text{ON}}$/OFF.
95	$\overline{\text{O–KSCAN}}$	O	“L” at key-scan timing switching retrieve.
96	O–PLL–CE	O	PLL-IC chip enable output.
97	O–M–STB	O	Main C.B strobe output.
98	O–M–CLK	O	Main C.B clock output.
99	O–M–DATA	O	Main C.B data output.
100	O–CD–CLK	O	CD clock output.



<DECK SECTION>

1. Adjusting Tape Speed (DECK 2)
   Requirements
   - Measuring Device: WOW & FLUTTER Meter (Frequency Counter)
     Test Tape: TTA-100 (3 kHz)
     Test Point: HP OUT (J101)
     Adjustment Point: SFR 1

   1) Connect the WOW & FLUTTER Meter to the HP OUT.
   2) Insert the test tape (TTA-100) into DECK 2, FWD playback the centre of the tape and adjust SFR1 until it becomes 3,000 Hz ± 5 Hz.
   3) RVS playback and check that ± 45 Hz is added according to the FWD speed.



2. Checking Tape Speed (DECK 1)
   Requirements
   Same as number 1

   1) Insert the test tape (TTA-100) into DECK 1, playback the centre of the tape and check that the speed is within ± 45 Hz according to the speed of DECK 2.

3. Checking WOW & FLUTTER (DECK 1, DECK 2)

Requirements

Same as number 1

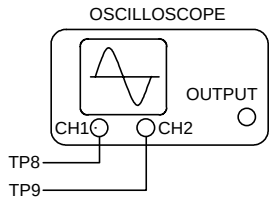
1) Connect the WOW & FLUTTER Meter to the HP OUT.
2) Set the indicator to JIS and the mode to W RMS (WTD) of the WOW & FLUTTER.
3) Playback the centre of the test tape (TTA-100) and check that it is below 0.21 %.

4. Checking Adjusting Head Azimuth (DECK 1, DECK 2)

Requirements

- Measuring Device: Oscilloscope
  Test Tape: TTA-300 (10 kHz)
  Test Point: TP8 (Lch), TP9 (Rch)
  Adjustment Point: Head Azimuth Screws

1) Connect the CH1 probe of the oscilloscope to TP8 (Lch) and the CH2 probe of the oscilloscope to TP9 (Rch).
2) Set the V mode of the oscilloscope to ADD.
3) Insert the test tape (TTA-300) into DECK 1, FWD playback the centre of the tape and adjust, using the head azimuth screws until the waveform of the oscilloscope has reached the maximum when playing back at 10 kHz.
4) Reverse the tape, RVS playback and adjust, using the head azimuth screws until the waveform of the oscilloscope has reached its maximum.
5) After the adjustment, bond lock (1600 B) the screws.
6) Perform the same operation from 3) to 5) for DECK 2.

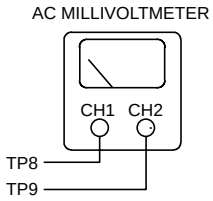


5. Checking Playback Frequency (DECK 1, DECK 2)

Requirements

- Measuring Device: Millivoltmeter
  Test Tape: TTA-330 (315 Hz/8 kHz)
  Test Point: TP8 (Lch), TP9 (Rch)

1) Connect CH1 of the millivoltmeter to TP8 (Lch) and CH2 of the millivoltmeter to TP9 (Rch).
2) Insert the test tape (TTA-300) into DECK 1 and playback at 315 Hz and 10 kHz.
3) Use the 315 Hz output level as a standard, check that the 8 kHz level is within ± 3 dB.
4) Perform the same operation from 3) to 5) for DECK 2.



6. Checking Playback Sensitivity (DECK 1, DECK 2)

Requirements

- Measuring Device: Millivoltmeter
  Test Tape: TTA-200 (400 Hz)
  Test Point: TP8 (Lch), TP9 (Rch)

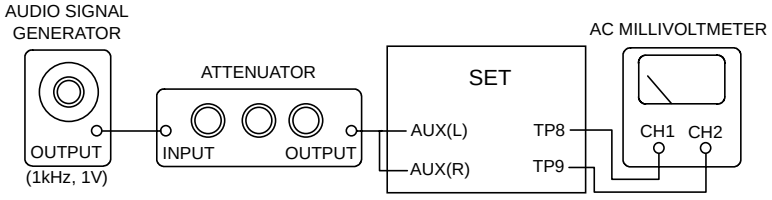
1) Connect CH1 of the millivoltmeter to TP8 (Lch) and CH2 of the millivoltmeter to TP9 (Rch).
2) Insert the tape (TTA-200) into DECK 1 and playback.
3) Check that the output level is within 300 mV ± 30 mV.
4) Perform the same operation from 2) to 3) for DECK 2.

7. Adjusting REC / PB Frequency Response (DECK 2)

Requirements

- Measuring Devices: Millivoltmeter, Audio Signal Generator (Low Frequency Generator) Attenuator
  Test Tape: TTA-602 (NORMAL)
  Test Point: TP8 (Lch) , TP9 (Rch)
  Input Point: AUX (1 kHz/10 kHz)
  Adjustment Point: SFR351 (Lch), SFR352 (Rch)

1) Connect CH1 of the millivoltmeter to TP8 (Lch) and CH2 of the millivoltmeter to TP9 (Rch).



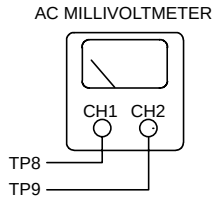
2) Connect the output from the generator to the attenuator and connect the AUX from the set to the attenuator.
3) Insert the tape (TTA-602) into DECK 2 and record the 1 kHz signal from AUX.
4) At this time, adjust the attenuator until TP8 and TP9 output levels become 21 mV.
5) Record 1 kHz and 10 kHz alternately.
6) Adjust SFR351 (Lch)/SFR352 (Rch) until the playback output level of 10 kHz is within 0.5 ± 0.5 dB according to the standard when the playback output level of 1 kHz is used as the standard.

8. Checking REC/ PB Frequency Response (DECK 2)

Requirements

- Measuring Devices: Same as 7
  Test Tape: TTA-615 (CrO2)
  Test Point: TP8 (Lch) , TP9 (Rch)
  Input Point: AUX (1 kHz/10 kHz)

1) Connect CH1 of the millivoltmeter to TP8 (Lch) and CH2 of the millivoltmeter to TP9 (Rch).
2) Connect the output from the generator to the attenuator and connect the AUX from the set to the attenuator.
3) Insert the tape (TTA-602) into DECK 2 and record the 1 kHz signal from AUX.
4) At this time, adjust the attenuator until the TP8 and TP9 output levels become 21 mV.
5) Record 1 kHz and 10 kHz alternately.
6) Check the output level of 10 kHz is within ± 2.5 dB according to the standard when the playback output level of 1 kHz is used as the standard.



9. Checking REC/ PB Sensitivity (DECK 2)

Requirements

- Measuring Devices: Millivoltmeter, Audio Signal Generator (Low Frequency Generator), Attenuator
  Test Tape: TTA-602 (NORMAL)
  TTA-615 (CrO2)
  Test Point: TP8 (Lch) , TP9 (Rch)
  Input Point: AUX (1 kHz)

1) Connect CH1 of the milivoltmeter to TP8 (Lch) and CH2 of the millivoltmeter to TP9 (Rch).
2) Connect the output from the generator to the attenuator and connect the AUX from the set to the attenuator.
3) Insert the tape (TTA-602) into DECK 2 and record the 1 kHz signal from AUX.
4) At this time, adjust the attenuator until the TP8 and TP9 output levels become 210 mV.
5) Playback 1 kHz and check that the output level during playback and the output level during recording are within ± 2.5 dB.
6) Insert the test tape (TTA-615) into DECK 2, perform 3) to 5) and check that it is within ± 3 dB.

< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP11 (CLK)
   Method : Set to AM 1710 kHz and check that the test point is 2160 kHz ± 45 Hz.

2. AM VT Check
   Settings : • Test point : TP10 (VT)
   Method : Set to AM 1710 kHz and check that the test point is less than 8.5 V. Then set to AM 530 kHz and check that the test point is more than 0.6 V.

3. AM Tracking Adjustment
   Settings : • Test point : TP14 (Lch), TP15 (Rch)
   • Adjustment location : L951 (1/3)
   Method : Set to AM 1000 kHz and adjust L951 (1/3) so that the test point becomes maximum.

4. FM VT Adjustment
   Settings : • Test point : TP10 (VT)
   • Adjustment location : L906
   Method : Set to FM 108.0 MHz and adjust L906 so that the test point becomes 7.0 V ± 0.1 V. Then set to FM 87.5 MHz and check that the test point is more than 0.4 V.

5. FM Tracking Adjustment
   Settings : • Test point : TP14 (Lch), TP15 (Rch)
   • Adjustment location : L903
   Method : Set to FM 87.5 MHz and adjust L903 so that the test point becomes maximum.

6. AM IF Adjustment
   Settings : • Test point : TP14 (Lch), TP15 (Rch)
   • Adjustment location :
   L802 ..... 450 kHz

7. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP12, TP13 (DC balance)
   TP18 (Lch), TP19 (Rch)
   (Mono distortion)
   • Adjustment location : L801
   • Input level : 60 dBµV
   Method : Set to FM 98.0 MHz and adjust L801 so that the voltage between TP12 and TP13 becomes 0 V ± 500 mV with distortion less than 0.5 %.

8. Output Level Check
   <AM>
   Settings : • Test point : TP14 (Lch), TP15 (Rch)
   • Input level : 74 dBµV
   Method : Set to AM 1000 kHz and check that the test point is 105 mV ± 3 dB.

   <FM>
   Settings : • Test point : TP14 (Lch), TP15 (Rch)
   • Input level : 60 dBµV
   Method : Set to FM 98.0 MHz and check that the test point is 420 mV ± 3 dB.

9. FM Separation Check
   Settings: • Test point : TP14 (Lch), TP15 (Rch)
   • Input level : 60 dBµV
   Method: Set to FM 98.0 MHz and check that the test point is more than 25 dB.

< FRONT SECTION >

1. µ-CON Clock Adjustment
   Settings : • Test point : TP17 (K-SCAN)
   TP16 (GND)
   • Adjustment location : L901
   Method : Insert AC plug while pressing of "POWER" key and "CLOCK" function key. Connect a frequency counter across TP16 and TP17. Then adjust L901 so that the frequency across the test point is 226.98 Hz ± 0.23 Hz (4.40 msec ~ 4.41 msec).

CD TEST MODE

1. How to Activate CD Test Mode

While pressing the FUNCTION button, insert the AC plug to the power outlet.
When the test mode is started, the message " TEST" is displayed.

2. How to Exit CD Test Mode

Press the POWER button, push other FUNCTION buttons or disconnect the AC plug.

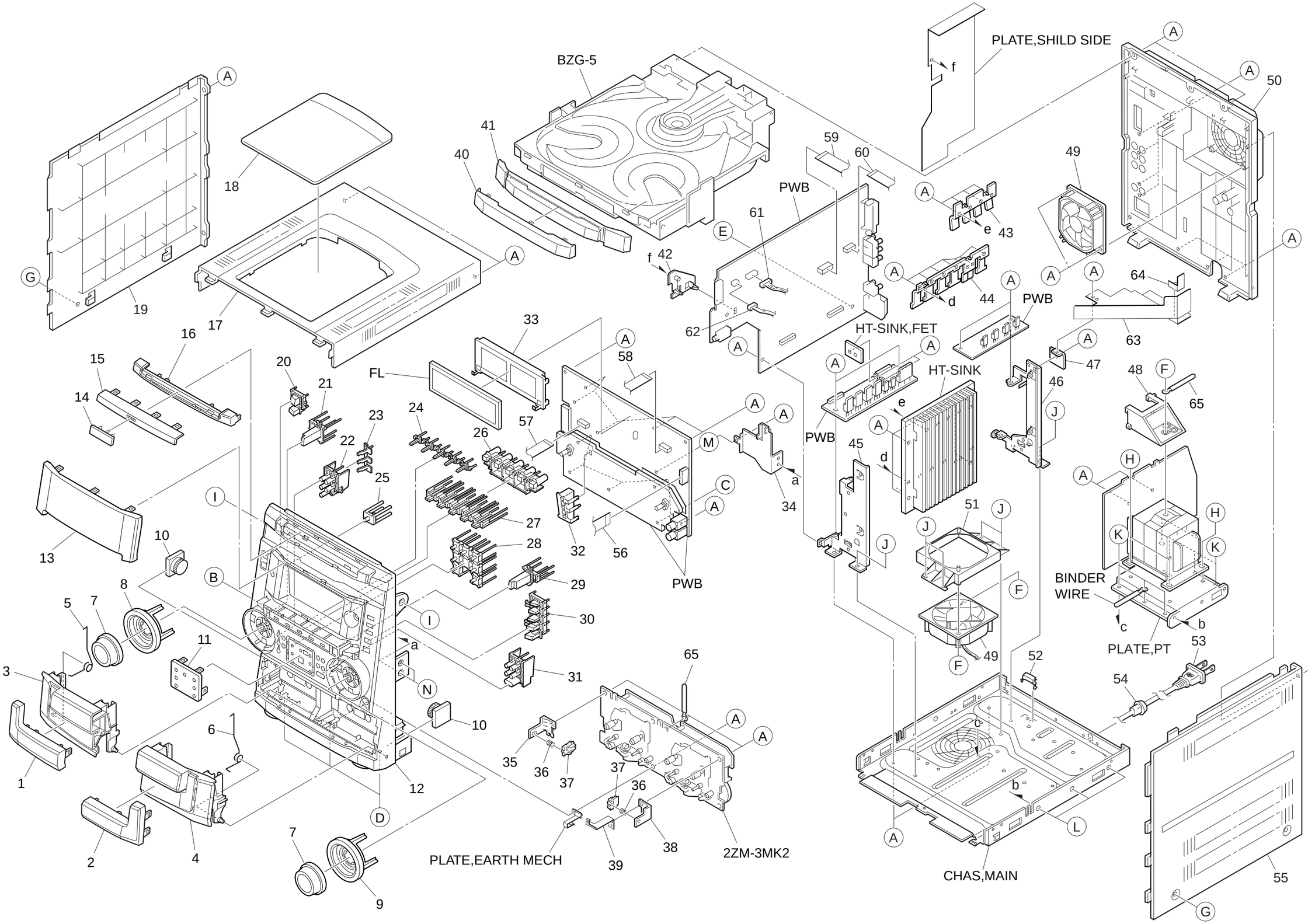
3. Function Descriptions and Application of CD Test Mode

No	Mode	Operation	Display	Function	Checking Item
1	Start Mode		All indicators light.	• All FL indicators light.	• FL check • Microprocessor check
2	Search Mode	STOP button	Reading	• LD illuminates all the time. • Focus-search continuous operations. *1 • Spindle motor continuous kick.	• APC circuit check • Laser current measurement • Focus-search waveform check • Focus-error waveform check (DRF is ignored during search mode)
3	Play Mode	PLAY button	Normal	• Normal playback. • If TOC cannot be read, focus search is continued.	• Each servo circuits is checked • DRF check
4	Traverse Mode	PAUSE button	Normal	• Tracking Servo OFF/ON. • Each time PAUSE button is pressed, the Tracking Servo repeats turning OFF/ON.	• Tracking balance check
5	Sled Mode	FF button	TEST	• Pickup moves to the inner circumference. *2 At the same time, the lens is kicked to the inner circumference.	• Sled circuit check • Tracking circuit check • Mechanism operation check • Pickup check
		RWD button	TEST	• Pickup moves to the outer circumference. *2 At the same time, the lens is kicked to the outer circumference.	
6	Spindle Mode	REC/REC MUTE button	All indicators light.	• The spindle motor rotates forward (rough speed) by pressing the button and rotates backward by pressing one more time and stops by pressing again.	• Spindle circuit check • Spindle motor check

*1 : The driver IC heats up and the protection circuit starts working when the focus search is continued for 10 minutes or longer. There can be a case where operations cannot be performed correctly.
In such a case, turn off the main power. After cooling down the machine, restart the machine.

*2 : Be careful not to damage the gear because the sled motor rotates while the FF or RWD button is pressed even when the pickup is located at the innermost track or the outermost track.

MECHANICAL EXPLODED VIEW 1 / 1



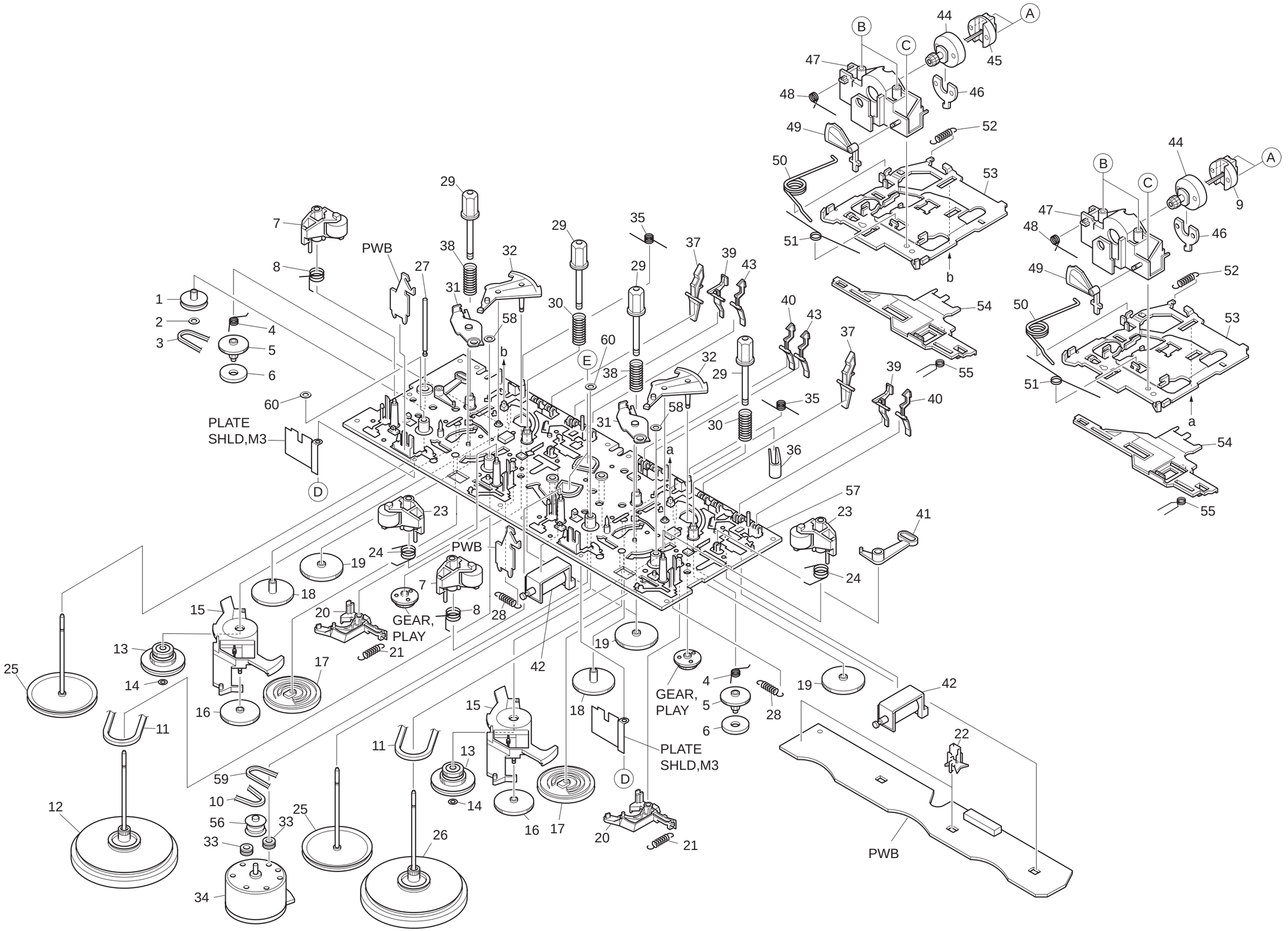
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-NF6-008-010		WINDOW,CASS1
2	8B-NF6-009-010		WINDOW,CASS2
3	8B-NF6-003-010		BOX,CASS1
4	8B-NF6-004-010		BOX,CASS2
5	8A-NF8-281-010		SPR-T,EJECT 1
6	8A-NF8-282-010		SPR-T,EJECT 2
7	8B-NF6-021-010		KNOB,RTRY VOL
8	8B-NF6-027-010		KEY,ASSY ENTER
9	8B-NF6-029-010		KEY,ASSY MIC
10	8Z-NF6-210-010		DMPR,150 N
11	8B-NF6-011-010		PANEL,OPE
12	8B-NF6-041-010		CABI,FR H
13	8B-NF6-061-010		WINDOW,DISPLAY H
14	87-CE3-023-010		BADGE,AIWA 30N SILV
15	8B-NF6-010-010		PANEL,CD
16	8B-NF6-005-010		WINDOW,CD
17	8B-NF7-040-010		PANEL,TOP V-2 ANF8
18	8A-NF8-006-010		WINDOW,TOP
19	8B-NF6-034-010		PANEL,LEFT V-2
20	8B-NF6-012-010		KEY,POWER
21	8B-NF6-025-010		KEY,T-BASS
22	8B-NF6-017-010		KEY,CD
23	8B-NF6-024-010		REFLECTOR,CD
24	8B-NF6-022-010		REFLECTOR,FUN
25	8A-DB8-036-010		REFLECTOR,ECO
26	8B-NF6-211-010		GUIDE,FUN
27	8B-NF6-031-010		KEY,FUN
28	8B-NF6-032-010		KEY,OPE
29	8B-NF6-026-010		KEY,BBE
30	8B-NF6-018-010		KEY,SPICE
31	8B-NF6-019-010		KEY,EDIT
32	8B-NF6-212-010		GUIDE,CD
33	8A-NF6-201-010		GUIDE,FL
34	8B-NF6-217-010		HLDR,PWB FR
35	87-NF4-216-010		HLDR,LOCK 1
36	86-NF9-224-010		SPR-C,LOCK
37	82-NF5-229-010		PLATE,LOCK
38	87-NF4-217-110		HLDR,LOCK 2
39	8B-NF6-213-010		PLATE,EARTH MIC
40	8B-NF6-006-010		WINDOW,TRAY
41	8B-NF6-002-010		PANEL,TRAY
42	8A-NF8-206-010		HLDR,PWB M
43	8B-NF6-206-010		HLDR,TR PNRM
44	8B-NF6-205-010		HLDR,TR AMP
45	8B-NF6-203-010		HLDR,HT-SINK F
46	8B-NF6-204-010		HLDR,HT-SINK R
47	8B-NF6-223-010		HLDR,DUCT
48	8B-NF6-214-010		HLDR,PWB PT
49	87-A91-751-010		FAN,DSB0812M-S382 -400MM
50	8B-NF6-052-010		CABI,REAR LHSM
51	8B-NF7-238-010		HLDR,FAN LOW
52	87-NF4-221-010		HLDR,CABLE
⚠ 53	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI
54	87-085-185-010		BUSHING, AC CORD (E)
55	8B-NF6-033-010		PANEL,RIGHT V-2
56	88-915-181-110		FF-CABLE,15P 1.25
57	88-905-061-110		FF-CABLE,5P 1.25 60MM
58	88-908-301-110		FF-CABLE,8P 1.25
59	88-909-141-110		FF-CABLE,9P 1.25 140MM
60	88-906-251-110		FF-CABLE,6P 1.25(RVS-FACE)
61	87-NF6-616-010		CONN ASSY,8P RPB
62	87-NF6-615-010		CONN ASSY,3P PB
63	8B-NF6-222-010		COVER,DUCT
64	8B-NF6-221-010		PLATE,DUCT L
65	87-064-185-010		HLDR,WIRE
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-723-096-410		QT2+3-10W/O SLOT BL
C	87-721-096-410		QT2+3-10 W/O SLOT
D	87-067-688-010		BVTT+3-6
E	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
F	87-067-579-010		TAPPING SCREW, BVT2+3-8
G	87-067-641-010		UTT2+3-8(W/O SLOT)BL
H	87-067-975-010		S-SCREW,IT+4-8
I	87-721-097-410		QT2+3-12 GLD
J	87-B10-315-010		BVIT3B+3-8 R W/O
K	87-078-200-010		S-SCREW,ITC+4-8 R
L	87-721-095-410		QT2+3-8 W/O SLOT
M	8B-NF6-220-010		W,3.5-8-0.5 W/ADH
N	87-591-095-410		QIT+3-8

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
LA	Aqua Blue	GL	Light Green	HT	Transparent Gray

TAPE MECHANISM EXPLODED VIEW 1 / 1



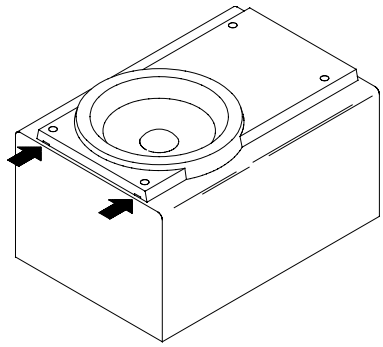
TAPE MECHANISM PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-335-310		PULLEY,COUPLER M3
2	87-B10-043-010		W-P,0.99-4-0.25 SLT
3	86-ZM1-206-010		BELT,MAIN L
4	82-ZM1-322-010		SPR-T,FR 60
5	82-ZM1-220-210		GEAR,IDLER
6	82-ZM3-616-010		RING MAGNET 4
7	82-ZM3-348-010		LEVER ASSY,PINCH YL
8	82-ZM1-258-210		SPR-T,PINCH L
9	87-A91-195-110		HEAD,RPH KC9142 FPC
10	82-ZM3-342-010		BELT,SBU MOT 3
11	82-ZM1-338-110		BELT,FR 4
12	09-001-420-010		FLY-WHL,R ASSY
13	82-ZM3-333-310		SLIP DISK ASSY 2
14	82-ZM3-334-010		PW 2.16-6-0.4
15	82-ZM3-306-110		LVR,FR M2
16	82-ZM1-225-210		GEAR,FR
17	82-ZM3-305-310		GEAR,CAM M2(*)
18	82-ZM1-226-010		GEAR,REW
19	82-ZM1-216-510		GEAR,REEL
20	82-ZM1-227-310		LVR,TRIG
21	82-ZM1-265-310		SPR-E,TRIG
22	82-ZM3-351-010		HLDR,IC 2
23	82-ZM3-343-010		LEVER ASSY,PINCH YR
24	82-ZM1-259-210		SPR-T,PINCH R
25	82-ZM1-234-310		FLY-WHL,L ASSY
26	82-ZM1-237-610		FLY-WHL,R ASSY
27	82-ZM3-339-110		SHAFT,COUPLER N3
28	82-ZM1-255-310		SPR-E,LVR DIR
29	82-ZM1-217-410		REEL TABLE
30	82-ZM1-285-410		SPR-C,BT L
31	82-ZM1-333-210		PLATE,LINK2
32	82-ZM1-222-310		LVR,PLAY(*)
33	82-ZM3-307-010		CUSH-G,DIA3.7-8-3.2
34	87-045-347-010		MOT,SHU2L 70
35	82-ZM1-257-010		SPR-T,CAS
36	82-ZM3-340-010		SH,BELT D2
37	82-ZM1-242-010		LVR,CAS
38	82-ZM1-244-510		SPR-C,BT
39	82-ZM1-243-010		LVR,STOP
40	82-ZM1-240-110		LVR,REC(*)
41	82-ZM1-264-010		LVR,EJECT R
42	82-ZM3-627-010		SOL ASSY,27 SO
43	82-ZM1-241-310		LVR,MC
44	82-ZM1-208-310		HLDR,HEAD
45	87-A91-196-110		HEAD,PH KP9142 FPC
46	82-ZM1-314-110		PLATE,HEAD
47	82-ZM1-207-910		GUIDE,TAPE
48	82-ZM3-353-010		SPR-T,HEAD 2
49	82-ZM1-210-110		GEAR,H T
50	82-ZM1-219-110		SPR-T,LINK
51	82-ZM1-269-210		SPR-T,BRG
52	82-ZM1-218-010		SPR-E,HB
53	82-ZM1-206-910		CHAS,HEAD
54	82-ZM1-266-310		LVR,DIR
55	82-ZM1-214-010		SPR-T,DIR
56	82-ZM3-221-210		PULLEY,MOT 2M
57	82-ZM3-301-610		CHAS ASSY,M2
58	80-ZM6-243-010		SH 1.75-3.6-0.5 SLT
59	82-ZM3-329-410		BELT,SBU R2
60	82-ZM1-288-010		SH,1.63-3.2-0.5 SLT
A	80-ZM6-207-010		V+1.6-7
B	86-ZM4-206-110		S-SCREW,AZIMUTH L
C	85-ZM3-202-010		S-SCREW,TG
D	82-ZM3-222-010		S-SCREW,SHILD PLATE
E	82-ZM3-318-110		S-SCREW W,MOTOR M2

GENERAL SPEAKER DISASSEMBLY INSTRUCTIONS (FOR REFERENCE)

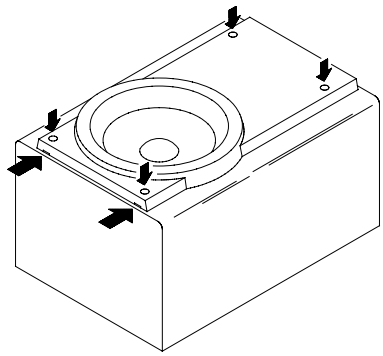
Type.1

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.



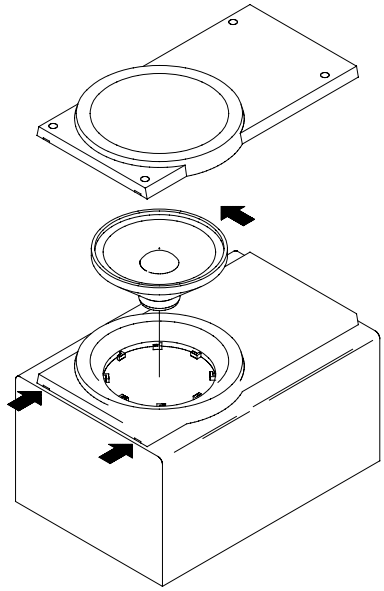
Type.2

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.

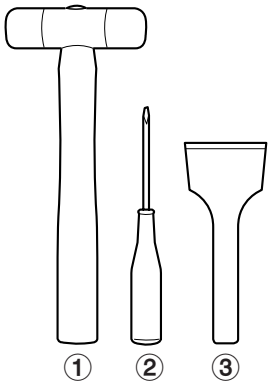


Type.3

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.

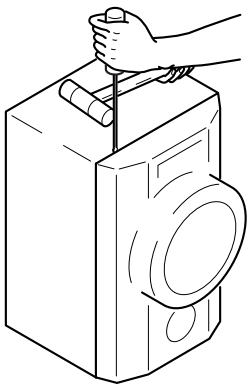


Fig-1

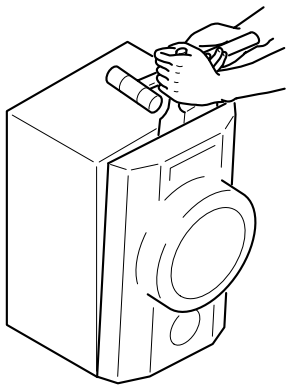


Fig-2

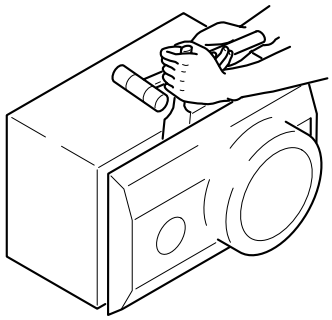


Fig-3

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-WNSZ900) <YLSL>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-NS6-001-010		PANEL,FR A
2	8B-NS7-002-010		PANEL,SP A
3	8B-NS7-003-010		PANEL,SP B
4	8B-NS7-005-010		PANEL,BA A
5	8B-NS7-004-010		PANEL,DUCT
6	8B-NS8-007-010		PROTECTOR,M
7	8B-NS6-604-010		SPKR,W 200 40/4
8	8B-NS7-604-010		SPKR,M 100W
9	88-NSK-610-010		SPKR,CERAMIC ASSY
10	88-NS5-610-010		CORD,SPKR

SPEAKER PARTS LIST (SX-S85) <YLSL>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-NS7-009-010		PANEL,FR
2	8B-NS7-011-010		GRILLE,FRAME ASSY
3	8B-NS7-606-010		SPKR,80
4	8B-NS7-610-010		CORD,5.0

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8B-NF6-902-010		IB,LH (ESP) M
2	8B-NF6-701-010		RC UNIT,RC-BAS04
3	87-006-268-010		ANT,LOOP AM
4	87-043-115-010		FEEDER-ANT,FM
⚠ 5	87-A91-017-010		PLUG CONVERSION,JT-0476

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