

SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECEIVER

BASIC TAPE MECHANISM : ZZM-3 PR1NM
BASIC CD MECHANISM : 6ZG-1 VZRDM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
Z-HK550	CX-ZHK550	SX-WZHK550	RC-ZAS07

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" Z-HK550 (HR), (S/M Code No. 09-005-428-5T1).
- If requiring information about the CD mechanism, see Service Manual of 6ZG-1, (S/M Code No. 09-001-338-7N4).

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	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 μ V/m
Antenna	Loop antenna

<Amplifier section>

Mid-high frequency 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

0.15 % (15 W, 1 kHz, 8 ohms)

Low frequency amplifier

Power output	Rated: 60 W + 60 W (6 ohms, T.H.D. 1 %, 75 Hz) Reference : 75 W + 75 W (6 ohms, T.H.D. 10 %, 75 Hz)
---------------------	--

Total harmonic distortion

0.15 % (45 W, 75 Hz, 6 ohms)

Inputs

VIDEO/AUX/PHONO IN: 300 mV
MIC1, MIC2: 1.4 mV (20 kohms)

Outputs

VIDEO OUT: 1.0 V_{P-P} (75 ohms)
CD DIGITAL OUT (OPTICAL)
SPEAKERS HIGH FREQ:
accept speakers of 8 ohms or more
SPEAKERS LOW FREQ:
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 – 12500 Hz
Recording system	AC bias
Heads	Deck 1 : Playback head x 1 Deck 2 : Recording/Playback head x 1, erase head x 1

<Compact disc player section>

Laser	Semiconductor laser (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)
Wow and flutter	Unmeasurable
Video Signal	NTSC / PAL color format (selectable)
Video Data	MPEG1
Audio Data	MPEG1, LAYER 2

<Speaker system SX-WZHK550>

Cabinet type	3 way, built-in subwoofer
Speakers	Subwoofer: 220 mm (8 ³ / ₄ in.) cone type Full range: 120 mm (4 ³ / ₄ in.) cone type Super tweeter: 20 mm (1 ³ / ₁₆ in.) ceramic type
Impedance	6 ohms/8 ohms
Output sound pressure level	89 dB/W/m
Dimensions (W x H x D)	260 x 444 x 296 mm (10 ¹ / ₄ x 17 ¹ / ₂ x 11 ³ / ₄ in.)
Weight	7.3 kg (16 lbs. 2 oz.)

<General>

Power requirements	120 V/220 - 230 V/240 V AC switchable 50/60 Hz
Power consumption	155 W
Dimensions of main unit (W x H x D)	360 x 395.3 x 402.3 mm (14 ¹ / ₄ x 15 ⁵ / ₈ x 15 ⁷ / ₈ in.)
Weight of main unit	12.5 kg (27 lbs. 9 oz)

• Design and specifications are subject to change without notice.

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

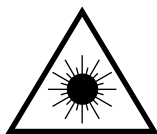
Under license from BBE Sound, Inc.

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!

Laitteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

WARNING!

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

CAUTION

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

ATTENTION

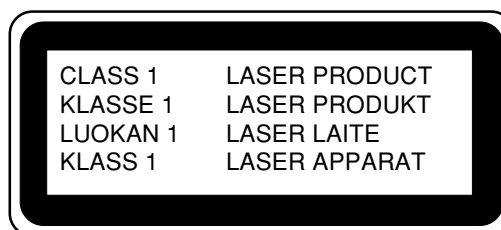
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

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

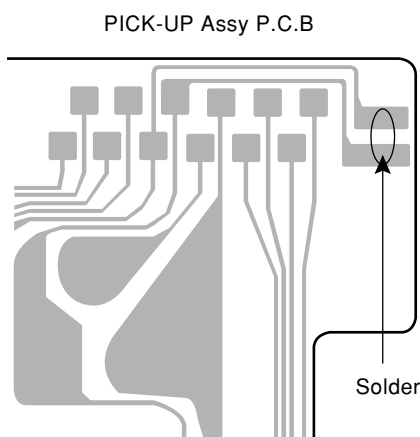


Precaution to replace Optical block

(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.

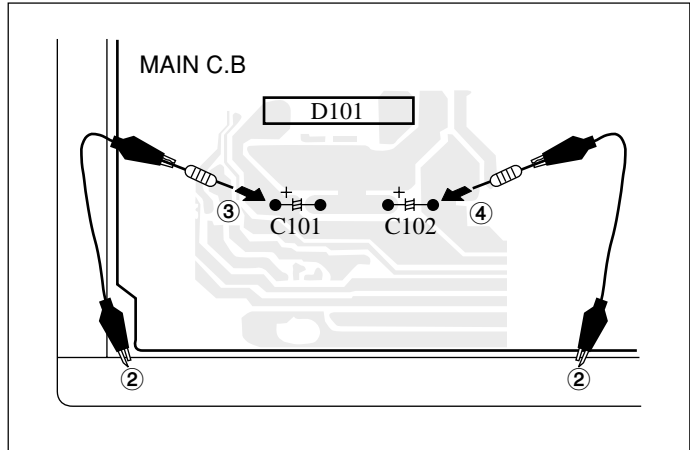


Fig-1

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.

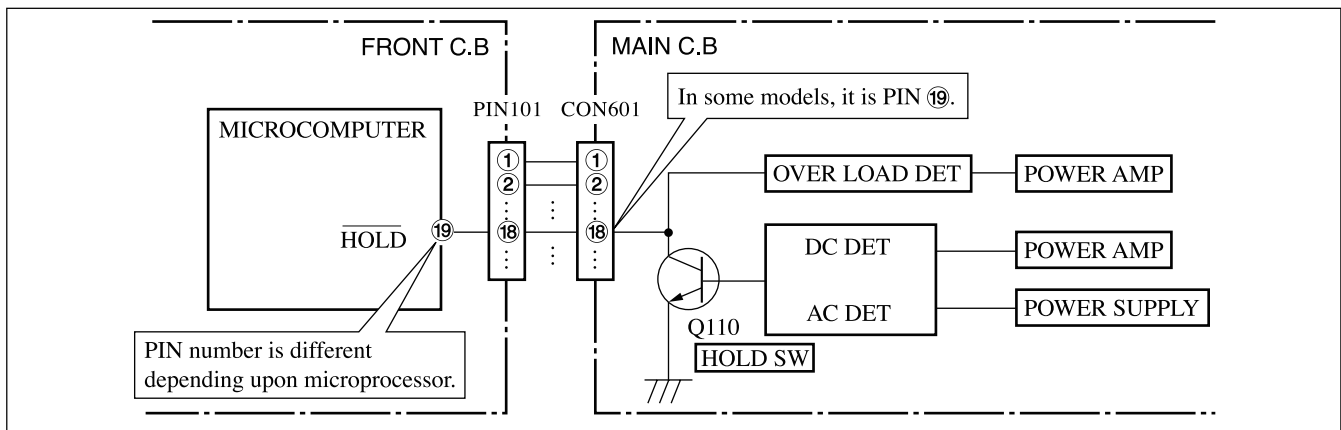


Fig-2-1

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.

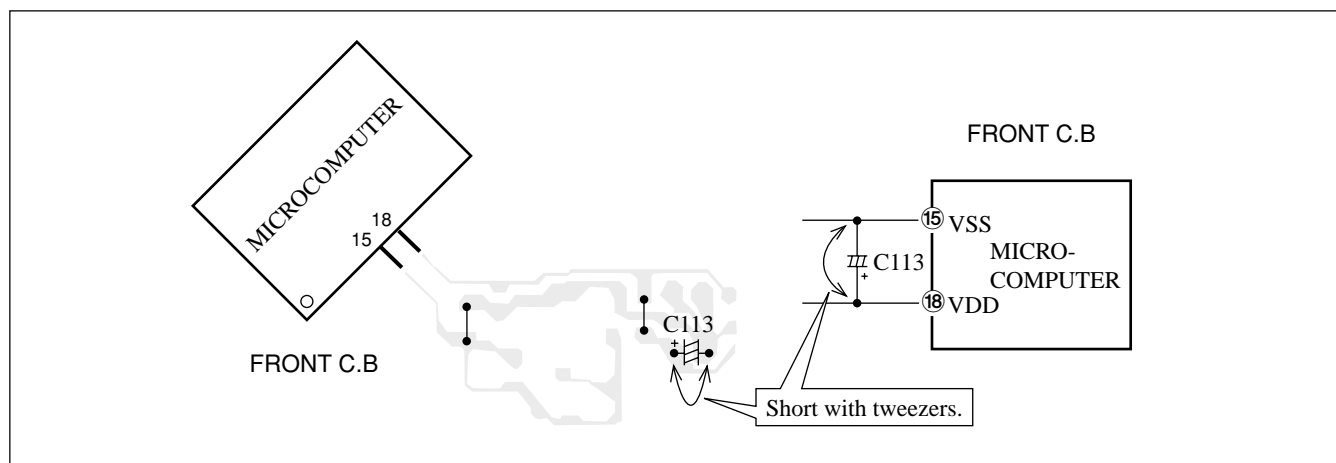


Fig-2-2

- 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	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C31	87-010-263-080		CAP, ELECT 100-10V
	8A-MG5-656-010	C-IC,LC876580W-5R45		C32	87-010-197-080		CAP, CHIP 0.01-25
	87-A21-417-010	IC,STK490-340		C34	87-010-247-080		CAP, ELECT 100-50V
	87-A21-396-010	IC,STK490-040		C35	87-010-406-080		CAP, ELECT 22-50V
	87-A21-021-040	C-IC,BU2099FV		C36	87-010-381-080		CAP, ELECT 330-16V
	87-A20-783-040	C-IC,BA7762AFS		C38	87-010-394-080		CAP, ELECT 220-35V
	87-A21-577-040	C-IC,M61506FP		C39	87-010-394-080		CAP, ELECT 220-35V
	87-A21-482-010	IC,RPM6938-H4		C40	87-010-197-080		CAP, CHIP 0.01-25
	87-A21-018-040	C-IC,M65849BFP631D		C60	87-010-403-080		CAP, ELECT 3.3-50V
	87-A21-452-030	C-IC,BD3876KS2		C61	87-010-260-080		CAP, ELECT 47-25V
	87-A21-560-010	IC,LA1844L-A		C104	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-070-127-110	IC,LC72131 D		C105	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-561-040	C-IC,M65847AFP		C111	87-010-401-080		CAP, ELECT 1-50 M
	87-A21-269-010	IC,EW732		C112	87-010-401-080		CAP, ELECT 1-50 M
				C113	87-010-545-080		CAP, ELECT 0.22-50V
TRANSISTOR				C114	87-010-545-080		CAP, ELECT 0.22-50V
	87-026-609-080	TR,KTA1266GR		C115	87-010-546-080		CAP, ELECT 0.33-50V
	87-026-610-080	TR,KTC3198GR		C116	87-010-546-080		CAP, ELECT 0.33-50V
	87-A30-076-080	C-TR,2SC3052F		C117	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A30-075-080	C-TR,2SA1235F		C121	87-010-404-080		CAP, ELECT 4.7-50V
	87-A30-318-080	TR,CSA952K		C122	87-010-404-080		CAP, ELECT 4.7-50V
	89-213-702-010	TR,2SB1370E		C160	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A30-257-080	C-TR,2SD1306E		C171	87-012-368-080		C-CAP,S 0.1-50 F
	87-A30-107-070	C-TR,CMBT5401		C172	87-012-368-080		C-CAP,S 0.1-50 F
	87-026-245-080	TR,DTC114ES		C173	87-012-368-080		C-CAP,S 0.1-50 F
	87-A30-198-080	TR,KTC3199GR		C174	87-012-368-080		C-CAP,S 0.1-50 F
	87-A30-484-080	C-TR,KRA 102S		C301	87-010-318-080		C-CAP,S 47P-50 CH
	87-A30-269-040	C-FET,2SJ461-T1		C302	87-010-318-080		C-CAP,S 47P-50 CH
	87-A30-087-080	C-FET,2SK2158		C303	87-012-157-080		C-CAP,S 330P-50 CH
	87-A30-468-080	C-TR,KRC 102S-RTK		C304	87-012-157-080		C-CAP,S 330P-50 CH
	87-A30-107-080	C-TR,CMBT5401		C305	87-012-157-080		C-CAP,S 330P-50 CH
	87-A30-329-080	TR,CD1585BC		C306	87-012-157-080		C-CAP,S 330P-50 CH
	87-A30-063-080	C-TR,KRA 104S		C307	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A30-074-080	C-TR,RT1P 141C		C309	87-010-196-080		CHIP CAPACITOR,0.1-25
	89-327-143-080	TR,2SC27140(0.1W)		C310	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A30-489-080	C-TR,KRA107S		C311	87-010-198-080		CAP, CHIP 0.022-25
	87-A30-234-080	TR,CSC4115BC		C312	87-010-198-080		CAP, CHIP 0.022-25
				C313	87-010-179-080		CHIP CAP 1200P-50
				C314	87-010-179-080		CHIP CAP 1200P-50
				C315	87-010-178-080		CHIP CAP 1000P-50
DIODE				C316	87-010-178-080		CHIP CAP 1000P-50
	87-020-465-080	DIODE,1SS133 (110MA)		C321	87-012-142-080		CAP, S 0.33-16
	87-A40-673-090	DIODE,D10XB20		C322	87-012-142-080		CAP, S 0.33-16
	87-A40-553-080	DIODE,1N4003 LES		C324	87-010-260-080		CAP, ELECT 47-25V
	87-A40-780-080	ZENER,UZ33BSD		C325	87-010-370-080		CAP,E 330-6.3 SME
	87-A40-764-080	ZENER,UZ10BSC		C327	87-010-404-080		CAP, ELECT 4.7-50V
	87-A40-313-080	C-DIODE,MC 2840		C328	87-010-404-080		CAP, ELECT 4.7-50V
	87-A40-270-080	C-DIODE,MC2838		C332	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A40-269-080	C-DIODE,MC2836		C335	87-010-401-080		CAP, ELECT 1-50V
	87-A40-768-080	ZENER,UZ 16BSA		C336	87-010-401-080		CAP, ELECT 1-50V
	87-017-447-010	DIODE,GBU4DL		C337	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-017-154-080	ZENER,HZS6C3L		C339	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-020-331-080	CHIP-DIODE,DAN202K		C340	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-017-654-060	DIODE,GBU6J		C351	87-012-140-080		CAP 470P-50
	87-A40-751-080	ZENER,UZ6.2BSB		C352	87-012-140-080		CAP 470P-50
	87-A40-747-080	ZENER,UZ5.1BSB		C354	87-010-175-080		CAP 560P-50
	87-A40-438-080	ZENER,MTZJ4.7A		C355	87-010-178-080		C-CAP,S 1000P-50 KB
	87-017-149-080	ZENER,HZS6A2L		C356	87-010-260-080		CAP, ELECT 47-25V
				C357	87-010-197-080		CAP, CHIP 0.01-25 KB
				C358	87-010-183-080		C-CAP,S 2700P-50 B
MAIN C.B				C359	87-010-183-080		C-CAP,S 2700P-50 B
C3	87-A10-712-080	C-CAP,S 0.22-50 F		C360	87-010-183-080		C-CAP,S 2700P-50 B
C4	87-A10-712-080	C-CAP,S 0.22-50 F		C370	87-010-196-080		CHIP CAPACITOR,0.1-25
C21	87-016-035-090	CAP, E 6800-35 VR		C373	87-A11-177-080		C-CAP,S 0.15-16 K B
C22	87-016-035-090	CAP, E 6800-35 VR		C374	87-A11-177-080		C-CAP,S 0.15-16 K B
C25	87-016-300-080	CAP, ELECT 22-100		C378	87-010-196-080		CHIP CAPACITOR,0.1-25 ZF
C26	87-016-300-080	CAP, ELECT 22-100		C379	87-010-406-080		CAP, ELECT 22-50
C27	87-016-300-080	CAP, ELECT 22-100		C380	87-010-406-080		CAP, ELECT 22-50
C28	87-016-300-080	CAP, ELECT 22-100		C386	87-010-196-080		CHIP CAPACITOR,0.1-25 ZF
				C388	87-012-156-080		C-CAP,S 220P-50 J CH

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C391	87-010-319-080		C-CAP,S 56P-50 J CH	C785	87-010-197-080		CAP, CHIP 0.01-25KB
C392	87-010-319-080		C-CAP,S 56P-50 J CH	C786	87-010-197-080		CAP, CHIP 0.01-25KB
C393	87-010-319-080		C-CAP,S 56P-50 J CH	C788	87-010-149-080		C-CAP,S 5P-50 CH
C394	87-010-319-080		C-CAP,S 56P-50 J CH	C789	87-A12-052-080		C-CAP,S 0.033-25 J B
C501	87-010-263-080		CAP, ELECT 100-10V	C790	87-A12-052-080		C-CAP,S 0.033-25 J B
C502	87-010-196-080		CHIP CAPACITOR,0.1-25	C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C503	87-016-460-080		C-CAP,S 0.22-16 K B	C792	87-010-197-080		CAP, CHIP 0.01-25KB
C504	87-016-460-080		C-CAP,S 0.22-16 K B	C793	87-010-404-080		CAP, ELECT 4.7-50V
C505	87-016-460-080		C-CAP,S 0.22-16 K B	C795	87-010-197-080		CAP, CHIP 0.01-25KB
C506	87-010-184-080		CHIP CAPACITOR 3300P-50	C796	87-010-197-080		CAP, CHIP 0.01-25KB
C507	87-010-177-080		C-CAP,S 820P-50 SL	C797	87-010-405-080		CAP, ELECT 10-50V
C508	87-016-669-080		C-CAP,S 0.1-25 K B	C798	87-010-197-080		CAP, CHIP 0.01-25KB
C509	87-016-669-080		C-CAP,S 0.1-25 K B	C799	87-010-407-080		CAP, ELECT 33-50V
C510	87-010-184-080		CHIP CAPACITOR 3300P-50	C800	87-010-194-080		CAP, CHIP 0.047-25ZF
C511	87-010-177-080		C-CAP,S 820P-50 SL	C801	87-010-403-080		CAP, ELECT 3.3-50V
C512	87-016-460-080		C-CAP,S 0.22-16 K B	C802	87-010-194-080		CAP, CHIP 0.047-25 ZF
C513	87-010-544-080		CAP, ELECT 0.1-50V	C803	87-010-198-080		CAP, CHIP 0.022-25KB
C514	87-010-374-080		CAP, ELECT 47-10V	C804	87-010-263-080		CAP, ELECT 100-10V
C515	87-010-401-080		CAP, ELECT 1-50 M	C807	87-010-400-080		CAP, ELECT 0.47-50V
C516	87-010-401-080		CAP, ELECT 1-50 M	C808	87-010-401-080		CAP, ELECT 1-50V
C517	87-010-183-080		C-CAP,S 2700P-50 B	C809	87-010-401-080		CAP, ELECT 1-50V
C518	87-010-183-080		C-CAP,S 2700P-50 B	C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C531	87-010-405-080		CAP, ELECT 10-50 M	C811	87-010-403-080		CAP, ELECT 3.3-50V
C532	87-010-196-080		CHIP CAPACITOR,0.1-25	C812	87-010-403-080		CAP, ELECT 3.3-50V
C533	87-010-196-080		CHIP CAPACITOR,0.1-25	C814	87-010-197-080		CAP, CHIP 0.01-25
C534	87-012-156-080		C-CAP,S 220P-50 CH	C815	87-010-403-080		CAP, ELECT 3.3-50V
C535	87-010-178-080		CHIP CAP 1000P-50	C816	87-010-403-080		CAP, ELECT 3.3-50V
C536	87-010-196-080		CHIP CAPACITOR,0.1-25	C819	87-010-179-080		CAP,CHIP S 1200P-50
C537	87-010-318-080		C-CAP,S 47P-50 CH	C820	87-010-179-080		CAP,CHIP S 1200P-50
C538	87-010-318-080		C-CAP,S 47P-50 CH	C821	87-010-405-080		CAP, ELECT 10-50V
C539	87-010-318-080		C-CAP,S 47P-50 CH	C823	87-010-177-080		CAP, CHIP 820P-50 J SL
C541	87-010-178-080		CHIP CAP 1000P-50	C824	87-010-404-080		CAP, ELECT 4.7-50
C611	87-010-956-080		CHIP-CAP,S 0.068-25B	C825	87-010-596-080		CAP, S 0.047-16
C612	87-010-369-080		C-CAP,S 0.033-25 K B	C842	87-010-197-080		CAP, CHIP 0.01-25 KB
C613	87-010-190-080		S CHIP F 0.01-50	C844	87-010-197-080		CAP, CHIP 0.01-25 KB
C614	87-016-669-080		C-CAP,S 0.1-25 K B	C850	87-010-260-080		CAP, ELECT 47-25V
C616	87-010-185-080		C-CAP,S 3900P-50 K B	C851	87-010-197-080		CAP, CHIP 0.01-25 KB
C617	87-010-194-080		CAP, CHIP 0.047-25ZF	C852	87-010-197-080		CAP, CHIP 0.01-25 KB
C618	87-010-401-080		CAP, ELECT 1-50V	C853	87-010-197-080		CAP, CHIP 0.01-25 KB
C619	87-010-263-080		CAP, ELECT 100-10V	C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C620	87-016-669-080		C-CAP,S 0.1-25 K B	C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C621	87-010-197-080		CAP, CHIP 0.01-25 KB	C860	87-010-197-080		CAP, CHIP 0.01-25
C623	87-010-401-080		CAP, ELECT 1-50V	C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C624	87-010-401-080		CAP, ELECT 1-50V	C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C626	87-A11-590-080		CAP, CHIP 0.047-16 KB	C961	87-010-152-080		C-CAP,S 8P-50 CH
C627	87-010-400-080		CAP, ELECT 0.47-50V	C963	87-015-785-080		CHIP CAPACITOR, 0.1-25ZF
C628	87-010-400-080		CAP, ELECT 0.47-50V	C971	87-010-381-080		CAP, ELECT 330-16V
C629	87-A11-590-080		CAP, CHIP 0.047-16 KB	C972	87-010-404-080		CAP, ELECT 4.7-50V
C630	87-010-383-080		CAP, ELECT 33-25V	C973	87-010-197-080		CAP, CHIP 0.01-25KB
C631	87-010-185-080		C-CAP,S 3900P-50 K B	C974	87-010-197-080		CAP, CHIP 0.01-25KB
C632	87-010-185-080		C-CAP,S 3900P-50 K B	C979	87-010-322-080		C-CAP,S 100P-50 CH
C634	87-010-196-080		CHIP CAPACITOR,0.1-25	C981	87-010-260-080		CAP, ELECT 47-25V
C635	87-A10-307-080		CAP-M,S 0.1-50	C982	87-010-196-080		CHIP CAPACITOR,0.1-25
C636	87-A10-307-080		CAP-M,S 0.1-50	C983	87-010-197-080		CAP, CHIP 0.01-25KB
C637	87-A10-307-080		CAP-M,S 0.1-50	C984	87-010-197-080		CAP, CHIP 0.01-25KB
C638	87-A10-307-080		CAP-M,S 0.1-50	C987	87-010-197-080		CAP, CHIP 0.01-25KB
C639	87-010-405-080		CAP, ELECT 10-50V	C991	87-010-312-080		C-CAP,S 15P-50 CH
C643	87-010-196-080		CHIP CAPACITOR,0.1-25	C992	87-010-312-080		C-CAP,S 15P-50 CH
C644	87-010-401-080		CAP, ELECT 1-50V	C993	87-010-178-080		CHIP CAP 1000P-50
C671	87-010-322-080		C-CAP,S 100P-50 CH	C995	87-010-178-080		CHIP CAP 1000P-50
C672	87-010-322-080		C-CAP,S 100P-50 CH	C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C673	87-010-190-080		C-CAP,S 0.01-50 ZF	C998	87-010-260-080		CAP, ELECT 47-25V
C679	87-010-196-080		CHIP CAPACITOR,0.1-25 ZF	C999	87-A11-155-080		CAP,TC U 0.01-16 Z F
C680	87-010-190-080		C-CAP,S 0.01-50 ZF	CF831	87-008-261-010		FILTER, CFSFE10.7MA5
C685	87-010-197-080		CAP, CHIP 0.01-25 KB	CF832	87-008-261-010		FILTER, CFSFE10.7MA5
C771	87-010-263-080		CAP, ELECT 100-10V	CN1	87-A60-996-010		CONN,13P V BLK TAC-L13X-A3
C772	87-010-197-080		CAP, CHIP 0.01-25KB	CN101	87-A60-996-010		CONN,13P V BLK TAC-L13X-A3
C782	87-010-197-080		CAP, CHIP 0.01-25KB	CN301	87-A60-620-010		CONN,3P V 2MM JMT
C783	87-010-197-080		CAP, CHIP 0.01-25KB	CN351	87-A60-625-010		CONN,8P V 2MM JMT
C784	87-010-197-080		CAP, CHIP 0.01-25KB	CN601	87-099-719-010		CONN,30P TYK-B(X)

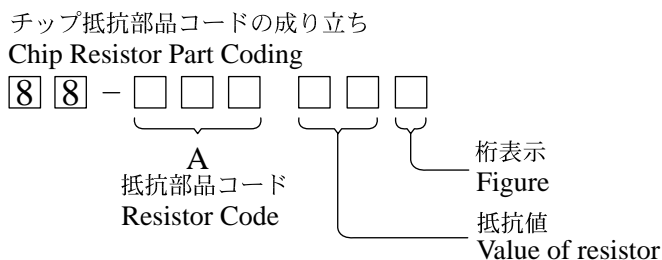
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
CN602	87-A60-131-010		CONN,6P V FE	C305	87-010-196-080		CHIP CAPACITOR,0.1-25
CNA1	8A-NF8-653-010		CONN ASSY,9P TID-A(480)	C306	87-010-196-080		CHIP CAPACITOR,0.1-25
CNA2	8A-NF6-640-010		CONN ASSY,3P (VM) ANF-6	C310	87-010-196-080		CHIP CAPACITOR,0.1-25
CN606	87-099-566-010		CONN,7P TUC-P7P-B1	C311	87-010-405-040		CAP,E 10-50
FB501	87-008-372-080		FILTER, EMI BL OIRNI	C411	87-012-157-080		C-CAP,S 330P-50 CH
FC602	88-906-321-110		FF-CABLE,6P 1.25 320MM	C412	87-010-405-040		CAP,E 10-50
FFE831	A8-8ZA-190-030		8ZA-1 FEUNM	C421	87-010-197-080		CAP, CHIP 0.01-25
J101	87-A60-483-010		JACK,DIA6.3 BLK ST W/S KM	C422	87-010-182-080		C-CAP,S 2200P-50 B
J102	87-A60-238-010		TERMINAL,SP 4P	C940	87-012-145-080		CAP, CHIP S 270P-50
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN	C941	87-012-145-080		CAP, CHIP S 270P-50
J831	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02	C942	87-012-145-080		CAP, CHIP S 270P-50
L101	87-A50-610-010		COIL,1UH K (MDEC)	C943	87-012-145-080		CAP, CHIP S 270P-50
L102	87-A50-610-010		COIL,1UH K (MDEC)	C944	87-012-145-080		CAP, CHIP S 270P-50
L301	87-A50-049-010		COIL,TRAP 85K(COI)	C945	87-012-145-080		CAP, CHIP S 270P-50
L302	87-A50-049-010		COIL,TRAP 85K(COI)	C946	87-012-145-080		CAP, CHIP S 270P-50
L351	87-007-342-010		COIL,OSC 85K BIAS	C947	87-012-145-080		CAP, CHIP S 270P-50
L801	87-A50-608-010		COIL,FM DET-N(TOK)	C948	87-012-145-080		CAP, CHIP S 270P-50
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)	C949	87-012-145-080		CAP, CHIP S 270P-50
L811	87-005-847-080		COIL,2.2UH(CECS)	C950	87-012-145-080		CAP, CHIP S 270P-50
L832	87-005-847-080		COIL,2.2UH(CECS)	C951	87-012-145-080		CAP, CHIP S 270P-50
L951	8A-NF8-667-010		COIL,AM PACK 4(TOK)	C952	87-012-145-080		CAP, CHIP S 270P-50
R117	87-010-805-080		C-CAP,S 1-16 ZF	CN101	87-099-720-010		CONN,30P TYK-B(P)
R118	87-010-805-080		C-CAP,S 1-16 ZF	CN102	87-A60-162-010		CONN,14P H FE
R161	87-A00-441-050		RES,270-1/2W J RP	CN103	87-A60-164-010		CONN,16P H FE
R162	87-A00-441-050		RES,270-1/2W J RP	CN104	87-A60-159-010		CONN,11P H FE
R163	87-A00-441-050		RES,270-1/2W J RP	CNA302	8A-MA5-652-010		CONN ASSY,2P V 230MM
R164	87-A00-441-050		RES,270-1/2W J RP	FB001	87-A90-896-080		F-BEAD,035600STY7
R790	87-010-197-080		C-CAP,S 0.01-25 KB	FC102	88-914-231-110		FF-CABLE,14P 1.25
R991	87-010-322-080		C-CAP,S 100P-50 J CH	FC104	88-911-151-110		FF-CABLE,11P 1.25
R993	87-010-322-080		C-CAP,S 100P-50 J CH	FL101	8A-MA5-651-010		FL,BJ746GNK
R995	87-010-322-080		C-CAP,S 100P-50 J CH	L101	87-A50-333-010		COIL,OSC 9.43MHZ
SFR351	87-A90-433-080		SFR,50K H NVZ6TLTA	LED131	87-A40-317-080		LED,SLR-342VCT31 RED
SFR352	87-A90-433-080		SFR,50K H NVZ6TLTA	LED201	87-A40-496-040		LED,SLR-342PCT31 GRN
WH1	87-A90-510-010		HDR,WIRE 2.5-9P	LED202	87-A40-317-080		LED,SLR-342VCT31 RED
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309	LED204	87-A40-496-040		LED,SLR-342PCT31 GRN
				LED205	87-A40-317-080		LED,SLR-342VCT31 RED
				LED208	87-A40-496-040		LED,SLR-342PCT31 GRN
				LED210	87-A40-317-080		LED,SLR-342VCT31 RED
				LED211	87-A40-496-040		LED,SLR-342PCT31 GRN
				LED212	87-A40-317-080		LED,SLR-342VCT31 RED
				S401	87-A90-095-080		SW,TACT EVQ11G04M
				S402	87-A90-095-080		SW,TACT EVQ11G04M
				S403	87-A90-095-080		SW,TACT EVQ11G04M
				S404	87-A90-095-080		SW,TACT EVQ11G04M
				S405	87-A90-095-080		SW,TACT EVQ11G04M
				S421	87-A91-625-010		SW,RTRY EC12E24308-30MM
MICON C.B							
C101	87-010-498-040		CAP,E 10-16 M 5L SRE				
C102	87-010-194-080		CAP, CHIP 0.047-25 Z F				
C103	87-010-194-080		CAP, CHIP 0.047-25 Z F				
C105	87-A11-242-040		CAP,E 220-10 M 5L SRM				
C106	87-A11-242-040		CAP,E 220-10 M 5L SRM				
C107	87-010-196-080		CHIP CAPACITOR,0.1-25				
C111	87-016-460-080		C-CAP,S 0.22-16 K B				
C112	87-010-493-040		CAP,E 0.47-50 GAS				
C113	87-010-178-080		CHIP CAP 1000P-50				
C114	87-018-209-080		CAP TC U 0.1-50 ZF UP 050				
C116	87-010-196-080		C-CAP,S 0.1-25 ZF C2012				
C117	87-010-174-080		C-CAP,S 470P-50	CNTL C.B			
C122	87-012-369-080		C-CAP,S 0.047-50F	C602	87-010-069-040		CAP,E 0.33-50
C123	87-010-408-040		CAP,E 47-50 SME	C603	87-010-319-080		C-CAP,S 56P-50
C124	87-010-421-040		CAP,E 4.7-50 5L	C604	87-010-178-080		C-CAP,S 1000P-50
				C606	87-015-785-080		C-CAP,S 0.1-25
				C607	87-010-060-040		CAP,E 100-16
C125	87-010-421-040		CAP,E 4.7-50 5L				
C132	87-012-156-080		C-CAP,S 220P-50 CH				
C133	87-010-316-080		C-CAP,S 33P-50 CH	C611	87-010-186-080		C-CAP,S 4700P-50
C135	87-018-209-080		CAP, TCU 0.1-50	C612	87-015-699-040		CAP,E 10-50
C137	87-010-313-080		CAP, CHIP 18P-50	C651	87-010-182-080		C-CAP,S 2200P-50 B
				C652	87-010-197-080		CAP, CHIP 0.01-25
				C661	87-010-196-080		C-CAP,S 0.1-25 ZF
C138	87-010-196-080		CHIP CAPACITOR,0.1-25				
C171	87-010-213-080		C-CAP,S 0.015-25				
C172	87-010-183-080		C-CAP,S 2700P-50	C663	87-012-156-080		C-CAP,S 220P-50 CH
C188	87-010-194-080		CAP, CHIP 0.047-25	C846	87-010-196-080		C-CAP,S 0.1-25 ZF
C193	87-010-197-080		CAP, CHIP 0.01-25	CN661	87-A60-164-010		CONN,16P H FE
				CNA602	8A-MA3-655-010		CONN ASSY,2P V 60MM
				FC661	88-916-151-110		FF-CABLE,16P 1.25
C251	87-010-196-080		CHIP CAPACITOR,0.1-25				
C252	87-012-156-080		C-CAP,S 220P-50 CH				
C253	87-010-322-080		C-CAP,S 100P-50 CH	LED675	87-A40-317-080		LED,SLR-342VCT31 RED
C301	87-012-358-080		C-CAP,S 0.47-10 F Z	LED676	87-A40-317-080		LED,SLR-342VCT31 RED
C302	87-012-158-080		C-CAP,S 390P-50 CH	LED677	87-A40-317-080		LED,SLR-342VCT31 RED
				LED678	87-A40-317-080		LED,SLR-342VCT31 RED
C303	87-012-358-080		C-CAP,S 0.47-10 F Z	LED679	87-A40-317-080		LED,SLR-342VCT31 RED
C304	87-012-358-080		C-CAP,S 0.47-10 F Z				

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C105	87-A11-148-080		CAP,TC U 0.1-50 Z F
C106	87-A11-148-080		CAP,TC U 0.1-50 Z F
C107	87-A11-148-080		CAP,TC U 0.1-50 Z F
C108	87-A11-148-080		CAP,TC U 0.1-50 Z F
C109	87-A11-148-080		CAP,TC U 0.1-50 Z F
C110	87-A11-148-080		CAP,TC U 0.1-50 Z F
C111	87-A10-520-000		CAP,E 3300-35 M SMG
C112	87-A10-520-000		CAP,E 3300-35 M SMG
C113	87-016-520-090		CAP,E 3300-65 M SMG
C114	87-016-520-090		CAP,E 3300-65 M SMG
C116	87-010-403-040		CAP,E 3.3-50 SME
CN1	87-A61-110-010		CONN,9P V TID-A
CN2	87-A61-108-010		CONN,5P V TID-A
F101	87-035-458-010		FUSE,4A 250V T W/C
F102	87-035-458-010		FUSE,4A 250V T W/C
FC101	87-033-213-080		CLAMP, FUSE
FC102	87-033-213-080		CLAMP, FUSE
FC103	87-033-213-080		CLAMP, FUSE
FC104	87-033-213-080		CLAMP, FUSE
PR103	87-026-682-080		PROTECTOR,10A 60V491
PR106	87-026-682-080		PROTECTOR 10A 49/SERIES 60V
PT1	8A-MG5-664-010		PT,AMG-5 HR
PT2	8A-NF8-673-010		PT,SUB ANF-8 (H)KAMI
RY101	87-A91-300-010		RELAY,AC 12V-ALA2PF12
S101	87-A90-165-010		SW,SL 1-2-3 SWS2301
T101	87-A60-317-010		TERMINAL, 1P MSC
T102	87-A60-317-010		TERMINAL, 1P MSC

DECK C.B

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

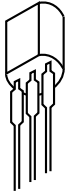
チップ抵抗部品コード/CHIP RESISTOR PART CODE



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



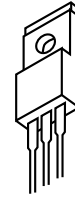
E C B

CD1585
CSA952
CSC4115
KTA1266
KTC3198
KTC3199



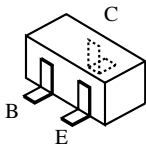
E C B

DTC114ES

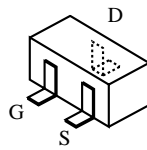


B C E

2SB1370

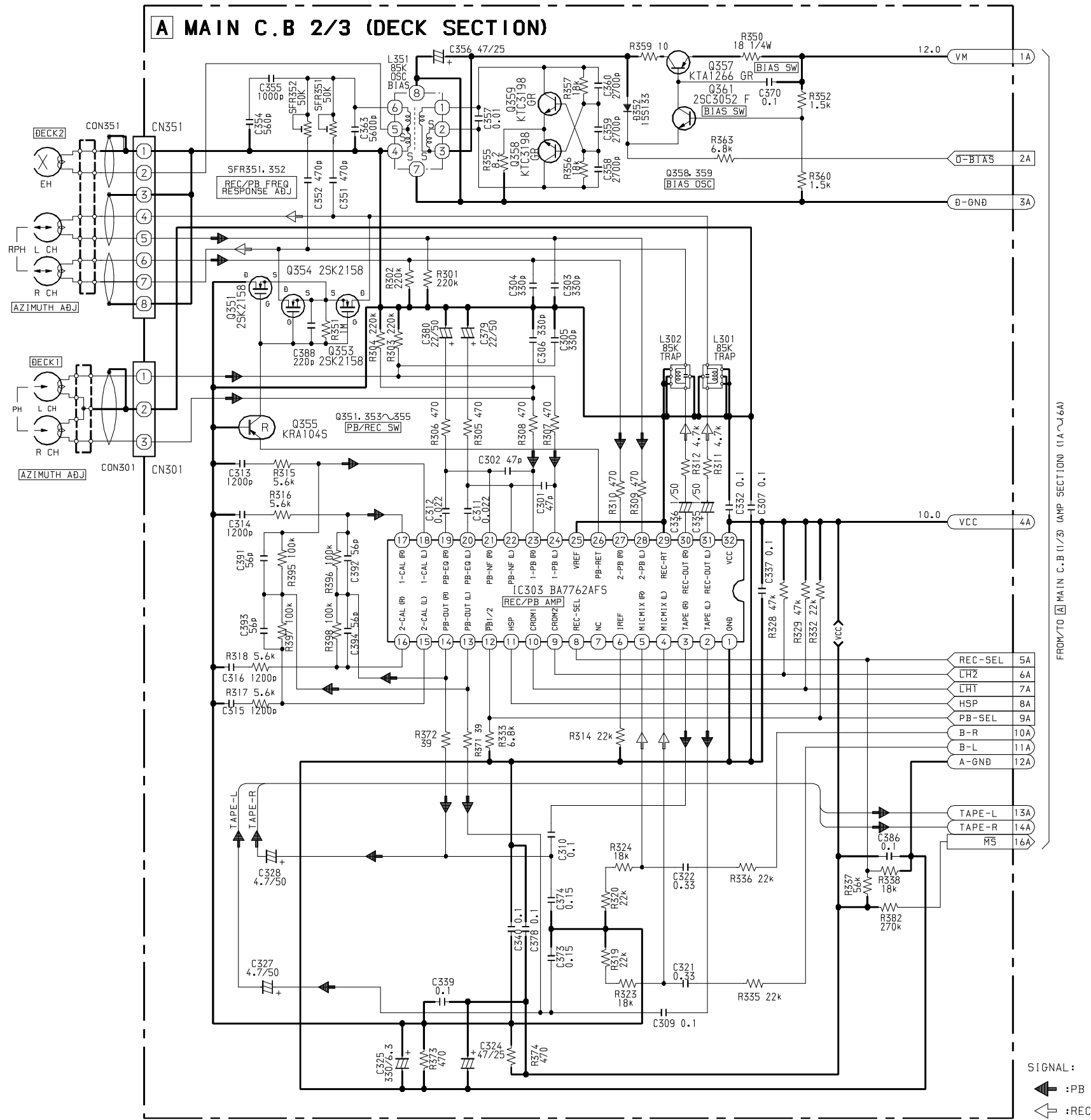


2SA1235 KRA102
2SC2714 KRA104
2SC3052 KRA107
2SD1306 KRC102
CMBT5401 RT1P141C

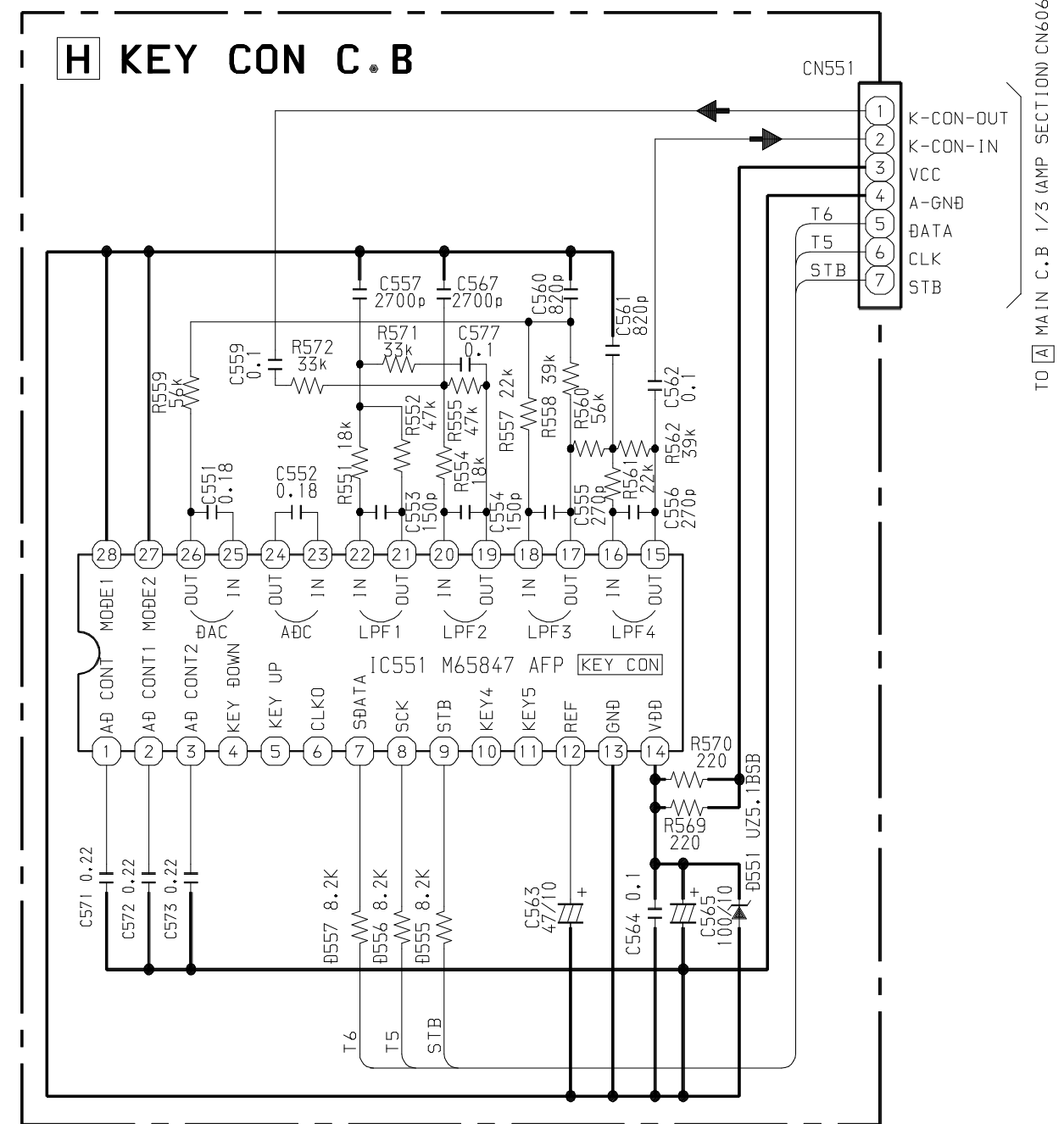


2SJ461-T1
2SK2158

SCHEMATIC DIAGRAM – 2 (MAIN 2/3: DECK SECTION / KEY CON)

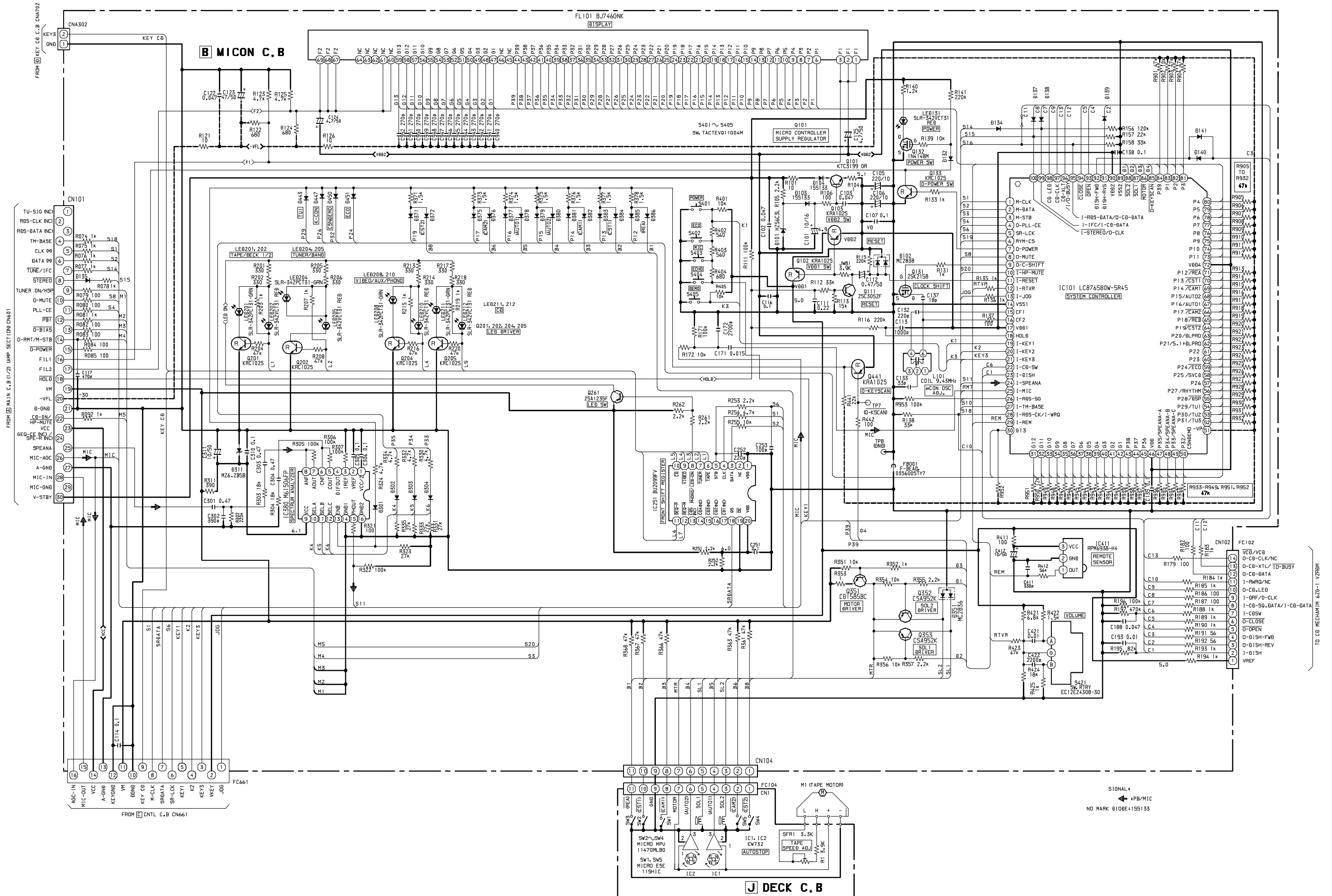


FROM/TO MAIN C.B (1/3) (AMP SECTION (1A~3A))



TO MAIN C.B 1/3 (AMP SECTION) CN606

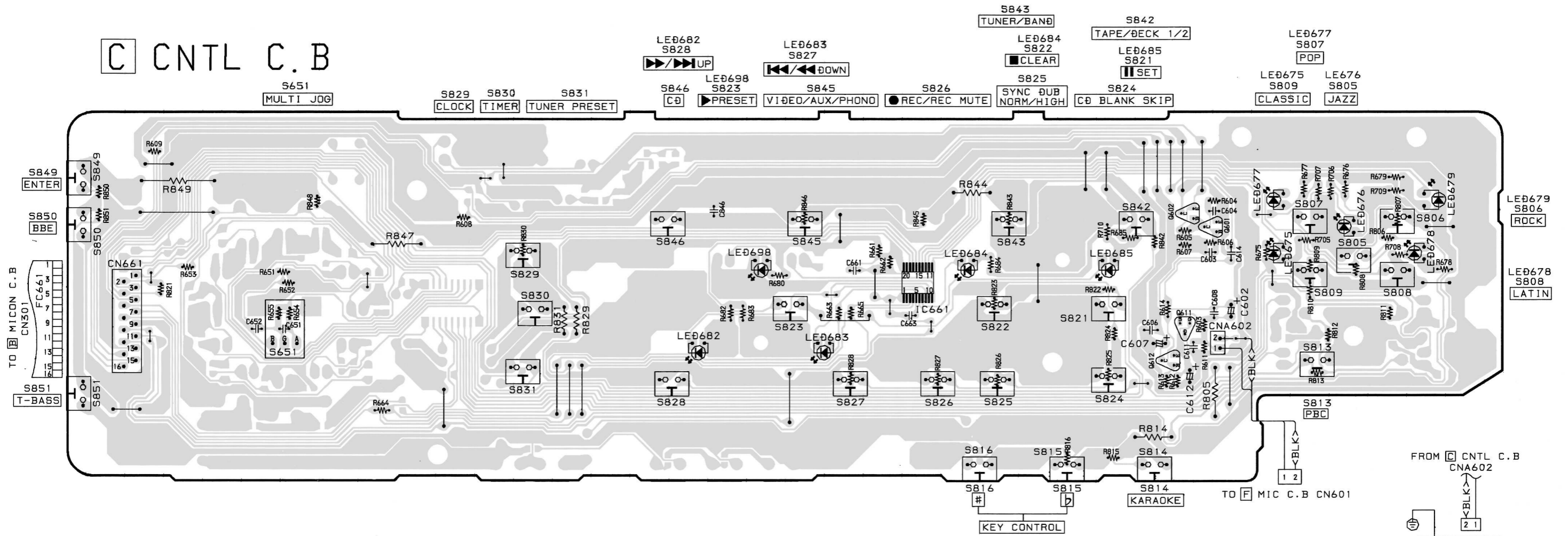
SCHEMATIC DIAGRAM - 4 (MICON / DECK)



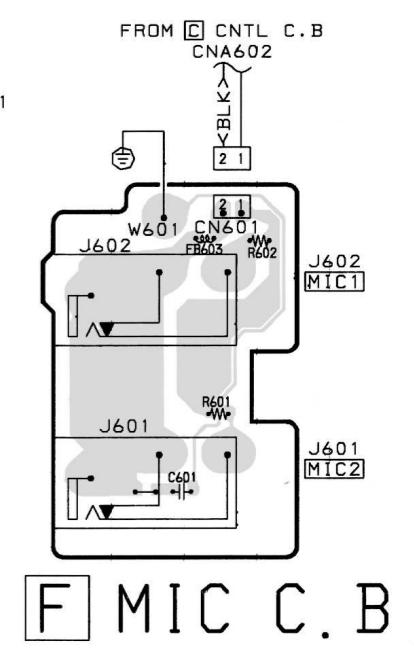
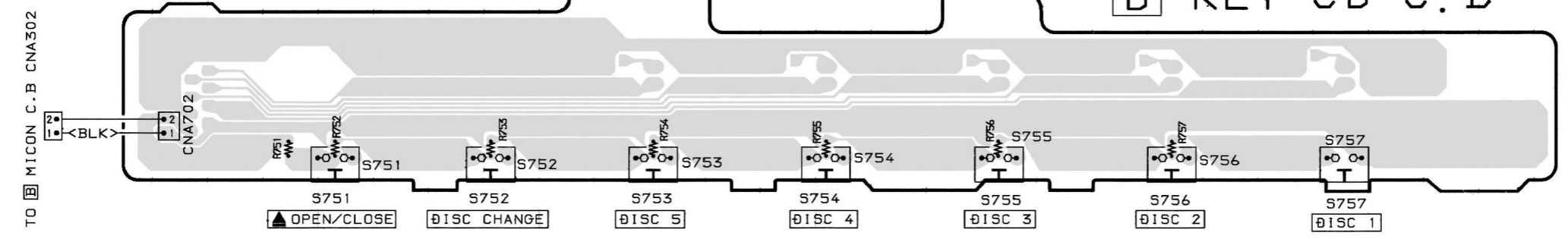
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

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

C CNTL C.B

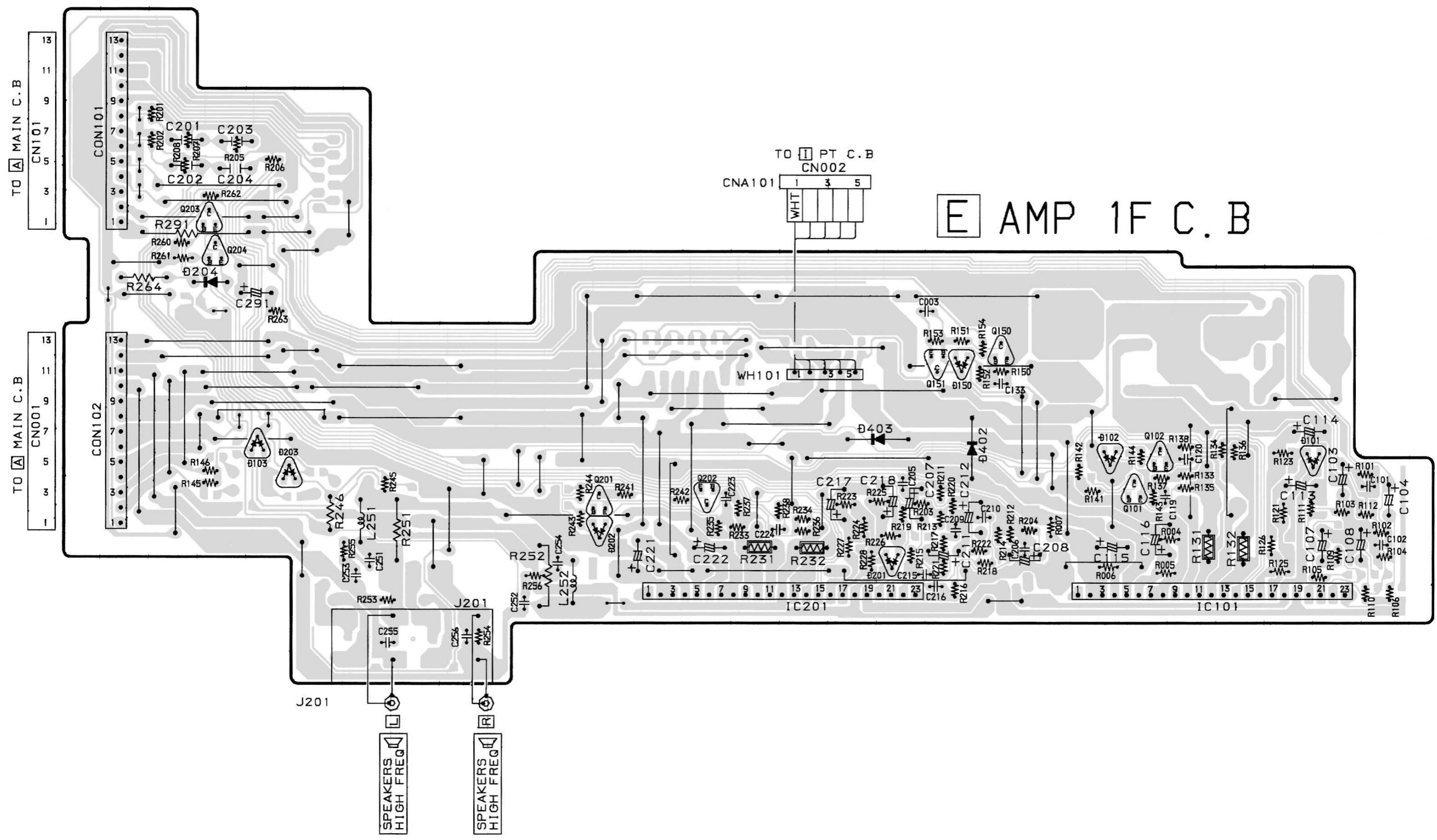


D KEY CD C.B

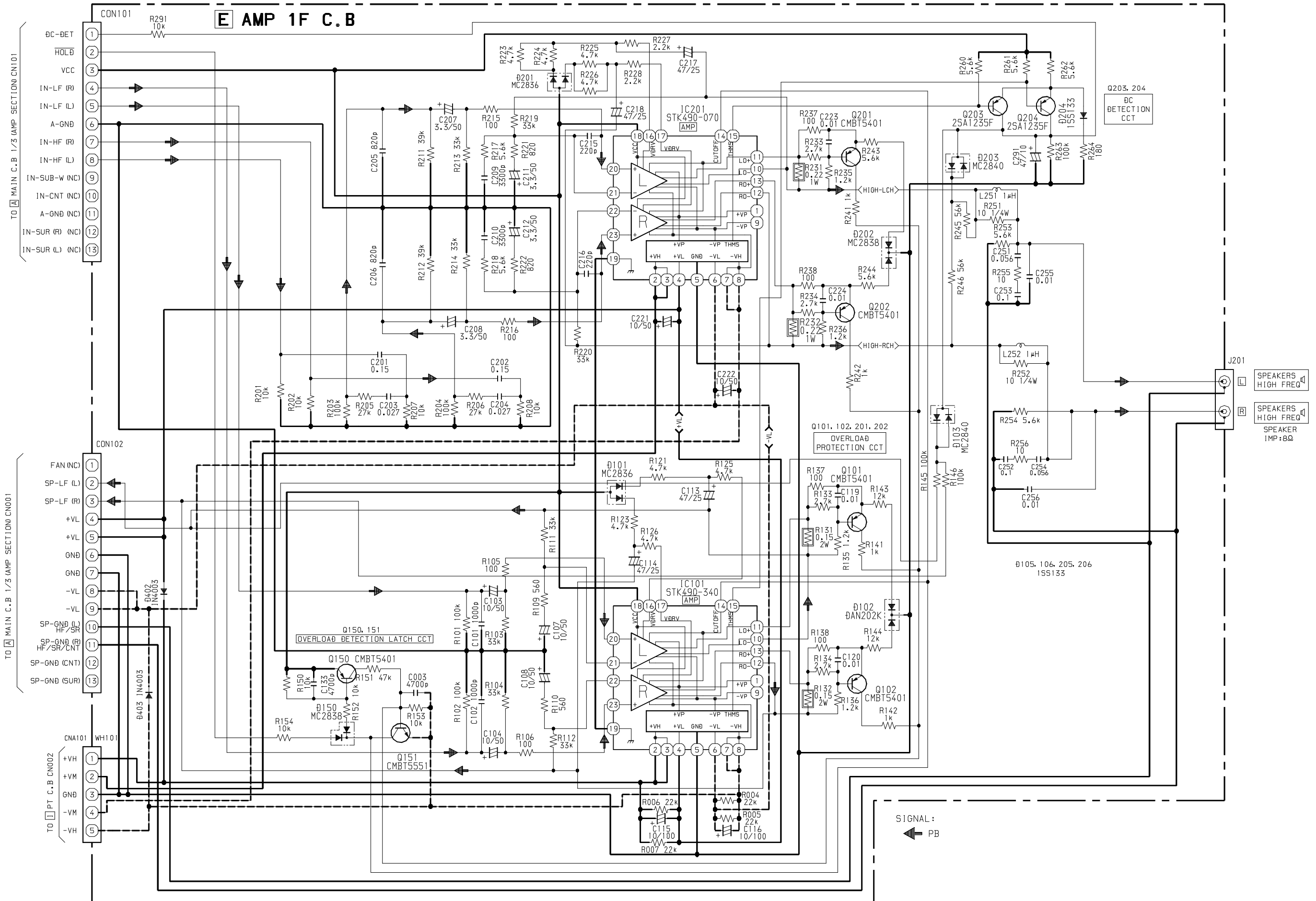


32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

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

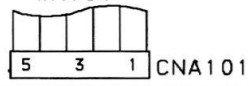


SCHEMATIC DIAGRAM – 6 (AMP 1F)

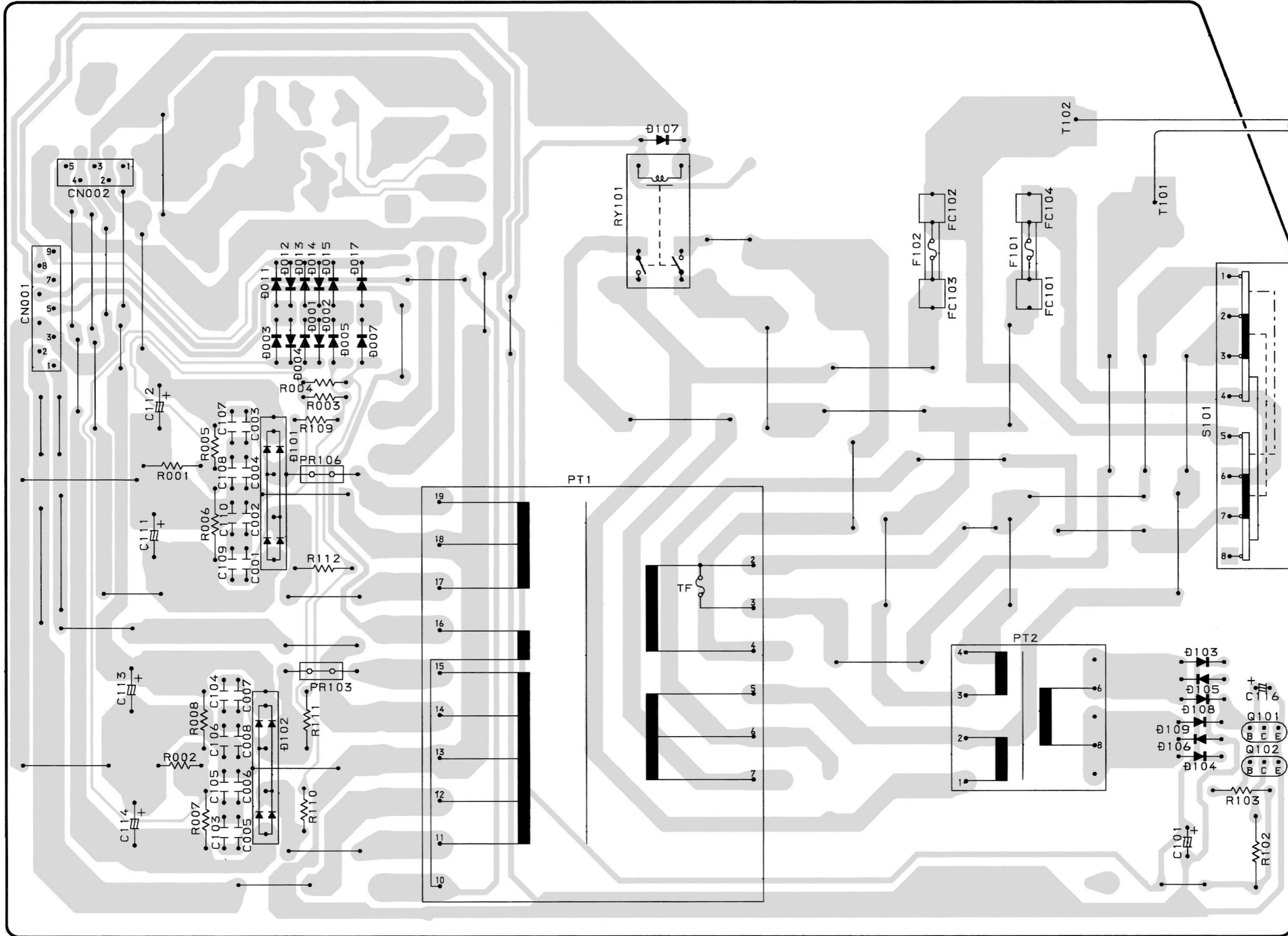
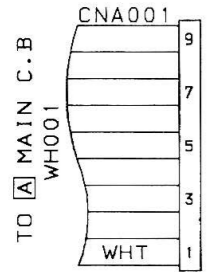


32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---	---	---	---

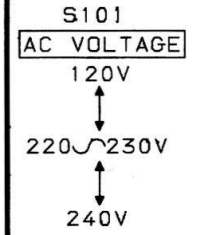
FROM [E] AMP 1F C.B
WH101



I PT C.B

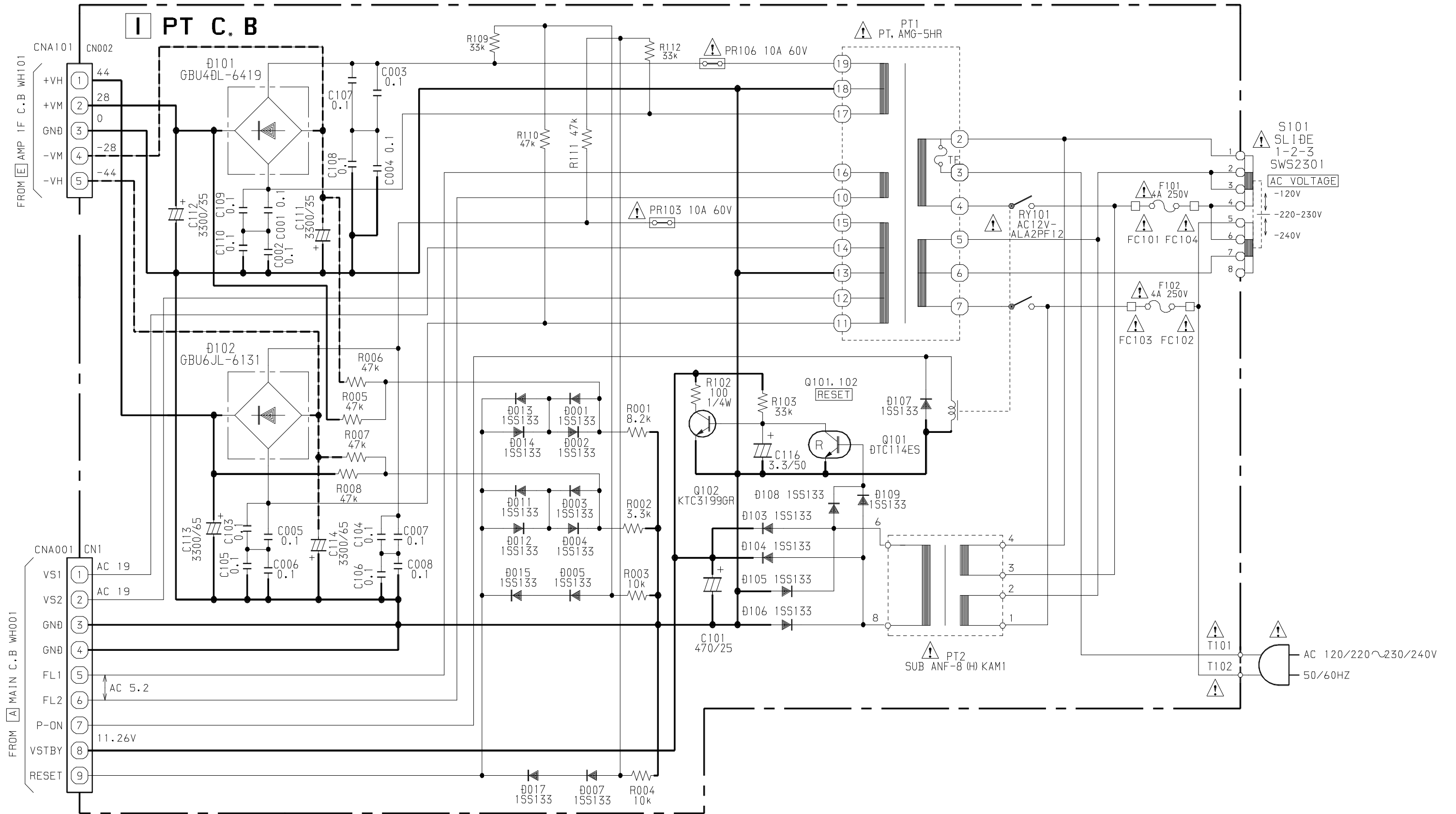


AC 120V/
220~230V/240V
50/60HZ



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

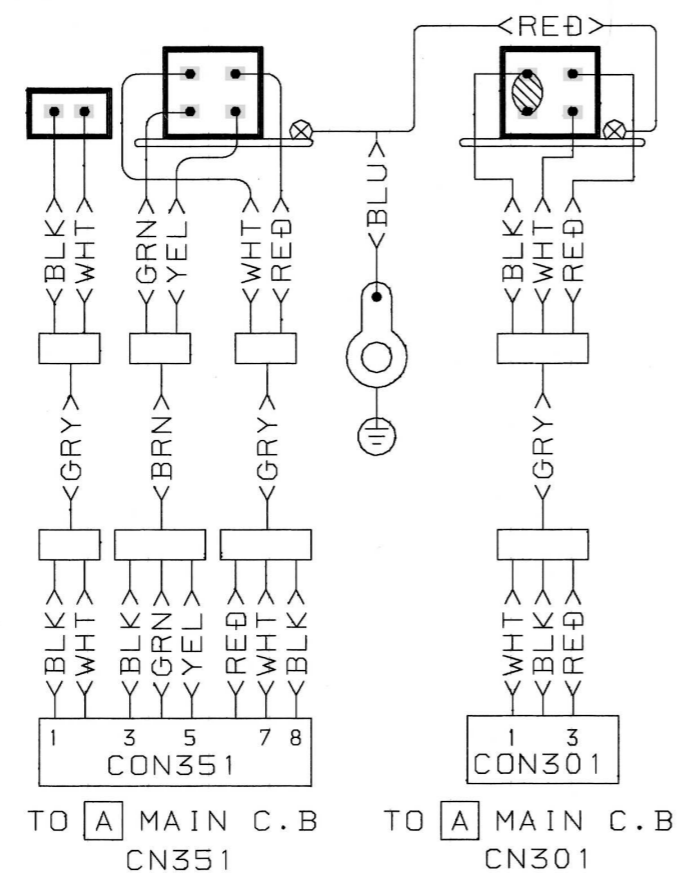
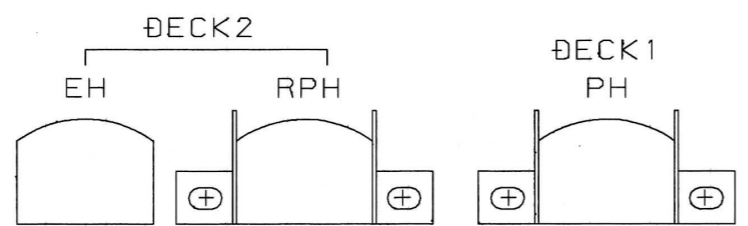
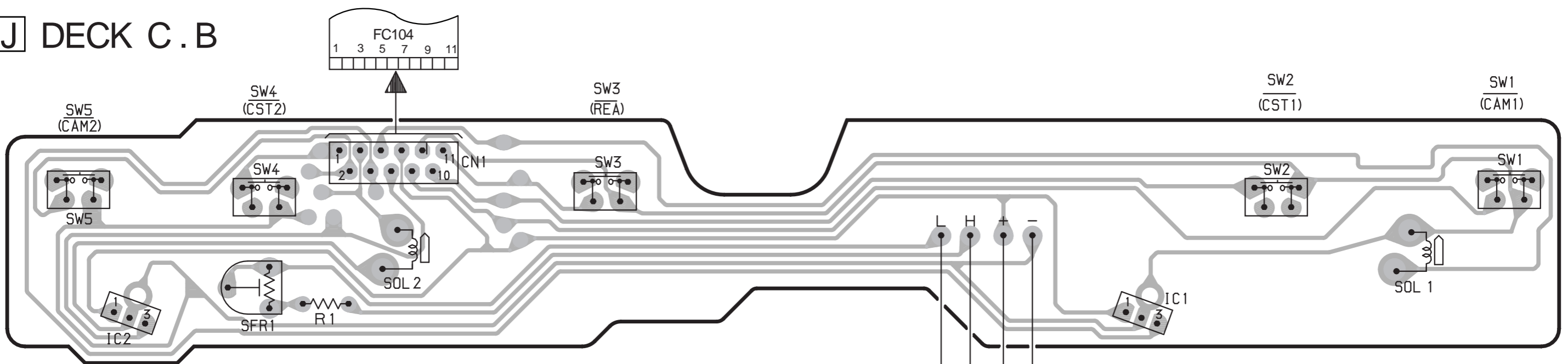
SCHEMATIC DIAGRAM – 7 (PT)



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

J DECK C.B

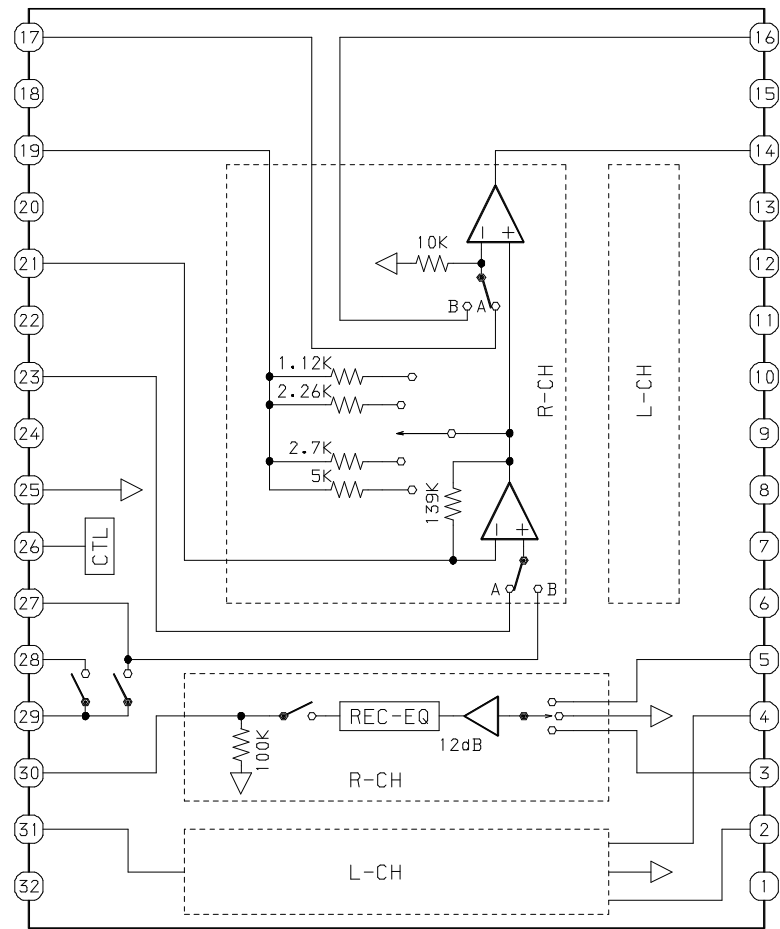
FROM **B** MICON C.B CN104



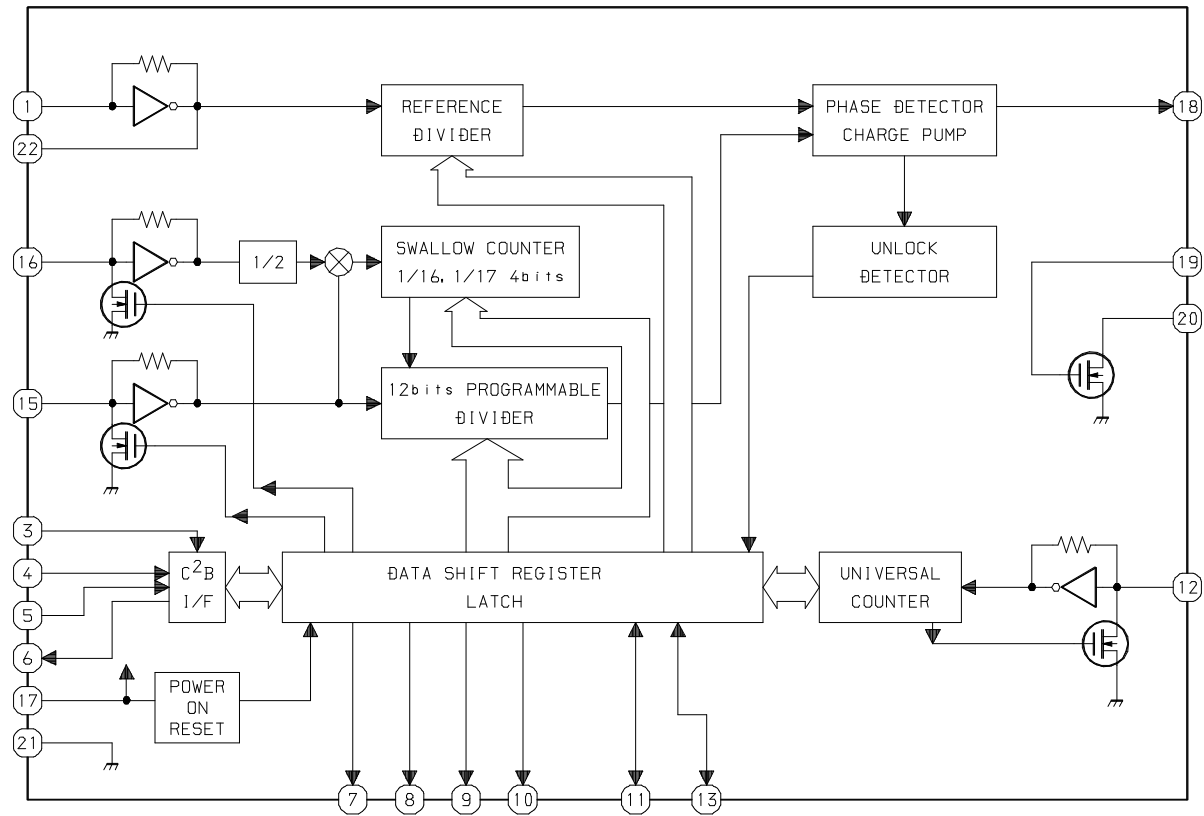
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U

IC BLOCK DIAGRAM

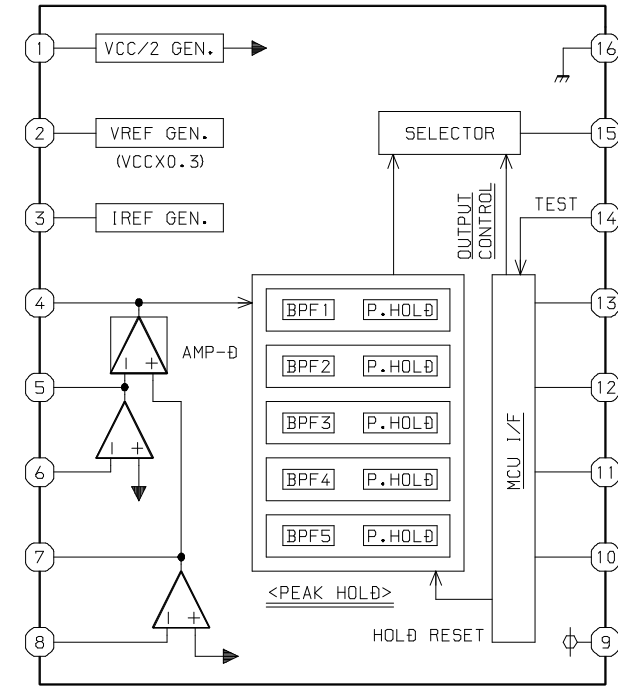
IC, BA7762AF5



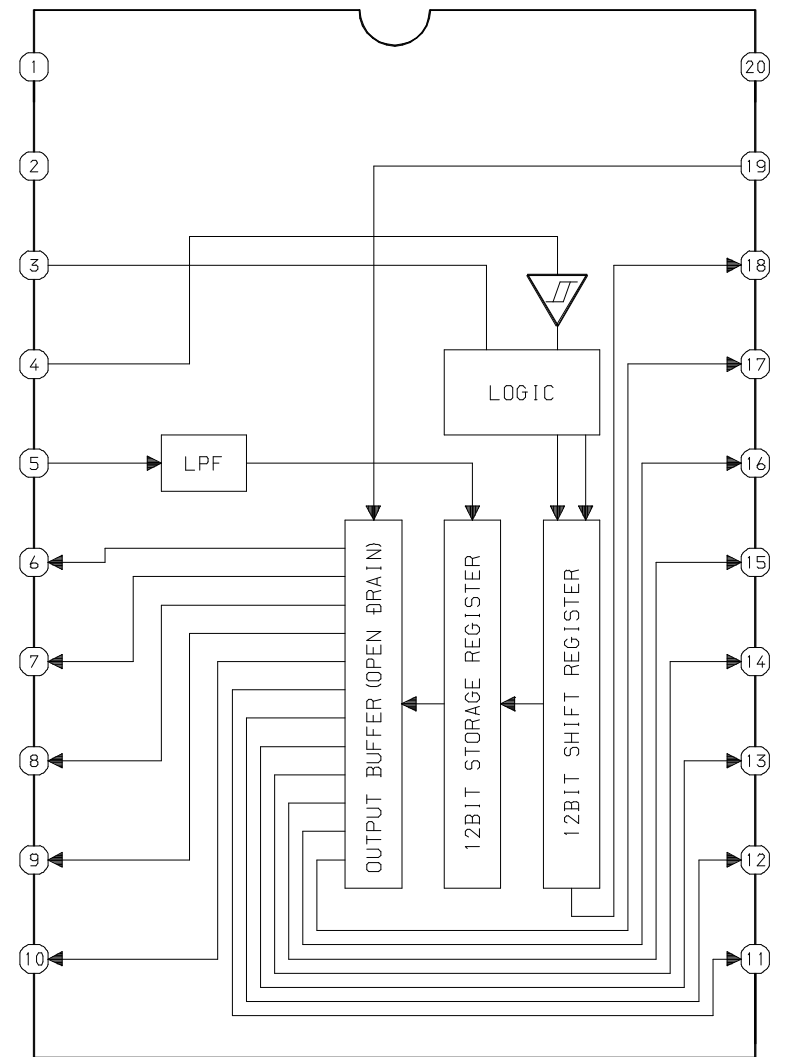
IC, LC72131D



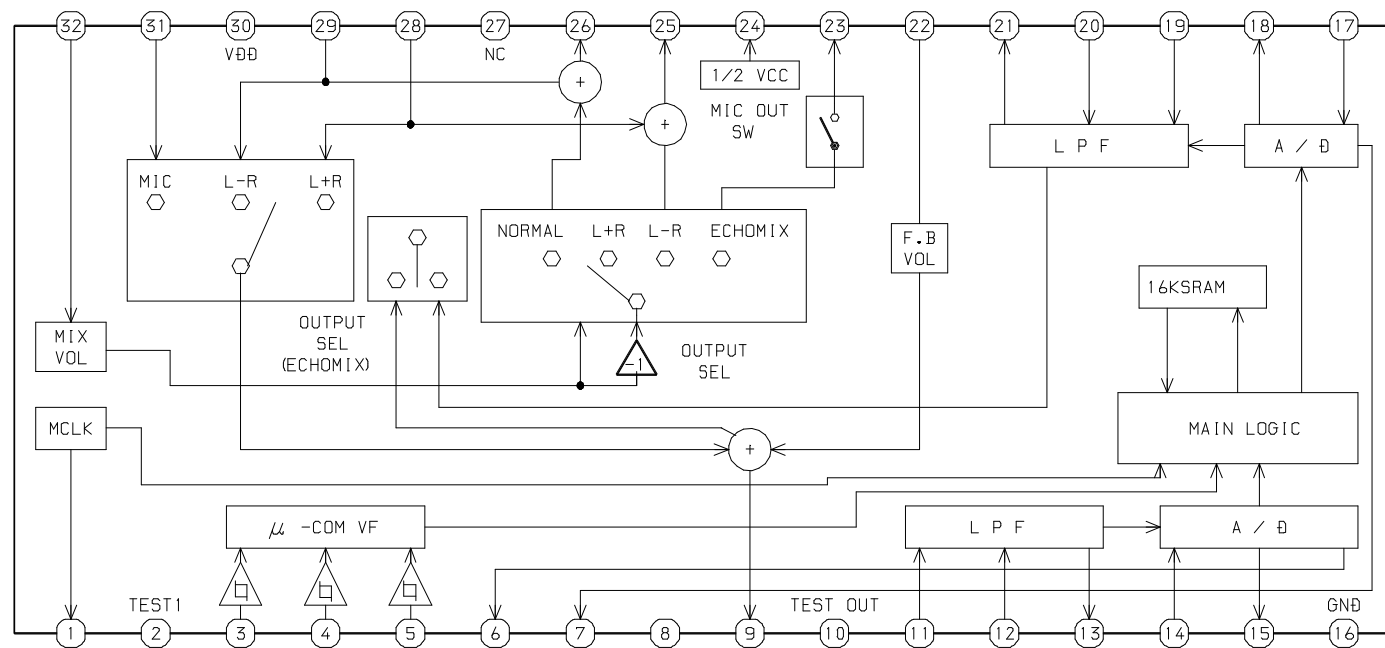
IC, M61506FP



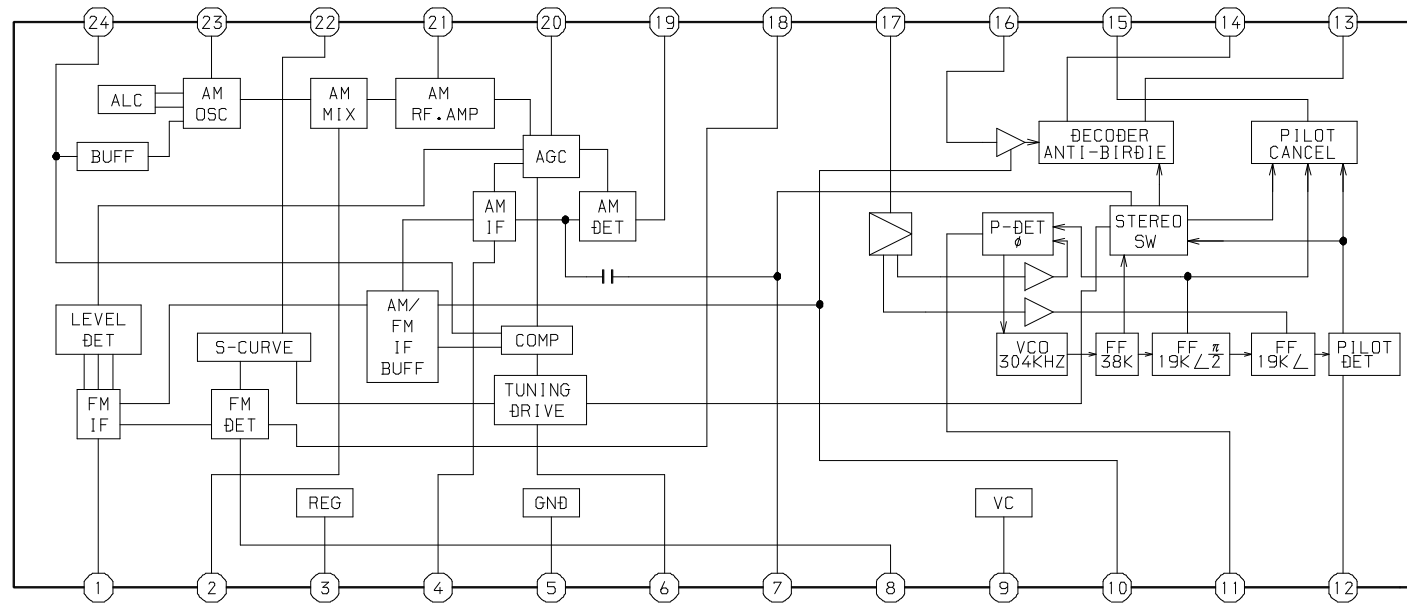
IC, BU2099FV



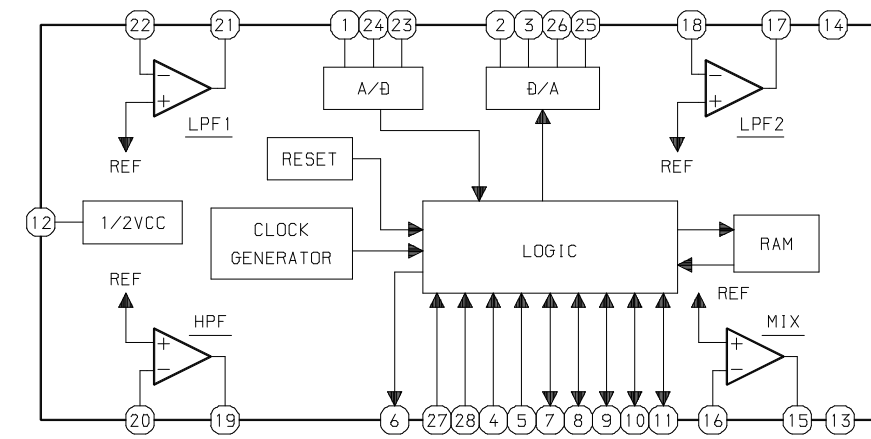
IC, M65849BFP631D



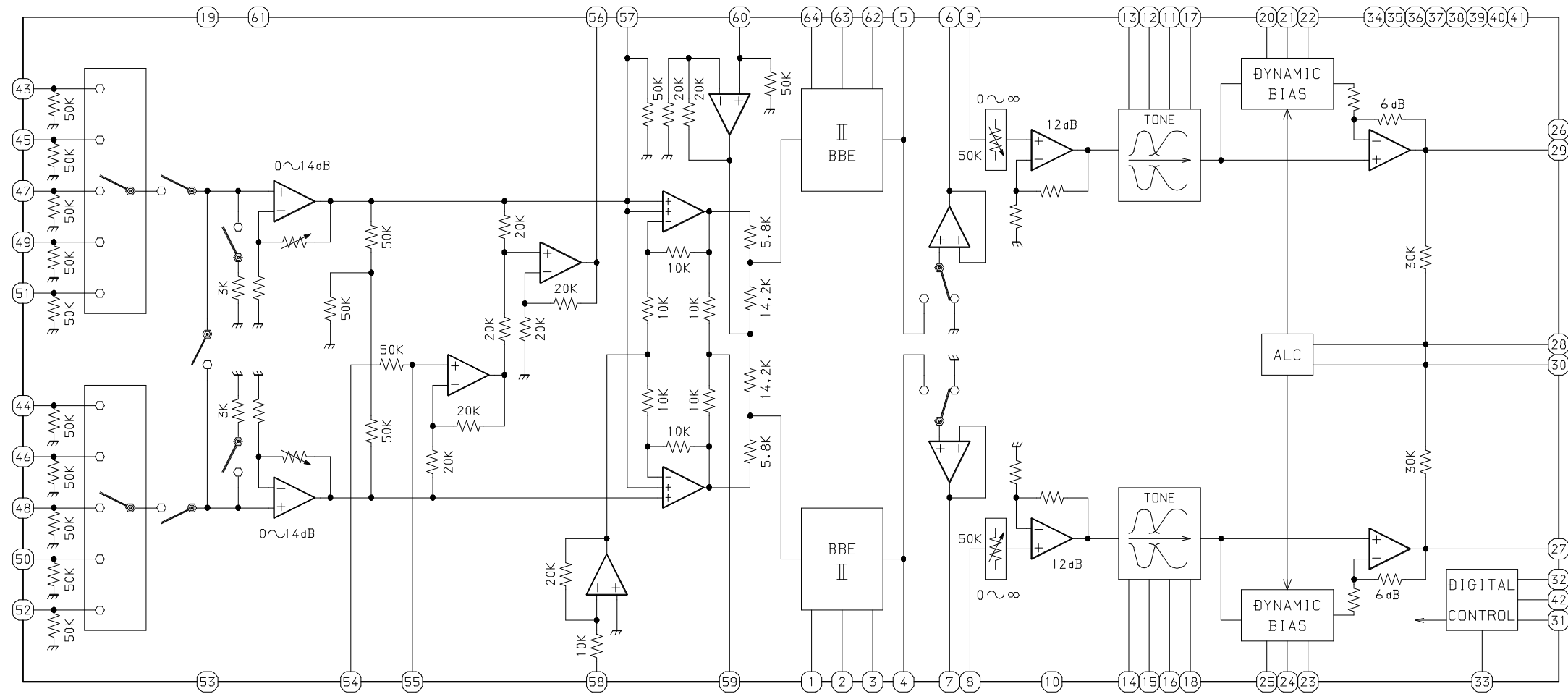
IC, LA1844L-A



IC, M65847AFP

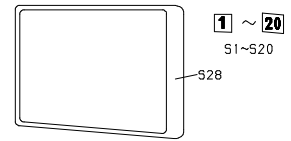
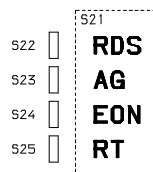
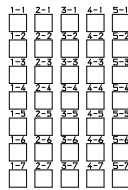
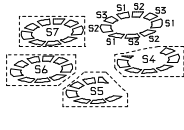
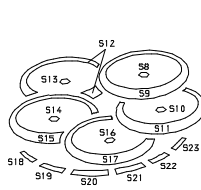
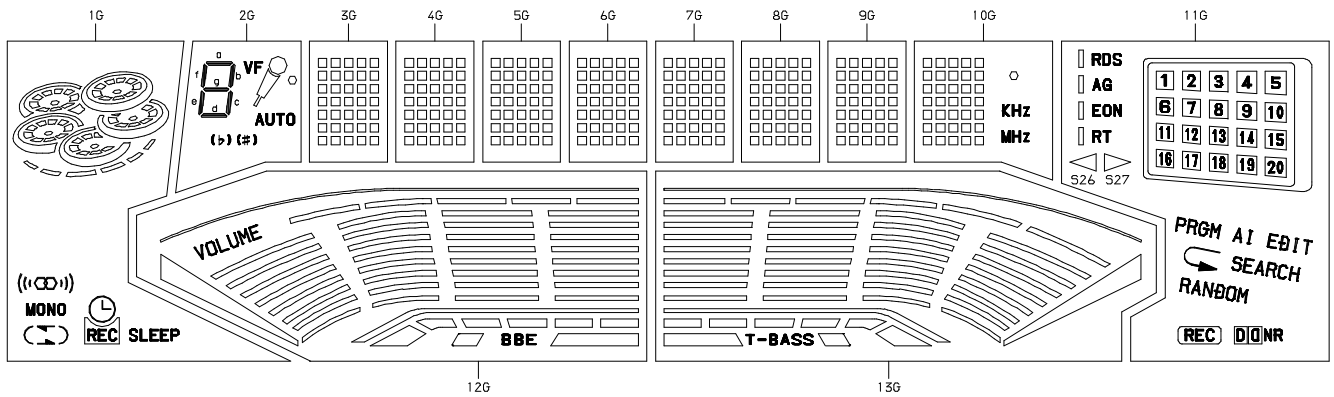


IC, BD3876KS2



FL (BJ746GNK) GRID ASSIGNMENT & ANODE CONNECTION

GRID ASSIGNMENT

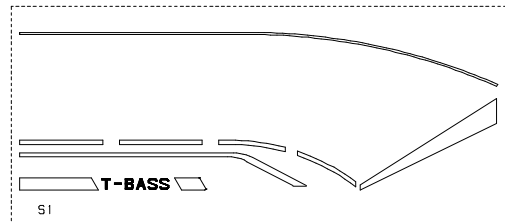
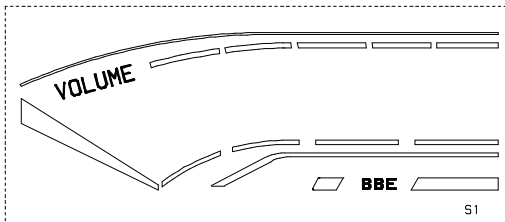


1G

3G~10G

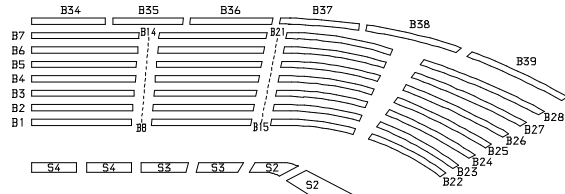
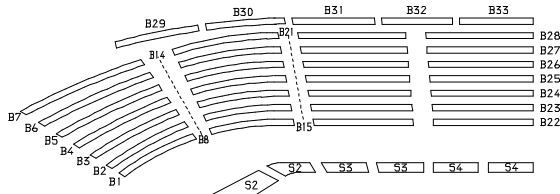
11G

11G



12G












13G



12G

13G

ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G
P1	SLEEP	-	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	S28	S1	S1
P2		-	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	S1	S2	S2
P3		-	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	S2	S3	S3
P4		-	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	S3	S4	S4
P5		-	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	S4	B1	B1
P6		-	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	S5	B8	B8
P7	MONO	-	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	S6	B15	B15
P8		-	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	S7	B22	B22
P9	-	-	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	S8	B2	B2
P10	-	-	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	S9	B9	B9
P11	-	-	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	S10	B16	B16
P12	S7	-	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	S11	B23	B23
P13	S13	-	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	S12	B3	B3
P14	S12	-	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	S13	B10	B10
P15	S8	-	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	S14	B17	B17
P16	S1		1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	S15	B24	B24
P17	S3	VF	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	S16	B4	B4
P18	S2		3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	S17	B11	B11
P19	S9	a	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	S18	B18	B18
P20	S6	b	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	S19	B25	B25
P21	S14	f	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	S20	B5	B5
P22	S15	g	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	S21	B12	B12
P23	S18	c	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	 NR	B19	B19
P24	S19	e	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	REC	B26	B26
P25	S20	d	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	S22	B6	B6
P26	S21	AUTO	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	S23	B13	B13
P27	S22	(b)	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	S24	B20	B20
P28	S23	(#)	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	S25	B27	B27
P29	S5	-	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	S26	B7	B7
P30	S16	-	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	S27	B14	B14
P31	S17	-	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	EDIT	B21	B21
P32	S4	-	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	AI	B28	B28
P33	S10	-	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	PRGM	B29	B34
P34	S11	-	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	SEARCH	B30	B35
P35	-	-	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7		B31	B36
P36	-	-	-	-	-	-	-	-	-		RANDOM	B32	B37
P37	-	-	-	-	-	-	-	-	-	KHz	-	B33	B38
P38	-	-	-	-	-	-	-	-	-	MHz	-	-	B39

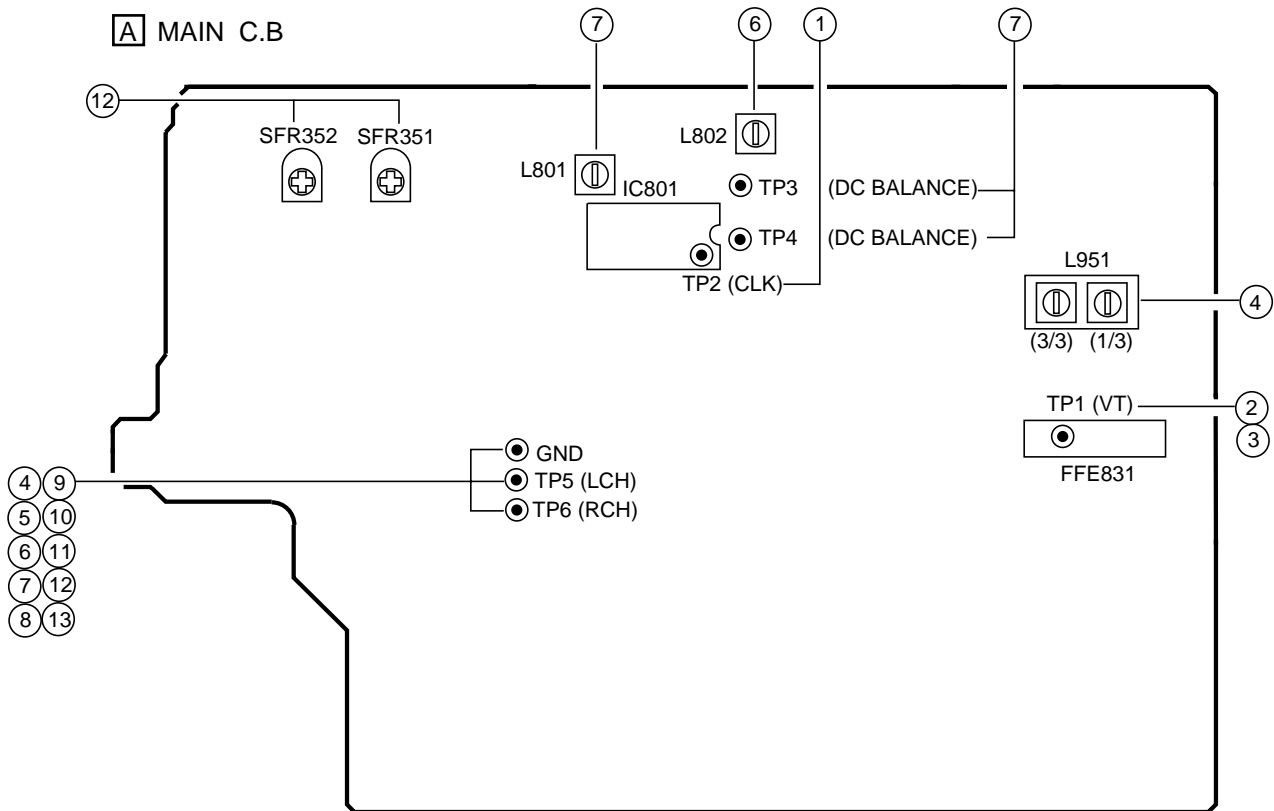
IC DESCRIPTION

IC, LC876580W-5R45

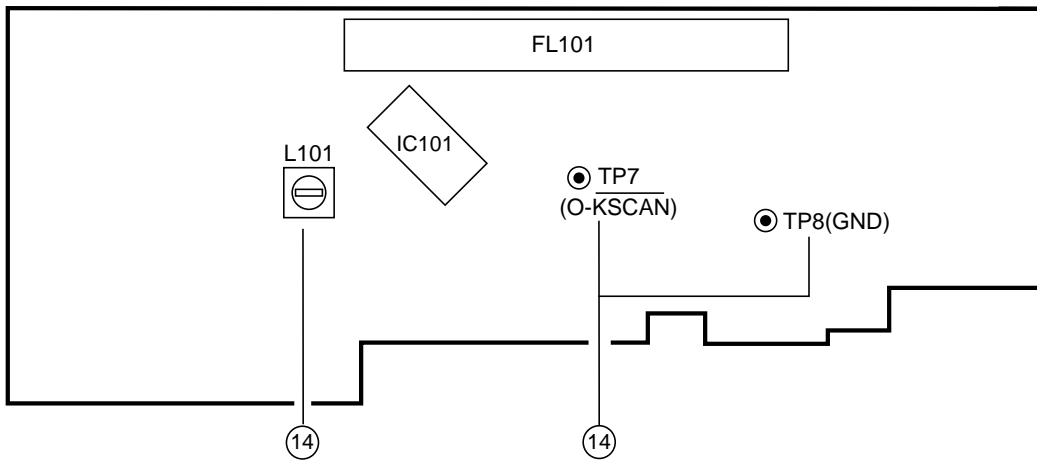
Pin No.	Pin Name	I/O	Description
1	M-CLK	O	Main IC control serial CLOCK output.
2	M-DATA	O	Main IC control serial DATA output.
3	M-STB	O	Common serial strobe.
4	O-PLL-CE	O	TUNER PLL IC control CHIP ENABLE output.
5	SR-LCK	O	SHIFT REGISTER IC control LATCH CLOCK output.
6	RYM-CS	O	RHYTHM IC chip select.
7	O-POWER	O	System power control output. H: POWER ON.
8	O-MUTE	O	System mute control output. H: MUTE ON.
9	<u>O-C-SHIFT</u>	O	Microcomputer CLOCK SHIFT control output. L: SHIFT UP (initial H).
10	<u>I-HP-MUTE</u>	I	Headphone jack detection. L: MUTE.
11	<u>I-RESET</u>	I	Reset input.
12	I-RTVR	I	Waveform input for VOL rotary encoder.
13	I-JOG	I	Waveform input for JOG rotary encoder.
14	VSS1	–	Connected to GND.
15	CF1	I	Oscillator input for system clock (9.43MHz).
16	CF2	O	Oscillator output for system clock (9.43MHz).
17	VDD1	–	Power supply.
18	HOLD	I	System HOLD input (A/D level port).
19 ~ 21	I-KEY1 ~ 3	I	Tact key matrix 1 ~ 3 input.
22	I-CD-SW	I	CD MECHA SW matrix input.
23	I-DISH	I	CD turntable photo sensor input.
24	I-SPEANA	I	Spectrum analyser level detection input.
25	I-MIC	I	MIC input level detection.
26	I-RDS_SG	I	During TUNER FUNC, RDS Signal level input (Not Used).
27	I-TM-BASE	I	Reference signal input for clock.
28	I-RDS-CK/ I-WRQ	I	During TUNER FUNC, RDS serial clock input (Not Used)./ CD read write request.
29	I-REM	I	Remote control signal input.
30 ~ 42	G13 ~ G1	O	FL grid G13 ~ G1 output.
43 ~ 45	P38 ~ P36	O	FL segment P38 ~ P36 output.
46	VDD3	–	Power supply.
47	P35/SPEANA–A	O	FL segment P35 output/Spectrum analyser BPF switching control A output.
48	P34/SPEANA–B	O	FL segment P34 output/Spectrum analyser BPF switching control B output.
49	P33/SPEANA–C	O	FL segment P33 output/Spectrum analyser BPF switching control C output.
50	P32/CSNDEMO	O/I	FL segment P32 output/While initializing, DEMO MODE switching input. L: Normal DEMO. H: CASINO DEMO.
51	–VP	–	Power supply for FL input.
52	P31/TU3	O/I	FL segment P31 output/TUNER location switching 3 input.
53	P30/TU2	O/I	FL segment P30 output/TUNER location switching 2 input.
54	P29/TU1	O/I	FL segment P29 output/TUNER location switching 1 input.
55	<u>P28/DSP</u>	O/I	FL segment P28 output/DSP setting switching input. H: Absent (Not used).

Pin No.	Pin Name	I/O	Description
56	P27/RHYTHM	O/I	FL segment P27 output/RHYTHM setting switching input. H: Present (Not used).
57	P26/K-CON	O	FL segment P26 output/KEYCON function detection.
58	P25/SVCD	O/I	FL segment P25 output/Super VCD detection (Not used).
59	P24/ECO	O/I	FL segment P24 output/ECO setting switching input. H: ECO mode off.
60, 61	P23, P22	O	FL segment P23, P22 output.
62	P21/5.1+DPRO	O/I	FL segment P21 output/5.1CH+DOLBY PROLOGIC setting switching input. H: Existent (Not used).
63	P20/DPRO	O/I	FL segment P20 output/DOLBY PROLOGIC setting switching input. H: Existent (Not used).
64	P19/CST2	O/I	FL segment P19 output/Deck 2 cassette existence detection SW input. L: Existent.
65	P18/REB	O/I	FL segment P18 output/Deck 2 side-B recording able/disable detection SW input. L: Able (Not used).
66	P17/CAM2	O/I	FL segment P17 output/Deck 2 cam-operation detection SW input. L: ON.
67	P16/AUTO1	O/I	FL segment P16 output/Deck 1 reel-rotation detection signal input.
68	P15/AUTO2	O/I	FL segment P15 output/Deck 2 reel-rotation detection signal input.
69	P14/CAM1	O/I	FL segment P14 output/Deck 1 cam-operation detection SW input. L: ON.
70	P13/CST1	O/I	FL segment P13 output/Deck 2 cassette existence detection SW input. L: Existent.
71	P12/REA	O/I	FL segment P12 output/Deck 2 side-A recording able/disable detection SW input. L: Able.
72	VDD4	-	Power supply.
73 ~ 83	P11 ~ P1	O	FL segment P11 ~ P1 output.
84	P39	O/I	FL segment P39 output.
85	O-KEYSCAN	O	Segment input timing output. L: Input timing.
86	MOTOR	O	DECK MECHA motor control output. L: ON.
87	SOL1	O	DECK 1 MECHA plunger control output. L: ON.
88	SOL2	O	DECK 2 MECHA plunger control output. L: ON.
89	VSS2	-	Connected to GND.
90	VDD2	-	Power supply.
91	DISH-RVS	O	CD turntable control output. H: Reverse rotation.
92	DISH-FWD	O	CD turntable control output. H: Forward rotation.
93	OPEN	O	CD tray control output. L: OPEN.
94	CLOSE	O	CD tray control output. L: CLOSE.
95	I-RDS-DATA/ O-CD-DATA	I/O	During TUNER FUNC, RDS serial data input (Not used)./ During CD FUNC, CD control serial data output.
96	CD-XLT/I/O-BUSY	O	CD DSP control serial LATCH output. LATCH when drop (Not Used)/Input/Output status.
97	CD-CLK	O	CD DSP control serial CLOCK output (Not Used).
98	CD-LED	O	CD flash window LED control output. H: ON
99	I-IFC/ I-CD DATA	I	During TUNER FUNC, IF COUNT data input./ Serial data from VCD.
100	I-STEREO/ O-CLK	I/O	During TUNER STEREO signal input./ Serial clock output.

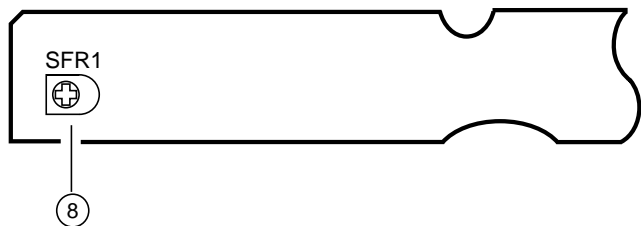
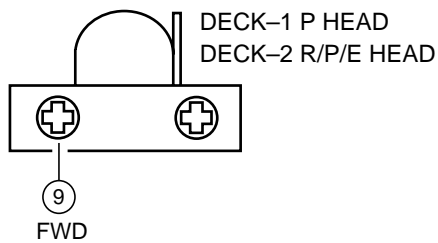
ADJUSTMENT <TUNER / DECK / MICON>



B MICON C.B



J DECK C.B



< TUNER SECTION >

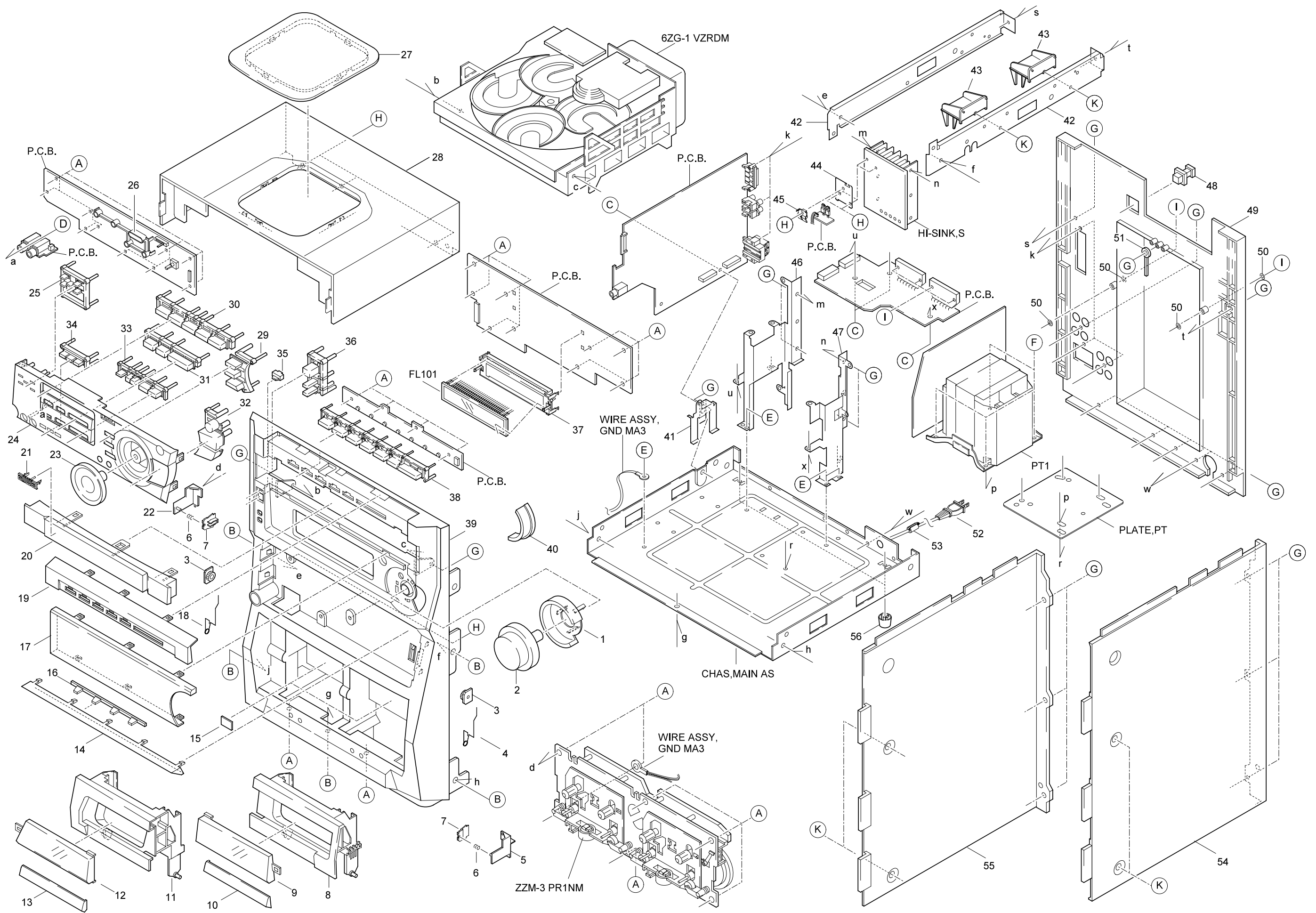
1. Clock frequency Check
Settings : • Test point : TP2 (CLK)
Method : Set to AM 1602kHz and check that the test point is 2052kHz \pm 45Hz.
2. AM VT Check
Settings : • Test point : TP1 (VT)
Method : Set to AM 1602kHz, 531kHz and check that the test point is less than 8.0V (1602kHz) and more than 0.6V (531kHz).
3. FM VT Check
Settings : • Test point : TP1 (VT)
Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 0.5V (87.5MHz) and less than 8.0V (108.0MHz).
4. AM Tracking Adjustment
Settings : • Test point : TP5(Lch), TP6(Rch)
• Adjustment location :
L951(1/3) 999kHz
Method : Set to AM 999kHz and adjust L951(1/3) to MAX.
5. FM Tracking Check
Settings : • Test point : TP5(Lch), TP6(Rch)
Method : Set to FM 98.0MHz and check that the test point is less than 9dB μ V.
6. AM IF Adjustment
Settings : • Test point : TP5(Lch), TP6(Rch)
• Adjustment location :
L802 450kHz
7. DC Balance / Mono Distortion Adjustment
Settings : • Test point : TP3, TP4 (DC balance)
• Test point : TP5(Lch), TP6(Rch)
• Adjustment location : L801
• Input level : 60dB μ V
Method : Set to FM 98.0MHz and adjust L801 so that the distortion is minimum. Then check the voltage between TP3 and TP4 is 0V \pm 300mV.

< DECK SECTION >

8. Tape Speed Adjustment (DECK 2)
Settings : • Test tape : TTA-100
• Test point : TP5(Lch), TP6(Rch)
• Adjustment location : SFR1
Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz \pm 5Hz and \pm 45Hz (REV) with respect to forward speed.
9. Head Azimuth Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA-330
• Test point : TP5(Lch), TP6(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.
10. PB Frequency Response Check (DECK 1, DECK 2)
Settings : • Test tape : TTA-330
• Test point : TP5(Lch), TP6(Rch)
Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.
11. PB Sensitivity Check (DECK 1, DECK 2)
Settings : • Test tape : TTA-200
• Test point : TP5(Lch), TP6(Rch)
Method : Play back the test tape and check that the output level of the test point is 230mV \pm 3dB.
12. REC/PB Frequency Response Adjustment (DECK 2)
Settings : • Test tape : TTA-602
• Test point : TP5(Lch), TP6(Rch)
• Input signal : 1kHz / 8kHz (LINE IN)
• Adjustment location : SFR351 (Lch)
SFR352 (Rch)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP5, TP6 becomes -20VU. Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes 0dB \pm 0.5dB with respect to that of the 1kHz signal.
13. REC/PB Sensitivity Check (DECK 2)
Settings : • Test tape : TTA-602
• Test point : TP5(Lch), TP6(Rch)
• Input signal : 1kHz (LINE IN)
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP5, TP6 becomes 0VU. Record and play back the 1kHz signals and check that the output is 0dB \pm 3.5dB.

< MICON SECTION >

14. μ -CON OSC Adjustment
Settings : • Test point : TP7 (O-KSCAN), TP8 (GND)
• Adjustment location : L101
Method : Insert AC plug while pressing TUNER function key. Adjust L101 so that the frequency at the test point is 208.80Hz \pm 0.21Hz.



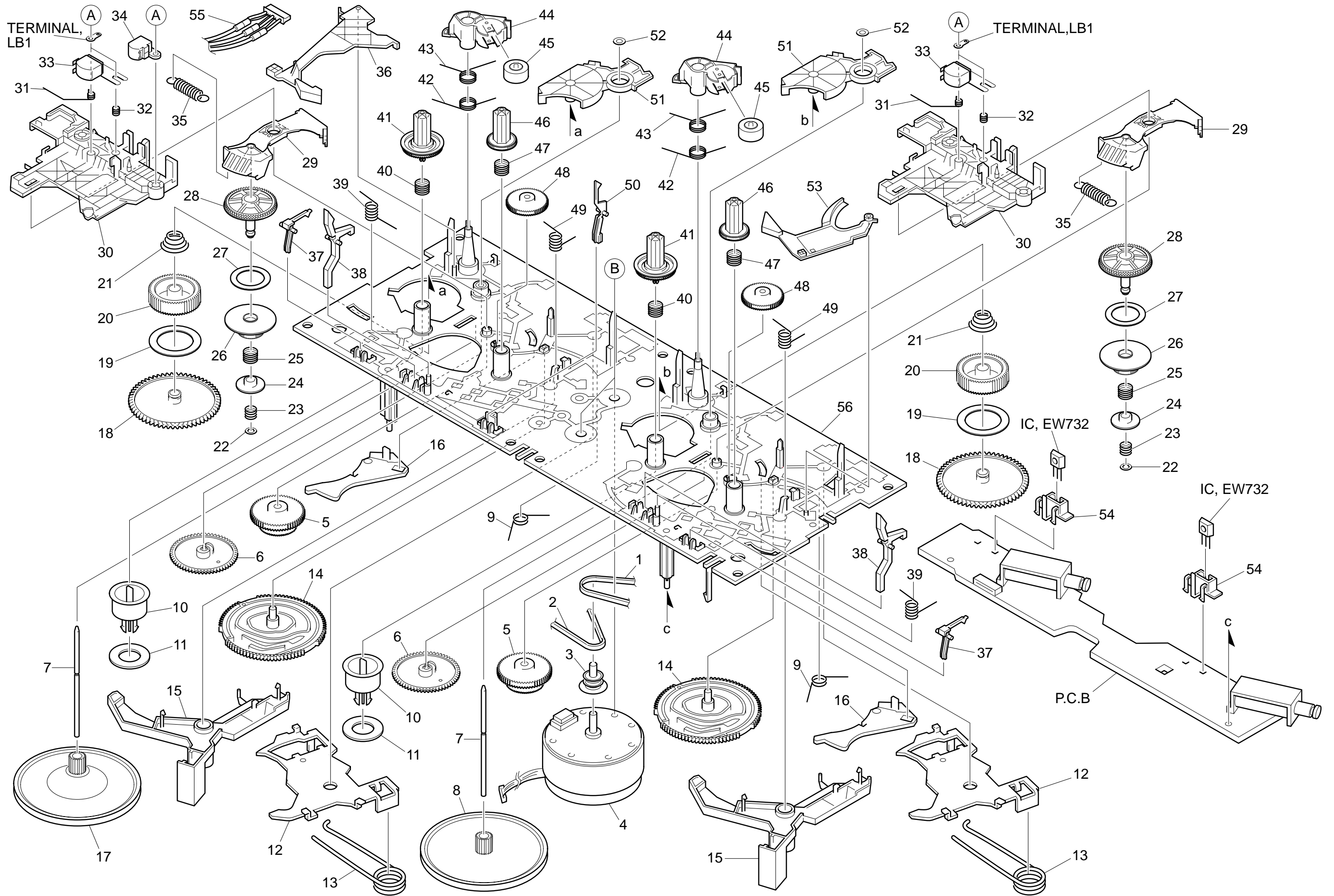
MECHANICAL PARTS LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MA3-094-010		RING,MAIN	36	8A-MA3-075-010		KEY,POWER
2	8A-MA3-090-110		KNOB,RTRY MAIN	37	87-MA5-203-110		GUIDE,FL
3	87-NF8-220-010		DMPR,150	38	8A-MA3-061-010		KEY,CD
4	8A-MA5-208-010		SPR-T,EJECT 2	39	8A-MG5-001-010		CABI,FR VCD 5
5	87-NF4-217-110		HLDR,LOCK 2	40	8A-MA3-062-010		KEY,MIC
6	86-NF9-224-010		SPR-C,LOCK	41	8A-MA3-207-010		HLDR,PWB MAIN H
7	82-NF5-229-010		PLATE,LOCK	42	88-MA1-208-210		JOINT,CABI
8	8A-MA3-026-110		BOX,CASS R	43	8A-MA3-212-010		HLDR,PWB PT
9	8A-MA3-056-010		WINDOW,CASS R	44	8A-MA3-213-010		PLATE,TR
10	8A-MA5-036-010		PANEL,CASS R 5	45	86-NF6-211-010		HLDR,IC T1.6
11	8A-MA3-025-110		BOX,CASS L	46	8A-MA3-205-010		HLDR,HT-SINK L
12	8A-MA3-055-010		WINDOW,CASS L	47	8A-MA3-206-010		HLDR,HT-SINK R
13	8A-MA5-035-010		PANEL,CASS L 5	48	84-ZG1-245-210		CAP,OPTICAL
14	8A-MA5-041-010		PANEL,FUN 4F	49	8A-MG5-011-010		CABI,REAR HR 5
15	81-532-080-010		LABEL, CASS. COMPT	50	8A-MA3-214-010		W,3.5-6.5-1 W/ADH
16	8A-MA5-102-010		REFLECTOR,FUN 4F	51	87-064-185-010		HLDR,WIRE
17	8A-MG5-050-010		WINDOW,DISP VCD 5	52	87-A80-148-010		AC CORD ASSY,E BLK
18	8A-MA5-207-010		SPR-T,EJECT 1	53	87-085-185-010		BUSHING, AC CORD (E)
19	8A-MA5-034-010		PANEL,CD	54	8A-MA3-046-010		PANEL,SIDE R 3
20	8A-MG5-037-010		PANEL ASSY,TRAY VCD 5	55	8A-MA3-045-010		PANEL,SIDE L 3
21	87-B00-002-010		BADGE,AIWA 30 ABS SIL	56	87-MA3-062-010		FOOT, H17
22	87-NF4-216-010		HLDR,LOCK 1	A	87-078-060-010		BVIT3PB+3-10
23	8A-MA3-093-010		KNOB ASSY,RTRY JOG	B	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
24	8A-MG5-030-010		PANEL,FR VCD 5	C	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
25	8A-MG5-080-010		KEY ASSY,PBC 5	D	81-MK1-210-010		S-SCREW,VFT2+3-16
26	8A-MA3-210-010		GUIDE,LED OPE	E	87-067-688-010		BVTT+3-6
27	8A-MA3-057-010		WINDOW,TOP	F	87-067-975-010		S-SCREW,IT+4-8
28	8A-MA3-020-110		CABI,TOP	G	87-067-703-010		TAPPING SCREW, BVT2+3-10
29	8A-MA3-071-010		KEY,TIMER	H	87-067-758-010		BVT2+3-12 W/O SLOT
30	8A-MA5-066-010		KEY,FUN 4F	I	87-067-581-010		TAPPING SCREW, BVT2+3-15
31	8A-MA5-081-010		KEY ASSY,PLAY	J	87-067-641-010		UTT2+3-8(W/O SLOT)BL
32	8A-MA3-073-010		KEY,ENTER				
33	8A-MA3-084-010		KEY ASSY,FF				
34	8A-MG5-070-010		KEY,CONT 5				
35	8A-MA3-101-010		REFLECTOR,POWER				

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



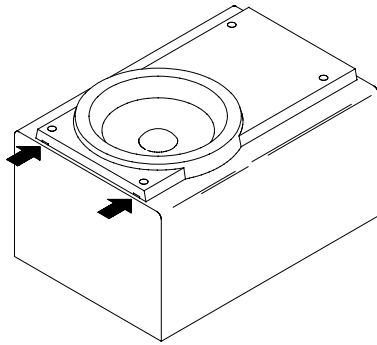
TAPE MECHANISM PARTS LIST 1 / 1

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

SPEAKER DISASSEMBLY INSTRUCTIONS

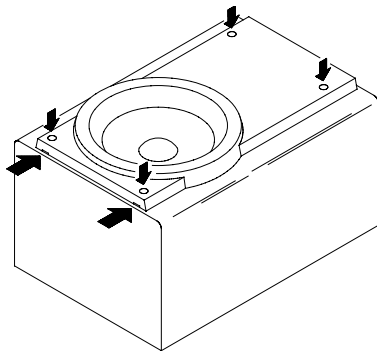
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



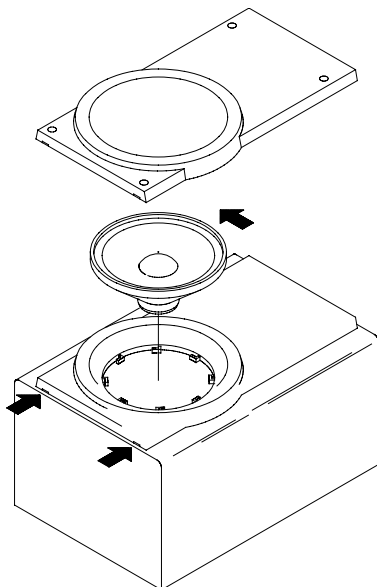
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

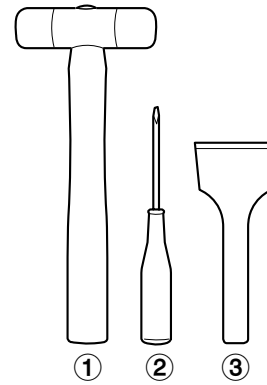


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4



TOOLS

- ① Plastic head hammer
- ② (⊖) flat head screwdriver
- ③ Cut chisel

How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.
2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.
3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

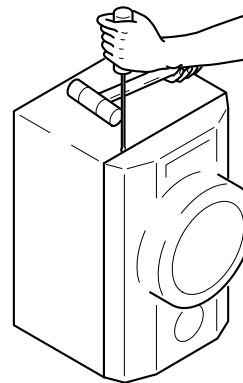


Fig-1

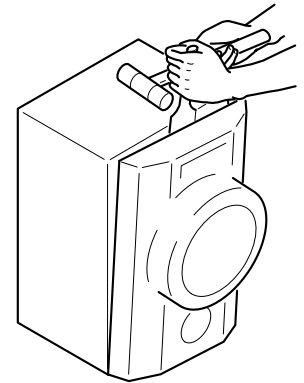


Fig-2

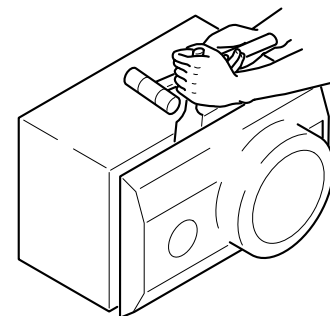


Fig-3


How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

SPEAKER PARTS LIST SX-WZHK550 (YJ7SL)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-MS3-010-010		PANEL,FR 550
2	8Z-MS4-003-010		PROTECTOR
3	8Z-MS2-601-010		SPKR, W 200
4	8A-MS3-603-010		SPKR, M 120
5	88-MS1-608-010		SPKR,CERAMIC
6	88-NS3-605-010		CAP,
7	88-MS1-610-010		CORD,SPKR
8	88-NS5-611-010		CORD,SPKR B/L

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-MG5-901-010		IB,HR(ECA) M
2	8Z-NH8-702-010		RC UNIT,RC-ZAS07
3	87-043-115-010		FEEDER-ANT,FM
4	87-A90-030-010		ANT,LOOP AM-NC C
5	87-050-103-010		CORD,PIN 1PY 1.5M
	6	87-099-789-010	PLUG,ADPTR IR44

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
AIWA CO.,LTD. 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111