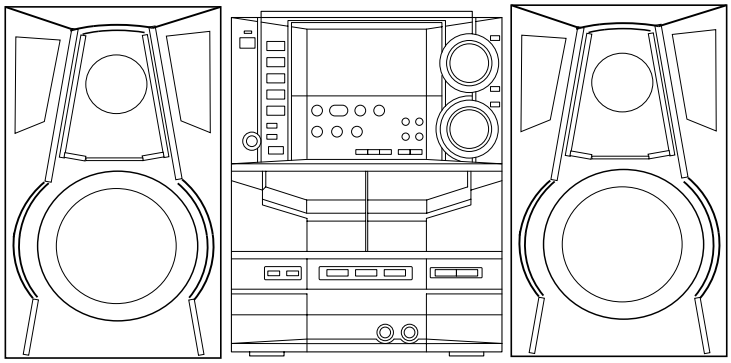
aiwa SERVICE

NSX-SZ80 LH
NSX-SZ83 LH
NSX-AJ80 U
NSX-SZ80E HA



SERVICE MANUAL

COMPACT DISC STEREO
CASSETTE RECEIVER

BASIC TAPE MECHANISM : 2ZM-3MK2 PR7NM
BASIC CD MECHANISM : AZG-1 ZD3RNDM

SYSTEM	CD CASSEIVER	MAIN SPEAKER	SATELLITE SPEAKER	REMOTE CONTROLLER
NSX–SZ80 (LH)	CX–NSZ80	SX–WNSZ80	SX–S80	RC–ZAS01
NSX–SZ83 (LH)	CX–NSZ83	SX–WNH83		
NSX–AJ80 (U)	CX–NAJ80	SX–WNAJ85		
NSX–SZ80E (HA)	CX–NSZ80E	SX–WNSZ80		

• If requiring information about the CD mechanism, see Service Manual of AZG-1 ZD3RNDM, (S/M Code No. 09-001-335-3N8).

aiwa

S/M Code No. 09-003-424-4R1

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>

Mid-high frequency amplifier

Power output	**LH, HA:** Rated 35 W + 35 W (6 ohms, T.H.D. 1 %, 1 kHz) Reference: 45 W + 45 W (6 ohms, T.H.D. 10 %, 1 kHz) **U:** 30 W + 30 W (200 Hz - 20 kHz, T.H.D. less than 1 %, 8 ohms)
Total harmonic distortion	0.1 % (25 W, 1 kHz, 8 ohms, DIN AUDIO)

Low frequency amplifier

Power output	**LH, HA:** Rated 105 W + 105 W (6 ohms, T.H.D. 1 %, 120 Hz) Reference: 135 W + 135 W (6 ohms, T.H.D. 10 %, 120 Hz) **U:** 90 W + 90 W (50 Hz - 200 Hz, T.H.D. less than 1 %, 6 ohms)
Total harmonic distortion	0.1 % (75 W, 120 Hz, 6 ohms, DIN AUDIO)

Satellite amplifier<U only>

Power output	5 W + 5 W (1 kHz, T.H.D. less than 1 %, 8 ohms)
Total harmonic distortion	0.1 % (3 W, 1 kHz, 8 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 316 mV (adjustable) MD: 316 mV (adjustable) MIC: 1.0 mV (10 k ohms)
Outputs	SPEAKERS HIGH FREQ: accept speakers of 8 ohms or more SPEAKERS LOW FREQ: accept speakers of 6 ohms or more SATELLITE SPEAKERS: accept speakers of 8 ohms or more SURROUND SPEAKERS: accept speakers of 8 ohms to 16 ohms LINE OUT: 210 mV PHONES (stereo jack): accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	CrO_2 tape: 50 Hz – 16000 Hz NORMAL tape: 50 Hz – 15000 Hz
Recording system	AC bias
Heads	Deck 1: Playback head x 1 Deck 2: Recording/Playback head x 1, erase head x 1

<Compact disc player section>

Laser	Semiconductor laser (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

<General>

Power requirements	**U**: 120 V AC, 60 Hz **LH, HA**: 120 V/220-230 V/240 V AC (switchable), 50/60 Hz
Power consumption	**U**: 165 W **LH, HA**: 245 W
Power consumption in standby mode	If the power-economizing mode is ECO OFF: **LH, HA:** 29.5 W **U:** 27.5 W If the power-economizing mode is ECO ON or ECO AUTO: 0.9 W
Dimensions of main unit (W x H x D)	260 x 329 x 389.6 mm (10 1/4 X 13 X 15 3/8 in.)
Weight of main unit	11.8 kg (26 lbs.)

<Speaker system SX–WNH83 / SX–WNSZ80 / SX–WNAJ85>

Speaker system	3 way, built-in subwoofer (magnetic shielded type)
Speaker units	Subwoofer: 200 mm (7 7/8 in.) cone type Full range: 120 mm (4 3/4 in.) cone type Super tweeter: 20 mm (13/16 in.) ceramic type
Impedance	6 ohms/8 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	**SX-WNH83** / **WNAJ85**: 240 x 324 x 285 mm (9 1/2 X 12 7/8 X 11 1/4 in.) **SX-WNSZ80**: 240 x 384 x 310 mm
Weight	5.8 kg (12 lbs. 13 oz.)

<Satellite speaker SX–S80>

Speaker system	Full range (magnetic shielded type)
Speakers units	80 mm cone type
Impedance	8 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	100 x 327 x 105 mm (4 X 12 7/8 X 4 1/4 in.)(with pedestal) 100 x 190 x 81 mm (4 X 7 1/2 X 3 1/4 in.)(without pedestal)
Weight	0.6 kg (1 lbs. 5 oz.)

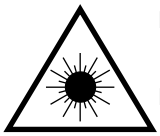
• Design and specifications are subject to change without notice.

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

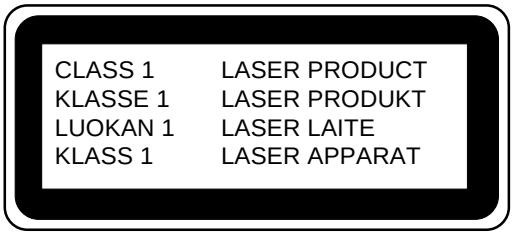
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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.

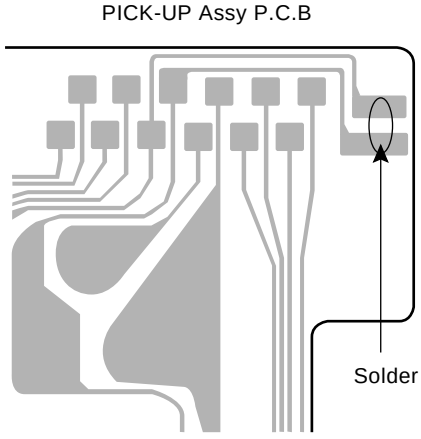


Precaution to replace Optical block

(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.

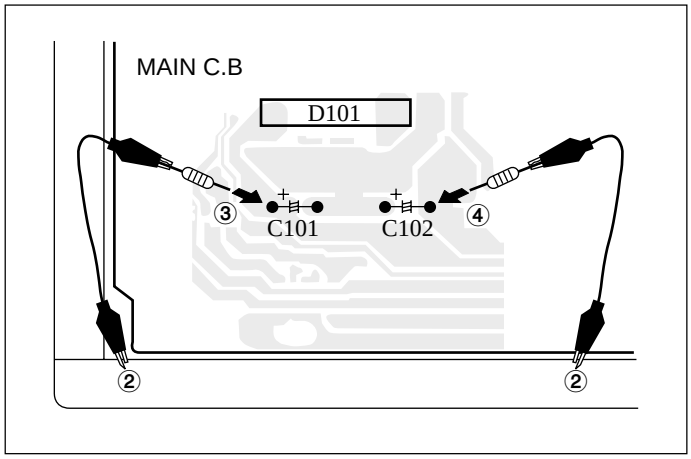


Fig-1

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.

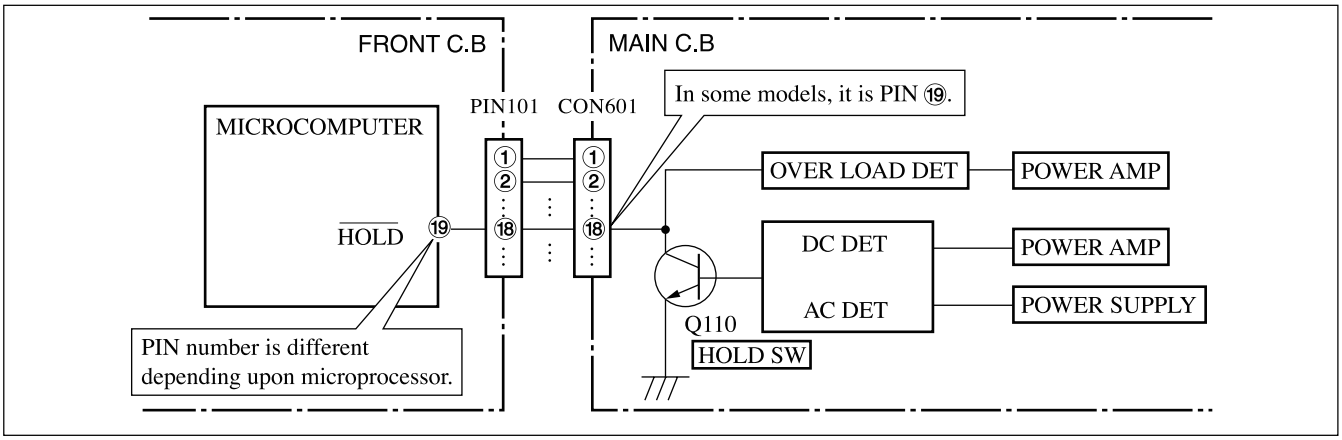


Fig-2-1

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.

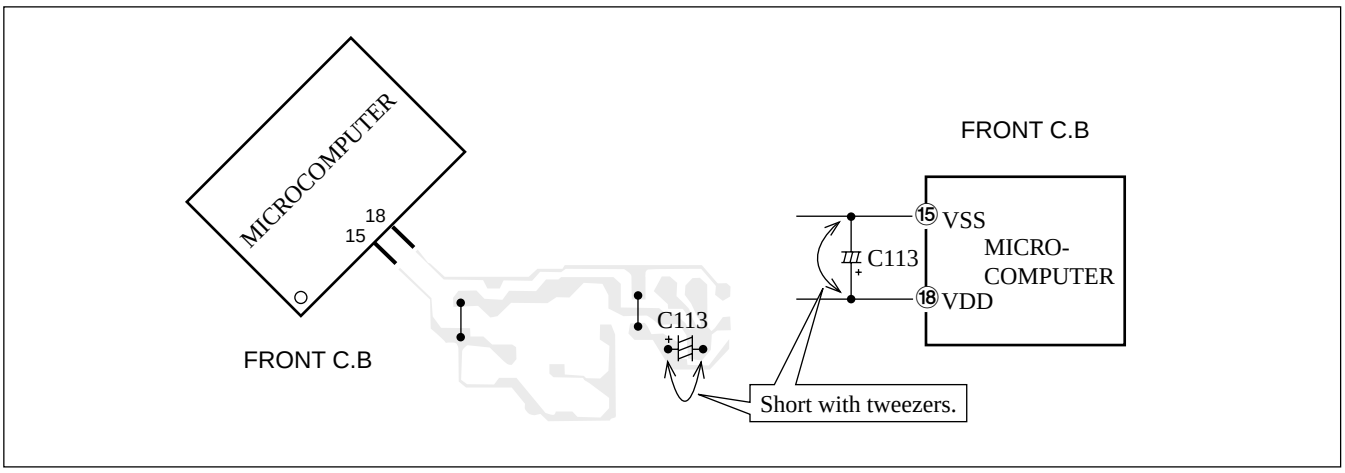


Fig-2-2

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			
	8A-NF6-610-030		C-IC,LC87654V-5P35
	87-A21-418-010		IC,STK490-340
	87-A21-018-040		C-IC,M65849BFP631D
	87-A21-396-010		IC,STK490-040<80U>
	87-A21-397-010		IC,STK490-070<EXCEPT 80U>
	87-A20-914-010		IC,SPS-442-1-F
	87-A20-783-040		C-IC,BA7762AFS
	87-A21-577-040		C-IC,M61506FP
	87-A21-021-040		C-IC,BU2099FV
	87-070-289-040		IC,BU 2092F
	87-A21-452-030		C-IC,BD3876KS2
	87-A21-051-040		C-IC,BU9990-03FS<EXCEPT 80U>
	87-A21-415-010		IC,LA1843
	87-070-127-110		IC,LC72131 D
	87-020-454-010		IC,DN 6851
TRANSISTOR			
	87-026-245-080		TR,DTC114ES
	87-A30-198-080		TR,KTC3199GR
	87-A30-075-080		C-TR,2SA1235F
	87-A30-318-080		TR,CSA952K
	89-213-702-010		TR,2SB1370 (1.8W)
	87-A30-076-080		C-TR,2SC3052F
	87-026-610-080		TR,KTC3198GR
	87-026-609-080		TR,KTA1266GR
	87-A30-087-080		C-FET,2SK2158
	87-A30-107-070		C-TR,CMBT5401
	87-A30-468-080		C-TR,KRC102S-RTK
	87-A30-074-080		C-TR,RT1P141C
	87-A30-269-040		C-FET,2SJ461-T1
	87-A30-106-040		C-TR,CMBT5551
	87-A30-086-040		C-TR,CSD1306E
	87-A30-190-080		TR,CC5551
	89-420-613-010		TR,2SD2061F
	89-213-703-010		TR,2SB1370F
	87-A30-063-080		C-TR,KRA104S
	87-A30-086-070		C-TR,CSD1306E
	87-A30-329-080		TR,CD1585BC
	89-327-143-080		TR,2SC2714 (0.1W)
	87-A30-489-080		C-TR,KRA107S
	87-A30-234-080		TR,CSC4115BC
	87-026-463-080		TR,2SA933S
DIODE			
	87-A40-673-090		DIODE,D10XB20
	87-A40-547-090		DIODE,D5SBA20
	87-020-465-080		DIODE,1SS133
	87-A40-553-080		DIODE,1N4003 LES
	87-A40-784-080		ZENER,UZ39BSB
	87-A40-764-080		ZENER,UZ10BSC
	87-A40-313-080		C-DIODE,MC 2840
	87-A40-270-080		C-DIODE,MC2838
	87-A40-269-080		C-DIODE,MC2836
	87-A40-768-080		ZENER,UZ16BSA
	87-A40-752-080		ZENER,UZ6.2BSC
	87-A40-748-080		ZENER,UZ5.6BSA
	87-A40-802-080		ZENER,UZ5.1BSC
	87-A40-747-080		ZENER,UZ5.1BSB
	87-A40-745-080		ZENER,UZ4.7BSA
	87-A40-749-080		ZENER,UZ5.6BSB<EXCEPT 80U>
	87-017-149-080		ZENER,HZS6A2L
MAIN C.B			
C3	87-012-368-080		C-CAP,S 0.1-50 F
C4	87-012-368-080		C-CAP,S 0.1-50 F
C21	87-016-658-000		CAP,E 4700-35 M SMG
C22	87-016-658-000		CAP,E 4700-35 M SMG
C25	87-010-382-080		CAP, ELECT 22-25V
C26	87-010-382-080		CAP, ELECT 22-25V<EXCEPT 80U>
C26	87-010-383-080		CAP, ELECT 33-25V<80U>
C27	87-010-382-080		CAP, ELECT 22-25V
C28	87-010-382-080		CAP, ELECT 22-25V<EXCEPT 80U>
C28	87-010-383-080		CAP, ELECT 33-25V<80U>
C31	87-010-263-080		CAP, ELECT 100-10V
C32	87-010-197-080		CAP, CHIP 0.01 DM
C33	87-010-263-080		CAP, ELECT 100-10V<80U>
C34	87-010-247-080		CAP, ELECT 100-50V
C35	87-010-260-080		CAP, ELECT 47-25V
C36	87-010-381-080		CAP, ELECT 330-16V
C38	87-010-384-080		CAP, ELECT 100-25V
C39	87-010-384-080		CAP, ELECT 100-25V
C40	87-010-197-080		CAP, CHIP 0.01 DM
C60	87-010-403-080		CAP, ELECT 3.3-50V
C80	87-010-401-080		CAP, ELECT 1-50V<EXCEPT 80U>
C81	87-010-374-080		CAP, ELECT 47-10V<EXCEPT 80U>
C82	87-010-260-080		CAP, ELECT 47-25V<EXCEPT 80U>
C104	87-010-196-080		CHIP CAPACITOR,0.1-25
C105	87-010-196-080		CHIP CAPACITOR,0.1-25
C111	87-010-545-080		CAP, ELECT 0.22-50V
C112	87-010-545-080		CAP, ELECT 0.22-50V
C113	87-010-545-080		CAP, ELECT 0.22-50V
C114	87-010-545-080		CAP, ELECT 0.22-50V
C115	87-010-546-080		CAP, ELECT 0.33-50V
C116	87-010-546-080		CAP, ELECT 0.33-50V
C121	87-010-546-080		CAP, ELECT 0.33-50V
C122	87-010-546-080		CAP, ELECT 0.33-50V
C171	87-012-368-080		C-CAP,S 0.1-50 F
C172	87-012-368-080		C-CAP,S 0.1-50 F
C173	87-012-368-080		C-CAP,S 0.1-50 F
C174	87-012-368-080		C-CAP,S 0.1-50 F
C301	87-010-318-080		C-CAP,S 47P-50 J CH
C302	87-010-318-080		C-CAP,S 47P-50 J CH
C303	87-012-157-080		C-CAP,S 330P-50 CH
C304	87-012-157-080		C-CAP,S 330P-50 CH
C305	87-012-157-080		C-CAP,S 330P-50 CH
C306	87-012-157-080		C-CAP,S 330P-50 CH
C307	87-010-196-080		CHIP CAPACITOR,0.1-25
C309	87-010-196-080		CHIP CAPACITOR,0.1-25
C310	87-010-196-080		CHIP CAPACITOR,0.1-25
C311	87-010-198-080		CAP, CHIP 0.022
C312	87-010-198-080		CAP, CHIP 0.022
C313	87-010-179-080		CAP,CHIP S B1200P
C314	87-010-179-080		CAP,CHIP S B1200P
C315	87-010-179-080		CAP,CHIP S B1200P
C316	87-010-179-080		CAP,CHIP S B1200P
C321	87-012-142-080		CAP, S 0.33-16
C322	87-012-142-080		CAP, S 0.33-16
C324	87-010-260-080		CAP, ELECT 47-25V
C325	87-010-370-080		CAP,E 330-6.3 SME
C327	87-010-404-080		CAP, ELECT 4.7-50V
C328	87-010-404-080		CAP, ELECT 4.7-50V
C332	87-010-196-080		CHIP CAPACITOR,0.1-25
C335	87-010-401-080		CAP, ELECT 1-50V
C336	87-010-401-080		CAP, ELECT 1-50V
C337	87-010-196-080		CHIP CAPACITOR,0.1-25
C339	87-010-196-080		CHIP CAPACITOR,0.1-25
C340	87-010-196-080		CHIP CAPACITOR,0.1-25
C351	87-012-140-080		CAP 470P
C352	87-012-140-080		CAP 470P
C354	87-010-175-080		CAP 560P
C355	87-010-178-080		CHIP CAP 1000P
C356	87-010-260-080		CAP, ELECT 47-25V
C357	87-010-197-080		CAP, CHIP 0.01 DM
C358	87-010-183-080		C-CAP,S 2700P-50 B
C359	87-010-183-080		C-CAP,S 2700P-50 B
C360	87-010-183-080		C-CAP,S 2700P-50 B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C370	87-010-196-080		CHIP CAPACITOR,0.1-25
C373	87-016-083-080		C-CAP,S 0.15-16 RK
C374	87-016-083-080		C-CAP,S 0.15-16 RK
C378	87-010-196-080		CHIP CAPACITOR,0.1-25
C379	87-010-382-080		CAP, ELECT 22-25V
C380	87-010-382-080		CAP, ELECT 22-25V
C381	87-010-197-080		CAP, CHIP 0.01 DM
C382	87-010-312-080		C-CAP,S 15P-50 CH
C383	87-010-197-080		CAP, CHIP 0.01 DM
C384	87-010-402-080		CAP, ELECT 2.2-50V
C386	87-010-196-080		CHIP CAPACITOR,0.1-25
C387	87-012-145-080		CAP, CHIP S 270P CH
C388	87-012-156-080		C-CAP,S 220P-50 CH
C391	87-010-319-080		C-CAP,S 56P-50 CH
C392	87-010-319-080		C-CAP,S 56P-50 CH
C393	87-010-319-080		C-CAP,S 56P-50 CH
C394	87-010-319-080		C-CAP,S 56P-50 CH
C501	87-010-263-080		CAP, ELECT 100-10V
C502	87-010-196-080		CHIP CAPACITOR,0.1-25
C503	87-012-393-080		C-CAP,S 0.22-16 R K
C504	87-012-393-080		C-CAP,S 0.22-16 R K
C505	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C506	87-010-184-080		CHIP CAPACITOR 3300P(K)
C507	87-010-177-080		C-CAP,S 820P-50 SL
C508	87-016-669-080		C-CAP,S 0.1-25 K B
C509	87-016-669-080		C-CAP,S 0.1-25 K B
C510	87-010-184-080		CHIP CAPACITOR 3300P(K)
C511	87-010-177-080		C-CAP,S 820P-50 SL
C512	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C513	87-010-544-080		CAP, ELECT 0.1-50V
C514	87-010-374-080		CAP, ELECT 47-10V
C515	87-010-401-080		CAP, ELECT 1-50V
C516	87-010-401-080		CAP, ELECT 1-50V
C517	87-010-183-080		C-CAP,S 2700P-50 B
C518	87-010-183-080		C-CAP,S 2700P-50 B
C531	87-010-405-080		CAP, ELECT 10-50V
C532	87-010-196-080		CHIP CAPACITOR,0.1-25
C533	87-010-196-080		CHIP CAPACITOR,0.1-25
C534	87-012-156-080		C-CAP,S 220P-50 CH
C535	87-010-178-080		CHIP CAP 1000P
C536	87-010-196-080		CHIP CAPACITOR,0.1-25
C538	87-010-318-080		C-CAP,S 47P-50 CH
C541	87-010-178-080		CHIP CAP 1000P
C609	87-010-181-080		CAP,CHIP S 1800P
C610	87-010-181-080		CAP,CHIP S 1800P
C611	87-010-956-080		CHIP-CAP,S 0.068-25B
C612	87-016-369-080		C-CAP,S 0.033-25 B K
C613	87-010-197-080		CAP, CHIP 0.01 DM
C614	87-016-669-080		C-CAP,S 0.1-25 K B
C616	87-010-184-080		CHIP CAPACITOR 3300P(K)
C617	87-012-369-080		C-CAP,S 0.047-50F
C618	87-010-401-080		CAP, ELECT 1-50V
C619	87-010-263-080		CAP, ELECT 100-10V
C620	87-016-669-080		C-CAP,S 0.1-25 K B
C621	87-010-197-080		CAP, CHIP 0.01 DM
C623	87-010-401-080		CAP, ELECT 1-50V
C624	87-010-401-080		CAP, ELECT 1-50V
C626	87-010-596-080		CAP, S 0.047-16
C627	87-010-400-080		CAP, ELECT 0.47-50V
C628	87-010-400-080		CAP, ELECT 0.47-50V
C629	87-010-596-080		CAP, S 0.047-16
C630	87-010-383-080		CAP, ELECT 33-25V
C631	87-010-185-080		C-CAP,S 3900P-50 B
C632	87-010-185-080		C-CAP,S 3900P-50 B
C634	87-010-196-080		CHIP CAPACITOR,0.1-25
C635	87-A10-307-080		CAP,M 0.1-50 J
C636	87-A10-307-080		CAP,M 0.1-50 J
C637	87-A10-307-080		CAP,M 0.1-50 J
C638	87-A10-307-080		CAP,M 0.1-50 J
C639	87-010-405-080		CAP, ELECT 10-50V
C641	87-010-401-080		CAP, ELECT 1-50V
C642	87-010-401-080		CAP, ELECT 1-50V
C643	87-010-196-080		CHIP CAPACITOR,0.1-25
C644	87-010-401-080		CAP, ELECT 1-50V
C671	87-010-322-080		C-CAP,S 100P-50 CH
C672	87-010-322-080		C-CAP,S 100P-50 CH
C673	87-010-197-080		CAP, CHIP 0.01 DM
C679	87-010-196-080		CHIP CAPACITOR,0.1-25
C680	87-010-197-080		CAP, CHIP 0.01 DM
C682	87-010-196-080		CHIP CAPACITOR,0.1-25
C771	87-010-263-080		CAP, ELECT 100-10V
C772	87-010-197-080		CAP, CHIP 0.01 DM
C773	87-010-184-080		CHIP CAPACITOR 3300P(K)
C774	87-010-184-080		CHIP CAPACITOR 3300P(K)
C779	87-A10-679-080		C-CAP,S 3300P-50 JR
C780	87-A10-679-080		C-CAP,S 3300P-50 JR
C782	87-010-197-080		CAP, CHIP 0.01 DM
C783	87-010-197-080		CAP, CHIP 0.01 DM
C784	87-010-197-080		CAP, CHIP 0.01 DM
C785	87-010-197-080		CAP, CHIP 0.01 DM
C786	87-010-197-080		CAP, CHIP 0.01 DM
C788	87-010-149-080		C-CAP,S 5P-50 CH
C789	87-A10-592-080		C-CAP,S 0.015-50 J B
C790	87-A10-592-080		C-CAP,S 0.015-50 J B
C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C792	87-010-197-080		CAP, CHIP 0.01 DM
C793	87-010-404-080		CAP, ELECT 4.7-50V
C795	87-010-197-080		CAP, CHIP 0.01 DM
C796	87-010-197-080		CAP, CHIP 0.01 DM
C797	87-010-405-080		CAP, ELECT 10-50V
C798	87-010-197-080		CAP, CHIP 0.01 DM
C799	87-010-407-080		CAP, ELECT 33-50V
C800	87-012-369-080		C-CAP,S 0.047-50F
C801	87-010-403-080		CAP, ELECT 3.3-50V
C802	87-012-369-080		C-CAP,S 0.047-50F
C803	87-010-198-080		CAP, CHIP 0.022
C804	87-010-263-080		CAP, ELECT 100-10V
C807	87-010-400-080		CAP, ELECT 0.47-50V
C808	87-010-401-080		CAP, ELECT 1-50V
C809	87-010-401-080		CAP, ELECT 1-50V
C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C811	87-010-403-080		CAP, ELECT 3.3-50V
C812	87-010-403-080		CAP, ELECT 3.3-50V
C814	87-010-197-080		CAP, CHIP 0.01 DM
C815	87-010-400-080		CAP, ELECT 0.47-50V
C816	87-010-400-080		CAP, ELECT 0.47-50V
C819	87-010-179-080		CAP,CHIP S B1200P
C820	87-010-179-080		CAP,CHIP S B1200P
C821	87-010-405-080		CAP, ELECT 10-50V
C823	87-010-177-080		C-CAP,S 820P-50 SL
C824	87-010-405-080		CAP, ELECT 10-50V
C825	87-010-596-080		CAP, S 0.047-16
C842	87-010-197-080		CAP, CHIP 0.01 DM
C843	87-010-197-080		CAP, CHIP 0.01 DM
C844	87-010-197-080		CAP, CHIP 0.01 DM
C845	87-010-197-080		CAP, CHIP 0.01 DM
C846	87-010-197-080		CAP, CHIP 0.01 DM
C847	87-010-197-080		CAP, CHIP 0.01 DM
C848	87-010-197-080		CAP, CHIP 0.01 DM
C849	87-010-197-080		CAP, CHIP 0.01 DM
C850	87-010-260-080		CAP, ELECT 47-25V
C851	87-010-197-080		CAP, CHIP 0.01 DM
C852	87-010-197-080		CAP, CHIP 0.01 DM
C853	87-010-197-080		CAP, CHIP 0.01 DM
C858	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-010-196-080		CHIP CAPACITOR,0.1-25
C860	87-010-197-080		CAP, CHIP 0.01 DM
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C961	87-010-152-080		C-CAP,S 8P-50 CH

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C963	87-015-785-080		CHIP CAPACITOR, 0.1FZ-25Z
C971	87-010-381-080		CAP, ELECT 330-16V
C972	87-010-404-080		CAP, ELECT 4.7-50V
C973	87-010-197-080		CAP, CHIP 0.01 DM
C974	87-010-197-080		CAP, CHIP 0.01 DM
C979	87-010-322-080		C-CAP,S 100P-50 CH
C981	87-010-260-080		CAP, ELECT 47-25V
C982	87-010-196-080		CHIP CAPACITOR,0.1-25
C983	87-010-197-080		CAP, CHIP 0.01 DM
C984	87-010-197-080		CAP, CHIP 0.01 DM
C987	87-010-197-080		CAP, CHIP 0.01 DM
C991	87-010-312-080		C-CAP,S 15P-50 CH
C992	87-010-312-080		C-CAP,S 15P-50 CH
C993	87-010-178-080		CHIP CAP 1000P
C995	87-010-178-080		CHIP CAP 1000P
C997	87-010-196-080		CHIP CAPACITOR,0.1-25
C998	87-010-260-080		CAP, ELECT 47-25V
C999	87-A11-155-080		CAP,TC U 0.01-16 Z F
CF831	87-008-261-010		FILTER, SFE10.7MA5-A
CF832	87-008-261-010		FILTER, SFE10.7MA5-A
CN1	87-A60-996-010		CONN,13P V BLK TAC-L13X-A3
CN91	87-A60-109-010		CONN,2P V S2M-2W<EXCEPT 80U>
CN101	87-A60-996-010		CONN,13P V BLK TAC-L13X-A3
CN301	87-A60-620-010		CONN,3P V 2MM JMT
CN351	87-A60-625-010		CONN,8P V 2MM JMT
CN601	87-099-719-010		CONN,30P TYK-B(X)
CN602	87-099-194-010		CONN,6P 6216V
CNA1	8A-NF6-646-010		CONN ASSY,9P TID-A(460)
CNA2	8A-NF6-630-010		CONN ASSY,3P (VM) ANF-6
CNA101	8A-NF6-670-010		CONN ASSY,2P (MUTE) ANF-6
CON301	87-NF6-615-010		CONN ASSY,3P PB
CON351	87-NF6-616-010		CONN ASSY,8P RPB
FB501	87-008-372-080		FILTER, EMI BL OIRNI
FC602	88-906-621-110		FF-CABLE,6P 1.25 620MM
FFE831	A8-8ZA-190-030		8ZA-1 FEUNM
J102	87-A60-238-010		TERMINAL,SP 4P (MSC)
J103	87-A60-929-010		JACK,DIA6.3 BLK ST W/S TAI
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)
L301	87-A50-049-010		COIL,TRAP 85K(COI)
L302	87-A50-049-010		COIL,TRAP 85K(COI)
L351	87-007-342-010		COIL,OSC 85K BIAS
L801	87-A50-540-010		COIL,FM DET(TOK)
L802	87-A91-551-010		FLTR,PCFJZH-450 L(TOK)
L811	87-005-847-080		COIL,2.2UH(CECS)
L821	87-A50-209-010		COIL,1POLE MPX(MIT)
L822	87-A50-209-010		COIL,1POLE MPX(MIT)
L832	87-005-847-080		COIL,2.2UH(CECS)
L951	8A-NF8-667-010		COIL,AM PACK 4(TOK)
R161	87-A00-441-050		RES,270-1/2W J RP
R162	87-A00-441-050		RES,270-1/2W J RP
R163	87-A00-441-050		RES,270-1/2W J RP
R164	87-A00-441-050		RES,270-1/2W J RP
R790	87-010-197-080		CAP, CHIP 0.01 DM
R991	87-010-322-080		C-CAP,S 100P-50 CH
R993	87-010-322-080		C-CAP,S 100P-50 CH
R995	87-010-322-080		C-CAP,S 100P-50 CH
SFR351	87-A90-433-080		SFR,50K H NVZ6TLTA
SFR352	87-A90-433-080		SFR,50K H NVZ6TLTA
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C101	87-010-197-080		CAP, CHIP 0.01 DM
C102	87-010-322-080		C-CAP,S 100P-50 CH
C103	87-010-312-080		C-CAP,S 15P-50 CH
C104	87-012-157-080		C-CAP,S 330P-50 CH
C105	87-010-415-040		CAP,E 10-50 5L
C106	87-010-493-040		CAP,E 0.47-50 GAS
C107	87-A10-189-040		CAP,E 220-10
C108	87-A10-189-040		CAP,E 220-10
C109	87-010-196-080		CHIP CAPACITOR,0.1-25
C110	87-010-178-080		CHIP CAP 1000P
C112	87-012-368-080		C-CAP,S 0.1-50 F
C113	87-A10-354-080		C-CAP,S 0.047-50 K B
C114	87-010-196-080		CHIP CAPACITOR,0.1-25
C115	87-010-196-080		CHIP CAPACITOR,0.1-25
C116	87-010-196-080		CHIP CAPACITOR,0.1-25
C118	87-012-145-080		CAP, CHIP S 270P CH
C180	87-010-178-080		CHIP CAP 1000P
C181	87-010-178-080		CHIP CAP 1000P
C202	87-012-156-080		C-CAP,S 220P-50 CH
C203	87-010-322-080		C-CAP,S 100P-50 CH
C204	87-012-157-080		C-CAP,S 330P-50 CH
C205	87-012-156-080		C-CAP,S 220P-50 CH
C214	87-010-322-080		C-CAP,S 100P-50 CH
C215	87-010-322-080		C-CAP,S 100P-50 CH
C216	87-010-177-080		C-CAP,S 820P-50 SL
C221	87-010-421-040		CAP,E 4.7-50 5L
C222	87-010-421-040		CAP,E 4.7-50 5L
C223	87-010-408-040		CAP,E 47-50 SME
C224	87-012-369-080		C-CAP,S 0.047-50F
C312	87-010-498-040		CAP,E 10-16 GAS
C314	87-010-196-080		CHIP CAPACITOR,0.1-25
C315	87-010-196-080		CHIP CAPACITOR,0.1-25
C316	87-010-196-080		CHIP CAPACITOR,0.1-25
C321	87-012-393-080		C-CAP,S 0.22-16 R K
C382	87-010-320-080		CHIP CAP 68P
C383	87-010-196-080		CHIP CAPACITOR,0.1-25
C384	87-010-196-080		CHIP CAPACITOR,0.1-25
C385	87-010-196-080		CHIP CAPACITOR,0.1-25
C386	87-010-196-080		CHIP CAPACITOR,0.1-25
C387	87-010-196-080		CHIP CAPACITOR,0.1-25
C392	87-010-320-080		CHIP CAP 68P
C402	87-010-196-080		CHIP CAPACITOR,0.1-25
C403	87-010-322-080		C-CAP,S 100P-50 CH
C404	87-010-322-080		C-CAP,S 100P-50 CH
C405	87-010-322-080		C-CAP,S 100P-50 CH
C406	87-010-322-080		C-CAP,S 100P-50 CH
C407	87-010-322-080		C-CAP,S 100P-50 CH
C408	87-010-322-080		C-CAP,S 100P-50 CH
C461	87-010-196-080		CHIP CAPACITOR,0.1-25
C462	87-010-196-080		CHIP CAPACITOR,0.1-25
C463	87-010-196-080		CHIP CAPACITOR,0.1-25
C464	87-010-196-080		CHIP CAPACITOR,0.1-25
C465	87-010-196-080		CHIP CAPACITOR,0.1-25
C652	87-010-183-080		C-CAP,S 2700P-50 B
C653	87-010-213-080		C-CAP,S 0.015-50 B
C701	87-010-406-040		CAP,E 22-50 SME
C802	87-012-154-080		C-CAP,S 150P-50 CH<EXCEPT 80U>
C804	87-010-187-080		CAP CHIP S5600P<EXCEPT 80U>
C805	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT 80U>
C806	87-010-401-040		CAP,E 1-50 SME<EXCEPT 80U>
C807	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT 80U>
C808	87-010-196-080		CHIP CAPACITOR,0.1-25<EXCEPT 80U>
C809	87-012-155-080		C-CAP 180P-50CH<EXCEPT 80U>
C810	87-010-263-040		CAP,E 100-10<EXCEPT 80U>
C811	87-010-545-040		CAP,E 0.22-50 SME<EXCEPT 80U>
C812	87-010-405-040		CAP,E 10-50<EXCEPT 80U>
CN101	87-099-720-010		CONN,30P TYK-B(P)
CN104	87-099-017-010		CONN, 15P 6216 V
CN301	87-099-195-010		CONN,7P 6216 V
CN604	87-099-210-010		CONN,5P 6216 H
CN901	87-A60-161-010		CONN,13P H FE
FB801	87-008-372-080		FILTER, EMI BL OIRNI<EXCEPT 80U>
FC104	88-915-111-110		FF-CABLE,15P 1.25
FC301	88-907-421-110		FF-CABLE,7P 1.25 420MM

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
FC901	88-913-521-110		FF-CABLE,13P 1.25 520MM
FL201	8A-NF6-601-010		FL,BJ750GNK 13G-35S ANF-6
L101	87-A50-333-010		COIL,OSC 9.43MHZ
L801	87-A50-093-010		COIL,CLOCK 5.76MHZ<EXCEPT 80U>
LED401	87-017-756-040		LED,SLR-342DCT31 ORN
LED402	87-017-756-040		LED,SLR-342DCT31 ORN
LED403	87-017-756-040		LED,SLR-342DCT31 ORN
LED404	87-017-756-040		LED,SLR-342DCT31 ORN
LED405	87-017-756-040		LED,SLR-342DCT31 ORN
LED406	87-A40-496-040		LED,SLR-342MCT31 GRN
LED407	87-A40-496-040		LED,SLR-342MCT31 GRN
LED408	87-A40-496-040		LED,SLR-342MCT31 GRN
LED409	87-A40-496-040		LED,SLR-342MCT31 GRN
LED410	87-A40-496-040		LED,SLR-342MCT31 GRN
LED416	87-A40-809-080		LED,LTL-307KK PGRN
LED417	87-A40-809-080		LED,LTL-307KK PGRN
LED418	87-A40-809-080		LED,LTL-307KK PGRN
LED419	87-A40-809-080		LED,LTL-307KK PGRN
LED420	87-A40-809-080		LED,LTL-307KK PGRN
LED421	87-A40-809-080		LED,LTL-307KK PGRN
LED425	87-017-756-040		LED,SLR-342DCT31 ORN
LED426	87-017-756-040		LED,SLR-342DCT31 ORN
LED431	87-A40-678-010		LED,SELU1E10CXM BLUE-DEF
LED432	87-A40-678-010		LED,SELU1E10CXM BLUE-DEF
LED433	87-A40-678-010		LED,SELU1E10CXM BLUE-DEF
LED440	87-A91-665-010		LED,SELU1E10 CXM-SLF55 BLUE
LED441	87-A91-665-010		LED,SELU1E10 CXM-SLF55 BLUE
LED499	87-A40-317-080		LED,SLR-342VCT31 RED
S101	87-A91-591-010		SW,RTRY RE0121PVB25FINA24
S102	87-A91-664-010		SW,RTRY RE0121PVB30F
S301	87-A91-024-180		SW,TACT KSH0611BT
S302	87-A91-024-180		SW,TACT KSH0611BT
S303	87-A91-024-180		SW,TACT KSH0611BT
S304	87-A91-024-180		SW,TACT KSH0611BT
S305	87-A91-024-180		SW,TACT KSH0611BT
S306	87-A91-024-180		SW,TACT KSH0611BT
S310	87-A91-024-180		SW,TACT KSH0611BT
S311	87-A91-024-180		SW,TACT KSH0611BT
S312	87-A91-024-180		SW,TACT KSH0611BT
S313	87-A91-024-180		SW,TACT KSH0611BT
S314	87-A91-024-180		SW,TACT KSH0611BT<EXCEPT 80U>
S321	87-A91-024-180		SW,TACT KSH0611BT
S322	87-A91-024-180		SW,TACT KSH0611BT
S323	87-A91-024-180		SW,TACT KSH0611BT
S324	87-A91-024-180		SW,TACT KSH0611BT
S325	87-A91-024-180		SW,TACT KSH0611BT
S326	87-A91-024-180		SW,TACT KSH0611BT
S327	87-A91-024-180		SW,TACT KSH0611BT
S328	87-A91-024-180		SW,TACT KSH0611BT
S329	87-A91-024-180		SW,TACT KSH0611BT<EXCEPT 80U>
S330	87-A91-024-180		SW,TACT KSH0611BT<EXCEPT 80U>
S331	87-A91-024-180		SW,TACT KSH0611BT<EXCEPT 80U>
S332	87-A91-024-180		SW,TACT KSH0611BT<EXCEPT 80U>
S333	87-A91-024-180		SW,TACT KSH0611BT
S334	87-A91-024-180		SW,TACT KSH0611BT
S341	87-A91-024-180		SW,TACT KSH0611BT
S342	87-A91-024-180		SW,TACT KSH0611BT
S343	87-A91-024-180		SW,TACT KSH0611BT
S344	87-A91-024-180		SW,TACT KSH0611BT
S345	87-A91-024-180		SW,TACT KSH0611BT
S346	87-A91-024-180		SW,TACT KSH0611BT
S347	87-A91-024-180		SW,TACT KSH0611BT

CD KEY C.B

CN302	87-099-195-010		CONN,7P 6216 V
LED451	87-017-756-040		LED,SLR-342DCT31 ORN
LED452	87-017-756-040		LED,SLR-342DCT31 ORN
LED453	87-017-756-040		LED,SLR-342DCT31 ORN
LED454	87-A40-496-040		LED,SLR-342MCT31 GRN
LED455	87-A40-496-040		LED,SLR-342MCT31 GRN
LED456	87-A40-496-040		LED,SLR-342MCT31 GRN
S349	87-A91-024-180		SW,TACT KSH0611BT
S350	87-A91-024-180		SW,TACT KSH0611BT
S351	87-A91-024-180		SW,TACT KSH0611BT
S352	87-A91-024-180		SW,TACT KSH0611BT
S353	87-A91-024-180		SW,TACT KSH0611BT
S354	87-A91-024-180		SW,TACT KSH0611BT
S355	87-A91-024-180		SW,TACT KSH0611BT

MIC C.B

C601	87-010-186-080		CAP,CHIP 4700P
C602	87-010-405-040		CAP,E 10-50
C603	87-010-320-080		CHIP CAP 68P
C604	87-010-546-040		CAP,E 0.33-50
C606	87-010-112-040		CAP,E 100-16
C607	87-010-196-080		CHIP CAPACITOR,0.1-25
C608	87-010-178-080		CHIP CAP 1000P
C621	87-010-178-080		CHIP CAP 1000P
CN603	87-099-212-010		CONN,5P 6216 V
FB601	87-008-372-080		FILTER, EMI BL OIRNI
FC603	88-905-281-110		FF-CABLE, 5P 1.25 280MM
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

VM C.B

AMP 1F C.B

C101	87-010-178-080		CHIP CAP 1000P
C102	87-010-178-080		CHIP CAP 1000P
C103	87-010-545-080		CAP, ELECT 0.22-50V
C104	87-010-545-080		CAP, ELECT 0.22-50V
C107	87-016-145-080		CAP, ELECT 10-50 M 105 KME<80U>
C107	87-010-405-080		CAP, ELECT 10-50V<EXCEPT 80U>
C108	87-016-145-080		CAP, ELECT 10-50 M 105 KME<80U>
C108	87-010-405-080		CAP, ELECT 10-50V<EXCEPT 80U>
C113	87-010-405-080		CAP, ELECT 10-50V
C114	87-010-405-080		CAP, ELECT 10-50V
C115	87-A12-180-080		CAP, ELECT 10-63 M 105 KME<80U>
C115	87-016-299-080		CAP,E 10-100 SME<EXCEPT 80U>
C116	87-A12-180-080		CAP, ELECT 10-63 M 105 KME<80U>
C116	87-016-299-080		CAP,E 10-100 SME<EXCEPT 80U>
C119	87-010-197-080		CAP, CHIP 0.01 DM
C120	87-010-197-080		CAP, CHIP 0.01 DM
C133	87-010-190-080		C-CAP,S 0.01-50 ZF
C153	87-010-188-080		C-CAP,S 6800P-50 B
C201	87-A10-300-080		CAP,M 0.027-50 J
C202	87-A10-300-080		CAP,M 0.027-50 J
C203	87-A10-300-080		CAP,M 0.027-50 J
C204	87-A10-300-080		CAP,M 0.027-50 J
C205	87-010-180-080		C-CER 1500P
C206	87-010-180-080		C-CER 1500P
C207	87-010-401-080		CAP, ELECT 1-50V
C208	87-010-401-080		CAP, ELECT 1-50V
C209	87-010-187-080		CAP CHIP S5600P
C210	87-010-187-080		CAP CHIP S5600P
C211	87-016-142-080		CAP, ELECT 2.2-50 KME<80U>
C211	87-010-402-080		CAP, ELECT 2.2-50V<EXCEPT 80U>
C212	87-010-402-080		CAP, ELECT 2.2-50V
C215	87-012-140-080		C-CAP,S 470P-50 J CH
C216	87-012-140-080		C-CAP,S 470P-50 J CH
C217	87-010-401-080		CAP, ELECT 1-50V
C218	87-016-141-080		CAP, ELECT 1-50 M 105 KME<80U>
C218	87-010-401-080		CAP, ELECT 1-50V<EXCEPT 80U>
C221	87-010-405-080		CAP, ELECT 10-50V
C222	87-010-405-080		CAP, ELECT 10-50V
C223	87-010-197-080		CAP, CHIP 0.01 DM
C224	87-010-197-080		CAP, CHIP 0.01 DM

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C251	87-012-368-080		C-CAP,S 0.1-50 F
C252	87-012-368-080		C-CAP,S 0.1-50 F
C253	87-010-196-080		CHIP CAPACITOR,0.1-25
C254	87-010-196-080		CHIP CAPACITOR,0.1-25
C401	87-010-260-080		CAP, ELECT 47-25V
CN101	87-A61-011-010		CONN,13P H BLK TAC-L13P-A3
CN102	87-A61-011-010		CONN,13P H BLK TAC-L13P-A3
CN106	87-099-195-010		CONN,7P 6216 V
CNA101	8A-NF6-645-010		CONN ASSY,5P TID-A(530)
CNA102	8A-NF6-660-010		CONN ASSY,3P (SATE) ANF-6
FC106	88-907-151-110		FF-CABLE, 7P 1.25 150MM
J201	87-A61-148-010		JACK,PIN 4P R/W BLUE
L251	87-003-383-010		COIL,1UH-S
L252	87-003-383-010		COIL,1UH-S
R129	87-A00-262-080		RES,M/F 0.15-2W J
R130	87-A00-262-080		RES,M/F 0.15-2W J
R231	87-A00-258-080		RES,M/F 0.22-1W J
R232	87-A00-258-080		RES,M/F 0.22-1W J
WH101	87-A90-459-010		HLDR,WIRE 2.5-5P

AMP SATE C.B

C201	87-010-263-080		CAP, ELECT 100-10V
C211	87-012-393-080		C-CAP,S 0.22-16 R K
C212	87-012-393-080		C-CAP,S 0.22-16 R K
C213	87-012-393-080		C-CAP,S 0.22-16 R K
C214	87-012-393-080		C-CAP,S 0.22-16 R K
C215	87-010-196-080		CHIP CAPACITOR,0.1-25
C216	87-010-196-080		CHIP CAPACITOR,0.1-25
C217	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C218	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C219	87-010-184-080		CHIP CAPACITOR 3300P(K)
C220	87-010-184-080		CHIP CAPACITOR 3300P(K)
C221	87-010-177-080		C-CAP,S 820P-50 SL
C222	87-010-177-080		C-CAP,S 820P-50 SL
C223	87-016-669-080		C-CAP,S 0.1-25 K B
C224	87-016-669-080		C-CAP,S 0.1-25 K B
C225	87-016-669-080		C-CAP,S 0.1-25 K B
C226	87-016-669-080		C-CAP,S 0.1-25 K B
C227	87-010-184-080		CHIP CAPACITOR 3300P(K)
C228	87-010-184-080		CHIP CAPACITOR 3300P(K)
C229	87-010-177-080		C-CAP,S 820P-50 SL
C230	87-010-177-080		C-CAP,S 820P-50 SL
C231	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C232	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C233	87-010-374-080		CAP, ELECT 47-10V
C234	87-010-374-080		CAP, ELECT 47-10V
C235	87-010-544-080		CAP, ELECT 0.1-50V
C236	87-010-544-080		CAP, ELECT 0.1-50V
C237	87-010-183-080		C-CAP,S 2700P-50 B
C238	87-010-183-080		C-CAP,S 2700P-50 B
C239	87-010-544-080		CAP, ELECT 0.1-50V
C240	87-010-544-080		CAP, ELECT 0.1-50V
C301	87-010-178-080		CHIP CAP 1000P
C302	87-010-178-080		CHIP CAP 1000P
C303	87-010-544-080		CAP, ELECT 0.1-50V
C304	87-010-544-080		CAP, ELECT 0.1-50V
C309	87-010-401-080		CAP, ELECT 1-50V
C310	87-010-401-080		CAP, ELECT 1-50V
C311	87-010-260-080		CAP, ELECT 47-25V
C312	87-010-260-080		CAP, ELECT 47-25V
C315	87-A10-596-080		C-CAP,S 100P-100 J CH
C316	87-A10-596-080		C-CAP,S 100P-100 J CH
C317	87-010-197-080		CAP, CHIP 0.01 DM
C318	87-010-197-080		CAP, CHIP 0.01 DM
C319	87-012-368-080		C-CAP,S 0.1-50 F
C320	87-012-368-080		C-CAP,S 0.1-50 F
C321	87-010-197-080		CAP, CHIP 0.01 DM
C322	87-010-197-080		CAP, CHIP 0.01 DM
C323	87-010-196-080		CHIP CAPACITOR,0.1-25
C324	87-010-196-080		CHIP CAPACITOR,0.1-25
C325	87-010-186-080		CAP,CHIP 4700P
C401	87-010-196-080		CHIP CAPACITOR,0.1-25
C402	87-010-196-080		CHIP CAPACITOR,0.1-25
C403	87-010-405-080		CAP, ELECT 10-50V
C404	87-010-405-080		CAP, ELECT 10-50V
CN101	87-099-195-010		CONN,7P 6216 V
CN102	87-049-919-010		CONN,3P EH V WHT
CN103	87-A60-619-010		CONN,2P V 2MM JMT
J301	87-A61-189-010		JACK,3.5 MONO
J302	87-A61-189-010		JACK,3.5 MONO
L301	87-003-383-010		COIL,1UH-S
L302	87-003-383-010		COIL,1UH-S

PT C.B

C1	87-010-387-080		CAP,E 470-25 SME
C4	87-A11-148-080		CAP,TC U 0.1-50 Z F
C5	87-A11-148-080		CAP,TC U 0.1-50 Z F
C6	87-010-917-000		CAP,E 3300-50 M SMG
C7	87-010-917-000		CAP,E 3300-50 M SMG
C8	87-A11-148-080		CAP,TC U 0.1-50 Z F
C9	87-A11-148-080		CAP,TC U 0.1-50 Z F
C10	87-A11-148-080		CAP,TC U 0.1-50 Z F
C11	87-A11-148-080		CAP,TC U 0.1-50 Z F
C12	87-016-520-000		CAP,E 3300-65 M SMG<80U>
C12	87-016-657-090		CAP,E 3300-71<EXCEPT 80U>
C13	87-016-520-000		CAP,E 3300-65 M SMG<80U>
C13	87-016-657-090		CAP,E 3300-71<EXCEPT 80U>
C16	87-010-403-080		CAP, ELECT 3.3-50V
CN1	87-A61-110-010		CONN,9P V TID-A
CN2	87-A61-108-010		CONN,5P V TID-A
⚠ PT2	8A-NF8-673-010		PT,SUB ANF-8 (H)KAMI<EXCEPT 80U>
⚠ PT2	8A-NF8-661-010		PT,SUB ANF-8 (U)<80U>
⚠ PT101	8A-NF6-622-010		PT,LH EI96-60 ANF-6<EXCEPT 80U>
⚠ PT101	8A-NF6-621-010		PT,U EI96-60 ANF-6<80U>
⚠ RY1	87-A91-281-010		RELAY,ACDC12V OSA-SS-212DM5<EX 80U>
⚠ RY2	87-A90-976-010		RELAY,AC12V SDT-S-112LMR<80U>
⚠ S1	87-A90-165-010		SW,SL 1-2-3 SWS2301<EXCEPT 80U>
⚠ T1	87-A60-317-010		TERMINAL, 1P MSC
⚠ T2	87-A60-317-010		TERMINAL, 1P MSC

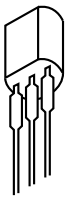
DECK C.B

CON501	87-099-756-019		CONN,15P 9604S F
SFR1	87-024-581-010		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-410		SOL ASSY,27
SOL2	82-ZM1-618-410		SOL ASSY,27
SW1	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW2	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW3	87-A90-248-010		SW,MICRO ESE11SH2CXQ
SW4	87-036-110-010		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
W1	82-ZM3-601-010		RBN-CORD,4P-75

HEAD-1 C.B

HEAD-2 C.B

TRANSISTOR ILLUSTRATION

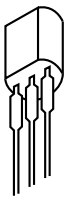


E C B

KTA1266GR
KTC3198GR
CD1585BC
CSA952K

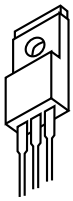
E C B

CC5551



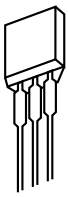
E C B

CSC4115BC



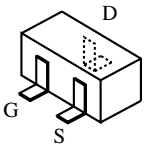
B C E

2SB1370
2SB1370F
2SD2061F

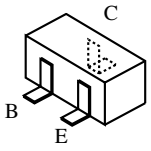


E C B

DTC114ES
KTC3199GR
2SA933S



2SK2158
2SJ461-T1

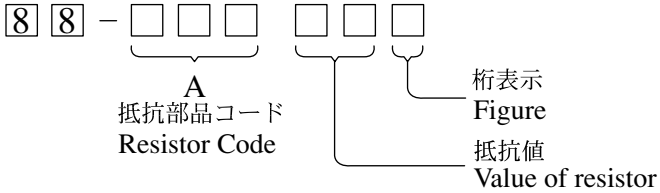


2SA1235F
2SC2714O
2SC3052F
CMBT5551
CMBT5401

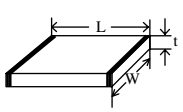
RT1P141C
CSD1306E
KRA104S
KRC102S-RTK
KRA107S

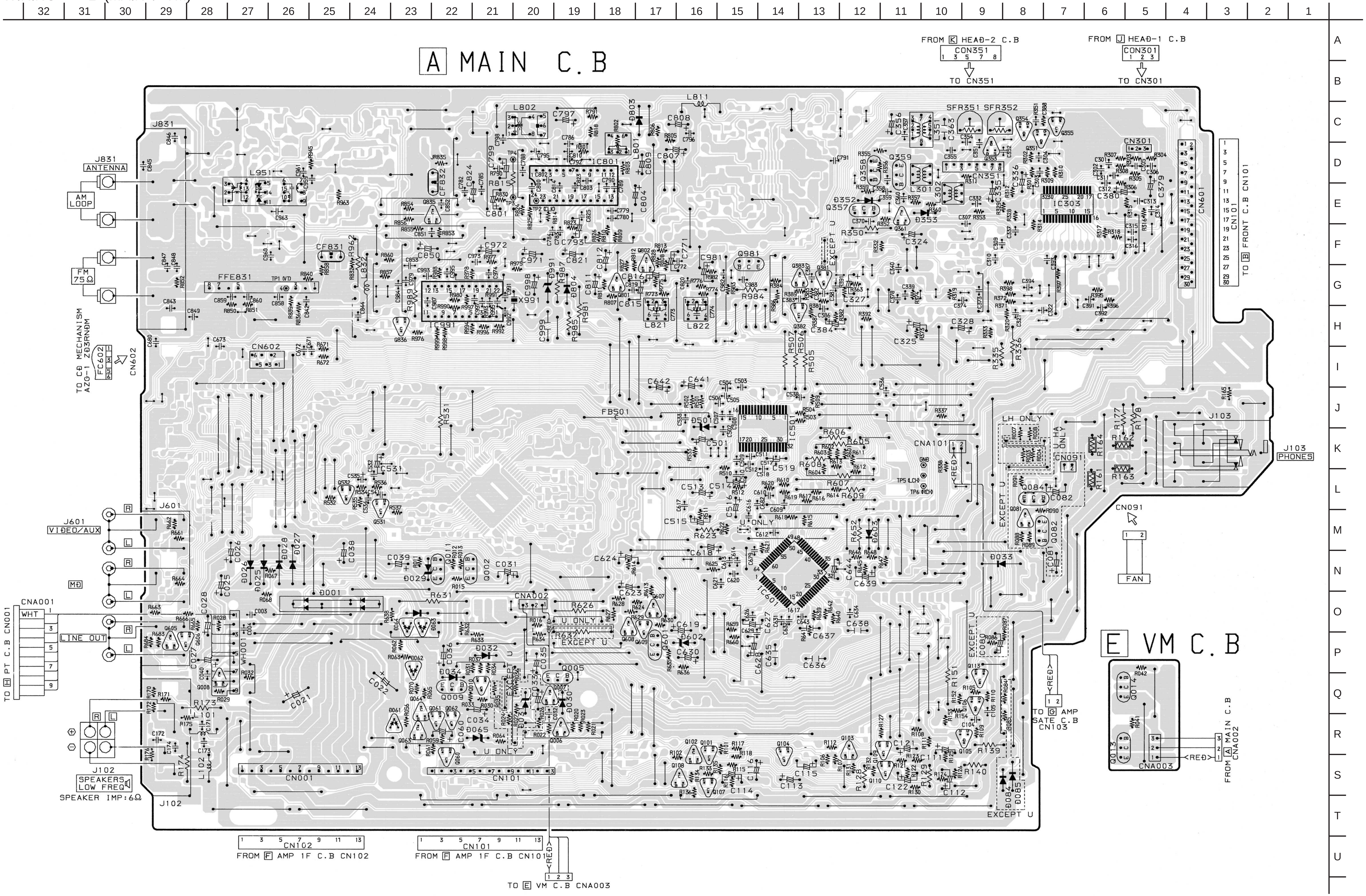
○チップ抵抗部品コード／CHIP RESISTOR PART CODE

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

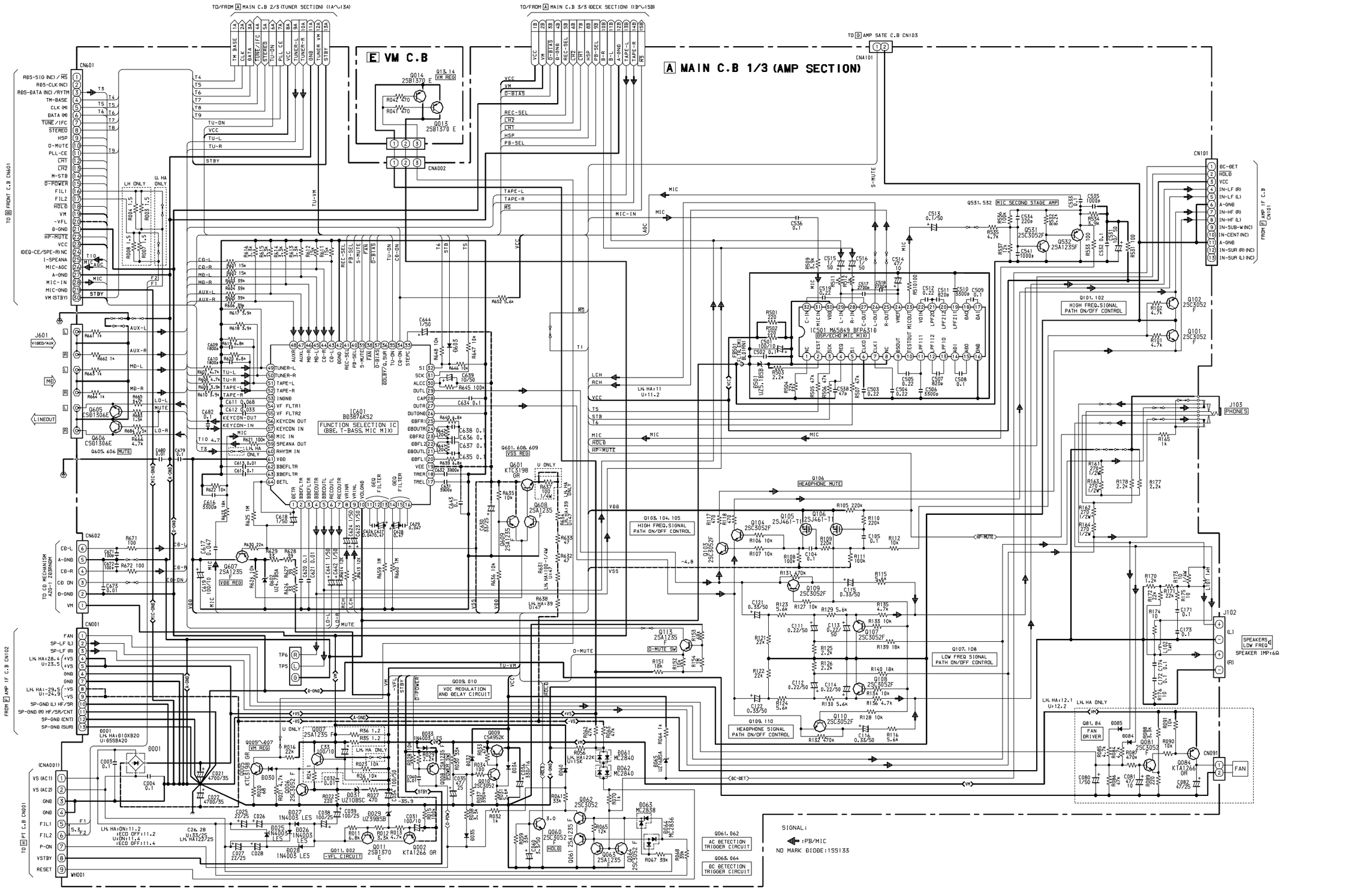


チップ抵抗
Chip resistor

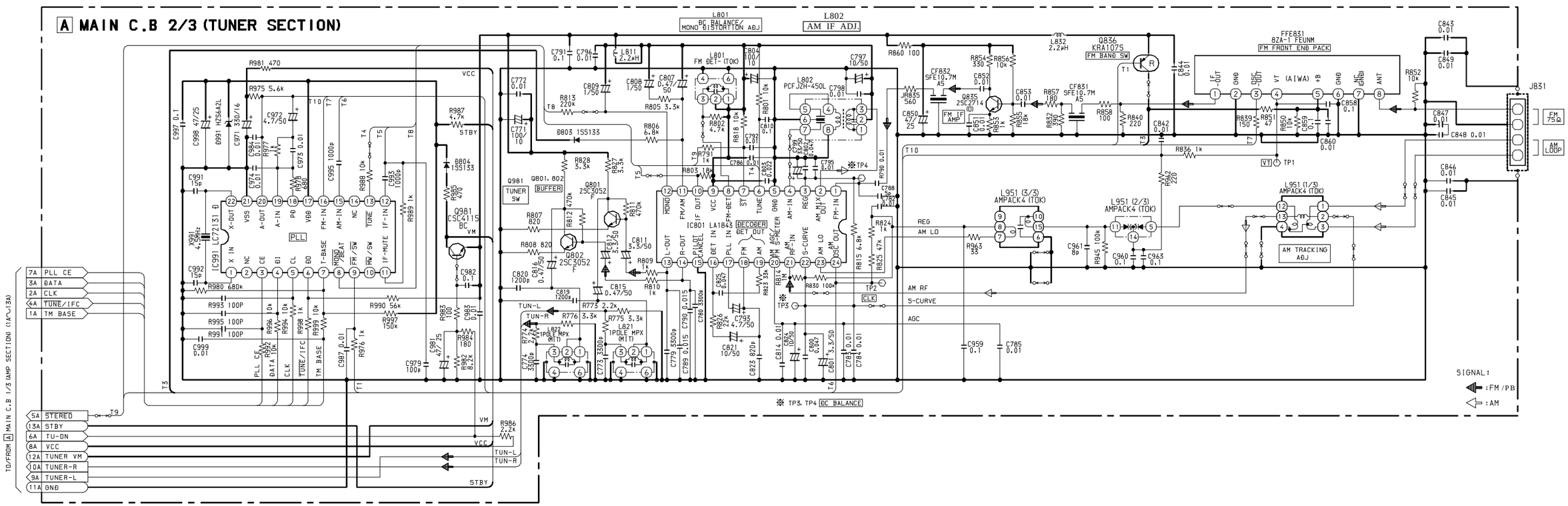
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128


A MAIN C.B
E VM C.B
FROM K HEAD-2 C.B
CON351
TO CN351
FROM J HEAD-1 C.B
CON301
TO CN301
TO B FRONT C.B CN101
J831 ANTENNA
AM LOOP
FM 75Ω
TO CD MECHANISM AZG-1 ZD3RNDM
FC602
CN602
J601 VIDEO/AUX
MD
CNA001
WHT
LINE OUT
TO H PT C.B CN001
J102 SPEAKERS LOW FREQ
SPEAKER IMP:6Ω
J103 PHONES
CN091
FAN
TO G AMP SATE C.B CN103
FROM A MAIN C.B CNA002
CNA003
<RED>
CN102
FROM F AMP 1F C.B CN102
CN101
FROM F AMP 1F C.B CN101
TO E VM C.B CNA003
LH ONLY
U ONLY
EXCEPT U
HA ONLY

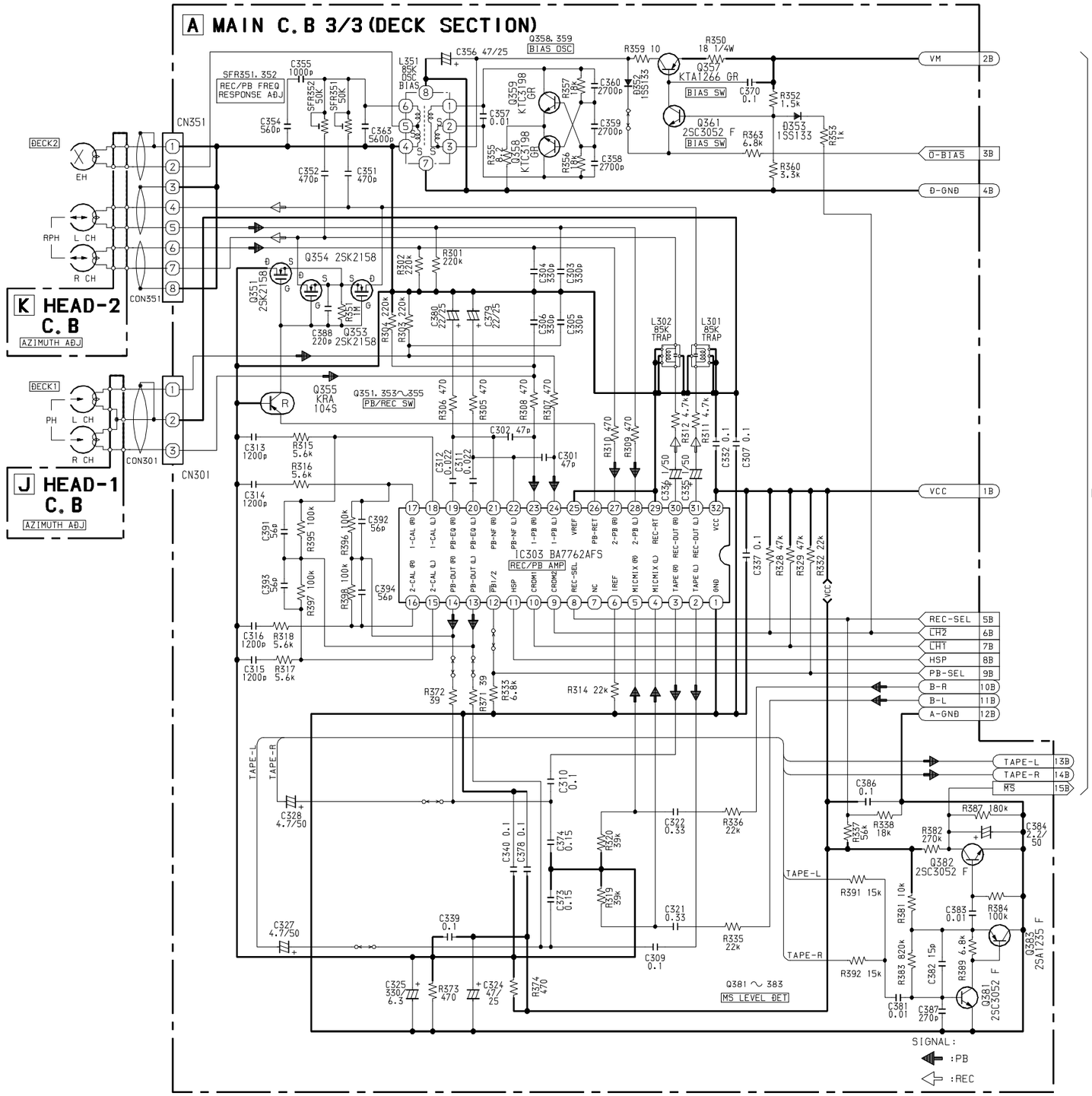
SCHEMATIC DIAGRAM – 1 (MAIN 1 / 3: AMP SECTION / VM)



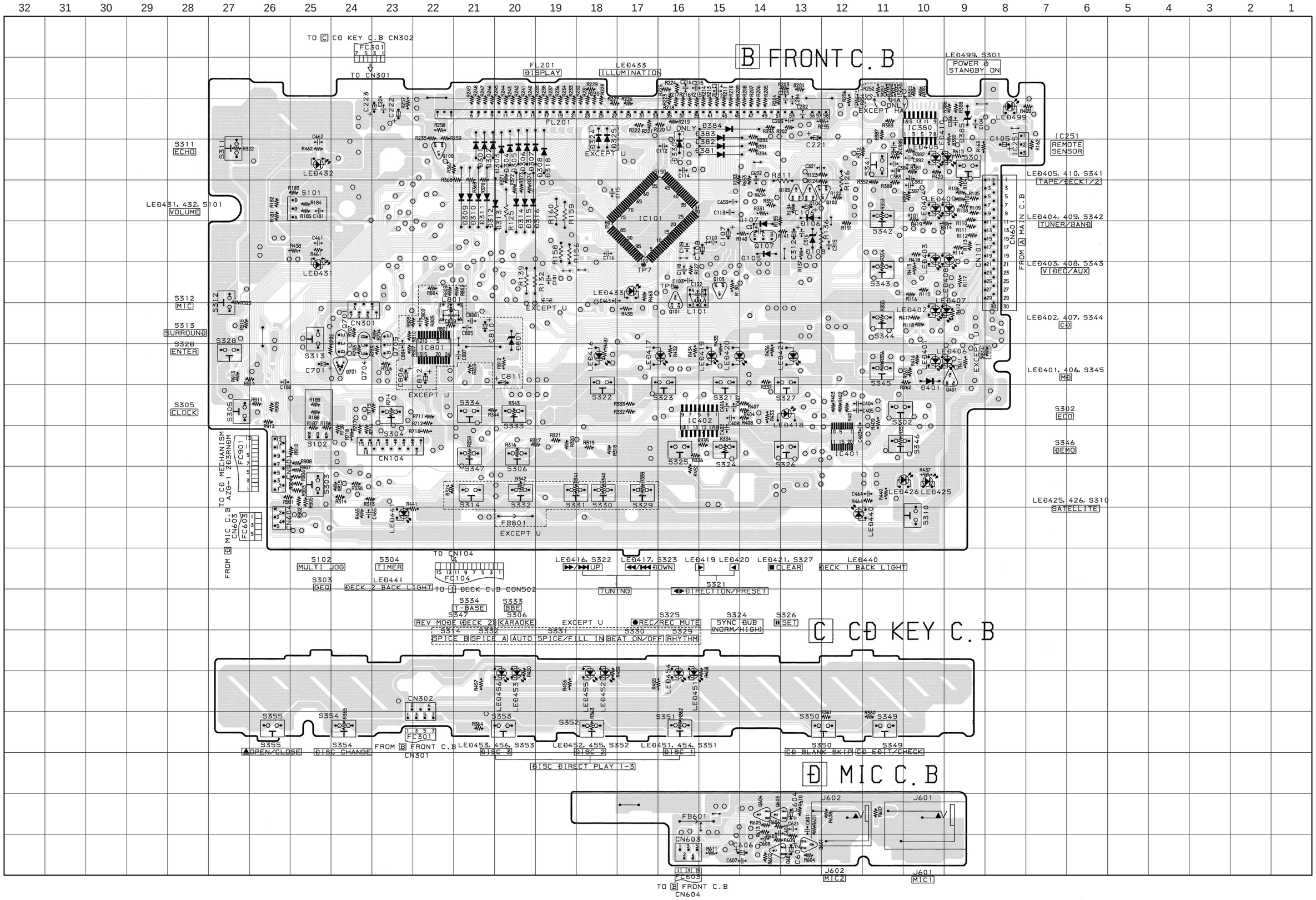
SCHEMATIC DIAGRAM – 2 (MAIN 2 / 3: TUNER SECTION)



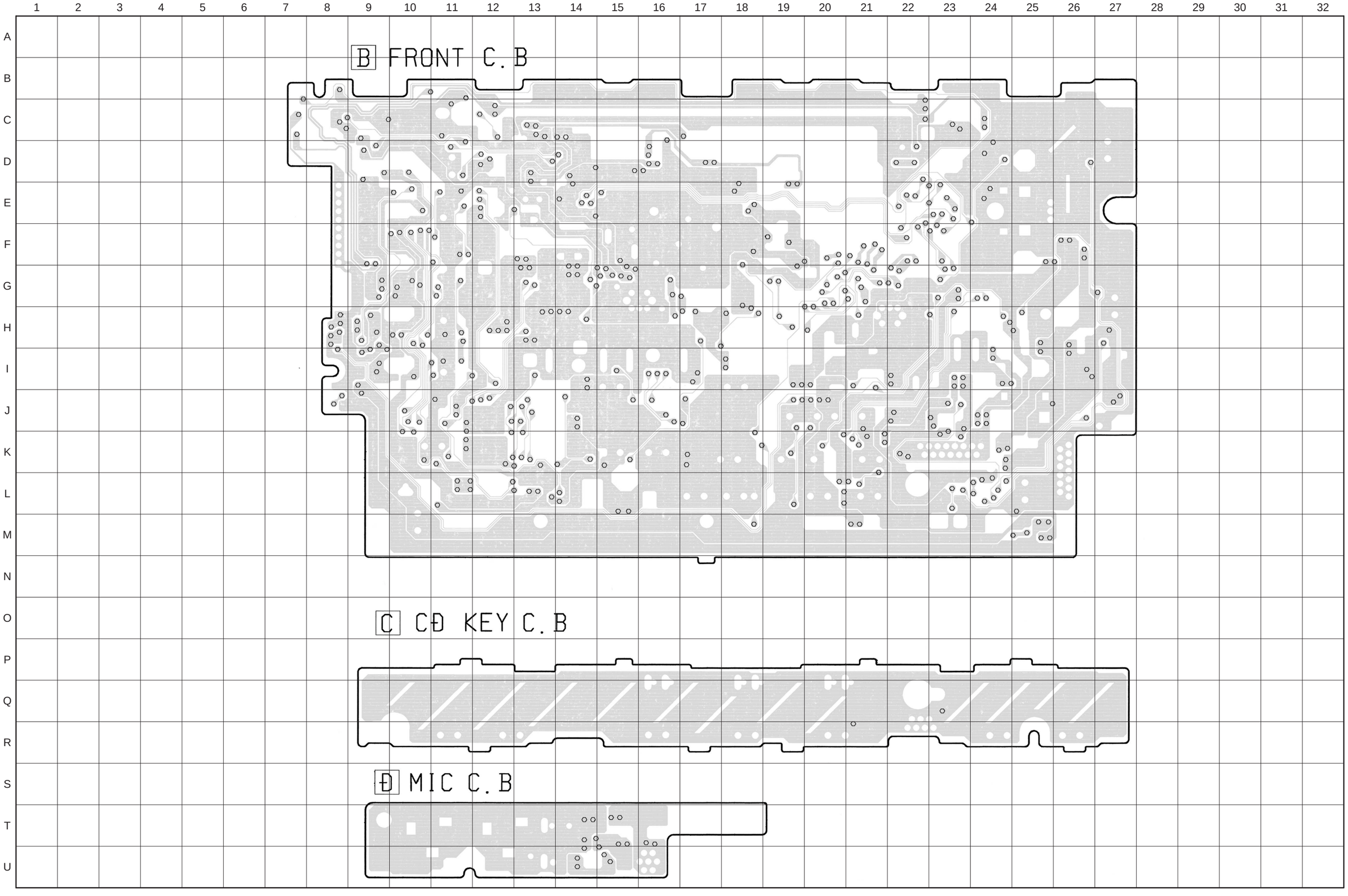
SCHEMATIC DIAGRAM – 3 (MAIN 3 / 3: DECK SECTION)



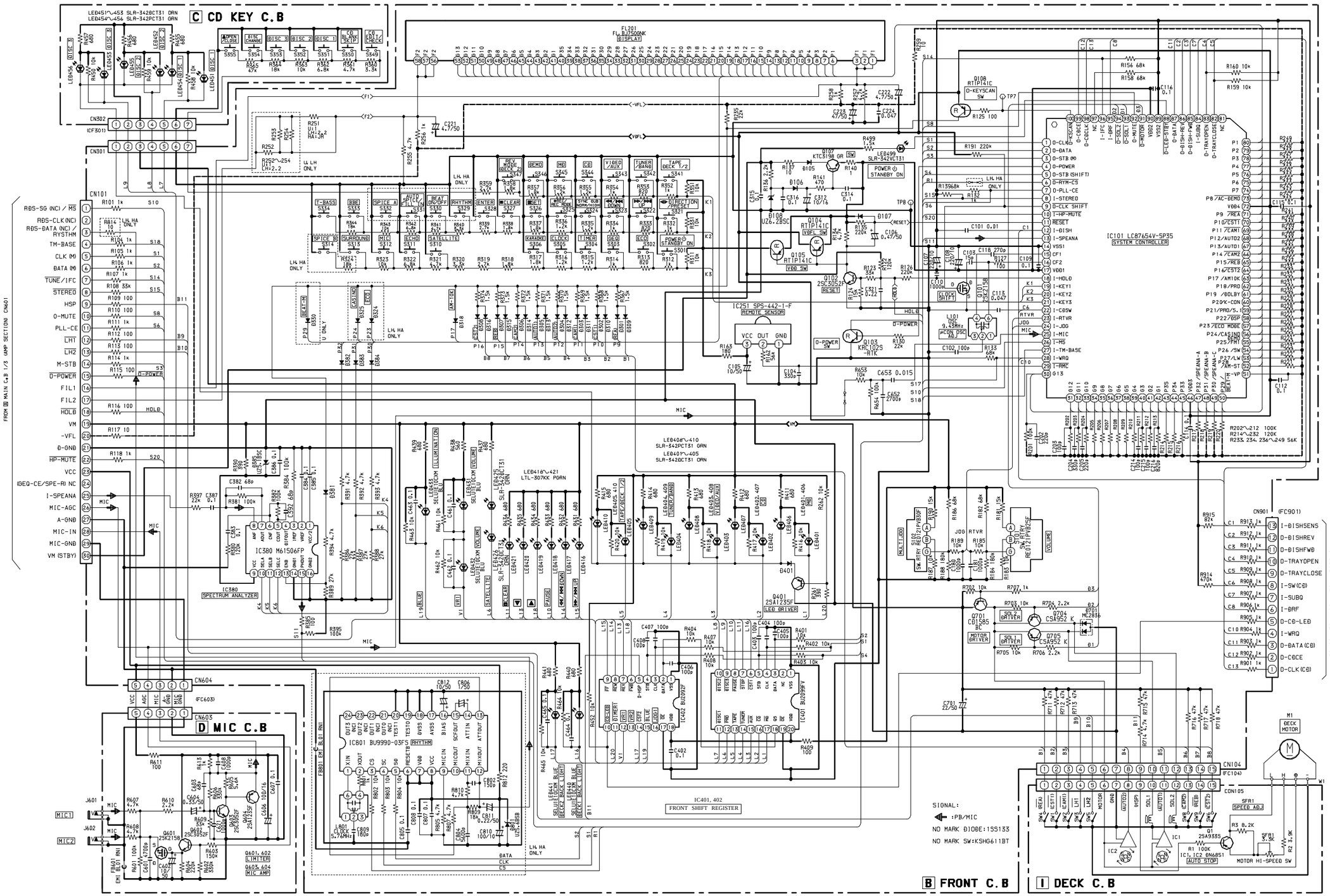
WIRING – 2 (FRONT / CD KEY / MIC) <1 / 2>



WIRING – 2 (FRONT / CD KEY / MIC) <2 / 2>



SCHEMATIC DIAGRAM – 4 (FRONT / CD KEY / MIC)



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 AMP 1F C.B

J201 (3/4, 1/4)
IMP : 8Ω ~ 16Ω SURROUND SPEAKERS
(3/4) R (1/4) L
J201 (2/4, 4/4)
SPEAKERS HIGH FREQ
IMP : 8Ω
(4/4) R (2/4) L

IC101 IC201 J201 EXCEPT U

TO A MAIN C.B CN102

TO A MAIN C.B CN101

TO H PT C.B CN002

CNA101 WHT

CNA102

CN101 CN102 CN106

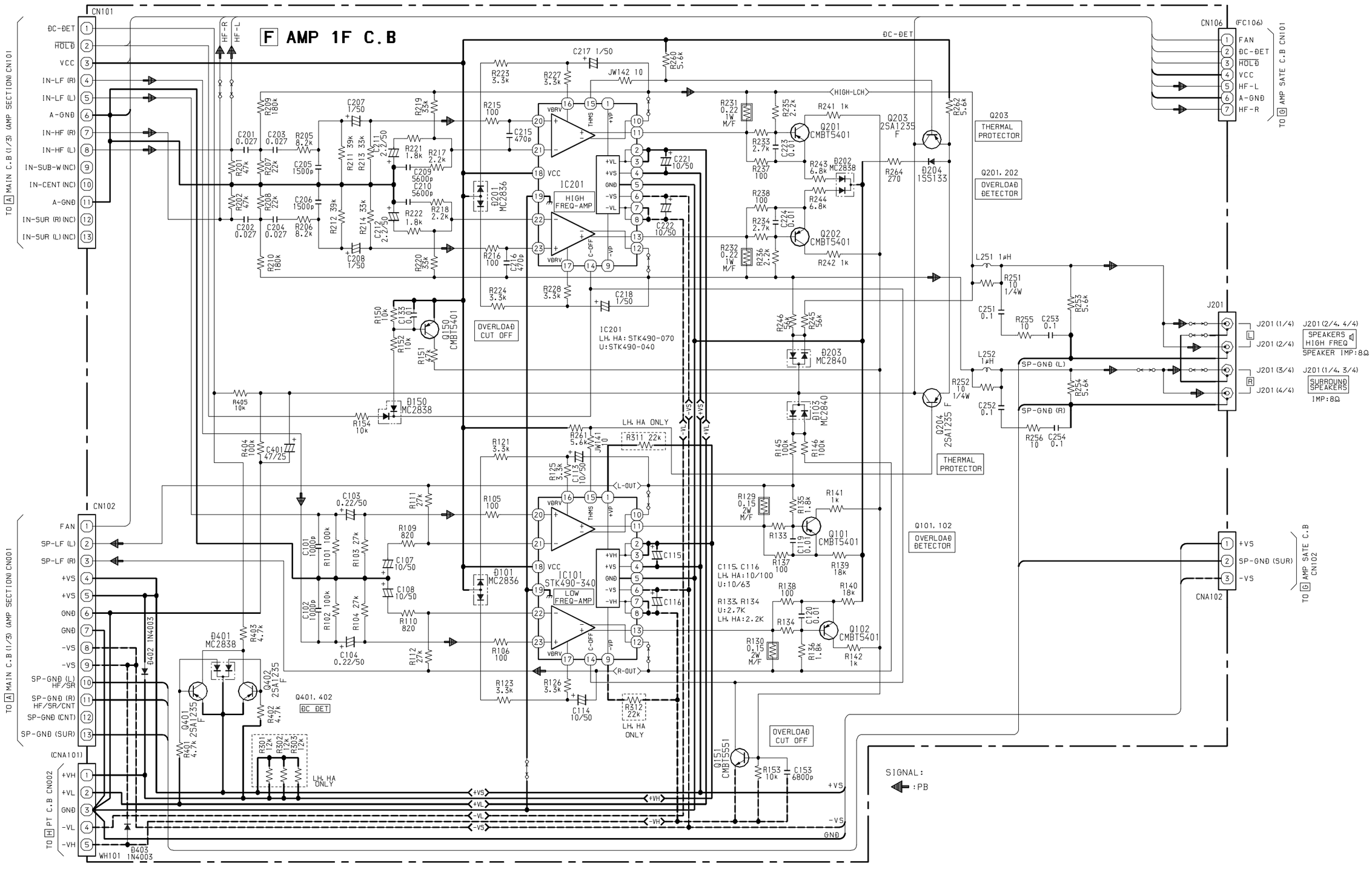
FC106

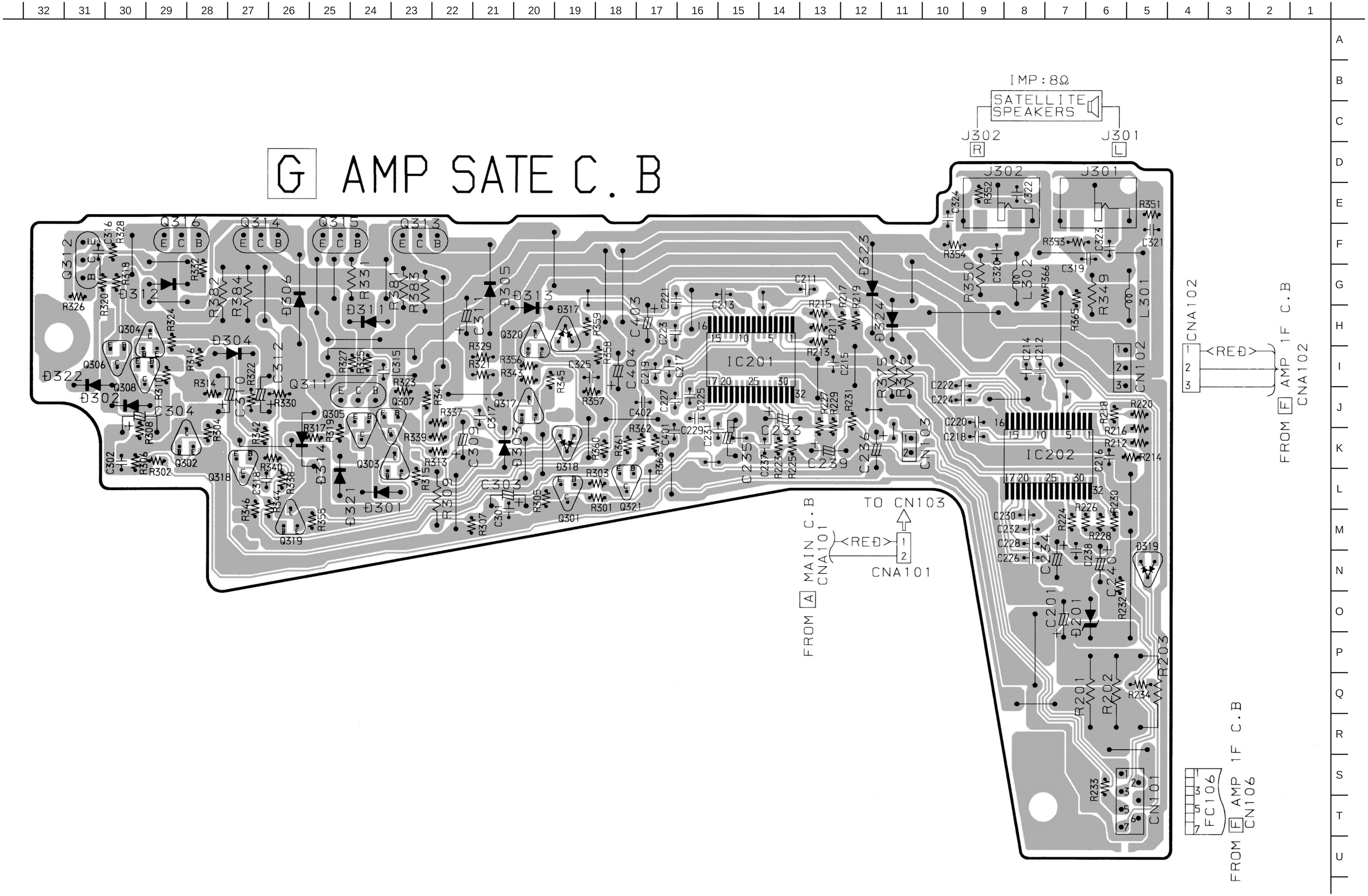
TO G AMP SATE C.B CN101

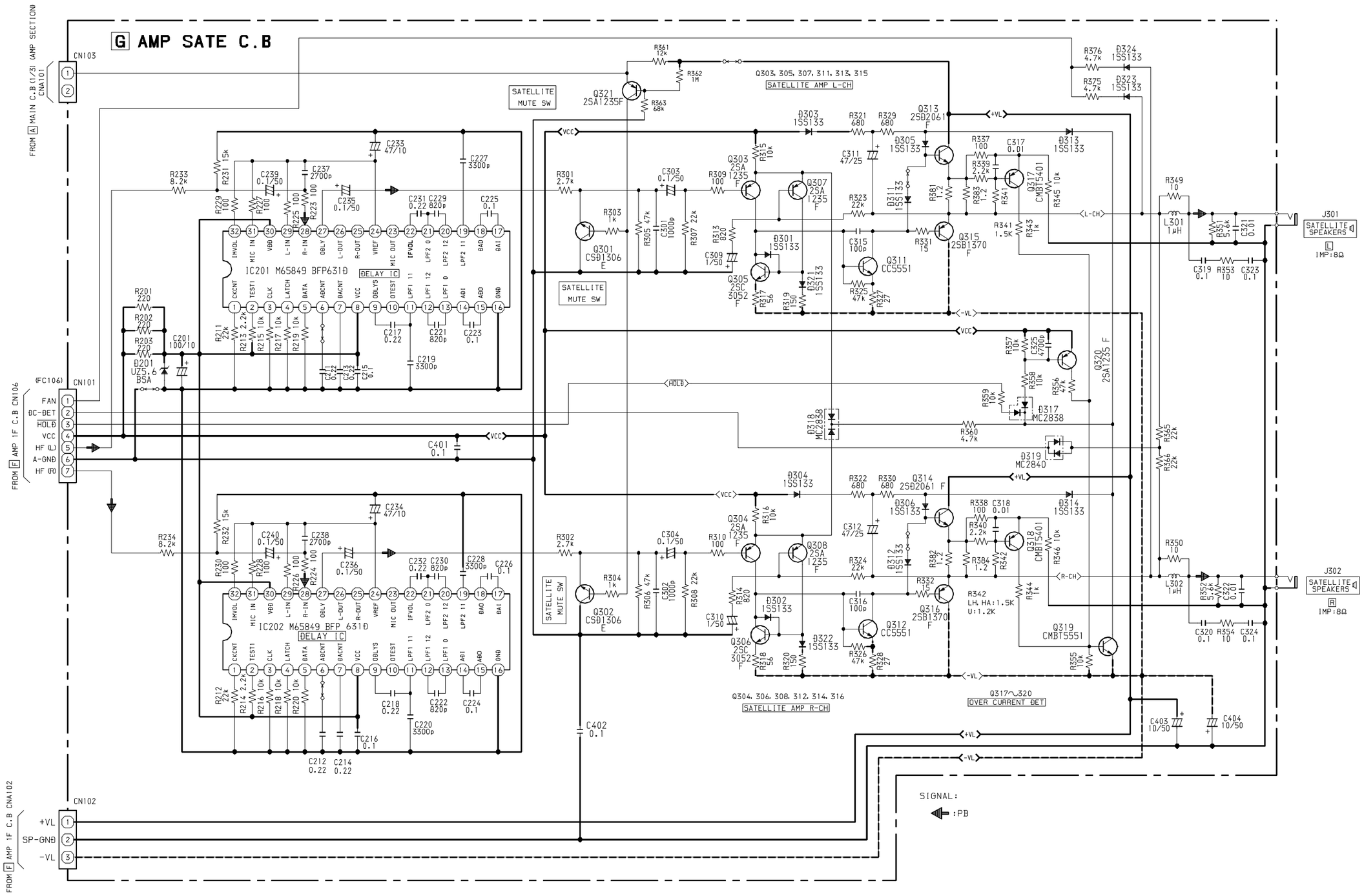
TO G AMP SATE C.B CN102

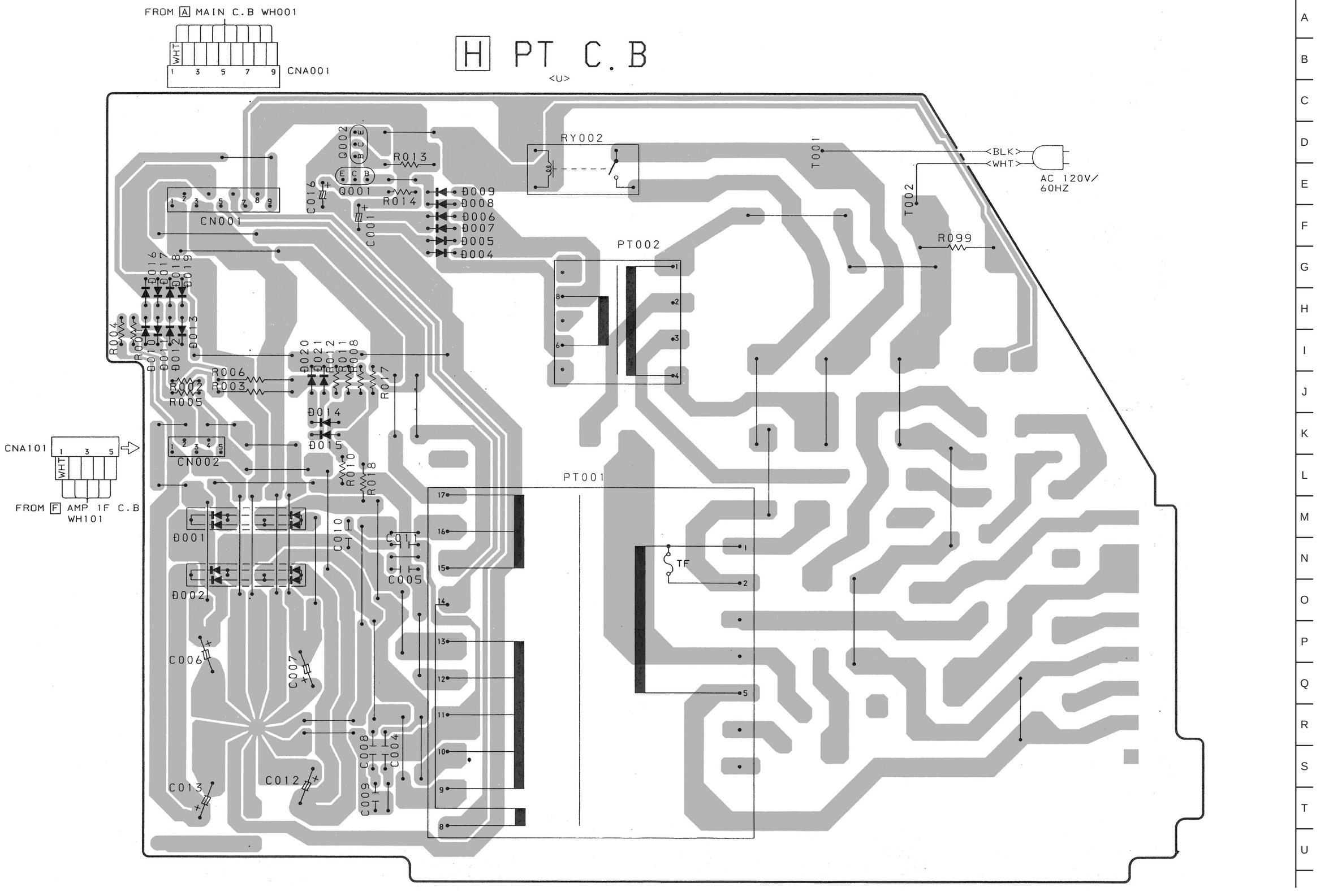
RED

SCHEMATIC DIAGRAM – 5 (AMP 1F)

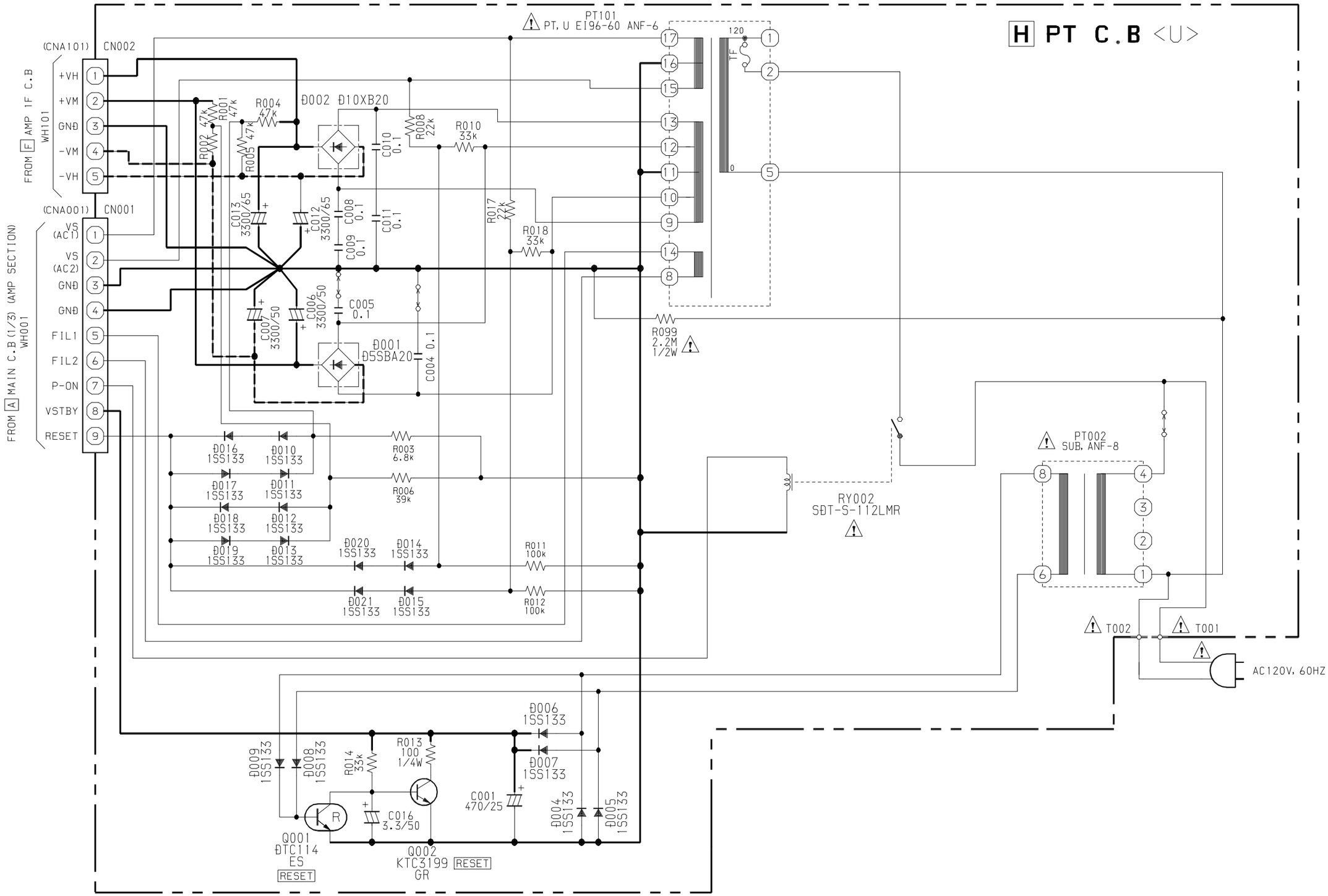


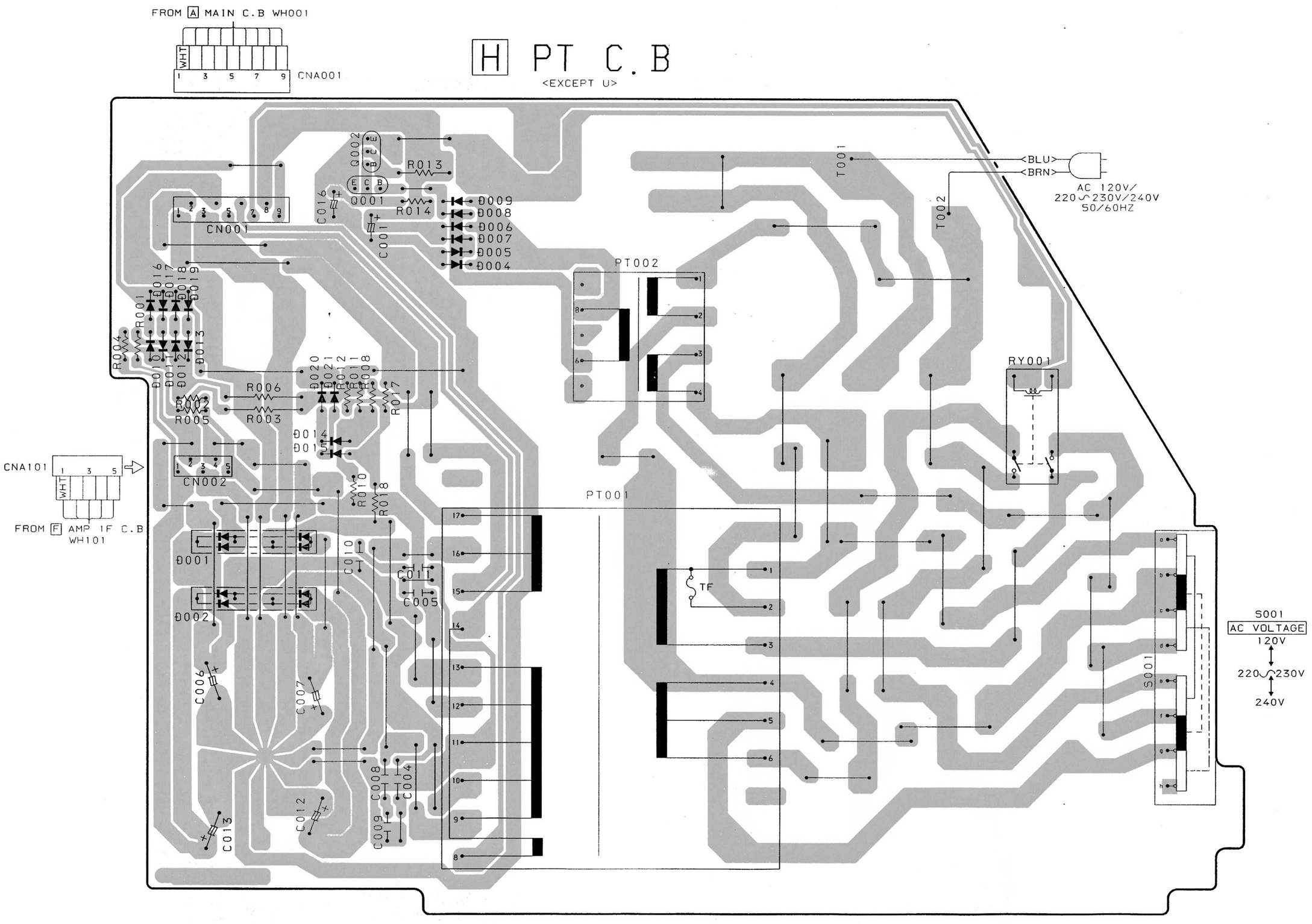

G AMP SATE C. B
IMP : 8Ω
SATELLITE SPEAKERS
J302 R
J301 L
FROM A MAIN C. B CNA101
<RED>
CNA101
TO CN103
CNA102
FROM F AMP 1F C. B CNA102
FC106
FROM F AMP 1F C. B CN106
IC201
IC202


G AMP SATE C.B
FROM A MAIN C.B (1/3) (AMP SECTION) CNA101
CN103
FROM E AMP 1F C.B CN104
(FC106)
CN101
FAN
DC-DET
HOLD
VCC
HF (L)
A-GND
HF (R)
FROM E AMP 1F C.B CNA102
CN102
+VL
SP-GND
-VL
SATELLITE MUTE SW
Q321 2SA1235F
Q303, 305, 307, 311, 313, 315
SATELLITE AMP L-CH
IC201 M65849 BFP631D
DELAY IC
IMVOL MIC IN VDD L-IN R-IN DBLY L-OUT R-OUT VREF MIC OUT IFVOL LPF2 0 LPF2 1 LPF2 1 BAO BAI
CKCNT TEST1 CLK LATCH DATA ABCNT BACNT VCC DBLYS DTEST LPF1 1 LPF1 2 LPF1 0 ABI ABO GND
Q301 CSD1306 E
Q307 2SA1235 F
Q303 2SA1235 F
Q305 2SC3052 F
Q311 CC5551
Q315 2SB1370 F
Q313 2SD2061 F
Q317 MC2838
Q318 CMBT5401
Q319 CMBT5551
Q320 2SA1235 F
D201 UZ5.6 B5A
D301 1SS133
D302 1SS133
D303 1SS133
D304 1SS133
D305 1SS133
D306 1SS133
D311 1SS133
D312 1SS133
D313 1SS133
D314 1SS133
D318 MC2838
D319 MC2840
D321 1SS133
D322 1SS133
D323 1SS133
D324 1SS133
IC202 M65849 BFP 631D
DELAY IC
Q302 CSD1306 E
Q304, 306, 308, 312, 314, 316
SATELLITE AMP R-CH
Q317~320
OVER CURRENT DET
L-CH
R-CH
J301 SATELLITE SPEAKERS L IMP:8Ω
J302 SATELLITE SPEAKERS R IMP:8Ω
SIGNAL:
:PB

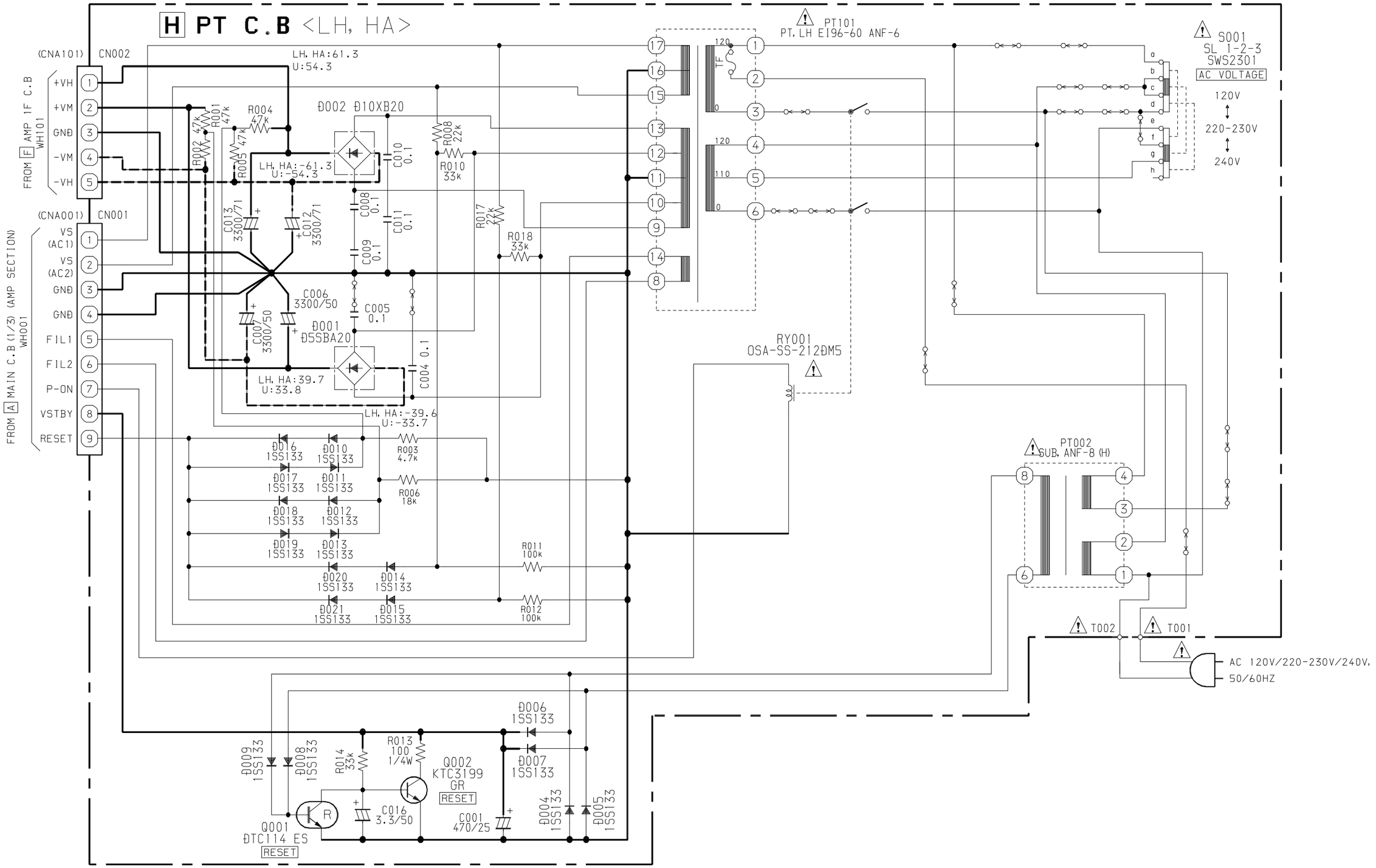

FROM A MAIN C.B WH001
WHT
1 3 5 7 9
CNA001
H PT C.B
<U>
RY002
Q002
Q001
R013
R014
C016
C001
CN001
Đ009
Đ008
Đ006
Đ007
Đ005
Đ004
T001
T002
BLK
WHT
AC 120V/
60HZ
R099
PT002
Đ016
Đ017
Đ018
Đ019
R004
R005
Đ010
Đ011
Đ012
Đ013
R006
R002
R003
Đ020
Đ021
Đ022
Đ023
R017
Đ014
Đ015
R010
R018
CN002
CNA101
FROM F AMP 1F C.B
WH101
PT001
Đ001
Đ002
C010
C011
C005
TF
C006
C007
C008
C004
C009
C012
C013

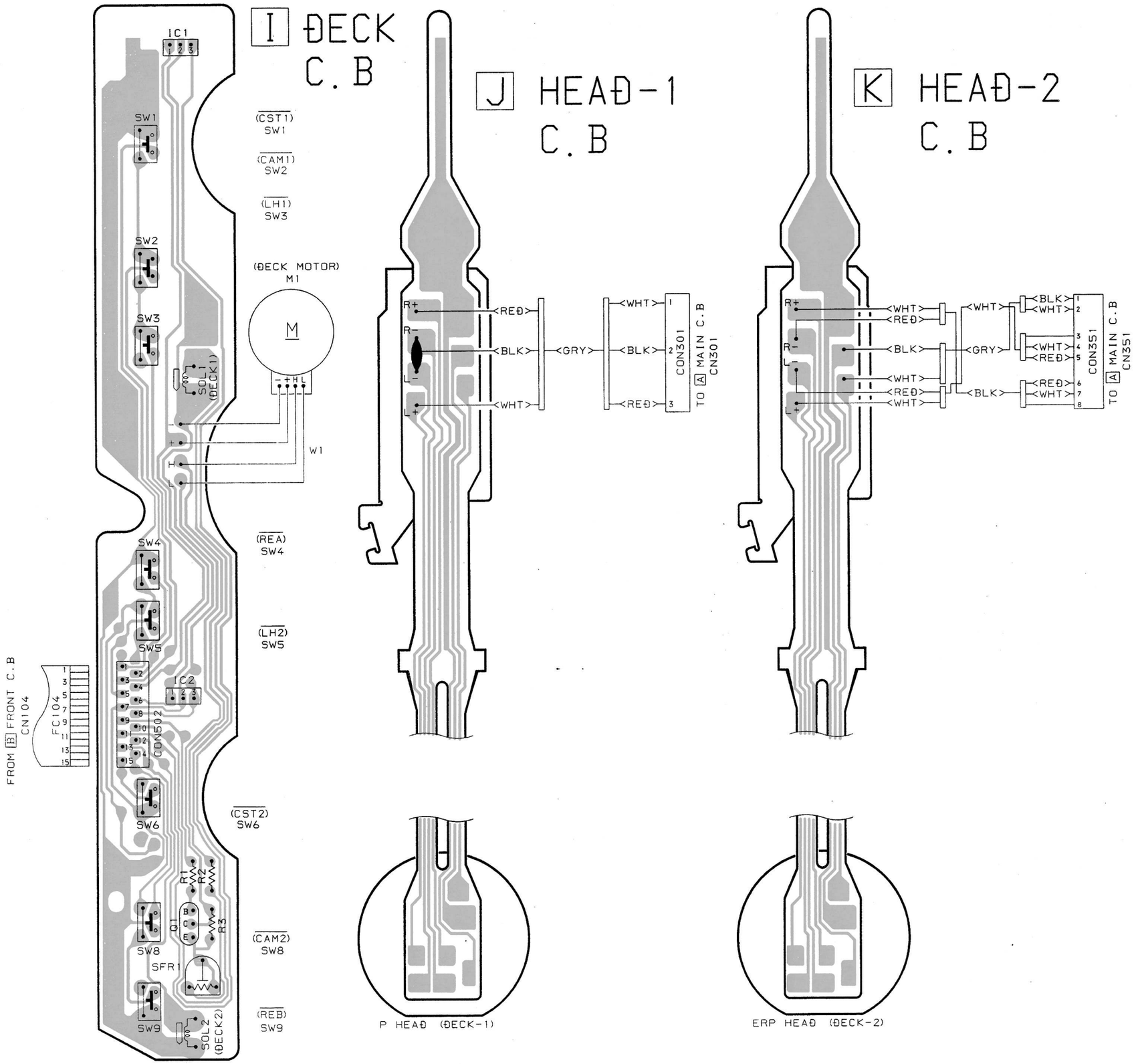
SCHEMATIC DIAGRAM – 7 (PT: U)



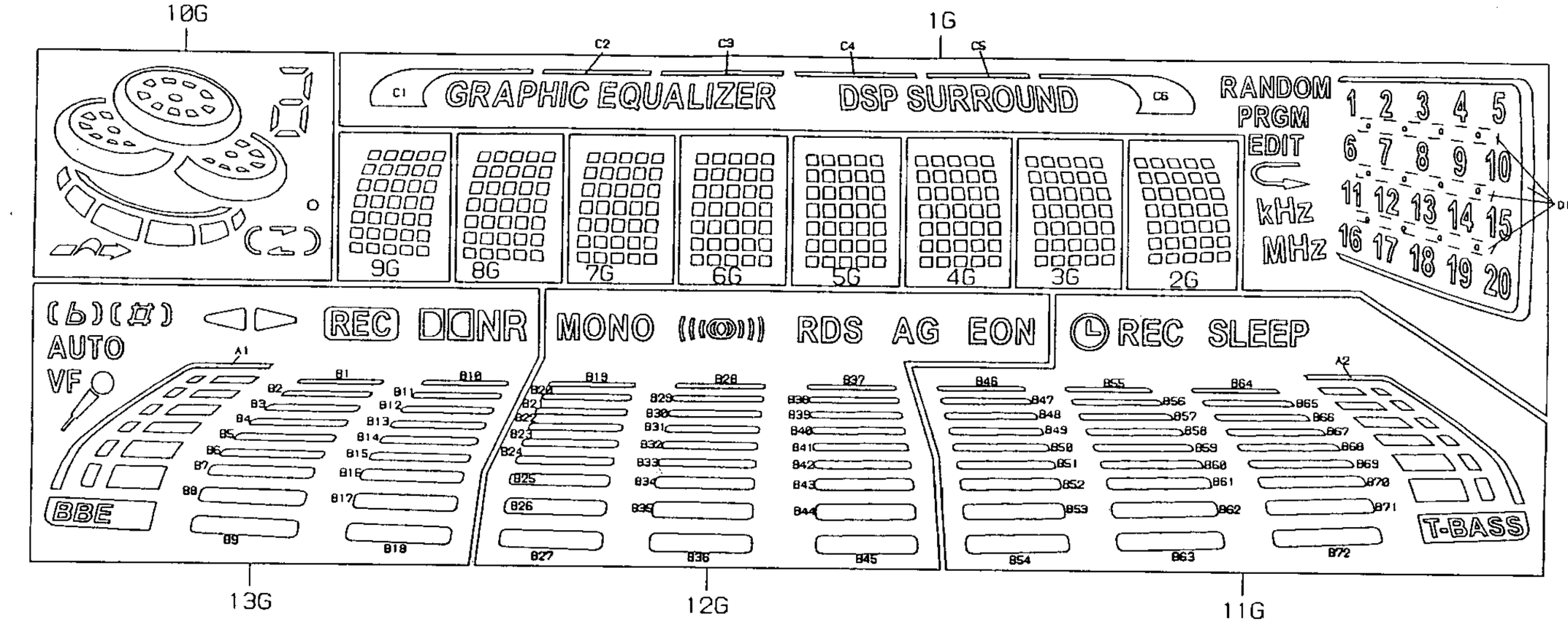

FROM A MAIN C.B WH001
WHT
1 3 5 7 9
CNA001
H PT C.B
<EXCEPT U>
Q002
B C E
E C B
Q001
R013
R014
C016
C001
CN001
Ð009
Ð008
Ð006
Ð007
Ð005
Ð004
T001
T002
<BLU>
<BRN>
AC 120V/
220~230V/240V
50/60HZ
PT002
RY001
R001
R004
Ð016
Ð017
Ð018
Ð019
Ð013
Ð010
Ð011
Ð012
R002
R005
R006
R003
Ð020
Ð021
R012
R008
R017
Ð014
Ð015
CN002
R010
R018
CNA101
WHT
1 3 5
FROM F AMP IF C.B
WH101
PT001
Ð001
Ð002
C010
C011
C005
C006
C007
C008
C004
C012
C009
C013
TF
S001
S001
AC VOLTAGE
120V
220~230V
240V

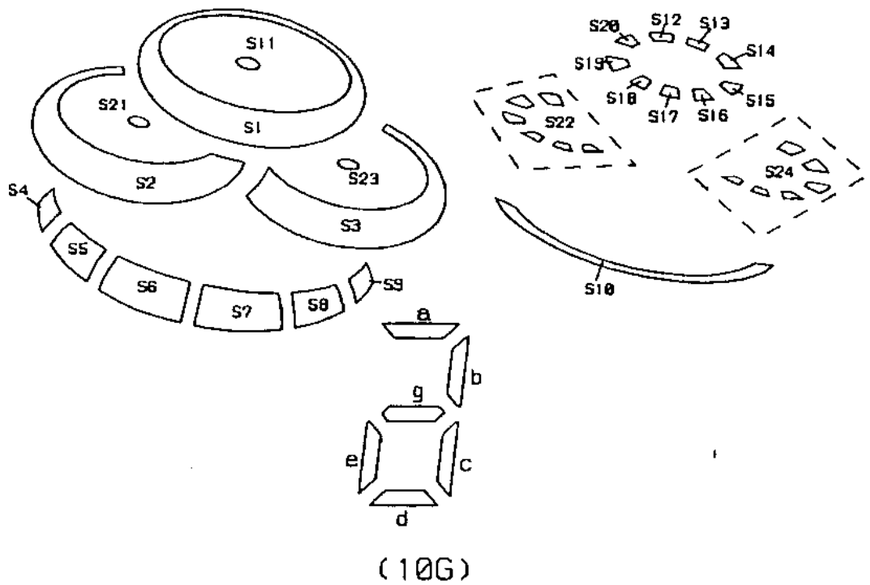
SCHEMATIC DIAGRAM – 8 (PT: LH, HA)



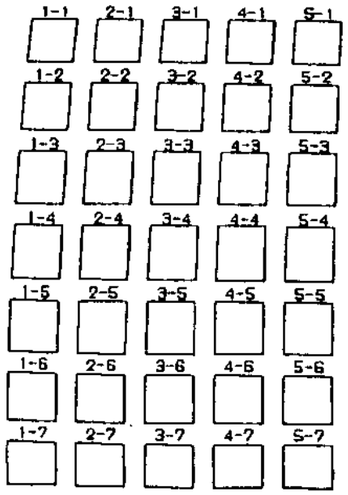

I DECK C.B
J HEAD-1 C.B
K HEAD-2 C.B
IC1
SW1
SW2
SW3
(CST1) SW1
(CAM1) SW2
(LH1) SW3
(DECK MOTOR) M1
M
SOL1 (DECK1)
W1
SW4
SW5
SW6
SW8
SW9
(REA) SW4
(LH2) SW5
(CST2) SW6
(CAM2) SW8
(REB) SW9
SFR1
SOL2 (DECK2)
IC2
CON502
FC104
FROM B FRONT C.B CN104
R1
R2
R3
Q1
R+
R-
L-
L+
RED
BLK
WHT
GRY
CON301
TO A MAIN C.B CN301
CON351
TO A MAIN C.B CN351
P HEAD (DECK-1)
ERP HEAD (DECK-2)

GRID ASSIGNMENT

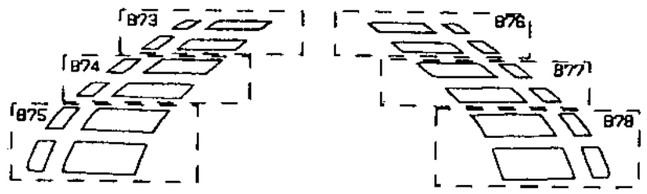




(10G)



(2G~9G)



(13G)

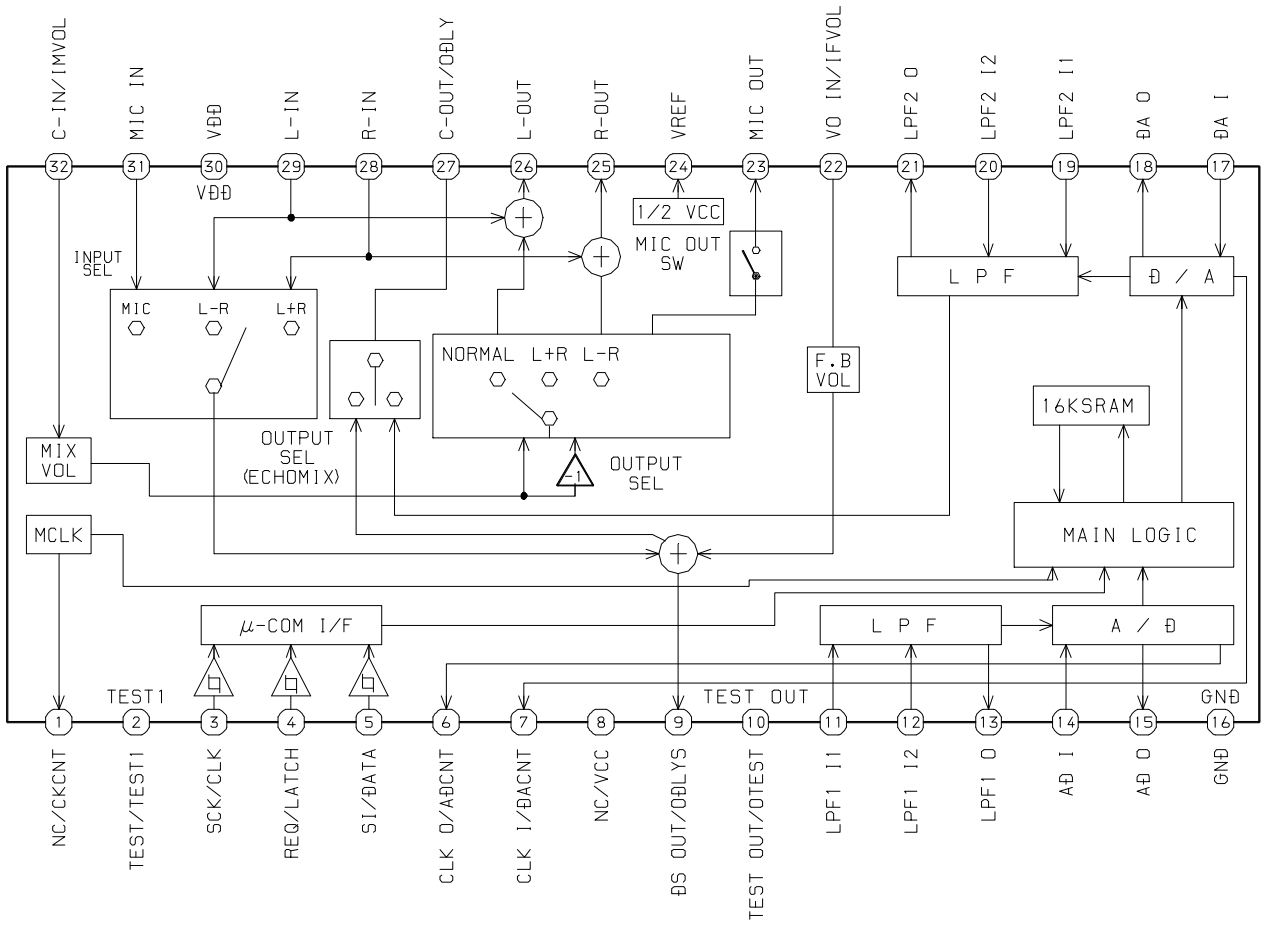
(11G)

ANODE CONNECTION

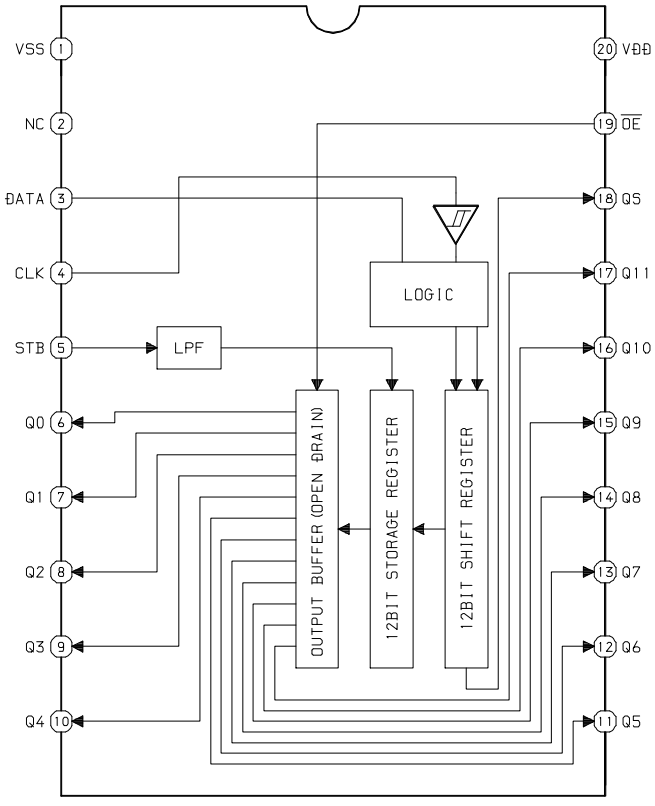
	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	♭ ♯	B27	B54	b	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	DSP SURROUND
P2	((♭))	B36	B63	c	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	GRAPHIC EQUALIZER
P3	((♯))	B45	B72	a,d,g	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	C6
P4	◁	B26	B53	e	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	C5
P5	▷	B35	B62	S1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	C4
P6	REC	B44	B71	S12	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	C3
P7	DX NR	B25	B52	S13	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	C2
P8	AUTO	B34	B61	S20	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	C1
P9	VF	B43	B70	S14	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	RANDOM
P10	A1	B24	B51	S11	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	PRGM
P11	BBE	B33	B60	S19	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	EDIT
P12	B75	B42	B69	S15	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	↩
P13	B74	B23	B50	S18	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	kHz
P14	B73	B32	B59	S16	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	MHz
P15	B9	B41	B68	S17	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	16
P16	B18	B22	B49	S3	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	11
P17	B8	B31	B58	S24	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	6
P18	B17	B40	B67	S23	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	1
P19	B7	B21	B48	S2	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	17
P20	B16	B30	B57	S22	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	12
P21	B6	B39	B66	S21	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	7
P22	B15	B20	B47	S10	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2
P23	B5	B29	B56	S9	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	18
P24	B14	B38	B65	S8	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	13
P25	B4	B19	B46	S7	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	8
P26	B13	B28	B55	S6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	3
P27	B3	B37	B64	S5	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	19
P28	B12	MONO	T-BASS	S4	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	14
P29	B2	((◉))	A2	◯	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	9
P30	B11	RDS	B78	⇝	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	4
P31	B1	AG	B77	☾	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	20
P32	B10	EON	B76	⇄	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	15
P33	-	-	SLEEP	☽	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	10
P34	-	-	REC	-	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	5
P35	-	-	◷	-	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	D1

IC BLOCK DIAGRAM

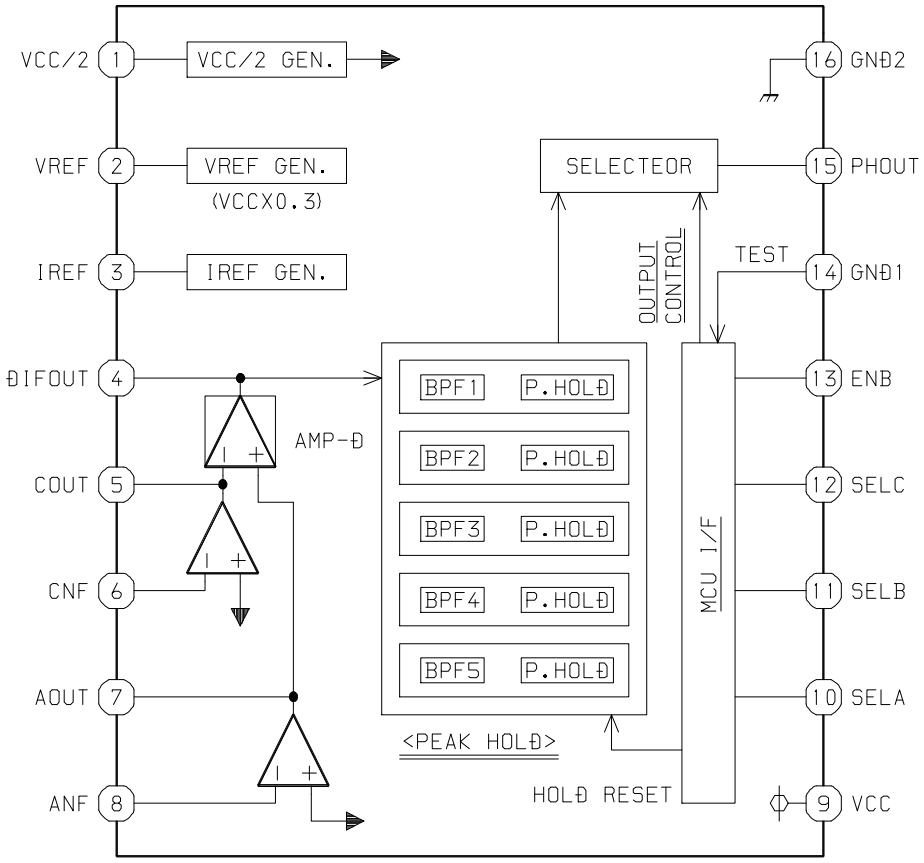
IC, M65849BFP631D



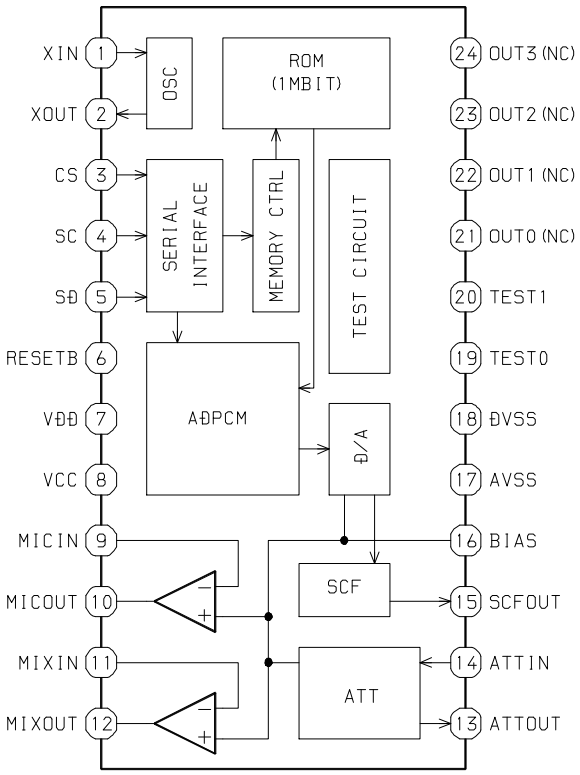
IC, BU2099FV



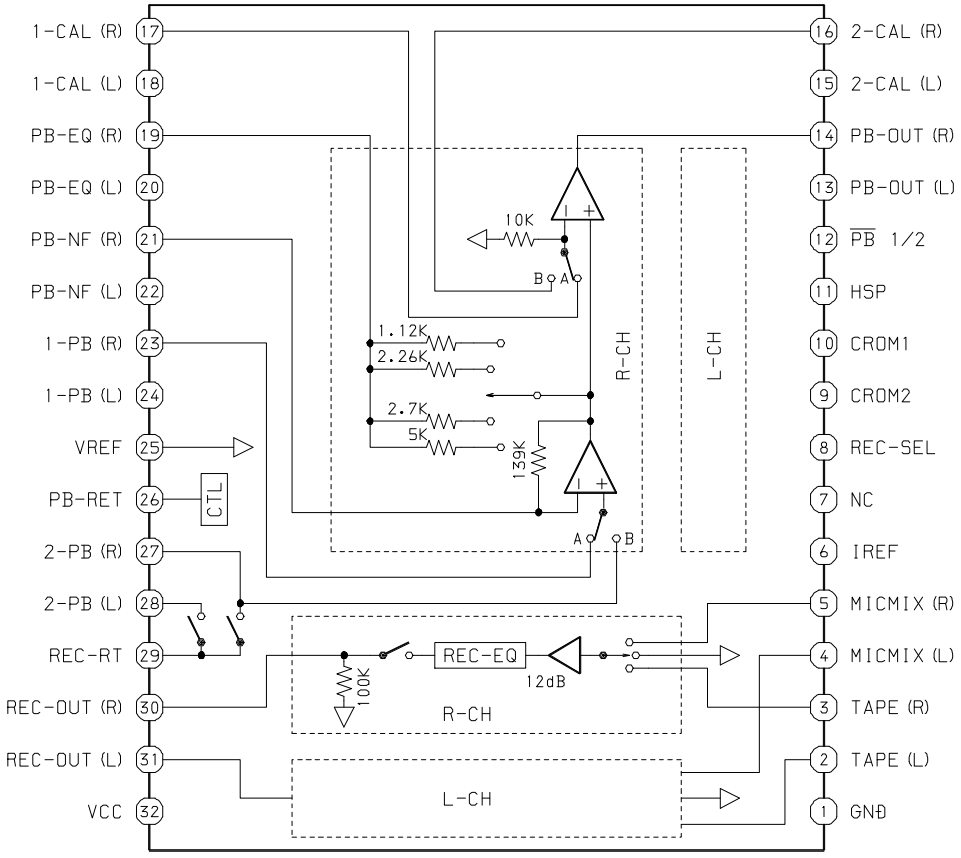
IC, M61506FP



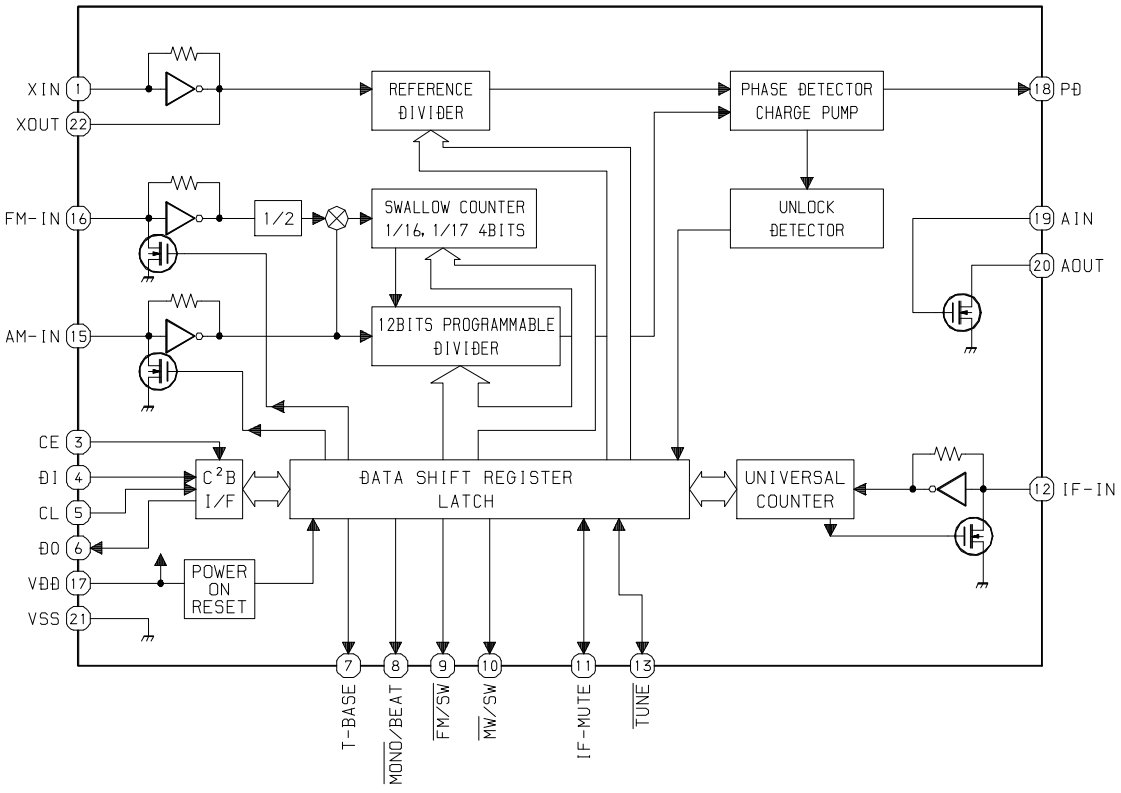
IC, BU9990-03FS



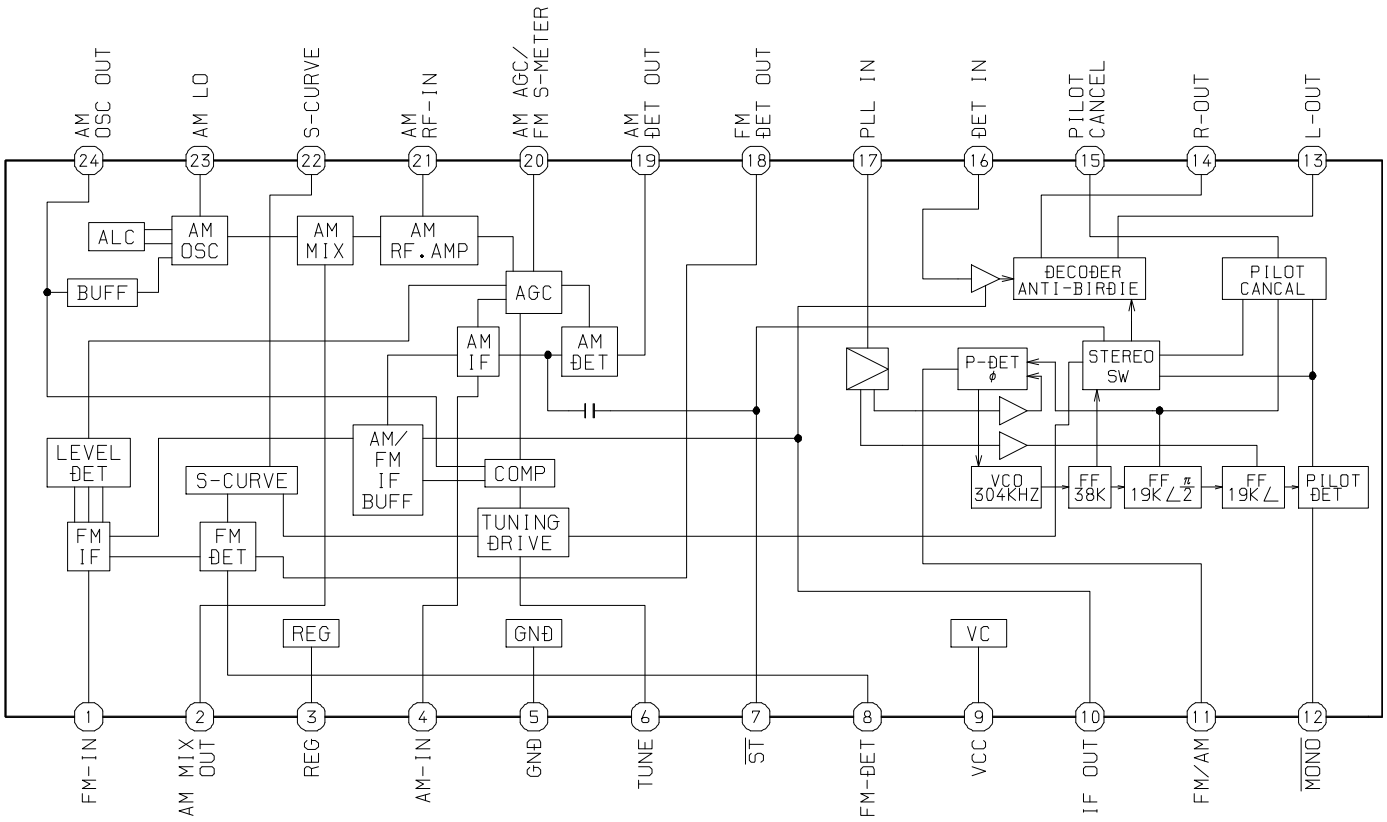
IC, BA7762AFS



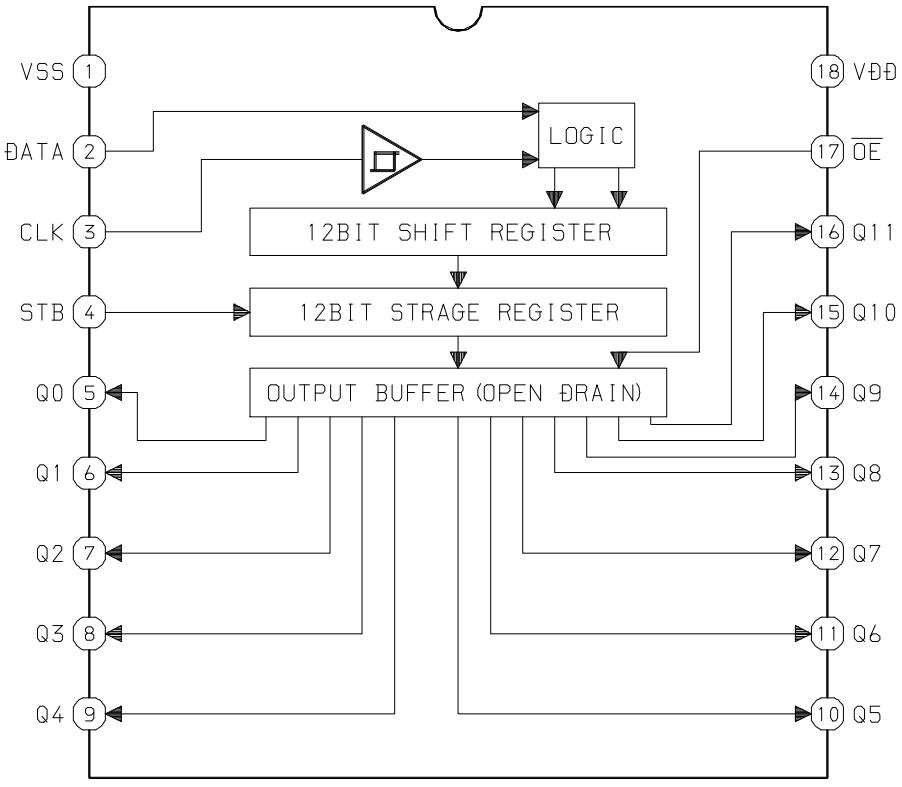
IC, LC72131D



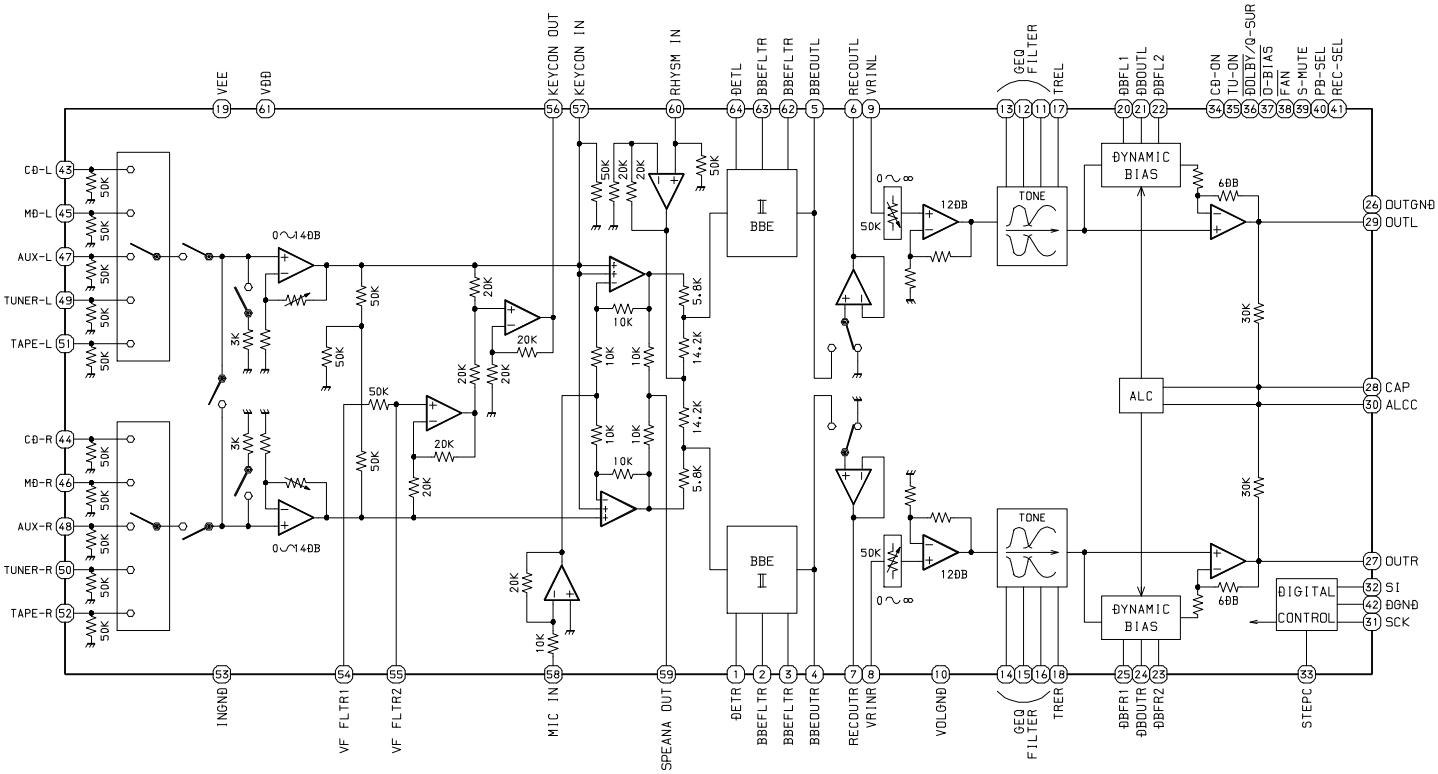
IC, LA1843



IC, BU2092F



IC, BD3876KS2

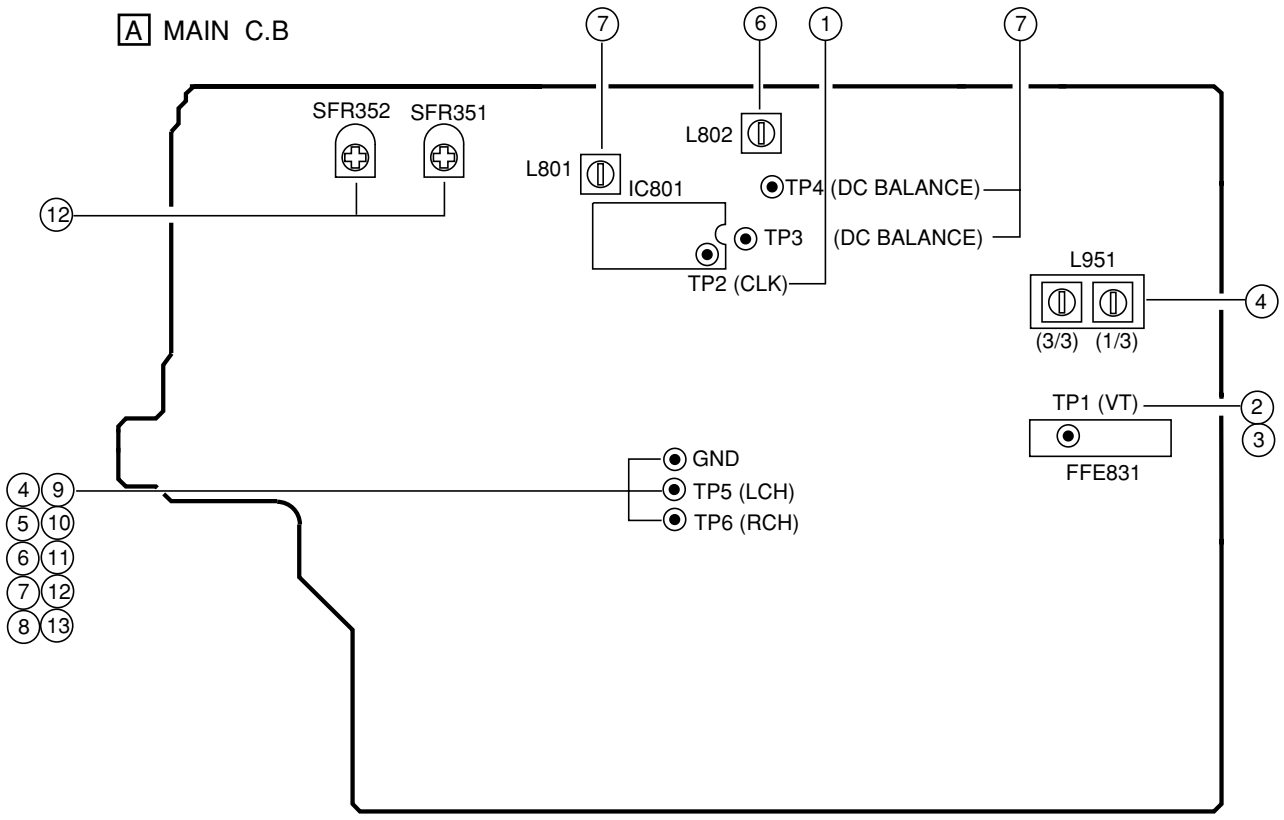


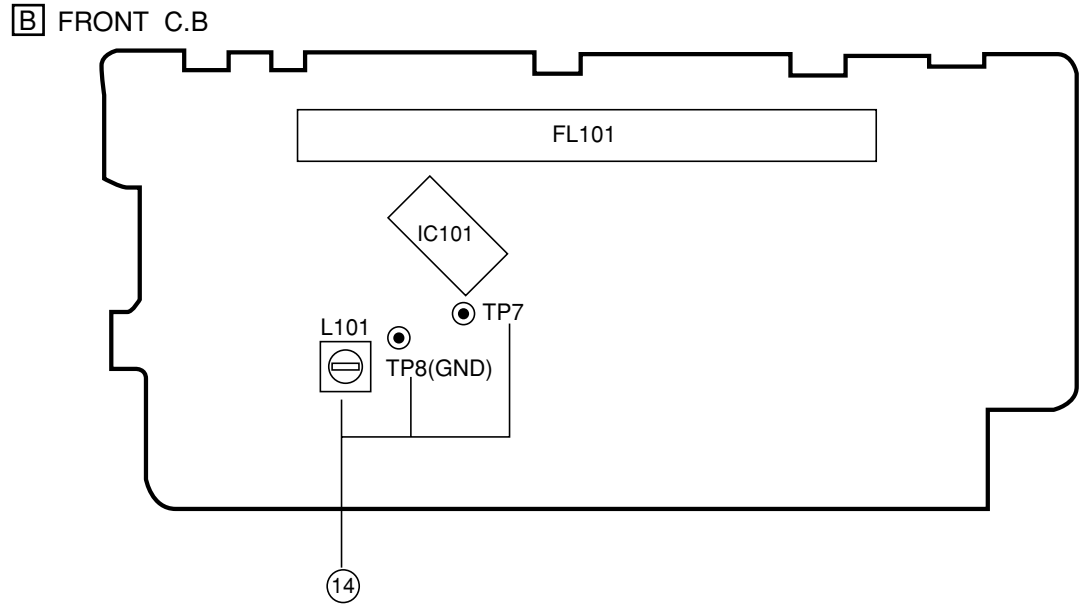
IC DESCRIPTION

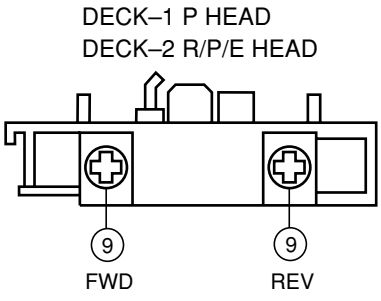
IC, LC87654V-5P35

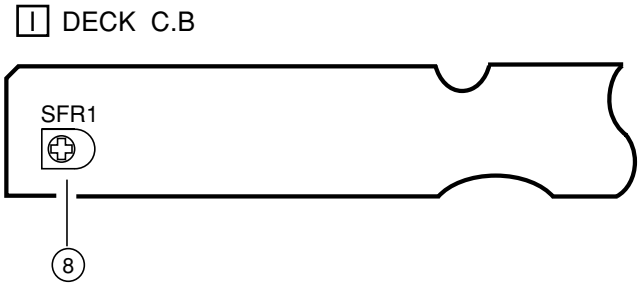
Pin No.	Pin Name	I/O	Description
1	O-CLK	O	CLOCK output for FRONT and MAIN C.B.
2	O-DATA	O	DATA output for FRONT and MAIN C.B.
3	O-STB(M)	O	Strobe output for MAIN C.B.
4	O-POWER	O	System power ON/OFF output.
5	O-STB(SHIFT)	O	Strobe output for shift register.
6	O-$\overline{\text{RYM-CS}}$	O	Chip select output for RHYTHM IC.
7	O-PLL-CE	O	Chip enable output for PLL.
8	I-STEREO	I	Stereo detect input.
9	O-$\overline{\text{CLK SHIFT}}$	O	Tuner clock shift output (active L).
10	I-$\overline{\text{HP-MUTE}}$	I	Head phones connect detect input.
11	$\overline{\text{RESET}}$	I	Reset input for MICON.
12	I-DISH	I	CD turntable photo sensor input.
13	I-SPEANA	I	SPEANA level AD input.
14	VSS1	–	Connected to GND.
15	CF1	–	To oscillator circuit.
16	CF2	–	To oscillator circuit.
17	VDD1	–	Power supply.
18	I-HOLD	I	HOLD 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 nechanical switch input.
23	I-RTVR	I	Rotary encoder AD input for VR.
24	I-JOG	I	Rotary encoder AD input for MULTI JOG.
25	I-MIC	I	MIC input for AUTO VOCAL FADER.
26	I-$\overline{\text{MS}}$	I	DECK MS detect input.
27	I-TM-BASE	I	Standard time input (8Hz).
28	I-WRQ	I	CD WRQ input.
29	I-$\overline{\text{RMC}}$	I	System remote controller input.
30 ~ 42	G13 ~ G1	O	FL grid output (G13 ~ G1).
43 ~ 45	P35 ~ P33	O	FL segment output (P35 ~ P33).
46	VDD3	–	Power supply.
47	P32/SPEANA-A	O	FL segment output (P32)/SPEANA band change output (A).
48	P31/SPEANA-B	O	FL segment output (P31)/SPEANA band change output (B).
49	P30/SPEANA-C	O	FL segment output (P30)/SPEANA band change output (C).
50	P29/$\overline{\text{BEAT-M}}$	O/I	FL segment output (P29)/BEAT MASTER less diode input.
51	-VP	–	Connected to -VFL .
52	P28/AM-ST	O/I	FL segment output (P28)/AM-STEREO diode input (Not used).
53	P27/LW	O/I	FL segment output (P27)/LW diode input (Not used).
54	P26/SW	O/I	FL segment output (P26)/SW diode input (Not used).
55	P25/FM1	O/I	FL segment output (P25)/FM1diode input (Not used).
56	P24/CASINO DEMO	O/I	FL segment output (P24)/initial CASINO DEMO diode input.

Pin No.	Pin Name	I/O	Description
57	P23/$\overline{\text{ECO MODE}}$	O/I	FL segment output (P23)/Initial ECO MODE less diode input.
58	P22/$\overline{\text{DSP}}$	O/I	FL segment output (P22)/DSP less diode input (Not used).
59	P21/PRO/5.1	O/I	FL segment output (P21)/PRO-LOGIC 5.1CH diode input (Not used).
60	P20/KEY-CON	O/I	FL segment output (P20)/KEY CONTROL diode input (Not used).
61	P19/DOLBY	O/I	FL segment output (P19)/DECK DOLBYdiode input (Not used).
62	P18/PRO	O/I	FL segment output (P18)/PROLOGIC diode input (Not used).
63	P17/AM10K	O/I	FL segment output (P17)/AM10 change diode input.
64	P16/$\overline{\text{CST2}}$	O/I	FL segment output (P16)/DECK 2 cassette detect SW input.
65	P15/$\overline{\text{REB}}$	O/I	FL segment output (P15)/DECK side B record permission SW input.
66	P14/$\overline{\text{CAM2}}$	O/I	FL segment output (P14)/DECK 2 CAM SW input.
67	P13/AUTO1	O/I	FL segment output (P13)/DECK 1 auto stop input.
68	P12/AUTO2	O/I	FL segment output (P12)/DECK 2 auto stop input.
69	P11/$\overline{\text{CAM1}}$	O/I	FL segment output (P11)/DECK 1 CAM SW input.
70	P10/$\overline{\text{CST1}}$	O/I	FL segment output (P10)/DECK 1 cassette detect SW input.
71	P9/$\overline{\text{REA}}$	O/I	FL segment output (P9)/DECK side A record permission SW input.
72	VDD4	–	Power supply.
73	P8 /$\overline{\text{AC DEMO}}$	O/I	FL segment output (P8)/DEMO less (on the shop) diode input (Not used).
74~80	P7~P1	O	FL segment output (P7~P1).
81	NC	–	Not connected.
82	O-TRAY CLOSE	O	CD tray close output.
83	O-TRAY-OPEN	O	CD tray open output.
84	I-SUBQ	I	CD SUBQ detect input.
85	O-DISH-FWD	O	CD turntable forward revolution output.
86	O-DISH-REV	O	CD turntable reverse revolution output.
87	O-DATA	O	CD data output.
88	$\overline{\text{O-LED-STBY}}$	O	STBY LED on output (STBY LED on during O-POWER OFF).
89	VSS2	–	Connected to GND.
90	VDD2	–	Power supply.
91	$\overline{\text{O-MOTOR}}$	O	DECK motor output.
92	O-MUTE	O	System mute ON/OFF output.
93	O-$\overline{\text{SOL1}}$	O	DECK 1 plunger $\overline{\text{ON}}$/OFF output.
94	O-$\overline{\text{SOL2}}$	O	DECK 2 plunger $\overline{\text{ON}}$/OFF output.
95	I-DRF	I	CD DRF input.
96	I-IFC	I	TUNER IFC input.
97	NC	–	Connected to GND.
98	O-CD CLK	O	CD CLK output.
99	O-CD-CE	O	CD CE output.
100	$\overline{\text{O-KSCAN}}$	O	Key scan timing output.


A MAIN C.B
7
6
1
7
SFR352
SFR351
L802
L801
IC801
TP4 (DC BALANCE)
12
TP3
(DC BALANCE)
TP2 (CLK)
L951
4
(3/3)
(1/3)
TP1 (VT)
2
3
FFE831
GND
TP5 (LCH)
TP6 (RCH)
4
9
5
10
6
11
7
12
8
13


B FRONT C.B
FL101
IC101
TP7
L101
TP8(GND)
14


DECK–1 P HEAD
DECK–2 R/P/E HEAD
9
FWD
9
REV


I DECK C.B
SFR1
8

< TUNER SECTION >

1. Clock frequency Check
   Settings : • Test point : TP2
   Method : Set to AM 1710kHz and check that the test point is 2160kHz ± 45Hz.

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

3. 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) 1000kHz
   Method : Set to AM 1000kHz 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 9dBµV.

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)
   : TP5(Lch), TP6(Rch) (Distortion)
   • Adjustment location : L801
   • Input level : 60dBµV
   Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
   Next, check that the distortion is less than 1.3%.

< 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 ± 5Hz and ±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–300
    • Test point :TP5(Lch), TP6(Rch)
    Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal with respect to that of the 315Hz signal is 0dB ± 3dB.

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 400mV ± 3dB.

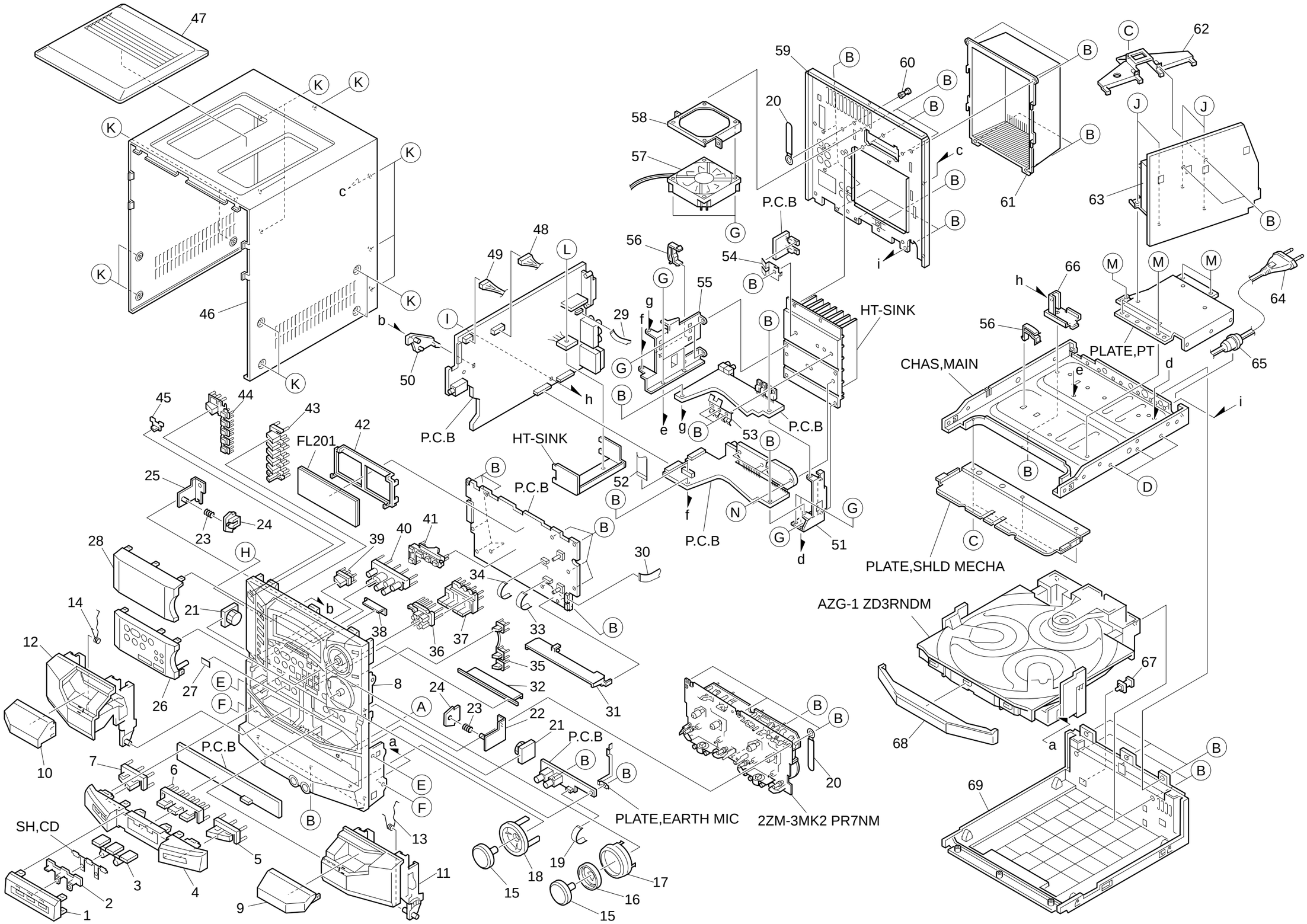
12. REC/PB Frequency Response Adjustment (DECK 2)
    Settings : • Test tape : TTA–602
    • Test point : TP5(Lch), TP6(Rch)
    • Input signal : 1kHz / 10kHz (LINE IN)
    • Adjustment location : SFR351 (Lch)
    SFR352 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP5, TP6 becomes 28mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB ± 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 280mV. Record and play back the 1kHz signals and check that the output is –1dB ± 3.0dB.

< FRONT SECTION >

14. µ-CON OSC Adjustment
    Settings : • Test point : TP7 and 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 ± 0.2Hz.

MECHANICAL EXPLODED VIEW 1 / 1



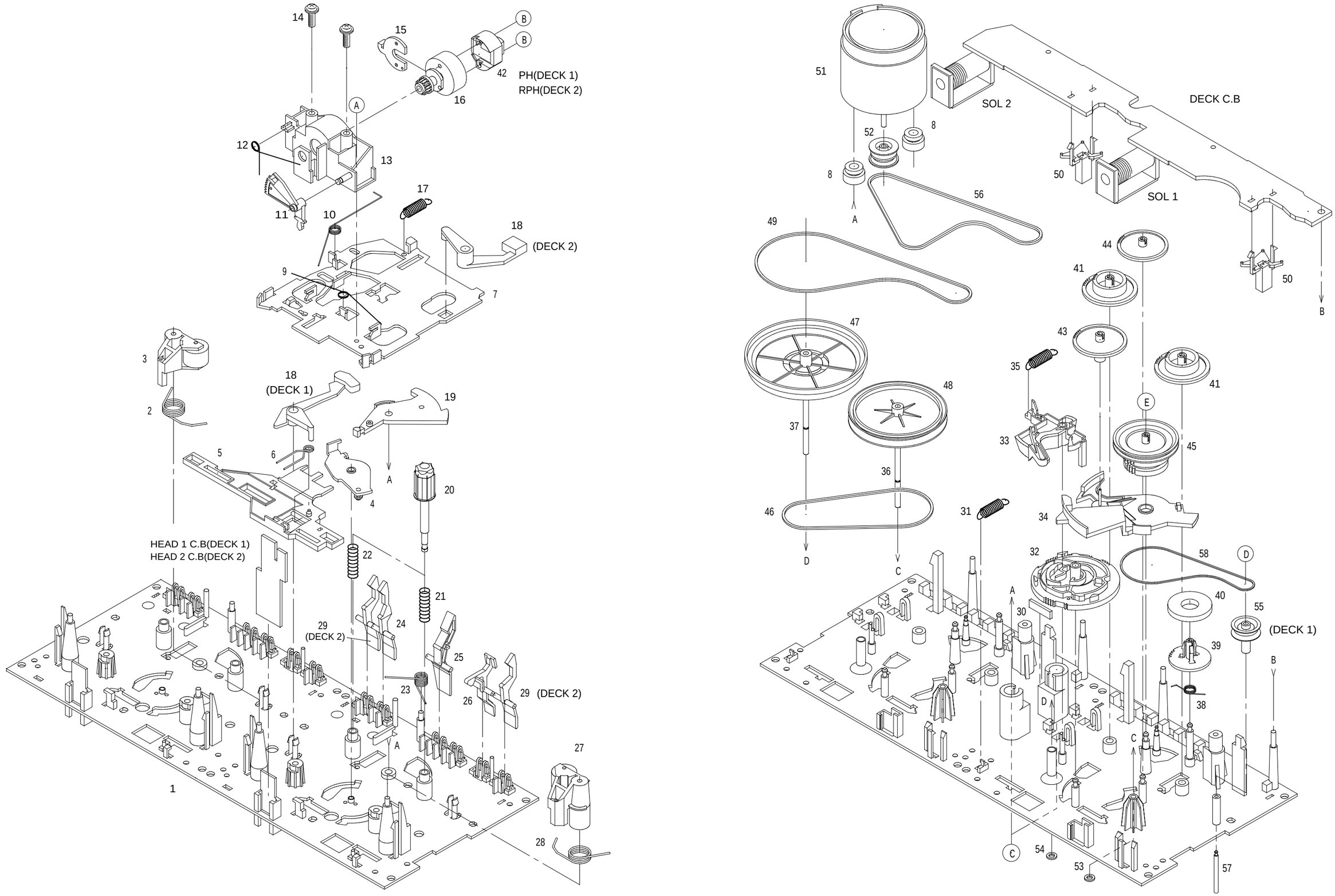
MECHANICAL PART LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NF6-010-010		PANEL,DIRECT
2	8A-NF6-044-010		REFLECTOR,CD
3	8A-NF6-205-010		GUIDE,CD
4	8A-NF6-009-010		PANEL,CD
5	8A-NF6-037-010		KEY,CD OPEN
6	8A-NF6-035-010		KEY,CD DIRECT
7	8A-NF6-036-010		KEY,CD EDIT
8	8A-NF6-002-010		CABI,FR H<EXCEPT 80U>
8	8A-NF6-001-010		CABI,FR U<80U>
9	8A-NF6-019-010		WINDOW,CASS 2
10	8A-NF6-018-010		WINDOW,CASS 1
11	8A-NF6-007-010		BOX,CASS 2
12	8A-NF6-006-010		BOX,CASS 1
13	82-NF5-219-010		SPR-T,EJECT 2 (SIN)
14	82-NF5-218-010		SPR-T,EJECT 1 (SIN)
15	8A-NF6-030-010		KNOB,RTRY JOG
16	8A-NF6-040-010		REFLECTOR,VOL
17	8A-NF6-041-010		RING,VOL
18	8A-NF6-029-010		KEY,GEQ
19	88-905-281-110		FF-CABLE, 5P 1.25 280MM
20	87-064-185-010		HLDR,WIRE
21	8Z-NF6-210-010		DMPR,150 N
22	87-NF4-217-110		HLDR,LOCK 2
23	86-NF9-224-010		SPR-C,LOCK
24	82-NF5-229-010		PLATE,LOCK
25	87-NF4-216-010		HLDR,LOCK 1
26	8A-NF6-012-010		PANEL,FR H<EXCEPT 80U>
26	8A-NF6-011-010		PANEL,FR U<80U>
27	81-532-080-010		LABEL, CASS. COMPT
28	8A-NF6-059-010		WIND0W,DISP H Z80E<80HA>
28	8A-NF6-016-010		WINDOW,DISPLAY H<80LH>
28	8A-NF6-014-010		WINDOW,DISPLAY H Z83<83LH>
28	8A-NF6-015-010		WINDOW,DISPLAY U<80U>
29	88-906-621-110		FF-CABLE,6P 1.25 620MM
30	88-913-521-110		FF-CABLE,13P 1.25 520MM
31	8A-NF6-204-010		GUIDE,DECK
32	8A-NF6-039-010		REFLECTOR,DECK
33	88-915-111-110		FF-CABLE,15P 1.25
34	88-907-421-110		FF-CABLE,7P 1.25 420MM
35	8A-NF6-022-010		KEY,ECHO
36	8A-NF6-031-010		KEY,BBE U<EXCEPT 80U>
36	8A-NF6-047-010		KEY,T-BASS U<80U>
37	8A-NF6-034-010		KEY,SPICE<EXCEPT 80U>
38	8A-NF6-038-010		REFLECTOR,FL
39	8A-NFT-007-010		KEY,ASSY PRO
40	8A-NF6-026-010		KEY,ASSY OPE
41	8A-NF6-203-010		GUIDE,OPE
42	8A-NF6-201-010		GUIDE,FL
43	8A-NF6-023-010		KEY,ASSY FUN
44	8A-NF6-045-010		KEY,ASSY POWER
45	8A-NF6-042-010		REFLECTOR,ECO
46	8A-NF6-004-010		CABI,STEEL
47	8A-NF6-005-010		PANEL,TOP
48	87-NF6-616-010		CONN ASSY,8P RPB
49	87-NF6-615-010		CONN ASSY,3P PB
50	8A-NF8-206-010		HLDR,PWB M
51	8A-NF6-214-010		HLDR,HT-SINK R
52	88-907-151-110		FF-CABLE, 7P 1.25 150MM
53	8A-NF6-210-010		HLDR,IC6
54	8A-NF7-226-010		HLDR,IC2-T2
55	8A-NF6-213-010		HLDR,HT-SINK L
56	87-NF4-221-010		HLDR,CABLE
57	87-A91-711-010		FAN,3110GL-B4W-B34-H02<EXCEPT 80U>
58	8A-NF6-219-010		HLDR,FAN<EXCEPT 80U>
59	8A-NF6-052-010		PANEL,REAR LH<EXCEPT 80U>
59	8A-NF6-051-010		PANEL,REAR U<80U>
60	87-084-077-010		NYLON RIVET, 3.5-4.5
61	8A-NF6-082-010		COVER, REAR LHSM<80LH>
61	8A-NF6-087-010		COVER, REAR LHSM Z83<83LH>
61	8A-NF6-086-010		COVER, REAR SPEC LABEL<80HA>
61	8A-NF6-110-010		COVER,REAR ST USM<80U>
62	8A-NF6-217-010		HLDR,PWB PT<80LH,83LH>
62	8A-NF6-228-010		HLDR,PWB PT 96-75<80U,80HA>
63	8A-NF6-622-010		PT,LH EI96-60 ANF-6<EXCEPT 80U>
⚠ 63	8A-NF6-621-010		PT,U EI96-60 ANF-6<80U>
⚠ 64	87-A80-105-010		AC CORD ASSY,AZ<80HA>
64	87-A80-092-010		AC CORD ASSY,E BLK SUN<80LH,83LH>
⚠ 64	87-A80-110-010		AC CORD ASSY,U SPT-2W<80U>
65	87-085-185-010		BUSHING, AC CORD (E)<EXCEPT 80U>
65	87-085-189-010		BUSHING, CORD (U)<80U>
66	8A-NF7-209-010		HLDR,PWB-M BTM
67	84-ZG1-245-210		CAP,OPTICAL
68	8A-NF6-008-010		PANEL,TRAY
69	8A-NF6-003-010		CABI,BOTTOM
A	87-067-758-010		BVT2+3-12 W/O SLOT
B	87-067-703-010		TAPPING SCREW, BVT2+3-10
C	87-067-688-010		BVTT+3-6
D	87-591-095-410		TAPPING SCREW, QIT+3-8 (GLD)
E	87-591-094-410		TAPPING SCREW, QIT+3-6
F	87-721-097-410		QT2+3-12 GLD
G	87-067-579-010		TAPPING SCREW, BVT2+3-8
H	87-723-096-410		QT2+3-10W/O SLOT BL
I	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
J	87-067-975-010		S-SCREW,IT+4-8
K	87-B10-091-010		UTT2+3-10 W/O BLK
L	87-067-001-010		S-SCREW,BVWWST2+3-12W/O SL
M	87-078-191-010		S-SCREW,IT+4-10
N	87-067-581-010		TAPPING SCREW, BVT2+3-15

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		

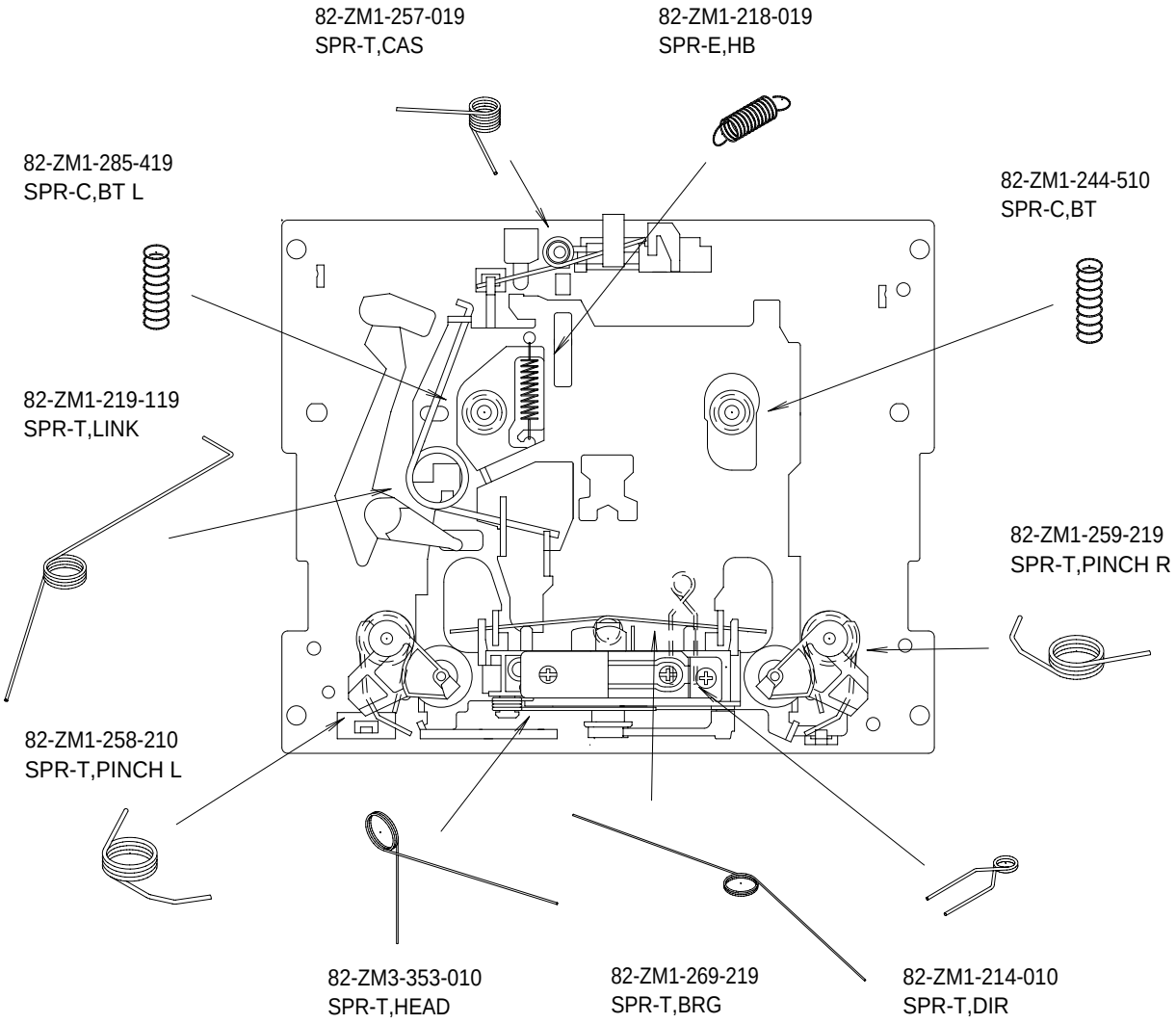
TAPE MECHANISM EXPLODED VIEW 1 / 1

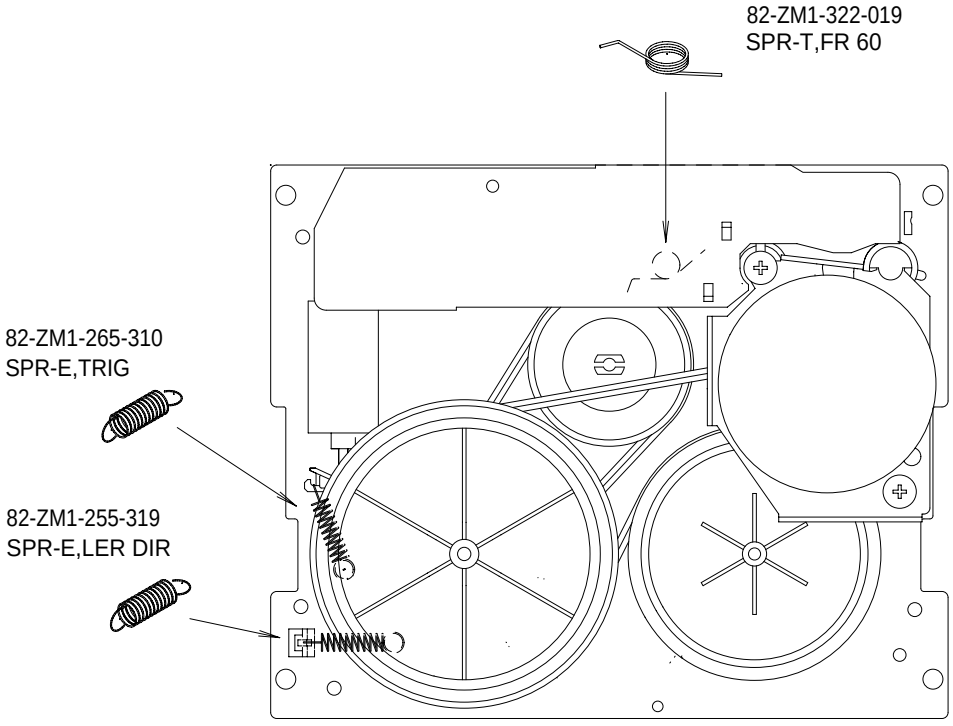


TAPE MECHANISM PART LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-619		CHAS ASSY,M2
2	82-ZM1-258-219		SPR-T,PINCH L
3	82-ZM1-341-219		LVR ASSY,PINCH L2
4	82-ZM1-333-110		PLATE,LINK 2
5	82-ZM1-266-310		LVR,DIR
6	82-ZM1-214-919		SPR-T,DIR
7	82-ZM1-206-81K		CHAS,HEAD
8	82-ZM3-307-019		CUSH-G,DIA3.7-8-3.2
9	82-ZM1-269-219		SPR-T,BRG
10	82-ZM1-219-119		SPR-T,LINK
11	82-ZM1-210-119		GEAR,H T
12	82-ZM3-353-010		SPR-T,HEAD
13	82-ZM1-207-919		GUIDE,TAPE
14	86-ZM4-206-110		S-SCREW,AZIMUTH
15	82-ZM1-314-119		PLATE,HEAD
16	82-ZM1-208-319		HLDR,HEAD
17	82-ZM1-218-019		SPR-E,HB
18	82-ZM1-263-110		LVR,EJECT L (DECK 1)
18	82-ZM1-264-010		LVR,EJECT R (DECK 2)
19	82-ZM1-222-21K		LVR,PLAY
20	82-ZM1-217-419		REEL TABLE
21	82-ZM1-244-510		SPR-C,BT
22	82-ZM1-285-410		SPR-C,BT L
23	82-ZM1-257-019		SPR-T,CAS
24	82-ZM1-241-319		LVR,MC
25	82-ZM1-242-019		LVR,CAS
26	82-ZM1-243-019		LVR,STOP
27	82-ZM1-344-219		LVR ASSY,PINCH R2
28	82-ZM1-259-219		SPR-T,PINCH R
29	82-ZM1-240-119		LVR,REC (DECK 2)
30	82-ZM3-340-010		SH,BELT D2
31	82-ZM1-255-319		SPR-E,LVR DIR
32	82-ZM3-305-310		GEAR,CAM M2
33	82-ZM1-227-319		LVR,TRIG
34	82-ZM3-306-11K		LVR,FR M2
35	82-ZM1-265-310		SPR-E,TRIG
36	82-ZM1-236-019		CAPSTAN N 2-41.5
37	82-ZM1-239-019		CAPSTAN N 2.2-41.7
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-219		GEAR,IDLER
40	82-ZM3-616-019		RING MAGNET 4
41	82-ZM1-216-519		GEAR,REEL
42	87-A91-196-010		HEAD,PH KP9142
42	87-A91-195-010		HEAD,RPH KC9142
43	82-ZM1-225-21K		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM3-333-310		SLIP DISK ASSY 2
46	82-ZM1-338-110		BELT FR4
47	82-ZM1-349-110		FLY-WHL,R W(DECK 2)
47	82-ZM3-338-310		FLY-WHL,R3 W(DECK 1)
48	82-ZM1-348-110		FLY-WHL,L W(DECK 2)
48	82-ZM1-348-110		FLY-WHL,L W(DECK 1)
49	82-ZM3-329-410		BELT,SBU R2
50	82-ZM1-245-210		HLDR,IC
51	87-045-347-019		MOT,SHU2L 70(M1)
52	82-ZM3-221-210		PULLEY,MOT 2M
53	82-ZM1-288-019		SH,1.63-3.2-0.5 SLT
54	80-ZM6-243-019		SH,1.75-3.6-0.5 SLT
55	82-ZM3-335-310		PULLEY,COUPLER M3(DECK 1)
56	82-ZM3-342-010		BELT,SBU MOT 2
57	82-ZM3-339-110		SHAFT,COUPLER N3(DECK 1)
58	86-ZM1-206-010		BELT,MAIN L
A	85-ZM3-202-010		S-SCREW,TG
B	80-ZM6-207-110		V+1.6-7
C	82-ZM3-318-110		S-SCRW MOTOR M2
D	87-B10-043-010		W-P,0.99-4-0.25 SLT
E	82-ZM3-334-010		PW,2.16-6-0.4

SPRING APPLICATION POSITION

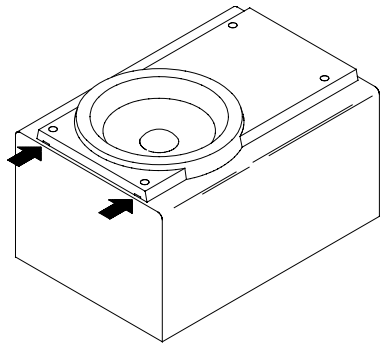




SPEAKER DISASSEMBLY INSTRUCTIONS

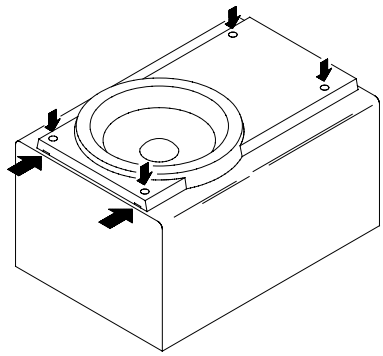
Type.1

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.



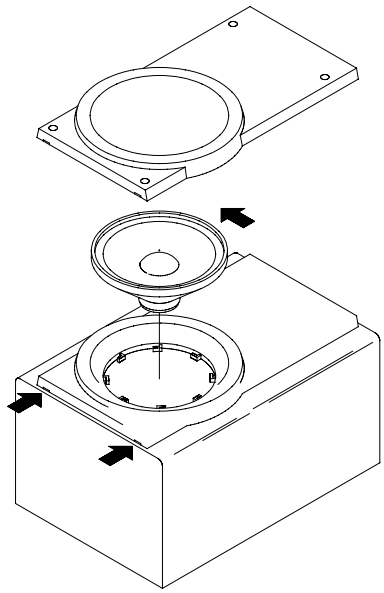
Type.2

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.

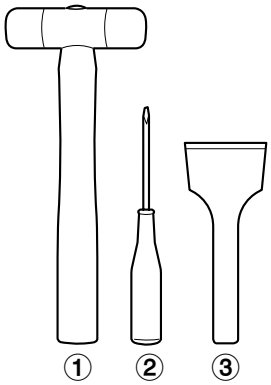


Type.3

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.

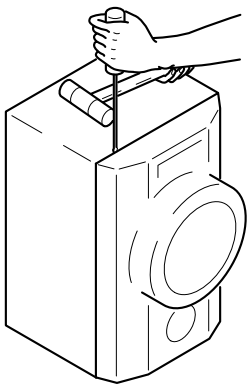


Fig-1

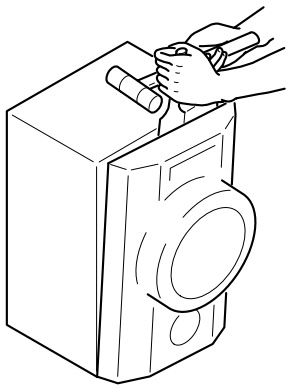


Fig-2

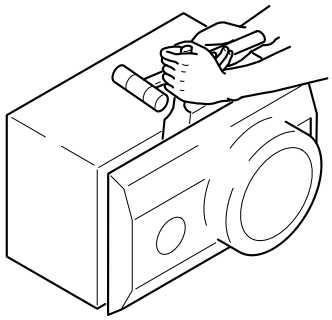


Fig-3

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-WNSZ80 (YLSL,YLSC9)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NS0-001-010		PANEL,FR
2	8A-NS0-004-010		PANEL,DUCT
3	8A-NS0-005-010		PANEL,TOP
4	8A-NS0-006-010		PANEL,NAME
5	8A-NS0-007-010		GRILLE,FRAME ASSY
6	8A-NS0-010-010		PROTECTOR,TWA
7	8A-NS0-011-010		HLDR,PIEZO
8	8A-NS6-602-010		SPKR,W 200
9	8A-NS0-604-010		SPKR,M 120
10	88-NSK-610-010		SPKR,CERAMIC ASSY
11	88-NS5-610-010		CORD,SPKR
12	88-NS5-611-010		CORD,SPKR B/L
13	8A-NS6-002-010		PANEL,FR(SX-S80)
14	8A-NS6-004-010		GRILLE,FRAME ASSY(SX-S80)
15	8A-NS6-610-010		CORD,3.5(SX-S80)
16	8A-NS6-606-010		SPKR,80(SX-S80)

SPEAKER PARTS LIST SX-WNH83 (YLML)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NSY-001-010		PANEL,FR R
2	8A-NSY-002-010		PANEL,FR L
3	8A-NSY-003-010		PANEL,BA R
4	8A-NSY-004-010		PANEL,BA L
5	8A-NSY-005-010		GRILLE,FRAME ASSY
6	8Z-NS5-602-010		SPKR,W 200
7	8A-NS0-604-010		SPKR,M 120
8	88-NS5-610-010		CORD,SPKR
9	88-NS5-611-010		CORD,SPKR B/L
10	8A-NS6-002-010		PANEL,FR(SX-S80)
11	8A-NS6-004-010		GRILLE,FRAME ASSY(SX-S80)
12	8A-NS6-610-010		CORD,3.5(SX-S80)
13	8A-NS6-606-010		SPKR,80(SX-S80)
14	8A-NSY-010-010		CABI,M
15	8A-NSY-011-010		RING,W
16	8A-NSY-012-010		COVER,REAR

SPEAKER PARTS LIST SX-WNAJ85 (YUSL)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NS2-001-010		PANEL,FR
2	8A-NS2-002-010		PANEL,TW R
3	8A-NS2-003-010		PANEL,TW L
4	8A-NS2-004-010		PANEL,DUCT
5	8A-NS2-013-010		PANEL,DUCT RING
6	8A-NS2-008-010		PROTECTOR,TW
7	8A-NS2-009-010		GRILLE,FRAME ASSY
8	8A-NS6-604-010		SPKR,W 200
9	8A-NS0-604-010		SPKR,M 120
10	88-NSK-610-010		SPKR,CERAMIC ASSY
11	88-NS5-610-010		CORD,SPKR
12	88-NS5-611-010		CORD,SPKR B/L
13	8A-NS6-002-010		PANEL,FR(SX-S80)
14	8A-NS6-004-010		GRILLE,FRAME ASSY(SX-S80)
15	8A-NS6-610-010		CORD,3.5(SX-S80)
16	8A-NS6-606-010		SPKR,80(SX-S80)

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NF6-902-010		IB,LH(ESP)M<80LH,80HA>
1	8A-NF6-912-010		IB,LH(ESP)M 83<83LH>
1	8A-NF6-903-010		IB,U(ESF)M<80U>
2	8Z-NF8-701-210		RC UNIT,RC-ZAS01
3	87-006-225-010		AM LOOP ANT NC2
4	87-043-115-010		ANT,FEEDER FM
⚠ 5	87-A91-017-010		PLUG,CONVERSION JT-0476<80LH,83LH>

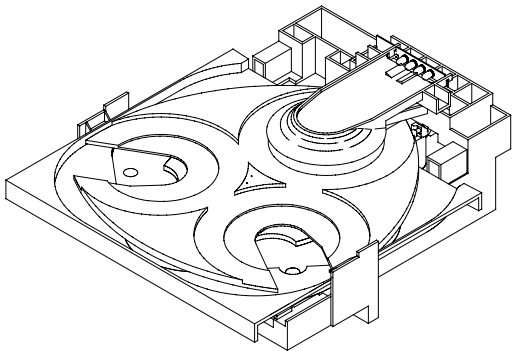
アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)
AIWA CO.,LTD. 2–11, IKENOHATA 1–CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111

9420208 0251431 Printed in Singapore

aiwa SERVICE

AZG-1

English



SERVICE MANUAL

CD-R/RW MECHANISM

BASIC CD MECHANISM:KSM-880CAB

TYPE
ZD8RD
YZD8RMDJM
ZD8RMDJM
ZD8RDNDM
YKZD8RDF
ZD8RDM
YZD8RDM
ZD8RN1DM
YZD8RDJM

aiwa

S/M Code No. 09-001-335-3N6

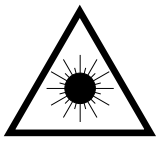
DATA

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

VAROITUS!

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

VARNING!

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

CAUTION

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

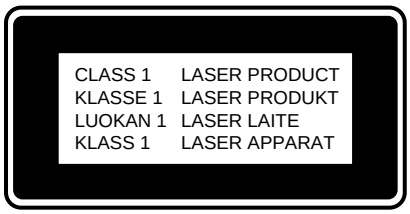
ATTENTION

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

ADVARSEL!

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

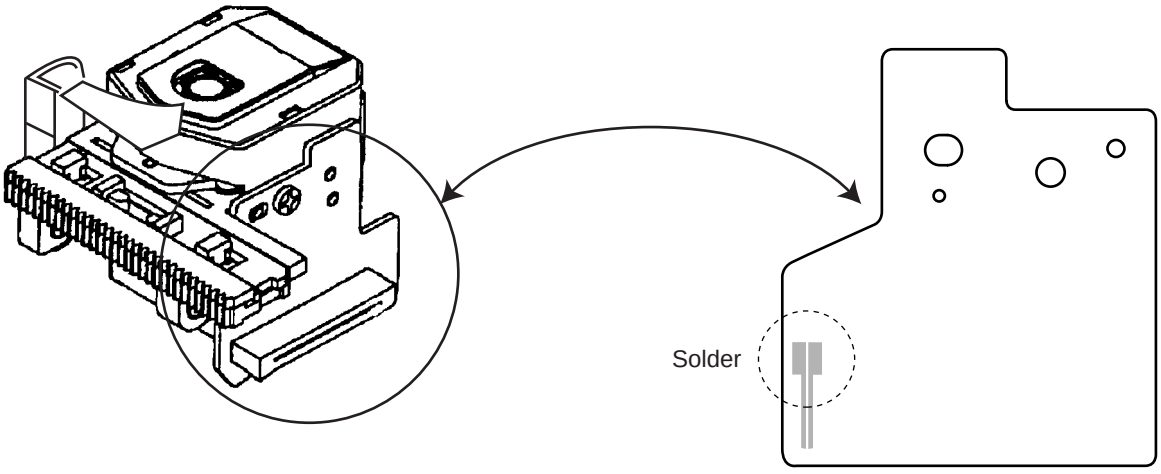
This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Precaution to replace Optical block

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

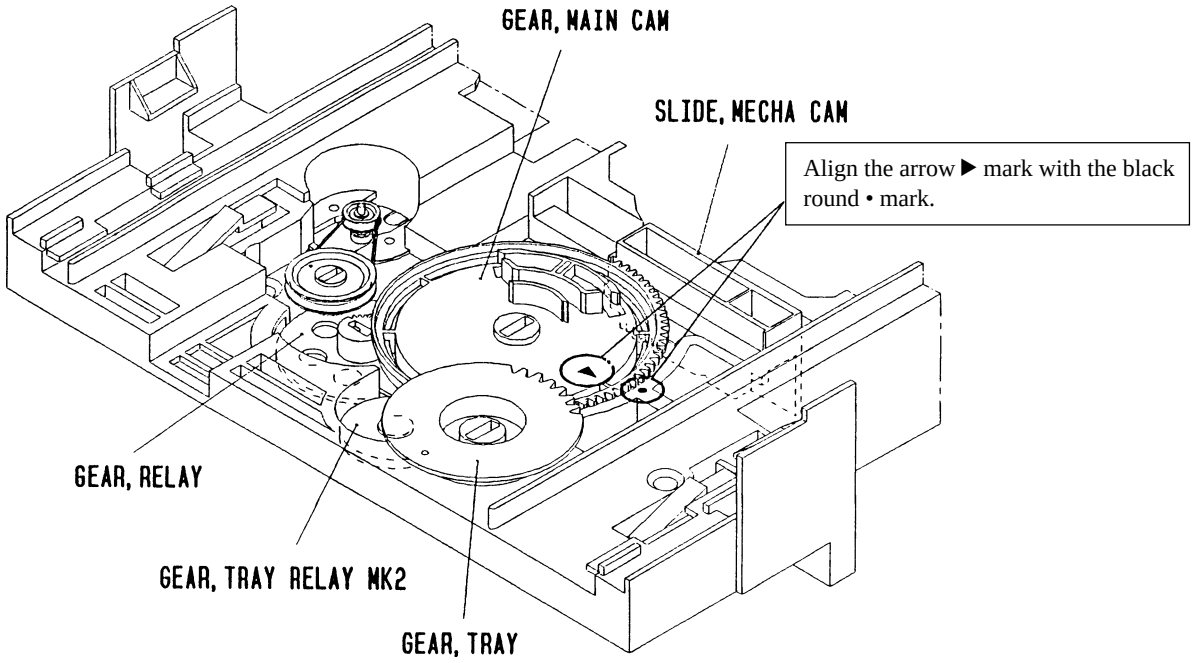
1) After the connection, remove solder shown in the figure below.



How to Adjust the Rotating Phase of the Gear, Main Cam

1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS, MECHA as shown below.
3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

Caution: If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

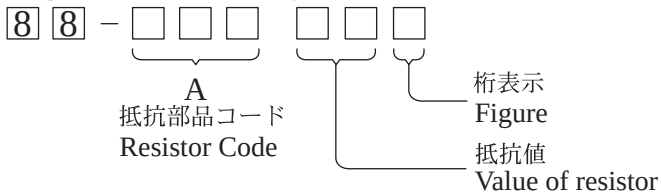
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A21-381-040		C-IC,LA9235M
	87-A21-556-010		C-IC,LC78641E
	87-A21-414-010		IC,BA5927S
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-497-080		TR,2SA1980Y/G
	87-A30-087-080		C-FET,2SK2158
	87-026-237-080		CHIP-TR,DTC124XK <EXCEPT ZD8RN1DM,YZD8RDM>
	87-A30-075-080		C-TR,2SA1235F
DIODE			
	87-A40-270-080		C-DIODE,MC2838
	87-070-136-080		ZENER,MTZJ5.1B
	87-A40-003-080		ZENER,MTZJ4.3A
	87-A40-337-080		ZENER,MTZJ6.8B
	87-A40-313-080		C-DIODE,MC2840
3CD C.B			
C1	87-010-374-080		CAP,E 47-10
C2	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C2	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C3	87-010-260-080		CAP, ELECT 47-25V
C4	87-010-260-080		CAP, ELECT 47-25V
C5	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C5	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C6	87-010-405-080		CAP, ELECT 10-50V
C7	87-010-263-080		CAP, ELECT 100-10V
C8	87-012-349-080		C-CAP,S 1000P-50 CH
C10	87-010-546-080		CAP,E 0.33-50
C11	87-010-401-080		CAP, ELECT 1-50V
C13	87-010-321-020		C-CAP,S 82P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C13	87-010-321-080		C-CAP,S 82P-50 J CH <YKZD88RDF,ZD8RD>
C15	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C15	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C16	87-010-260-080		CAP, ELECT 47-25V
C101	87-010-992-080		C-CAP,S 0.047-25 B
C102	87-010-401-080		CAP, ELECT 1-50V
C103	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C103	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C104	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C104	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C105	87-010-260-080		CAP, ELECT 47-25V
C106	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C106	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C107	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C107	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C108	87-010-186-080		CAP,CHIP 4700P<YKZD88RDF,ZD8RD>
C108	87-010-186-020		CAP,CHIP 4700P <EXCEPT YKZD88RDF,ZD8RD>
C109	87-010-992-080		C-CAP,S 0.047-25 B
C110	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C110	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C111	87-010-260-080		CAP, ELECT 47-25V
C112	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C112	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C114	87-010-260-080		CAP, ELECT 47-25V
C115	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C115	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C116	87-010-260-080		CAP, ELECT 47-25V
C117	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C117	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C118	87-010-260-080		CAP, ELECT 47-25V
C119	87-015-819-080		
C120	87-010-312-080		C-CAP,S 15P-50 CH <YKZD88RDF,ZD8RD>
C120	87-010-312-020		C-CAP,S 15P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C121	87-010-312-020		C-CAP,S 15P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C121	87-010-312-080		C-CAP,S 15P-50 CH <YKZD88RDF,ZD8RD>
C122	87-010-404-080		CAP, ELECT 4.7-50V
C123	87-010-197-020		CHIP CAPACITOR,0.01-25 <EXCEPT YKZD88RDF,ZD8RD>
C123	87-010-197-080		CHIP CAPACITOR,0.01-25 <YKZD88RDF,ZD8RD>
C124	87-010-401-080		CAP, ELECT 1-50V
C126	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C126	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C128	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C128	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C130	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C130	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C132	87-010-405-080		CAP, ELECT 10-50V
C133	87-010-314-020		C-CAP,S 22P-50V <EXCEPT YKZD88RDF,ZD8RD>
C133	87-010-314-080		C-CAP,S 22P-50V<YKZD88RDF,ZD8RD>
C135	87-A11-088-080		CAP,TC U 100P-50 J CH
C151	87-010-405-080		CAP, ELECT 10-50V
C152	87-010-405-080		CAP, ELECT 10-50V
C192	87-012-349-080		C-CAP,S 1000P-50 CH
C193	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C193	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C201	87-A10-730-080		CAP,E 1000-16 SMG
C202	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C202	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C204	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C204	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C205	87-010-405-080		CAP, ELECT 10-50V
C206	87-010-405-080		CAP, ELECT 10-50V
C207	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C207	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C301	87-010-382-080		CAP, ELECT 22-25V
C302	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C302	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C303	87-010-260-080		CAP, ELECT 47-25V
C401	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C401	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C402	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C402	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C403	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C403	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C404	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C404	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C405	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C405	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C406	87-010-322-020		C-CAP,S 100P-50 CH <EXCEPT YKZD88RDF,ZD8RD>
C406	87-010-322-080		C-CAP,S 100P-50 CH <YKZD88RDF,ZD8RD>
C407	87-010-405-080		CAP, ELECT 10-50V
C454	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
C454	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C601	87-010-260-080		CAP, ELECT 47-25V
C602	87-010-196-080		CHIP CAPACITOR,0.1-25 <YKZD88RDF,ZD8RD>
C602	87-010-196-020		CHIP CAPACITOR,0.1-25 <EXCEPT YKZD88RDF,ZD8RD>
CN1	87-A60-429-010		CONN,16P H TOC-A
CN201	84-ZG1-648-010		CONN ASSY,6P
CN202	87-A60-130-010		CONN,5P V
CN501	84-ZG1-647-010		CONN ASSY,2P <EXCEPT ZD8RN1DM,ZD8RNDM>
CN601	87-009-345-010		CONN,2P PH V <EXCEPT ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RNDM>
CON401	87-099-030-010		CONN,13P 6216H
FB601	87-008-372-080		FLTR,EMI BL01 RN1 <EXCEPT ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RNDM>
FB602	87-008-372-080		FLTR,EMI BL01 RN1
LED601	87-A40-558-010		LED,SLZ-8128A-01-A
M201	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
SW201	87-036-109-010		SW,MICRO SPPB61
SW202	87-036-109-010		SW,MICRO SPPB61
X101	87-A70-046-010		VIB,XTAL 16.934MHZ
LED. C.B			
LED501	87-A40-263-080		LED,SLH-56PCT31 GRN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED502	87-A40-263-080		LED,SLH-56PCT31 GRN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED503	87-A40-268-080		LED,SLH-56DCT31 ORN <EXCEPT ZD8RN1DM,ZD8RNDM>
LED504	87-A40-268-080		LED,SLH-56DCT31 ORN <EXCEPT ZD8RN1DM,ZD8RNDM>
T-T C.B			
C401	87-018-214-080		CAP TC U 0.1-50F
CON401	86-NFZ-675-010		CONN,5P H 6216-11H
M401	87-045-364-010		MOTOR(BCH3B14)
PS401	87-026-573-010		SNSR,PHOTO GP1S53V
MOTOR C.B			
PIN3	91-564-722-110		CONN,PIN 6P
SW1	91-572-085-110		LEAF SWITCH

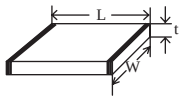
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

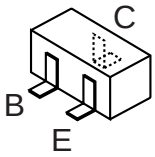
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

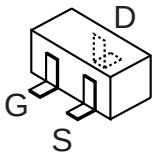
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION

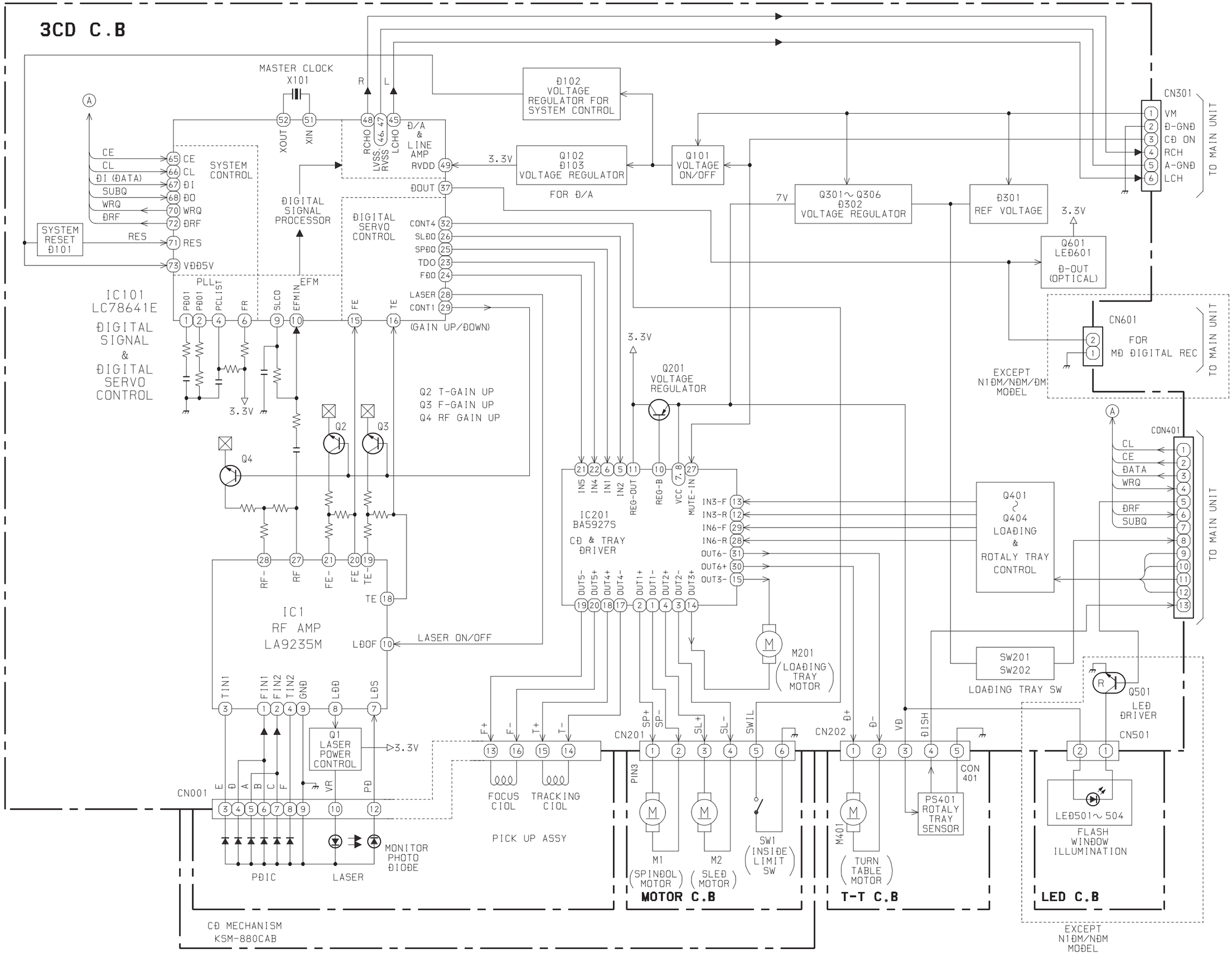


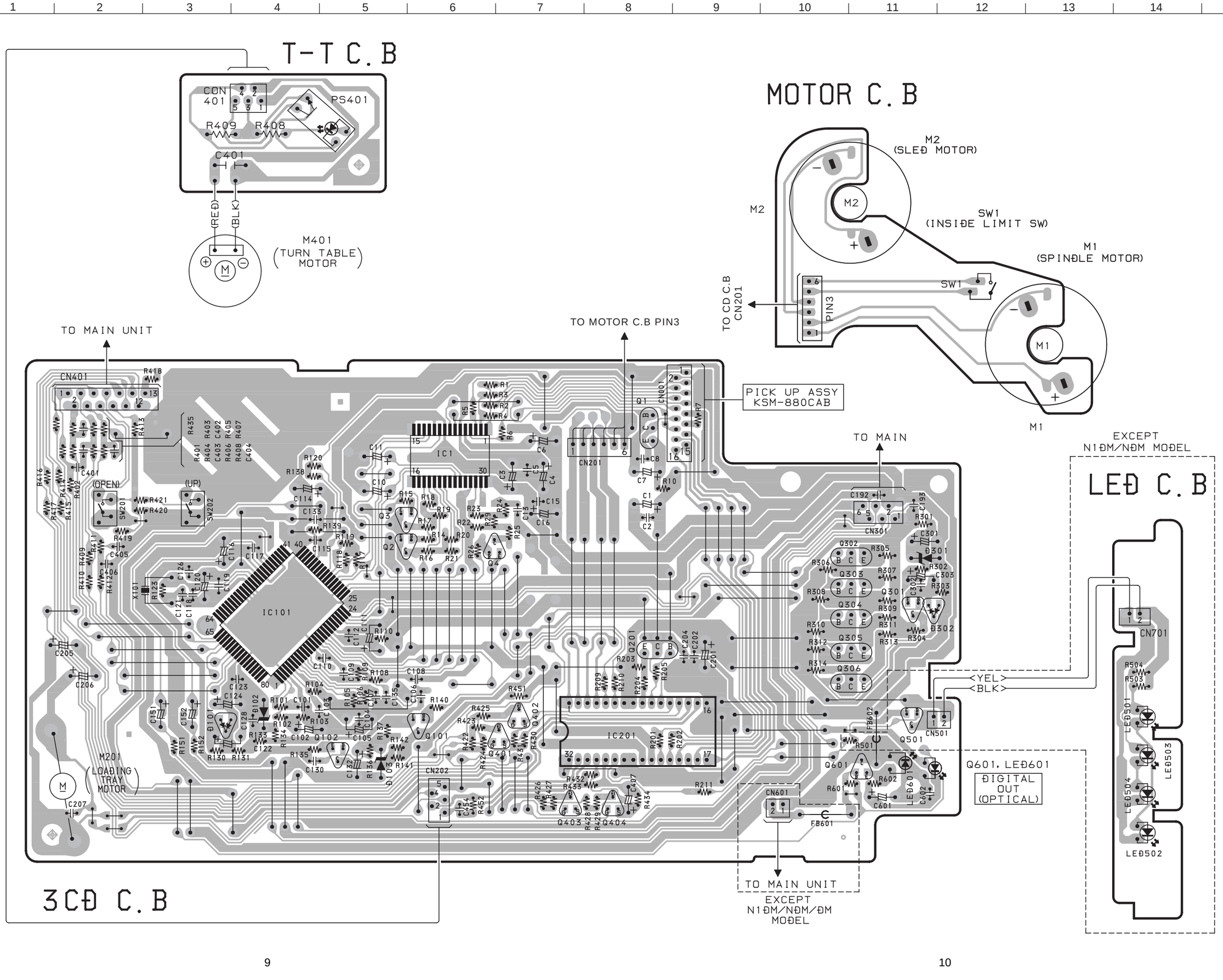
2SA1235F
2SC3052F
DTC124XK

2SA1980Y/G
KTA1266GR

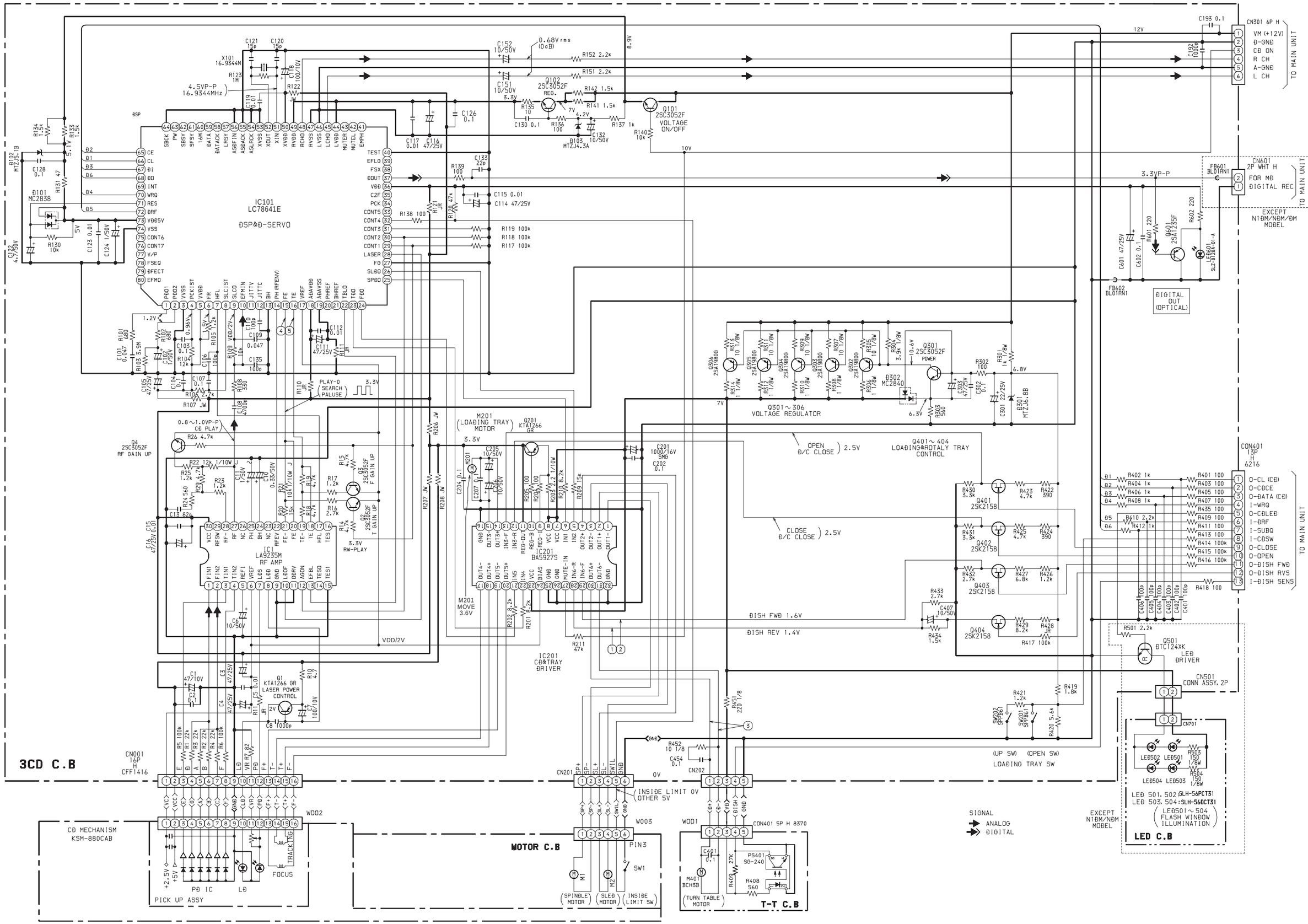


2SK2158


3CD C.B
MASTER CLOCK
X101
XOUT
XIN
R
L
RCHO
LVSS
RVSS
LCHO
Đ/A & LINE AMP
Đ102 VOLTAGE REGULATOR FOR SYSTEM CONTROL
Q102 Đ103 VOLTAGE REGULATOR
FOR Đ/A
Q101 VOLTAGE ON/OFF
3.3V
RVDD
ĐOUT
CE
CL
ĐI (ĐATA)
SUBQ
WRQ
ĐRF
RES
VĐĐ5V
SYSTEM CONTROL
SYSTEM RESET Đ101
ĐIGITAL SIGNAL PROCESSOR
ĐIGITAL SERVO CONTROL
CONT4
SLĐO
SPĐO
TDO
FĐO
LASER
CONT1
(GAIN UP/ĐOWN)
PLL
EFM
IC101
LC78641E
ĐIGITAL SIGNAL & ĐIGITAL SERVO CONTROL
PĐO1
PDO1
PCLIST
FR
SLCO
EFMIN
FE
TE
Q2 T-GAIN UP
Q3 F-GAIN UP
Q4 RF GAIN UP
Q2
Q3
Q4
7V
Q301~Q306 Đ302 VOLTAGE REGULATOR
Đ301 REF VOLTAGE
Q601 LEĐ601 Đ-OUT (OPTICAL)
CN301
VM
Đ-GNĐ
CĐ ON
RCH
A-GNĐ
LCH
TO MAIN UNIT
CN601
FOR MĐ ĐIGITAL REC
EXCEPT N1ĐM/NĐM/ĐM MOĐEL
Q201 VOLTAGE REGULATOR
IC201 BA5927S CĐ & TRAY ĐRIVER
IN5
IN4
IN1
IN2
REG-OUT
REG-B
VCC
MUTE-IN
IN3-F
IN3-R
IN6-F
IN6-R
OUT6-
OUT6+
OUT3-
OUT5-
OUT5+
OUT4+
OUT4-
OUT1+
OUT1-
OUT2+
OUT2-
OUT3+
Q401 ~ Q404 LOAĐING & ROTALY TRAY CONTROL
CON401
CL
CE
ĐATA
WRQ
ĐRF
SUBQ
SW201 SW202
LOAĐING TRAY SW
M201 (LOAĐING TRAY MOTOR)
IC1
RF AMP
LA9235M
RF-
RF
FE-
FE
TE-
TE
LĐOF
LASER ON/OFF
TIN1
FIN1
FIN2
TIN2
GND
LĐĐ
LĐS
Q1 LASER POWER CONTROL
3.3V
CN001
VR
PĐ
MONITOR PHOTO ĐIOĐE
PĐIC
LASER
F+
F-
T+
T-
FOCUS CIOL
TRACKING CIOL
PICK UP ASSY
CN201
SP+
SP-
SL+
SL-
SWIL
PIN3
M1 (SPINĐOL MOTOR)
M2 (SLEĐ MOTOR)
SW1 (INSIĐE LIMIT SW)
MOTOR C.B
CN202
Đ+
Đ-
VĐ
ĐISH
M401
TURN TABLE MOTOR
PS401 ROTALY TRAY SENSOR
T-T C.B
Q501 LEĐ ĐRIVER
CN501
LEĐ501~504 FLASH WINĐOW ILLUMINATION
LED C.B
EXCEPT N1ĐM/NĐM MOĐEL
CĐ MECHANISM KSM-880CAB


T-T C.B
CON 401
PS401
R409
R408
C401
(RED)
(BLK)
M401
(TURN TABLE MOTOR)
MOTOR C.B
M2
(SLED MOTOR)
M2
SW1
(INSIDE LIMIT SW)
M1
(SPINDLE MOTOR)
SW1
PIN3
TO CD C.B
CN201
M1
TO MAIN UNIT
TO MOTOR C.B PIN3
PICK UP ASSY
KSM-880CAB
TO MAIN
EXCEPT
N1DM/NDM MODEL
LED C.B
CN401
(OPEN)
(UP)
SW201
SW202
IC1
IC101
IC201
CN201
CN202
CN301
CN501
CN601
CN701
Q1
Q2
Q3
Q4
Q101
Q102
Q201
Q301
Q302
Q303
Q304
Q305
Q306
Q401
Q402
Q403
Q404
Q501
Q601
M201
(LOADING TRAY MOTOR)
X101
FB601
FB602
<YEL>
<BLK>
Q601, LED601
DIGITAL OUT (OPTICAL)
LED501
LED502
LED503
LED504
TO MAIN UNIT
EXCEPT
N1DM/NDM/DM
MODEL
3CD C.B

SCHEMATIC DIAGRAM



TEST MODE

1. How to Start the CD Test Mode

While pressing the CD function key, connect the AC power plug to wall outlet.
The test mode starts up and “CD TEST” appears on the display.

2. How to Exit the CD Test Mode

Press the POWER button or disconnect the AC power plug from wall outlet.
* When any function key other than PLAY is pressed during playback, the test mode is canceled.

3. Function and Use of the CD Test Mode

NO	MODE	How to enter the mode	Display	Operation	Check item
1	Start mode		All indicators turn on	• All FL all ndicators turn on	• FL check • Microprocessor check
2	Search mode	STOP button	CD	• LD turns on all the time • Focus search continuos operation *1 • Spindle motor continuos kick	• APC circuit check • Laser current measurement • Focus search waveform check • Focus error waveform check (Ignores DRF during search mode)
3	Play mode	PLAY button	Normal	• Normal playback • Focus search is continued if failed in TOC READ.	• Each servo circuit is checked • DRF check
4	Traverse mode	PAUSE button	Normal	• Tracking servo OFF/ON Repeats OFF/ON every time the PAUSE button is pressed	• Tracking balance check
5	Sled mode	FF button	CD TEST	• Moves PU to inner circumference *2 Kicks the lens to inner circumference at the same time	• Sled circuit check • Tracking circuit check • Mechanism operation check • PU check
		RWD button	CD TEST	• Moves PU to outer circumference *2 Kicks the lens to outer circumference at the same time	
6	Spindle mode	TAPE REC button	All indicators turn on	• Pressing the button once rotates the spindle motor in the normal direction (rough speed). Pressing the button again rotates it in the reverse direction. Pressing it again stops the motor	• Spindle circuit check • Spindle motor check
7	RF AGC mode	TUNER button	AGC ON/OFF	• Repeats ON/OFF every time the TUNER button is pressed	• PU good or defective check • RF AMP circuit check

*1 ..... When the focus search keeps running for 10 minutes or longer continuously, the driver IC heats up, and the protective circuit works so that the machine may stops operating.
In this case, turn off the main power, wait for a while and restart the machine.

*2 ..... Do not keep pressing the FF or RWD button while the pickup is located at the innermost or outermost circumference because the gear can be damaged as the sled motor keeps rotating.

4. Automatic Adjustment Result Display

The automatic adjustment values of the focus and the tracking can be displayed.

4-1. Automatic Adjustment Result Display of Focus Offset Cancel/Gain

1) Enter the start mode (all indicators turn on).
2) Press the TAPE button to display “F**” and set each of the adjustment item to either ON or OFF. (Refer to the following table.)
3) Press the PLAY button to play back the CD.
4) Press the CD button.
5) The automatic adjustment value “F** **” is displayed. (Refer to the following table.)
6) Upon completion of check, press the CD button twice to return to the play mode.

Adjustment item (ON = 1, OFF = 0)			Automatic adjustment value display (Asterisk * means hexadecimal display.)			
F	OFFSET	GAIN	F	OFFSET	—	GAIN
F	0	0	F	Not displayed	Not displayed	Not displayed
F	1	1	F	**	Not displayed	**
F	1	0	F	**	Not displayed	Not displayed
F	0	1	F	Not displayed	Not displayed	**

4-2. Automatic Adjustment Result Display of Tracking Offset Cancel/Balance/Gain

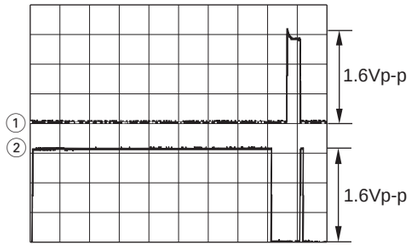
1) Enter the start mode (all indicators turn on).
2) Press the AUX button to display “T***” and set each adjustment item to either ON or OFF. (Refer to the following table.)
3) Press the PLAY button to play back the CD.
4) Press the CD button twice.
5) The automatic adjustment value “F******” is displayed. (Refer to the following table.)
6) Upon completion of check, press the CD button to return to the play mode.

Adjustment item (ON = 1, OFF = 0)				Automatic adjustment value display (Asterisk * means hexadecimal display.)			
T	OFFSET	BALANCE	GAIN	T	OFFSET	BALANCE	GAIN
T	0	0	0	T	Not displayed	Not displayed	Not displayed
T	1	1	1	T	**	**	**
T	1	1	0	T	**	**	Not displayed
T	1	0	1	T	**	Not displayed	**
T	1	0	0	T	**	Not displayed	Not displayed
T	0	1	1	T	Not displayed	**	**
T	0	1	0	T	Not displayed	**	Not displayed
T	0	0	1	T	Not displayed	Not displayed	**

WAVE FORM

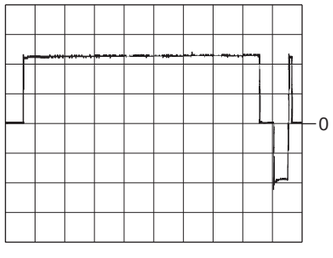
① IC201 ㉘ (IN6-R)
② IC201 ㉙ (IN6-F)

VOLT/DIV: 500mV
TIME/DIV: 200mS



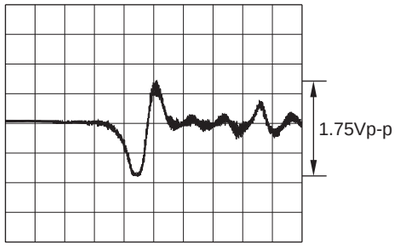
③ Between CN202 ① and ②
(② Pin: 0 Level)

VOLT/DIV: 1V
TIME/DIV: 200mS



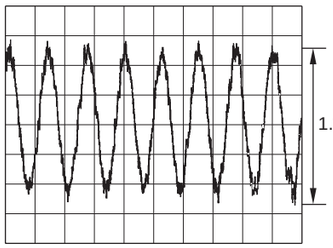
④ IC101 ⑮ (FE)

VOLT/DIV: 500mV
TIME/DIV: 2mS



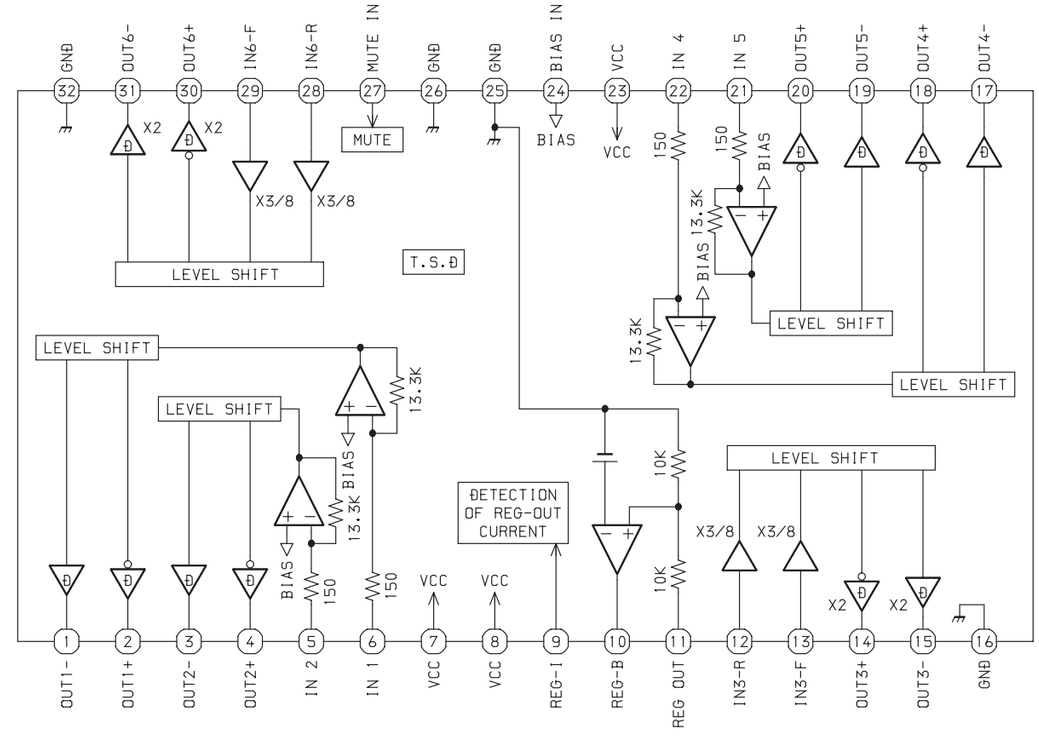
⑤ IC101 ⑯ (TE)

VOLT/DIV: 200mV
TIME/DIV: 200µS

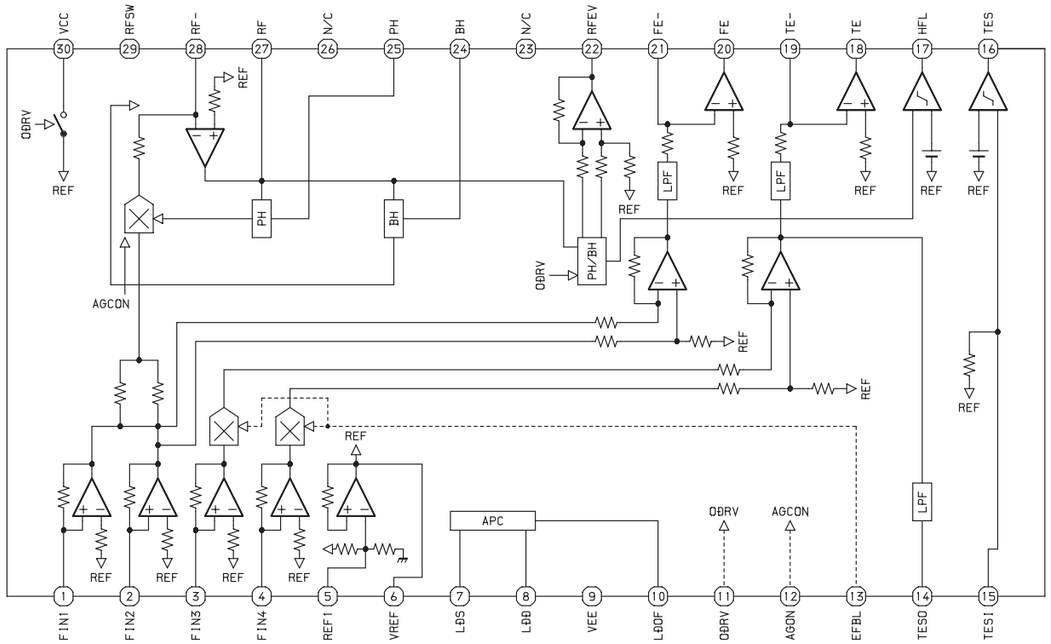


IC BLOCK DIAGRAM

IC, BA5927S



IC, LA9235M



IC DESCRIPTION

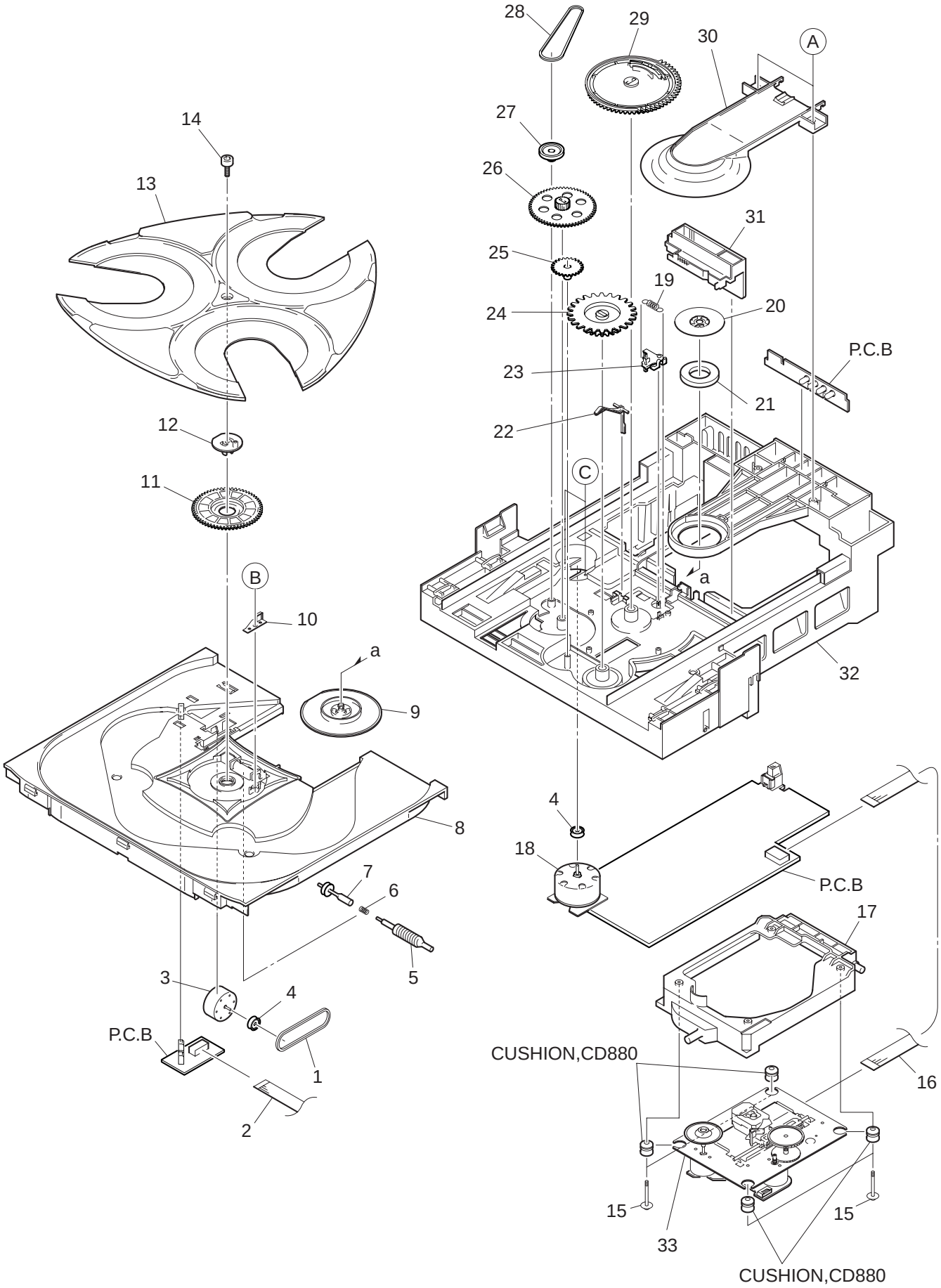
IC, LC78641E

Pin No.	Pin Name	I/O	Description
1	PDO1	O	Internal VCO control phase comparator output pin. (Pull down)
2	PDO2	O	Internal VCO control phase comparator output pin. OFF for rough servo, ON for phase servo. (Pull down)
3	VVSS	—	Internal VCO ground pin.
4	PCKIST	—	PDO output current adjustment resistor connection pin.
5	VVDD	—	Internal VCO power supply pin.
6	FR	—	VCO frequency range adjustment resistor connection pin. (Pull up)
7	HFL	I	Mirror detection signal input pin.
8	SLCIST	—	SLCO output current adjustment resistor connection pin.
9	SLCO	O	Control output.
10	EFMIN	I	EFM signal input pin.
11	JITTV	O	Jitter detection monitor pin.
12	JITTC	O	Jitter detection adjustment pin. (Pull down)
13	BH	I	BH signal input pin. (Connected to GND)
14	PH (RFENV)	I	PH signal or RFENV signal input pin.
15	FE	I	FE signal input pin.
16	TE	I	TE signal input pin.
17	VREF	I	VREF input pin.
18	ADAVDD	—	Servo A/D, D/A power supply pin.
19	ADAVSS	—	Servo A/D, D/A ground pin.
20	PHREF	O	PH reference output pin. (Not connected)
21	BHREF	O	BH reference output pin. (Not connected)
22	TBLO	O	Tracking balance output pin.
23	TDO	O	Tracking control output pin.
24	FDO	O	Focus control output pin.
25	SPDO	O	Spindle control output pin.
26	SLDO	O	Thread control output pin.
27	DVREF/FG	I/O	Output driver VREF output pin. FG signal input pin. (Connected to GND)
28	LASER	O	Laser ON/OFF control pin.
29	CONT1	I/O	General-purpose input/output pin 1. (Connected to GND)
30	CONT2	I/O	General-purpose input/output pin 2. (Connected to GND)
31	CONT3	I/O	General-purpose input/output pin 3. (Connected to GND)
32	CONT4	I/O	General-purpose input/output pin 4.
33	CONT5	I/O	General-purpose input/output pin 5. (Not connected)
34	PCK	O	EFM data playback clock monitor pin. Average 4.3218MHz when the phase is locked. (Not connected)
35	C2F	O	C2 flag output pin. (Not connected)
36	VDD	—	Digital power supply pin.
37	DOUT	O	Digital out output pin. (EIAJ format)
38	FSX	O	Output pin for the 7.35kHz synchronization signal divided from the crystal oscillator. (Not connected)

Pin No.	Pin Name	I/O	Description
39	EFLG	O	C1, C2 error correction monitor pin. (Not connected)
40	TEST	I	Test input pin. (Connected to GND)
41	EMPH	I/O	Emphasis pin. Which becomes an input pin after reset and can be controlled externally. This becomes an emphasis monitor pin under control by command. (Not connected)
42	MUTEL	O	L channel mute output pin. (Not connected)
43	MUTER	O	R channel mute output pin. (Not connected)
44	LVDD	—	L channel power supply pin.
45	LCHO	O	L channel output pin.
46	LVSS	—	L channel ground pin.
47	RVSS	—	R channel ground pin.
48	RCHO	O	R channel output pin.
49	RVDD	—	R channel power supply pin.
50	XVDD	—	Crystal oscillator power supply pin.
51	XIN	I	Connections for a 16.9344MHz crystal oscillator pin.
52	XOUT	O	
53	XVSS	—	Crystal oscillator ground pin.
54	ASLRCK	I	L/R clock input pin. (Connected to GND)
55	ASDACK	I	Bit clock input pin. (Connected to GND)
56	ASDFIN	I	L/R channel data input pin. (Connected to GND)
57	LRSY	O	L/R clock output pin. (Not connected)
58	DATACK	O	Bit clock output pin. (Not connected)
59	DATA	O	L/R channel data output pin. (Not connected)
60	16M	O	16.9344MHz output pin. (Not connected)
61	SFSY	O	Subcode frame synchronization signal output pin. This signal falls when the subcode is in the standby state. (Not connected)
62	SBSY	O	Subcode clock synchronization signal output pin. (Not connected)
63	PW	O	Subcode P, Q, R, S, T, U and W output pin. (Not connected)
64	SBCK	I	Subcode readout clock input pin. (Connected to GND)
65	CE	I	Chip enable signal input pin.
66	CL	I	Data transfer clock input pin.
67	DI	I	Data input pin.
68	DO	O	Data output pin.
69	INT	O	Interruption signal output pin. (Not connected)
70	WRQ	O	Interruption signal output pin.
71	RES	I	Reset input pin. This pin must be set low briefly after power is first applied.
72	DRF	O	Focus ON detect pin.
73	VDD5V	—	Microprocessor interface power supply.
74	VSS	—	Digital ground pin.
75	CONT6	I/O	General-purpose input/output pin 6.
76	CONT7	I/O	General-purpose input/output pin 7.
77	V/P	O	Rough servo/phase control automatic switching monitor output pin. “H” for rough servo and “L” for phase servo. (Not connected)

Pin No.	Pin Name	I/O	Description
78	FSEQ	O	Synchronization signal detection output pin. Outputs a high level when the synchronization signal detected from the EFM signal and the internally generated synchronization signal agree. (Not connected)
79	DEFECT	I/O	Defect pin. Which becomes an input pin after reset and can be controlled externally. This becomes the defect monitor pin under control by command. (Not connected)
80	EFMO	O	EFM signal output pin. (Not connected)

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL PARTS LIST 1/1

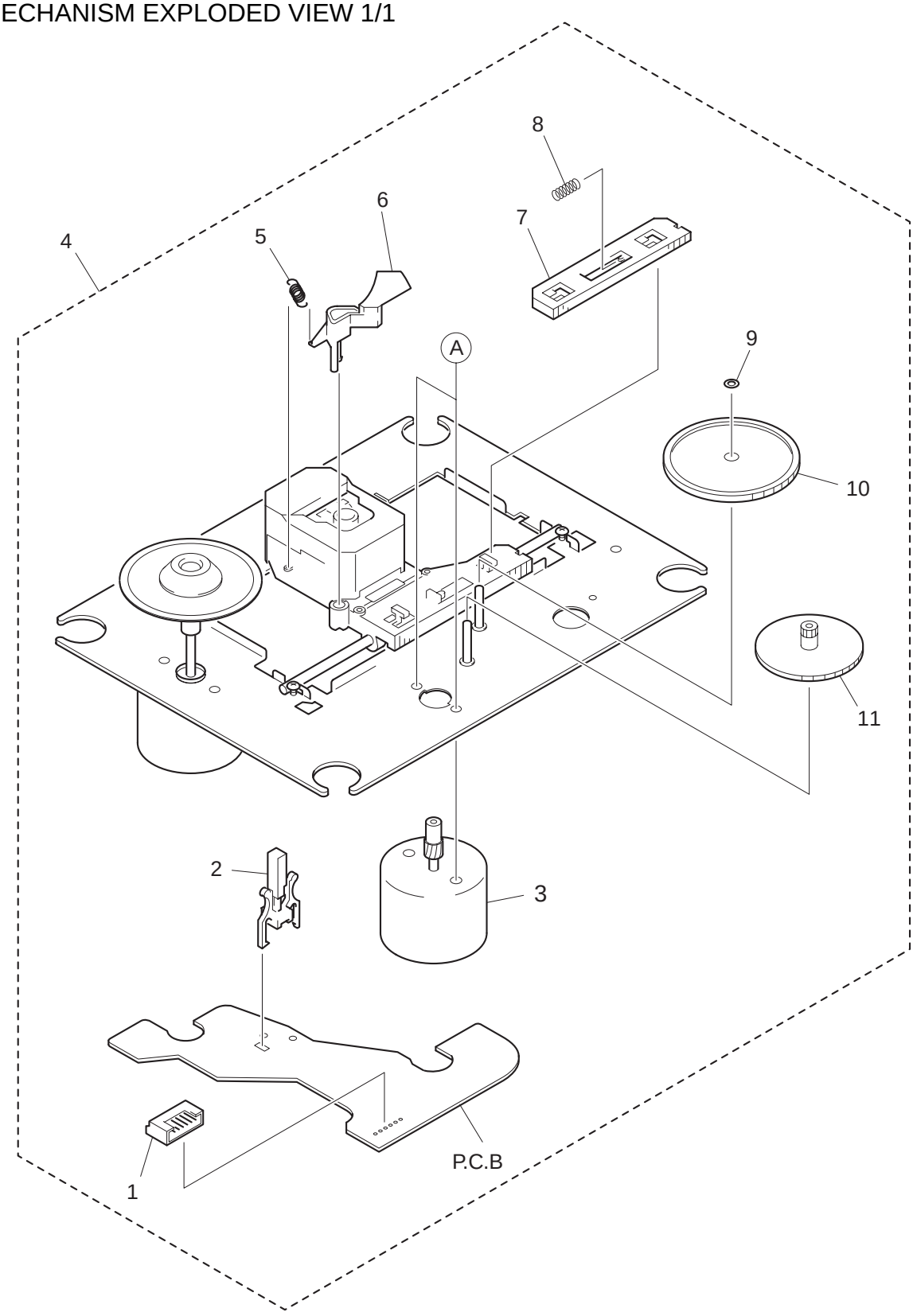
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	84-ZG1-225-010		BELT,SQ1.0-63.3
2	84-ZG1-673-010		F-CABLE,5P 1.25 210MM BLACK N <EXCEPT ZD8RN1DM,ZD8RNDM>
2	84-ZG1-672-010		F-CABLE,5P 1.25 210MM WHITE N <ZD8RN1DM,ZD8RNDM>
3	87-045-364-010		MOTOR(BCH3B14)
4	84-ZG1-267-010		PULLEY,LOAD MO 8 <EXCEPT YKZD8RDF,ZD8RD>
4	81-ZG1-212-010		PULLY,LOAD MO<YKZD8RDF,ZD8RD>
5	84-ZG1-238-010		GEAR,WORM N
6	84-ZG1-248-010		SPR-C,WORM
7	84-ZG1-239-210		PULLY,WORM N
8	84-ZG1-008-210		TRAY,NO3<ZD8RD>
8	8A-ZG1-001-010		TRAY,NO3 BLU<EXCEPT ZD8RD>
9	8A-ZG1-210-010		HLDR,MAGNET 23<YKZD8RDF>
9	84-ZG1-243-210		HLDR,MAGNET N(J) <YZD8RDJM,ZD8RMDJM,YZD8RMDJM>
9	84-ZG1-289-010		HLDR,MAGNET NAT<ZD8RNDM>
9	81-ZG1-277-310		HLDR,MAGNET N <ZD8RN1DM,ZD8RDM,YZD8RDM,ZD8RD>
10	84-ZG1-259-010		SPR-P,WORM
11	84-ZG1-221-010		GEAR,MAIN TT<YKZD8RDF>
11	84-ZG1-269-010		GEAR,MAIN TT 4<EXCEPT YKZD8RDF>
12	84-ZG1-224-010		LEVER,TT<EXCEPT ZD8RNDM>
12	84-ZG1-288-010		LEVER,TT NAT<ZD8RNDM>
13	8A-ZG1-002-010		TURN TABLE,NO1 BLU<EXCEPT ZD8RD>
13	84-ZG1-005-210		TURNTABLE,NO1(*)<ZD8RD>
14	81-ZG1-239-010		S-SCREW,TT
15	8A-ZG1-201-010		S-SCREW,MECH 880
16	85-NFT-611-110		FF-CABLE 16P-1.0
17	84-ZG1-299-210		HLDR,MECHA NO3<EXCEPT ZD8RNDM>
17	8A-ZG1-203-010		HLDR,MECHA NO3 NAT<ZD8RNDM>
18	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
19	84-ZG1-211-010		SPR-E CAM S
20	84-ZG1-285-010		PLATE,MAGNET BLK<ZD8RN1DM>
20	81-ZG1-255-110		PLATE,MAGNET MK2<EXCEPT ZD8RN1DM>
21	83-ZG3-604-010		RING,MAG 2
22	83-ZG3-213-010		LVR,SW
23	84-ZG1-208-210		LEVER,CAM<YKZD8RDF>
23	84-ZG1-266-010		LEVER,CAN 8<EXCEPT YKZD8RDF>
24	84-ZG1-205-210		GEAR,TRAY (*)
25	81-ZG1-291-110		GEAR,TRAY RELAY NO3
26	84-ZG1-206-110		GEAR,RELAY<YKZD8RDF>
26	84-ZG1-274-010		GEAR,RELAY 8<EXCEPT YKZD8RDF>
27	84-ZG1-207-010		PULLEY,RELAY
28	84-ZG1-209-010		BELT,SQ1.8-117.7
29	84-ZG1-203-410		GEAR,MAIN CAM<ZD8RNDM>
29	84-ZG1-215-410		GEAR,MAIN CAM BLU<EXCEPT ZD8RNDM>
30	84-ZG1-011-010		REFLECTOR,CD <EXCEPT ZD8RN1DM,ZD8RNDM>
31	84-ZG1-216-310		SLIDE,MECHA CAM YEL <EXCEPT ZD8RNDM>
31	84-ZG1-204-310		SLIDER,MECHA CAM<ZD8RNDM>
32	84-ZG1-286-010		CHAS,MECHA NAT<ZD8RNDM>
32	84-ZG1-201-410		CHAS,MECHA<EXCEPT ZD8RNDM>
33	M8-ZZK-C90-070		KSM-880CAB
A	87-067-703-010		TAPPING SCREW, BVT2+3-10 <EXCEPT ZD8RN1DM,ZD8RNDM>
B	87-067-981-010		BVT2+3-6 BLK
C	87-251-070-410		U+2.6-3

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		

CD MECHANISM EXPLODED VIEW 1/1



CD MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	91-564-722-110		CONN,PIN 6P
2	91-572-085-110		LEAF SWITCH
3	9X-264-655-010		SL MOTORR ASSY
4	M8-ZZK-C90-070		KSM-880CAB
5	92-647-416-020		SPRING EXTENSION
6	92-647-595-020		SHUTTER B
7	92-647-732-010		NS SLIDE RACK
8	92-647-742-010		SPRING COMPRESSION
9	93-321-813-110		POLI WASHER
10	92-647-407-010		GEAR A
11	92-647-408-020		GEAR B
A	93-713-786-510		SCREW,+P2-3

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

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