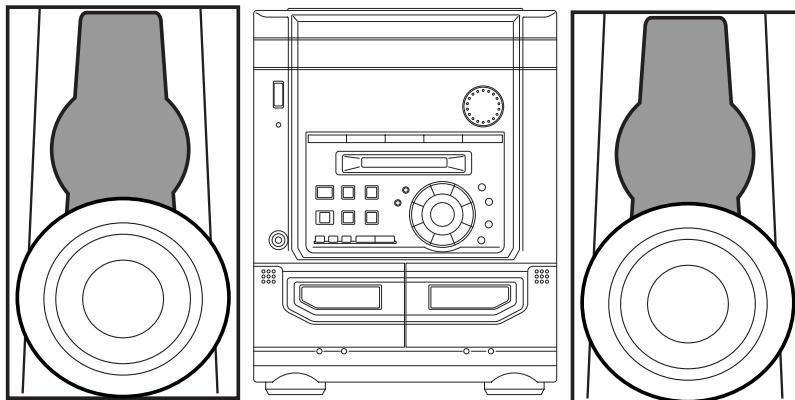




XR-HG5MD

K, EZ



SERVICE MANUAL

MD / CD STEREO SYSTEM

BASIC TAPE MECHANISM : 2ZM-3MK2 PR4NM
BASIC CD MECHANISM : AZG-1 ZD8RMDM
BASIC MD MECHANISM : AZG-7 DM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
XR-HG5MD	CX-NHG5MD	SX-WNHG5	RC-ZAS16

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" XR-HG5MD (K, EZ), (S/M Code No. 09-002-423-9T2).
- If requiring information about the CD mechanism, see Service Manual of AZG-1 ZD8RMDM, (S/M Code No. 09-001-335-3NA).
- If requiring information about the MD mechanism, see Service Manual of AZG-7 DM, (S/M Code No. 09-001-338-4N2).

aiwa
S/M Code No. 09-004-423-9R2

REVISION
DATA

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	16.8 dBf
Antenna terminals	75 ohms (unbalanced)

<MW tuner section>

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

Antenna Loop antenna

<LW tuner section>

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m

Antenna Loop antenna

<Amplifier section>

Mid-high frequency amplifier

Power output*	Rated: 15 W + 15 W (8 ohms, T.H.D. 1 %, 200 Hz to 20 kHz/ DIN 45500) Reference: 18 W + 18 W (8 ohms, T.H.D. 10 %, 200 Hz to 20 kHz/ DIN 45324)
EZ:	DIN MUSIC POWER: 32 W + 32 W 0.06 % (8 W, 1 kHz, 8 ohms, DIN AUDIO)

Total harmonic distortion

Low frequency amplifier	Rated: 45 W + 45 W (6 ohms, T.H.D. 1 %, 50 Hz to 200 Hz/ DIN 45500) Reference : 54 W + 54 W (6 ohms, T.H.D. 10 %, 50 Hz to 200 Hz/ DIN 45324)
EZ:	DIN MUSIC POWER: 74 W + 74 W 0.06 % (20 W, 130 Hz, 6 ohms, DIN AUDIO)

* without connecting to the SURROUND SPEAKERS

Inputs

VIDEO/AUX

500 mV

DIGITAL IN

SPEAKERS HIGH FREQ:

accept speakers of 8 ohms or more

SPEAKERS LOW FREQ:

accept speakers of 6 ohms or more

SURROUND SPEAKERS:

accept speakers of 8 to 16 ohms

PHONES (stereo jack):

accepts headphones of 32 ohms or more

CD DIGITAL OUT (OPTICAL) jack

<Cassette deck section>

Track format

4 tracks, 2 channels stereo

Frequency response

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 ($\lambda = 780$ 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

<MD recorder section>

Scanning method	Non-contact optical scanner (Semiconductor laser application)
Recording section	Magnetic polarity modulation overwrite system
Rotation speed	Approx. 400 - 900 rpm (CLV)
Sampling frequency	44.1 kHz
No. of channels	Stereo: 2 channels Monaural: 1 channels
A-D, D-A converter	1 bit
Frequency	20 to 20000 Hz +0.5 - -1.5dB
Wow and flutter	Unmeasurable

<Speaker system SX-WNHG5>

Cabinet type	3 way, built-in subwoofer (magnetic shielded type)
Speakers	Subwoofer: 160 mm cone type Full range: 100 mm cone type Super tweeter: 20 mm ceramic type
Impedance	LOW FREQ.: 6 ohms HIGH FREQ.: 8 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	240 x 324 x 270 mm
Weight	4.8 kg

<General>

Power requirements

230 V AC, 50 Hz

Power consumption

EZ: 150 W

K: 160 W

Power consumption in standby mode

If the power-economizing mode
is ECO OFF: 21 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 326.5 x 348 mm

Weight of main unit

8.4 kg

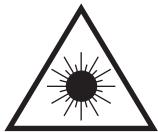
• Design and specifications are subject to change without notice.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

WARNING!!

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



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

VAROITUS!

Laiteen Käytäminen 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 bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

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

ATTENTION

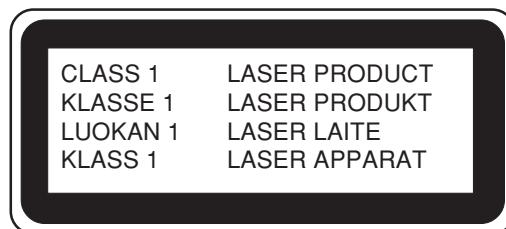
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL

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

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

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



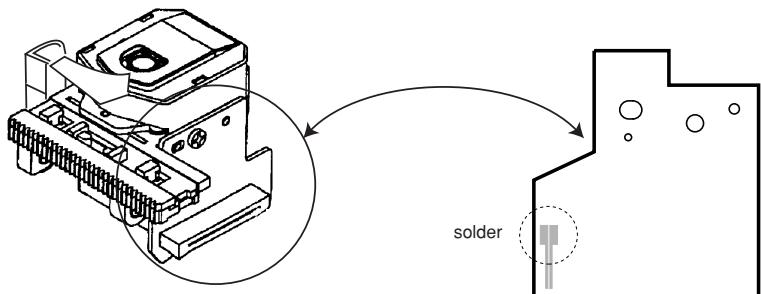
Precaution to replace Optical block

(KMS-260B / KSM-880CAB)

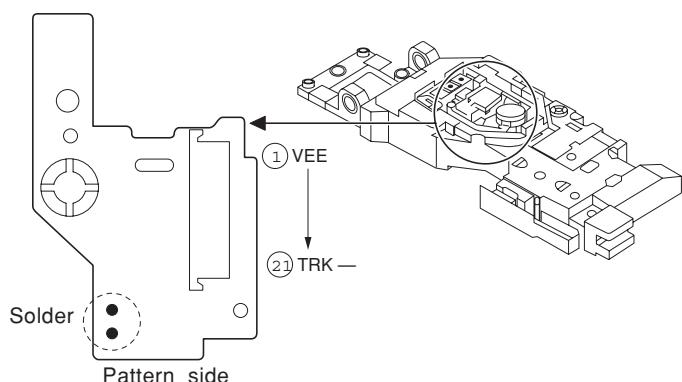
Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

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

CD PICK-UP Assy P.C.B (KSM-880CAB)



MD PICK-UP Assy P.C.B (KMS-260B)



NOTE ON BEFORE STARTING REPAIR

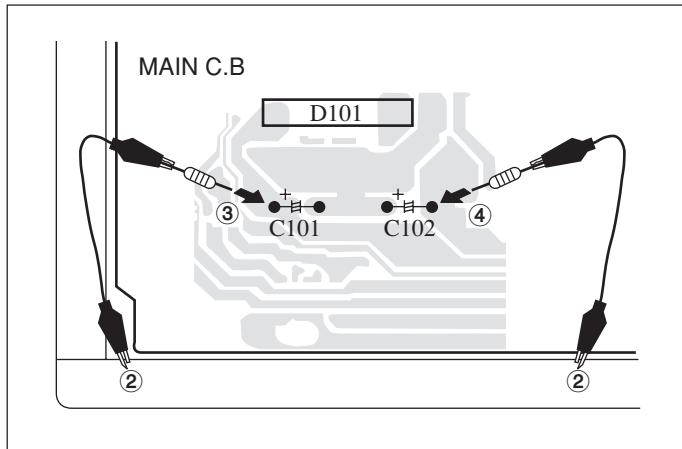
1. Forced discharge of electrolytic capacitor of power supply block

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

In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

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



Select a discharging resistor referring to the following table.

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

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.

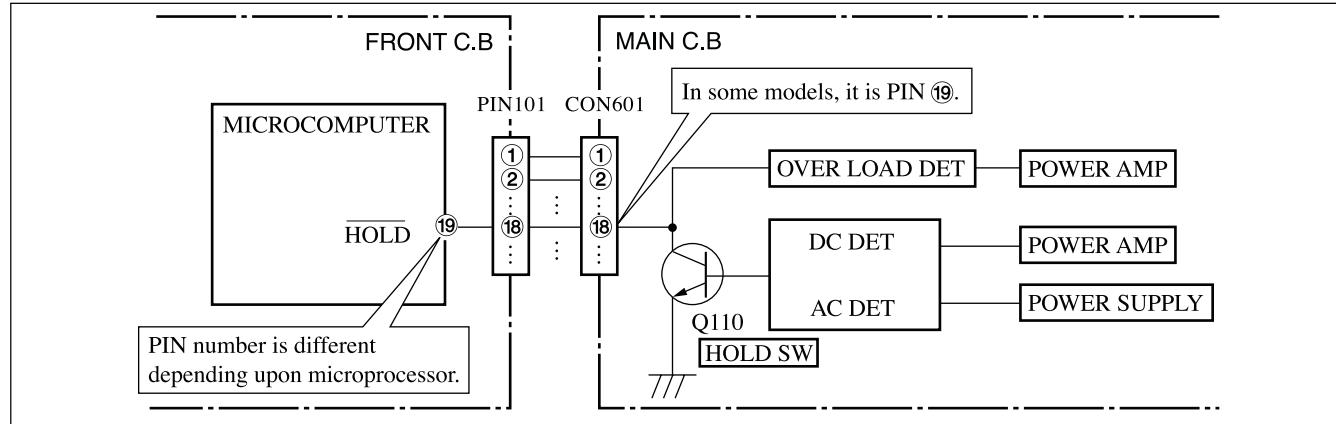


Fig-2-1

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.

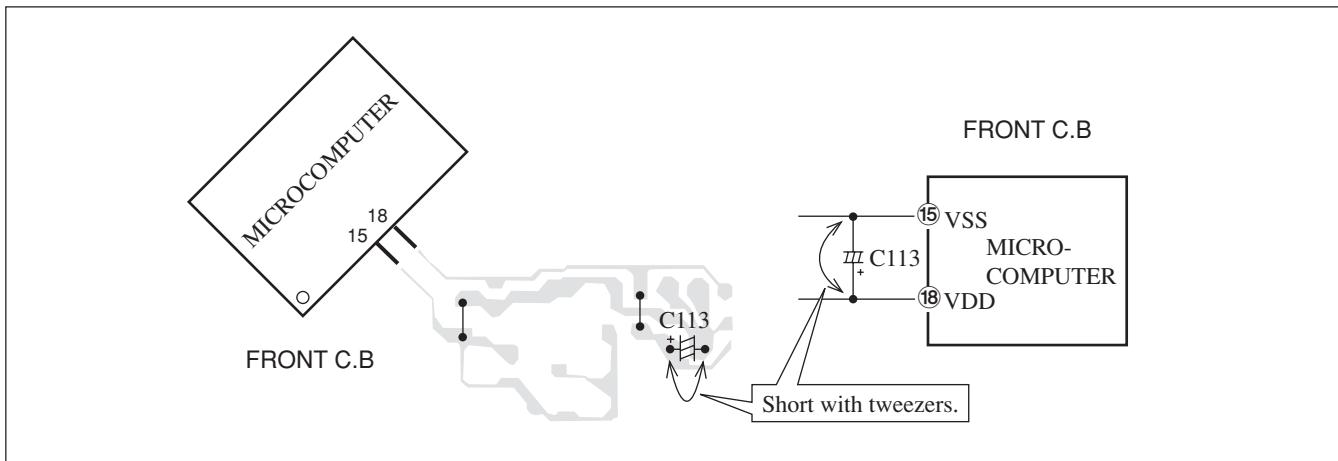


Fig-2-2

- 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.

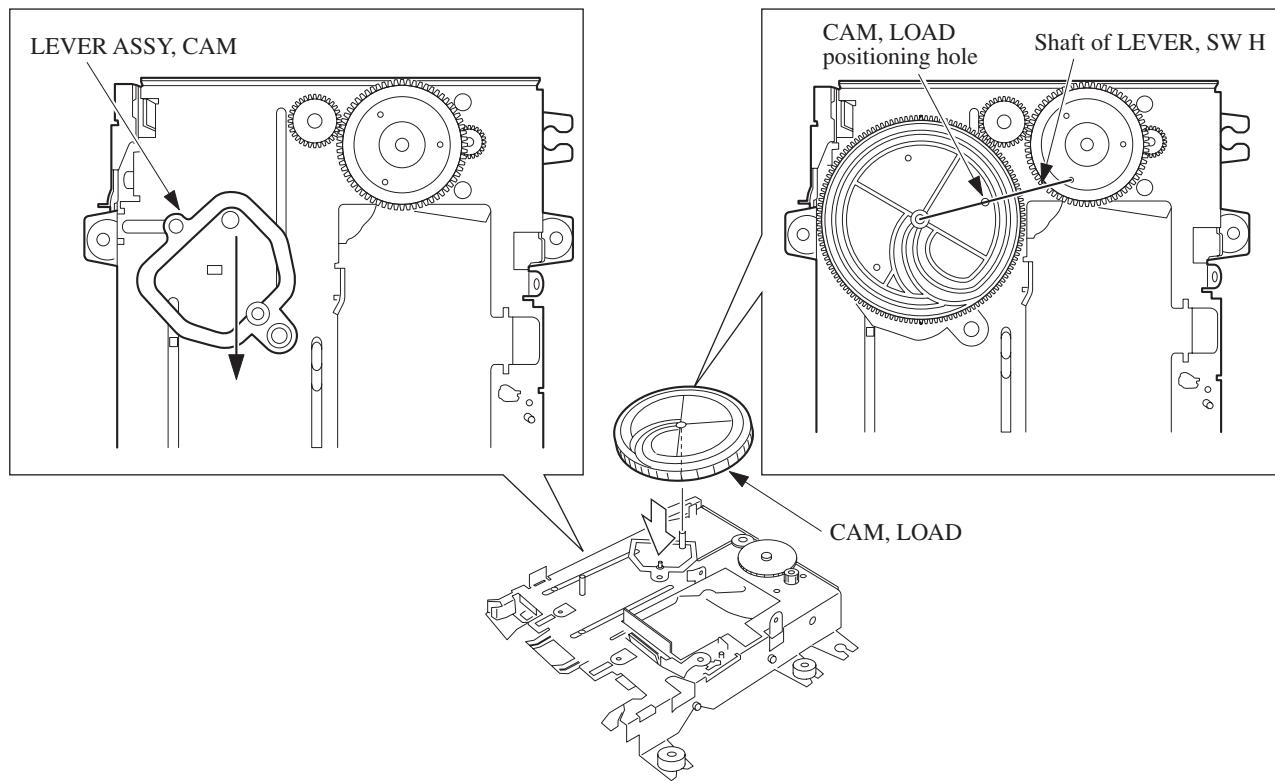
CAUTIONS WHEN ASSEMBLY

1. Assembling the CAM, LOAD

Move the LEVER ASSY, CAM in the direction of the arrow as far as it can go.

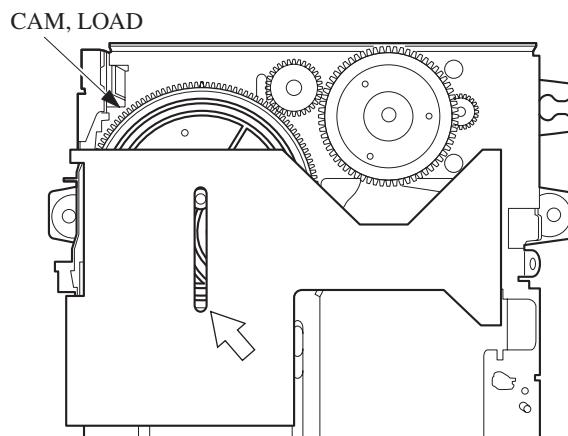
Rotate the CAM, LOAD so that its positioning hole is moved as close as possible to the shaft of the LEVER, SW H.

Attach the CAM, LOAD so that it engages with the teeth of the GEAR, IDLER2.



2. Assembling the PLATE ASSY, SLIDE L

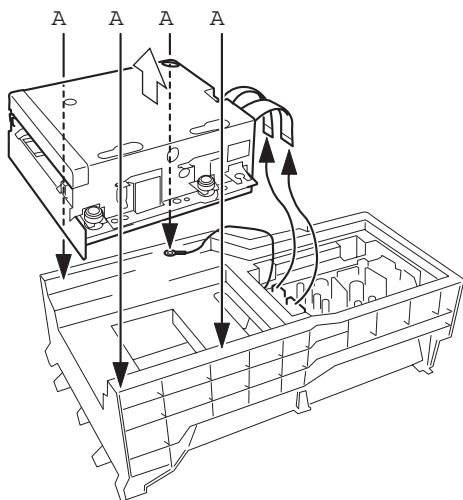
Align the shaft of the PLATE ASSY, SLIDE L with the arrow-marked position of the CAM, LOAD.



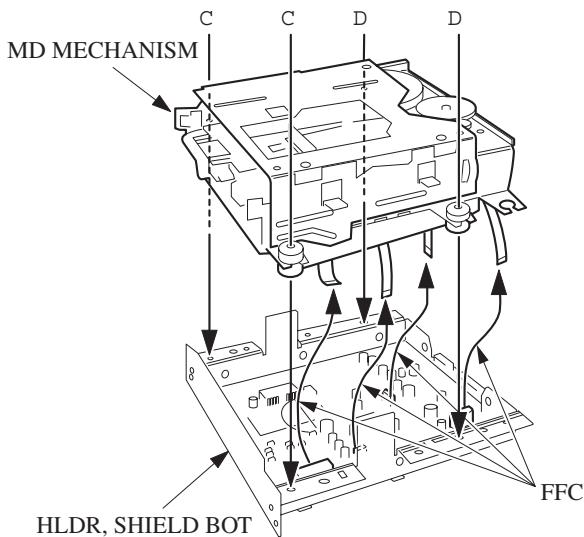
DISASSEMBLY INSTRUCTIONS

Disassembly Procedure

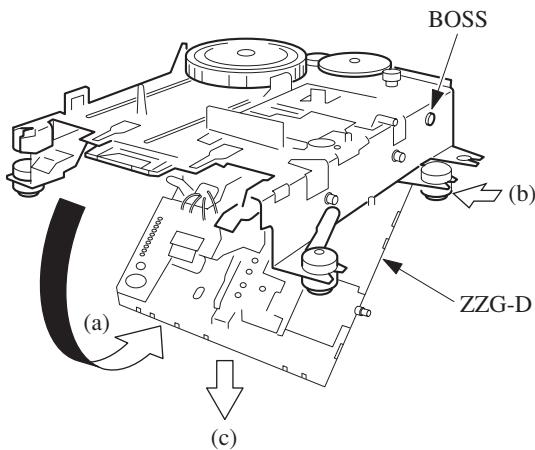
1. Remove the four screws (BVT2+3-10 W/O SLOT) of A. Remove AZG-4 in the direction of the arrow.



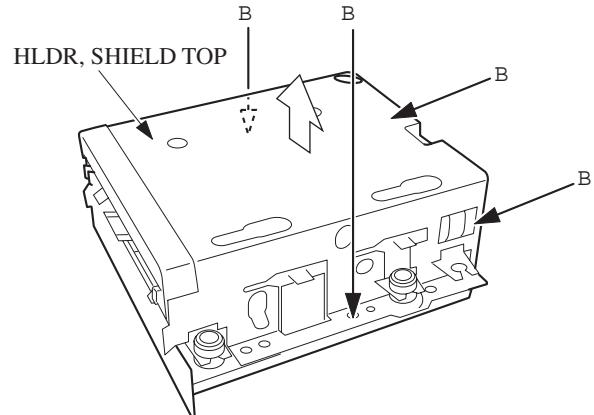
3. Remove the two screws (S-SCREW, MD TF) of C. Remove the two screws (S-SCREW MD T) of D. Remove the four FFCs and remove the MD MECHANISM.



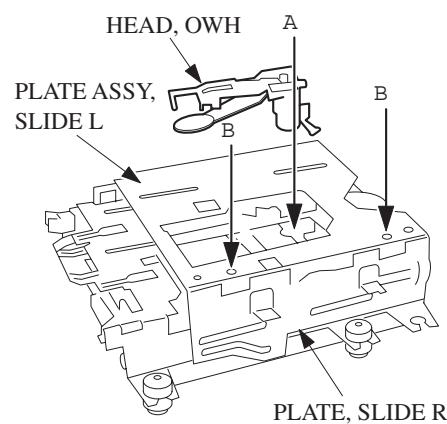
5. Move the ZZG-D in the direction of arrow (a). While pushing the BOSS in the direction of arrow (b), remove it in the direction of arrow (c).



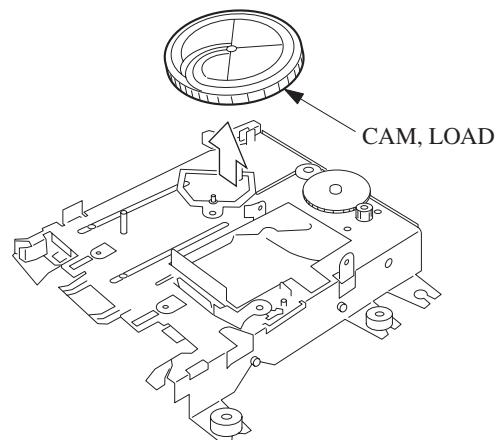
2. Remove the four screws (VTT+3-4) of B. Set the mechanism in the PLAY state. Remove the HLDR, SHIELD TOP in the direction of the arrow.



4. Remove the screw (VW+1.7-5) of A. Remove the HEAD, OWH. Remove the two screws (VTT+2-3) of B. Remove the PLATE ASSY, SLIDE L and the PLATE, SLIDE R in the direction of the arrow.



6. Remove the CAM, LOAD in the direction of the arrow.



ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC							
8A-DB8-616-010	C-IC,LC876580W-5N90			C1	87-012-369-080	C-CAP,S 0.047-50F	
87-A21-482-010	IC,RPM6938-H			C2	87-012-369-080	C-CAP,S 0.047-50F	
87-017-888-080	IC,NJM4558MD			C3	87-012-368-080	C-CAP,S 0.1-50 F	
87-A21-021-040	C-IC,BU2099FV			C4	87-012-368-080	C-CAP,S 0.1-50 F	
87-070-289-040	IC,BU 2092F			C5	87-012-368-080	C-CAP,S 0.1-50 F	
87-A21-031-040	C-IC,BU4551BF			C6	87-012-368-080	C-CAP,S 0.1-50 F	
87-A21-416-040	C-IC,M61500FP			C9	87-016-658-000	CAP,E 4700-35 M SMG	
87-A21-023-040	C-IC,BA3835F			C10	87-A10-520-000	CAP,E 3300-35 M SMG	
87-070-127-110	IC,LC72131 D			C11	87-012-368-080	C-CAP,S 0.1-50 F	
87-A20-440-040	C-IC,BU1920FS			C12	87-012-368-080	C-CAP,S 0.1-50 F	
87-A20-913-010	IC,LA1837NL			C13	87-012-368-080	C-CAP,S 0.1-50 F	
87-020-454-010	IC, DN 6851			C21	87-010-385-080	CAP, ELECT 220-25V	
87-A21-419-040	C-IC,NJM14558MD-TE2			C22	87-010-385-080	CAP, ELECT 220-25V	
				C23	87-010-247-080	CAP, ELECT 100-50V	
				C24	87-010-247-080	CAP, ELECT 100-50V	
TRANSISTOR							
87-026-245-080	TR,DTC114ES			C25	87-010-430-080	CAP, ELECT 100-63	
87-026-609-080	TR,KTA1266GR			C26	87-010-263-080	CAP, ELECT 100-10V	
87-A30-198-080	TR,KTC3199GR			C27	87-010-197-080	CAP, CHIP 0.01 DM	
89-213-702-010	TR,2SB1370 (1.8W)			C29	87-010-247-080	CAP, ELECT 100-50V	
87-026-610-080	TR,KTC3198GR			C30	87-010-381-080	CAP, ELECT 330-16V	
87-A30-076-080	C-TR,2SC3052F			C31	87-010-235-080	CAP,E 470-16 SME	
87-A30-075-080	C-TR,2SA1235F			C32	87-010-405-080	CAP, ELECT 10-50V	
87-A30-234-080	TR,CSC4115BC			C33	87-010-405-080	CAP, ELECT 10-50V	
87-A30-073-080	C-TR,RT1N 141C			C34	87-012-368-080	C-CAP,S 0.1-50 F	
87-A30-186-010	FET,2SK3053			C35	87-010-198-080	CAP, CHIP 0.022	
87-A30-074-080	C-TR,RT1P 141C			C36	87-010-198-080	CAP, CHIP 0.022	
87-026-210-080	CHIP-TR,DTC144EK			C40	87-010-112-080	CAP, ELECT 100-16V	
87-A30-190-080	TR,CC5551			C50	87-010-182-080	C-CAP,S 2200P-50 B	
87-A30-137-010	TR,2SD2494			C51	87-010-180-080	C-CER 1500P	
87-A30-138-010	TR,2SB1625			C61	87-010-260-080	CAP, ELECT 47-25V	
87-A30-106-070	C-TR,CMBT5551			C62	87-010-403-080	CAP, ELECT 3.3-50V	
87-A30-107-070	C-TR,CMBT5401			C91	87-010-401-080	CAP, ELECT 1-50V	
87-A30-087-080	C-FET,2SK2158			C92	87-010-374-080	CAP, ELECT 47-10V	
87-A30-071-080	C-TR,RT1N 144C			C93	87-010-380-080	CAP, ELECT 47-16V	
87-A30-256-010	TR,2SD1933			C101	87-010-178-080	CHIP CAP 1000P	
87-A30-255-010	TR,2SB1342			C102	87-010-178-080	CHIP CAP 1000P	
87-A30-329-080	TR,CD1585BC			C103	87-010-402-080	CAP, ELECT 2.2-50V	
87-A30-318-080	TR,CSA952K			C104	87-010-402-080	CAP, ELECT 2.2-50V	
87-A30-091-080	FET,2SJ460			C107	87-010-406-080	CAP, ELECT 22-50V	
87-A30-090-080	FET,2SK2541			C108	87-010-406-080	CAP, ELECT 22-50V	
87-A30-104-080	C-TR,RT1N 441C			C109	87-010-322-080	C-CAP,S 100P-50 CH	
87-A30-085-040	C-TR,CSA1362GR			C110	87-010-322-080	C-CAP,S 100P-50 CH	
87-A30-086-070	C-TR,CSD1306E			C111	87-010-260-080	CAP, ELECT 47-25V	
89-327-143-080	C-TR,2SC2714 (0.1W)			C112	87-010-260-080	CAP, ELECT 47-25V	
87-A30-072-080	C-TR,RT1P 144C			C113	87-A10-946-080	C-CAP,S 220P-100 J CH	
87-026-463-080	TR,2SA933S			C114	87-A10-946-080	C-CAP,S 220P-100 J CH	
89-503-602-080	C-FET,2SK360E			C117	87-010-400-080	CAP, ELECT 0.47-50V	
				C118	87-010-400-080	CAP, ELECT 0.47-50V	
				C121	87-010-178-080	CHIP CAP 1000P	
				C122	87-010-178-080	CHIP CAP 1000P	
DIODE							
87-A40-736-080	DIODE,1N4148M(SEM)			C123	87-010-176-080	C-CAP,S 680P-50 SL	
87-A40-547-090	DIODE,D5SBA20			C124	87-010-176-080	C-CAP,S 680P-50 SL	
87-070-274-080	DIODE,1N4003 SEM			C125	87-012-368-080	C-CAP,S 0.1-50 F	
87-A40-777-080	ZENER,UZ30BSB			C126	87-012-368-080	C-CAP,S 0.1-50 F	
87-A40-548-090	DIODE,D3SBA20			C127	87-012-368-080	C-CAP,S 0.1-50 F	
87-A40-764-080	ZENER,UZ10BSC			C128	87-012-368-080	C-CAP,S 0.1-50 F	
87-A40-270-080	C-DIODE,MC2838			C129	87-010-191-080	C-CAP,S 0.015-50 F	
87-A40-269-080	C-DIODE,MC2836			C130	87-010-191-080	C-CAP,S 0.015-50 F	
87-A40-749-080	ZENER,UZ5.6BSB			C131	87-010-197-080	CAP, CHIP 0.01 DM	
87-A40-393-090	DIODE,1N5402GW(F20)			C132	87-010-197-080	CAP, CHIP 0.01 DM	
87-A40-767-080	ZENER,UZ12BSC			C133	87-010-197-080	CAP, CHIP 0.01 DM	
87-A40-766-080	ZENER,UZ11BSC			C140	87-012-141-080	C-CAP,S 0.22-16 ZF	
87-A40-752-080	ZENER,UZ6.2BSC			C203	87-010-178-080	C-CAP,S 1000P-50 KB	
87-A40-739-080	ZENER,UZ2.7BSA			C204	87-010-178-080	C-CAP,S 1000P-50 KB	
87-A40-802-080	ZENER,UZ5.1BSC			C209	87-010-403-080	CAP, ELECT 3.3-50V	
87-017-149-080	ZENER,HZS6A2L			C210	87-010-403-080	CAP, ELECT 3.3-50V	
87-A40-335-080	ZENER,MTZJ11C T-72			C211	87-010-181-080	CAP,CHIP S 1800P	
				C212	87-010-181-080	CAP,CHIP S 1800P	

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C213	87-010-405-080		CAP, ELECT 10-50V	C502	87-010-401-080		CAP, ELECT 1-50V
C214	87-010-405-080		CAP, ELECT 10-50V	C503	87-010-545-080	CAP,E 0.22-50 M 11L SME	
C215	87-010-322-080		C-CAP,S 100P-50 CH	C504	87-010-545-080	CAP,E 0.22-50 M 11L SME	
C216	87-010-322-080		C-CAP,S 100P-50 CH	C505	87-010-545-080	CAP,E 0.22-50 M 11L SME	
C217	87-010-260-080		CAP, ELECT 47-25V	C506	87-010-545-080	CAP,E 0.22-50 M 11L SME	
C218	87-010-260-080		CAP, ELECT 47-25V	C507	87-010-196-080	CHIP CAPACITOR,0.1-25	
C219	87-A10-946-080		C-CAP,S 220P-100 J CH	C508	87-010-196-080	CHIP CAPACITOR,0.1-25	
C220	87-A10-946-080		C-CAP,S 220P-100 J CH	C509	87-A10-300-080	CAP,M 0.027-50J	
C225	87-012-368-080		C-CAP,S 0.1-50 F	C510	87-A10-300-080	CAP,M 0.027-50J	
C226	87-012-368-080		C-CAP,S 0.1-50 F	C515	87-A10-300-080	CAP,M 0.027-50J	
C227	87-010-186-080		CAP,CHIP 4700P	C516	87-A10-300-080	CAP,M 0.027-50J	
C228	87-010-186-080		CAP,CHIP 4700P	C605	87-010-179-080	CAP,CHIP S B1200P	
C229	87-010-993-080		C-CAP,S 0.056-25 B	C606	87-010-179-080	CAP,CHIP S B1200P	
C230	87-010-993-080		C-CAP,S 0.056-25 B	C609	87-010-213-080	C-CAP,S 0.015-50 B	
C231	87-010-196-080		CHIP CAPACITOR,0.1-25	C610	87-010-213-080	C-CAP,S 0.015-50 B	
C232	87-010-196-080		CHIP CAPACITOR,0.1-25	C611	87-010-545-080	CAP, ELECT 0.22-50V	
C233	87-010-190-080	S	CHIP F 0.01	C612	87-010-545-080	CAP, ELECT 0.22-50V	
C234	87-010-190-080	S	CHIP F 0.01	C613	87-010-545-080	CAP, ELECT 0.22-50V	
C235	87-016-285-080	CAP,E	47-100SME	C614	87-010-545-080	CAP, ELECT 0.22-50V	
C236	87-016-285-080	CAP,E	47-100SME	C615	87-010-154-080	CAP CHIP 10P	
C237	87-010-322-080	C-CAP,S	100P-50 CH	C616	87-010-385-080	CAP, ELECT 220-25V	
C238	87-010-322-080	C-CAP,S	100P-50 CH	C617	87-010-387-080	CAP,E 470-25 SME	
C239	87-010-196-080	CHIP	CAPACITOR,0.1-25	C623	87-010-401-080	CAP, ELECT 1-50V	
C240	87-010-407-080	CAP,	ELECT 33-50V	C624	87-010-401-080	CAP, ELECT 1-50V	
C243	87-010-407-080	CAP,	ELECT 33-50V	C630	87-010-263-080	CAP, ELECT 100-10V	
C300	87-010-197-080	CAP,	CHIP 0.01 DM	C633	87-010-197-080	CAP, CHIP 0.01 DM	
C301	87-010-179-080	C-CAP,S	1200P-50 KB	C634	87-010-197-080	CAP, CHIP 0.01 DM	
C302	87-010-179-080	C-CAP,S	1200P-50 KB	C669	87-012-140-080	C-CAP,S 470P-50 CH	
C303	87-010-179-080	C-CAP,S	1200P-50 KB	C670	87-012-140-080	C-CAP,S 470P-50 CH	
C304	87-010-179-080	C-CAP,S	1200P-50 KB	C677	87-010-197-080	CAP, CHIP 0.01 DM	
C307	87-010-263-080	CAP,	ELECT 100-10V	C678	87-010-197-080	CAP, CHIP 0.01 DM	
C308	87-010-263-080	CAP,	ELECT 100-10V	C682	87-010-405-080	CAP, ELECT 10-50V	
C309	87-010-318-080	C-CAP,S	47P-50 CH	C683	87-010-196-080	CHIP CAPACITOR,0.1-25	
C310	87-010-318-080	C-CAP,S	47P-50 CH	C701	87-010-381-080	CAP, ELECT 330-16V	
C313	87-010-188-080	C-CAP,S	6800P-50 KB	C702	87-010-404-080	CAP, ELECT 4.7-50V	
C314	87-010-188-080	C-CAP,S	6800P-50 KB	C703	87-010-197-080	CAP, CHIP 0.01 DM	
C315	87-010-263-080	CAP,	ELECT 100-10V	C704	87-010-197-080	CAP, CHIP 0.01 DM	
C317	87-010-546-080	CAP,	ELECT 0.33-50V	C709	87-010-322-080	C-CAP,S 100P-50 CH	
C318	87-010-546-080	CAP,	ELECT 0.33-50V	C710	87-010-196-080	CHIP CAPACITOR,0.1-25	
C326	87-010-198-080	CAP,	CHIP 0.022	C711	87-010-112-080	CAP, ELECT 100-16V	
C327	87-012-368-080	C-CAP,S	0.1-50 F	C712	87-010-196-080	CHIP CAPACITOR,0.1-25	
C360	87-010-401-080	CAP,	ELECT 1-50V	C713	87-010-197-080	CAP, CHIP 0.01 DM	
C371	87-010-178-080	CHIP	CAP 1000P	C714	87-010-197-080	CAP, CHIP 0.01 DM	
C372	87-010-197-080	CAP,	CHIP 0.01 DM	C715	87-010-322-080	C-CAP,S 100P-50 CH	
C373	87-010-178-080	CHIP	CAP 1000P	C719	87-010-322-080	C-CAP,S 100P-50 CH	
C374	87-010-197-080	CAP,	CHIP 0.01 DM	C721	87-010-312-080	C-CAP,S 15P-50 CH	
C399	87-012-140-080	CAP	470P	C722	87-010-312-080	C-CAP,S 15P-50 CH	
C401	87-010-544-080	CAP,	ELECT 0.1-50V	C723	87-010-178-080	CHIP CAP 1000P	
C402	87-010-544-080	CAP,	ELECT 0.1-50V	C725	87-010-178-080	CHIP CAP 1000P	
C403	87-010-321-080	CHIP	CAPACITOR,82P(J)	C727	87-010-196-080	CHIP CAPACITOR,0.1-25	
C404	87-010-321-080	CHIP	CAPACITOR,82P(J)	C728	87-010-374-080	CAP, ELECT 47-10V	
C405	87-010-197-080	CAP,	CHIP 0.01 DM	C751	87-010-197-080	CAP, CHIP 0.01 DM	
C406	87-010-197-080	CAP,	CHIP 0.01 DM	C755	87-010-197-080	CAP, CHIP 0.01 DM	
C407	87-010-197-080	CAP,	CHIP 0.01 DM	C756	87-010-197-080	CAP, CHIP 0.01 DM	
C408	87-010-197-080	CAP,	CHIP 0.01 DM	C757	87-010-318-080	C-CAP,S 47P-50 CH	
C409	87-010-182-080	C-CAP,S	2200P-50 B	C758	87-010-149-080	C-CAP,S 5P-50 CH	
C410	87-010-182-080	C-CAP,S	2200P-50 B	C761	87-010-196-080	CHIP CAPACITOR,0.1-25	
C411	87-010-405-080	CAP,	ELECT 10-50V	C762	87-010-197-080	CAP, CHIP 0.01 DM	
C412	87-010-405-080	CAP,	ELECT 10-50V	C763	87-010-194-080	CAP, CHIP 0.047	
C451	87-010-198-080	CAP,	CHIP 0.022	C765	87-010-197-080	CAP, CHIP 0.01 DM	
C452	87-010-260-080	CAP,	ELECT 47-25V	C766	87-010-197-080	CAP, CHIP 0.01 DM	
C453	87-010-183-080	C-CAP,S	2700P-50 B	C767	87-010-405-080	CAP, E 10-50V	
C454	87-010-183-080	C-CAP,S	2700P-50 B	C768	87-010-197-080	CAP, CHIP 0.01 DM	
C455	87-010-183-080	C-CAP,S	2700P-50 B	C769	87-010-408-080	CAP, ELECT 47-50V	
C456	87-010-197-080	CAP,	CHIP 0.01 DM	C770	87-015-821-080	C-CAP 0.047	
C458	87-010-178-080	CHIP	CAP 1000P	C771	87-010-407-080	CAP, ELECT 33-50V	
C459	87-010-175-080	CAP	560P	C772	87-010-194-080	CAP, CHIP 0.047	
C461	87-012-158-080	C-CAP,S	390P-50 CH	C773	87-010-196-080	CHIP CAPACITOR,0.1-25	
C462	87-012-158-080	C-CAP,S	390P-50 CH	C774	87-010-263-080	CAP, ELECT 100-10V	
C501	87-010-401-080	CAP,	ELECT 1-50V	C775	87-010-404-080	CAP, ELECT 4.7-50V	

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C776	87-010-197-080		CAP, CHIP 0.01 DM	J602	87-A60-881-010		JACK, PIN 2P MSP 242V05 PBSN
C777	87-010-400-080		CAP, ELECT 0.47-50V	J802	87-A60-403-010		TERMINAL, ANT PAL 2P HSP-312V05
C778	87-010-401-080		CAP, ELECT 1-50V	JW811	87-008-372-080		FILTER, EMI BL OIRNI
C779	87-010-401-080		CAP, ELECT 1-50V	L101	87-003-383-010		COIL, 1UH-S
C780	87-010-196-080		CHIP CAPACITOR, 0.1-25	L102	87-003-383-010		COIL, 1UH-S
C781	87-010-405-080		CAP, ELECT 10-50V	L201	87-003-383-010		COIL, 1UH-S
C782	87-010-405-080		CAP, ELECT 10-50V	L202	87-003-383-010		COIL, 1UH-S
C783	87-015-819-080		CAPACITOR, 0.01	L451	87-007-342-010		COIL, OSC 85K BIAS
C784	87-010-197-080		CAP, CHIP 0.01 DM	L771	87-A50-266-010		COIL, FM DET-2N(TOK)
C785	87-010-403-080		CAP, ELECT 3.3-50V	L772	87-A91-110-010		FLTR, PCPJZH-450 (TOK)
C786	87-010-403-080		CAP, ELECT 3.3-50V	L781	87-005-847-080		COIL, 2.2UH(CECS)
C787	87-010-186-080		CHIP CAPACITOR 4700P(K)	L832	87-005-847-080		COIL, 2.2UH(CECS)
C788	87-010-186-080		CHIP CAPACITOR 4700P(K)	L941	87-A50-020-010		COIL, ANT LW(COI) 252KHZ
C789	87-010-179-080		CAP, CHIP S B1200P	L942	87-A50-019-010		COIL, OSC LW(COI) 856KHZ
C790	87-010-179-080		CAP, CHIP S B1200P	L981	8Z-ZA1-665-010		COIL, AM PACK2 (TOK)
C791	87-010-405-080		CAP, ELECT 10-50V	R129	87-A00-257-080		RES, M/F 0.15-1W J
C793	87-010-179-080		C-CAP, S 1200P-50 KB	R130	87-A00-257-080		RES, M/F 0.15-1W J
C794	87-010-406-080		CAP, ELECT 22-50	R131	87-A00-257-080		RES, M/F 0.15-1W J
C795	87-010-596-080		C-CAP, S 0.047-16 KB	R132	87-A00-257-080		RES, M/F 0.15-1W J
C796	87-010-403-080		CAP, ELECT 3.3-50V	R165	87-A00-257-080		RES, M/F 0.15-1W J
C797	87-010-180-080		C-CER 1500P	R166	87-A00-257-080		RES, M/F 0.15-1W J
C798	87-010-180-080		C-CER 1500P	R231	87-A00-258-080		RES, M/F 0.22-1W J
C799	87-010-194-080		CAP, CHIP 0.047	R232	87-A00-258-080		RES, M/F 0.22-1W J
C812	87-010-197-080		CAP, CHIP 0.01 DM	R233	87-A00-258-080		RES, M/F 0.22-1W J
C814	87-010-197-080		CAP, CHIP 0.01 DM	R234	87-A00-258-080		RES, M/F 0.22-1W J
C820	87-010-408-080		CAP, ELECT 47-50V	R265	87-A00-258-080		RES, M/F 0.22-1W J
C821	87-010-197-080		CAP, CHIP 0.01 DM	R266	87-A00-258-080		RES, M/F 0.22-1W J
C822	87-010-197-080		CAP, CHIP 0.01 DM	R392	87-012-349-080		C-CAP, S 1000P-50 CH
C823	87-010-197-080		CAP, CHIP 0.01 DM	R721	87-010-322-080		C-CAP, S 100P-50 CH
C828	87-010-196-080		CHIP CAPACITOR, 0.1-25	R723	87-010-322-080		C-CAP, S 100P-50 CH
C829	87-010-196-080		CHIP CAPACITOR, 0.1-25	SFR451	87-024-355-080		SFR, 33K DIA6 H
C859	87-010-197-080		CAP, CHIP 0.01 DM	SFR452	87-024-355-080		SFR, 33K DIA6 H
C861	87-012-156-080		C-CAP, S 220P-50 J CH	TC942	87-011-253-080		TRIMMER, CER 30P 4.0X4.5
C862	87-012-156-080		C-CAP, S 220P-50 J CH	TH101	87-A91-042-080		C-THMS, 100K 55001
C863	87-012-140-080		C-CAP, S 470P-50 CH	TH102	87-A91-042-080		C-THMS, 100K 55001
C864	87-010-405-080		CAP, ELECT 10-50V	WH1	87-A90-510-010		HLDL, WIRE 2.5-9P
C865	87-010-196-080		CHIP CAPACITOR, 0.1-25	X721	87-A70-061-010		VIB, XTAL 4.500MHZ CSA-309
C866	87-010-405-080		CAP, ELECT 10-50V	X750	87-030-394-010		VIB, CER CSA3.6MGF228
C867	87-010-197-080		CAP, CHIP 0.01 DM	X851	87-A70-091-010		VIB, XTAL 4.332MHZ CSA-309
C868	87-010-316-080		C-CAP, S 33P-50 CH				
C869	87-010-314-080		C-CAP, S 22P-50 CH				FRONT C.B
C940	87-010-197-080		CAP, CHIP 0.01 DM	C38	87-010-171-080		C-CAP, S 270P-50 J SL
C942	87-010-146-080		C-CAP, S 2P-50 CH	C48	87-010-171-080		C-CAP, S 270P-50 J SL
C947	87-010-197-080		CAP, CHIP 0.01 DM	C49	87-010-171-080		C-CAP, S 270P-50 J SL
C948	87-012-140-080		C-CAP, S 470P-50 J CH	C50	87-010-171-080		C-CAP, S 270P-50 J SL
C952	87-010-197-080		CAP, CHIP 0.01 DM	C140	87-010-101-080		CAP, E 220-16 M SME
C957	87-010-311-080		C-CAP, S 12P-50 J CH				
C958	87-010-197-080		CAP, CHIP 0.01 DM	C142	87-010-196-080		CHIP CAPACITOR, 0.1-25
C959	87-010-196-080		CHIP CAPACITOR, 0.1-25	C143	87-010-196-080		CHIP CAPACITOR, 0.1-25
C960	87-010-196-080		CHIP CAPACITOR, 0.1-25	C144	87-010-196-080		CHIP CAPACITOR, 0.1-25
C962	87-010-401-080		CAP, E 1-50V	C147	87-010-498-040		CAP, E 10-16 5L SRE
C981	87-015-785-080		CHIP CAPACITOR, 0.1-25 ZF	C153	87-010-493-040		CAP, E 0.47-50 GAS
CF801	87-008-423-010		FLTR, CF SFE10.7MS3G-A	C154	87-A10-189-040		CAP, E 220-10
CF802	82-785-747-010		CF, MS2 GHY, R	C155	87-010-312-080		C-CAP, S 15P-50 CH
CN91	87-A60-619-010		CONN, 2P V 2MM JMT	C156	87-010-322-080		C-CAP, S 100P-50 CH
CN92	87-A60-619-010		CONN, 2P V 2MM JMT	C157	87-A10-189-040		CAP, E 220-10
CN301	87-A60-620-010		CONN, 3P V 2MM JMT	C158	87-012-155-080		C-CAP 180P-50CH
CN351	87-A60-625-010		CONN, 8P V 2MM JMT	C159	87-010-196-080		CHIP CAPACITOR, 0.1-25
CN601	87-099-719-010		CONN, 30P TYK-B(X)	C160	87-010-196-080		CHIP CAPACITOR, 0.1-25
CN603	87-099-014-010		CONN, 12P 6216 V	C161	87-016-460-080		C-CAP, S 0.22-16 KB
CNA1	8Z-NF8-669-110		CONN ASSY, 9P VH	C162	87-010-178-080		CHIP CAP 1000P
CON301	87-NF6-615-010		CONN ASSY, 3P PB	C165	87-012-157-080		C-CAP, S 330P-50 CH
CON351	87-NF6-616-010		CONN ASSY, 8P RPB	C166	87-010-075-040		CAP, E 10-16 5L
FB304	87-008-372-080		FILTER, EMI BL OIRNI	C171	87-010-194-080		CAP, CHIP 0.047
FB602	87-008-372-080		FILTER, EMI BL OIRNI	C172	87-A10-797-040		CAP, E 47-35 M 5L SRM
FC603	88-912-151-110		FF-CABLE, 12P 1.25	C173	87-010-981-040		CAP, E 22-35 5L SRE
FFE801	A8-6ZA-191-130		6ZA-1 FEENM	C174	87-010-981-040		CAP, E 22-35 5L SRE
J201	87-A60-483-010		JACK, DIA6.3 BLK ST W/S KM	C180	87-010-194-080		CAP, CHIP 0.047
J203	87-A60-238-010		TERMINAL, SP 4P (MSC)	C182	87-010-318-080		C-CAP, S 47P-50 CH
J204	87-A60-886-010		JACK, PIN 4P R/W BLUE	C183	87-010-197-080		CAP, CHIP 0.01 DM

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C184	87-010-175-080	CAP 560P		S311	87-A91-024-180	SW, TACT	KSHG611BT
C185	87-010-322-080	C-CAP, S 100P-50 CH		S321	87-A91-024-180	SW, TACT	KSHG611BT
C186	87-010-175-080	CAP 560P		S322	87-A91-024-180	SW, TACT	KSHG611BT
C187	87-010-322-080	C-CAP, S 100P-50 CH		S323	87-A91-024-180	SW, TACT	KSHG611BT
C190	87-010-318-080	C-CAP, S 47P-50 CH		S324	87-A91-024-180	SW, TACT	KSHG611BT
C191	87-012-368-080	C-CAP, S 0.1-50 F		S325	87-A91-024-180	SW, TACT	KSHG611BT
C192	87-010-196-080	CHIP CAPACITOR, 0.1-25		S326	87-A91-024-180	SW, TACT	KSHG611BT
C193	87-012-368-080	C-CAP, S 0.1-50 F		S327	87-A91-024-180	SW, TACT	KSHG611BT
C315	87-010-196-080	CHIP CAPACITOR, 0.1-25		S328	87-A91-024-180	SW, TACT	KSHG611BT
C401	87-010-560-040	CAP, E 10-50 GAS		S329	87-A91-024-180	SW, TACT	KSHG611BT
C402	87-010-196-080	CHIP CAPACITOR, 0.1-25		S330	87-A91-024-180	SW, TACT	KSHG611BT
C403	87-010-318-080	C-CAP, S 47P-50 CH		S331	87-A91-024-180	SW, TACT	KSHG611BT
C404	87-010-318-080	C-CAP, S 47P-50 CH		S341	87-A91-024-180	SW, TACT	KSHG611BT
C405	87-010-318-080	C-CAP, S 47P-50 CH		S342	87-A91-024-180	SW, TACT	KSHG611BT
C406	87-010-318-080	C-CAP, S 47P-50 CH		S343	87-A91-024-180	SW, TACT	KSHG611BT
C407	87-010-318-080	C-CAP, S 47P-50 CH		S344	87-A91-024-180	SW, TACT	KSHG611BT
C408	87-010-318-080	C-CAP, S 47P-50 CH		S345	87-A91-024-180	SW, TACT	KSHG611BT
C409	87-010-196-080	CHIP CAPACITOR, 0.1-25		S349	87-A91-024-180	SW, TACT	KSHG611BT
C501	87-010-322-080	C-CAP, S 100P-50 CH		S350	87-A91-024-180	SW, TACT	KSHG611BT
C502	87-010-322-080	C-CAP, S 100P-50 CH		S351	87-A91-024-180	SW, TACT	KSHG611BT
C503	87-010-322-080	C-CAP, S 100P-50 CH		S361	87-A91-024-180	SW, TACT	KSHG611BT
C701	87-010-196-080	CHIP CAPACITOR, 0.1-25		S362	87-A91-024-180	SW, TACT	KSHG611BT
C702	87-012-158-080	C-CAP, S 390P-50 CH		S366	87-A91-024-180	SW, TACT	KSHG611BT
C703	87-010-196-080	CHIP CAPACITOR, 0.1-25		S367	87-A91-024-180	SW, TACT	KSHG611BT
C704	87-010-196-080	CHIP CAPACITOR, 0.1-25		S368	87-A91-024-180	SW, TACT	KSHG611BT
C705	87-010-196-080	CHIP CAPACITOR, 0.1-25		S370	87-A91-024-180	SW, TACT	KSHG611BT
C706	87-010-196-080	CHIP CAPACITOR, 0.1-25		S371	87-A91-024-180	SW, TACT	KSHG611BT
C707	87-010-196-080	CHIP CAPACITOR, 0.1-25		SW162	87-A91-591-010	SW, RTRY	RE0121PVB25FINA24
CN101	87-099-720-010	CONN, 30P TYK-B(P)		SW163	87-A91-397-010	SW, RTRY	121SL10-12T2
CN102	87-099-754-010	CONN, 13P H 9604					
CN251	87-099-750-010	CONN, 15P V 9604SC		PT C.B			
CN502	87-A60-060-010	CONN, 07P V 9604S-07C					
FC102	88-913-271-110	FF-CABLE, 13P 1.25		C1	87-010-387-080	CAP, E 470-25 SME	
FC251	88-915-121-110	FF-CABLE, 15P 1.25		C4	87-010-403-080	CAP, ELECT 3.3-50V	
FC502	88-907-301-110	FF-CABLE, 7P 1.25		△ C5	87-A10-479-080	CAP, CER 2200P-250 M E KH	
FL101	8A-DB8-601-010	FL, HNA-13MM14T		C8	87-010-917-000	CAP, E 3300-50 M SMG	
L151	87-A50-333-010	COIL, OSC 9.43MHZ		C9	87-010-917-000	CAP, E 3300-50 M SMG	
LED401	87-A40-619-040	LED, SLR-56PT-T31-W GRN		C10	87-A11-148-080	CAP, TC U 0.1-50V	
LED402	87-A40-619-040	LED, SLR-56PT-T31-W GRN		C11	87-A11-148-080	CAP, TC U 0.1-50V	
LED403	87-A40-619-040	LED, SLR-56PT-T31-W GRN		CN1	87-A60-851-010	CONN, 9P V VH	
LED404	87-A40-619-040	LED, SLR-56PT-T31-W GRN		△ PR2	87-A90-195-080	PROTECTOR, 7A 491SERIES 60V	
LED405	87-A40-619-040	LED, SLR-56PT-T31-W GRN		△ PR3	87-A90-195-080	PROTECTOR, 7A 491SERIES 60V	
LED406	87-A40-619-040	LED, SLR-56PT-T31-W GRN		△ PR4	87-A90-195-080	PROTECTOR, 7A 491SERIES 60V	
LED419	87-A40-589-040	LED, SLR-56VCT31 RED		△ PR5	87-A90-195-080	PROTECTOR, 7A 491SERIES 60V	
LED421	87-A40-563-010	LED, SEL6515C-LF62 PGRN		△ PT1	8A-DB8-608-010	PT, ADB8-E	
LED422	87-A40-563-010	LED, SEL6515C-LF62 PGRN		△ PT2	8A-NF8-662-010	PT, SUB ANF-8 (E)	
LED423	87-A40-563-010	LED, SEL6215C-LF62 PGRN		△ RY1	87-A91-418-010	RELAY, AC12V G5PA-1-M	
LED424	87-A40-563-010	LED, SEL6215C-LF62 PGRN		△ T1	87-A60-317-010	TERMINAL, 1P MSC	
LED425	87-A40-563-010	LED, SEL6515C-LF62 PGRN		△ T2	87-A60-317-010	TERMINAL, 1P MSC	
LED426	87-A40-563-010	LED, SEL6515C-LF62 PGRN					
LED441	87-A40-380-180	LED, SEL6510C-TP5 GRN		DECK C.B			
LED442	87-A40-380-180	LED, SEL6510C-TP5 GRN					
LED443	87-A40-380-180	LED, SEL6510C-TP5 GRN		CON105	87-099-756-010	CONN, 15P 9604S F	
LED444	87-A40-380-180	LED, SEL6510C-TP5 GRN		SFR1	87-024-581-010	SFR, 3.3K DIA 6H	
LED445	87-A40-380-180	LED, SEL6510C-TP5 GRN		SOL1	82-ZM1-618-410	SOL ASSY, 27	
LED446	87-017-980-080	LED, SEL6210S RED		SOL2	82-ZM1-618-410	SOL ASSY, 27	
LED447	87-017-980-080	LED, SEL6210S RED		SW1	87-A90-248-010	SW, MICRO ESE11SH2CXQ	
LED448	87-017-980-080	LED, SEL6210S RED		SW2	87-A90-248-010	SW, MICRO ESE11SH2CXQ	
LED449	87-017-980-080	LED, SEL6210S RED		SW3	87-A90-248-010	SW, MICRO ESE11SH2CXQ	
LED450	87-017-980-080	LED, SEL6210S RED		SW4	87-036-110-010	SW, MICRO SPPB62	
S301	87-A91-024-180	SW, TACT KSHG611BT		SW5	87-036-110-010	SW, MICRO SPPB62	
S302	87-A91-024-180	SW, TACT KSHG611BT		SW6	87-036-110-010	SW, MICRO SPPB62	
S303	87-A91-024-180	SW, TACT KSHG611BT		SW8	87-A90-248-010	SW, MICRO ESE11SH2CXQ	
S304	87-A91-024-180	SW, TACT KSHG611BT		SW9	87-A90-248-010	SW, MICRO ESE11SH2CXQ	
S305	87-A91-024-180	SW, TACT KSHG611BT		W1	82-ZM3-601-010	RBN-CORD, 4P-75	
S306	87-A91-024-180	SW, TACT KSHG611BT					
S307	87-A91-024-180	SW, TACT KSHG611BT		HEAD-1 C.B			
S308	87-A91-024-180	SW, TACT KSHG611BT					
S309	87-A91-024-180	SW, TACT KSHG611BT					
S310	87-A91-024-180	SW, TACT KSHG611BT		85-ZM3-602-010	PWB, FLEX A		

REF. NO. PART NO. KANRI DESCRIPTION

NO.

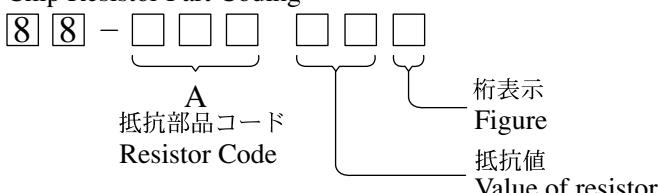
HEAD-2 C.B

85-ZM3-602-010 PWB, FLEX A

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding



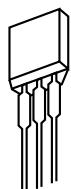
チップ抵抗
Chip resistor

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

TRANSISTOR ILLUSTRATION



E C B



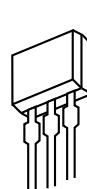
E C B



B C E



G D S



S D G

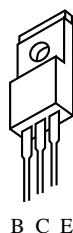
CSC4115
KTA1266
KTC3198
CSA952
CD1585

DTC114ES
KTC3199
2SA933

2SB1370

2SK3053

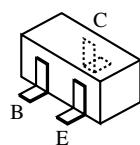
2SJ460
2SK2541



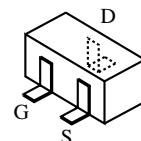
B C E



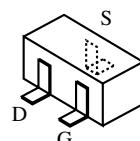
E C B



B C E



G D S



D S G

2SD2494
2SB1625
2SD1933
2SB1342

CC5551

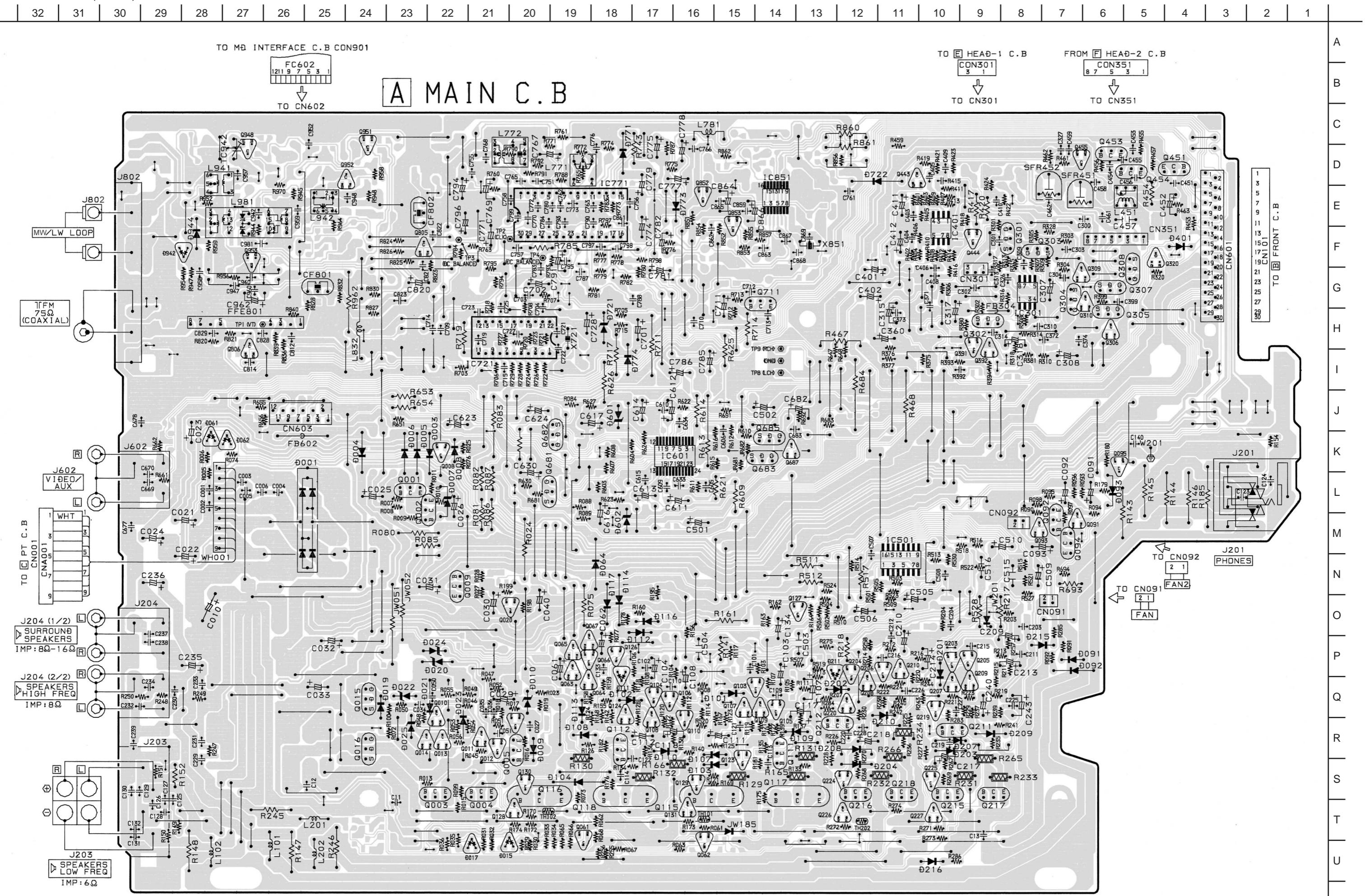
2SA1235
2SC2714
2SC3052
DTC144EK
RT1N144C
RT1P141C
RT1P144C

RT1N441C
CMBT5551
CMBT5401
CSA1362
CSD1306E

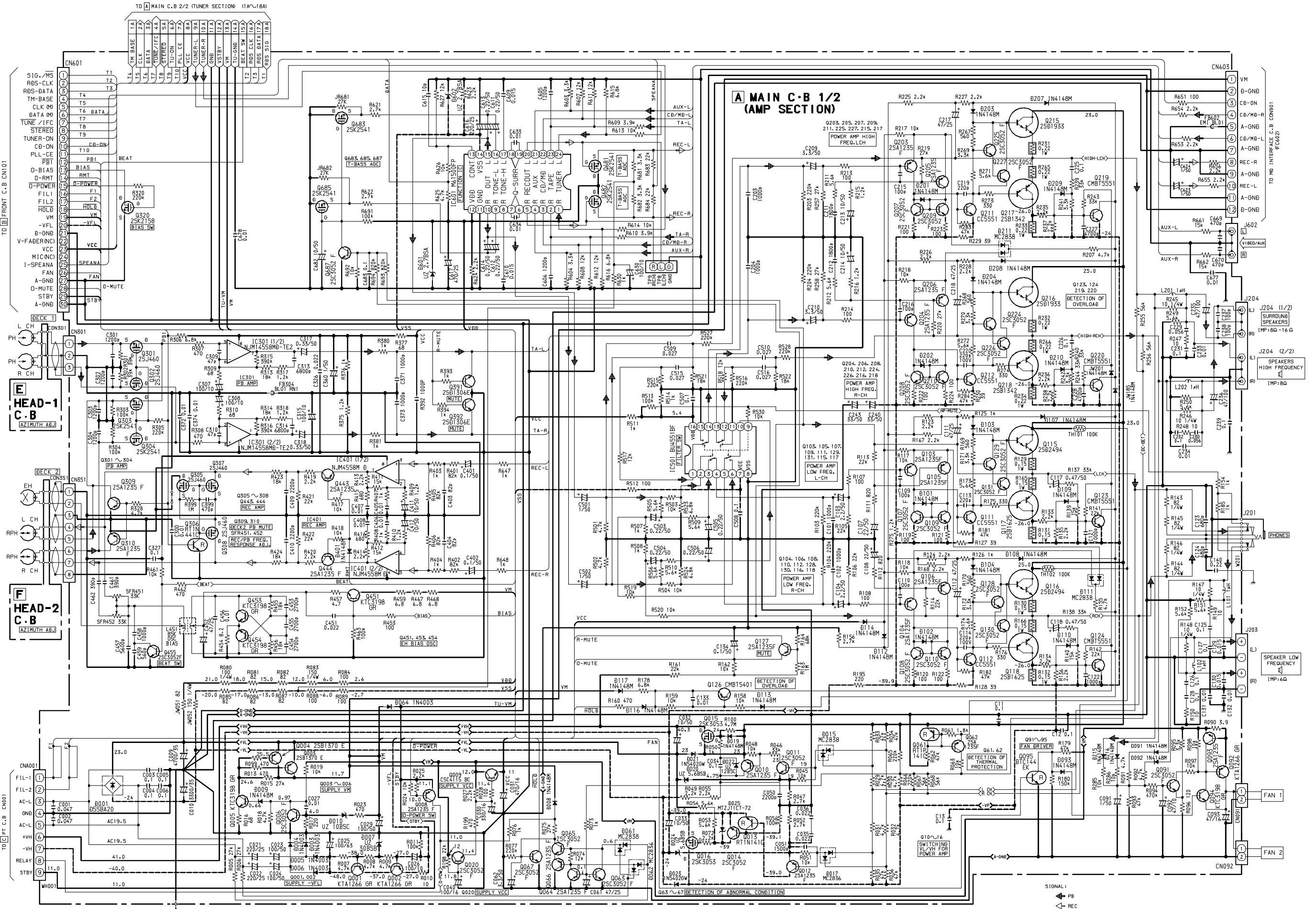
2SK2158

2SK360E

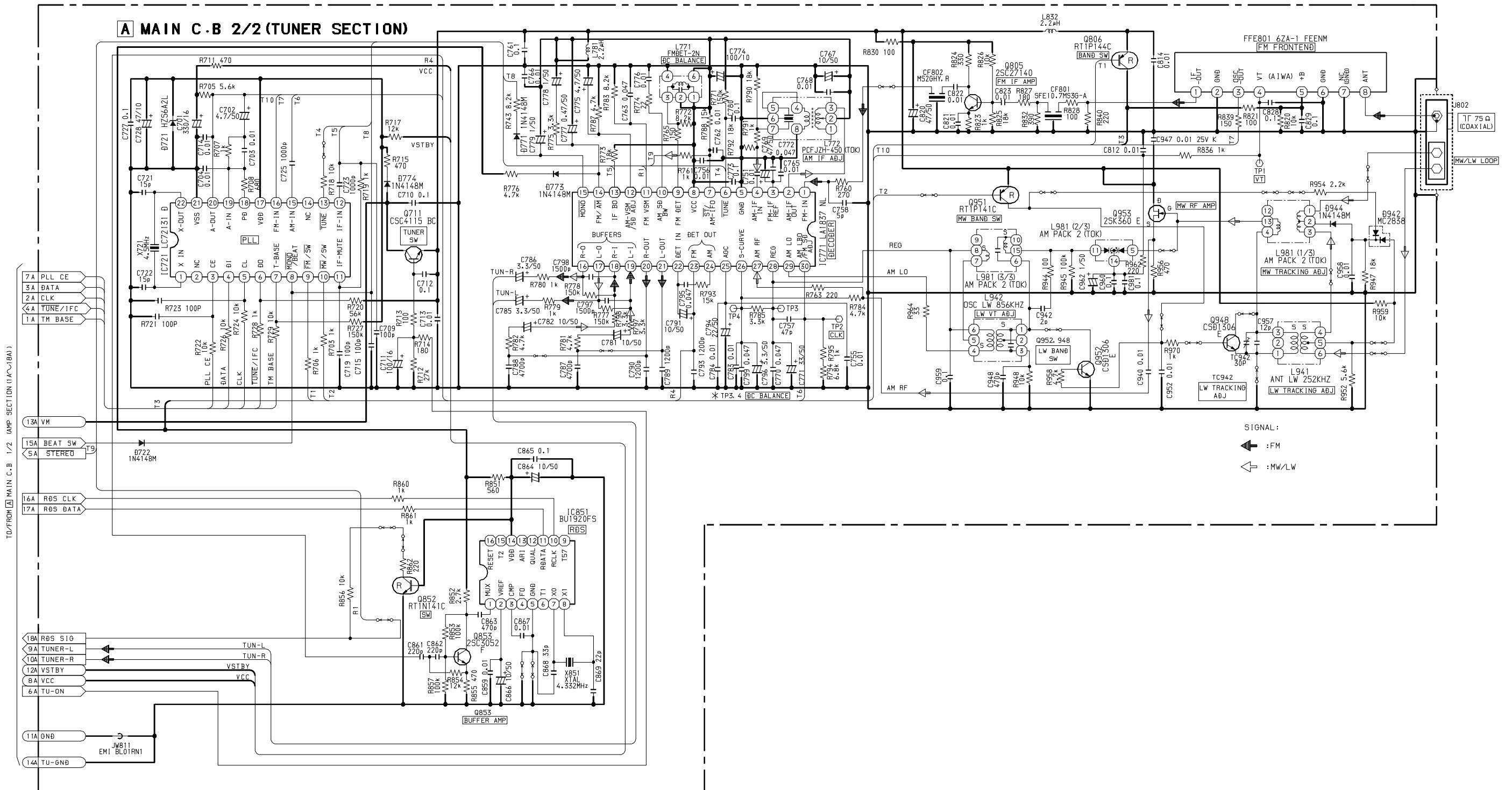
WIRING – 1 (MAIN)



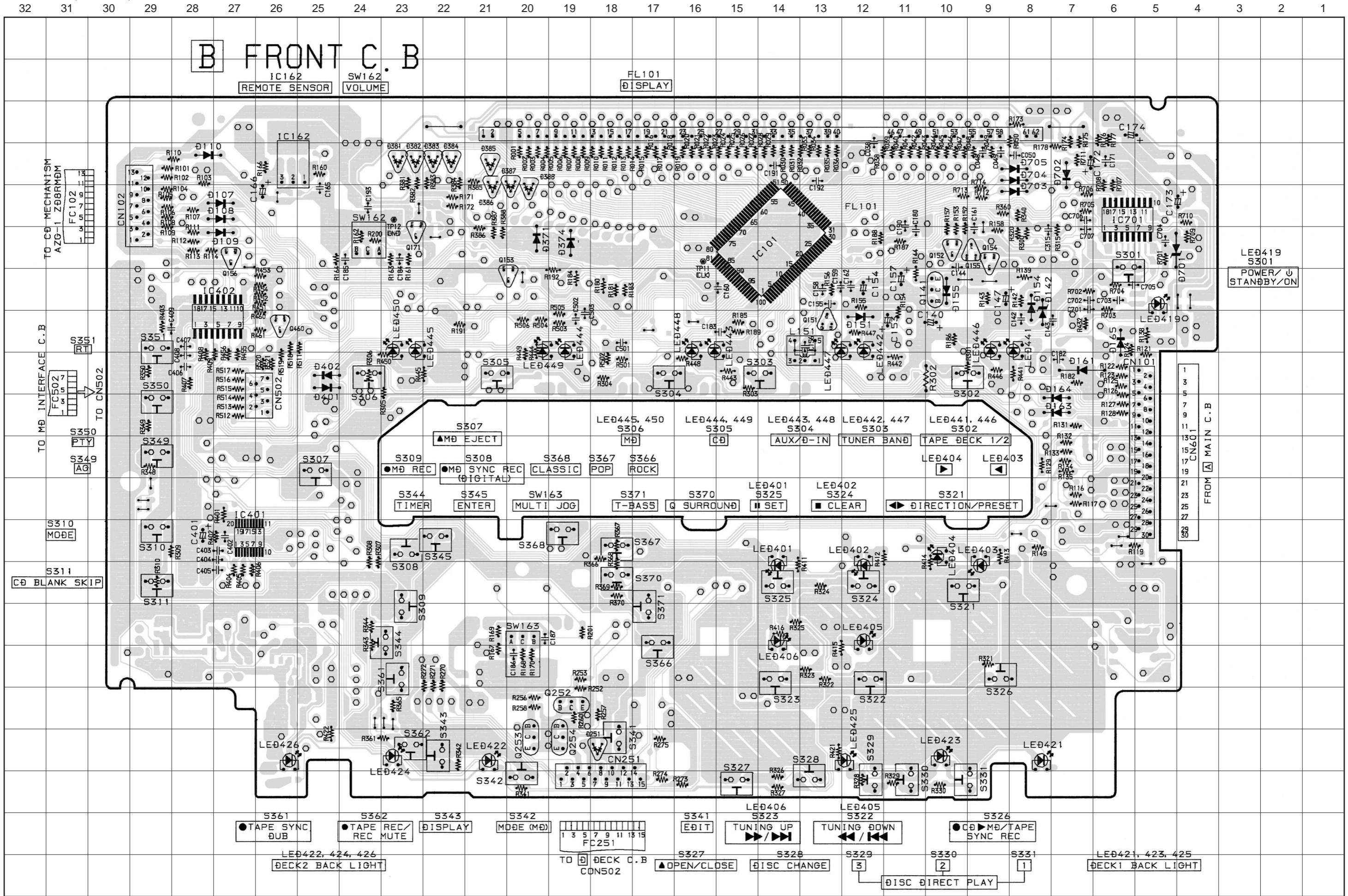
SCHEMATIC DIAGRAM – 1 (MAIN 1 / 2 : AMP SECTION)



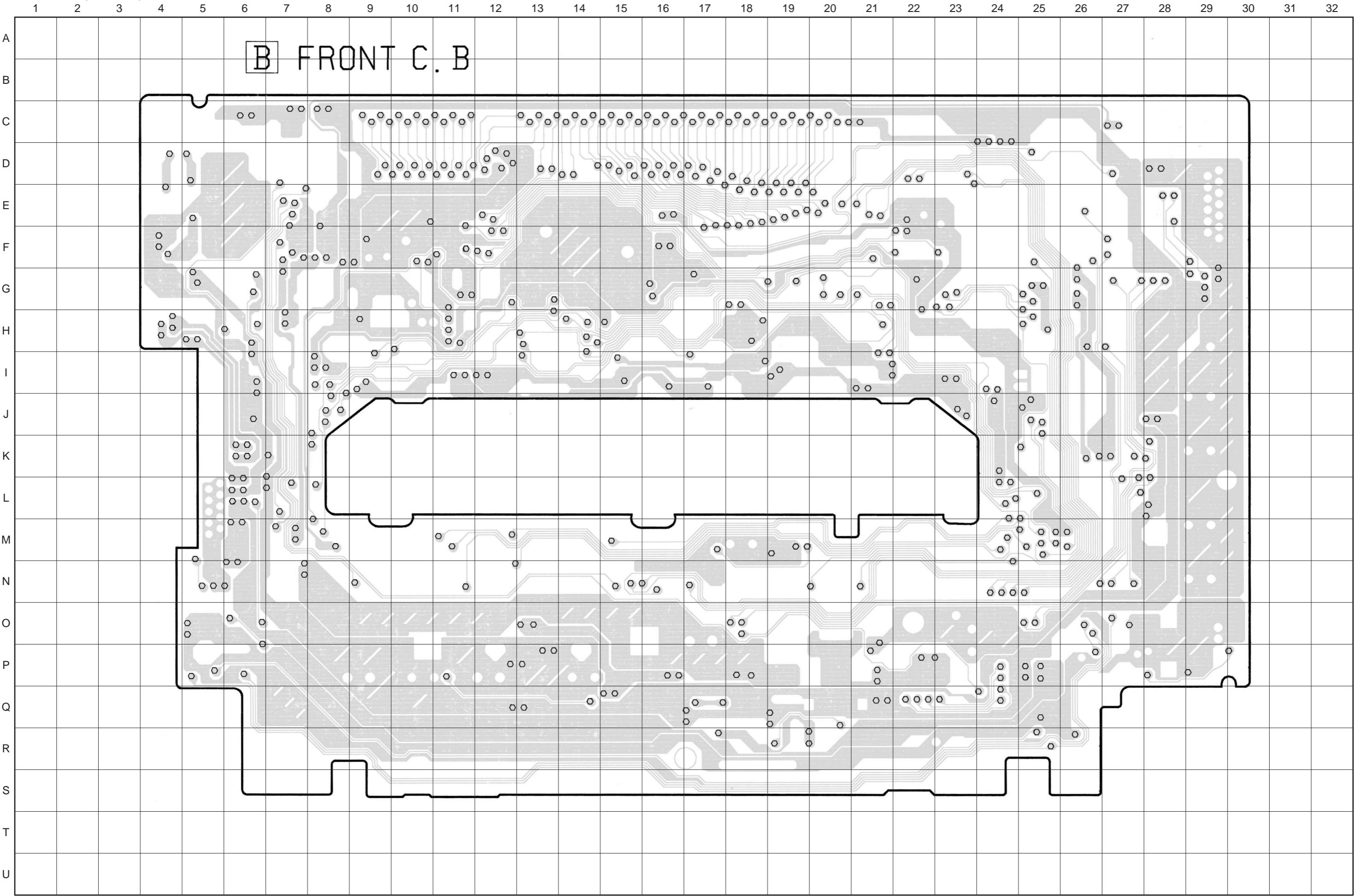
SCHEMATIC DIAGRAM – 2 (MAIN 2 / 2:TUNER SECTION)



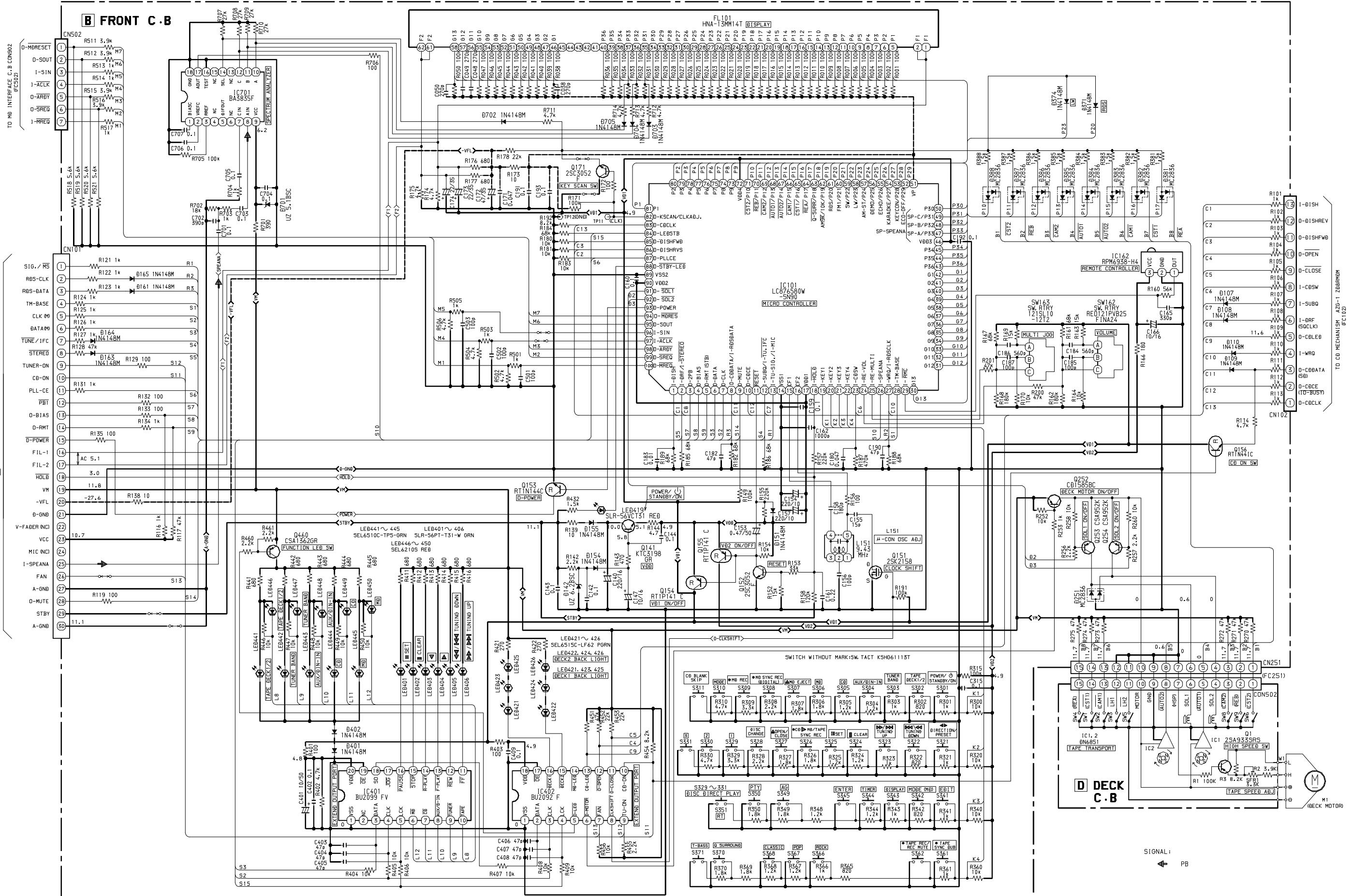
WIRING - 2 (FRONT) <1 / 2>



WIRING - 2 (FRONT) <2 / 2>



SCHEMATIC DIAGRAM – 3 (FRONT)

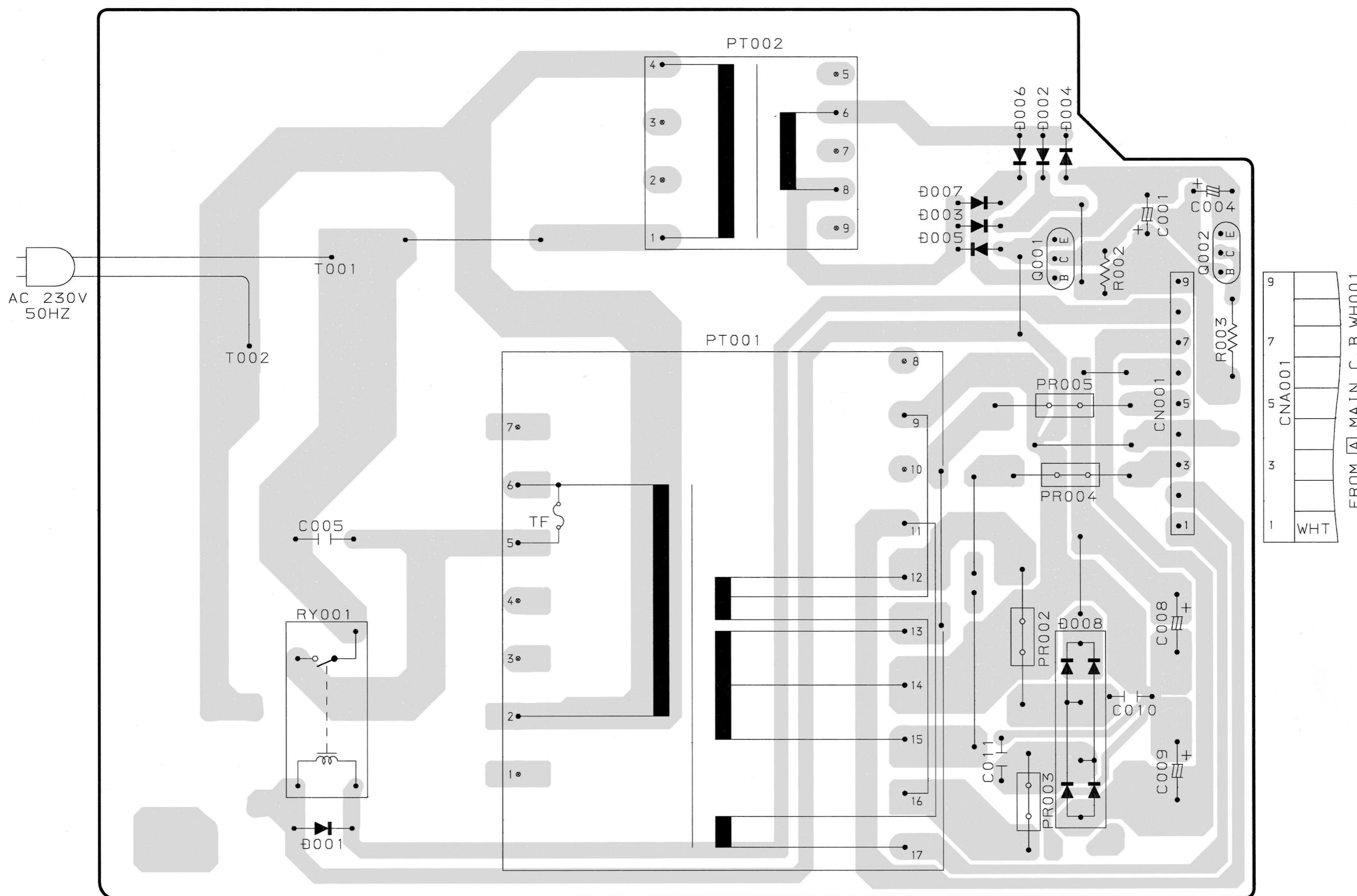


WIRING – 3 (PT)

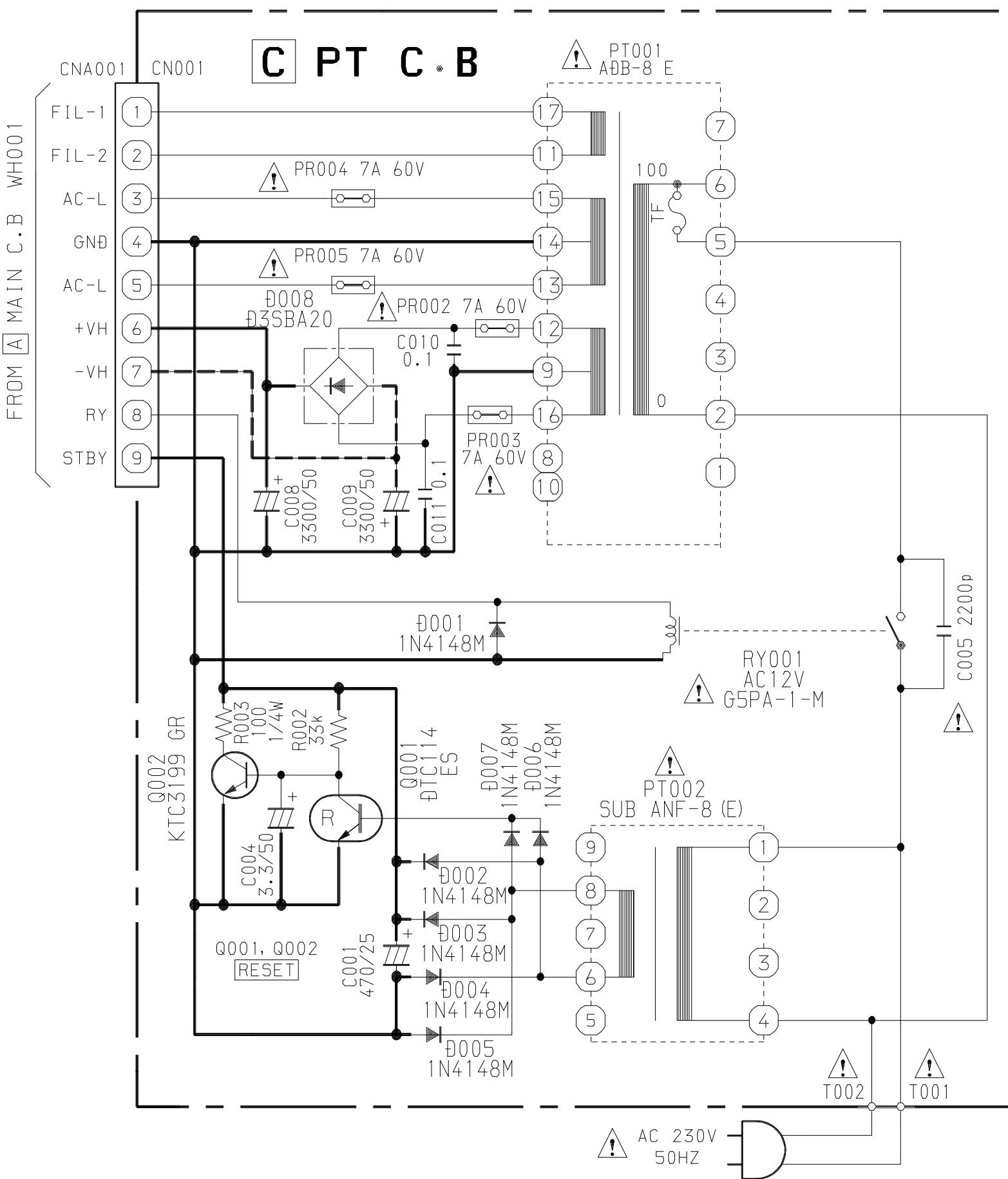
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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C

PT C. B

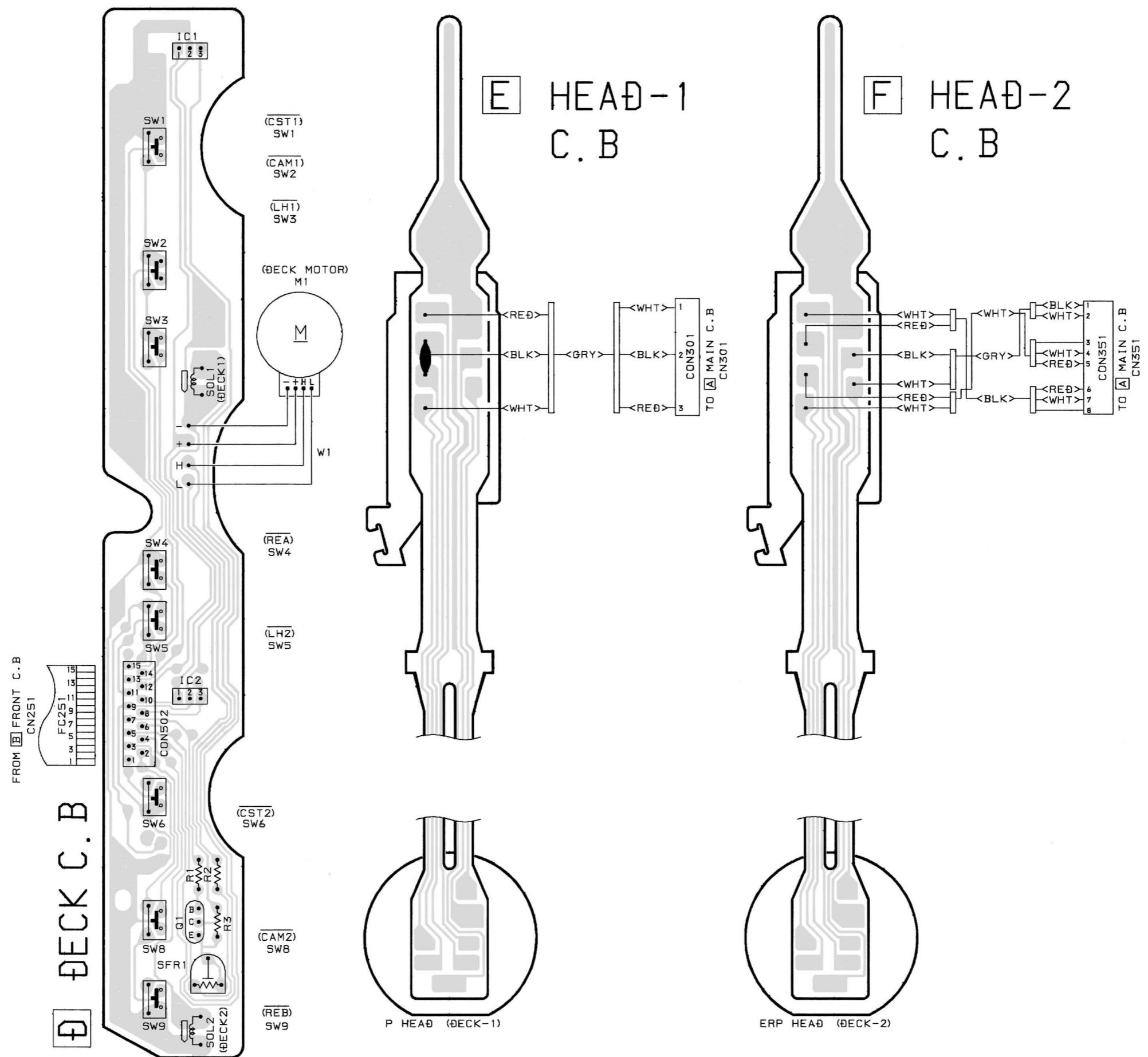


SCHEMATIC DIAGRAM – 4 (PT)



WIRING – 4 (DECK)

32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
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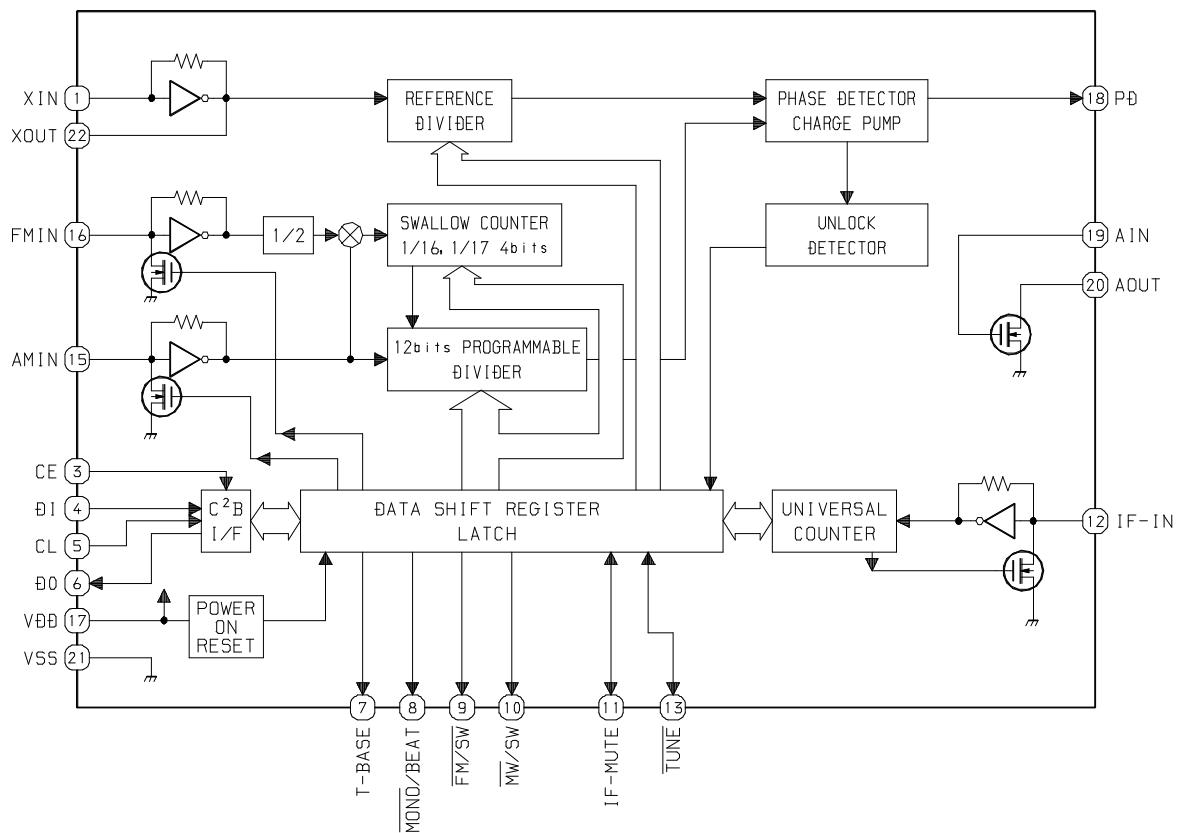
IC DESCRIPTION
IC, LC876580W-5N90

Pin No.	Pin Name	I/O	Description
1	I-DISH	I	CD turnable photo sensor input.
2	I-DRF/I-STEREO	I	CD DRF input/Stereo detect input.
3	O-2PB	O	Selection of Deck 1/2.
4	O-BIAS	O	Deck bias output.
5	O-RMT(STB)	O	REC mute output/(STB output:HIGH-PWB used).
6	O-DATA	O	DATA output for MAIN C.B.
7	O-CLK	O	CLOCK output for MAIN C.B.
8	O-CD DATA/ I-RDS DATA	O/I	CD data output/RDS data input.
9	O-MUTE	O	System mute ON/OFF output.
10	O-CDCE	O	CD CE output.
11	<u>RESET</u>	I	Reset input for MICON.
12	I-SUBQ/I-TU.IFC	I	CD SUBQ input/TUNER IF count input.
13	I-TU-SIG/I-MIC	I	Tuner signal input/Microphone input for VF (Not used).
14	VSS1	-	GND.
15	CF1	I	Microcomputer clock input.
16	CF2	O	Microcomputer clock output.
17	VDD1	-	Power supply.
18	<u>I-HOLD</u>	I	Hold input.
19~22	I-KEY-1~4	I	Key 1~4 AD input.
23	I-CDSW	I	CD mechanical switch input.
24	I-RE-VOL	I	Multi-jog (VOLUME) encoder input.
25	I-RE-MULTI	I	Multi-jog encoder input.
26	I-SPEANA	I	Spectrum analyzer level AD input.
27	I-WRQ/I-RDS-CLK	I/O	CD WRQ input/RDS-CLK input.
28	I-TM-BASE	I	Standard time input (8Hz).
29	I- <u>RMC</u>	I	System remote controller input.
30~42	G13~G1	O	FL grid output (G13~G1).
43~45	P36~P34	O	FL segment output (P36~P34).
46	VDD3	-	VDD (for FL).
47	SPEANA-A/P33	O	Spectrum analyzer band change output (A)/FL segment output (P33).
48	SPEANA-B/P32	O	Spectrum analyzer band change output (B)/FL segment output (P32).
49	SPEANA-C/P31	O	Spectrum analyzer band change output (C)/FL segment output (P31).
50	P30	O	FL segment output (P30).
51	VP	-	-VFL.
52	ECO-OFF/P29	I/O	ECO MODE off diode input (Not used)/FL segment output (P29).
53	KEYCON/P28	I/O	KEY CONTROL diode input (Not used)/FL segment output (P28).
54	KARAOKE/P27	I/O	KARAOKE diode input (Not used)/FL segment output (P27).
55	ECHO/P26	I/O	ECHO diode input (Not used)/FL segment output (P26).
56	DEMO/P25	I/O	DEMO diode input (Not used)/FL segment output (P25).
57	AM-ST/P24	I/O	AM-STEREO diode input (Not used)/FL segment output (P24).

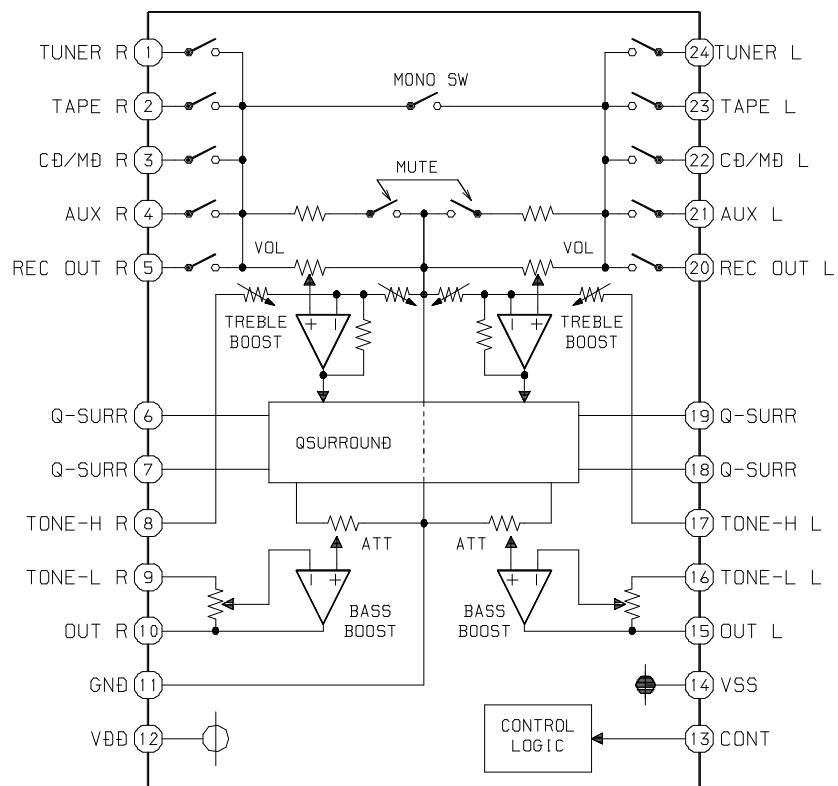
Pin No.	Pin Name	I/O	Description
58	LW/P23	I/O	LW diode input/FL segment output (P23).
59	SW/P22	I/O	SW diode input (Not used)/FL segment output (P22).
60	FM1/P21	I/O	FM1 (OIRT) diode input (Not used)/FL segment output (P21).
61	RDS/P20	I/O	RDS diode input/FL segment output (P20).
62	AM-9K/10K/P19	I/O	AM 10K diode input (Not used)/FL segment output (P19).
63	Q-SUPR/P18	I/O	Q-SUPR diode input (Not used)/FL segment output (P18).
64	REA/P17	I/O	DECK side A record permission SW input/FL segment output (P17).
65	CST1/P16	I/O	DECK 1 cassette detect SW input/FL segment output (P16).
66	CAM1/P15	I/O	DECK 1 CAM SW input/FL segment output (P15).
67	AUTO2/P14	I/O	DECK 2 auto stop input/FL segment output (P14).
68	AUTO1/P13	I/O	DECK 1 auto stop input/FL segment output (P13).
69	CAM2/P12	I/O	DECK 2 CAM SW input/FL segment output (P12).
70	REB/P11	I/O	DECK side B record permission SW input/FL segment output (P11).
71	CST2/P10	I/O	DECK 2 cassette detect SW input/FL segment output (P10).
72	VDD4	—	VDD (for FL).
73~81	P9~P1	O	FL segment output (P9~P1).
82	O-KSCAN/CLKADJ	O	Key scan timing output.
83	O-CD CLK	O	CD CLK ouput.
84	O-LED STB	O	Strobe output for LED driver.
85	O-DISH FWD	O	CD turnable forward revolution output.
86	O-DISH RVS	O	CD turnable reverse revolution output.
87	O-PLL CE	O	Chip enable output for PLL.
88	O-STBY-LED	O	STBY LED ON output (STBY LED ON during O-POWER OFF).
89	VSS2	—	GND.
90	VDD2	—	Power supply.
91	O-SOL1	O	DECK 1 plunger <u>ON</u> /OFF output.
92	O-SOL2	O	DECK 2 plunger <u>ON</u> /OFF output.
93	O-POWER	O	System power ON/OFF output.
94	O-MDRES	O	MD reset output (Active low).
95	O-SOUT	O	MD SOUT output.
96	I-SIN	I	MD SIN input.
97	I-ACLK	I	MD ACLK input (Active low).
98	O-ARDY	O	MD ARDY output (Active low).
99	O-SREQ	O	MD SREQ output (Active low).
100	O-MREQ	O	MD MREQ output (Active low).

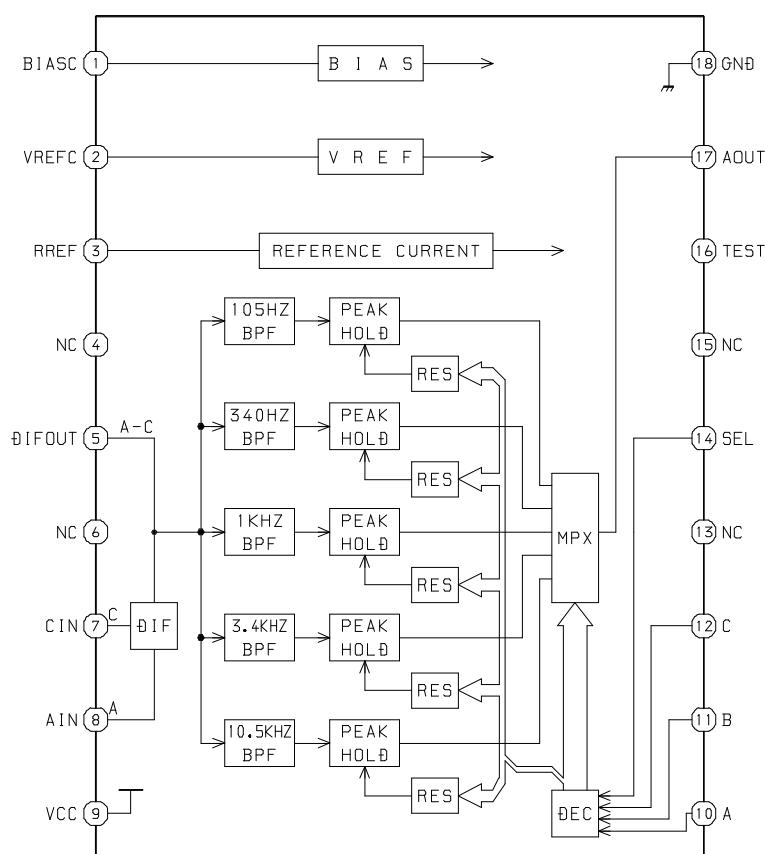
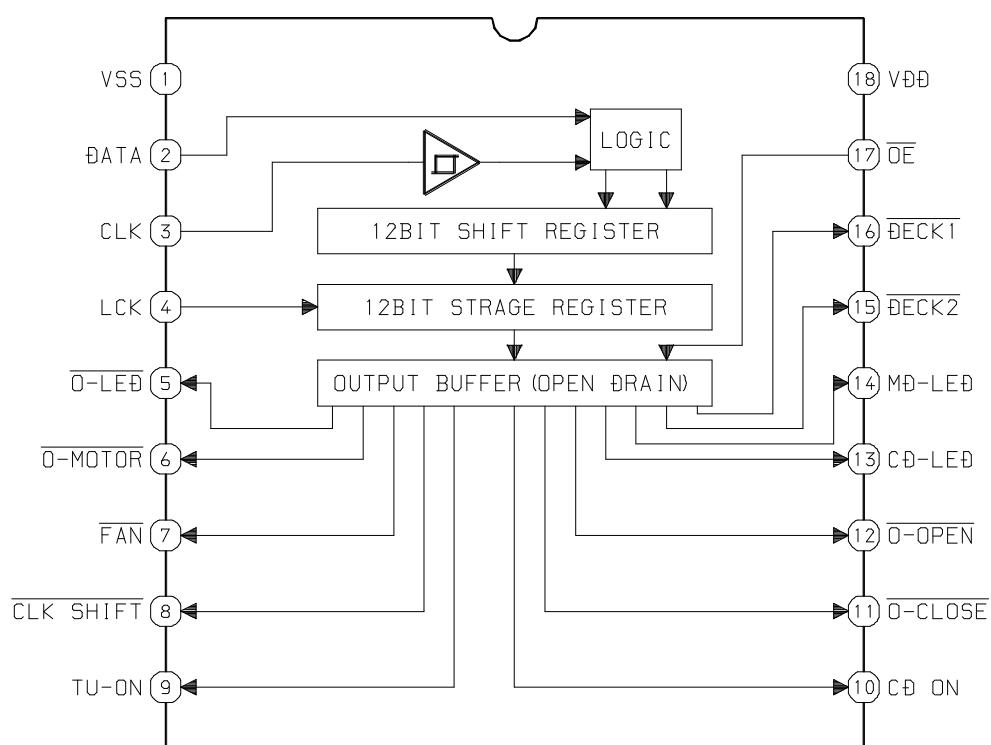
IC BLOCK DIAGRAM

IC,LC72131D

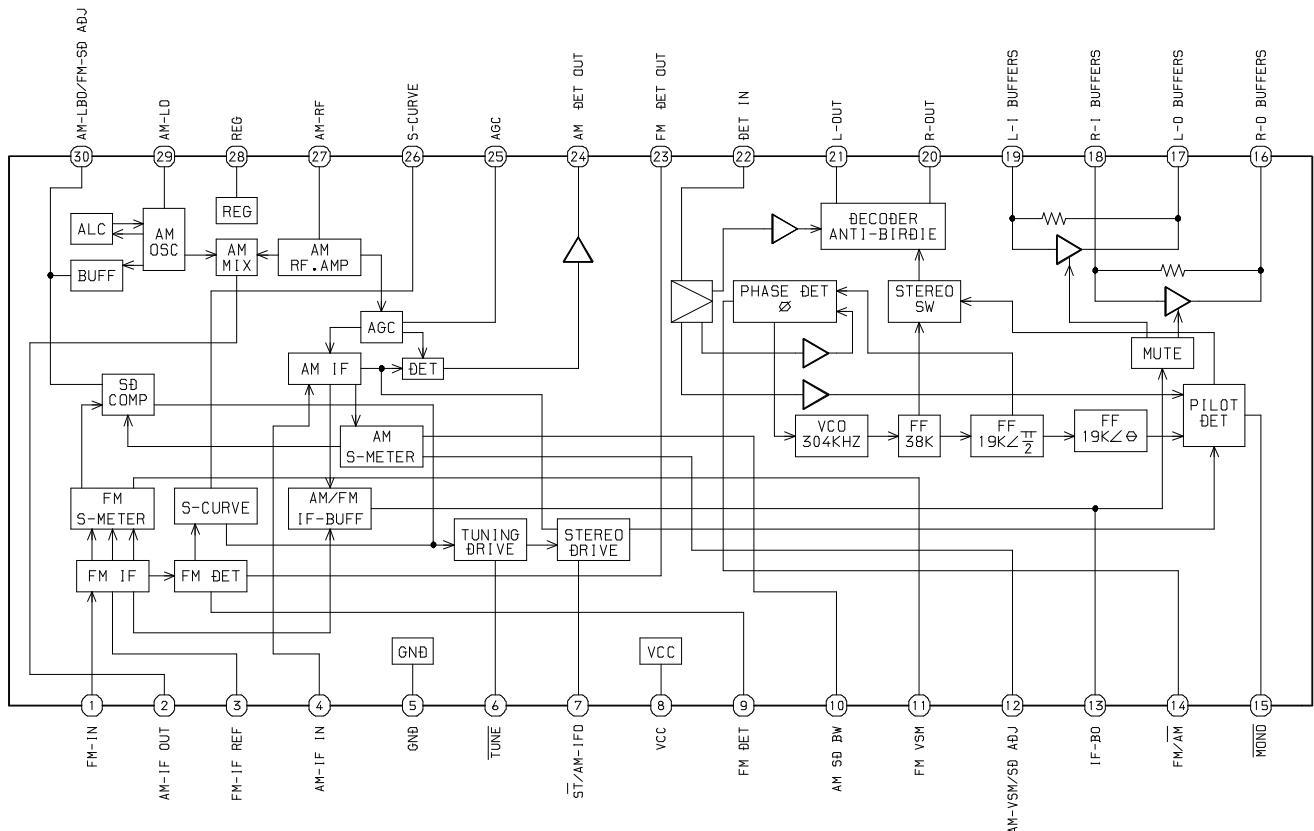


IC,M61500FP

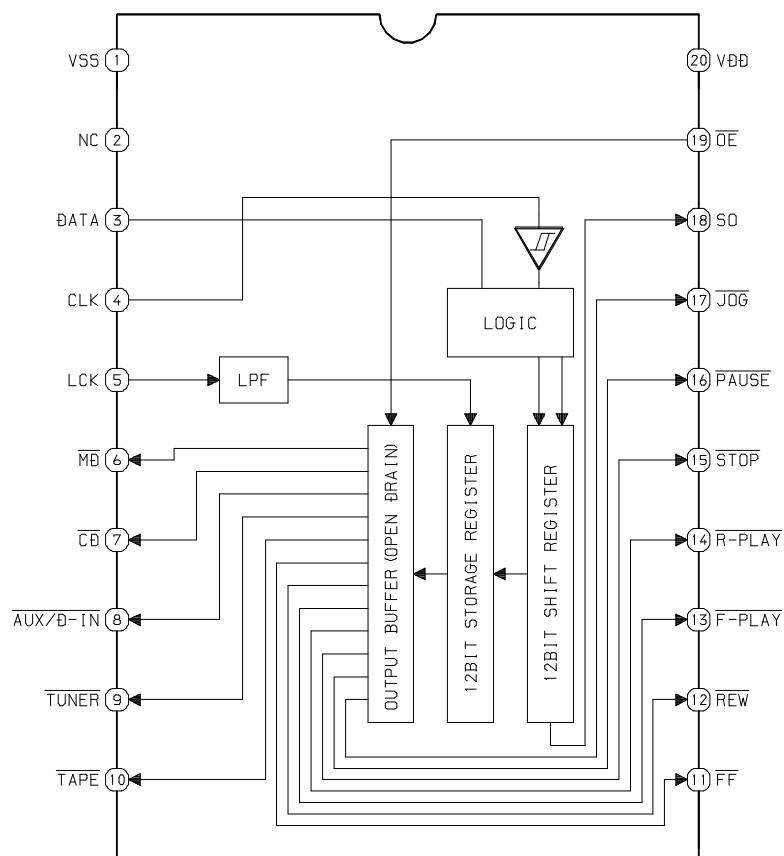


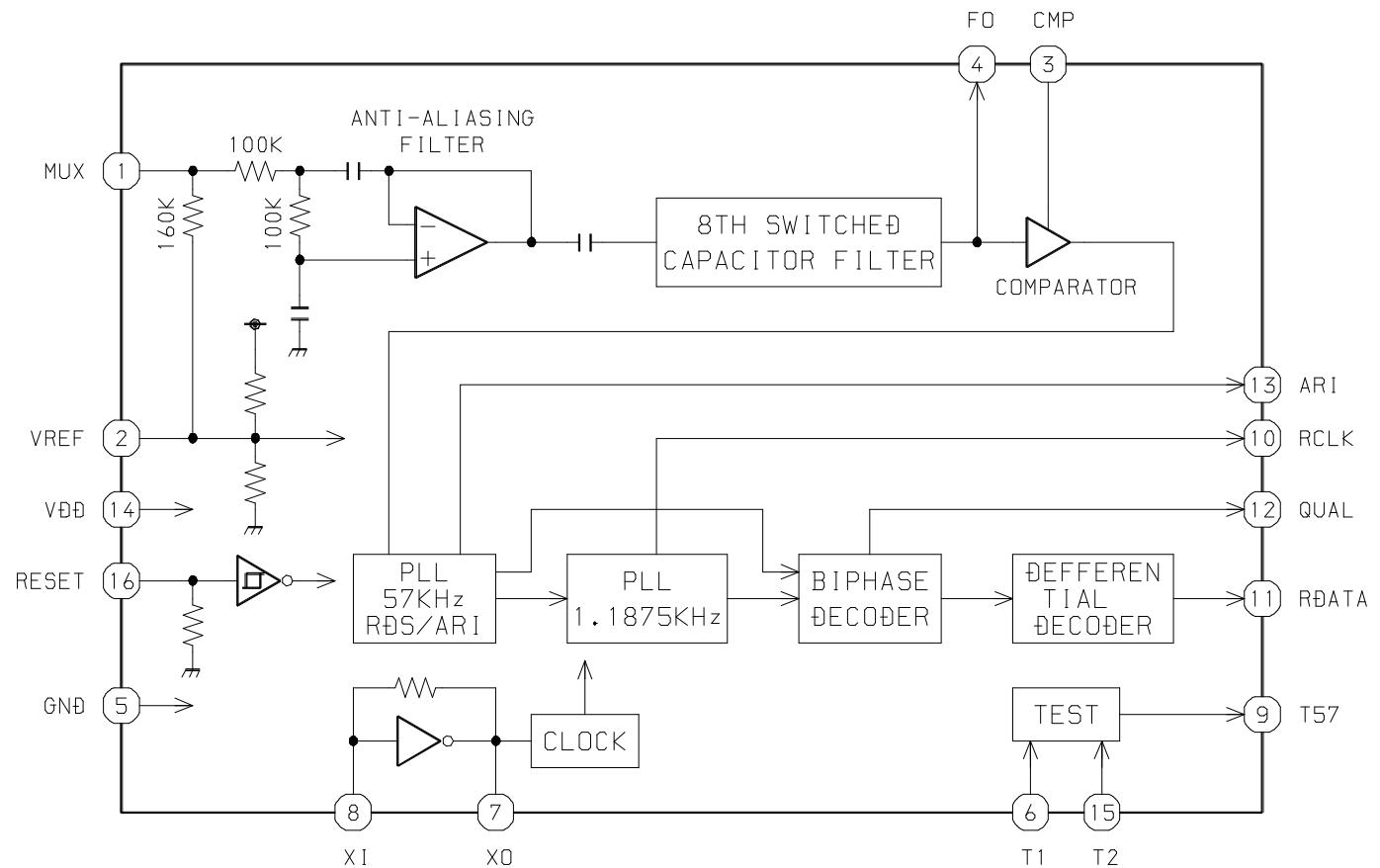


IC,LA1837NL



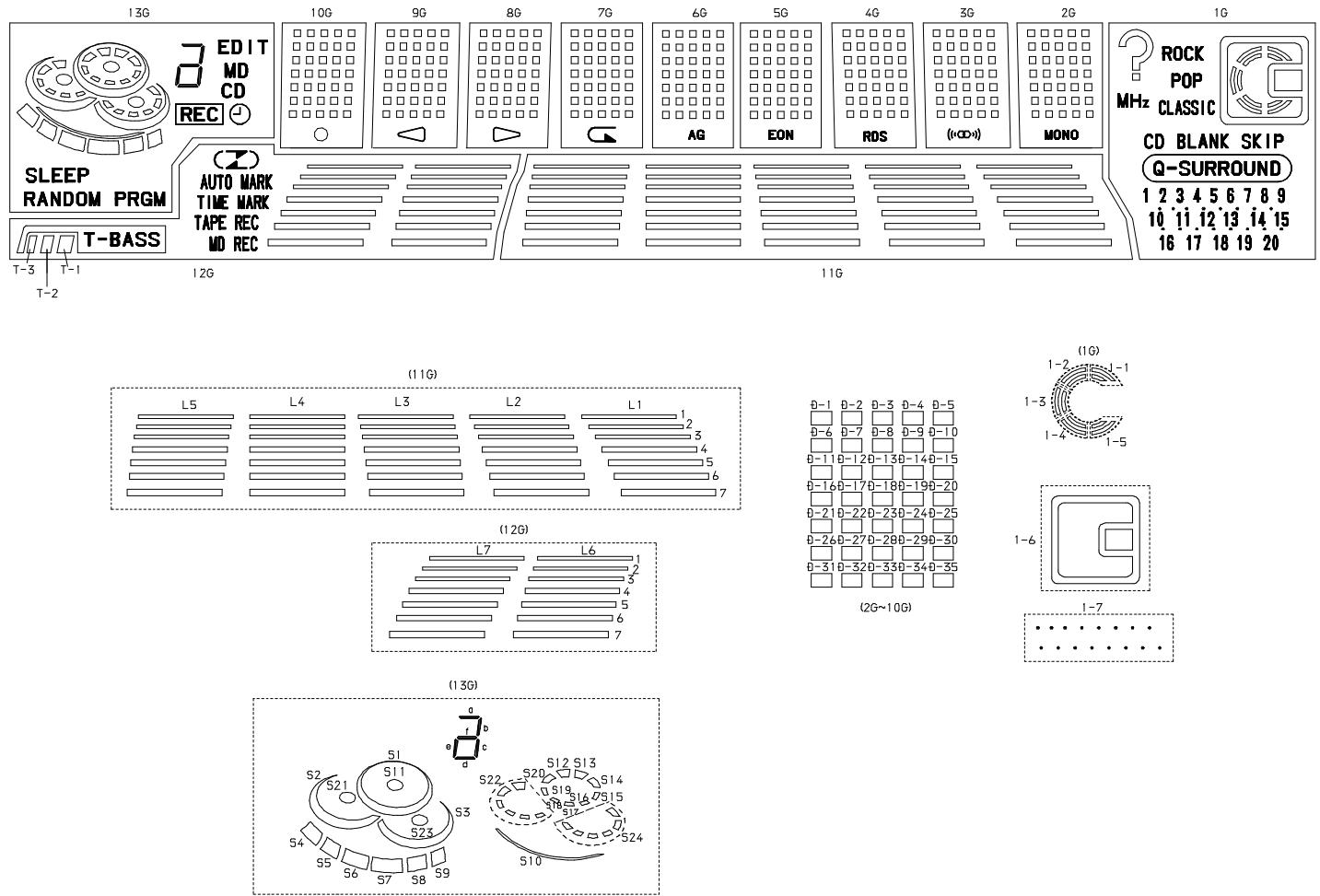
IC,BU2099FV





FL (HNA-13MM14T) GRID ASSIGNMENT & ANODE CONNECTION

GRID ASSIGNMENT

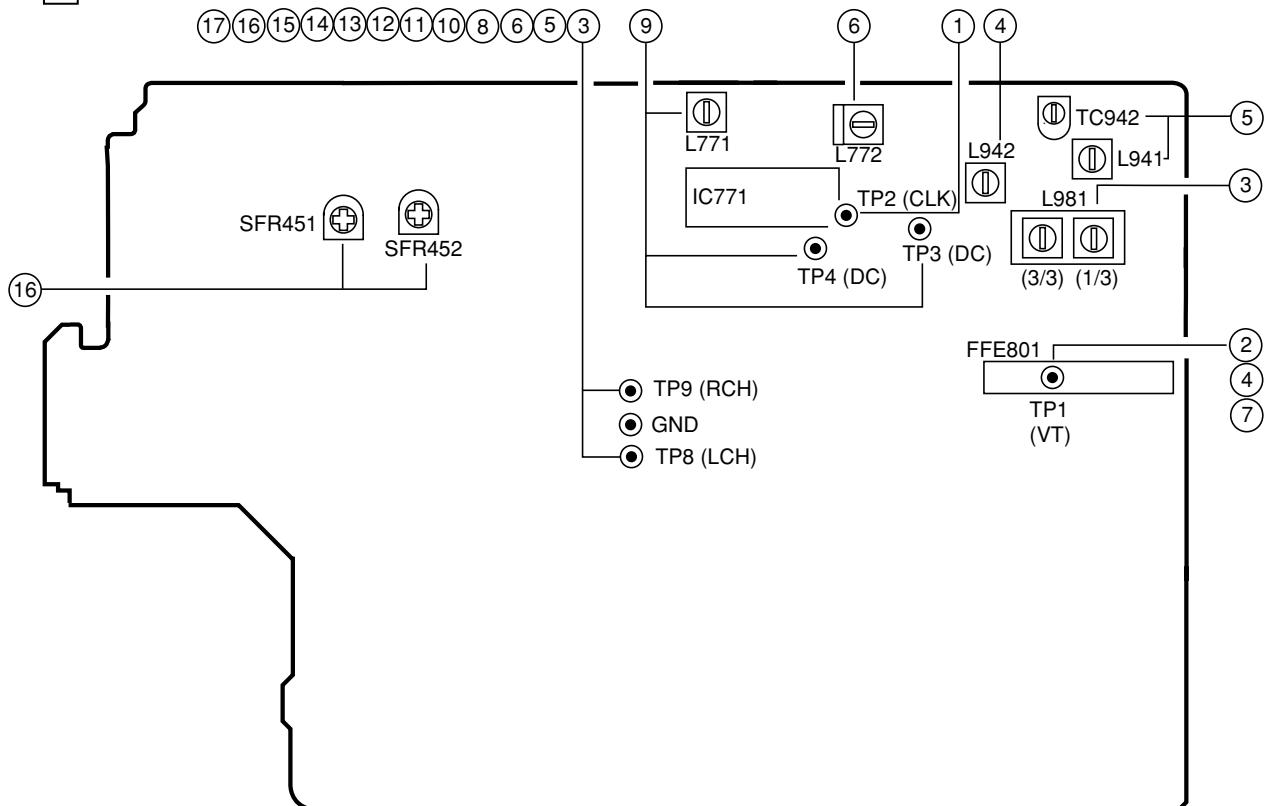


ANODE CONNECTION

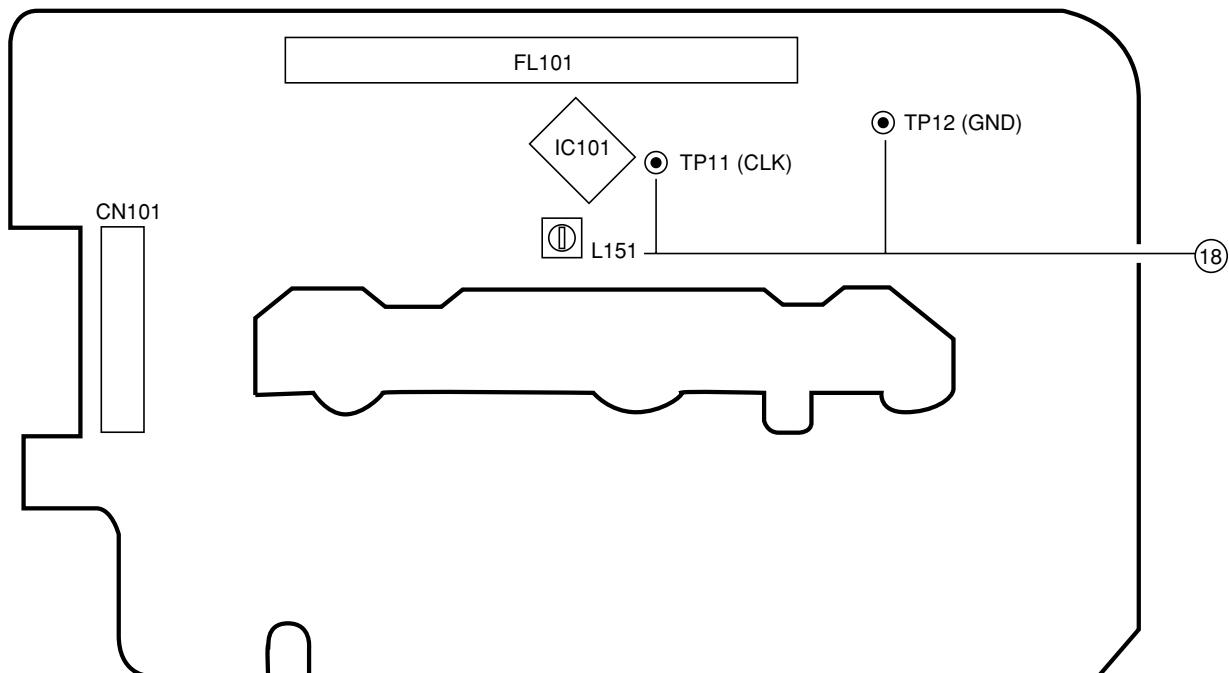
	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G
P1	MHZ	Ø-1	Ø-1	Ø-1	Ø-1	Ø-1	Ø-1	Ø-1	Ø-1	Ø-1	L1-1	L6-1	EDIT
P2	?	Ø-2	Ø-2	Ø-2	Ø-2	Ø-2	Ø-2	Ø-2	Ø-2	Ø-2	L1-2	L6-2	MD
P3	ROCK	Ø-3	Ø-3	Ø-3	Ø-3	Ø-3	Ø-3	Ø-3	Ø-3	Ø-3	L1-3	L6-3	CD
P4	POP	Ø-4	Ø-4	Ø-4	Ø-4	Ø-4	Ø-4	Ø-4	Ø-4	Ø-4	L1-4	L6-4	REC
P5	CLASSIC	Ø-5	Ø-5	Ø-5	Ø-5	Ø-5	Ø-5	Ø-5	Ø-5	Ø-5	L1-5	L6-5	
P6	1-6	Ø-6	Ø-6	Ø-6	Ø-6	Ø-6	Ø-6	Ø-6	Ø-6	Ø-6	L1-6	L6-6	a, f, d
P7	1-1	Ø-7	Ø-7	Ø-7	Ø-7	Ø-7	Ø-7	Ø-7	Ø-7	Ø-7	L1-7	L6-7	b
P8	1-2	Ø-8	Ø-8	Ø-8	Ø-8	Ø-8	Ø-8	Ø-8	Ø-8	Ø-8	L2-1	L7-1	c
P9	1-3	Ø-9	Ø-9	Ø-9	Ø-9	Ø-9	Ø-9	Ø-9	Ø-9	Ø-9	L2-2	L7-2	e
P10	1-4	Ø-10	Ø-10	Ø-10	Ø-10	Ø-10	Ø-10	Ø-10	Ø-10	Ø-10	L2-3	L7-3	S1
P11	1-5	Ø-11	Ø-11	Ø-11	Ø-11	Ø-11	Ø-11	Ø-11	Ø-11	Ø-11	L2-4	L7-4	S12
P12	CD BLANK SKIP	Ø-12	Ø-12	Ø-12	Ø-12	Ø-12	Ø-12	Ø-12	Ø-12	Ø-12	L2-5	L7-5	S13
P13	D-SURROUND	Ø-13	Ø-13	Ø-13	Ø-13	Ø-13	Ø-13	Ø-13	Ø-13	Ø-13	L2-6	L7-6	S20
P14	1-7	Ø-14	Ø-14	Ø-14	Ø-14	Ø-14	Ø-14	Ø-14	Ø-14	Ø-14	L2-7	L7-7	S14
P15	1	Ø-15	Ø-15	Ø-15	Ø-15	Ø-15	Ø-15	Ø-15	Ø-15	Ø-15	L3-1		S11
P16	2	Ø-16	Ø-16	Ø-16	Ø-16	Ø-16	Ø-16	Ø-16	Ø-16	Ø-16	L3-2		S19
P17	3	Ø-17	Ø-17	Ø-17	Ø-17	Ø-17	Ø-17	Ø-17	Ø-17	Ø-17	L3-3		S15
P18	4	Ø-18	Ø-18	Ø-18	Ø-18	Ø-18	Ø-18	Ø-18	Ø-18	Ø-18	L3-4	AUTO MARK	S18
P19	5	Ø-19	Ø-19	Ø-19	Ø-19	Ø-19	Ø-19	Ø-19	Ø-19	Ø-19	L3-5	TAPE MARK	S16
P20	6	Ø-20	Ø-20	Ø-20	Ø-20	Ø-20	Ø-20	Ø-20	Ø-20	Ø-20	L3-6	TAPE REC	S17
P21	7	Ø-21	Ø-21	Ø-21	Ø-21	Ø-21	Ø-21	Ø-21	Ø-21	Ø-21	L3-7	MD REC	S3
P22	8	Ø-22	Ø-22	Ø-22	Ø-22	Ø-22	Ø-22	Ø-22	Ø-22	Ø-22	L4-1		S24
P23	9	Ø-23	Ø-23	Ø-23	Ø-23	Ø-23	Ø-23	Ø-23	Ø-23	Ø-23	L4-2	T-1	S23
P24	10	Ø-24	Ø-24	Ø-24	Ø-24	Ø-24	Ø-24	Ø-24	Ø-24	Ø-24	L4-3	T-2	S9
P25	11	Ø-25	Ø-25	Ø-25	Ø-25	Ø-25	Ø-25	Ø-25	Ø-25	Ø-25	L4-4	T-3	S8
P26	12	Ø-26	Ø-26	Ø-26	Ø-26	Ø-26	Ø-26	Ø-26	Ø-26	Ø-26	L4-5		S7
P27	13	Ø-27	Ø-27	Ø-27	Ø-27	Ø-27	Ø-27	Ø-27	Ø-27	Ø-27	L4-6		S6
P28	14	Ø-28	Ø-28	Ø-28	Ø-28	Ø-28	Ø-28	Ø-28	Ø-28	Ø-28	L4-7		S5
P29	15	Ø-29	Ø-29	Ø-29	Ø-29	Ø-29	Ø-29	Ø-29	Ø-29	Ø-29	L5-1		S4
P30	16	Ø-30	Ø-30	Ø-30	Ø-30	Ø-30	Ø-30	Ø-30	Ø-30	Ø-30	L5-2		S2
P31	17	Ø-31	Ø-31	Ø-31	Ø-31	Ø-31	Ø-31	Ø-31	Ø-31	Ø-31	L5-3		S22
P32	18	Ø-32	Ø-32	Ø-32	Ø-32	Ø-32	Ø-32	Ø-32	Ø-32	Ø-32	L5-4		S21
P33	19	Ø-33	Ø-33	Ø-33	Ø-33	Ø-33	Ø-33	Ø-33	Ø-33	Ø-33	L5-5		S10
P34	20	Ø-34	Ø-34	Ø-34	Ø-34	Ø-34	Ø-34	Ø-34	Ø-34	Ø-34	L5-6		SLEEP
P35		Ø-35	Ø-35	Ø-35	Ø-35	Ø-35	Ø-35	Ø-35	Ø-35	Ø-35	L5-7		RANDOM
P36		MONO	((∞))	RDS	EON	AG							PRGM

ADJUSTMENT < TUNER / DECK / FRONT >

A MAIN C.B

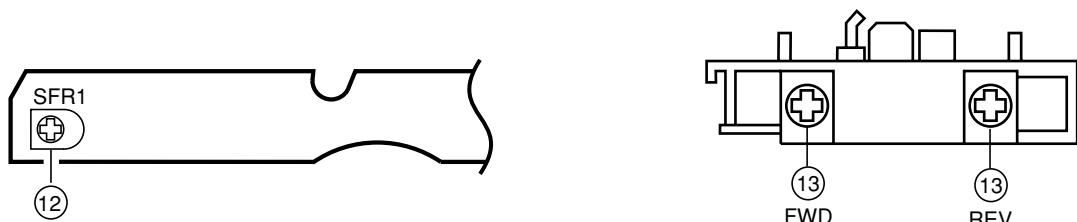


B FRONT C.B



D DECK C.B

DECK-1 P HEAD,
DECK-2 R/P/E HEAD



< TUNER SECTION >

1. Clock Frequency Check

Settings : • Test point : TP2 (CLK)

Method : Set to MW 1602kHz and check that the test point is $2052\text{kHz} \pm 45\text{Hz}$.

2. MW VT Check

Settings : • Test point : TP1 (VT)

Method : Set to MW 1602kHz and check that the test point is less than 8.0V. Then set to MW 531kHz and check that the test point is more than 0.6V.

3. MW Tracking Adjustment

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

• Adjustment location : L981 (1/3)

Method : Set to MW 999kHz and adjust L981 (1/3) so that the test point becomes maximum.

4. LW VT Adjustment

Settings : • Test point : TP1 (VT)

• Adjustment location : L942

Method : Set to LW 144kHz and adjust L942 so that the test point becomes $1.3\text{V} \pm 0.05\text{V}$.

Then set to LW 290kHz and check that the test point is less than 8.0V.

5. LW Tracking Adjustment

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

• Adjustment location :

L941 144kHz

TC942 290kHz

Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC942.

6. AM IF Adjustment

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

• Adjustment location :

L772 450kHz

7. FM VT Check

Settings : • Test point : TP1 (VT)

Method : Set to FM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5MHz and check that the test point is more than 0.5V.

8. FM Tracking Check

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

Method : Set to FM 98.0MHz and check that the test point is less than 13dB μ V.

9. DC Balance / Mono Distortion Adjustment

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

• Adjustment location : L771

• Input level : 60dB μ V

Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 is $0\text{V} \pm 0.04\text{V}$. Then check the distortion is less than 1.3%.

10. Output Level Check

<MW>

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

• Input level : 74dB μ V

Method : Set to MW 999kHz and check that the test point is $50\text{mV} \pm 3\text{dB}$.

<FM>

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

• Input level : 60dB μ V

Method : Set to FM 98.0MHz and check that the test point is $220\text{mV} \pm 3\text{dB}$.

11. FM Separation Check

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

• Input level : 60dB μ V

Method : Set to FM 98.0MHz and check that the test point is more than 12dB.

< DECK SECTION >

12. Tape Speed Adjustment (DECK 2)

Settings : • Test tape : TTA-100

- Test point : TP8(Lch), TP9(Rch)
- Adjustment location : SFR1

Method : Play back the test tape and adjust SFR1 so that the frequency counter reads $3000\text{Hz} \pm 5\text{Hz}$ and $\pm 45\text{Hz}$ (REV) with respect to forward speed.

13. Head Azimuth Adjustment (DECK 1, DECK 2)

Settings : • Test tape : TTA-330

- Test point : TP8(Lch), TP9(Rch)
- Adjustment location : Head azimuth
adjustment screw

Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on REV PLAY mode.

14. PB Frequency Response Check (DECK 1, DECK 2)

Settings : • Test tape : TTA-330

- Test point : TP8(Lch), TP9(Rch)

Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

15. PB Sensitivity Check (DECK 1, DECK 2)

Settings : • Test tape : TTA-200

- Test point : TP8(Lch), TP9(Rch)

Method : Play back the test tape and check that the output level of the test point is $100\text{mV} \pm 3\text{dB}$.

16. REC/PB Frequency Response Adjustment (DECK 2)

Settings : • Test tape : TTA-602

- Test point : TP8(Lch), TP9(Rch)
- Input signal : 1kHz / 8kHz (LINE IN)
- Adjustment location : SFR451 (Lch)
SFR452 (Rch)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes -20VU. Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes $0\text{dB} \pm 0.5\text{dB}$ with respect to that of the 1kHz signal.

17. REC/PB Sensitivity Check (DECK 2)

Settings : • Test tape : TTA-602

- Test point : TP8(Lch), TP9(Rch)
- Input signal : 1kHz (LINE IN)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU. Record and play back the 1kHz signals and check that the output is $0\text{dB} \pm 3.0\text{dB}$.

< FRONT SECTION >

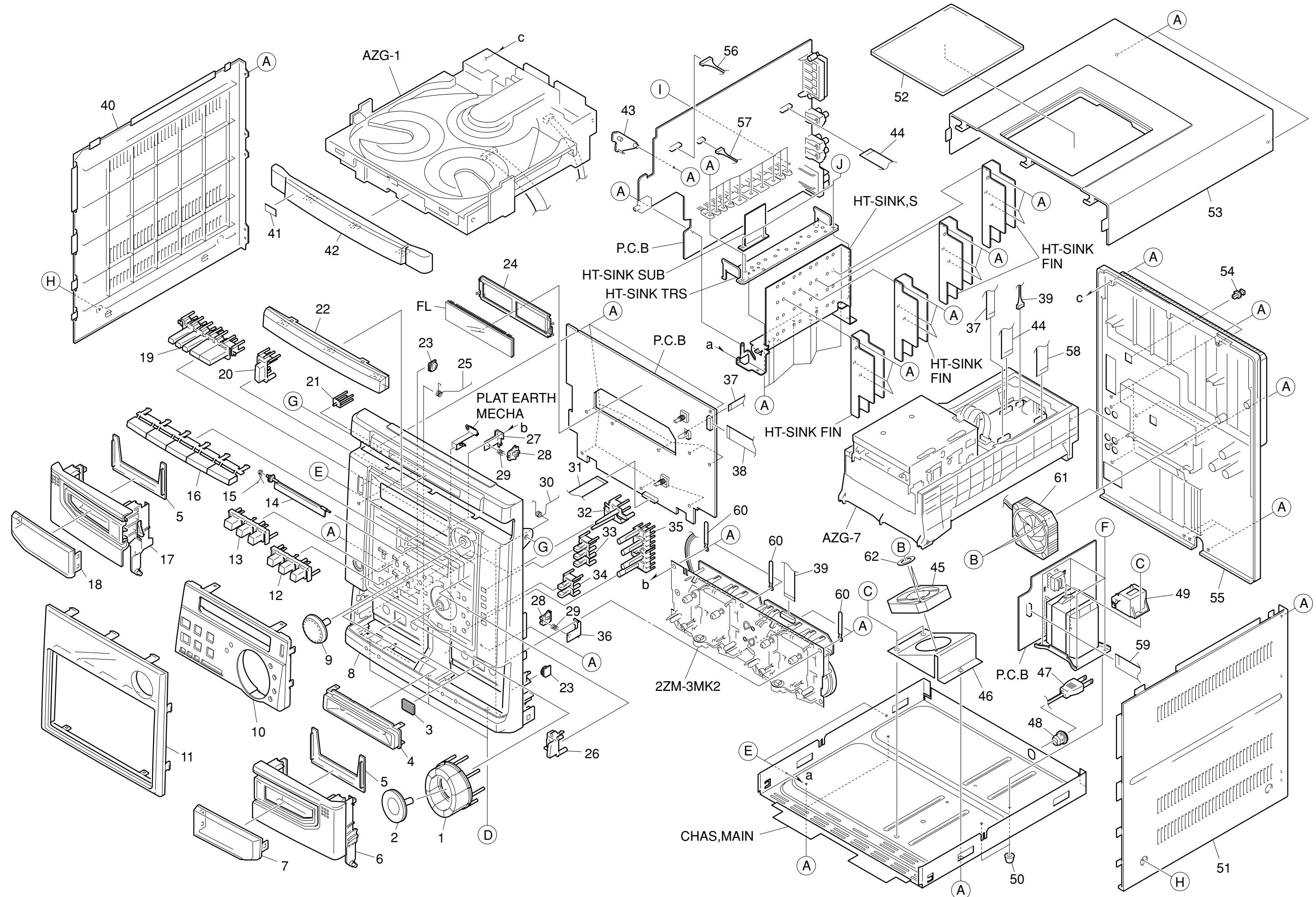
18. μ -CON OSC Adjustment

Settings : • Test point : TP11 (CLK)

- Adjustment location : L151

Method : Insert AC plug while pressing TUNER function key. Adjust L151 so that the frequency at the test point is $209.55\text{Hz} \pm 0.05\text{Hz}$.

MECHANICAL EXPLODED VIEW 1 / 1



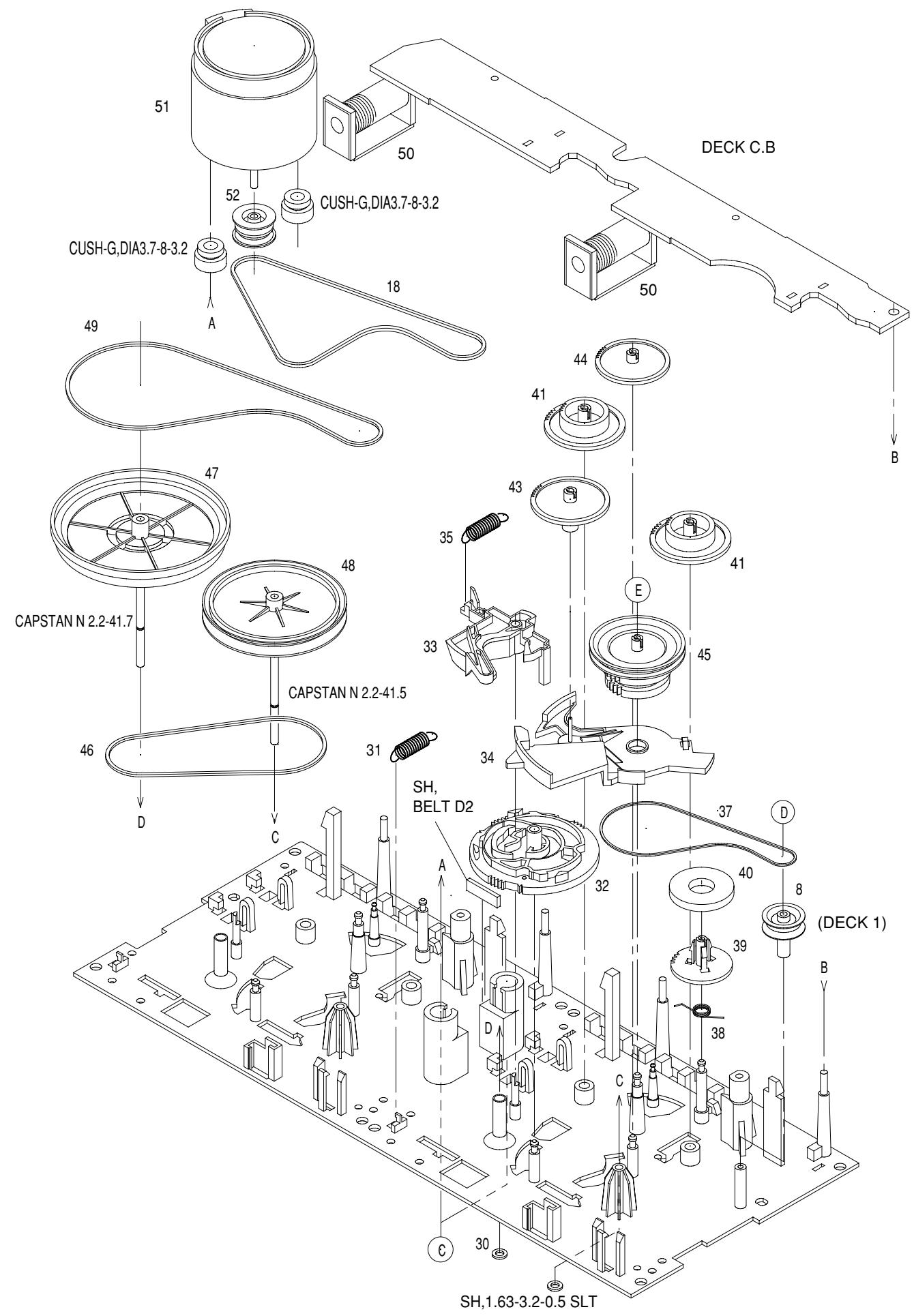
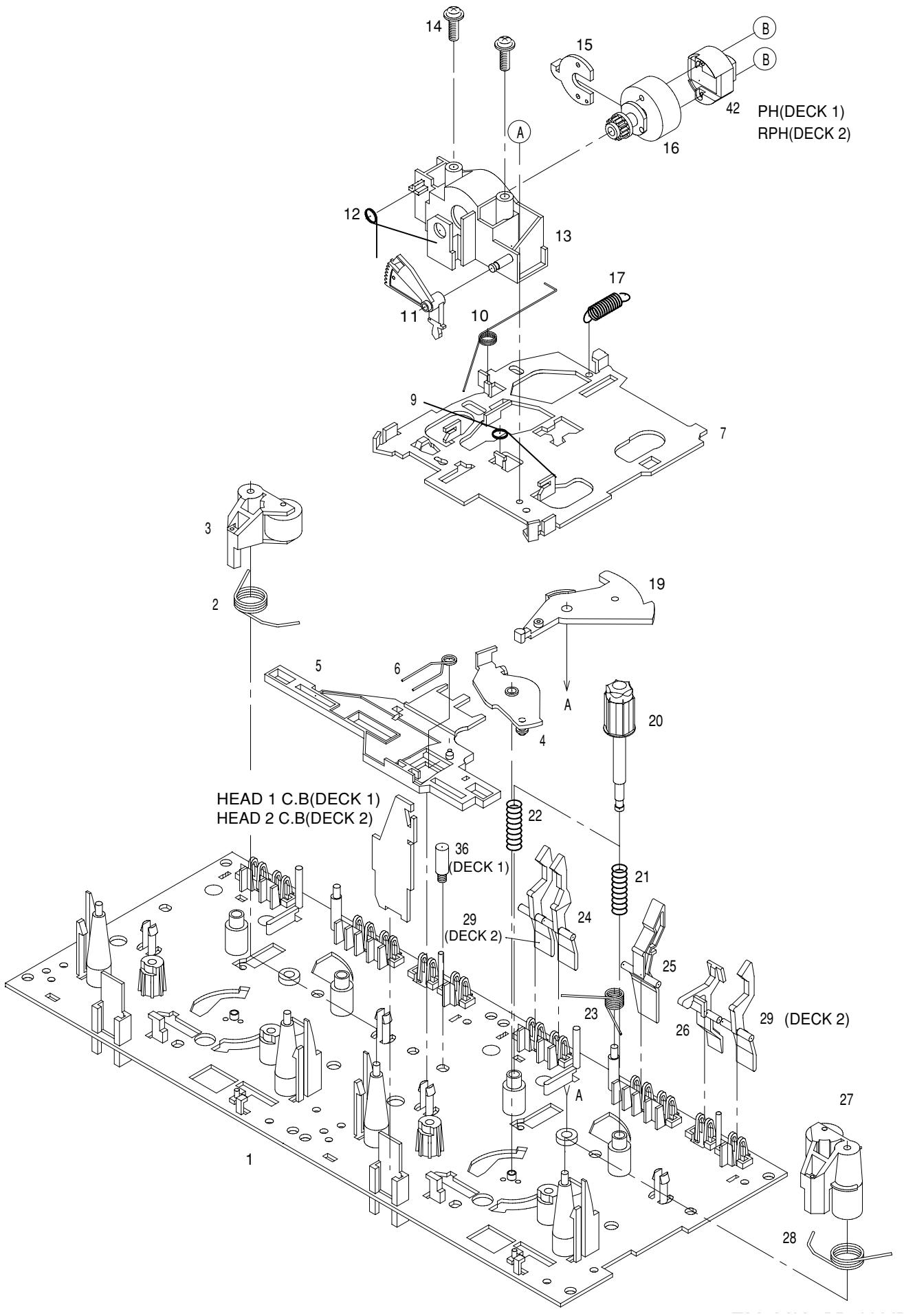
MECHANICAL PART LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-DB8-031-110		KEY,ASSY JOG	41	87-CE3-023-010		BADGE,AIWA 3ON SILV
2	8A-DB8-028-010		KNOB,RTRY ASSY JOG	42	8A-DB8-005-010		PANEL,TRAY
3	81-532-080-010		LABEL, CASS. COMPT	43	88-NF5-208-010		HLDL,PWB-M N
4	8A-DB8-050-110		PANEL,ASSY MD	44	88-912-151-110		FF-CABLE, 12P 1.25
5	86-NF6-061-010		REFLECTOR,CASS	45	87-A91-232-010		FAN,F614R-12MC-22-350MM
6	8A-DB8-004-010		BOX,CASS 2	46	8A-DB8-210-010		HLDL,FAN
7	8A-DB8-012-010		WINDOW,CASS 2	47	87-A80-143-010		AC CORD ASSY,E BLK<KSM>
8	8A-DB8-051-110		CABI,FR E	47	87-A80-092-010		AC CORD ASSY,E BLK SUN FAI<EZSM>
9	8A-DB8-027-010		KNOB,RTRY VOL	48	87-085-185-010		BUSHING, AC CORD (E)
10	8A-DB8-057-010		PANEL,AMP E	49	8A-DB8-209-010		HLDL,PWB PT
11	8A-DB8-054-010		WINDOW,DISPLAY E	50	8Z-NB8-240-010		COVER, PL
12	8A-DB8-039-010		KEY,ASSY OPE 2	51	8A-NF8-008-010		PANEL,RIGHT V-2
13	8A-DB8-017-010		KEY,ASSY OPE	52	8A-NF8-006-010		WINDOW, TOP
14	8Z-NB9-010-010		PLATE,FRAP	53	8A-NF8-005-010		PANEL, TOP
15	87-NB8-210-010		SPR-T,FLAP	54	84-ZG1-245-210		CAP,OPTICAL
16	8A-DB8-014-010		KEY,ASSY FUN	55	8A-DB8-062-010		CABI,REAR EZSM<EZSM>
17	8A-DB8-003-010		BOX,CASS 1	55	8A-DB8-063-010		CABI,REAR KSM<KSM>
18	8A-DB8-011-010		WINDOW,CASS 1	56	87-NF6-616-010		CONN ASSY,8P RPB
19	8A-DB8-022-110		KEY,CD	57	87-NF6-615-010		CONN ASSY,3P PB
20	8A-DB8-013-010		KEY,POWER	58	88-906-171-110		FF-CABLE,6P 1.25
21	8A-DB8-036-010		REFLECTOR,ECO	59	8Z-NF8-669-110		CONN ASSY,9P VH
22	8A-DB8-008-010		WINDOW,CD	60	87-064-185-010		HLDL, WIRE
23	8Z-NF6-210-010		DMPR,150 N	61	8A-DB8-631-010		FAN,F614R-12MC-26
24	8A-DB8-204-010		GUIDE,FL	62	85-NF7-599-010		PV CW3.2-8-0.3
25	82-NF5-218-010		SPR-T,EJECT 1 (SIN)	A	87-067-703-010		TAPPING SCREW, BVT2+3-10
26	8A-DB8-021-010		KEY,MD EJECT	B	87-067-873-010		BVT2+3-25 W/O SLOT
27	87-NF4-216-010		HLDL,LOCK 1	C	87-067-579-010		TAPPING SCREW, BVT2+3-8
28	82-NF5-229-010		PLATE,LOCK	D	87-067-688-010		BVT2+3-6
29	86-NF9-224-010		SPR-C,LOCK	E	87-723-096-410		QT2+3-10W/O SLOT BL
30	82-NF5-219-010		SPR-T,EJECT 2 (SIN)	F	87-078-191-010		S-SCREW, IT4-10
31	88-915-121-110		FF-CABLE, 15P 1.25	G	87-721-097-410		QT2+3-12 GLD
32	8A-DB8-023-010		KEY,T-BASS	H	87-067-641-010		UTT2+3-8 (W/O SLOT) BL
33	8A-DB8-025-010		KEY,RDS	I	87-NF4-224-010		S-SCREW, IT3B+3-8 CU
34	8A-DB8-020-010		KEY,ECO	J	87-067-758-010		BVT2+3-12 W/O SLOT
35	8A-DB8-024-010		KEY,REC				
36	87-NF4-217-110		HLDL,LOCK 2				
37	88-907-301-110		FF-CABLE, 7P 1.25				
38	88-913-271-110		FF-CABLE, 13P 1.25				
39	87-NB7-615-010		CONN ASSY,2P SHIELDPH/PH				
40	8A-NF8-007-010		PANEL,LEFT V-2				

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		

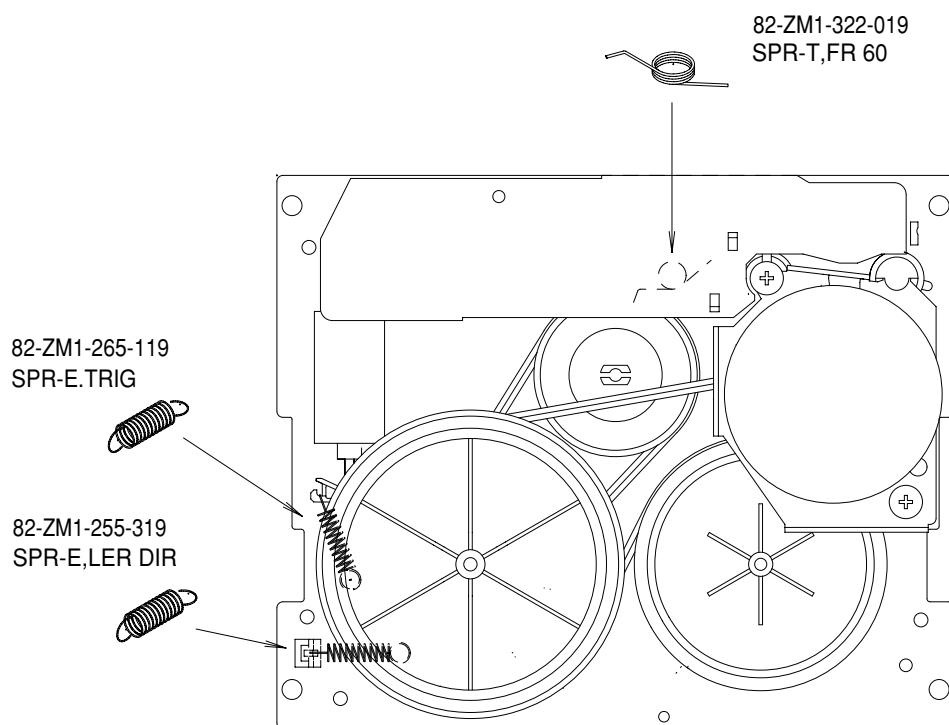
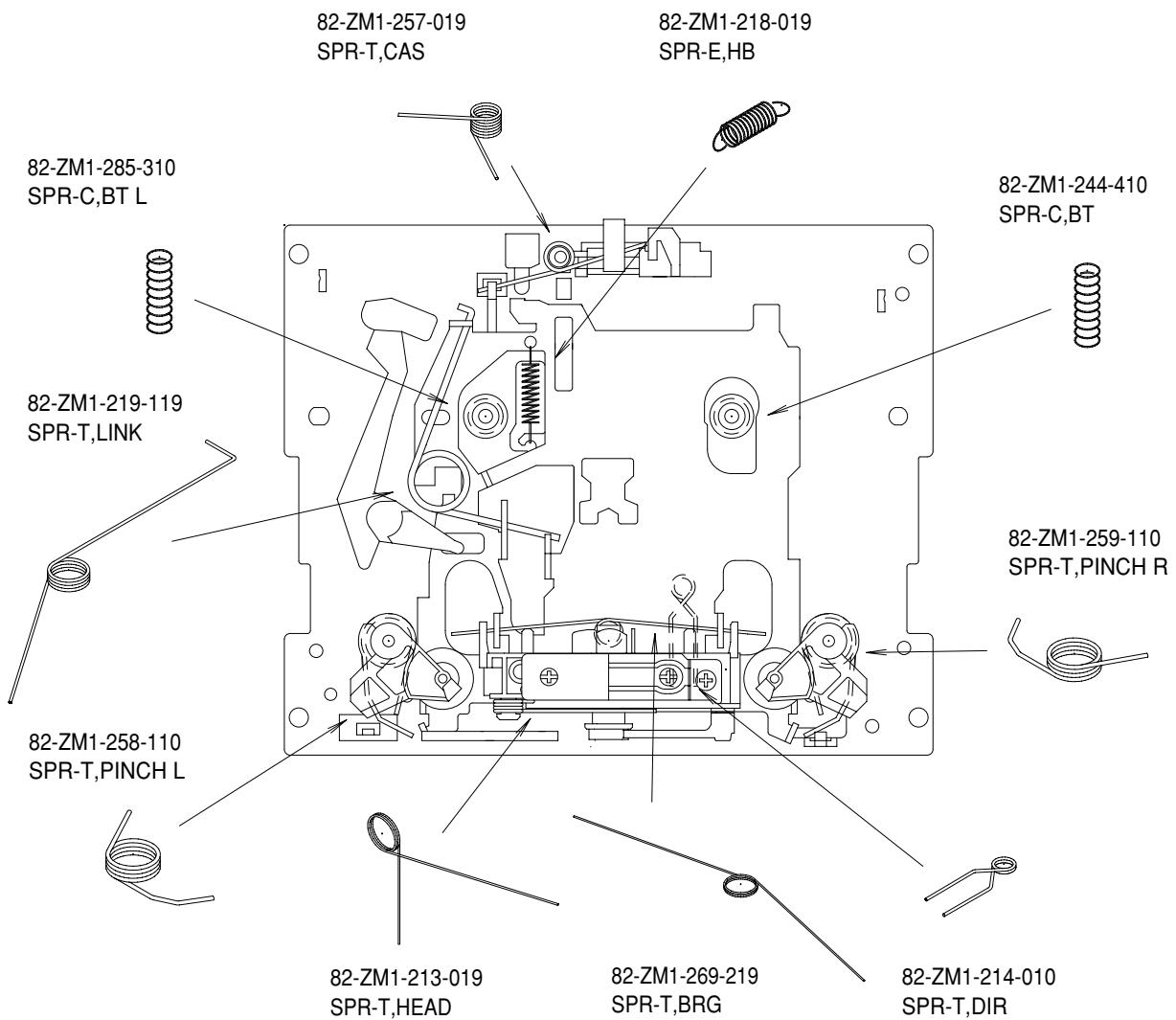
TAPE MECHANISM EXPLODED VIEW 1 / 1



TAPE MECHANISM PART LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-610		CHAS ASSY,M2	32	82-ZM3-305-210		GEAR,CAM M2
2	82-ZM1-258-210		SPR-T,PINCH L	33	82-ZM1-227-310		LVR,TRIG
3	82-ZM1-341-210		LVR ASSY,PINCH L2	34	82-ZM3-306-110		LVR,FR M2
4	82-ZM1-333-210		PLATE,LINK2	35	82-ZM1-265-310		SPR-E,TRIG
5	82-ZM1-266-310		LVR,DIR	36	82-ZM3-339-110		SHAFT,COUPLER N3
6	82-ZM1-214-010		SPR-T,DIR	37	86-ZM1-206-010		BELT,MAIN L
7	82-ZM1-206-910		CHAS,HEAD	38	82-ZM1-322-010		SPR-T,FR 60
8	82-ZM3-335-310		PULLEY,COUPLER M3	39	82-ZM1-220-210		GEAR, IDLER
9	82-ZM1-269-210		SPR-T,BRG	40	82-ZM3-616-010		RING MAGNET 4
10	82-ZM1-219-110		SPR-T,LINK	41	82-ZM1-216-410		GEAR,REEL
11	82-ZM1-210-110		GEAR,H T	42	87-A90-820-010		HEAD,PH HADKH25 FPC
12	82-ZM1-213-010		SPR-T,HEAD	42	87-A90-821-010		HEAD,RPH HADKH56 FPC
13	82-ZM1-207-910		GUIDE,TAPE	43	82-ZM1-225-210		GEAR,FR
14	86-ZM4-206-010		S-SCREW,AZIMUTH L	44	82-ZM1-226-010		GEAR,REW
15	82-ZM1-314-110		PLATE,HEAD	45	82-ZM3-333-310		SLIP DISK ASSY 2
16	82-ZM1-208-310		HLDR,HEAD	46	82-ZM1-338-110		BELT,FR 4
17	82-ZM1-218-010		SPR-E,HB	47	82-ZM1-349-110		FLY-WHL,R W
18	82-ZM3-342-010		BELT,SBU MOT 3	47	82-ZM1-348-110		FLY-WHL,L W
19	82-ZM1-222-210		LVR,PLAY	47	82-ZM3-338-310		FLY-WHL,R3W
20	82-ZM1-217-410		REEL TABLE	48	82-ZM1-344-210		LVR ASSY,PINCH R2
21	82-ZM1-244-510		SPR-C,BT	49	82-ZM3-329-410		BELT,SBU R2
22	82-ZM1-285-410		SPR-C,BT L	50	82-ZM1-618-410		SOL ASSY,27
23	82-ZM1-257-010		SPR-T,CAS	51	87-045-347-010		MOT,SHU2L 70
24	82-ZM1-241-310		LVR,MC	52	82-ZM3-221-210		PULLEY,MOT 2M
25	82-ZM1-242-010		LVR,CAS	A	85-ZM3-202-010		S-SCREW,TG
26	82-ZM1-243-010		LVR,STOP	B	80-ZM6-207-010		V+1.6-7
28	82-ZM1-259-210		SPR-T,PINCH R	C	82-ZM3-318-110		S-SCREW W,MOTOR M2
29	82-ZM1-240-110		LVR,REC(*)	D	87-B10-043-010		W-P,0.99-4-0.25 SLT
30	80-ZM6-243-010		SH 1.75-3.6-0.5 SLT	E	82-ZM3-334-010		PW 2.16-6-0.4
31	82-ZM1-255-310		SPR-E,LVR DIR				

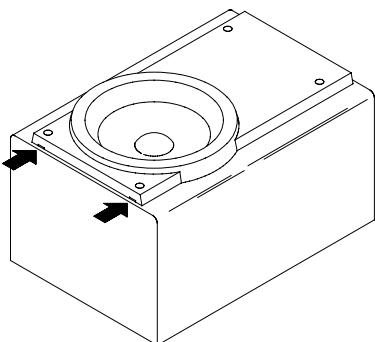
SPRING APPLICATION POSITION



SPEAKER DISASSEMBLY INSTRUCTIONS

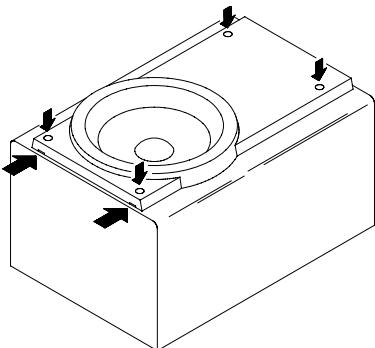
Type.1

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.



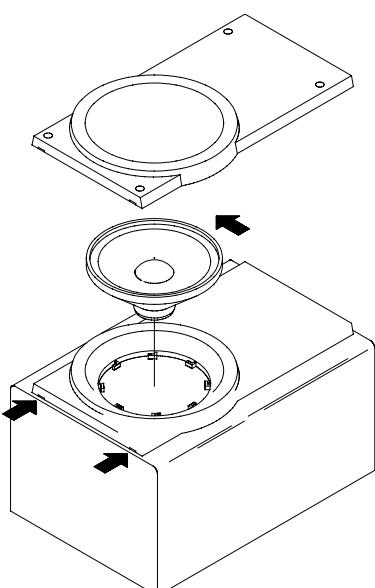
Type.2

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.

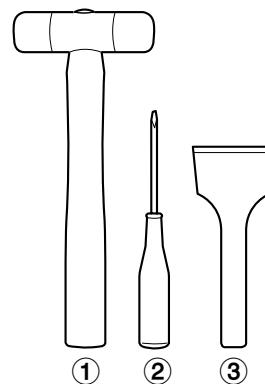


Type.3

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 (θ) flat head screwdriver
- ③ Cut chisel

How to Remove the PANEL, FR

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

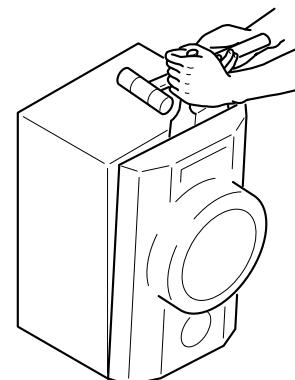
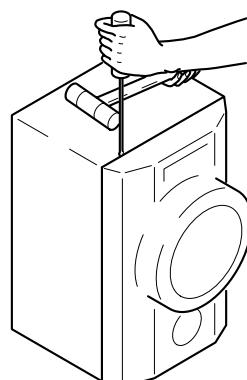


Fig-1

Fig-2

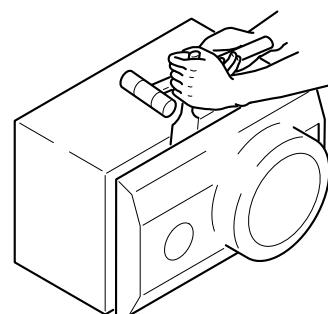


Fig-3

How to Attach the PANEL, FR

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

SPEAKER PARTS LIST SX-WNHG5 (YSL)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-DS8-001-010		PANEL, FR
2	8A-DS8-004-010		PANEL, DUCT
3	8A-DS8-009-010		PROTECTOR
4	88-NS5-610-010		CORD, SPKR
5	88-NS5-611-010		CORD, SPKR B/L
6	8Z-NSY-003-010		CORD, BUSH
7	88-NS3-029-010		CORD, BUSH L
8	8Z-NS7-602-010		SPKR, W 160
9	8Z-NSY-604-010		SPKR, M 100
10	8Z-NSY-608-010		SPKR, CERAMIC ASSY
11	8A-DS8-005-010		GRILLE, FRAME ASSY

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-DB8-905-010		IB, K(E) M<K>
1	8A-DB8-906-010		IB, EZ(9L) M<EZ>
2	8Z-NB8-704-010		RC UNIT, RC-ZAS16
3	87-043-106-010		ANT, FM 1007ANG
4	87-006-225-010		ANT, LOOP ANT NC2



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