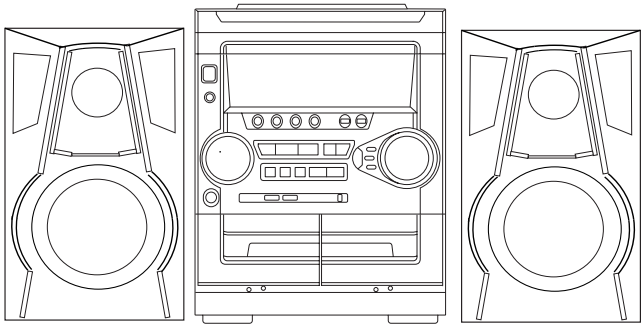
aiwa
SERVICE

NSX-SZ20 EZ, K
NSX-SZ22 EZ
NSX-SZ27 EZ



SERVICE MANUAL

COMPACT DISC STEREO SYSTEM

BASIC TAPE MECHANISM : ZZM-3 PR1NM / YPR1NF
BASIC CD MECHANISM : AZG-1 ZD8RDM / YZD8RDM

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-SZ20	CX-NSZ20	SX-NSZ20	RC-ZAS02
NSX-SZ22	CX-NSZ22	SX-NSZ22	
NSX-SZ27	CX-NSZ27	SX-NSZ20	RC-ZAS17

SYSTEM	TAPE MECHANISM	CD MECHANISM
NSX-SZ20<EZ> NSX-SZ22<EZ> NSX-SZ27<EZ>	ZZM-3 PR1NM	AZG-1 ZD8RDM
NSX-SZ20<K>	ZZM-3 YPR1NF	AZG-1 YZD8RDM

- This Service Manual is the “Revision Publishing” and replaces “Simple Manual” NSX-SZ20/22 (EZ), (S/M Code No. 09-99C-423-4T2) and NSX-SZ27 (EZ), (S/M Code No. 09-001-423-4T3).
- If requiring information about the CD mechanism, see Service Manual of AZG-1, (S/M Code No. 09-001-335-3N6).

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S/M Code No. 09-003-423-4R2

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	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 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>

Power output	Rated : 30 W + 30 W (6 ohms, THD 1%, 1 kHz/DIN 45500) Reference : 35 W + 35 W (6 ohms, THD 10%,1 kHz/DIN 45324) DIN MUSIC POWER : 67 W + 67 W
Total harmonic distortion	0.08% (15 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 500 mV
Outputs	SPEAKERS: accept speakers of 6 ohms or more PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	50 Hz – 15 kHz
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)

<Speaker system>
<(20EZ, 20K, 27EZ) : SX–NSZ20, (22EZ) : SX–NSZ22>

Speaker System	3 way, bass reflex (magnetic shielded type)
Speaker units	Woofer : 140 mm cone type Tweeter : 60mm cone type Super tweeter : 20 mm ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	230 x 324x 256 mm
Weight	3.8 kg

<General>

Power requirements	230 V AC, 50 Hz
Power consumption	80 W
Power consumption in standby mode	14 W With power-economizing mode off 0.9 W With power-economizing mode on
Dimensions of main unit (W x H x D)	260 x 328 x 335 mm
Weight of main unit	6.2 kg <EZ> 6.3 kg <K>

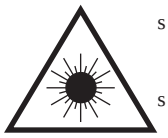
• Design and specifications are subject to change without notice.

• 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.



s Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
s 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.

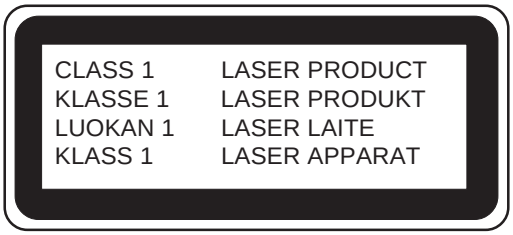
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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

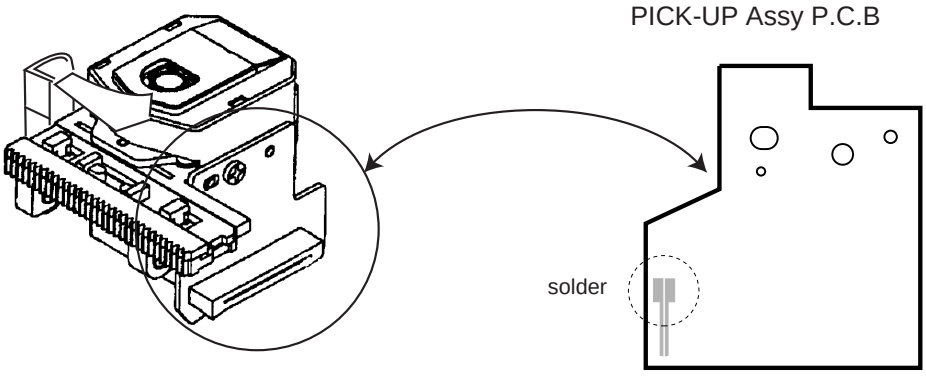
This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



Precaution to replace Optical block (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 the 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.

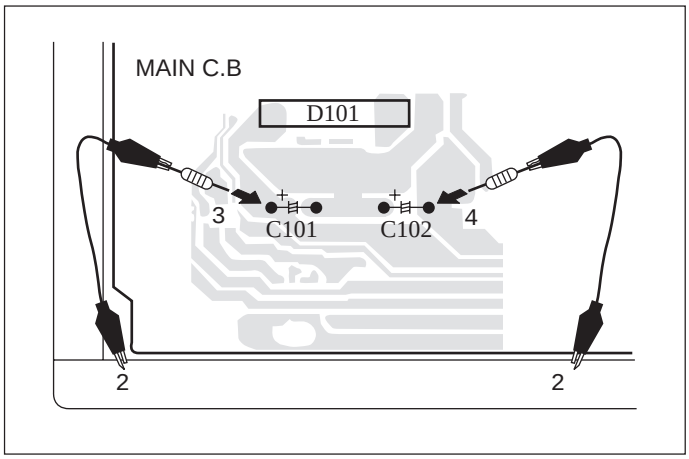


Fig-1

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.

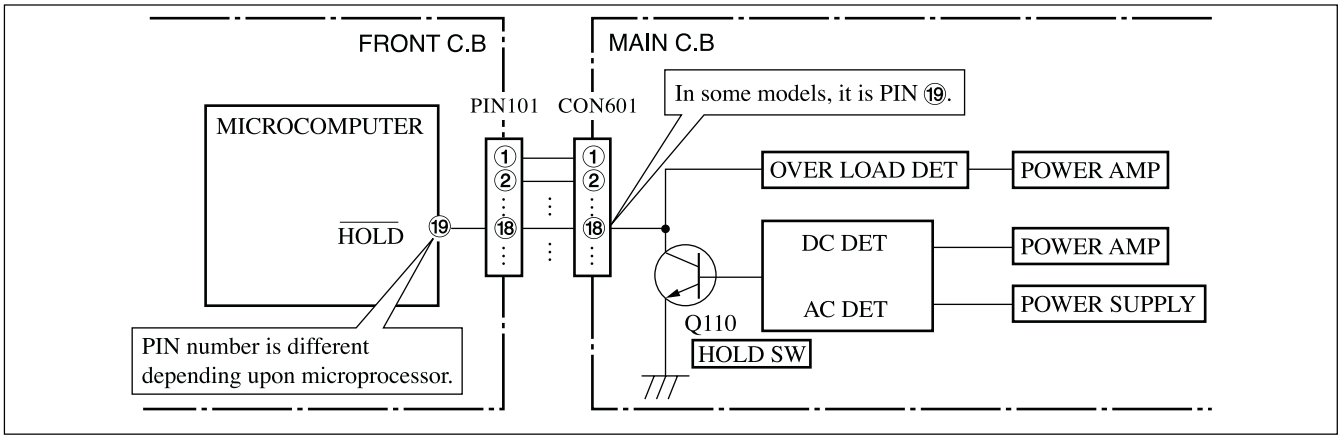


Fig-2-1

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.

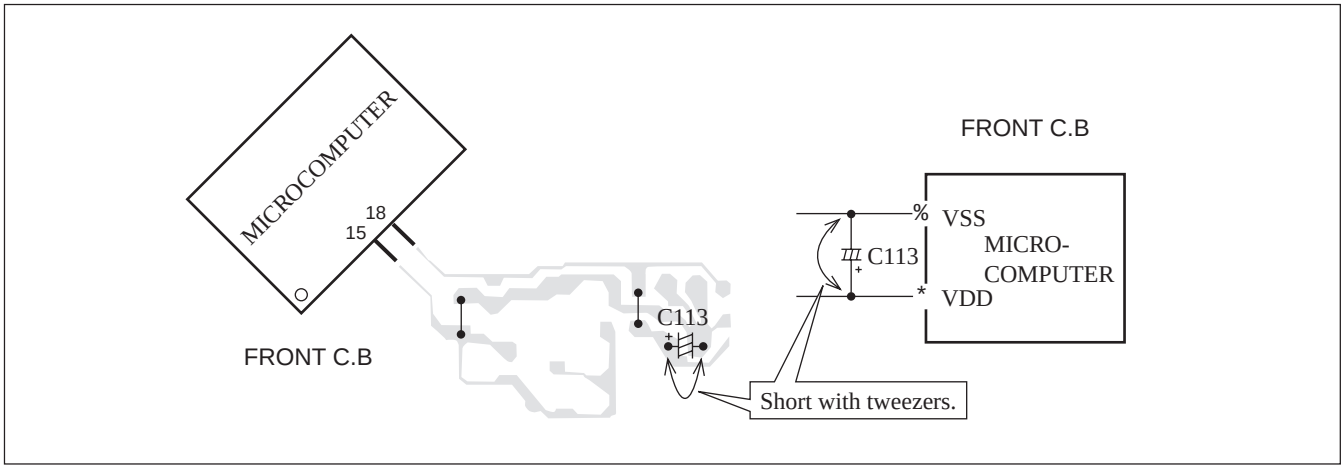


Fig-2-2

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			
	87-A21-397-010		IC,STK490-070
	87-A21-419-040		IC,NJM14558MD-TE2
	87-A21-401-040		C-IC,M61503FP
	87-A21-415-010		IC,LA1843
	87-A20-440-040		C-IC,BU1920FS<22EZ>
	8A-NF9-601-010		C-IC,UPD780226GF-012-3BA<20EZ>
	8A-NF9-602-010		C-IC,UPD780226GF-059-3BA<22EZ>
	8A-NF9-601-110		C-IC,UPD780226GF-014-3BA<20K,27EZ>
	87-A21-482-010		IC,RPM6938-H4
	87-070-127-110		IC,LC72131 D
	87-A21-269-010		IC,EW732
TRANSISTOR			
	87-026-609-080		TR,KTA1266GR
	89-213-702-010		TR,2SB1370 (1.8W)
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-075-080		C-TR,2SA1235F
	87-026-245-080		TR,DTC114ES
	87-A30-198-080		TR,KTC3199GR
	87-A30-074-080		C-TR,RT1P 141C
	87-A30-073-080		C-TR,RT1N 141C
	87-A30-107-070		C-TR,CMBT5401
	87-A30-106-040		C-TR,CMBT5551
	87-026-235-080		CHIP-TR,DTC114EK
	87-A30-087-080		C-FET,2SK2158
	87-A30-091-080		FET,2SJ460
	87-A30-090-080		FET,2SK2541
	87-A30-104-080		C-TR,RT1N 441C
	89-333-317-880		TR,2SC3331 (0.5W)
	87-A30-318-080		TR,CSA952K
	87-A30-329-080		TR,CD1585BC
	89-327-143-080		TR,2SC2714 (0.1W)
	87-A30-072-080		C-TR,RT1P 144C
	87-A30-234-080		TR,CSC4115BC
	87-A30-468-080		C-TR,KRC102S-RTK
	87-A30-086-040		C-TR,CSD1306E
	89-503-602-080		C-FET 2SK360E
	87-A30-062-080		C-TR,KRC104S
DIODE			
	87-A40-553-080		DIODE,1N4003 LES
	87-A40-776-080		ZENER,UZ27BSD
	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-A40-752-080		ZENER,UZ6.2BSC
	87-A40-739-080		ZENER,UZ2.7BSA
	87-017-149-080		ZENER,HZS6A2L
	87-020-465-080		DIODE,1SS133
	87-A40-854-080		ZENER,UZ15BSA
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
C5	87-012-368-080		C-CAP,S 0.1-50 F
C6	87-012-368-080		C-CAP,S 0.1-50 F
C9	87-012-368-080		C-CAP,S 0.1-50 F
C10	87-012-368-080		C-CAP,S 0.1-50 F
C11	87-012-368-080		C-CAP,S 0.1-50 F
C12	87-012-368-080		C-CAP,S 0.1-50 F
C19	87-A10-627-000		CAP,E 2200-50 SMG
C20	87-A10-627-000		CAP,E 2200-50 SMG
C21	87-A10-520-000		CAP,E 3300-35 M SMG
C22	87-A10-520-000		CAP,E 3300-35 M SMG
C25	87-010-385-080		CAP, ELECT 220-25V
C26	87-010-247-080		CAP, ELECT 100-50V
C30	87-010-430-080		CAP, ELECT 100-63
C31	87-010-263-080		CAP, ELECT 100-10V
C32	87-010-197-080		CAP, CHIP 0.01-25 K B
C34	87-010-247-080		CAP, ELECT 100-50V
C35	87-010-380-080		CAP, ELECT 47-16V M 11L
C36	87-010-381-080		CAP, ELECT 330-16V
C38	87-010-197-080		CAP, CHIP 0.01-25 K B
C60	87-010-403-080		CAP, ELECT 3.3-50V
C61	87-010-260-080		CAP, ELECT 47-25V
C97	87-010-196-080		CHIP CAPACITOR,0.1-25
C99	87-010-196-080		CHIP CAPACITOR,0.1-25
C101	87-010-185-080		C-CAP,S 3900P-50 B
C102	87-010-185-080		C-CAP,S 3900P-50 B
C103	87-010-545-080		CAP, ELECT 0.22-50V SME
C104	87-010-545-080		CAP, ELECT 0.22-50V SME
C105	87-010-187-080		CHIP CAP 5600P-50 K B
C106	87-010-187-080		CHIP CAP 5600P-50 K B
C107	87-010-404-080		CAP, ELECT 4.7-50V
C108	87-010-404-080		CAP, ELECT 4.7-50V
C109	87-010-322-080		C-CAP,S 100P-50 CH
C110	87-010-322-080		C-CAP,S 100P-50 CH
C111	87-010-391-080		CAP,E 10-35 SME
C112	87-010-391-080		CAP,E 10-35 SME
C113	87-010-405-080		CAP, ELECT 10-50V
C114	87-010-405-080		CAP, ELECT 10-50V
C119	87-010-197-080		C-CAP,S 0.01-25 K B
C120	87-010-197-080		C-CAP,S 0.01-25 K B
C123	87-010-176-080		C-CAP,S 680P-50 J SL
C124	87-010-176-080		C-CAP,S 680P-50 J SL
C125	87-012-368-080		C-CAP,S 0.1-50 F
C126	87-012-368-080		C-CAP,S 0.1-50 F
C127	87-012-368-080		C-CAP,S 0.1-50 F
C128	87-012-368-080		C-CAP,S 0.1-50 F
C129	87-010-191-080		C-CAP,S 0.015-50 F
C130	87-010-191-080		C-CAP,S 0.015-50 F
C131	87-010-197-080		CAP, CHIP 0.01-25 K B
C132	87-010-197-080		CAP, CHIP 0.01-25 K B
C133	87-010-186-080		CAP,CHIP 4700P-50 K
C140	87-010-182-080		C-CAP,S 2200P-50 B
C141	87-010-196-080		CHIP CAPACITOR,0.1-25
C239	87-010-196-080		CHIP CAPACITOR,0.1-25
C301	87-010-178-080		C-CAP,S 1000-50 K B
C302	87-010-178-080		C-CAP,S 1000-50 K B
C303	87-010-178-080		C-CAP,S 1000-50 K B
C304	87-010-178-080		C-CAP,S 1000-50 K B
C307	87-010-263-080		CAP, ELECT 100-10V
C308	87-010-263-080		CAP, ELECT 100-10V
C309	87-010-318-080		C-CAP,S 47P-50 CH
C310	87-010-318-080		C-CAP,S 47P-50 CH
C313	87-010-188-080		CAP,CHIP 6800P-50 K
C314	87-010-188-080		CAP,CHIP 6800P-50 K
C315	87-010-263-080		CAP, ELECT 100-10V
C317	87-010-546-080		CAP, ELECT 0.33-50V
C318	87-010-546-080		CAP, ELECT 0.33-50V
C326	87-010-198-080		CAP, CHIP 0.022-25 K
C327	87-012-368-080		C-CAP,S 0.1-50 F
C360	87-010-401-080		CAP, ELECT 1-50V
C399	87-012-140-080		C-CAP,S 470P-50 J
C401	87-010-544-080		CAP, ELECT 0.1-50V
C402	87-010-544-080		CAP, ELECT 0.1-50V
C403	87-010-321-080		CHIP CAPACITOR,82P(J)
C404	87-010-321-080		CHIP CAPACITOR,82P(J)
C405	87-010-197-080		CAP, CHIP 0.01-25 K B
C406	87-010-197-080		CAP, CHIP 0.01-25 K B
C407	87-010-197-080		CAP, CHIP 0.01-25 K B
C408	87-010-197-080		CAP, CHIP 0.01-25 K B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C409	87-010-182-080		C-CAP,S 2200P-50 B
C410	87-010-182-080		C-CAP,S 2200P-50 B
C411	87-010-405-080		CAP, ELECT 10-50V
C412	87-010-405-080		CAP, ELECT 10-50V
C452	87-010-382-080		CAP, ELECT 22-25V
C453	87-010-183-080		C-CAP,S 2700P-50 B
C454	87-010-183-080		C-CAP,S 2700P-50 B
C455	87-010-183-080		C-CAP,S 2700P-50 B
C456	87-010-197-080		CAP, CHIP 0.01-25 K B
C460	87-010-196-080		CHIP CAPACITOR,0.1-25
C461	87-012-158-080		C-CAP,S 390P-50 CH
C462	87-012-158-080		C-CAP,S 390P-50 CH
C458	87-010-178-080		C-CAP,S 1000-50 K B
C459	87-010-175-080		C-CAP,S 560P-50 J SL
C605	87-010-179-080		CAP,CHIP S 1200P-50 K
C606	87-010-179-080		CAP,CHIP S 1200P-50 K
C609	87-010-213-080		C-CAP,S 0.015-50 B
C610	87-010-213-080		C-CAP,S 0.015-50 B
C611	87-010-545-080		CAP, ELECT 0.22-50V
C612	87-010-545-080		CAP, ELECT 0.22-50V
C613	87-010-545-080		CAP, ELECT 0.22-50V
C614	87-010-545-080		CAP, ELECT 0.22-50V
C615	87-010-154-080		CAP CHIP 10P-50 CH
C616	87-010-221-080		CAP, ELECT 470-10V SME
C617	87-010-221-080		CAP, ELECT 470-10V SME
C618	87-010-405-080		CAP, ELECT 10-50V
C630	87-016-669-080		C-CAP,S 0.1-25 K B
C631	87-010-185-080		C-CAP,S 3900P-50 B
C632	87-010-185-080		C-CAP,S 3900P-50 B
C633	87-016-369-080		C-CAP,S 0.033-25 K B
C634	87-016-369-080		C-CAP,S 0.033-25 K B
C669	87-010-322-080		C-CAP,S 100P-50 CH
C670	87-010-322-080		C-CAP,S 100P-50 CH
C677	87-010-197-080		CAP, CHIP 0.01-25 K B
C779	87-010-971-080		C-CAP,S 4700P-50 J B
C780	87-010-971-080		C-CAP,S 4700P-50 J B
C771	87-010-263-080		CAP, ELECT 100-10V
C772	87-010-197-080		CAP, CHIP 0.01-25 K B
C779	87-A10-801-080		C-CAP,S 0.022-16 J B
C780	87-A10-801-080		C-CAP,S 0.022-16 J B
C782	87-010-197-080		CAP, CHIP 0.01-25 K B
C783	87-010-197-080		CAP, CHIP 0.01-25 K B
C784	87-010-197-080		CAP, CHIP 0.01-25 K B
C785	87-010-197-080		CAP, CHIP 0.01-25 K B
C786	87-010-197-080		CAP, CHIP 0.01-25 K B
C788	87-010-149-080		C-CAP,S 5P-50 CH
C789	87-A11-532-080		C-CAP,S 0.022-50 J
C790	87-A11-532-080		C-CAP,S 0.022-50 J
C791	87-010-196-080		CHIP CAPACITOR,0.1-25
C792	87-010-197-080		CAP, CHIP 0.01-25 K B
C793	87-010-404-080		CAP, ELECT 4.7-50V
C795	87-010-197-080		CAP, CHIP 0.01-25 K B
C796	87-010-197-080		CAP, CHIP 0.01-25 K B
C797	87-010-405-080		CAP, ELECT 10-50V
C798	87-010-197-080		CAP, CHIP 0.01-25 K B
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	87-010-194-080		CAP, CHIP 0.047-25 Z F
C803	87-010-198-080		CAP, CHIP 0.022-25 K B
C804	87-010-263-080		CAP, ELECT 100-10V
C807	87-010-400-080		CAP, ELECT 0.47-50V
C808	87-010-401-080		CAP, ELECT 1-50V
C809	87-010-401-080		CAP, ELECT 1-50V
C810	87-010-196-080		CHIP CAPACITOR,0.1-25
C814	87-010-197-080		CAP, CHIP 0.01-25 K B
C815	87-010-400-080		CAP, ELECT 0.47-50V
C816	87-010-400-080		CAP, ELECT 0.47-50V
C818	87-010-180-080		C-CAP,S 1000P-50 J CH
C821	87-010-405-080		CAP, ELECT 10-50V
C823	87-012-349-080		C-CAP,S 1000P-50 J CH
C824	87-010-405-080		CAP, ELECT 10-50V
C825	87-010-596-080		CAP, S 0.047-16
C831	87-010-406-080		CAP, ELECT 22-50 M SME
C842	87-010-197-080		CAP, CHIP 0.01-25 K B
C844	87-010-197-080		CAP, CHIP 0.01-25 K B
C850	87-010-260-080		CAP, ELECT 47-25V
C851	87-010-197-080		CAP, CHIP 0.01-25 K B
C852	87-010-197-080		CAP, CHIP 0.01-25 K B
C853	87-010-197-080		CAP, CHIP 0.01-25 K B
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 0.01-25 K B
C869	87-010-197-080		CAP, CHIP 0.01-25 K B<22EZ>
C871	87-012-156-010		C-CAP,S 2200P-50 J CH<22EZ>
C872	87-012-156-010		C-CAP,S 2200P-50 J CH<22EZ>
C873	87-012-140-080		C-CAP,S 470P-50 J CH<22EZ>
C874	87-010-405-080		CAP, ELECT 10-50V<22EZ>
C876	87-010-405-080		CAP, ELECT 10-50V<22EZ>
C877	87-010-197-080		CAP, CHIP 0.01-25 K B<22EZ>
C878	87-010-316-080		C-CAP,S 33P-50 J CH GRM<22EZ>
C879	87-010-314-080		C-CAP,S 22P-50 J CH GRM<22EZ>
C940	87-010-197-080		CAP, CHIP 0.01-25 K B
C942	87-010-149-080		C-CAP,S 5P-50 CH
C947	87-010-197-080		CAP, CHIP 0.01-25 K B
C948	87-012-140-080		C-CAP,S 470P-50 J CH
C952	87-010-197-080		CAP, CHIP 0.01-25 K B
C957	87-010-311-080		C-CAP,S 12P-50 J CH
C958	87-010-197-080		CAP, CHIP 0.01-25 K B
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
C962	87-010-401-080		CAP, ELECT 1-50V
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 0.01-25 K B
C974	87-010-197-080		CAP, CHIP 0.01-25 K B
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 0.01-25 K B
C984	87-010-197-080		CAP, CHIP 0.01-25 K B
C985	87-010-322-080		C-CAP,S 100P-50 J CH
C987	87-010-197-080		CAP, CHIP 0.01-25 K B
C989	87-010-197-080		CAP, CHIP 0.01-25 K B
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-50 K B
C995	87-010-178-080		CHIP CAP 1000P-50 K B
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	87-008-423-010		FILTER, SFE10.7MS3G-A
CF832	82-785-747-010		CF, MS2 GHYR
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-A60-131-010		CONN,6P V FE
D951	87-A40-618-080		VARI-CAP,SVC 348
FC602	88-906-251-110		FF-CABLE,6P 1.25
FB303	87-008-474-080		F-BEAD BL02RN1-R62T2 EMI
FFE831	A8-6ZA-19C-170		6ZA-1 YFEENC<20K>
FFE831	A8-6ZA-191-030		6ZA-1 FEENM<20EZ,22EZ,27EZ>
J202	87-A60-488-010		JACK,DIA6.3 BLK ST W/SW KM16AT
J203	87-A60-238-010		TERMINAL,SP 4P (MSC)
J602	87-A60-881-010		JACK,PIN 2P MSP 242V05 PBSN
J832	87-A60-403-010		TERMINAL,ANT PAL 2P HSP-312V05
L101	87-A50-610-010		COIL,1UH-K
L102	87-A50-610-010		COIL,1UH-K

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L451	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)
L832	87-005-847-080		COIL,2.2UH(CECS)
L941	87-A50-020-010		COIL,ANT LW(COI) 252KHZ
L942	87-A50-019-010		COIL,OSC LW(COI) 856KHZ
L951	8A-NF8-668-010		COIL,AM PACK 2(TOK)
R131	87-A00-258-080		RES,M/F 0.22-1W J
R132	87-A00-258-080		RES,M/F 0.22-1W J
R143	87-A00-440-050		RES,220-1/2W J RP
R144	87-A00-440-050		RES,220-1/2W J RP
R145	87-A00-440-050		RES,220-1/2W J RP
R146	87-A00-440-050		RES,220-1/2W J RP
R653	87-A11-144-080		CAP,TC U 0.1-50 KB
R654	87-A11-144-080		CAP,TC U 0.1-50 KB
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
SFR451	87-A90-432-080		SFR,30K H NVZ6TLTA
SFR452	87-A90-432-080		SFR,30K H NVZ6TLTA
TC942	87-011-253-080		TRIMMER,CER 30P 4.0X4.5 ECRLA
W99	8A-NF9-609-010		F-CABLE,9P 2.5 480MM
WH1	87-A90-510-010		HLDR,WIRE 2.5-9P
X861	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309
X991	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

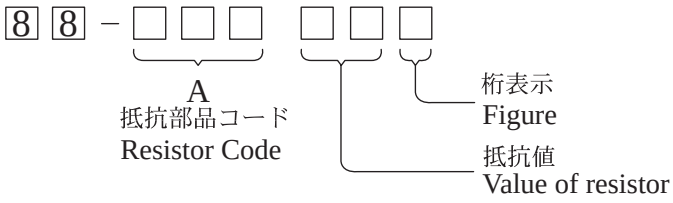
FRONT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C101	87-010-196-080		CHIP CAPACITOR,0.1-25
C102	87-010-196-080		CHIP CAPACITOR,0.1-25
C103	87-010-498-040		CAP,E 10-16 M 5L
C104	87-010-196-080		CHIP CAPACITOR,0.1-25
C107	87-010-493-040		CAP,E 0.47-50 M 5L
C108	87-012-393-080		C-CAP,S 0.22-16 K
C153	87-010-198-080		CAP, CHIP 0.022-25 K B
C154	87-010-246-040		CAP,E 47-35 SME
C155	87-010-404-040		CAP,E 4.7-50 SME
C156	87-010-404-040		CAP,E 4.7-50 SME
C361	87-010-178-080		CHIP CAP 1000P-50 K B
C362	87-010-178-080		CHIP CAP 1000P-50 K B
C371	87-010-178-080		CHIP CAP 1000P-50 K B
C372	87-010-178-080		CHIP CAP 1000P-50 K B
C601	87-010-382-040		CAP,E 22-25 SME
C801	87-010-195-080		C-CAP,S 0.068-25 F
C802	87-010-195-080		C-CAP,S 0.068-25 F
C803	87-010-402-040		CAP,E 2.2-50 SME
C804	87-010-402-040		CAP,E 2.2-50 SME
C805	87-010-196-080		CHIP CAPACITOR,0.1-25
C806	87-010-196-080		CHIP CAPACITOR,0.1-25
C901	87-010-322-080		C-CAP,S 100P-50 CH
C902	87-010-322-080		C-CAP,S 100P-50 CH
C903	87-010-322-080		C-CAP,S 100P-50 CH
C904	87-010-322-080		C-CAP,S 100P-50 CH
C905	87-010-322-080		C-CAP,S 100P-50 CH
C906	87-010-322-080		C-CAP,S 100P-50 CH
C907	87-010-322-080		C-CAP,S 100P-50 CH
C908	87-010-322-080		C-CAP,S 100P-50 CH
C909	87-010-322-080		C-CAP,S 100P-50 CH
C910	87-010-322-080		C-CAP,S 100P-50 CH
C911	87-010-178-080		CHIP CAP 1000P-50 K B
C912	87-010-196-080		CHIP CAPACITOR,0.1-25
C913	87-010-248-040		CAP,E 220-10 SME
C914	87-010-248-040		CAP,E 220-10 SME
C915	87-010-196-080		CHIP CAPACITOR,0.1-25
C916	87-010-196-080		CHIP CAPACITOR,0.1-25
C917	87-010-196-080		CHIP CAPACITOR,0.1-25
C919	87-010-197-080		CAP, CHIP 0.01-25 K B
C920	87-012-369-080		C-CAP,S 0.047-50 Z F
C921	87-010-186-080		CAP,CHIP 4700P-50 K B
C951	87-010-312-080		C-CAP,S 15P-50 CH
C952	87-012-155-080		C-CAP 180P-50CH
C953	87-012-140-080		CAP 470P-50 CH
C961	87-010-378-040		CAP,E 10-16 M SME
C962	87-012-157-080		C-CAP,S 330P-50 CH
C963	87-010-196-080		CHIP CAPACITOR,0.1-25
CN104	87-A60-057-010		CONN,11P V 9604S-11C
CN701	87-099-720-010		CONN,30P BLK TYK-B(P)
CN731	87-099-015-010		CONN,13P V BLK 6216V
FC104	88-911-101-110		FF-CABLE,11P 1.25
FC731	88-913-301-110		FF-CABLE,13P-1.25
FL901	8A-NF9-605-010		FL,HNA-10SS12
L951	87-A50-434-010		COIL,CLK 4.19M(TOKO)
LED201	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED202	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED204	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED205	87-A40-619-040		LED,SLR-56PT-T31-W GRN
LED209	87-A40-317-080		LED,SLR-342VCT31 RED
LED210	87-A40-619-040		LED,SLR-56PT-T31-W GRN
S301	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S301	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S302	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S302	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S303	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S303	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S304	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S304	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S305	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S305	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S306	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S306	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S307	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S307	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S308	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S308	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S309	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S309	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S321	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S321	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S322	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S322	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S323	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S323	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S324	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S324	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S325	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S325	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S326	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S326	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S327	87-A91-024-180		SW,TACT KSH0611BT<22EZ>
S328	87-A91-024-180		SW,TACT KSH0611BT<22EZ>
S329	87-A91-024-180		SW,TACT KSH0611BT<22EZ>
S341	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S341	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S342	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S342	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S343	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S343	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S344	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S344	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S345	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S345	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S346	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S346	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S347	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S347	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S348	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S348	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S349	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>

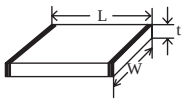
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
S349	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S350	87-A91-024-180		SW,TACT KSH0611BT<20EZ,20K,22EZ>
S350	87-A90-164-080		SW,TACT SKQNAB(N)<27EZ>
S361	87-A91-633-010		SW,RTRY XRE012103PVB25FINA 1-2
S371	87-A91-632-010		SW,RTRY XRE012103PVB25FINB 1-2
PT C.B			
C183	87-010-387-080		CAP,E 470-25 SME
C184	87-010-403-080		CAP, ELECT 3.3-50V
⚠ PT1	8A-NF9-612-010		PT,ANF-9 U
⚠ PT181	8A-NF8-662-010		PT,SUB ANF-8 (E)
⚠ RY181	87-A91-418-010		RELAY,AC12V G5PA-1-M
⚠ T181	87-A60-317-010		TERMINAL, 1P MSC
⚠ T182	87-A60-317-010		TERMINAL, 1P MSC
WH181	87-A90-510-010		HLDR,WIRE 2.5-9P
DECK C.B			
HL1	8Z-ZM3-214-010		HLDR,IC
CN1	87-099-753-010		CONN,11P H 9604
SFR1	87-024-581-010		SFR,3.3K DIA6V K0A
SW1	87-A90-673-010		SW,MICRO ESE11SH1C
SW2	87-A91-500-010		SW,MICRO MPU11470MLB0
SW3	87-A91-500-010		SW,MICRO MPU11470MLB0
SW4	87-A91-500-010		SW,MICRO MPU11470MLB0
SW5	87-A90-673-010		SW,MICRO ESE11SH1C

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

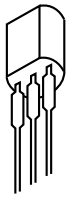
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



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



CD1585BC
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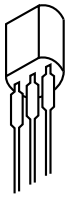
KTC3198GR

2SC3331



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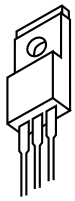

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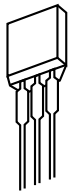

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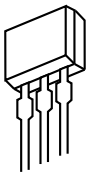

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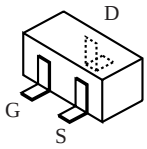

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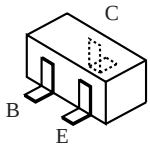

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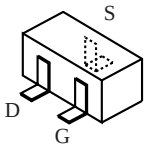
CMBT5401
CMBT5551
CSD1306E

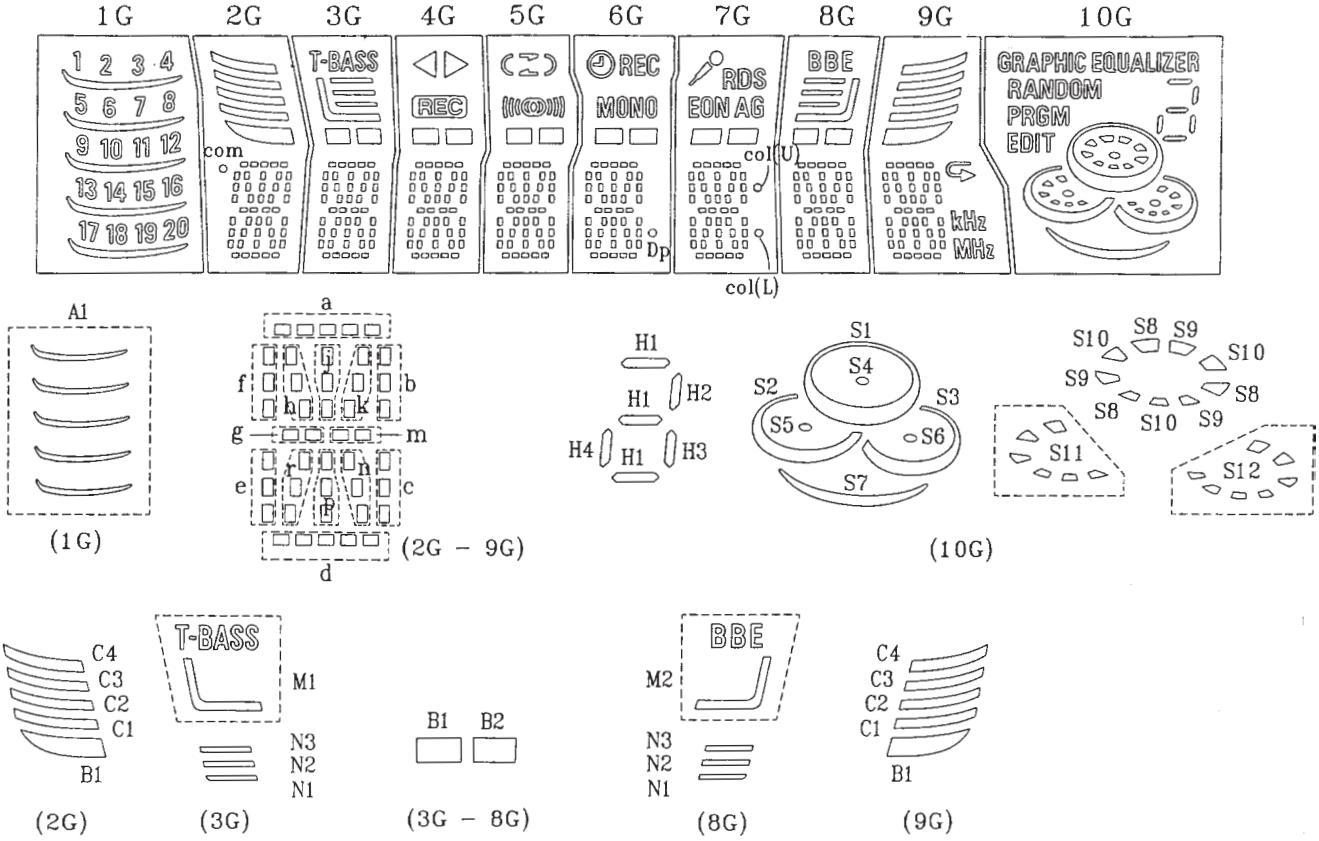
DTC114EK
KRC102S
KRC104S
RT1N141C
RT1N441C
RT1P141C
RT1P144C



2SK360E

FL (HNA-10SS12) GRID ASSIGNMENT AND ANODE CONNECTION

GRID ASSIGNMENT



ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G
P1	20	d	d	d	d	d	d	d	d	S1
P2	19	n	n	n	n	n	n	n	n	S2
P3	18	p	p	p	p	p	p	p	p	S3
P4	17	r	r	r	r	r	r	r	r	S4
P5	16	e	e	e	e	e	e	e	e	S5
P6	15	c	c	c	c	c	c	c	c	S6
P7	14	g	g	g	g	g	g	g	g	S7
P8	13	m	m	m	m	m	m	m	m	S8
P9	12	f	f	f	f	f	f	f	f	S9
P10	11	b	b	b	b	b	b	b	b	S10
P11	10	k	k	k	k	k	k	k	k	S11
P12	9	j	j	j	j	j	j	j	j	S12
P13	8	h	h	h	h	h	h	h	h	EDIT
P14	7	a	a	a	a	a	a	a	a	PRGM
P15	6	B1	B1	B1	B1	B1	B1	B1	B1	RANDOM
P16	5	C1	B2	B2	B2	B2	B2	B2	C1	GRAPHIC EQUALIZER
P17	4	C2	M1	REC		Dp	col(U)	M2	C2	H1
P18	3	C3	N1	◁		MONO	col(L)	N1	C3	H2
P19	2	C4	N2	▷		REC	EON	N2	C4	H3
P20	1	com	N3				AG	N3		H4
P21	A1						RDS		kHz	
P22									MHz	

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

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

A MAIN C.B

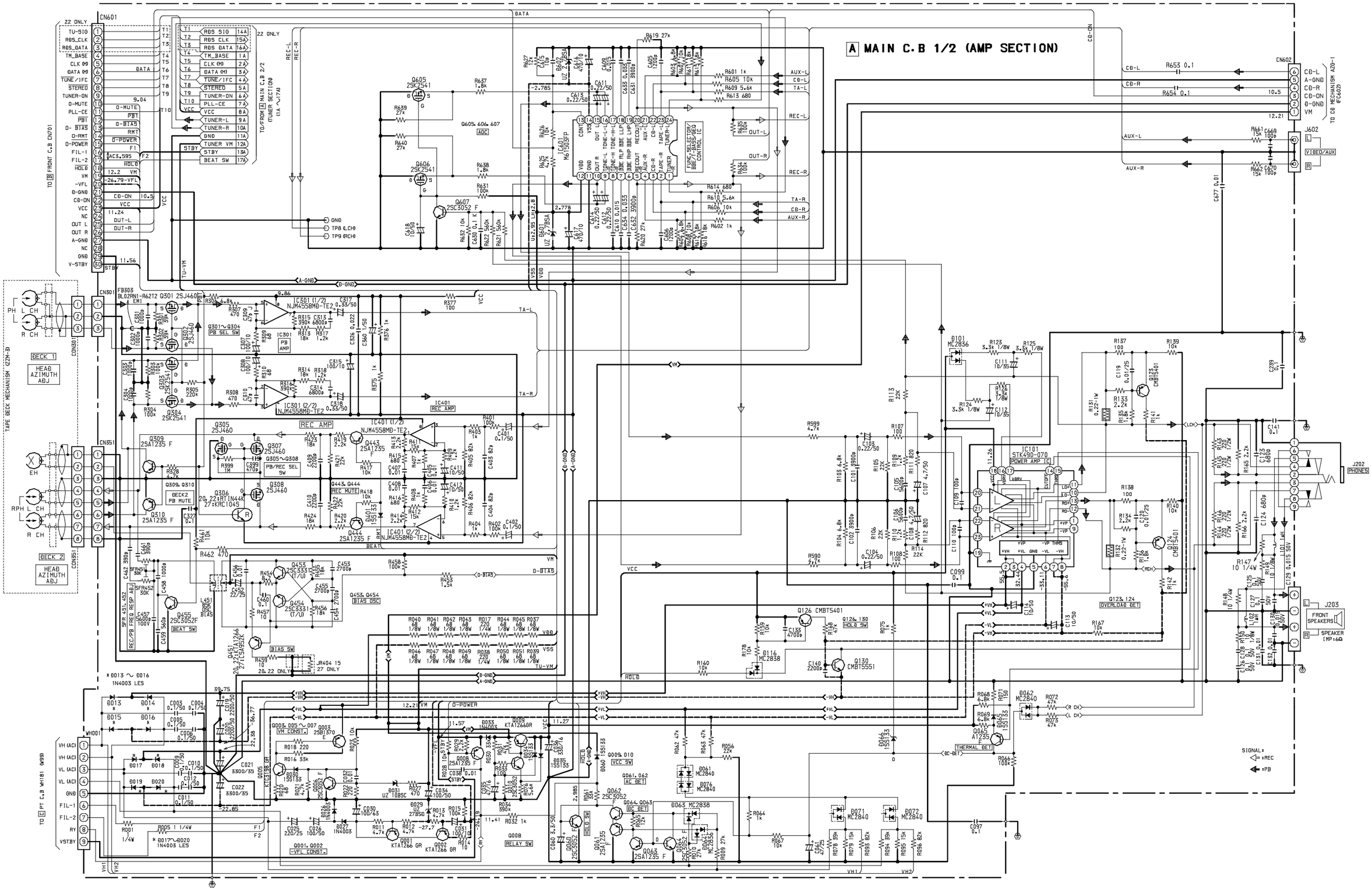
TO CD MECHANISM AZG-1
FC602
CN602

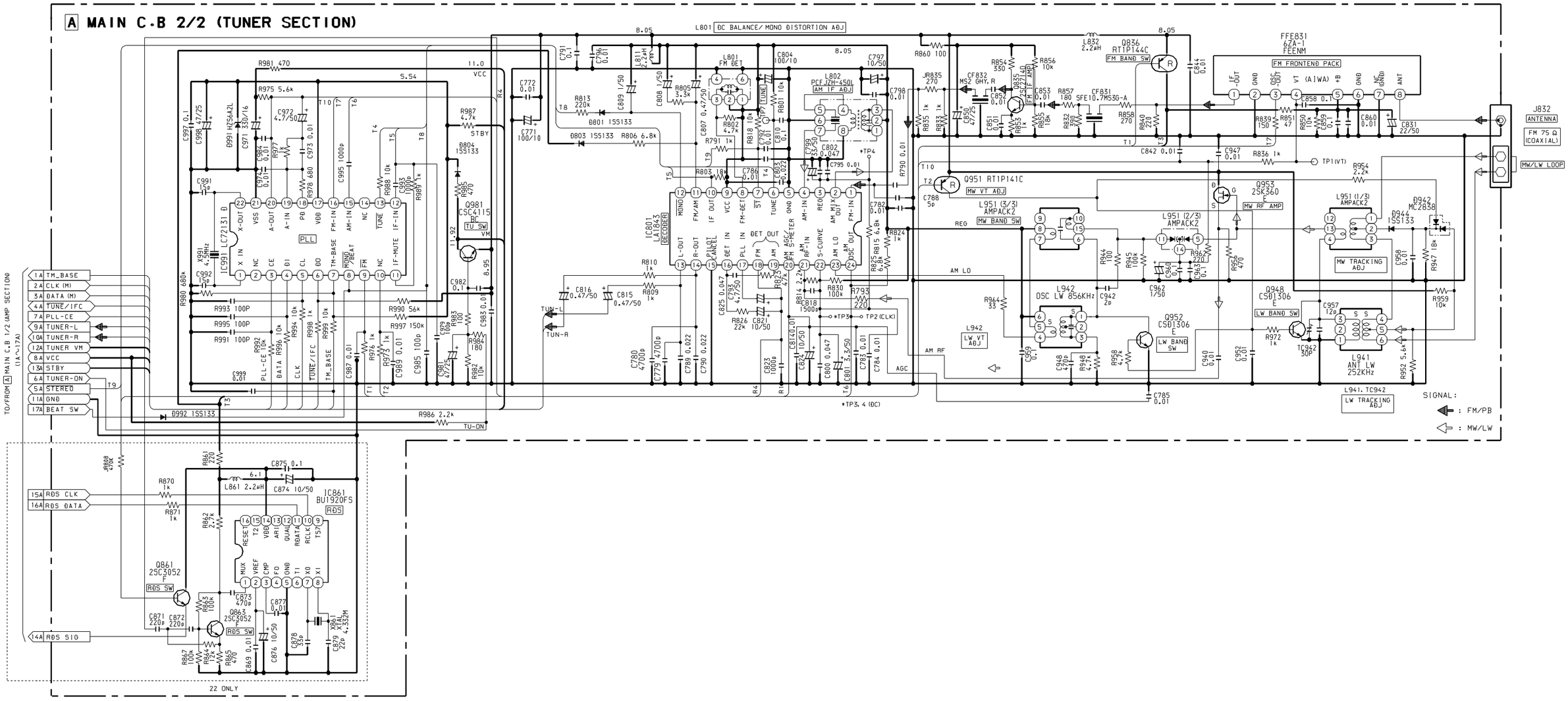
TO DECK1
CON301
TO CN301

TO DECK2
CON351
TO CN351

J832 ANTENNA
MW/LW LOOP
FM 75Ω (COAX1AL)
J602 VIDEO/AUX
J203 FRONT SPEAKERS IMP:6Ω
J202 PHONES
TO PT C.B WH181
W99
WH001
TO FRONT C.B CN701
CN601
CN351
CN301
SFR451
SFR452
IC861
IC601
IC101
IC991
IC401
X861
X991
FFE831
CF831
CF832

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



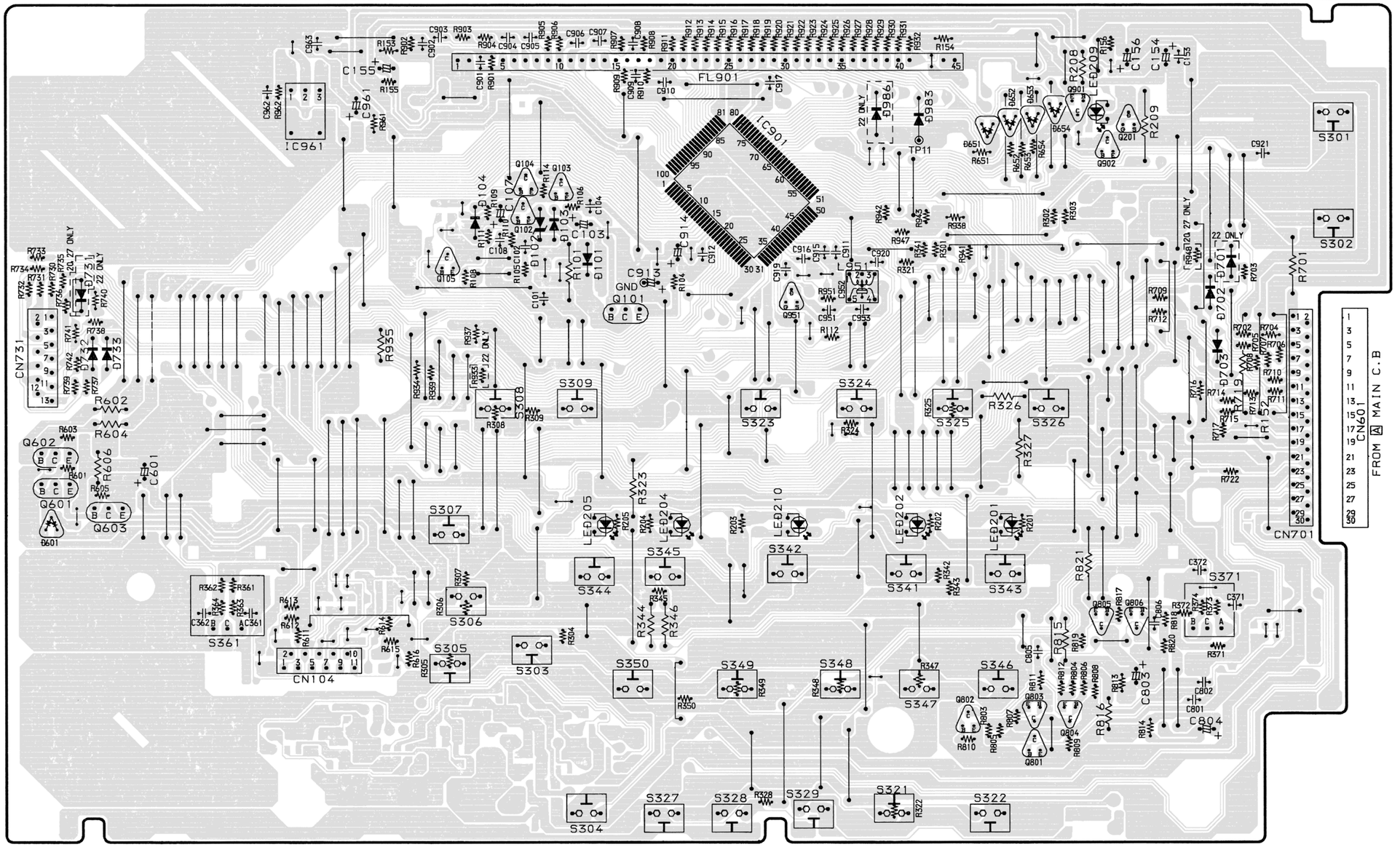

A MAIN C.B 2/2 (TUNER SECTION)
L801 DC BALANCE/MONO DISTORTION ADJ
L801 FM DET
L802 PCFJ2H-450J AM IF ADJ
IC991 LC72131 D
PLL
IC801 LA1843 DECODER
Q951 RT1P141C MW VT ADJ
Q953 2SK360 E MW RF AMP
L951 (1/3) AMPACK2 MW BAND SW
L951 (2/3) AMPACK2
L951 (3/3) AMPACK2 MW TRACKING ADJ
FFE831 6ZA-1 FEENM FM FRONTEND PACK
Q836 RT1P144C FM BAND SW
Q948 2SC1306 E LW BAND SW
Q952 2SC1306 LW BAND SW
L942 DSC LW 856KHz
L942 LW VT ADJ
L941 ANT LW 252KHz
L941. TC942 LW TRACKING ADJ
TC942 30P
J832 ANTENNA FM 75Ω (COAXIAL) MW/LW LOOP
TP1(VT)
TP2(CLK)
TP3. 4 (DC)
TUN-L
TUN-R
TU-ON
AM LO
AM RF
AGC
SIGNAL: : FM/PB : MW/LW
TO/FROM A MAIN C.B 1/2 (AMP SECTION) (1A~17A)
1A TM_BASE
2A CLK (M)
3A DATA (M)
4A TUNE/IFC
7A PLL-CE
9A TUNER-L
10A TUNER-R
12A TUNER VM
8A VCC
13A STBY
6A TUNER-ON
5A STEREO
11A GND
17A BEAT SW
15A RDS CLK
16A RDS DATA
14A RDS SIG
IC861 BU1920FS RDS
Q861 2SC5052 F RDS SW
Q863 2SC5052 F RDS SW
22 ONLY

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

B FRONT C.B

IC961 (REMOTE SENSOR) S308 BBE S309 T-BASS FL901 (DISPLAY) S323 CD S324 VIDEO/AUX S325 TUNER/BAND S326 TAPE DECK 1/2 LED209 (STANDBY) S302 ECO S301 POWER



TO CN104 — FC104 — TO D DECK C.B CN1

S361 MULTI JOG — GRAPHIC EQUALIZER: S307 ROCK, S306 POP, S305 CLASSIC

S303 ENTER — TUNING: LED205 S344 UP, LED204 S345 DOWN

LED210 S342 PRESET

LED202 S341 CLEAR — LED201 S343 SET

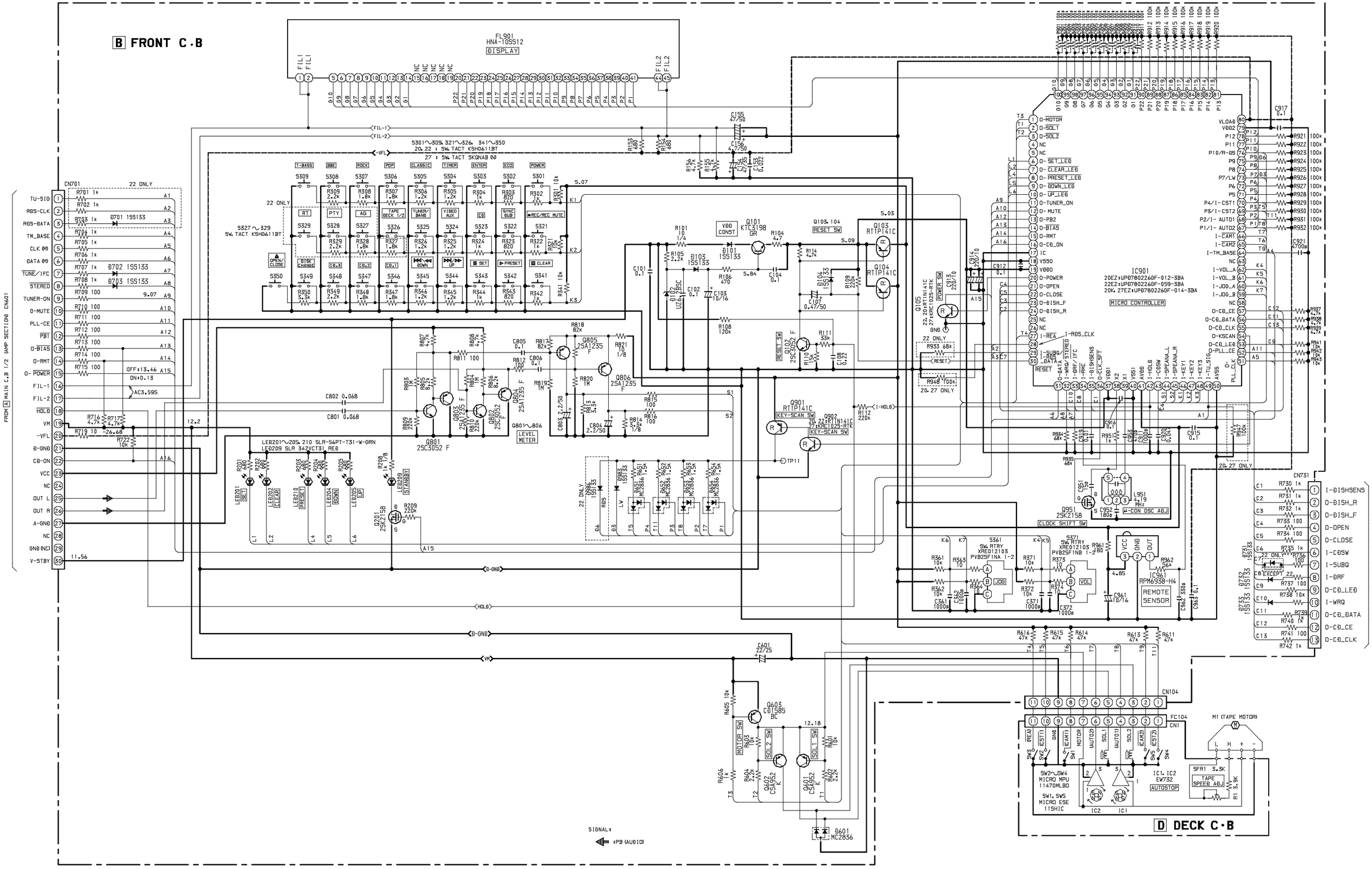
S371 VOLUME

S304 TIMER — S350 OPEN/CLOSE — S349 DISC CHANGE

DISC DIRECT PLAY: S348 CD.3, S347 CD.2, S346 CD.1

S327 AG — S328 PTY — S329 RT — S321 REC/REC MUTE — S322 SYNC DUB

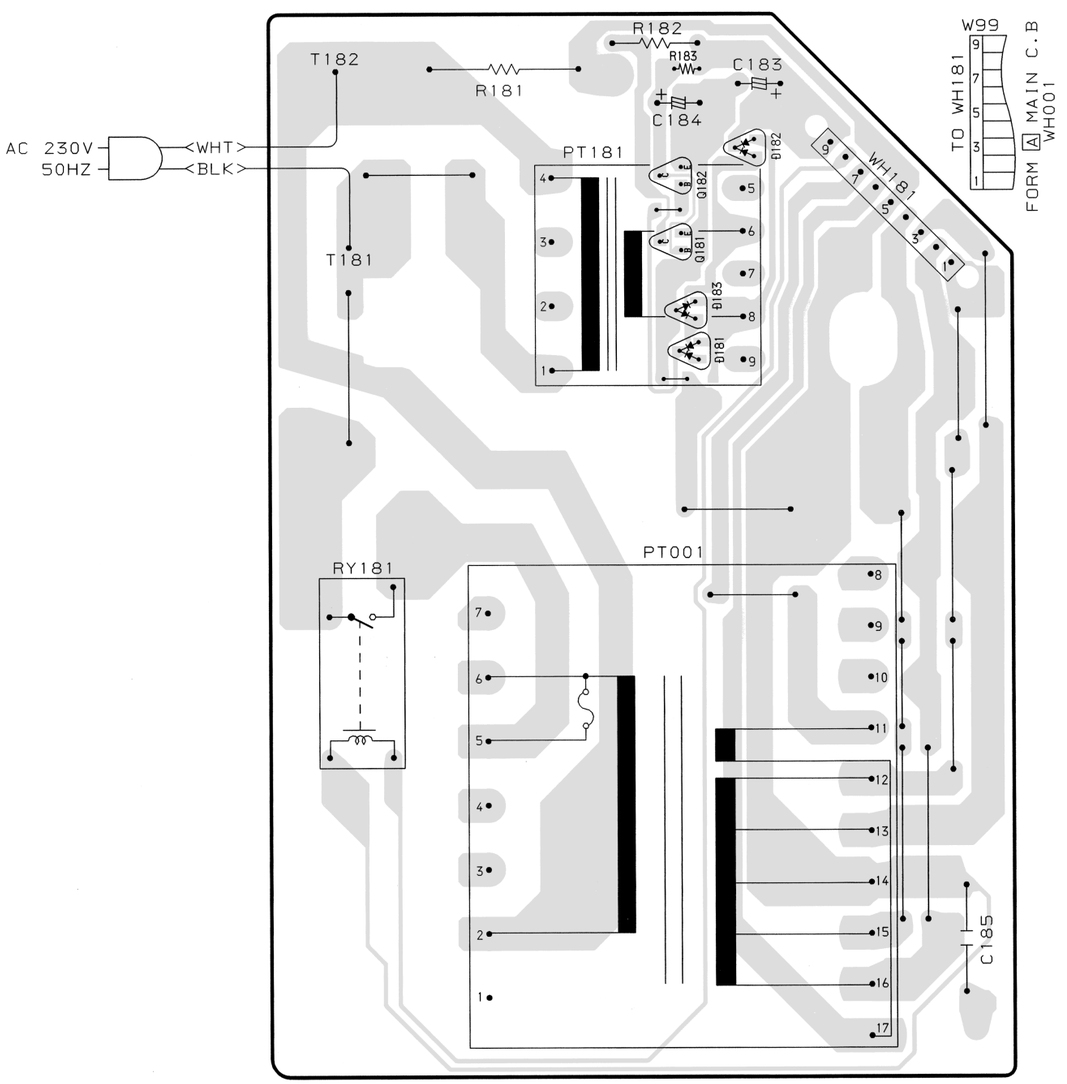
SCHEMATIC DIAGRAM – 3 (FRONT)



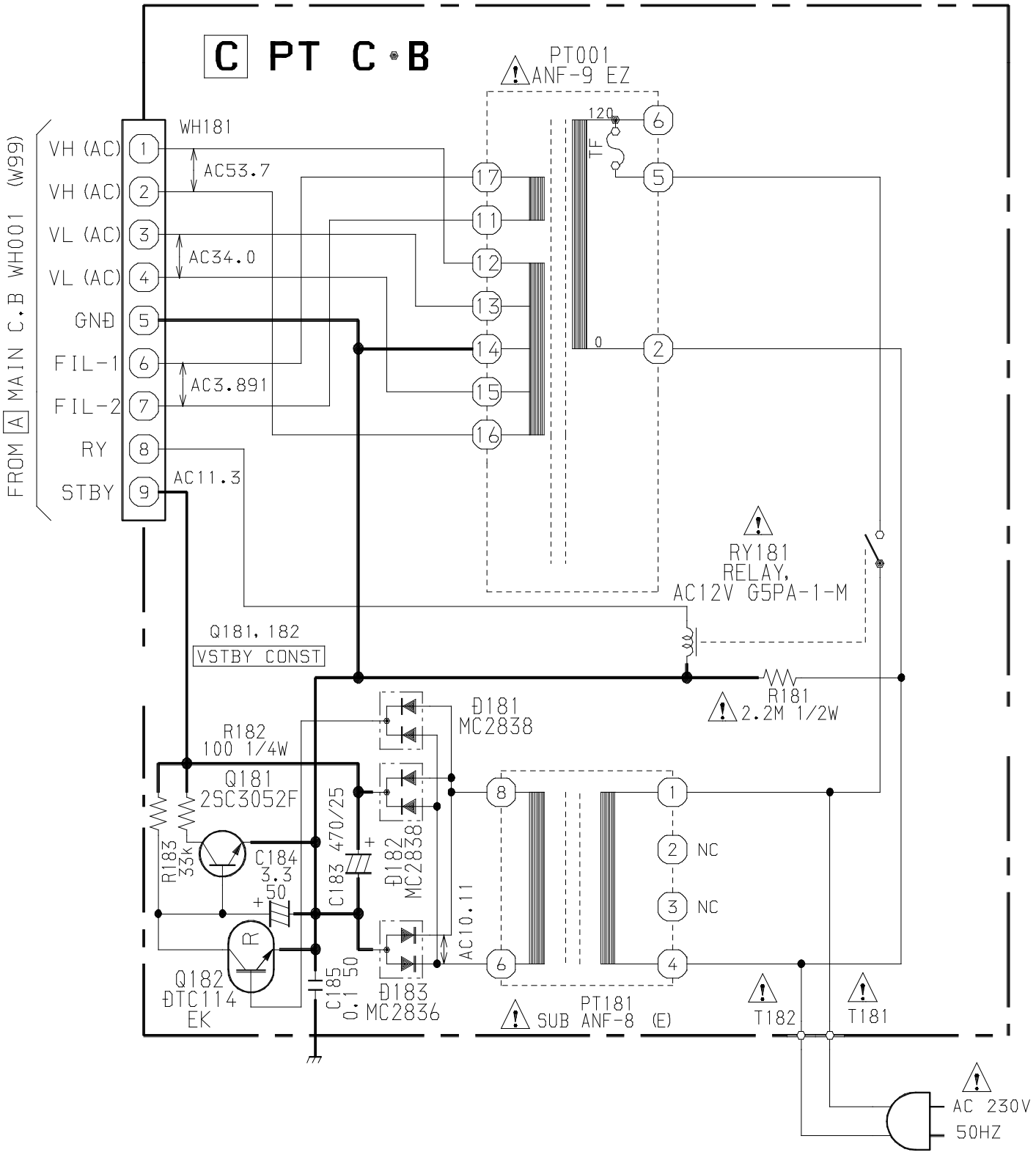
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

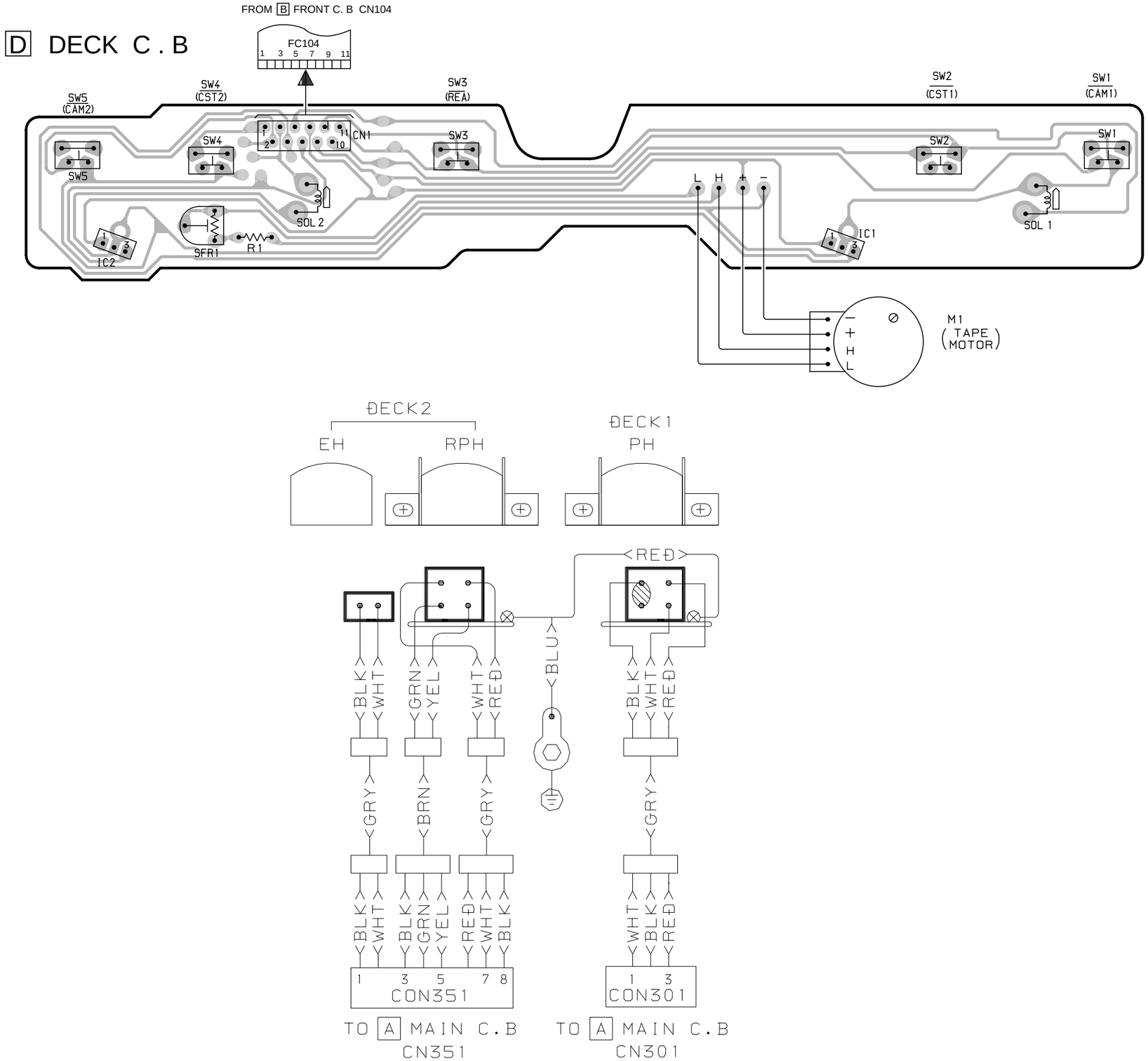
A B C D E F G H I J K L M N O P Q R S T U

C PT C.B



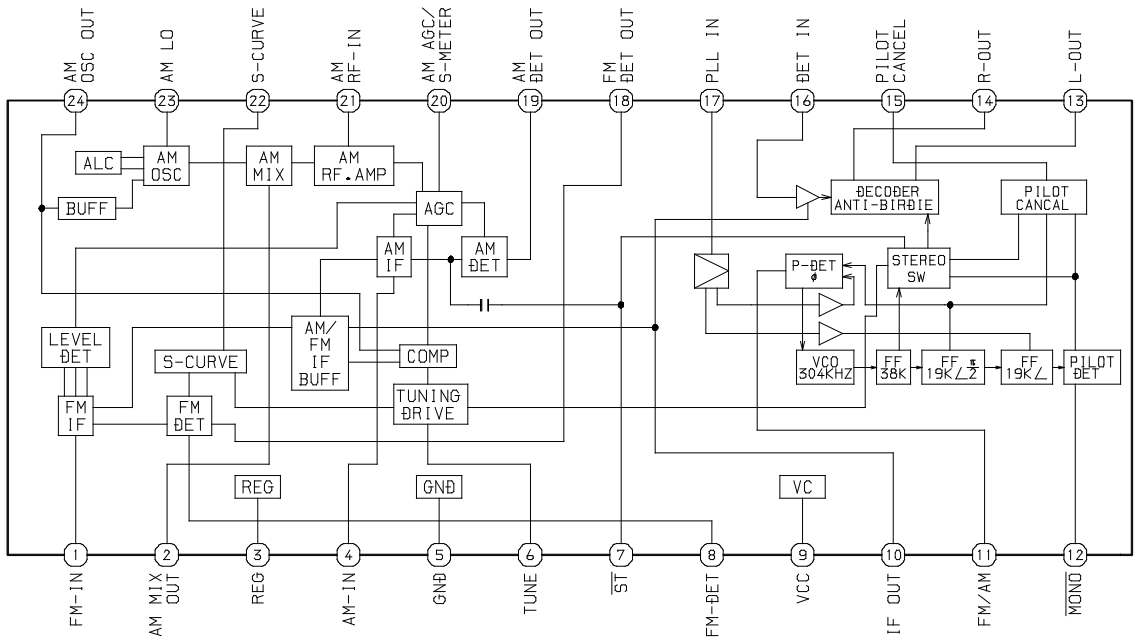
SCHEMATIC DIAGRAM – 4 (PT)



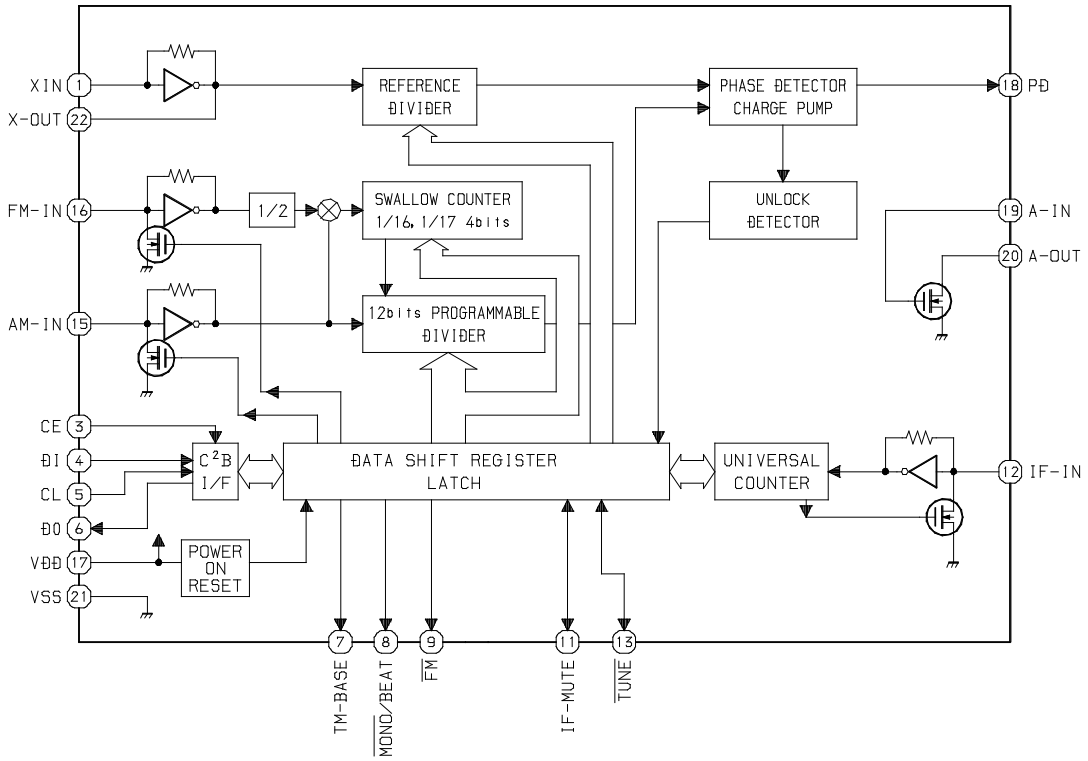

D DECK C . B
FROM B FRONT C. B CN104
FC104
1 3 5 7 9 11
SW5 (CAM2)
SW4 (CST2)
SW3 (REA)
SW2 (CST1)
SW1 (CAM1)
CN1
SW5
SW4
SW3
SW2
SW1
SOL 2
SOL 1
SFR1
R1
IC2
IC1
L H + −
M1 (TAPE MOTOR)
DECK2
EH
RPH
DECK1
PH
RED
BLK
WHT
GRY
BRN
GRN
YEL
BLU
CON351
CON301
TO A MAIN C.B CN351
TO A MAIN C.B CN301

IC BLOCK DIAGRAM

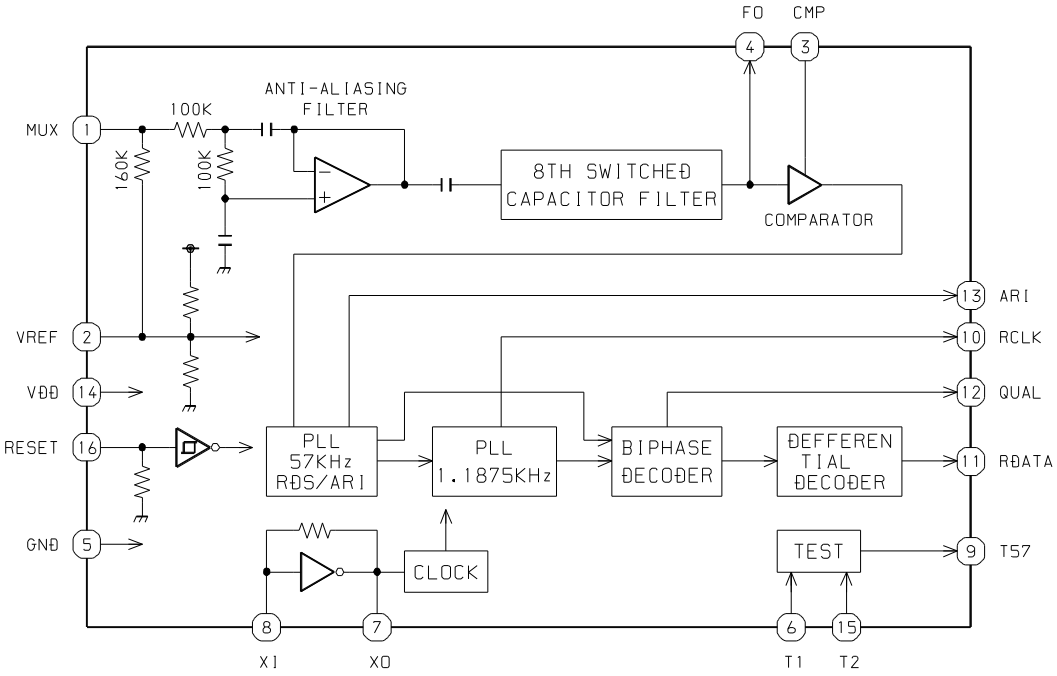
IC, LA1843



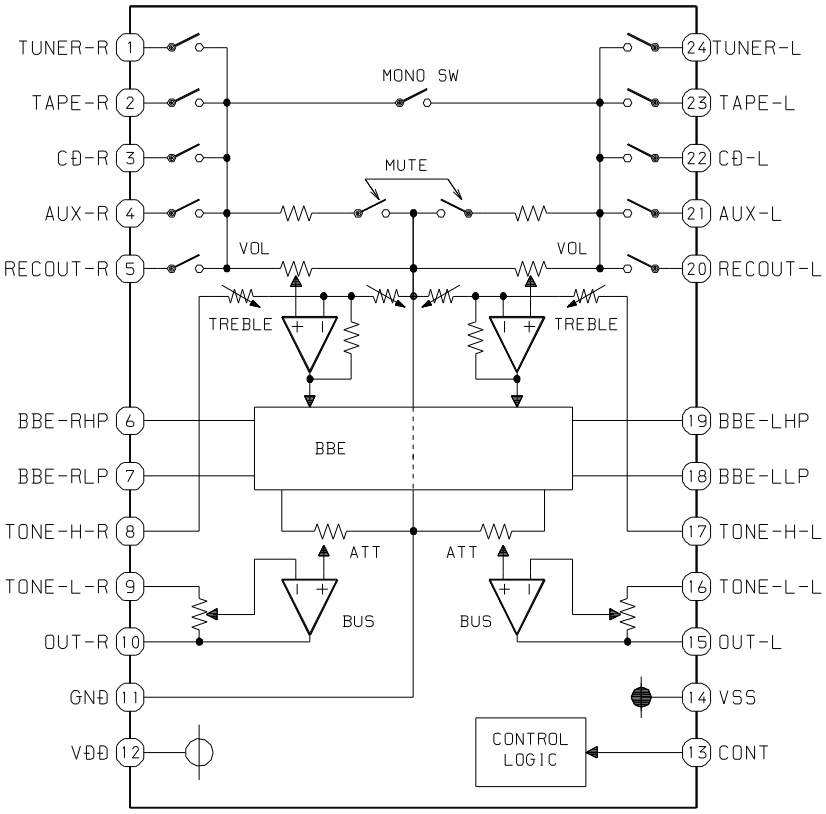
IC, LC72131D



IC, BU1920FS <22EZ ONLY>



IC, M61503FP

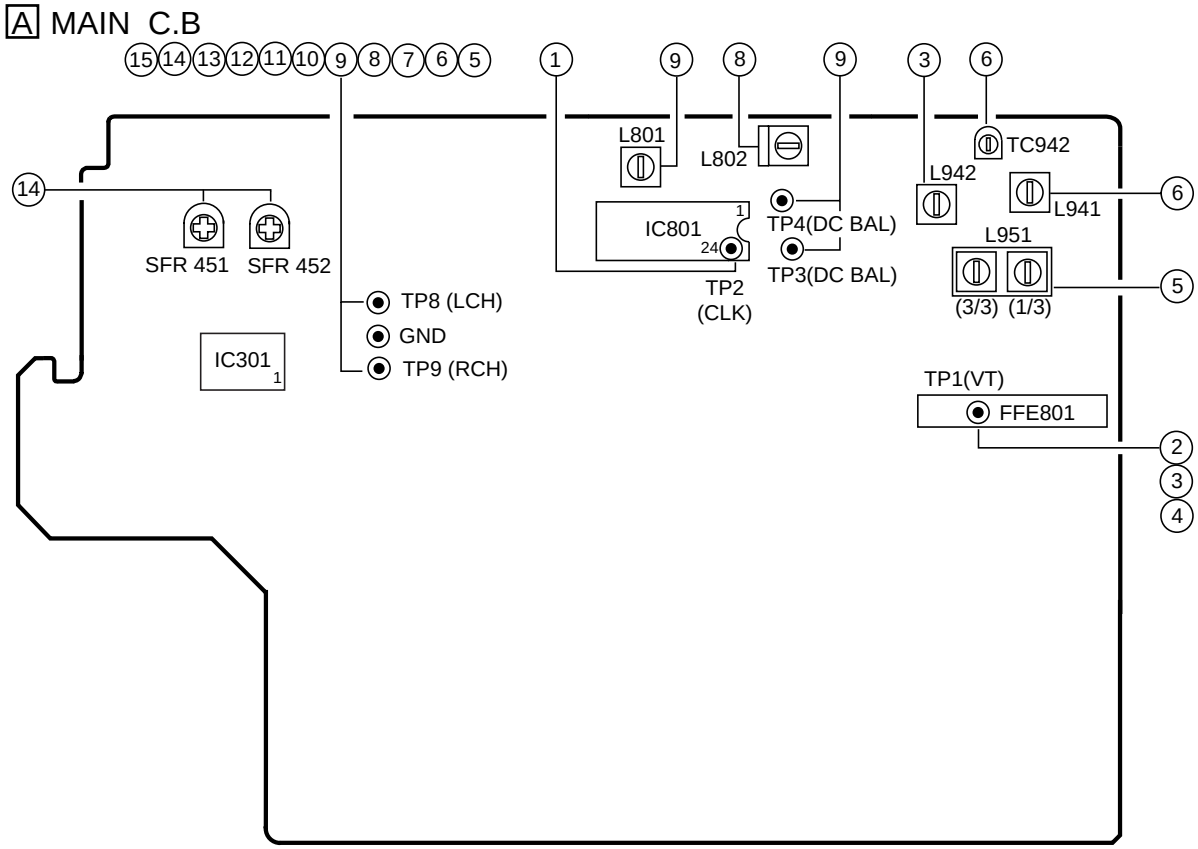


IC DESCRIPTION

IC, μPD780226GF-012-3BA / 014-3BA / 059-3BA

Pin No.	Pin Name	I/O	Description
1	O-$\overline{\text{MOTOR}}$	O	DECK MOTOR ON/OFF output.
2	O-$\overline{\text{SOL1}}$	O	DECK1 solenoid output.
3	O-$\overline{\text{SOL2}}$	O	DECK2 solenoid output.
4	NC	–	Not connected.
5	NC	–	Not connected.
6	O-$\overline{\text{SET\_LED}}$	O	SET LED ON/OFF output.
7	O-$\overline{\text{CLEAR\_LED}}$	O	CLEAR LED ON/OFF output.
8	O-$\overline{\text{PRESET\_LED}}$	O	PRESET LED ON/OFF output.
9	O-$\overline{\text{DOWN\_LED}}$	O	DOWN LED ON/OFF output.
10	O-$\overline{\text{UP\_LED}}$	O	UP LED ON/OFF output.
11	O-TUNER_ON	O	TUNER ON output.
12	O-MUTE	O	MUTE output.
13	O-PB2	O	DECK2/$\overline{\text{DECK1}}$ play output.
14	O-$\overline{\text{BIAS}}$	O	BIAS ON output.
15	O-RMT	O	REC mute output.
16	O-CD_ON	O	CD ON output.
17	IC	–	Internal connection (connected to GND).
18	VSSO	–	GND.
19	VDDO	–	Power supply.
20	O-POWER	O	System power supply $\overline{\text{ON}}$/OFF output.
21	O-OPEN	O	CD tray open data output.
22	O-CLOSE	O	CD tray close data output.
23	O-DISH_F	O	CD turntable forward rotation output.
24	O-DISH_R	O	CD turntable reverse rotation output.
25	NC	–	Not connected.
26	NC	–	Not connected.
27	I-$\overline{\text{REA}}$	I	Volume jog AD input.
28	I-RDS_CLK	I	Tuner RDS clock input<22EZ>.
29	I-SUBQ/I-RDS_DATA	I	CD SUBQ data input / Tuner RDS data input<22EZ>.
30	$\overline{\text{RESET}}$	–	System reset.
31	O-DATA	O	Data output for MAIN.
32	I-WRQ/$\overline{\text{STEREO}}$	I	CD WRQ input / Tuner stereo input.
33	I-DRF/IFC	I	CD DRF input / Tune IF count serial data input.
34	I-$\overline{\text{RMC}}$	I	System remote control input.
35	I-DISHSENS	I	CD turntable photo sensor input.
36	O-$\overline{\text{CLK\_SFT}}$	O	Micon clock shift output.
37	VDD1	–	Power supply.
38	X2	–	4.19MHz oscillator circuit.
39	X1	–	4.19MHz oscillator circuit.
40	VSS1	–	GND.
41	AVDD	–	Power supply.
42	I-HOLD	I	Power failure detected input.
43	I-CDSW	I	CD mecha switch input.

Pin No.	Pin Name	I/O	Description
44	I-SPEANA_L	I	A/D L-input for spectrum analyser level display.
45	I-SPEANA_R	I	A/D R-input for spectrum analyser level display.
46	I-KEY1	I	Key1 input.
47	I-KEY2	I	Key2 input.
48	I-KEY3	I	Key3 input.
49	I-TU_SIG	I	Tuner signal input.
50	AVSS	–	GND.
51	O-PLL_CLK	O	PLL clock enable output.
52	O-PLL_CE	O	Chip enable output for tuner PLL.
53	O-CD_LED	O	CD flash window LED ON/OFF output.
54	O-KSCAN	O	Key scan output.
55	O-CD_CLK	O	CD clock output.
56	O-CD_DATA	O	CD data output.
57	O-CD_CE	O	CD enable output.
58	NC	–	Not connected.
59	I-JOG_B	I	Dial jog rotary encoder input B.
60	I-JOG_A	I	Dial jog rotary encoder input A.
61	I-VOL_B	I	Volume rotary encoder input B.
62	I-VOL_A	I	Volume rotary encoder input A.
63	NC	–	Not connected.
64	I-TM_BASE	I	Base input for clock.
65	I-$\overline{\text{CAM2}}$	I	DECK2 CAM switch data input.
66	I-$\overline{\text{CAM1}}$	I	DECK1 CAM STOP switch data input.
67	P1/I-AUTO2	O/I	FL segment P1 output / DECK2 AUTO STOP switch data input.
68	P2/I-AUTO1	O/I	FL segment P2 output / DECK1 AUTO STOP switch data input.
69	P3/I-CST2	O/I	FL segment P3 output / DECK2 cassette detect switch data input.
70	P4/I-CST1	O/I	FL segment P4 output / DECK1 cassette detect switch data input.
71, 72	P5, P6	O	FL segment P5, P6 output.
73	P7/LW	O/I	FL segment P7 output / LW mode data input.
74, 75	P8, P9	O	FL segment P8, P9 output.
76	P10/RDS	O/I	FL segment P10 output / RDS data input<22EZ>.
77, 78	P11, P12	O	FL segment P11, P12 output.
79	VDD2	–	Power supply.
80	VLOAD	–	Power supply for FL display.
81	P13/C-JACK	O/I	FL segment P13 output / C-JACK data input.
82	P14/ECO-OFF	O/I	FL segment P14 output / ECO-OFF data input.
83 ~ 90	P15 ~ P22	O	FL segment P15 ~ P22 output.
91 ~100	G1 ~ G10	O	FL grid G1 ~ G10 output.



< TUNER SECTION >

1. Clock frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to MW 1602kHz and check that the test point is 2052kHz ± 45Hz.

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

3. 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 1.3V ± 0.05V. Then set to LW 290kHz and check that the test point is less than 8.0V.

4. 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).

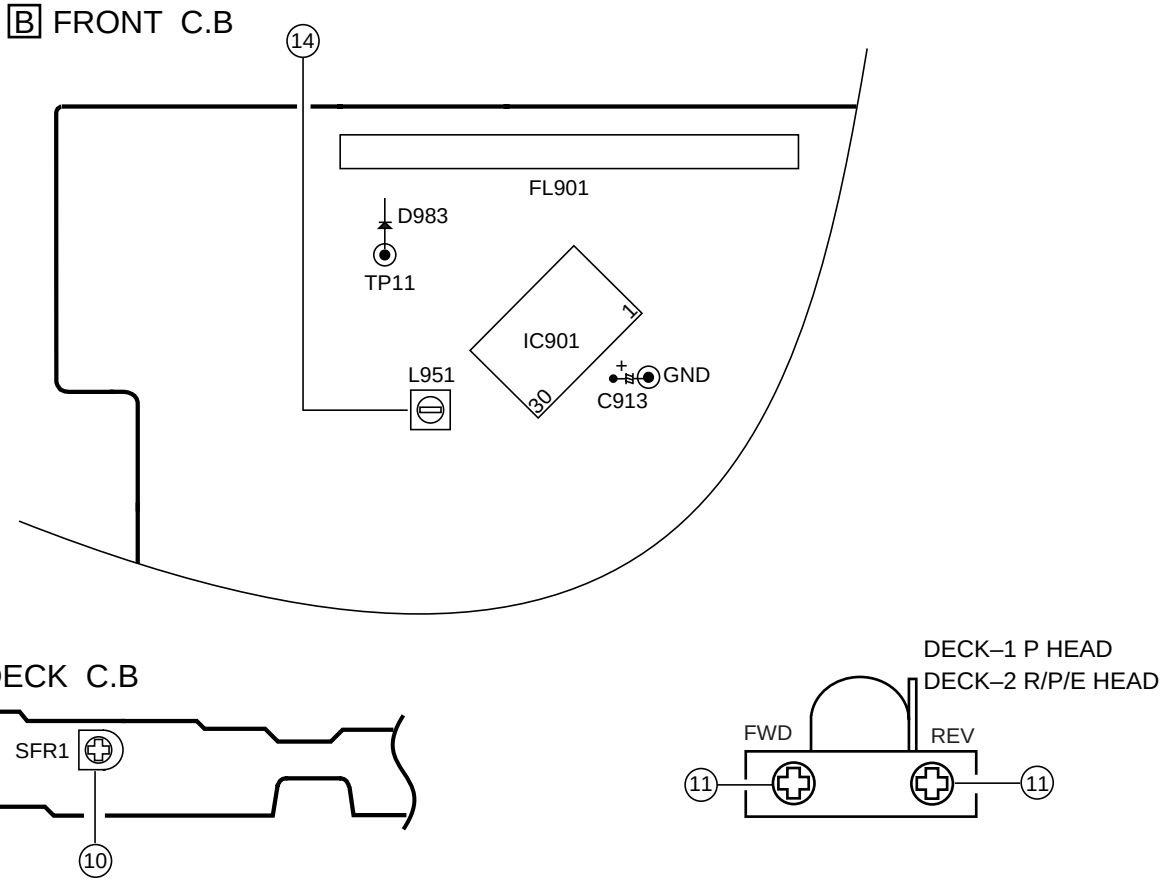
5. MW Tracking Adjustment
   Settings : • Test point : TP8(Lch), TP9(Rch)
   • Adjustment location :
   L951(1/3) 1000kHz
   Method : Set to MW 1000kHz and adjust L951(1/3) to MAX.

6. LW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L941 .....144kHz
   TC942 .....290kHz
   Method : Set up TC942 to center before adjustment.
   Adjust L941 so that the level at 144kHz becomes maximum. Then adjust TC942 so that the level at 290kHz becomes maximum.

7. FM Tracking Check
   Settings : • Test point : TP8(Lch), TP9(Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 13dBμV.

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

9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC Balance)
   TP8(Lch), TP9(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 >

10. 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 3000Hz ± 5Hz and ± 45Hz (REV) with respect to forward speed.

11. Head Azimuth Adjustment (DECK 1, DECK 2)
    Settings : • Test tape : TTA–330
    • Test point : TP8(Lch), TP9(Rch)
    • Adjustment location : 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.

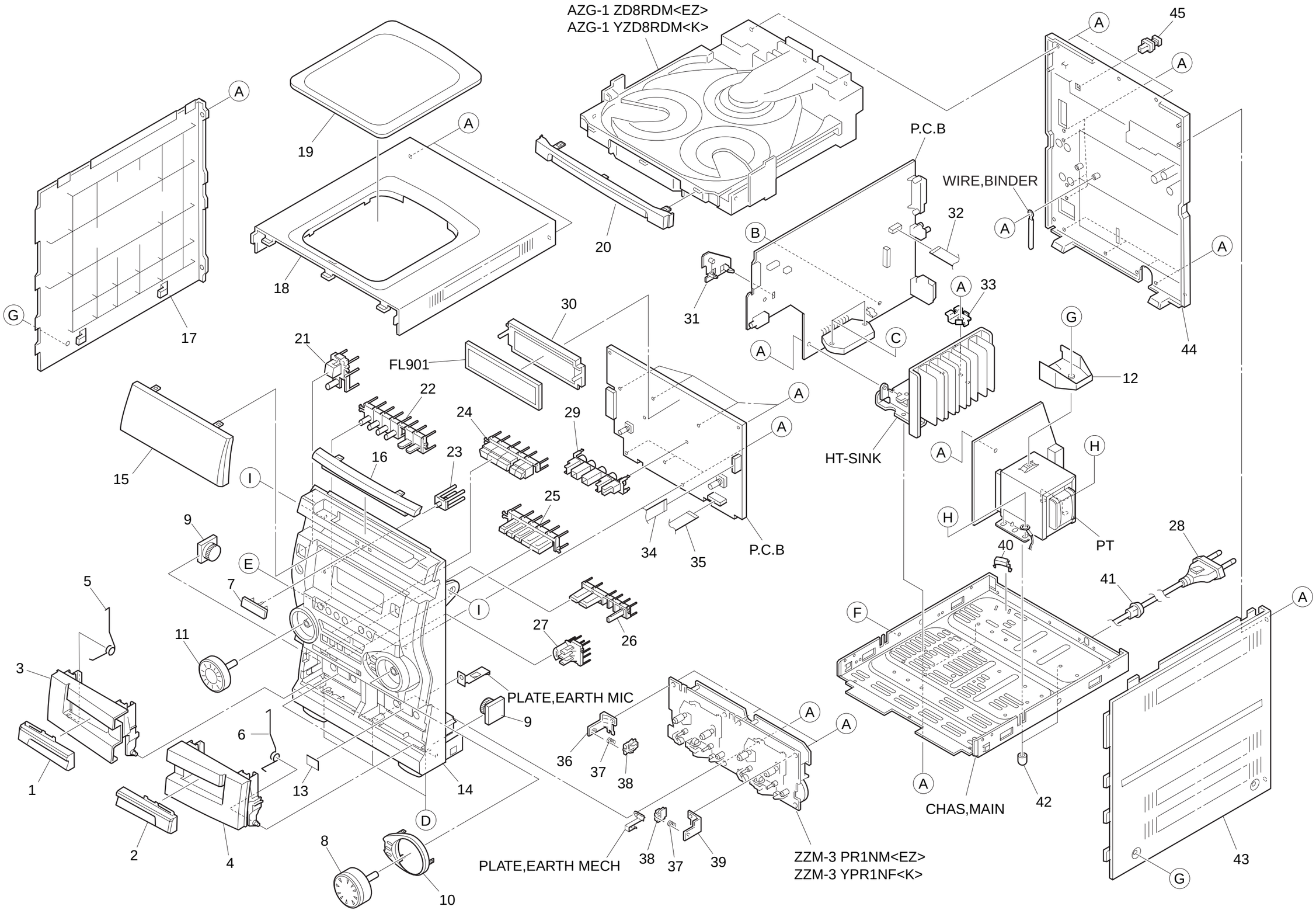
12. PB Frequency Response Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–330
    • Test point :TP8(Lch), TP9(Rch)
    Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

13. PB Sensitivity Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–200
    • Test point : TP8(Lch), TP9(Rch)
    Method : Play back the test tape and check that the output level of the test point is 110mV ± 3dB.

14. 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 (-26dBV). Record and play back the 1kHz and 8kHz signals and adjust SFRs so that the output of the 8kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

15. 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 (-6dBV). Record and play back the 1kHz signals and check that the output is -1dB ± 3.5dB.

16. μ-con OSC Adjustment
    Settings : • Test point : TP11,GND
    • Adjustment location : L951
    Method : Insert AC plug while pressing TUNER function key. Adjust L951 so that the frequency across the test point becomes 184.98Hz ± 0.18Hz.


AZG-1 ZD8RDM<EZ>
AZG-1 YZD8RDM<K>
P.C.B
WIRE,BINDER
HT-SINK
PT
CHAS,MAIN
PLATE,EARTH MIC
PLATE,EARTH MECH
ZZM-3 PR1NM<EZ>
ZZM-3 YPR1NF<K>
FL901
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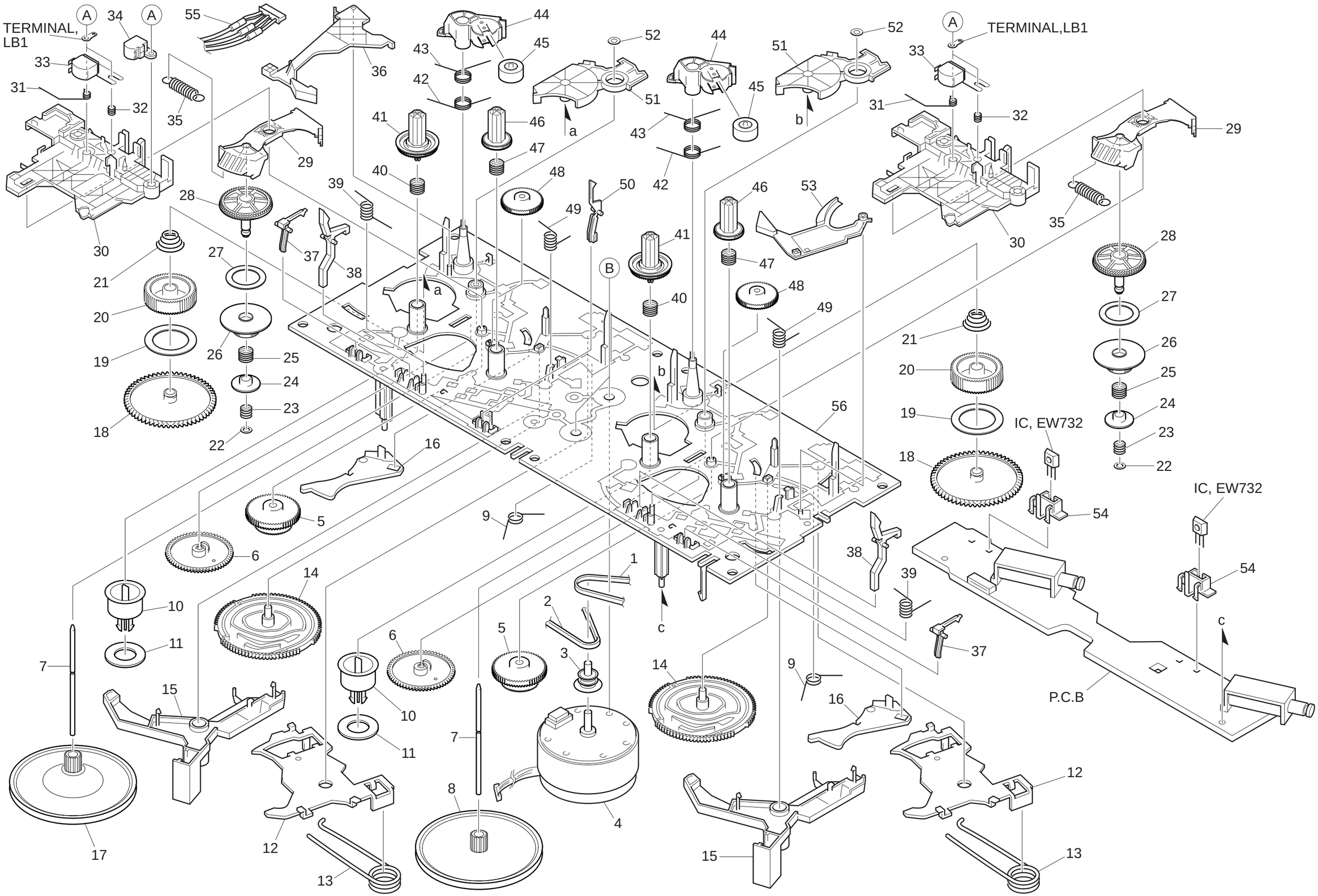
MECHANICAL PART LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NF9-006-010		WINDOW,CASS 1<EXCEPT 27>
1	8A-NF9-085-010		WINDOW,CASS 1 B<27>
2	8A-NF9-007-010		WINDOW,CASS 2<EXCEPT 27>
2	8A-NF9-086-010		WINDOW,CASS 2 B<27>
3	8A-NF9-003-010		BOX,CASS 1<EXCEPT 27>
3	8A-NF9-082-010		BOX,CASS 1 B<27>
4	8A-NF9-004-010		BOX,CASS 2<EXCEPT 27>
4	8A-NF9-083-010		BOX,CASS 2 B<27>
5	8A-NF8-207-010		SPR-T,EJECT 1
6	8A-NF8-208-010		SPR-T,EJECT 2
7	87-CE3-023-010		BADGE,AIWA 30N SILV
8	8A-NF9-018-010		KNOB,RTRY JOG
9	8A-NF8-209-010		OIL-DMPR,120
10	8A-NF9-017-010		PANEL,JOG
11	8A-NF9-016-010		KNOB,RTRY VOL
12	8A-NF9-211-010		HLDR,PWB PT HI
13	81-532-080-010		LABEL, CASS. COMPT
14	8A-NF9-049-010		CABI,FR EZ R<22>
14	8A-NF9-081-010		CABI,FR EZB<27>
14	8A-NF9-001-010		CABI,FR U<20>
15	8A-NF9-044-010		WINDOW,DISP EZ RDS<22>
15	8A-NF9-084-010		WINDOW,DISP EZB Z27<27>
15	8A-NF9-052-010		WINDOW,DISP LH<20EZ>
15	8A-NF9-005-010		WINDOW,DISP U<20K>
16	8A-NF9-039-010		WINDOW,CD<EXCEPT 27>
16	8A-NF9-089-010		WINDOW,CD B<27>
17	8A-NF8-007-010		PANEL,LEFT V-2<EXCEPT 27>
17	8A-NF9-092-010		PANEL,LEFT V-2 B<27>
18	8A-NF8-005-010		PANEL,TOP<EXCEPT 27>
18	8A-NF9-090-010		PANEL,TOP B<27>
19	8A-NF8-006-010		WINDOW,TOP<EXCEPT 27>
19	8A-NF9-091-010		WINDOW,TOP B<27>
20	8A-NF9-014-010		PANEL,TRAY<EXCEPT 27>
20	8A-NF9-088-010		PANEL,TRAY B<27>
21	8A-NF9-008-010		KEY,POWER<EXCEPT 27>
21	8A-NF9-087-010		KEY,POWER B<27>
22	8A-NF9-009-010		KEY,FUN
23	8A-NF9-022-010		REFLECTOR,ECO
24	8A-NF9-010-110		KEY,ASSY OPE 1 WAY
25	8A-NF9-020-010		KEY,CD
26	8A-NF9-050-010		KEY,RDS<22>
26	8A-NF9-019-010		KEY,SYNC<EXCEPT 22>
27	8A-NF9-026-110		KEY,ENTER
⚠ 28	87-A80-157-010		AC CORD ASSY,E BLK CC
29	8A-NF9-201-010		GUIDE,OPE 1 WAY
30	82-NF7-210-110		GUIDE,FL (*)
31	8A-NF8-206-010		HLDR,PWB M
32	88-906-251-110		FF-CABLE,6P 1.25
33	8A-NF8-205-010		HLDR,IC
34	88-913-301-110		FF-CABLE,13P-1.25
35	88-911-101-110		FF-CABLE,11P 1.25
36	87-NF4-216-010		HLDR,LOCK 1
37	86-NF9-224-010		SPR-C,LOCK
38	82-NF5-229-010		PLATE,LOCK
39	87-NF4-217-110		HLDR,LOCK 2
40	87-NF4-221-010		HLDR,CABLE
41	87-085-185-010		BUSHING, AC CORD (E)
42	8Z-NB8-240-010		COVER, PL
43	8A-NF8-008-010		PANEL,RIGHT V-2<EXCEPT 27>
43	8A-NF9-093-010		PANEL,RIGHT V-2 B<27>
44	8A-NF9-094-010		CABI,REAR EZBM<27>
44	8A-NF9-059-110		CABI,REAR EZSM<20EZ>
44	8A-NF9-058-110		CABI,REAR EZSM R<22>
44	8A-NF9-035-010		CABI,REAR KSE<20K>
45	84-ZG1-245-210		CAP,OPTICAL
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
C	87-067-581-010		TAPPING SCREW, BVT2+3-15
D	87-067-689-010		TAPPING SCREW, BVTT+3-8
E	87-723-096-410		QT2+3-10W/O SLOT BL
F	87-721-096-410		QT2+3-10 GLD
G	87-067-641-010		UTT2+3-8(W/O SLOT)BL
H	87-078-191-010		S-SCREW,IT+4-10
I	87-721-097-410		QT2+3-12 GLD

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



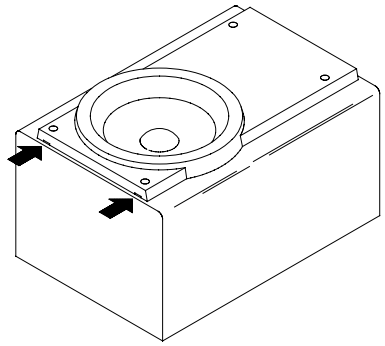
TAPE MECHANISM PART LIST 1 / 1

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8Z-ZM3-227-010	0E	BELT,MAIN M3
2	8Z-ZM3-235-010	0E	BELT,MAIN L
3	8Z-ZM1-235-010	0E	PULLEY,MOT
4	87-045-347-010	1H	MOT,SHU2L 70
5	8Z-ZM1-232-010	0E	GEAR,IDL FF/REW
6	8Z-ZM3-244-010	0E	GEAR,CAM TD20
7	8Z-ZM3-242-010	0E	SHAFT,CAP M3
8	8Z-ZM3-228-010	0E	FLY-WHL,M3
9	8Z-ZM3-231-010	0E	SPR-T,TRIG
10	8Z-ZM3-213-010	0E	CLR,MG
11	82-ZM3-616-010	0E	RING MAGNET 4
12	8Z-ZM3-243-010	0E	LEVER ASSY,HD UP
13	8Z-ZM3-238-010	0E	SPR-T,HD UP
14	8Z-ZM3-219-010	0E	GEAR,CAM M3
15	8Z-ZM3-206-010	0E	LEVER,TRIG
16	8Z-ZM3-209-010	0E	LEVER,CAM FR
17	8Z-ZM2-211-010	0E	FLY-WHL,ZZM-2
18	8Z-ZM1-228-010	0E	GEAR,SLIP T-UP B
19	8Z-ZM1-265-010	0E	FELT,T-UP
20	8Z-ZM1-227-010	0E	GEAR,SLIP T-UP A
21	8Z-ZM1-251-110	0E	SPR-C,T-UP SLIP
22	8Z-ZM1-275-010	0E	W-L,1,47-4-0.25
23	8Z-ZM1-257-010	0E	SPR-C,F/R
24	8Z-ZM1-236-010	0E	CLR,SLIP FF/REW
25	8Z-ZM3-226-010	0E	SPR-C,FR M3
26	8Z-ZM3-250-010	0E	GEAR,SLIP F/R A M3
27	8Z-ZM1-269-010	0E	FELT,FF/REW 2
28	8Z-ZM1-238-110	0E	GEAR,SLIP FF/REW B 2
29	8Z-ZM3-220-010	0E	LEVER,FR M3
30	8Z-ZM3-205-010	0E	LEVER,PLAY M3
31	8Z-ZM3-233-010	0E	SPR-T,BRG M3
32	84-ZM2-227-310	0E	SPR-C,AZIMUTH
33	87-A90-403-110	1B	HEAD,RPH MS15R
34	87-A90-404-010	1B	HEAD,EH LE15B
35	8Z-ZM3-239-010	0E	SPR-E,FR
36	8Z-ZM3-211-010	0E	LEVER,EJECT R
37	8Z-ZM3-225-010	0E	LEVER,STOP
38	8Z-ZM3-221-010	0E	LEVER,CAS
39	8Z-ZM3-234-010	0E	SPR-T,LVR CAS
40	8Z-ZM3-223-010	0E	SPR-C,REEL R M3
41	8Z-ZM1-225-110	0E	GEAR,REEL R
42	8Z-ZM3-240-010	0E	SPR-T,T-UP M3
43	8Z-ZM3-237-010	0E	SPR-T,PINCH M3
44	8Z-ZM3-215-010	0E	LEVER,PINCH M3
45	8Z-ZM1-261-110	0E	ROLLER ASSY,PINCH
46	8Z-ZM1-226-010	0E	GEAR,REEL L
47	8Z-ZM3-222-010	0E	SPR-C,REEL L M3
48	8Z-ZM3-251-010	0E	GEAR,IDL REW M3
49	8Z-ZM3-236-010	0E	SPR-T,PLAY M3
50	82-ZM1-240-110	0E	LVR,REC(*)
51	8Z-ZM3-216-010	0E	LEVER,T-UP M3
52	87-B10-301-010	0E	W-L,1.63-3.2-05 SLIT
53	8Z-ZM3-212-010	0E	LEVER,EJECT L
54	8Z-ZM3-214-010	0E	HLDR,IC
55	86-ZM3-605-110	1B	CONN ASSY,8P -RPB
56	8Z-ZM3-203-010	1H	CHAS ASSY,M3
A	84-ZM2-242-010	0E	S-SCREW,AZ1-2-6.4
B	8Z-ZM2-220-110	0E	V+2.6 ZZM-2

SPEAKER DISASSEMBLY INSTRUCTIONS

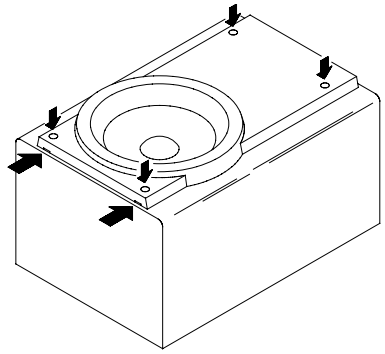
Type.1

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



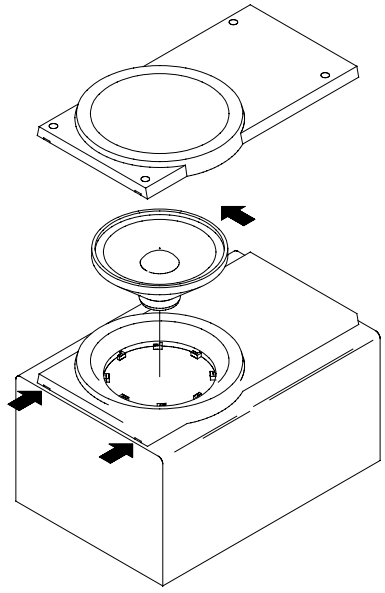
Type.2

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

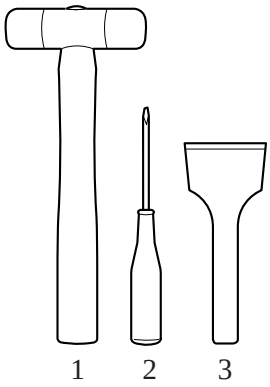


Type.3

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



Type.4



TOOLS

1 Plastic head hammer
2 flat head screwdriver
3 Cut chisel

How to Remove the PANEL, FR

1. Insert the flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

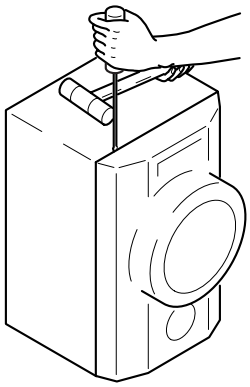


Fig-1

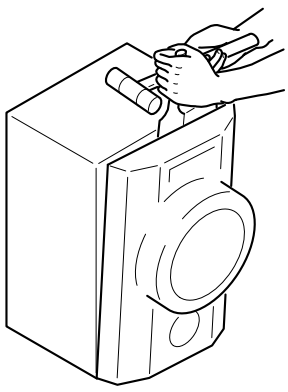


Fig-2

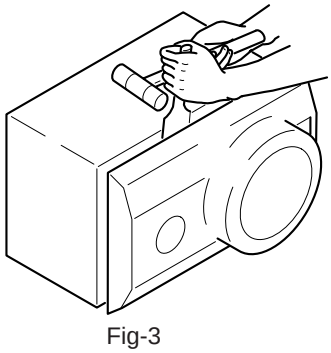


Fig-3

How to Attach the PANEL, FR

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

SPEAKER PARTS LIST
SX-NSZ20 (YBC9,YBY1,YBY2,YSL,YSC9,YSY1,YSY2), SX-NSZ22 (YSC9,YSY1,YSY2)

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NSK-001-010		PANEL,FR<EXCEPT YBC9,YBY1,YBY2>
2	8A-NSK-003-010		GRILLE,FRAME ASSY
3	8A-NSK-007-010		PROTECTOR,TWA
4	8A-NSK-602-010		SPKR,W 140<EXCEPT 22YSC9>
4	8A-NSJ-602-010		SPKR,W 130<22YSC9>
5	88-NS5-605-010		SPKR,T 60<EXCEPT 22YSC9>
5	8A-NSK-604-010		SPKR,TW 60<22YSC9>
6	87-NSH-612-010		SPKR,CERAMIC ASSY
7	87-NS7-611-010		CORD,SPKR

ACCESSORIES / PACKAGE LIST

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	8A-NF9-926-010		IB,EZ(9L)M<20EZ,27EZ>
1	8A-NF9-927-010		IB,EZ(9L)M SZ22(RDS)<22EZ>
1	8A-NF9-905-010		IB,K(E)E<20K>
2	87-A90-118-010		ANT,WIRE FM(Z)
3	87-006-225-010		AM,LOOP ANT NC2
4	8Z-NF9-701-210		RC UNIT,ZAS02<20EZ,20K,22EZ>
4	8Z-NF9-703-110		RC UNIT,ZAS17<27EZ>

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