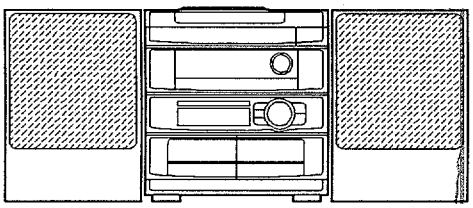
aiwa

aiwa SERVICE

Z-R900

SERVICE MANUAL



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM–3MK2 PR5N
- BASIC CD MECHANISM : 6ZG–1 SDFNM
- TYPE : LH, HE

SYSTEM	CD – CASSEIVER	SPEAKER	REMOTE CONTROLLER
Z-R900	CX-ZR900	SX–ZR900	RC - 7AS01

- If requiring information about the CD mechanism, see Service Manual of 6ZG-1, S/M Code No. 09-975-198-00T.

S/M Code No. 09–974–189–5FP

SPECIFICATIONS

<FM Tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<AM Tuner section>

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

<Amplifier section>

Power output*	HE : Rated 145 W + 145 W (6 ohms, T.H.D. 1 %, 1 kHz) Reference : 200 W + 200W (6 ohms, T.H.D. 10 %, 1 kHz) *without connecting the SURROUND SPEAKER LH : 200 W + 200W (6 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	HE : 0.1 % (20 W, 1 kHz, 6 ohms, DIN AUDIO) LH : 0.1 % (80 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX : 210 mV (adjustable) PHONO : 340 mV (47 kohms) MIC 1, MIC 2 : 1.4 mV (20 kohms)
Outputs	LINE OUT : 200mV CD DIGITAL OUT (OPTICAL) HE : SUPER WOOFER : 3.5 V LH : SUPER WOOFER : 3.7 V SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS : accept speakers of 16 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	CrO2 tape : 50 Hz ~ 16000 Hz Normal tape : 50 Hz –15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, CrO2 tape peak level, above 400 Hz)
Recording system	AC bias
Heads	Deck 1 : Playback head x1 Deck 2 : Recording/playback/ 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	0.03 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX–ZR900>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 220 mm cone type Tweeter : 80 mm cone type Super tweeter : 20 mm ceramic type
Impedance	6 ohms
Output sound pressure level	89 dB/W/m
Dimensions (W x H x D)	260 x 444 x 275 mm
Weight	4.8 kg

<General>

Power requirements	120 V/220 – 230 V/240 V AC, switchable 50/60 Hz
Power consumption	190 W
Dimensions of main unit (W x H x D)	360 x 394.5 x 382 mm
Weight of main unit	12.5 kg

- Design and specifications are subject to change without notice.

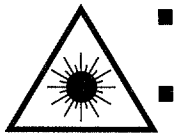
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc.
  Under license from BBE Sound, Inc.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

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



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

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

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

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

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

ADVARSEL
Usynlig 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.

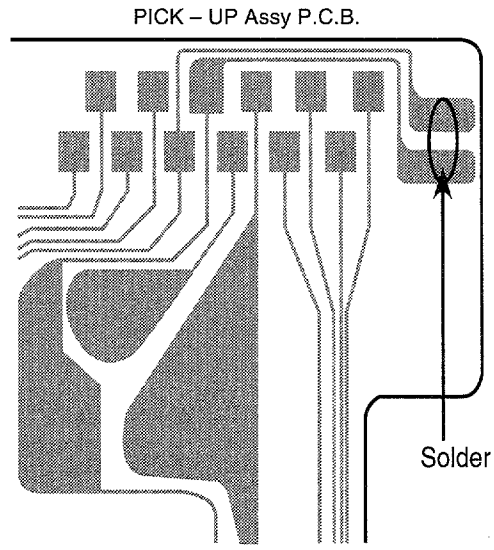
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

(KSS-213B)

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

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



ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-MA3-602-010		C-IC,LC866560W-5E53
	87-A20-593-010		IC,SPS-442-1-A
	87-017-915-080		C-IC,BU4094BCF
	87-A20-455-010		IC,HA12211
	87-A20-355-010		IC,CXA1553P
	87-A20-083-010		IC,BA3835S
	87-A20-450-040		C-IC,BH3864F
	87-A20-056-010		IC,BA3880S
	87-A20-451-040		C-IC,BU9262FS
	87-A20-561-040		C-IC,M65847AFP<HE>
	87-A20-456-040		C-IC,BH3810FS
	87-017-888-080		C-IC,NJM4558MD
	87-A20-437-010		C-IC,M62431FP
	86-NFZ-655-010		IC,LC72131D(Z)
	87-A20-438-010		IC,LA1837
	87-020-454-010		IC,DN6851
TRANSISTOR			
	87-026-263-080		C-TR,RN1410
	89-213-702-010		TR,2SB1370E
	87-A30-076-080		C-TR,2SC3052F
	89-112-965-080		TR,2SA1296GR
	87-026-610-080		TR,KTC3198GR
	87-A30-073-080		C-TR,RT1N 141C
	87-A30-085-070		C-TR,CSA1362GR
	87-A30-083-080		TR,CSD1489B
	87-A30-075-080		C-TR,2SA1235F
	87-A30-084-080		TR,CSB1058B
	87-A30-071-080		C-TR,RT1N 144C
	87-026-609-080		TR,KTA1266GR
	87-A30-086-070		C-TR,CSD1306E
	87-A30-106-070		C-TR,CMBT5551
	87-A30-111-080		TR,C2N5401
	87-A30-097-010		TR,FN1016
	87-A30-098-010		TR,FP1016
	87-A30-089-010		FET,2SK2723
	87-A30-072-080		C-TR,RT1P 144C
	87-026-266-080		C-TR,RN2404
	87-A30-087-080		C-FET,2SK2158
	87-A30-074-080		C-TR,RT1P 141C
	89-327-143-080		C-TR,2SC2714(O)
	87-026-463-080		TR,2SA933SRS
DIODE			
	87-A40-270-080		C-DIODE,MC2838
	87-A40-224-010		DIODE,GBU8DL
	87-A40-246-080		DIODE,1N4148T-72
	87-017-437-080		DIODE,1N4148M
	87-A40-269-080		C-DIODE,MC2836
	87-070-274-080		DIODE,1N4003 SEM
	87-A40-205-080		ZENER,UZ6.2BSC
	87-A40-341-080		ZENER,MTZJ36A
	87-017-933-080		ZENER,MTZJ10D
	87-070-178-090		DIODE,1N5402-BD54<HE>
	87-A40-370-090		DIODE,RK46-P20<LH>
	87-070-136-080		ZENER,MTZJ5.1B
	87-070-345-080		DIODE,1N4148
	87-017-931-080		ZENER,MTZJ5.6B
	87-A40-003-080		ZENER,MTZJ4.3A
	87-A40-004-080		ZENER,MTZJ16A
	87-A40-234-080		ZENER,MTZJ5.6A
MAIN C.B			
C101	87-A10-231-090		CAP,E 3300-80
C102	87-A10-231-090		CAP,E 3300-80
C103	87-A10-056-090		CAP,E 4700-35 M
C104	87-A10-056-090		CAP,E 4700-35 M
C105	87-012-368-080		C-CAP,S 0.1-50 Z F
C106	87-012-368-080		C-CAP,S 0.1-50 Z F
C107	87-012-368-080		C-CAP,S 0.1-50 Z F
C108	87-012-368-080		C-CAP,S 0.1-50 Z F
C109	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C110	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C111	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C112	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C113	87-010-247-080		CAP,E 100-50 M SME
C114	87-010-247-080		CAP,E 100-50 M SME
C115	87-010-247-080		CAP,E 100-50 M SME
C116	87-010-247-080		CAP,E 100-50 M SME
C117	87-010-430-080		CAP,E 100-63
C118	87-010-263-080		CAP,E 100-10 SME
C119	87-010-260-080		CAP,E 47-25 SME
C120	87-010-403-080		CAP,E 3.3-50 M SME
C121	87-012-140-080		C-CAP,S 470P-50 J CH
C123	87-010-247-080		CAP,E 100-50 M SME
C124	87-010-112-080		CAP,E 100-16 M SME
C125	87-010-235-080		CAP,E 470-16 SME
C126	87-010-194-080		C-CAP,S 0.047-25 Z F
C127	87-010-194-080		C-CAP,S 0.047-25 Z F
C129	87-010-393-080		CAP,E 100-35 M SME
C201	87-010-400-080		CAP,E 0.47-50 M SME
C202	87-010-400-080		CAP,E 0.47-50 M SME
C205	87-010-188-080		C-CAP,S 6800P-50 K B
C206	87-010-188-080		C-CAP,S 6800P-50 K B
C207	87-010-404-080		CAP,E 4.7-50 M SME
C208	87-010-404-080		CAP,E 4.7-50 M SME
C209	87-010-404-080		CAP,E 4.7-50 M SME
C210	87-010-404-080		CAP,E 4.7-50 M SME
C211	87-010-186-080		C-CAP,S 4700P-50 K B
C212	87-010-186-080		C-CAP,S 4700P-50 K B
C213	87-010-260-080		CAP,E 47-25 SME
C214	87-010-260-080		CAP,E 47-25 SME
C215	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C219	87-012-368-080		C-CAP,S 0.1-50 Z F
C220	87-012-368-080		C-CAP,S 0.1-25 Z F
C221	87-012-368-080		C-CAP,S 0.1-25 Z F
C222	87-012-368-080		C-CAP,S 0.1-25 Z F
C223	87-010-194-080		C-CAP,S 0.047-25 Z F
C225	87-A10-516-080		C-CAP,S 100P-200 CH
C226	87-A10-516-080		C-CAP,S 100P-200 CH
C242	87-010-406-080		CAP,E 22-50 M SME
C243	87-010-197-080		C-CAP,S 0.01-25 K B
C244	87-010-406-080		CAP,E 22-50 M SME
C301	87-010-318-080		C-CAP,S 47P-50 J CH
C302	87-010-318-080		C-CAP,S 47P-50 J CH
C303	87-012-157-080		C-CAP,S 330P-50 J CH GRM
C304	87-012-157-080		C-CAP,S 330P-50 J CH GRM
C305	87-012-145-080		C-CAP,S 270P-50 J CH
C306	87-012-145-080		C-CAP,S 270P-50 J CH
C307	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C311	87-010-198-080		C-CAP,S 0.022-25 K B
C312	87-010-198-080		C-CAP,S 0.022-25 K B
C313	87-010-180-080		C-CAP,S 1500P-50 K B
C314	87-010-180-080		C-CAP,S 1500P-50 K B
C315	87-010-179-080		C-CAP,S 1500P-50 K B
C316	87-010-179-080		C-CAP,S 1500P-50 K B
C317	87-012-142-080		C-CAP,S 0.33-16 Z F
C318	87-012-142-080		C-CAP,S 0.33-16 Z F
C319	87-012-141-080		C-CAP,S 0.22-16 Z F
C320	87-012-141-080		C-CAP,S 0.22-16 Z F
C321	87-012-141-080		C-CAP,S 0.22-16 Z F
C322	87-012-141-080		C-CAP,S 0.22-16 Z F
C324	87-010-260-080		CAP,E 47-25 SME
C325	87-010-370-080		CAP,E 330-6.3 M SME
C327	87-010-404-080		CAP,E 4.7-50 M SME

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C328	87-010-404-080		CAP,E 4.7-50 M SME
C332	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C335	87-010-401-080		CAP,E 1-50 M SME
C336	87-010-401-080		CAP,E 1-50 M SME
C337	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C339	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C340	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C351	87-012-140-080		C-CAP,S 470P-50 J CH
C352	87-012-140-080		C-CAP,S 470P-50 J CH
C354	87-010-175-080		C-CAP,S 560P-50 J SL
C355	87-010-178-080		C-CAP,S 1000P-50 K B
C356	87-010-260-080		CAP,E 47-25 SME
C357	87-010-197-080		C-CAP,S 0.01-25 K B
C358	87-010-183-080		C-CAP,S 2700P-50 K B
C359	87-010-183-080		C-CAP,S 2700P-50 K B
C360	87-010-183-080		C-CAP,S 2700P-50 K B
C370	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C371	87-010-179-080		C-CAP,S 1200P-50 K B
C372	87-010-179-080		C-CAP,S 1200P-50 K B
C373	87-010-179-080		C-CAP,S 1200P-50 K B
C374	87-010-179-080		C-CAP,S 1200P-50 K B
C375	87-010-545-080		CAP,E 0.22-50 M SME
C376	87-010-545-080		CAP,E 0.22-50 M SME
C378	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C381	87-010-197-080		C-CAP,S 0.01-25 K B
C382	87-010-318-080		C-CAP,S 47P-50 J CH
C383	87-010-197-080		C-CAP,S 0.01-25 K B
C384	87-010-402-080		CAP,E 2.2-50 M SME
C385	87-010-184-080		C-CAP,S 3300P-50 K B
C386	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C388	87-010-154-080		C-CAP,S 10P-50 D CH
C401	87-010-184-080		C-CAP,S 3300P-50 K B
C402	87-010-184-080		C-CAP,S 3300P-50 K B
C403	87-010-405-080		CAP,E 10-50 M SME
C404	87-010-405-080		CAP,E 10-50 M SME
C405	87-010-260-080		CAP,E 47-25 SME
C406	87-010-101-080		CAP,E 220-16 SME
C407	87-010-188-080		C-CAP,S 6800P-50 K B
C408	87-010-188-080		C-CAP,S 6800P-50 K B
C409	87-012-140-080		C-CAP,S 470P-50 J CH
C410	87-012-140-080		C-CAP,S 470P-50 J CH
C411	87-010-197-080		C-CAP,S 0.01-25 K B
C412	87-010-197-080		C-CAP,S 0.01-25 K B
C413	87-010-195-080		C-CAP,S 0.068-25 Z F C2012
C414	87-010-195-080		C-CAP,S 0.068-25 Z F C2012
C415	87-010-404-080		CAP,E 4.7-50 M SME
C416	87-010-404-080		CAP,E 4.7-50 M SME
C417	87-010-404-080		CAP,E 4.7-50 M SME
C418	87-010-404-080		CAP,E 4.7-50 M SME
C421	87-010-401-080		CAP,E 1-50 M SME
C422	87-010-401-080		CAP,E 1-50 M SME
C503	87-012-154-080		C-CAP,S 150P-50 J CH GRM<HE>
C504	87-012-154-080		C-CAP,S 150P-50 J CH GRM<HE>
C505	87-012-145-080		C-CAP,S 270P-50 J CH<HE>
C506	87-012-145-080		C-CAP,S 270P-50 J CH<HE>
C507	87-010-183-080		C-CAP,S 2700P-50 K B<HE>
C509	87-010-196-080		C-CAP,S 0.1-25 Z F C2012<HE>
C510	87-010-177-080		C-CAP,S 820P-50 J SL<HE>
C511	87-010-177-080		C-CAP,S 820P-50 J SL<HE>
C512	87-010-196-080		C-CAP,S 0.1-25 Z F C2012<HE>
C513	87-010-374-080		CAP,E 47-10 M SME<HE>
C514	87-010-196-080		C-CAP,S 0.1-25 Z F C2012<HE>
C515	87-010-263-080		CAP,E 100-10 SME<HE>
C516	87-010-196-080		C-CAP,S 0.1-25 Z F C2012<LH>
C517	87-010-183-080		C-CAP,S 2700P-50 K B<HE>
C527	87-010-196-080		C-CAP,S 0.1-25 Z F C2012<HE>
C605	87-010-180-080		C-CAP,S 1500P-50 K B
C606	87-010-180-080		C-CAP,S 1500P-50 K B
C611	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C613	87-010-404-080		CAP,E 4.7-50 M SME
C614	87-010-404-080		CAP,E 4.7-50 M SME
C615	87-010-183-080		C-CAP,S 2700P-50 K B
C619	87-010-263-080		CAP,E 100-10 SME
C620	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C621	87-010-263-080		CAP,E 100-10 SME
C622	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C623	87-010-194-080		C-CAP,S 0.047-25 Z F
C646	87-010-322-080		C-CAP,S 100P-50 J CH
C647	87-010-322-080		C-CAP,S 100P-50 J CH
C701	87-010-381-080		CAP,E 330-16 SME
C702	87-010-404-080		CAP,E 4.7-50 M SME
C703	87-010-197-080		C-CAP,S 0.01-25 K B
C704	87-010-197-080		C-CAP,S 0.01-25 K B
C711	87-010-263-080		CAP,E 100-10 SME
C712	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C713	87-010-197-080		C-CAP,S 0.01-25 K B
C714	87-010-197-080		C-CAP,S 0.01-25 K B
C721	87-010-312-080		C-CAP,S 15P-50 J CH
C722	87-010-312-080		C-CAP,S 15P-50 J CH
C723	87-010-178-080		C-CAP,S 1000P-50 K B
C725	87-010-178-080		C-CAP,S 1000P-50 K B
C727	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C728	87-010-248-080		CAP,E 220-10 SME
C755	87-010-197-080		C-CAP,S 0.01-25 K B
C756	87-010-197-080		C-CAP,S 0.01-25 K B
C757	87-010-318-080		C-CAP,S 47P-50 J CH
C758	87-010-149-080		C-CAP,S 5P-50 CH
C761	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C762	87-010-197-080		C-CAP,S 0.01-25 K B
C763	87-010-194-080		C-CAP,S 0.047-25 Z F
C765	87-010-197-080		C-CAP,S 0.01-25 K B
C766	87-010-197-080		C-CAP,S 0.01-25 K B
C767	87-010-405-080		CAP,E 10-50 M SME
C768	87-010-197-080		C-CAP,S 0.01-25 K B
C769	87-010-408-080		CAP,E 47-50 SME
C770	87-015-821-080		C-CAP, 0.047-50 Z F GR
C771	87-010-407-080		CAP,E 33-50 SME
C772	87-010-194-080		C-CAP,S 0.047-25 Z F
C773	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C774	87-010-263-080		CAP,E 100-10 SME
C775	87-010-404-080		CAP,E 4.7-50 M SME
C776	87-010-197-080		C-CAP,S 0.01-25 K B
C777	87-010-400-080		CAP,E 0.47-50 M SME
C778	87-010-401-080		CAP,E 1-50 M SME
C779	87-010-401-080		CAP,E 1-50 M SME
C780	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C781	87-010-405-080		CAP,E 10-50 M SME
C782	87-010-405-080		CAP,E 10-50 M SME
C783	87-015-819-080		C-CAP,0.01-50 K B
C784	87-010-197-080		C-CAP,S 0.01-25 K B
C785	87-010-400-080		CAP,E 0.47-50 M SME
C786	87-010-400-080		CAP,E 0.47-50 M SME
C787	87-010-184-080		C-CAP,S 3300P-50 K B
C788	87-010-184-080		C-CAP,S 3300P-50 K B
C789	87-010-179-080		C-CAP,S 1200P-50 K B
C790	87-010-179-080		C-CAP,S 1200P-50 K B
C791	87-010-405-080		CAP,E 10-50 M SME
C793	87-010-178-080		C-CAP,S 1000P-50 K B
C794	87-010-406-080		CAP,E 22-50 M SME
C795	87-010-596-080		C-CAP,S 0.047-16 K R
C796	87-010-403-080		CAP,E 3.3-50 M SME
C797	87-010-180-080		C-CAP,S 1500P-50 K B<HE>
C797	87-010-182-080		C-CAP,S 2200P-50 K B<LH>
C798	87-010-180-080		C-CAP,S 1500P-50 K B<HE>
C798	87-010-182-080		C-CAP,S 2200P-50 K B<LH>
C799	87-010-194-080		C-CAP,S 0.047-25 Z F
C812	87-010-197-080		C-CAP,S 0.01-25 K B
C813	87-010-197-080		C-CAP,S 0.01-25 K B
C814	87-010-197-080		C-CAP,S 0.01-25 K B
C815	87-010-197-080		C-CAP,S 0.01-25 K B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C816	87-010-197-080		C-CAP,S 0.01-25 K B
C819	87-010-197-080		C-CAP,S 0.01-25 K B
C820	87-010-408-080		CAP,E 47-50 SME
C821	87-010-197-080		C-CAP,S 0.01-25 K B
C822	87-010-197-080		C-CAP,S 0.01-25 K B
C823	87-010-197-080		C-CAP,S 0.01-25 K B
C828	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C829	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C959	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C960	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C961	87-010-152-080		C-CAP,S 8P-50 D CH
CF801	87-008-261-010		FLTR,CFSFE10.7MA5
CF802	87-008-261-010		FLTR,CFSFE10.7MA5
CON351	83-NEG-608-010		CONN ASSY,8P-RPB
FFE801	A8-7ZA-290-030		7ZA-2 FEUNM
J252	87-A60-024-010		JACK,DIA6.3 BLK ST W/SW KM
J253	87-099-474-010		JACK,PIN 3P BLK W/SW
J254	87-A60-238-010		TERMINAL,SP 4P (MSC)
J601	87-A60-330-010		JACK,PIN 6P YKC21-3174
J801	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02
L201	87-003-383-010		COIL,1UH K
L202	87-003-383-010		COIL,1UH K
L301	87-A50-049-010		COIL,TRAP 85K(COI)
L302	87-A50-049-010		COIL,TRAP 85K(COI)
L351	87-007-342-010		COIL,OSC 85KHZ BIAS
L644	83-XM1-617-080		C-COIL,BK 2125 HM601
L770	87-005-847-080		COIL,2.2UH K CECS
L771	87-A50-165-010		COIL,FM DET-N(TOK)
L772	87-A90-245-010		FLTR,CFAZH-450 (TOK)
L791	87-003-293-010		COIL, TRAP MPX<LH>
L791	87-A50-027-010		COIL,1 POLE MPX(TOK)<HE>
L792	87-003-293-010		COIL, TRAP MPX<LH>
L792	87-A50-027-010		COIL,1 POLE MPX(TOK)<HE>
L832	87-005-847-080		COIL,2.2UH K CECS
L981	87-NF4-650-010		COIL,AM PACK4N(TOK)
PR201	87-026-682-080		PROTECTOR,10A 491SERIES 60V
PR202	87-026-682-080		PROTECTOR,10A 491SERIES 60V
R229	87-022-184-080		RES,M/F 0.33-1W J
R230	87-022-184-080		RES,M/F 0.33-1W J
R231	87-022-184-080		RES,M/F 0.33-1W J
R232	87-022-184-080		RES,M/F 0.33-1W J
RY101	87-045-389-010		RELAY,12V OSA-SS-212DM5
RY201	87-045-382-010		RELAY,12V OUAZ-SH-112L
SFR301	87-024-435-080		SFR,33K H RH063MC
SFR302	87-024-435-080		SFR,33K H RH063MC
SFR303	87-024-435-080		SFR,33K H RH063MC
SFR304	87-024-435-080		SFR,33K H RH063MC
SFR305	87-024-436-080		SFR,47K H RH063MC
SFR306	87-024-436-080		SFR,47K H RH063MC
SFR351	87-024-436-080		SFR,47K H RH063MC
SFR352	87-024-436-080		SFR,47K H RH063MC
TH201	87-A90-221-080		C-THMS,100K
TH202	87-A90-221-080		C-THMS,100K
W5	85-NF5-617-010		CABLE,FFC 6P-1.25
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309

FRONT C.B

C101	87-010-198-080		C-CAP,S 0.022-25 K B
C102	87-010-198-080		C-CAP,S 0.022-25 K B
C103	87-010-197-080		C-CAP,S 0.01-25 K B
C104	87-010-320-080		C-CAP,S 68P-50 J CH
C105	87-010-316-080		C-CAP,S 33P-50 J CH
C107	87-012-157-080		C-CAP,S 330P-50 J CH GRM
C108	87-010-405-040		CAP,E 10-50 M SME
C109	87-010-401-040		CAP,E 1-50 M SME
C110	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C111	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C112	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C113	87-A10-189-040		CAP,E 220-10 M
C114	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C115	87-010-178-080		C-CAP,S 1000P-50 K B
C116	87-010-494-040		CAP,E 1-50 5L SRE
C117	87-010-263-040		CAP,E 100-10 M SME
C118	87-010-194-080		C-CAP,S 0.047-25 Z F
C119	87-010-408-040		CAP,E 47-50 M SME
C120	87-010-404-040		CAP,E 4.7-50 SME
C121	87-010-404-040		CAP,E 4.7-50 SME
C122	87-010-194-080		C-CAP,S 0.047-25 Z F
C123	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C124	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C125	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C126	87-010-312-080		C-CAP,S 15P-50 J CH
C127	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C201	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C281	87-010-198-080		C-CAP,S 0.022-25 K B
C282	87-010-198-080		C-CAP,S 0.022-25 K B
C381	87-012-158-080		C-CAP,S 390P-50 J CH GRM
C382	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C383	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C384	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C385	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C386	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C387	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C403	87-010-956-080		C-CAP,S 0.068-25 K B
C404	87-010-956-080		C-CAP,S 0.068-25 K B
C405	87-010-400-040		CAP,E 0.47-50 SME
C406	87-010-400-040		CAP,E 0.47-50 SME
C407	87-010-183-080		C-CAP,S 2700P-50 K B
C408	87-010-183-080		C-CAP,S 2700P-50 K B
C409	87-A10-201-080		C-CAP,S 0.33-16 K B
C410	87-A10-201-080		C-CAP,S 0.33-16 K B
C411	87-010-198-080		C-CAP,S 0.022-25 K B
C412	87-010-198-080		C-CAP,S 0.022-25 K B
C413	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C414	87-010-374-040		CAP,E 47-10 SME
C415	87-010-374-040		CAP,E 47-10 SME
C416	87-016-081-080		C-CAP,S 0.1-16 K R
C417	87-016-081-080		C-CAP,S 0.1-16 K R
C418	87-010-405-040		CAP,E 10-50 M SME
C501	87-010-319-080		C-CAP,S 56P-50 J CH
C502	87-010-319-080		C-CAP,S 56P-50 J CH
C503	87-016-460-080		C-CAP,S 0.22-16 K B
C504	87-010-197-080		C-CAP,S 0.01-25 K B
C505	87-010-180-080		C-CAP,S 1500P-50 K B
C506	87-010-590-080		C-CAP,S 0.015-16 K R
C507	87-010-590-080		C-CAP,S 0.015-16 K R
C508	87-010-197-080		C-CAP,S 0.01-25 K B
C509	87-010-181-080		C-CAP,S 1800P-50 K B
C510	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C512	87-010-408-040		CAP,E 47-50 M SME
C513	87-010-401-040		CAP,E 1-50 M SME
C514	87-010-401-040		CAP,E 1-50 M SME
C515	87-010-184-080		C-CAP,S 3300P-50 K B
C516	87-010-184-080		C-CAP,S 3300P-50 K B
C518	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C519	87-010-263-040		CAP,E 100-10 M SME
C525	87-012-141-080		C-CAP,S 0.22-16 Z F
C601	87-010-405-040		CAP,E 10-50 M SME
C602	87-010-186-080		C-CAP,S 4700P-50 K B
C603	87-010-405-040		CAP,E 10-50 M SME
C604	87-010-406-040		CAP,E 22-50 M SME
C605	87-018-209-080		CAP,TC U 0.1-50 Z F UP050
C607	87-010-321-080		C-CAP,S 82P-50 J CH
C608	87-010-196-080		C-CAP,S 0.1-25 Z F C2012
C609	87-010-491-040		CAP,E 0.22-50 5L SRE
C611	87-010-177-080		C-CAP,S 820P-50 J SL
C612	87-010-176-080		C-CAP,S 680P-50 J SL
C614	87-010-248-040		CAP,E 220-10 M SME
C701	87-010-555-040		CAP,E 100-10 5L SRE

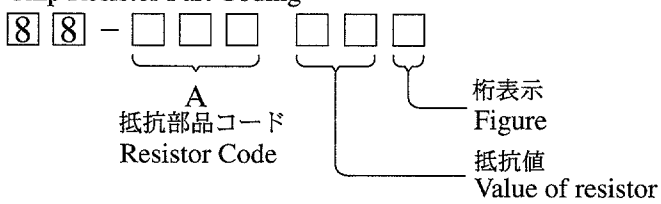
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C702	87-010-112-040		CAP,E 100-16 SME
C705	87-016-081-080		C-CAP,S 0.1-16 K R
C706	87-010-956-080		C-CAP,S 0.068-25 K B
C707	87-016-081-080		C-CAP,S 0.1-16 K R
C708	87-010-956-080		C-CAP,S 0.068-25 K B
C709	87-016-369-080		C-CAP,S 0.033-25 K B
C710	87-016-081-080		C-CAP,S 0.1-16 K R
C711	87-010-220-080		C-CAP,S 0.018-25 K B
C712	87-010-992-080		C-CAP,S 0.047-25 K B MK212
C713	87-010-189-080		C-CAP,S 8200P-50 K B
C714	87-010-198-080		C-CAP,S 0.022-25 K B
C715	87-010-185-080		C-CAP,S 3900P-50 K B
C716	87-010-197-080		C-CAP,S 0.01-25 K B
C717	87-010-182-080		C-CAP,S 2200P-50 K B
C718	87-010-186-080		C-CAP,S 4700P-50 K B
C719	87-010-178-080		C-CAP,S 1000P-50 K B
C720	87-010-183-080		C-CAP,S 2700P-50 K B
C721	87-010-405-040		CAP,E 10-50 M SME
C722	87-010-405-040		CAP,E 10-50 M SME
C723	87-010-378-040		CAP,E 10-16 M SME
C724	87-016-369-080		C-CAP,S 0.033-25 K B
C725	87-016-081-080		C-CAP,S 0.1-16 K R
C726	87-010-220-080		C-CAP,S 0.018-25 K B<HE>
C726	87-010-220-080		C-CAP,S 0.018-25 K B
C727	87-010-992-080		C-CAP,S 0.047-25 K B MK212
C728	87-010-189-080		C-CAP,S 8200P-50 K B
C729	87-010-198-080		C-CAP,S 0.022-25 K B
C730	87-010-185-080		C-CAP,S 3900P-50 K B
C731	87-010-197-080		C-CAP,S 0.01-25 K B
C732	87-010-182-080		C-CAP,S 2200P-50 K B
C733	87-010-186-080		C-CAP,S 4700P-50 K B
C734	87-010-178-080		C-CAP,S 1000P-50 K B
C735	87-010-183-080		C-CAP,S 2700P-50 K B
C736	87-010-992-080		C-CAP,S 0.047-25 K B MK212
C736	87-010-992-080		C-CAP,S 0.047-25 K B MK212<HE>
C737	87-010-992-080		C-CAP,S 0.047-25 K B MK212
C737	87-010-992-080		C-CAP,S 0.047-25 K B MK212<HE>
FB601	87-008-372-080		FLTR,EMIBL01 RN1
FL102	87-MA3-604-010		FL,BJ540GK 7MA-3
FR146	87-029-082-090		RES,FUSE 100-1/4W J
L501	87-005-448-080		COIL,220UH K FLR50
LED201	87-017-785-080		LED,SEL4214S RED
LED202	87-017-785-080		LED,SEL4214S RED
LED203	87-017-785-080		LED,SEL4214S RED
LED204	87-017-785-080		LED,SEL4214S RED
LED205	87-017-785-080		LED,SEL4214S RED
LED206	87-017-368-080		LED,SEL4514C TP5 PGRN
LED207	87-017-368-080		LED,SEL4514C TP5 PGRN
LED208	87-017-368-080		LED,SEL4514C TP5 PGRN
LED209	87-017-368-080		LED,SEL4514C TP5 PGRN
LED210	87-017-368-080		LED,SEL4514C TP5 PGRN
LED211	87-017-368-080		LED,SEL4514C TP5 PGRN
LED212	87-017-368-080		LED,SEL4514C TP5 PGRN
LED213	87-017-368-080		LED,SEL4514C TP5 PGRN
LED214	87-017-368-080		LED,SEL4514C TP5 PGRN
LED215	87-017-368-080		LED,SEL4514C TP5 PGRN
LED216	87-017-731-080		LED,SEL1510CM2 PGRN
LED217	87-017-731-080		LED,SEL1510CM2 PGRN
LED218	87-017-731-080		LED,SEL1510CM2 PGRN
LED219	87-017-731-080		LED,SEL1510CM2 PGRN
LED220	87-017-731-080		LED,SEL1510CM2 PGRN
LED221	87-017-731-080		LED,SEL1510CM2 PGRN
LED233	87-070-270-010		LED,SEL1510CM2-LF34 P-GRN
LED234	87-070-270-010		LED,SEL1510CM2-LF34 P-GRN
LED235	87-070-270-010		LED,SEL1510CM2-LF34 P-GRN
LED236	87-070-270-010		LED,SEL1510CM2-LF34 P-GRN
LED237	87-070-300-010		LED,SEL1250SMLF34 RED
LED238	87-070-300-010		LED,SEL1250SMLF34 RED
LED239	87-017-785-080		LED,SEL4214S RED
LED240	87-017-785-080		LED,SEL4214S RED
LED241	87-002-787-080		LED,SEL6215S RED
LED242	87-002-787-080		LED,SEL6215S RED
LED243	87-002-787-080		LED,SEL6215S RED
LED244	87-002-787-080		LED,SEL6215S RED
R301	87-022-355-080		C-RES,S 10K-1/10W F
R321	87-022-355-080		C-RES,S 10K-1/10W F
R341	87-022-355-080		C-RES,S 10K-1/10W F
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S328	87-A90-095-080		SW,TACT EVQ11G04M
S329	87-A90-095-080		SW,TACT EVQ11G04M
S330	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M
S332	87-A90-095-080		SW,TACT EVQ11G04M
S333	87-A90-095-080		SW,TACT EVQ11G04M
S334	87-A90-095-080		SW,TACT EVQ11G04M
S335	87-A90-095-080		SW,TACT EVQ11G04M
S336	87-A90-095-080		SW,TACT EVQ11G04M
S341	87-A90-095-080		SW,TACT EVQ11G04M
S342	87-A90-095-080		SW,TACT EVQ11G04M
S344	87-A90-095-080		SW,TACT EVQ11G04M<HE>
S346	87-A90-095-080		SW,TACT EVQ11G04M<HE>
S349	87-A90-095-080		SW,TACT EVQ11G04M
S350	87-A90-095-080		SW,TACT EVQ11G04M
S351	87-A90-095-080		SW,TACT EVQ11G04M
S352	87-A90-095-080		SW,TACT EVQ11G04M
S353	87-A90-095-080		SW,TACT EVQ11G04M
S354	87-A90-095-080		SW,TACT EVQ11G04M
S355	87-A90-095-080		SW,TACT EVQ11G04M
S356	87-A90-095-080		SW,TACT EVQ11G04M
SW101	87-A90-535-010		SW,RTRY EC16B24304W0-20 NON
W104	88-914-251-110		FF-CABLE, 14P 1.25 250MM
W105	88-908-231-110		FF-CABLE, 8P 1.25
W501	85-MA2-602-010		CABLE FFC,15P-1.25
X201	87-A70-070-080		VIB,CER 5.76MHZ CRHF
MIC 1 C.B			
J601	87-099-659-010		JACK,6.3 0
MIC 2 C.B			
J602	87-099-659-010		JACK,6.3 0
RT C.B			
SW281	87-A90-469-010		SW,RTRY EVQVB0F0324B
CD KEY C.B			
C371	87-018-209-080		CAP,TC U 0.1-50 Z F UP050
LED371	87-017-785-080		LED,SEL4214S RED
LED372	87-017-785-080		LED,SEL4214S RED
LED373	87-017-785-080		LED,SEL4214S RED
LED374	87-017-785-080		LED,SEL4214S RED

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LED375	87-017-785-080		LED,SEL4214S RED
S370	87-A90-095-080		SW,TACT EVQ11G04M
S371	87-A90-095-080		SW,TACT EVQ11G04M
S372	87-A90-095-080		SW,TACT EVQ11G04M
S373	87-A90-095-080		SW,TACT EVQ11G04M
S374	87-A90-095-080		SW,TACT EVQ11G04M
S375	87-A90-095-080		SW,TACT EVQ11G04M
S376	87-A90-095-080		SW,TACT EVQ11G04M
AC2 C.B			
⚠ PR1	87-026-682-080		PROTECTOR,10A 491SERIES 60V
⚠ PR2	87-026-682-080		PROTECTOR,10A 491SERIES 60V
⚠ PR5	87-026-682-080		PROTECTOR,10A 491SERIES 60V
⚠ PR6	87-026-682-080		PROTECTOR,10A 491SERIES 60V
W1	85-NF5-628-010		F-CABLE,7P-2.5
PT C.B			
⚠ F101	87-035-458-010		FUSE,4A 250V T 218
⚠ F102	87-035-458-010		FUSE,4A 250V T 218
⚠ FC1	87-033-147-010		FUSE CLAMP,MT-20
⚠ FC2	87-033-147-010		FUSE CLAMP,MT-20
⚠ FC3	87-033-147-010		FUSE CLAMP,MT-20
⚠ FC4	87-033-147-010		FUSE CLAMP,MT-20
⚠ PT101	87-MA3-606-010		PT,7MA-3 HE
⚠ SW1	87-A90-165-010		SW,SL 1-2-3 SWS2301
⚠ T1	87-A60-317-010		TERMINAL, 1P MSC
⚠ T2	87-A60-317-010		TERMINAL, 1P MSC

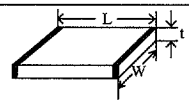
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
DECK C.B			
W001	82-ZM3-601-019		RBN,CORD,4P-75
SFR1	87-024-581-019		SFR,3.3K DIA 6H
SOL1	82-ZM1-626-310		SOL ASSY, 27K
SOL2	82-ZM1-626-310		SOL ASSY, 27K
SW1	87-A90-248-019		SW,MICRO ESE11SH2CXQ
SW2	87-A90-248-019		SW,MICRO ESE11SH2CXQ
SW3	87-A90-248-019		SW,MICRO ESE11SH2CXQ
SW4	87-036-110-010		SW,MICRO SPPB62
SW5	87-036-110-010		SW,MICRO SPPB62
SW6	87-036-110-010		SW,MICRO SPPB62
SW8	87-A90-248-019		SW,MICRO ESE11SH2CXQ
SW9	87-036-110-010		SW,MICRO SPPB62
CON502	87-099-756-019		CONN, 15P 9604 S F
HEAD-1 C.B			
	85-ZM3-601-010		PWB,FLEX I
HEAD-2 C.B			
	85-ZM3-601-010		PWB,FLEX I

O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	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

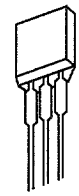
2SA1296GR
KTA1266GR
KTC3198GR

E C B

CSD1489B
CSB1058B

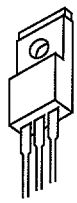
E B C

C2N5401



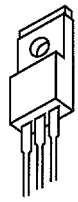
E C B

2SA933S



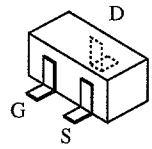
B C E

2SB1370
FN1016
FP1016

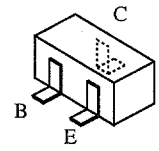


G D G

2SK2723



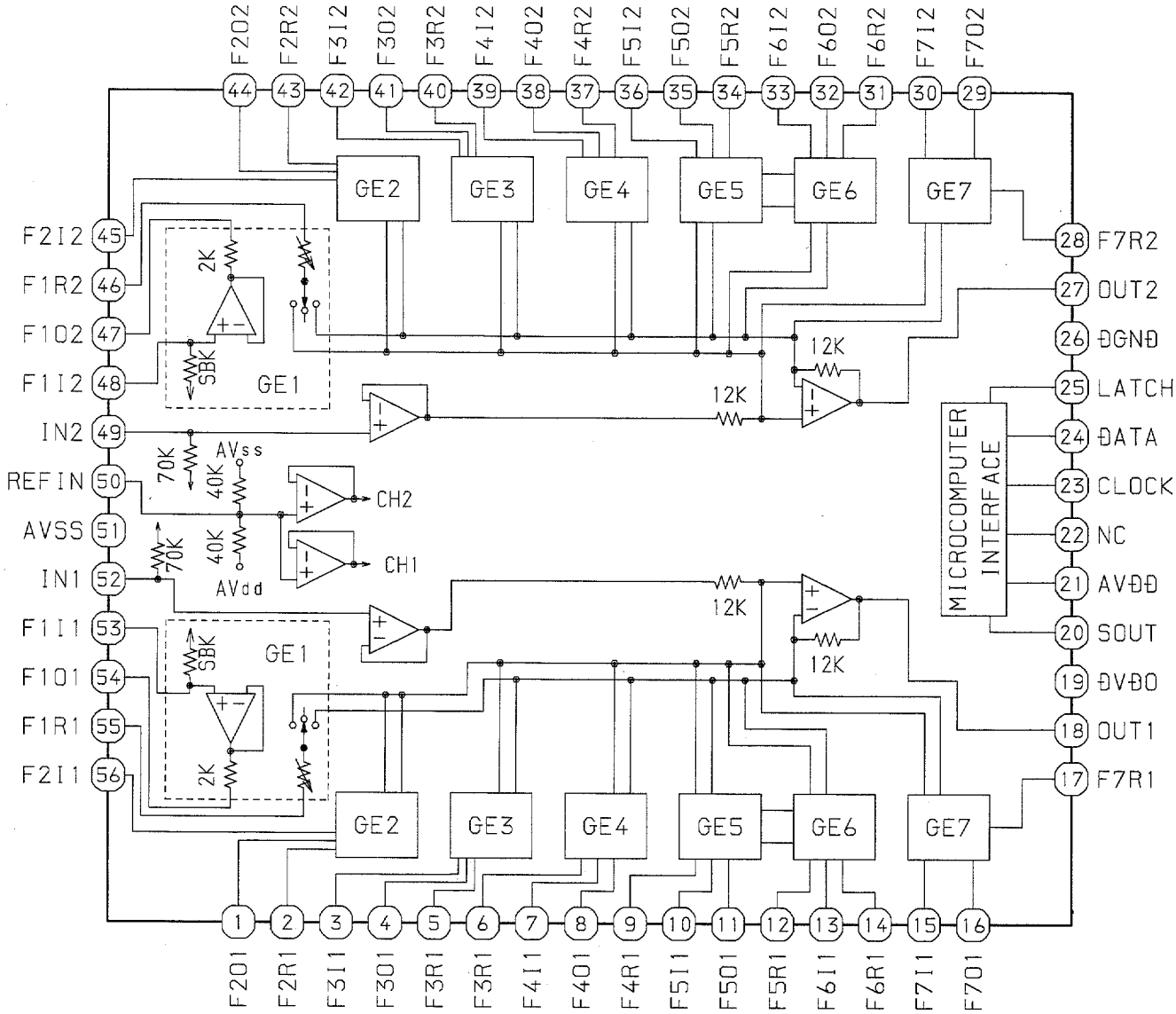
2SK2158



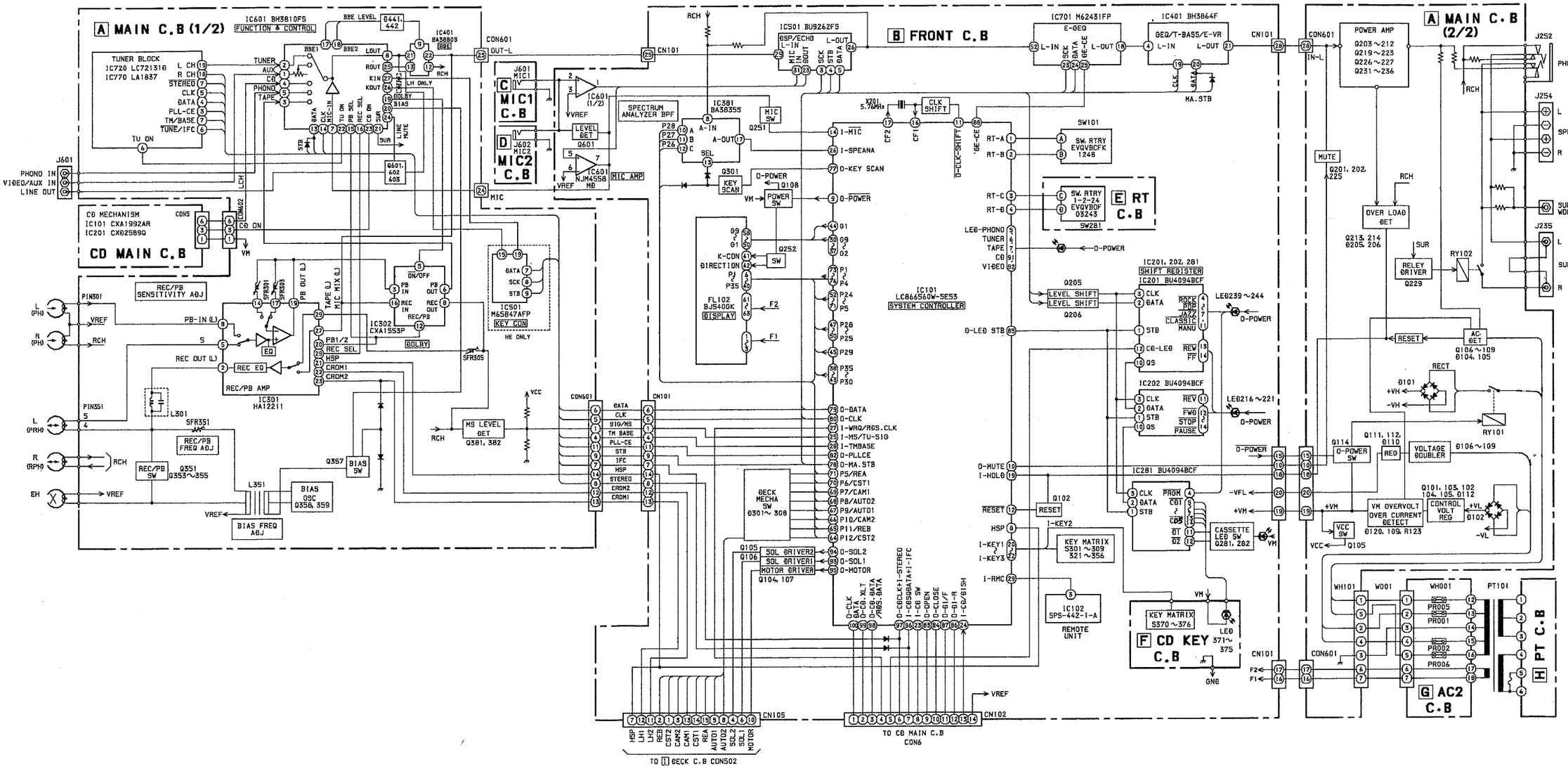
2SA1235F	RN1410
2SC2714	RN2404
2SC3052F	RT1P144C
CMBT5551	RT1N141C
CSA1362GR	RT1N144C
CSD1306E	RT1P141C

IC BLOCK DIAGRAM – 1

M62431FP



BLOCK DIAGRAM (MAIN / FRONT)



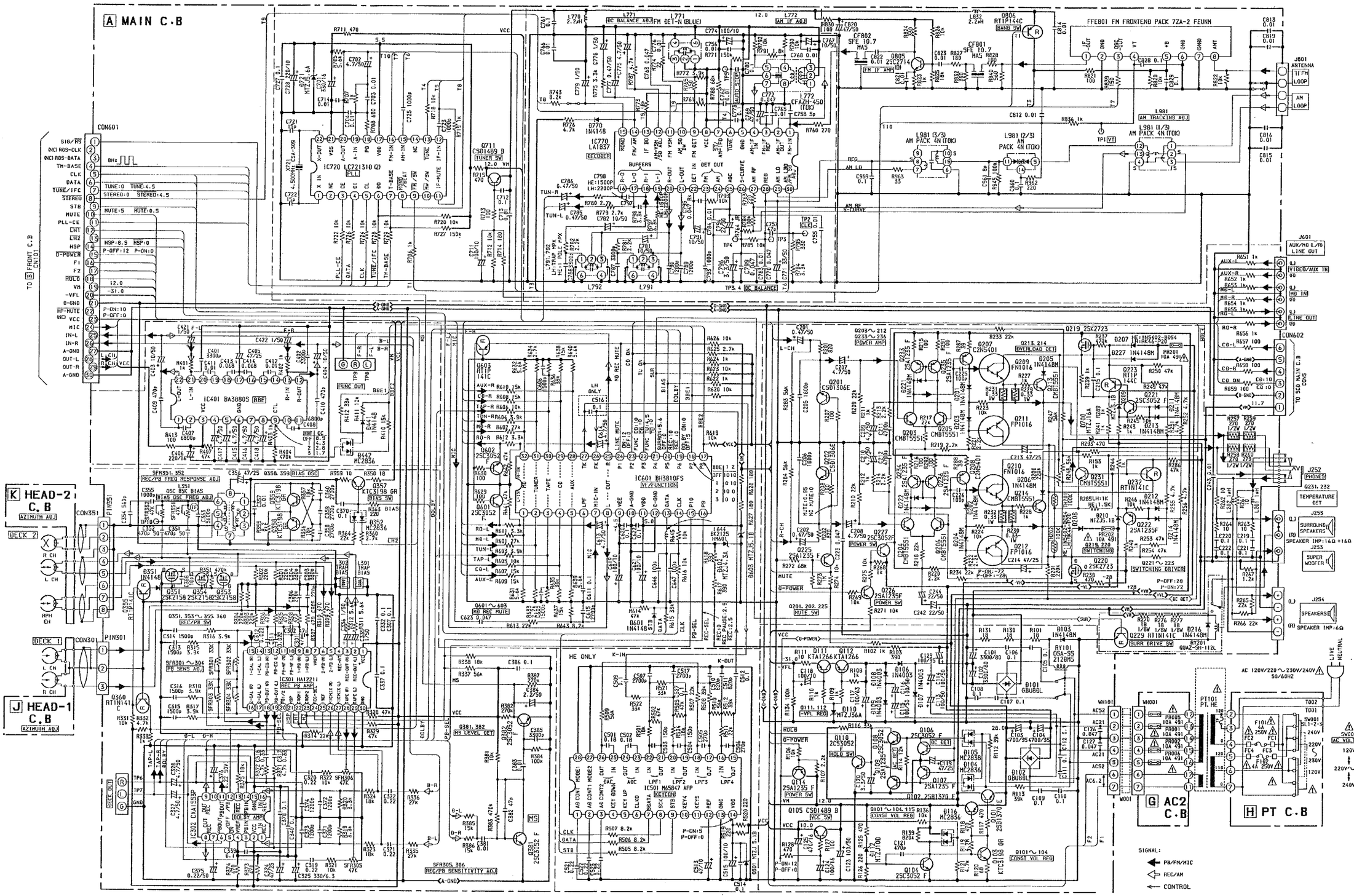
A MAIN C.B

FROM K HEAD-2 C.B
CON351
TO PIN351

FROM J HEAD-1 C.B
CON301
TO PIN301

TO B FRONT C.B
CN101
PN101

AM LOOP
J801
ANTENNA
FM 75Ω
J601
VIDEO/AUX IN
R
L
TO CD MAIN C.B
CON5
W5
TO CON602
J601
MD IN
J601
LINE OUT
FROM G AC2 C.B
WH001
W1
YEL/WHT
J253
SURROUND SPEAKERS
SPEAKERS
IMP:16Ω+16Ω
J253
SUPER WOOFER
J254
SPEAKERS
SPEAKER
IMP:6Ω
J252
PHONES


A MAIN C.B
CON601
IC720 LC72131D (Z)
IC401 BA3880S
IC601 BH3810FS
IC301 HA12211
IC501 M56847 AFP
Q711 C5D1489 B
TUNER SW
Q601~603
MD REC MUTE
Q501 C5D1306E
Q201 C5D1306E
Q602 2SC3052
Q603 RT1P141C
Q604 2SA1235 F
Q105 C5D1489 B
Q106 2SC3052 F
Q107 2SA1235 F
Q108 2SC3052
Q109 2SA1235 F
Q110 2SC3052
Q111 KTA1266
Q112 KTA1266
Q101~104 CONST VOL REG
Q201, 202, 225 MUTE SW
Q203 CMB15551
Q204 CMB15551
Q205 CMB15551
Q206 CMB15551
Q207 C2N5401
Q208~212 Q233~236 POWER AMP
Q209 FN1016
Q210 FN1016
Q211 FP1016
Q212 FP1016
Q214 CMB15551
Q215, 214 OVERLOAD DET
Q220 2SK2725
Q221 2SC3052 F
Q223 RT1P141C
Q224 2SA1235F POWER SW
Q227 2SC3052F POWER SW
Q229 RT1N141C SURR DRIVE SW
Q231 CHBT5551
Q232 RT1N141C
Q601~603 MD REC MUTE
Q711 C5D1489 B TUNER SW
L770 2.2uH
L771 FM DET-N (BLUE)
L772 AM IF ADJ
L792
L791
L981 AM TRACKING ADJ
L981 (1/3) AM PACK 4N (TOK)
L981 (2/3) AM PACK 4N (TOK)
L981 (3/3) AM PACK 4N (TOK)
FFE801 FM FRONTEND PACK 7ZA-2 FEUNM
CF801 SFE 10.7 MA5
CF802 SFE 10.7 MA5
D770 1N4148
D771 1N4148
D801 1N4148
D802 MTZJ5.1B
D803 MTZJ5.1B
D804 MTZJ5.1B
D805 MTZJ5.1B
D806 RT1P144C
D101 GBU808L
D102 2SB1370 E
D103 1N4148M
D104 MC2836
D105 MC2836
D106 1N4148M
D107 GBU808L
D110 MTZJ56A
D111 MTZJ6.2A
D116 MC2836
D201 1N4148M
D202 1N4148M
D203 1N4148M
D204 1N4148M
D205 1N4148M
D206 1N4148M
D207 1S1588-1S1554
D208 1N4148M
D209 1N4148M
D210 MTZJ5.1B
D211 1N4148M
D212 1N4148M
D213 1N4148M
D214 1N4148M
D215 CMB15551
D216 1N4148M
D221 1N4148M
D222 1N4148M
D223 1N4148M
D229 1N4148M
D232 1N4148M
D401 1N4148
D441 1N4148
D442 MC2836
D770 1N4148
RY101 DSA-5S 212BM5
RY201 DSA-112L
PT101 PT, HE
J601 AUX/MD L/R LINE OUT
J602 PHONES
J801 ANTENNA
J252 TEMPERATURE DET
J255 SURROUND SPEAKERS
J255 SUPER WOOFER
J254 SPEAKERS
J601 VIDEO/AUX IN
J601 MD IN
J601 LINE OUT
CON602
CON351
CON301
WH101
WH001
SW001
F101
F102
F103
F104
F105
F106
F107
F108
F109
F110
F111
F112
F113
F114
F115
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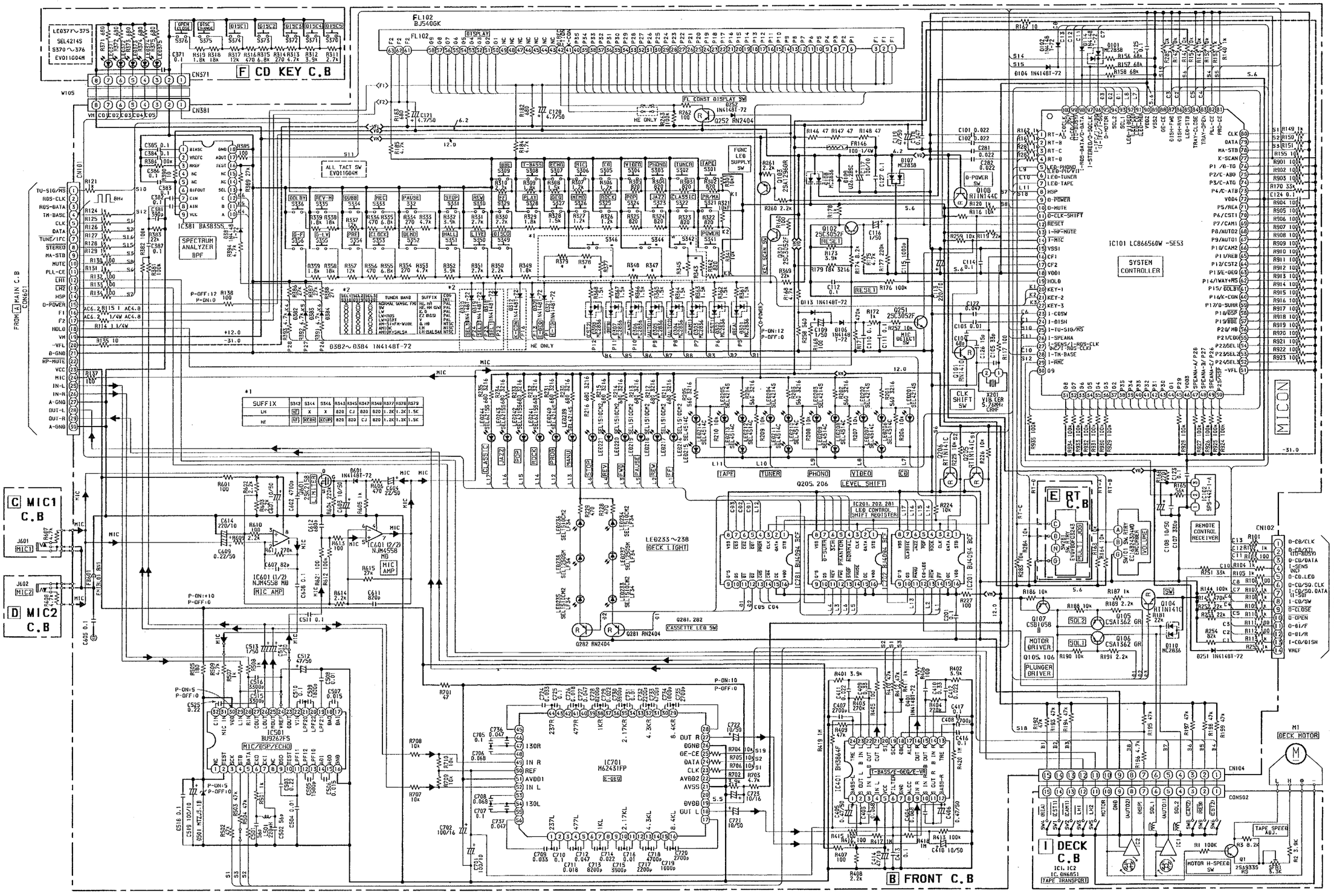
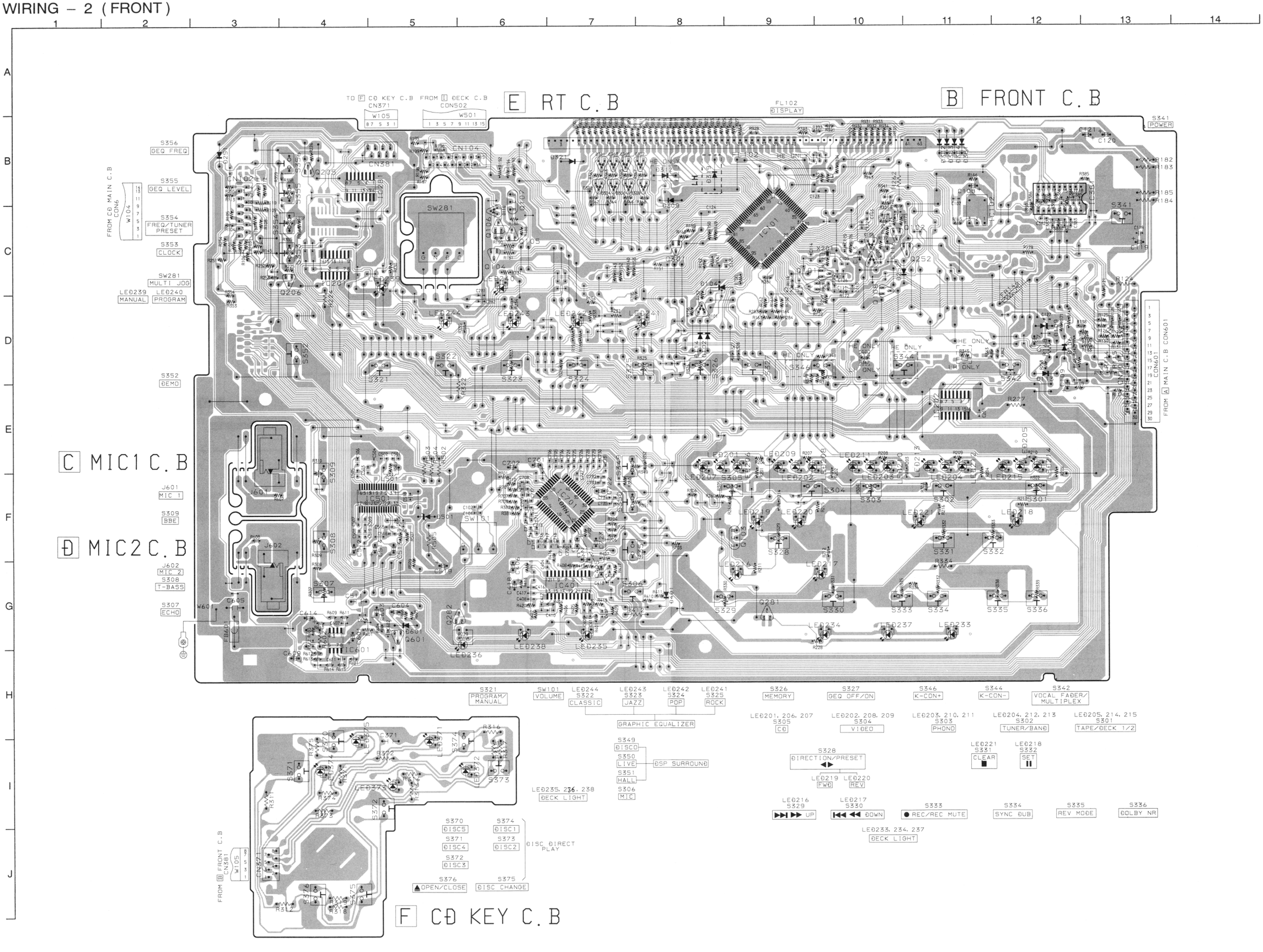
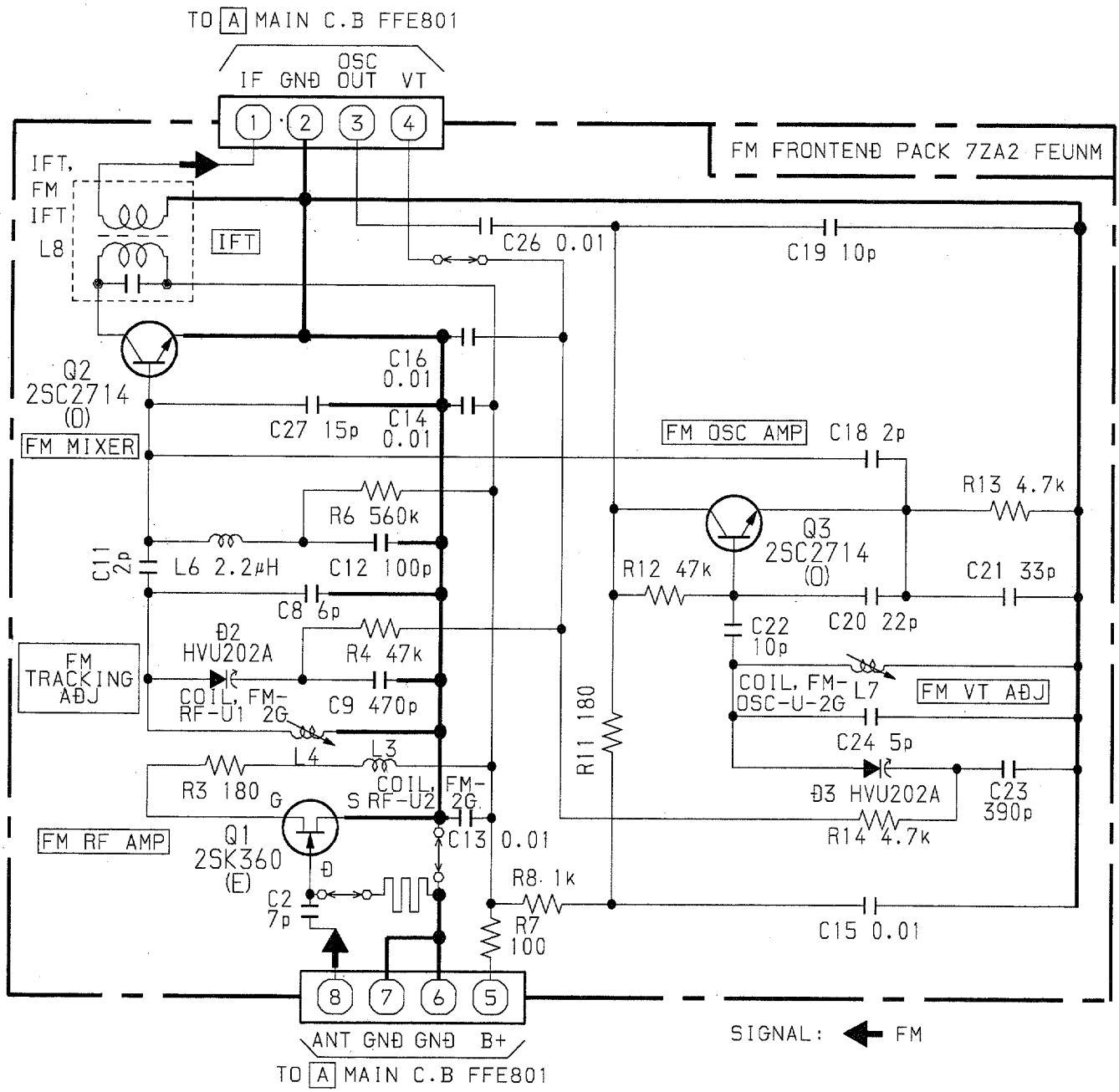
F139
F140

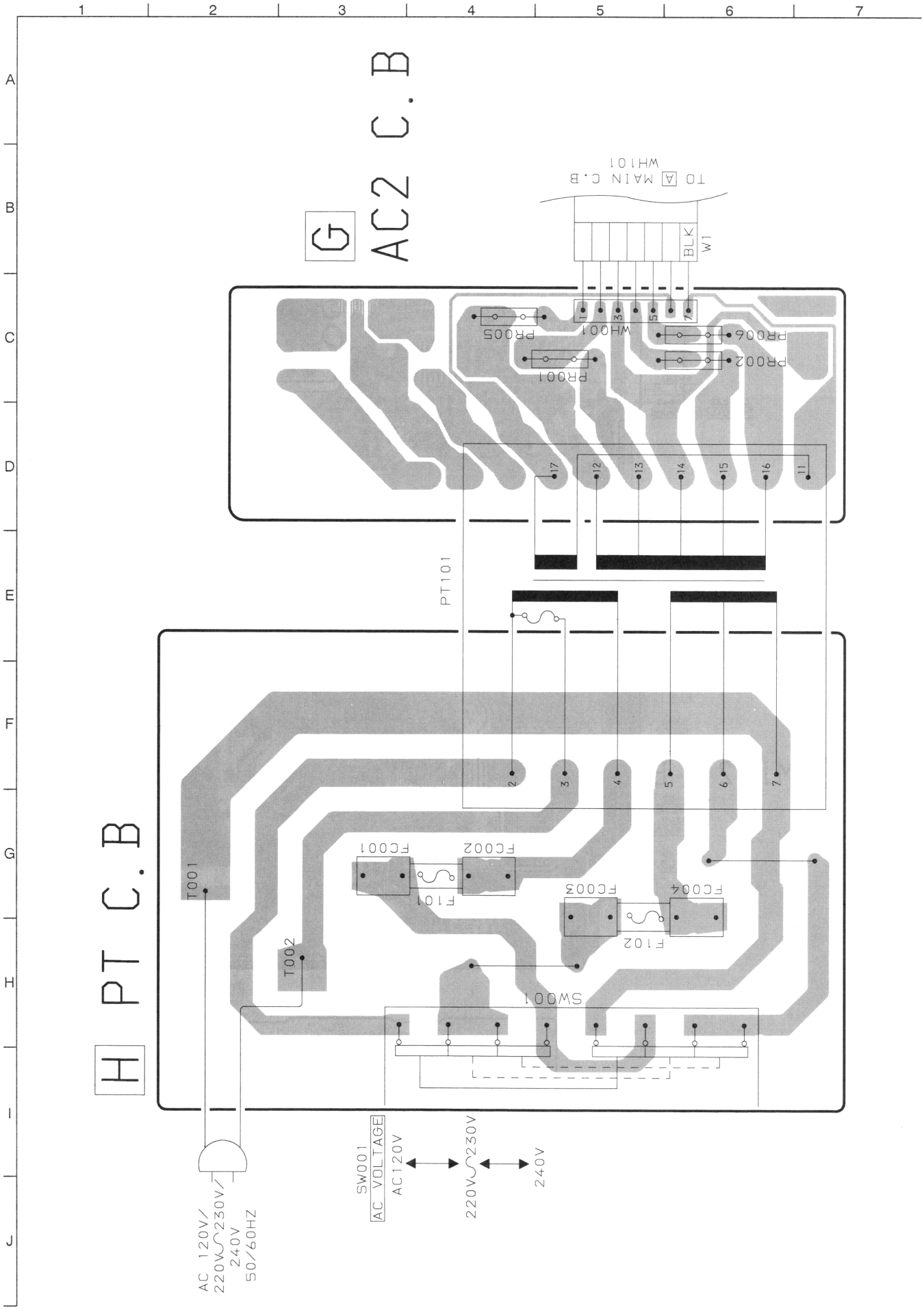

F CD KEY C.B
C MIC1 C.B
D MIC2 C.B
E RT C.B
I DECK C.B
B FRONT C.B
IC1 LC866560W -5E53
SYSTEM CONTROLLER
MICON
IC501 BU9262FS
MIC/DSP/ECHO
IC701 M62431FP
E-GEQ
IC601 (1/2) NJM4558 MD
MIC AMP
IC601 (2/2) NJM4558 MD
IC381 BA3835S
SPECTRUM ANALYZER BPF
IC201, 202, 281 LED CONTROL SHIFT REGISTER
IC401 BH3864F
I-BASS/E-GEQ/E-VR
REMOTE CONTROL RECEIVER
DECK MOTOR
TAPE TRANSPORT
FL102 BJ540GK
DISPLAY
FL CONST DISPLAY SW
FUNC LED SUPPLY SW
ALL TACT SW EVQ11604M
CLK SHIFT SW
MOTOR DRIVER
PLUNGER DRIVER
LED233~238 DECK LIGHT
CASSETTE LED SW
TAPE
TUNER
PHONO
VIDEO
CD
LEVEL SHIFT
Q205, 206
Q281, 282
Q252 RN2404
Q282 RN2404
Q251 2SC3052F
Q102 2SC3052F
Q103 2SC3052F
Q107 CSB1058
Q105 C5A1362 GR
Q106 C5A1362 GR
Q108 RN1144C
Q101 RN1410
Q104 RT1N141C
Q206 RT1N141C
Q207 RT1N141C
D113 1N4148T-72
D252 1N4148T-72
D601 1N4148T-72
D251 1N4148T-72
D107 MCZ6838
D108 MCZ6856
D110 MCZ6856
D101 MCZ6858
D102 MCZ6858
D103 MCZ6858
D104 1N4148T-72
D105 1N4148T-72
D106 1N4148T-72
D109 1N4148T-72
D0382~0384 1N4148T-72
CN101
CN102
CN104
CON502
CON401
CON6
CN571
CN381
W105
J601 MIC1
J602 MIC2
FROM A MAIN C.B
FROM SCB MAIN C.B
TU-SIG/MS
RDS-CLK
RDS-DATA
TM-BASE
CLK
DATA
TUNE/IFC
STEREO
MA-STB
MUTE
PLL-CE
LRT
LH2
HSP
D-POWER
F1
F2
HOLD
VM
-VFL
D-GND
MP-MUTE
VCC
MIC
IN-L
IN-R
A-GND
OUT-L
OUT-R
A-GND
SUFFIX
LH
HE
P-ON:12
P-OFF:0
P-ON:10
P-OFF:0
P-ON:5
P-OFF:0
P-ON:+10
P-OFF:0
P-OFF:12
P-ON:0
+12.0
-31.0
5.6
6.2
12.0
8MHz
MIC
SYSTEM CONTROLLER
MICON
DECK MOTOR
TAPE SPEED ADJ.
MOTOR H-SPEED SW
REMOTE CONTROL RECEIVER


E RT C.B
B FRONT C.B
C MIC1 C.B
D MIC2 C.B
F CD KEY C.B
TO F CD KEY C.B CN371 W105
FROM D DECK C.B CON502 WS01
FL102 DISPLAY
FROM CD MAIN C.B CON6 W104
FROM A MAIN C.B CON601
FROM B FRONT C.B CN381 W105
S356 GEQ FREQ
S355 GEQ LEVEL
S354 FREQ/TUNER PRESET
S353 CLOCK
SW281 MULTI JOG
LED239 MANUAL
LED240 PROGRAM
S352 DEMO
J601 MIC 1
J602 MIC 2
S309 BBE
S308 T-BASS
S307 ECHO
S341 POWER
SW281
IC101
IC701
IC50
IC40
IC601
S321 PROGRAM/ MANUAL
SW101 VOLUME
LED244 S322 CLASSIC
LED243 S323 JAZZ
LED242 S324 POP
LED241 S325 ROCK
GRAPHIC EQUALIZER
S349 DISCO
S350 LIVE
S351 HALL
DSP SURROUND
S306 MIC
LED235, 236, 238 DECK LIGHT
S326 MEMORY
S327 GEQ OFF/ON
S346 K-CON+
S344 K-CON-
S342 VOCAL FADER/ MULTIPLEX
LED201, 206, 207 S305 CD
LED202, 208, 209 S304 VIDEO
LED203, 210, 211 S303 PHONO
LED204, 212, 213 S302 TUNER/BAND
LED205, 214, 215 S301 TAPE/DECK 1/2
S328 DIRECTION/PRESET
LED219 FWD
LED220 REV
LED221 S331 CLEAR
LED218 S332 SET
LED216 S329 UP
LED217 S330 DOWN
S333 REC/REC MUTE
S334 SYNC DUB
S335 REV MODE
S336 DOLBY NR
LED233, 234, 237 DECK LIGHT
S370 DISC5
S371 DISC4
S372 DISC3
S374 DISC1
S373 DISC2
DISC DIRECT PLAY
S376 OPEN/CLOSE
S375 DISC CHANGE

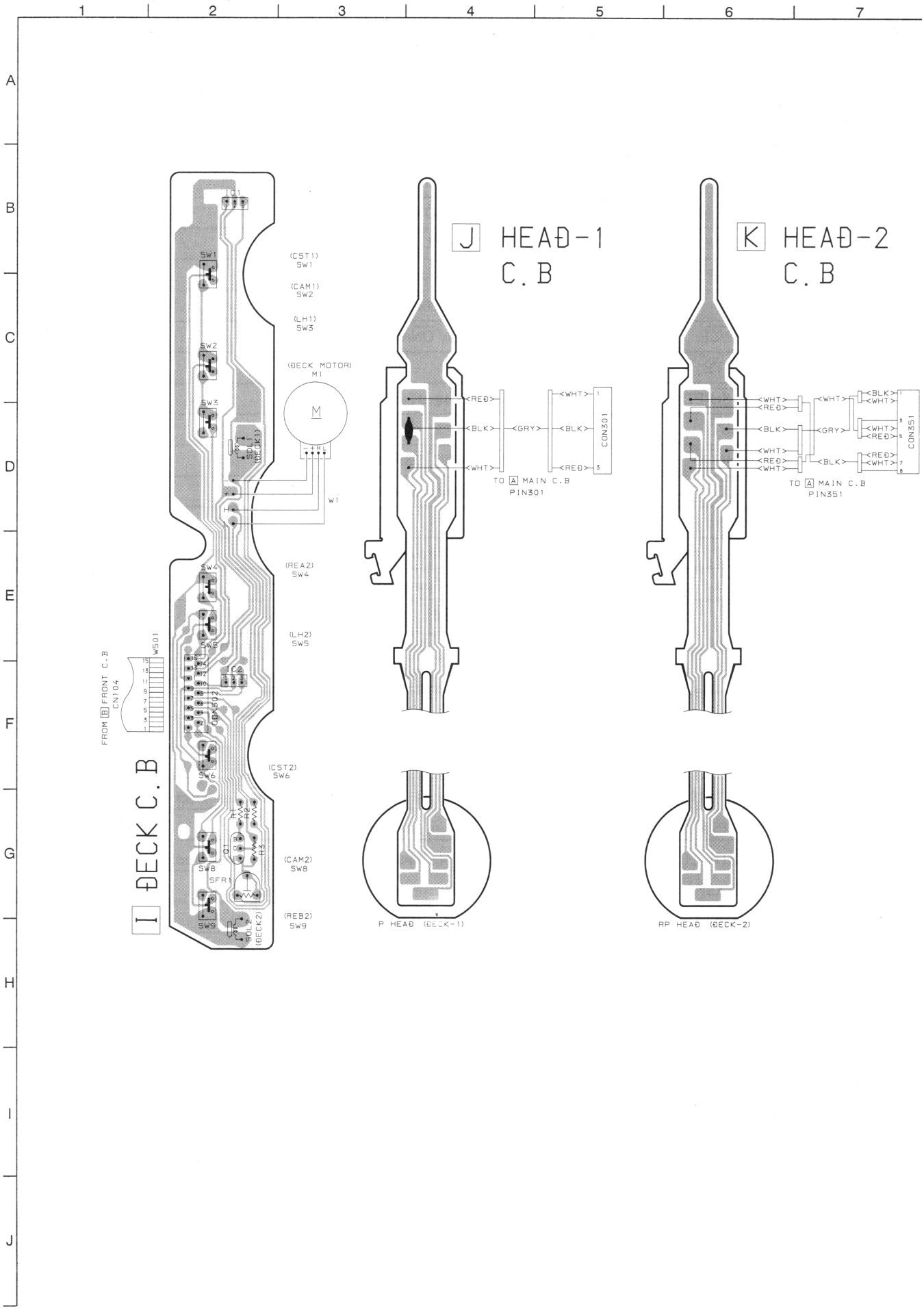
SCHEMATIC DIAGRAM – 3 (TUNER FRONT END)



WIRING – 3 (AC2 / PT)



WIRING – 4 (DECK)



IC DESCRIPTION

IC, LC866560W-5E53

Pin No.	Pin Name	I/O	Description
1	RT-A	I	ROTARY-ENCORDER vol. in.
2	RT-B	I	ROTARY-ENCORDER vol. in.
3	RT-C	I	ROTARY-ENCORDER multi jog in.
4	RT-D	I	ROTARY-ENCORDER multi jog in.
5	LED-PHONO	O	Function LED PHONO control.
6	LED-TUNER	O	Function LED TUNER control.
7	LED-TAPE	O	Function LED TAPE control.
8	HSP	O	DECK high-speed dubbing control.
9	O-$\overline{\text{POWER}}$	O	System power supply $\overline{\text{ON}}$/OFF output.
10	O-MUTE	O	System mute output.
11	$\overline{\text{O-CLK-SHIFT}}$	O	Micon clock shift output (active low).
12	$\overline{\text{RESET}}$	I	Reset input.
13	I-$\overline{\text{HP-MUTE}}$	I	"L" input PROLOGIC, DSP off. (Not used).
14	$\overline{\text{I-MIC}}$	I	Microphone input for auto vocal fader ON/OFF .
15	VSS1	-	GND terminal.
16,17	CF1, 2	-	5.76 MHz oscillator circuit.
18	VDD1	-	Power supply input. Connect VDD2.
19	HOLD	I	Power failure detected. >6.9V / P-OFF / 4.9V~3.49V / Normal condition 3.49V~1.41V / P-OFF / <1.41V / HOLD mode
20~22	KEY1 - 3	I	Key input.
23	I-CD/SW	I	CD mechanical switch A/D converter input.
24	I-DISH	I	CD turntable photo sensor A/D converter input.
25	I-TU-SIG/$\overline{\text{MS}}$	I	Tuner function: Tuner $\overline{\text{SD}}$ detected input/Tape function: Deck music sensor signal input.
26	I-SPEANA	I	A/D input for spectrum analyzer display.
27	I-SENS/I-RDS-CLK	I	CD IC control data bus data input/RDS clock input (Not used).
28	I-TM BASE	I	Reference clock input for timer watch.
29	I-$\overline{\text{RMC}}$	I	System remote control signal input (active low).
30~37,44	G9~G1	O	FL grid output G9~G1.
38~43,45	P35~P29	O	FL segment output P35~P29.
46	VDD3	-	Power supply input. Connect VDD4.
47	P28/SPEANA-A	O	FL segment output P28/spectrum analyzer band pass filter control A.
48	P27/SPEANA-B	O	FL segment output P27/spectrum analyzer hand pass filter control B.
49	P26/SPEANA-C	O	FL segment output P26/spectrum analyzer band pass filter control C.
50	P25/$\overline{\text{HSP}}$	O/I	FL segment output P25/$\overline{\text{HSP}}$ diode detect.
51	-VFL	-	Power supply input for FL display.
52	P24/SEL3	O/I	FL segment output P24 / tuner band select 3.
53	P23/SEL2	O/I	FL segment output P23 / tuner band select 2.
54	P22/SEL1	O/I	FL segment output P22 / tuner band select 1.
55	P21/CDG	O/I	FL segment output P21/CDG diode detect.
56	P20/MD	O/I	FL segment output P20/MD diode detect.

Pin No.	Pin Name	I/O	Description
57	P19/$\overline{\text{BBE}}$	O/I	FL segment output P19/$\overline{\text{BBE}}$ diode detect.
58	P18/$\overline{\text{DSP}}$	O/I	FL segment output P18/$\overline{\text{DSP}}$ diode detect.
59	P17/D-SURR	O/I	FL segment output P17/D-SURR diode detect (Not used).
60	P16/K-CON	O/I	FL segment output P16/K-CON diode detect.
61	P15/$\overline{\text{DOLBY}}$	O/I	FL segment output P15/$\overline{\text{DOLBY-NR}}$ diode detect.
62	P14/1WAY+$\overline{\text{MS}}$	O/I	FL segment output P14/1WAY+$\overline{\text{MS}}$ diode detect.
63	P13/E-GEQ	O/I	FL segment output P13/E-GEQ diode detect.
64	P12/CST2	O/I	FL segment output P12/DECK2 cassette detect switch data input.
65	P11/REB	O/I	FL segment output P11/DECK2 side-B record OK switch data input.
66	P10/CAM2	O/I	FL segment output P10/DECK2 cam switch input.
67	P9/AUTO1	O/I	FL segment output P9/DECK1 auto stop signal input.
68	P8/AUTO2	O/I	FL segment output P8/DECK2 auto stop signal input.
69	P7/CAM1	O/I	FL segment output P7/DECK1 cam switch data input.
70	P6/CST1	O/I	FL segment output P6/DECK1 cassette detect switch data input.
71	P5/REA	O/I	FL segment output P5/DECK2 side-A record OK switch data input.
72	VDD4	-	Power supply input. Connect VDD3.
73	P4/C-ATB	O/I	FL segment output P4/CD auto adjust SW input.
74	P3/C-ATG	O/I	FL segment output P3/CD auto adjust SW input.
75	P2/C-ABG	O/I	FL segment output P2/CD auto adjust SW input.
76	P1/D-TG	O/I	FL segment output P1/CD auto adjust SW input.
77	KEY·SCAN	O	Switch scan timing output.
78	MA-STB	O	Main shift register data latch strobe output.
79	DATA	O	All serial IC data output.
80	CLK	O	All serial IC clock output.
81	PRO-CE	O	PRO-LOGIC data latch strobe output. (Not used).
82	PLLCE	O	PLL IC (LC72131D) chip enable output.
83	TRAY-OPEN	O	CD tray open data output.
84	TRAY-CLOSE	O	CD tray close data output.
85	LED-STB	O	Front shift register data latch strobe output.
86	DISH-RVS	O	CD turntable reverse rotation output.
87	DISH-FWD	O	CD turntable forward rotation output.
88	GE-CE	O	E-GEQ IC (M62431FP) chip enable.
89	VSS2	-	GND terminal.
90	VDD2	-	Power supply input. Connect VDD1.
91	LED-CD	O	Function LED CD control.
92	LED-VIDEO	O	Function LED video control.
93	SOL1	O	DECK1solenoid output.
94	SOL2	O	DECK2 solenoid output.
95	O-MOTOR	O	DECK motor output.
96	IFC/ I-SUBQ	I	Tuner function: IF count serial data input. CD function: CD IC data input.

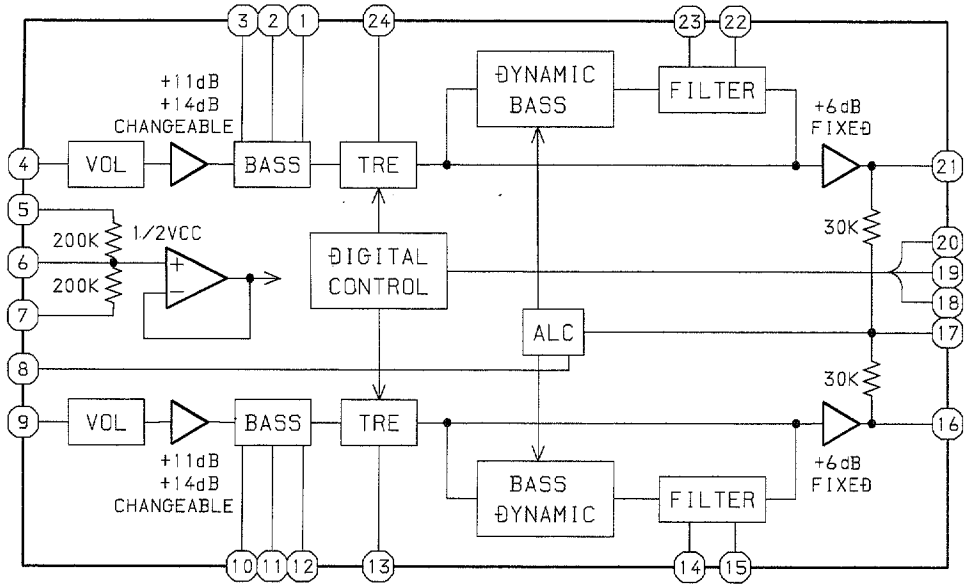
Pin No.	Pin Name	I/O	Description
97	O-SQ CLK/ I-STEREO	O I	CD function: CD IC control data bus clock output. Tuner function: Tuner stereo detect input.
98	O-DATA/ I-RDS-DATA	O I	CD function: CD IC control data bus data output. Tuner function: RDS data input.(Not used).
99	O-CD/XTL	O	CD IC control data latch output.
100	O-CD/CLK	O	CD IC control data transfer clock output.

IC, LC72131

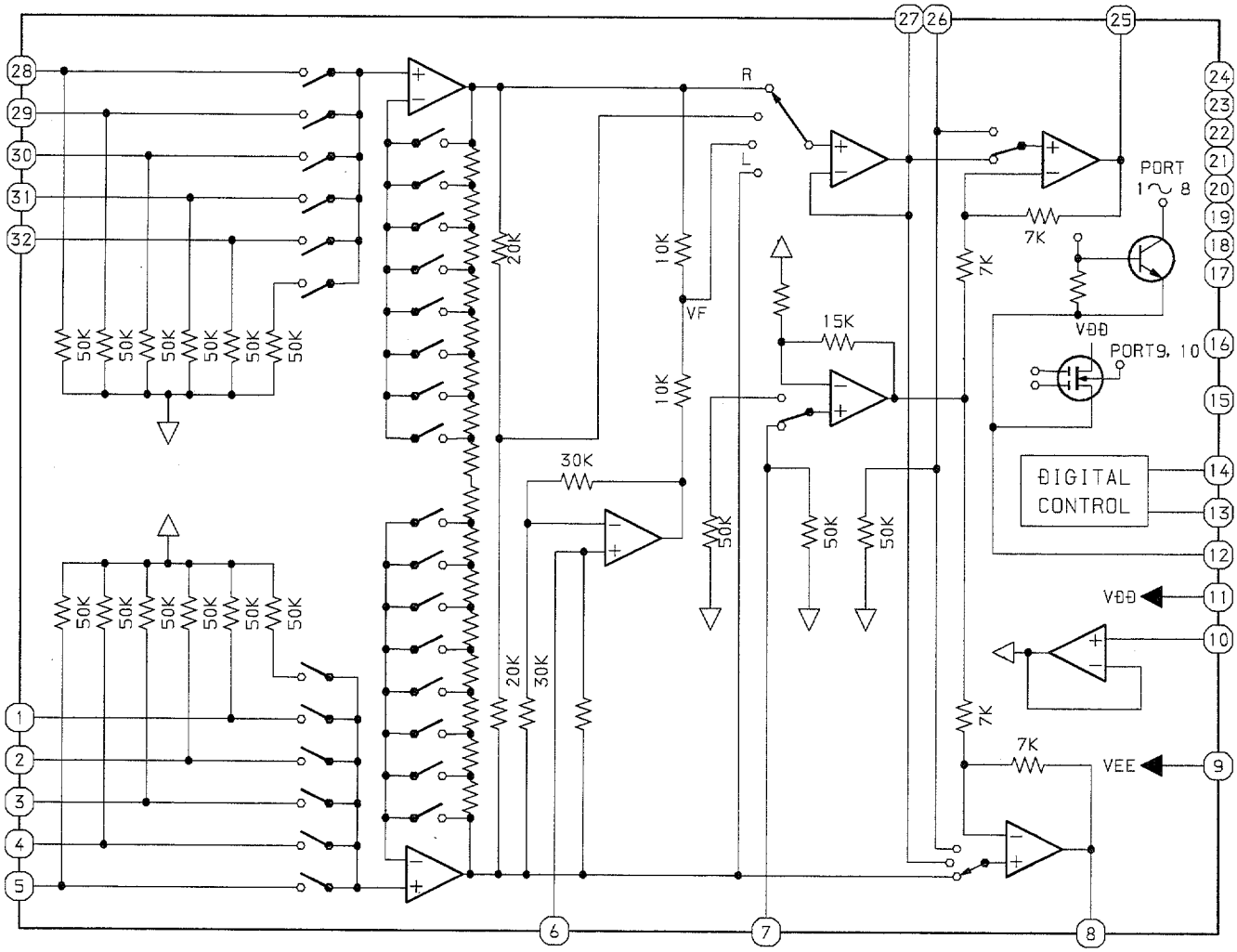
Pin No.	Pin Name	I/O	Description
1	XIN	I/O	A crystal oscillator (7.2MHz) is connected between these pins.
22	XOUT		
2	NC	–	Not used.
3	CE	I	To enable the IC. Active "H".
4	DI	I	Digital data input from CPU (LC866560W-5E53) when relevant key is operated. Active "H".
5	CLK	I	To clock in the data DI.
6	DO	O	Digital data output to CPU (LC866560W-5E53).
7	TM-BASE	O	Outputs a reference clock signal (8Hz) for the clock.
8	$\overline{\text{MONO}}$ / BEAT	O	Outputs "H" when MONO / BEAT is switched.
9	$\overline{\text{FM}}$ / AM	O	Output "L" or "H" as follows: 2 BAND: AM H, FM L 3 BAND: LW H, MW H, FM L 3 BAND: MW H, SW L, FM L
10	$\overline{\text{MW}}$	O	Outputs "L" or "H" as follows: 2 BAND: AM L, FM L 3 BAND: LW H, MW L, FM L 3 BAND: MW L, SW H, FM L
11	IF-MUTE	O	To control internal counter.
12	IFIN	I	General purpose counter input.
13	$\overline{\text{TUNE}}$	I	Receives "L" when station is tuned.
14	NC	–	Not used.
15	A MIN	I	Receives the AM local oscillator frequency signal.
16	F MIN	I	Receives the FM local oscillator frequency signal.
17	VDD	–	Supply power to IC (+5V).
18	PD	O	PLL charge pump output.
19	AIN	I	The MOS transistor for PLL active low pass filter.
20	AOUT	O	
21	VSS	–	Ground.

IC BLOCK DIAGRAM – 2

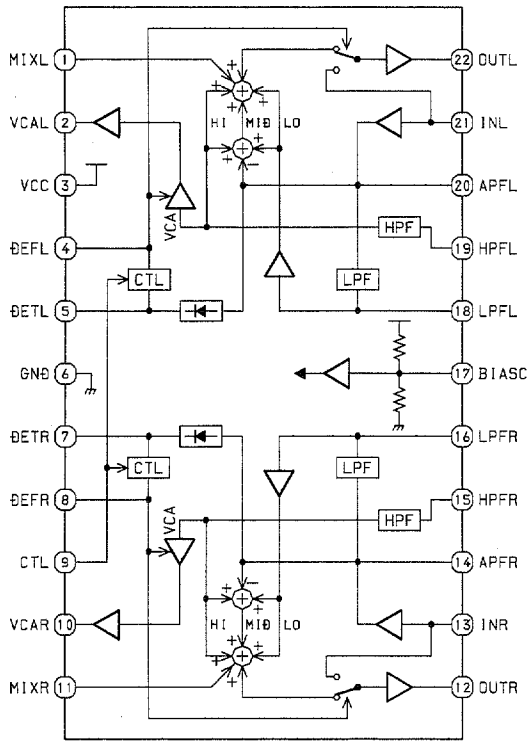
IC BH3864F



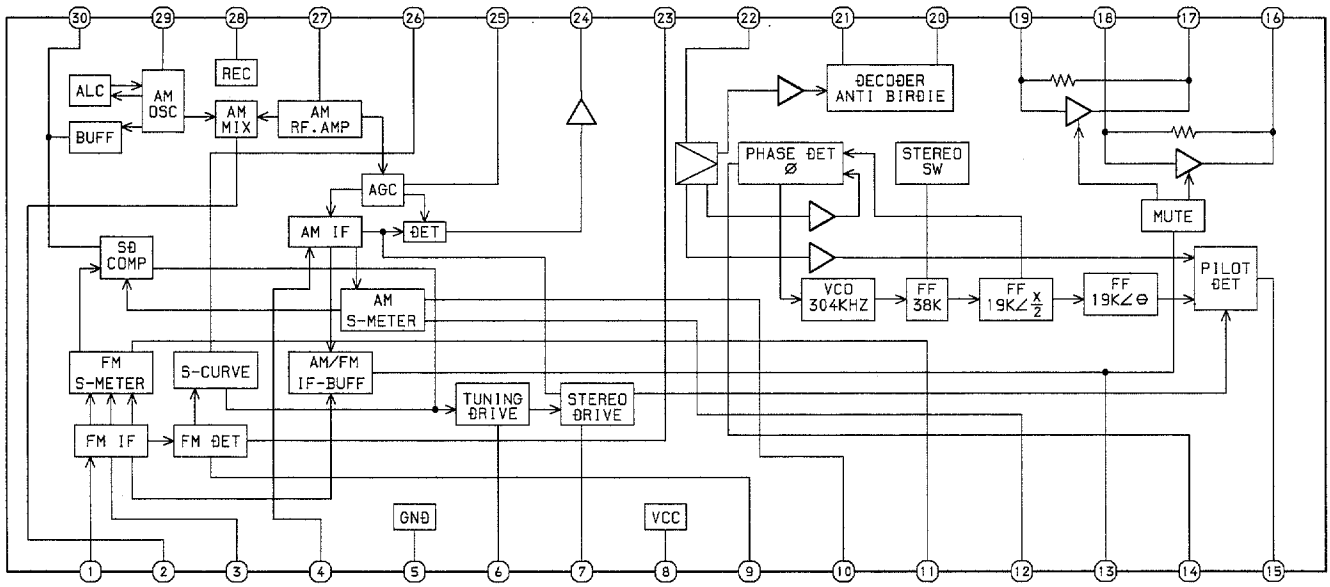
IC, BH3810FS



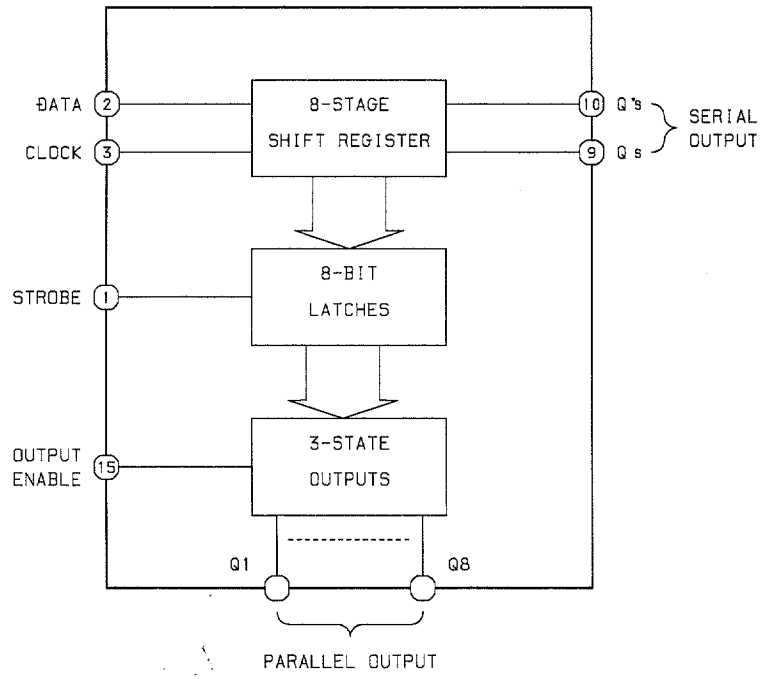
IC, BA3880S



IC, LA1837



IC, BU4094BCF



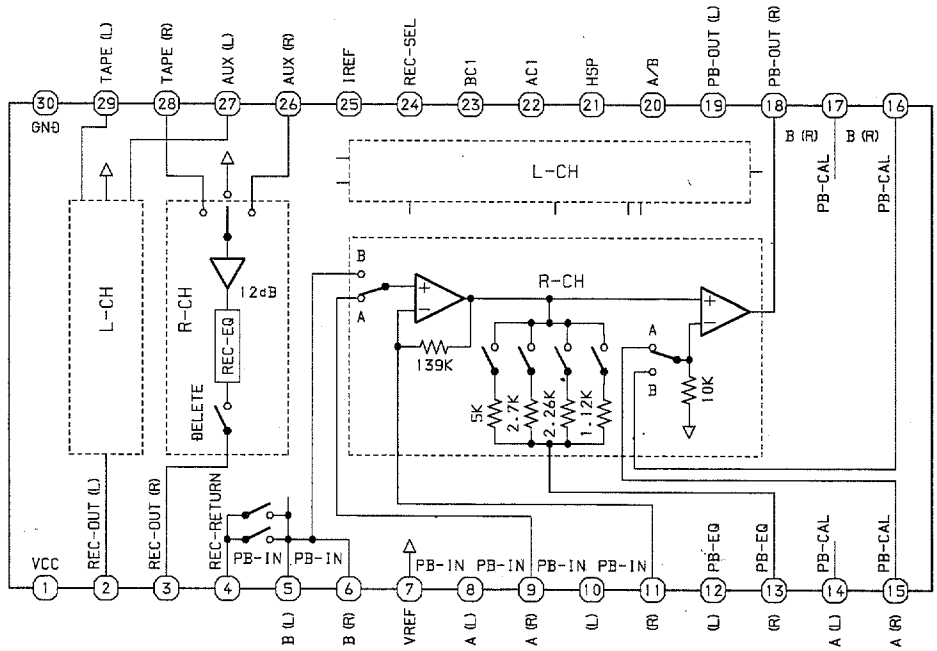
TRUTH TABLE

CLOCK	OUTPUT ENABLE	STROBE	ĐATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Qs	Q's
↑	L	X	X	Z	Z	Q7	NO Chg.
↓	L	X	X	Z	Z	No Chg.	Qs
↑	H	L	X	No Chg.	No Chg.	Q7	No Chg.
↑	H	H	L	L	Qn-1	Q7	No Chg.
↑	H	H	H	H	Qn-1	.Q7	No Chg.
↓	H	X	X	No Chg.	No Chg.	No Chg.	Qs

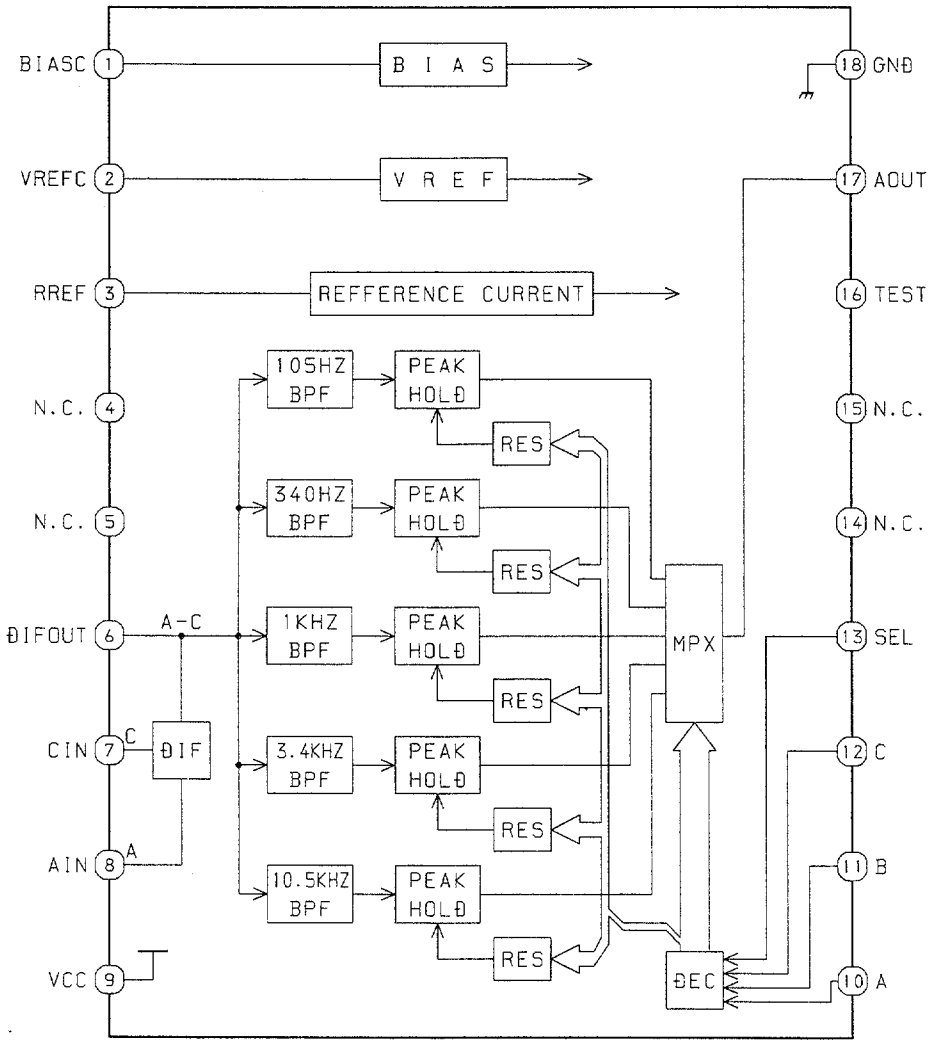
Z=High Impedance

X=Đon't Care

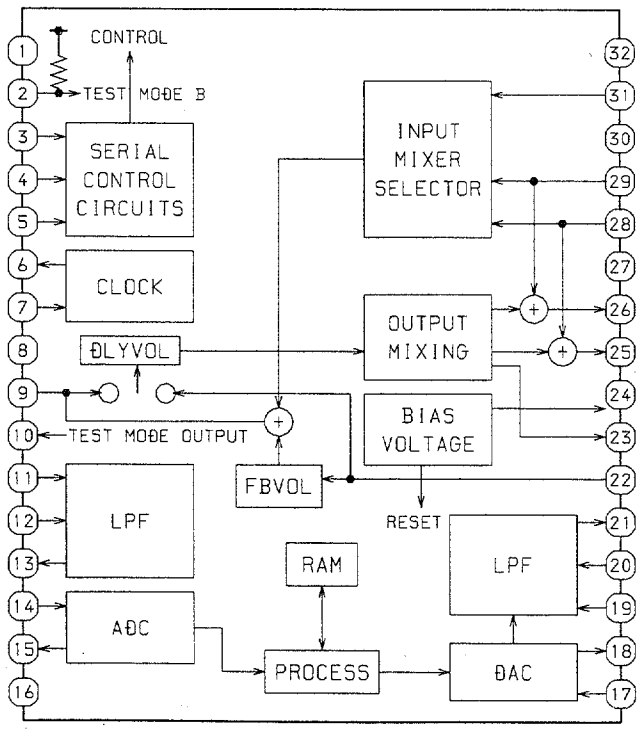
IC, HA1221NT



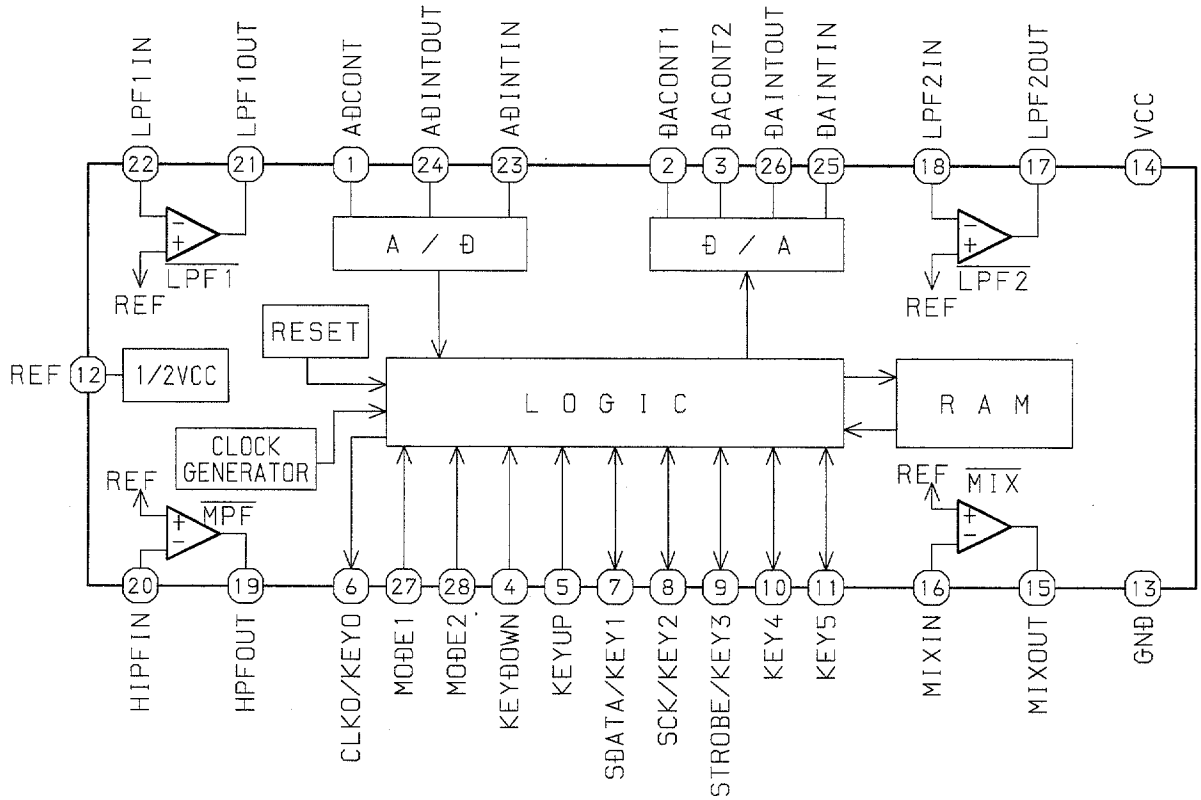
IC, BA3835S



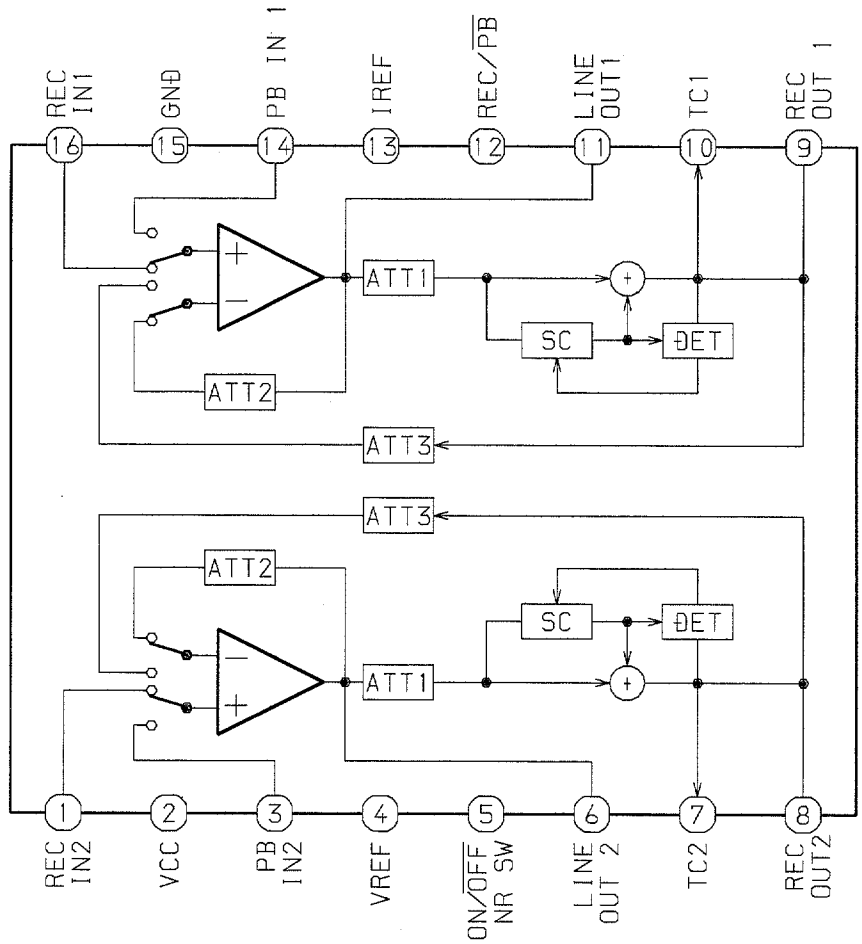
IC, BU9262FS



IC, M65847AFP



IC, CXA1553P

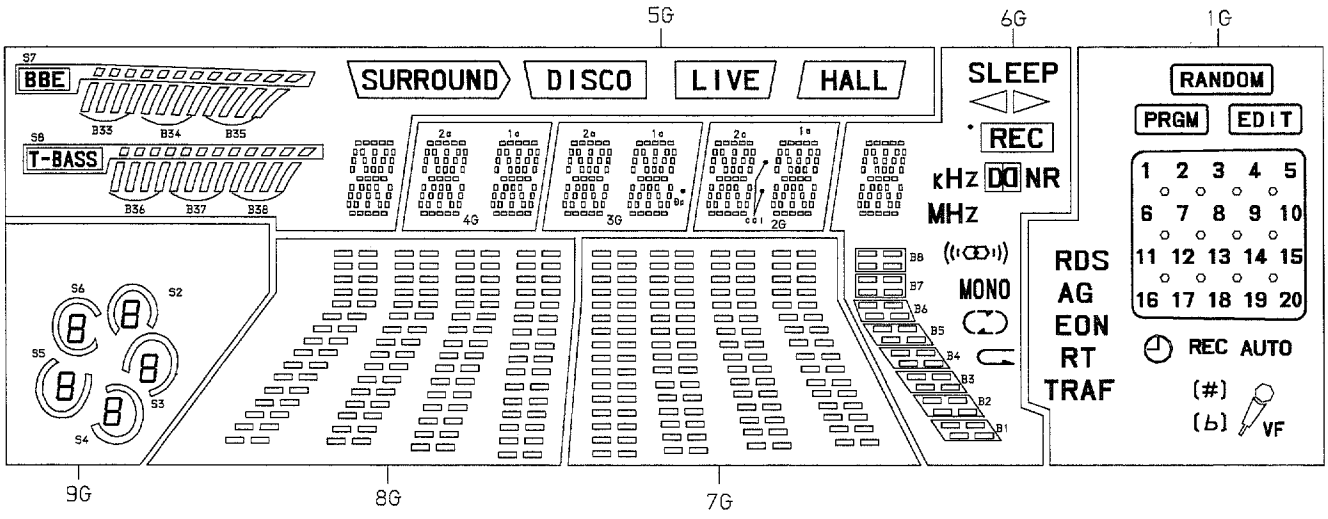


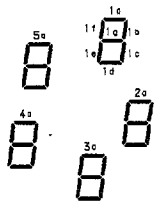
ATT:Attenuator
SC:Side Chain
DET:Detector

FL GRID ASSIGNMENT & ANODE CONNECTION

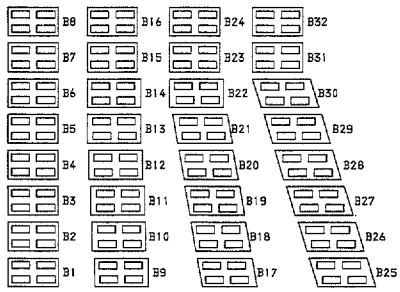
FL, BJ540GK

GRID ASSIGNMENT

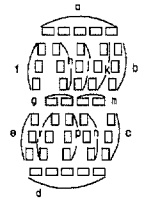




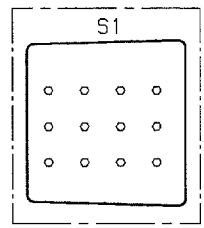
(9G)



(8G, 7G)



(6G ~ 2G)

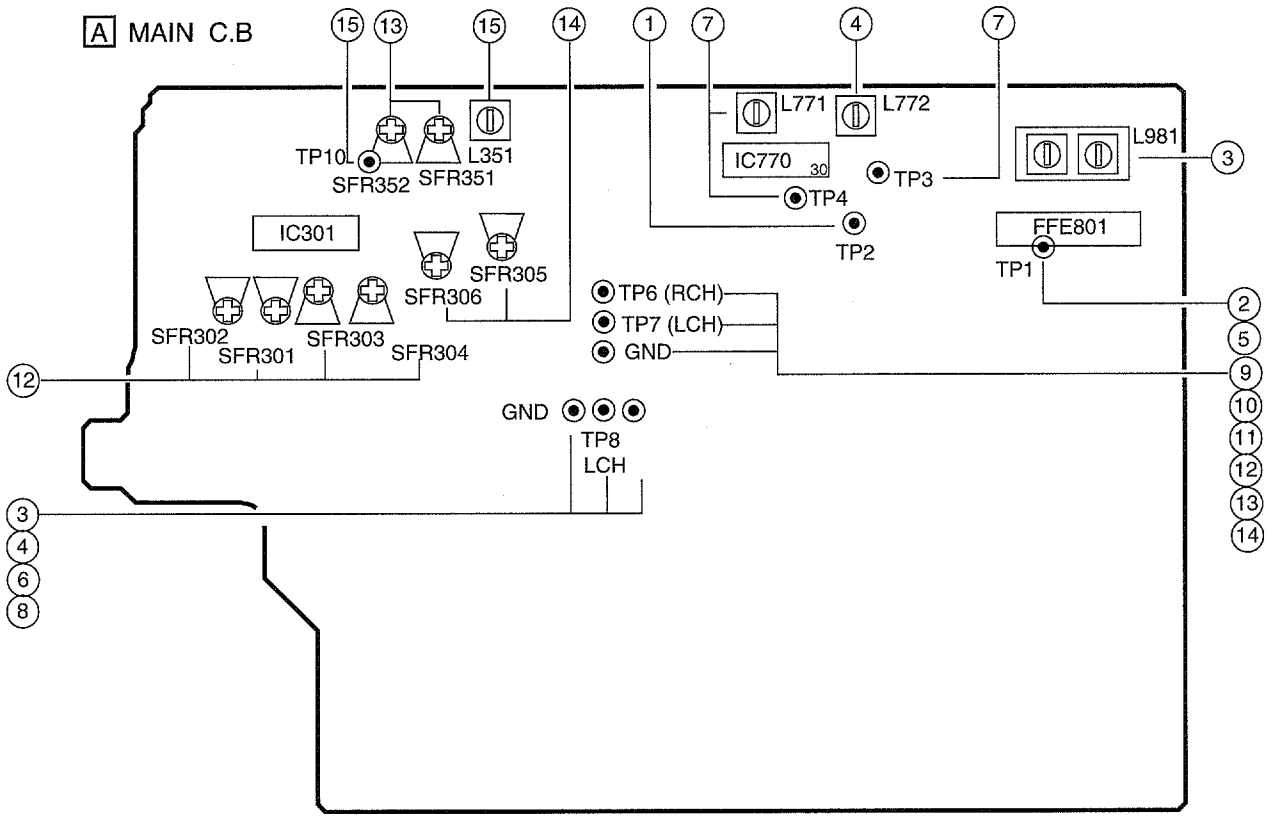


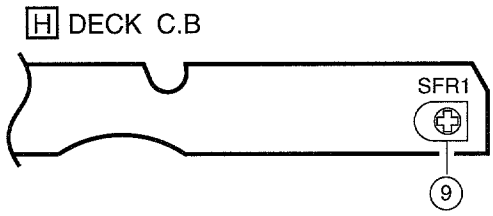
(1G)

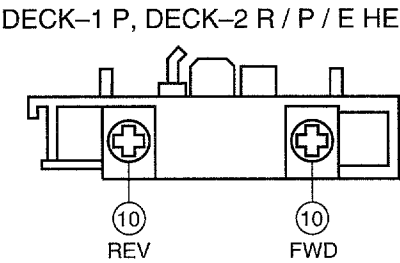
ANODE CONNECTION

	9G	8G, 7G	6G	5G	4G	3G	2G	1G
P1	S4	B8	d	d	1d	1d	1d	RANDOM
P2	3e	B16	n	n	1n	1n	1n	PRGM
P3	3c	B24	p	p	1p	1p	1p	EDIT
P4	3g	B32	r	r	1r	1r	1r	S1
P5	3f	B7	e	e	1e	1e	1e	1
P6	3b	B15	c	c	1c	1c	1c	2
P7	3a, 3d	B23	g	g	1g	1g	1g	3
P8	S5	B31	m	m	1m	1m	1m	4
P9	4e	B6	f	f	1f	1f	1f	5
P10	4c	B14	b	b	1b	1b	1b	6
P11	4g	B22	k	k	1k	1k	1k	7
P12	4f	B30	j	j	1j	1j	1j	8
P13	4b	B5	h	h	1h	1h	1h	9
P14	4a, 4d	B13	a	a	1a	1a	1a	10
P15	S2	B21	DD NR	B35	-	Dp	col Below	11
P16	1a, 1d	B29	▷	B34	-	-	col Upper	12
P17	1b	B4	◁	B33	2d	2d	2d	13
P18	1f	B12	○	S7	2n	2n	2n	14
P19	1g	B20	REC	B38	2p	2p	2p	15
P20	1c	B28	B8	B37	2r	2r	2r	16
P21	1e	B3	B7	B36	2e	2e	2e	17
P22	S6	B11	B6	S8	2c	2c	2c	18
P23	5a, 5d	B19	B5	(HALL)	2g	2g	2g	19
P24	5b	B27	B4	(LIVE)	2m	2m	2m	20
P25	5f	B2	B3	(DISCO)	2f	2f	2f	RDS
P26	5g	B10	B2	S9	2b	2b	2b	AG
P27	5c	B18	B1	SURROUND	2k	2k	2k	EON
P28	5e	B26	((◯◯))	-	2j	2j	2j	RT
P29	S3	B1	MONO	-	2h	2h	2h	TRAF
P30	2a, 2d	B9	)	-	2a	2a	2a	REC
P31	2b	B17	(	-	-	-	-	◴
P32	2f	B25	MHz	-	-	-	-	VF
P33	2g	-	kHz	-	-	-	-	AUTO
P34	2c	-	⊂	-	-	-	-	( ) (b)
P35	2e	-	SLEEP	-	-	-	-	( ) (#)
P36	-	-	-	-	-	-	-	b #
P37	-	-	◪	-	-	-	-	-

ADJUSTMENT - 1 <TUNER / DECK>







< TUNER SECTION >

1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK IC770 pin30)
   Method : Set to MW 1710kHz<LH>, 1602kHz<HE>, and check that the test point is 2160kHz ± 45Hz<LH>, 2052kHz ± 45kHz<HE>.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1710kHz<LH>, 1602kHz<HE> and check that the test point is less than 7.0V<LH>, less than 6.8V<HE>. Then Set to MW 530kHz<LH>, 531kHz<HE> 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 1000kHz and adjust L981 so that the test point becomes maximum.

4. AM IF Adjustment
   Settings : • Test point : TP8(Lch), TP9(Rch)
   • Adjuctment location :
   L772.....450kHz

5. 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 1.0V (87.5MHz) and less than 8.0V (108.0MHz).

6. FM Tracking Check
   Settings : • Test point : TP8(Lch), TP9(Rch)
   Method : • Set to FM 98.0MHz and check that the test point is 0dB ± 6dB<LH>, 3dB ± 6dB<HE>.

7. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC balance)
   : TP8, TP9 (Distortion)
   • Adjustment location : L771
   • Input level : 54dB
   Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
   Next, check that the distortion is less than 1.3%.

8. Auto Stop Level Check

   MW
   Settings : • Input level :Valaible
   Method : Check the auto stop at MW 1000kHz and the input level is 40 ~ 60 dB.

   FM
   Settings : • Input level :Valaible
   Method : Check the auto stop at FM 98.0MHz and the input level is 18 dB +10/-5 dB.

< DECK SECTION >

9. Tape Speed Adjustment
   Settings : • Test tape : TTA–100
   • Test point : TP6, TP7
   • Adjustment location : SFR1
   Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz.

10. Head Azimuth Adjustment
    Settings : • Test tape : TTA–300
    • Test point : TP6, TP7
    • Adjustment location : Head azimuth adjustment screw
    Method : Play back the 10kHz signal of the test tape and adjust screw so that the output becomes maximum.

11. PB Frequency Response Check (DECK 1, DECK 2)
    Settings : • Test tape : TTA–300
    • Test point : TP6, TP7
    Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal with respect to that of the 315Hz signal is ±2dB. Lch and Rch difference level of 10kHz is less than 2.0dB.

12. PB Sensitivity Adjustment (DECK 1, DECK 2)
    Settings : • Test tape : TTA–200
    • Test point : TP6, TP7
    • Adjustment location : SFR301 (DECK 1, Lch)
    SFR302 (DECK 1, Rch)
    SFR303 (DECK 2, Lch)
    SFR304 (DECK 2, Rch)
    Method : Play back the test tape and adjust SFRs so that the output level of the test point becomes 245mV.

13. REC/PB Frequency Response Adjustment
    Settings : • Test tape : TTA–602
    • Test point : TP6, TP7
    • Input signal : 1kHz / 10kHz (LINE IN)
    • Adjustment location : SFR351 (Lch)
    SFR352 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP6, TP7 becomes 12mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

14. REC/PB Sensitivity Adjustment
    Settings : • Test tape : TTA–602
    • Test point : TP6, TP7
    • Input signal : 1kHz (LINE IN)
    • Adjustment location : SFR305 (Lch)
    SFR306 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP6, TP7 becomes 12mV. Record and play back the 1kHz signals and check that the output is 0dB ± 0.5dB.

15. Bias OSC Frequency Adjustment
    Settings : • Test tape : TTA–615
    • Test point : TP10
    • Adjustment location : L351
    Method : Set to the REC mode. Adjust L351 so that the frequency at the test point is 85kHz ± 1kHz.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

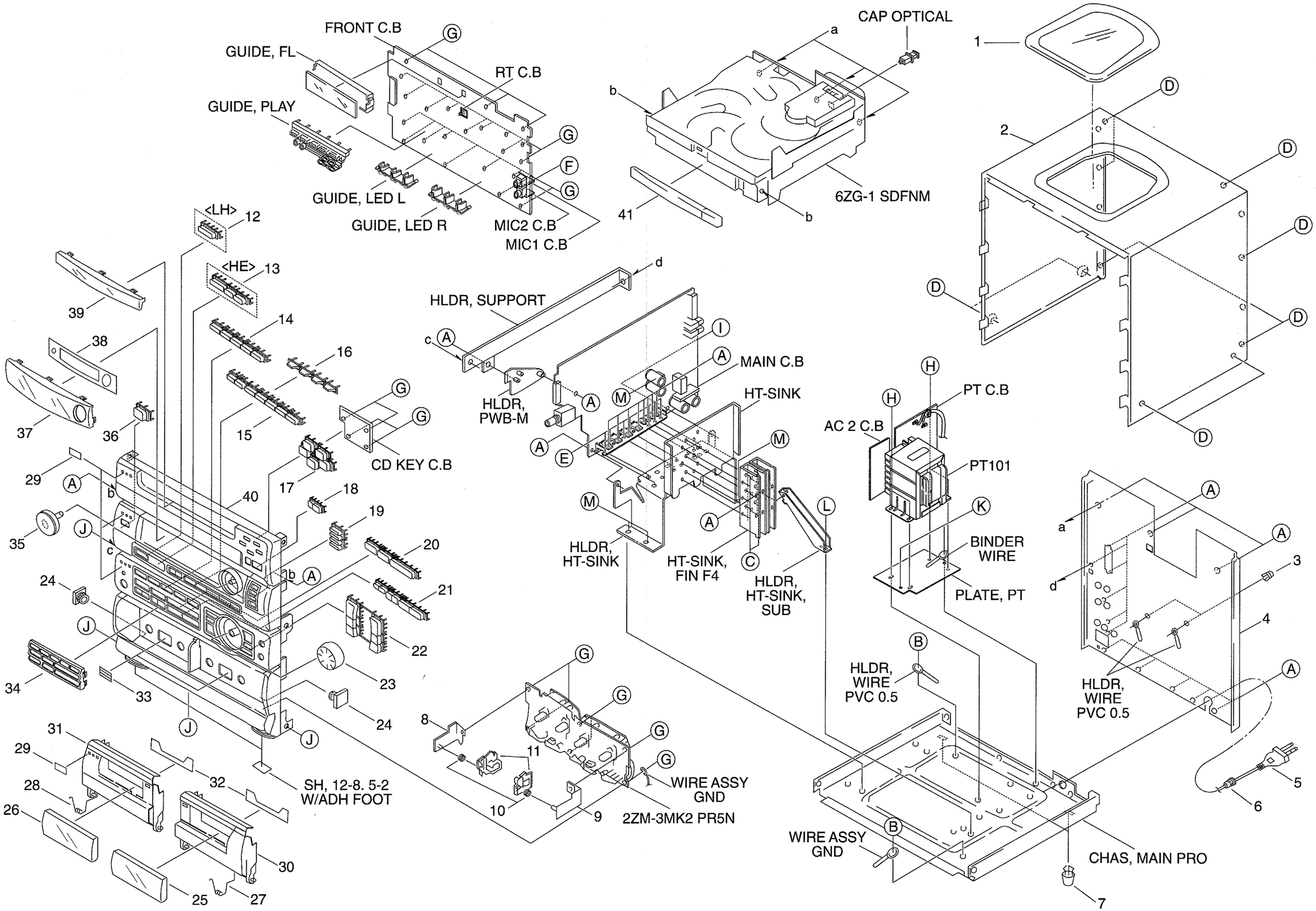
IHF Sensitivity :	Less than 10dB
(THD 3%)	[at 87.5MHz]
	Less than 9dB
	[at 98.0 / 108.0MHz]
S/N 50dB Quieting sensitivity :	
	Less than 36dB
	[at 87.5 / 98.0 / 108.0MHz]
Signal to noise ratio :	More than 66dB (STEREO)
	More than 72dB (MONO)
	[at 98.0MHz]
Distortion :	Less than 1.2%
	[at 98.0MHz]
Auto stop level :	25dB ± 10dB [at 98.0MHz]
Stereo separation :	More than 25dB [at 98.0MHz]
Intermediate frequency :	10.7MHz

<AM(MW) SECTION>

Sensitivity :	54dB +6/-7dB
(S/N 20 dB)	[at 603kHz (HE)]
	[at 600kHz (LH)]
	52dB +6/-7dB
	[at 999kHz (HE)]
	[at 1000kHz (LH)]
	52dB +6/-7dB
	[at 1404kHz (HE)]
	[at 1400kHz (LH)]
Signal to noise ratio :	More than 36dB
	[at 999kHz (HE)]
	[at 1000kHz (LH)]
Distortion :	Less than 1.5%
	[at 999kHz (HE)]
	[at 1000kHz (LH)]
Auto stop level :	Less than 60dB
	[at 999kHz (HE)]
	[at 1000kHz (LH)]
Intermediate frequency :	450kHz

<DECK SECTION>

Tape speed :	3000Hz ± 45Hz
Wow & flutter :	Less than 0.15%
	(W.R.M.S)
Take-up torque :	45g-cm +10/-15g-cm
	(FWD, REV)
F.F torque :	100g-cm +80/-25g-cm
REW torque :	100g-cm +30/-25g-cm
Back tension :	3g-cm +4/-1g-cm
	(FWD, REV)
PB output level :	2.8V ± 2dB
	(SP OUT 2V)
REC/PB output level :	-3.0V ± 2dB
	(SP OUT 2V)
Distortion (REC/PB) :	Less than 2.0%
	(NORM, CrO_2)
Noise level (PB) :	Less than 18mV
	(NORM, SP OUT 2V)
	Less than 15mV
	(CrO_2, SP OUT 2V)
Noise level (REC/PB) :	Less than 20mV
	(DOLBY OFF, NORM, SP OUT 2V)
	Less than 18mV
	(DOLBY OFF, CrO_2, SP OUT 2V)
Crosstalk :	More than 50dB
	(1kHz)
Channel separation :	More than 35dB
	(1kHz)
Erasing ratio :	More than 60dB
	(at 125Hz,+10VU)
Test tape :	TTA-602 (NORMAL)
	TTA-615 (CrO_2)

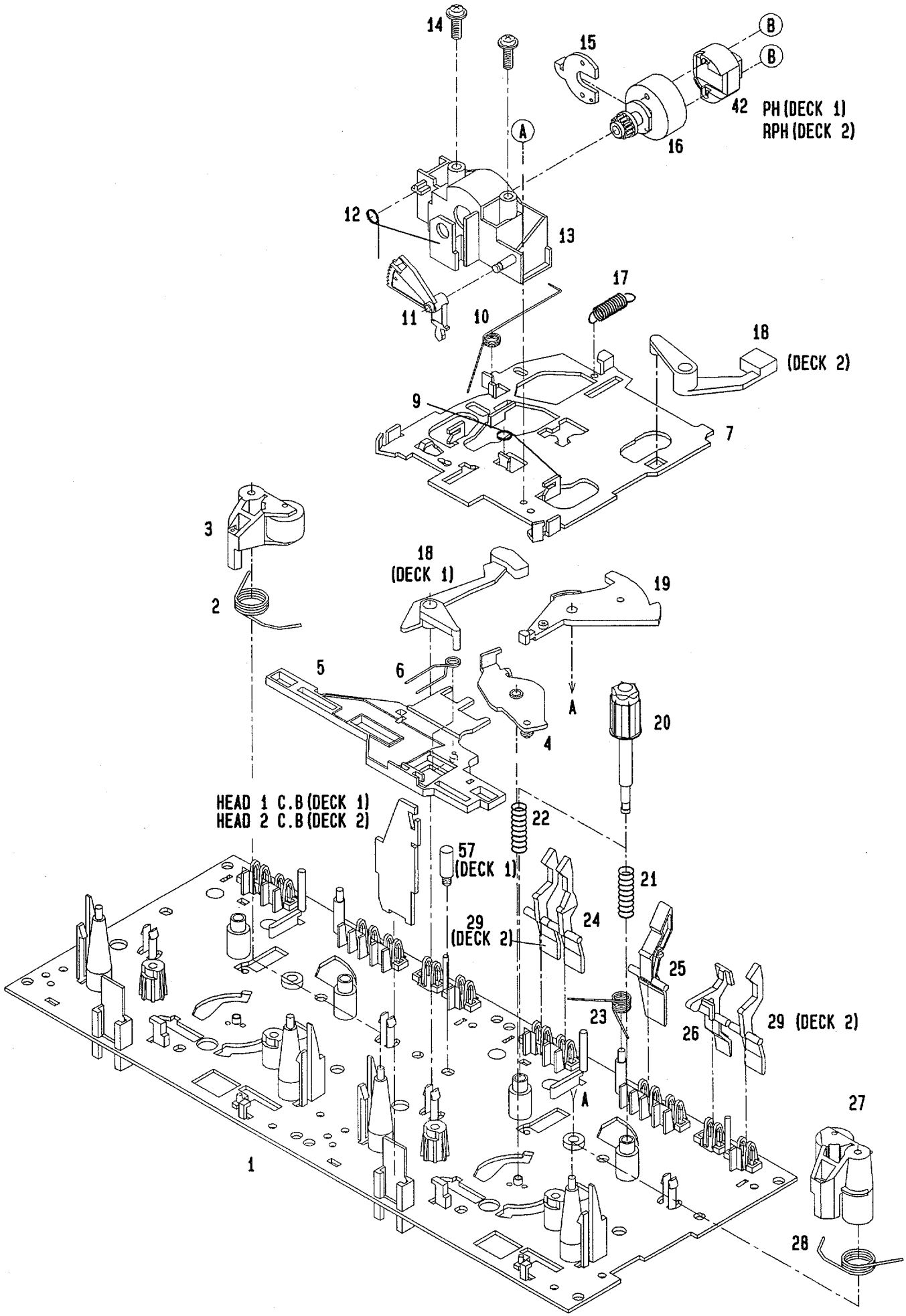

FRONT C.B
GUIDE, FL
RT C.B
GUIDE, PLAY
GUIDE, LED L
GUIDE, LED R
MIC2 C.B
MIC1 C.B
CAP OPTICAL
6ZG-1 SDFNM
41
<LH>
<HE>
HLDR, SUPPORT
HLDR, PWB-M
MAIN C.B
HT-SINK
HLDR, HT-SINK
HT-SINK, FIN F4
HLDR, HT-SINK, SUB
CD KEY C.B
PT C.B
AC 2 C.B
PT101
BINDER WIRE
PLATE, PT
HLDR, WIRE PVC 0.5
HLDR, WIRE PVC 0.5
SH, 12-8. 5-2 W/ADH FOOT
WIRE ASSY GND
2ZM-3MK2 PR5N
WIRE ASSY GND
CHAS, MAIN PRO

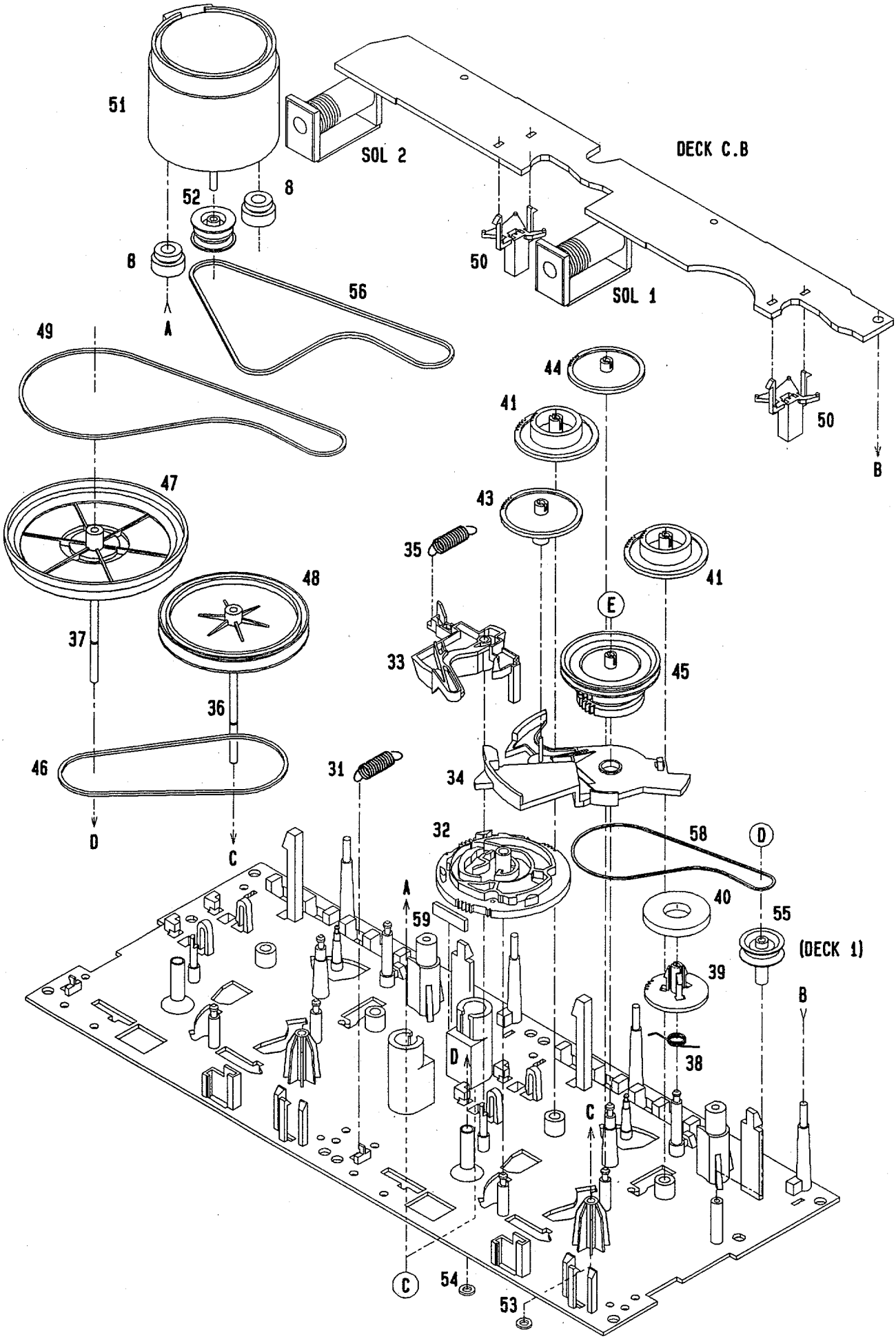
MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MA3-042-010		WINDOW,TOP
2	87-MA3-011-010		CABI,STEEL
3	87-084-077-010		RIVET, NYL3.5-4.5
4	87-MA3-041-010		PANEL,REAR HEJSTNM<HE>
4	87-MA3-047-010		PANEL,REAR LHSTN<LH>
4	87-MA3-043-010		PANEL,REAR LHSTNM<LH>
⚠ 5	87-050-079-010		AC CORD ASSY,E BLK
6	87-085-185-010		BUSHING,AC CORD(E) CM-22B
7	87-MA3-062-010		FOOT, H17
8	87-NF4-216-010		HLDR,LOCK 1
9	87-NF4-217-010		HLDR,LOCK 2
10	82-NF5-228-010		SPR-C,LOCK
11	82-NF5-229-010		PLATE,LOCK(*)
12	87-MA3-017-010		KEY,VF<LH>
13	87-MA3-016-010		KEY,VF KEYCON<HE>
14	87-MA3-019-010		KEY,FUN
15	87-MA3-018-010		KEY,GEQ
16	87-MA3-020-010		REFLECTOR,GEQ
17	87-MA3-012-010		KEY,DIRECT
18	87-MA3-013-010		KEY,OPEN
19	87-MA3-025-010		KEY,MODE
20	87-MA3-039-010		KEY,ASSY PLAY
21	87-MA3-040-010		KEY,ASSY FF
22	87-MA3-024-010		KEY,DSP
23	87-MA3-027-010		KNOB,RTRY MAIN
24	87-063-165-010		OIL-DMPR,150
25	87-MA3-031-010		WINDOW,CASS R
26	87-MA3-030-010		WINDOW,CASS L
27	82-NF5-219-010		SPR-T,EJECT 2(SIN)
28	82-NF5-218-010		SPR-T,EJECT 1(SIN)
29	82-NE8-032-010		BADGE,AIWA 27.5 ABS GLD
30	87-MA3-006-010		BOX,CASS R H
31	87-MA3-005-010		BOX,CASS L H
32	86-NF6-061-010		REFLECTOR,CASS
33	81-532-080-010		LBL,CASS-COMPT
34	87-MA3-032-010		PANEL,FUN
35	87-MA3-026-010		KNOB,RTRY GEQ
36	87-MA3-014-010		KEY,POWER
37	87-MA3-029-010		WINDOW,DISPLAY
38	87-MA3-033-010		PLATE,DISPLAY
39	87-MA3-028-010		WINDOW,CD
40	87-MA3-001-010		CABI,FR HE<HE>
40	87-MA3-002-010		CABI,FR LH<LH>
41	87-MA3-009-010		PANEL,TRAY
A	87-067-703-010		BVT2+3-10 W/O SLOT
B	87-067-688-010		BVTT+3-6
C	87-067-690-010		BVIT3B+3-12 BLK
D	87-067-641-010		UTT2+3-8 W/O SLOT BLK
E	87-067-581-010		BVT2+3-15 W/O SLOT
F	81-MK1-210-010		S-SCREW,BFT2+3-16
G	87-078-060-010		BVIT3B+3-10
H	87-067-975-010		S-SCREW,IT+4-8 SWCH12A
I	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
J	87-591-095-410		QIT+3-8
K	87-067-585-010		BVTT+4-6
L	87-067-584-010		BVT2+3-6 W/O SLOT
M	87-067-579-010		BVT2+3-8 W/O SLOT

TAPE MECHANISM EXPLODED VIEW 1 / 1



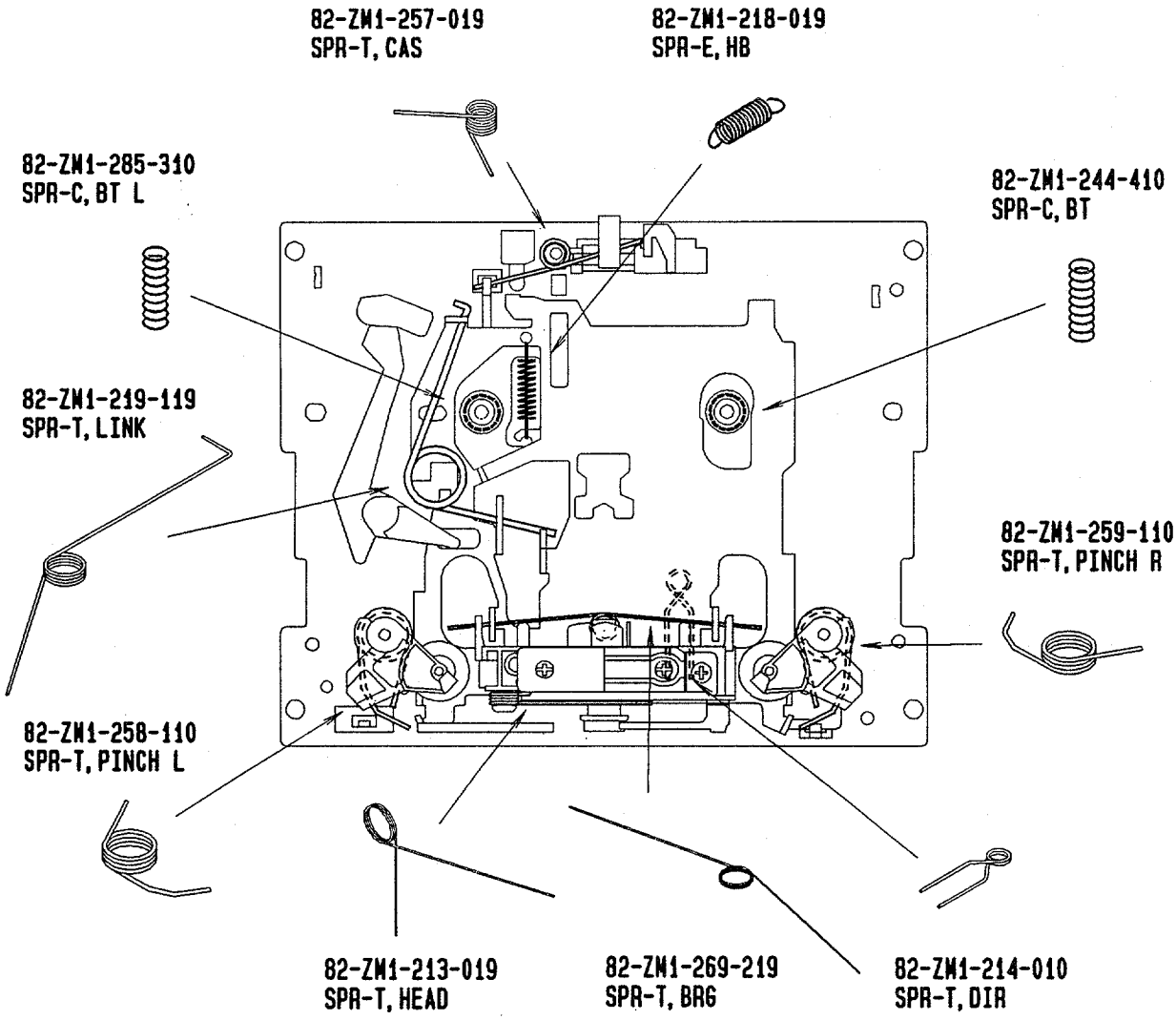

51
SOL 2
DECK C.B
52
8
B
A
56
50
SOL 1
49
44
41
50
B
47
43
35
41
48
37
E
33
45
36
46
31
34
D
C
32
58
D
A
40
55
59
(DECK 1)
39
B
38
D
C
C
54
53

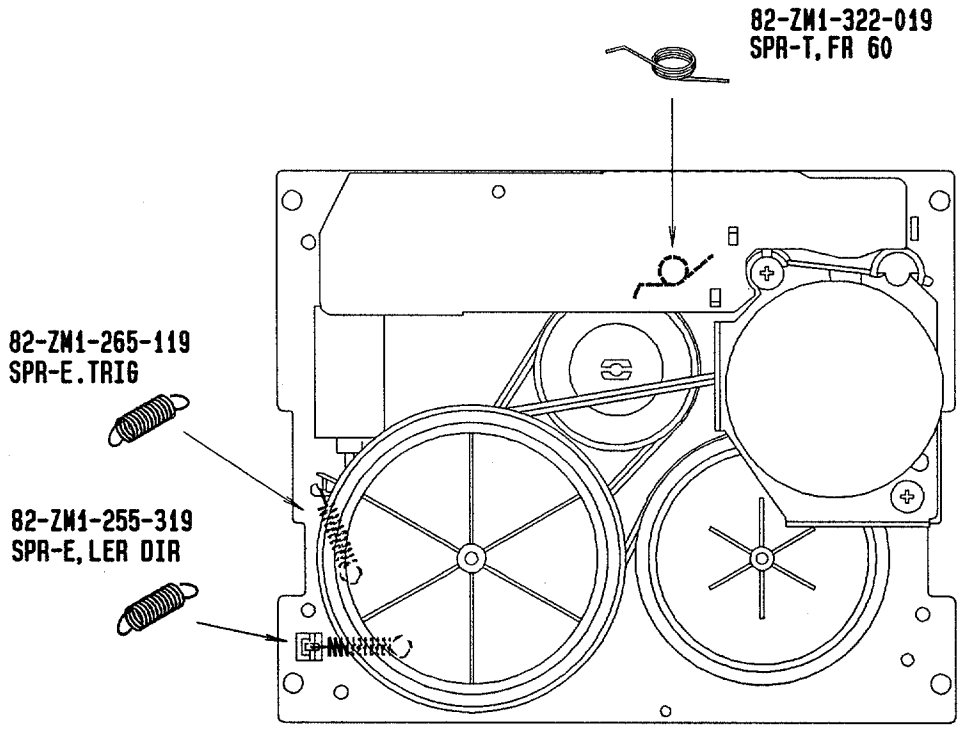
TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-519		CHAS ASSY,M2
2	82-ZM1-258-110		SPR-T,PINCH L
3	82-ZM1-341-110		LVR ASSY,PINCH L2
4	82-ZM1-333-010		PLATE,LINK 2
5	82-ZM1-266-11K		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-81K		CHAS,HEAD
8	82-ZM3-307-019		CUSH-G,DIA3.7-8-3.2
9	82-ZM1-269-219		SPR-T,BRG
10	82-ZM1-219-119		SPR-T,LINK
11	82-ZM1-210-119		GEAR,H T
12	82-ZM1-213-019		SPR-T,HEAD
13	82-ZM1-207-619		GUIDE,TAPE
14	86-ZM4-206-010		S-SCREW,AZIMUTH
15	82-ZM1-314-119		PLATE,HEAD
16	82-ZM1-208-119		HLDR,HEAD
17	82-ZM1-218-019		SPR-E,HB
18	82-ZM1-263-110		LVR,EJECT L (DECK 1)
18	82-ZM1-264-010		LVR,EJECT R (DECK 2)
19	82-ZM1-222-21K		LVR,PLAY
20	82-ZM1-217-319		REEL TABLE
21	82-ZM1-244-510		SPR-C,BT
22	82-ZM1-285-310		SPR-C,BT L
23	82-ZM1-257-019		SPR-T,CAS
24	82-ZM1-241-319		LVR,MC
25	82-ZM1-242-019		LVR,CAS
26	82-ZM1-243-019		LVR,STOP
27	82-ZM1-344-110		LVR ASSY,PINCH R2
28	82-ZM1-259-110		SPR-T,PINCH R
29	82-ZM1-240-11K		LVR,REC (DECK 2)
31	82-ZM1-255-319		SPR-E,LVR DIR
32	82-ZM3-305-01K		GEAR,CAM M2
33	82-ZM1-227-21K		LVR,TRIG
34	82-ZM3-306-11K		LVR,FR M2
35	82-ZM1-265-119		SPR-E,TRIG
36	82-ZM1-236-019		CAPSTAN N 2-41.5
37	82-ZM1-239-019		CAPSTAN N 2.2-41.7
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-219		GEAR,IDLER
40	82-ZM3-616-019		RING MAGNET 4
41	82-ZM1-216-31K		GEAR,REEL
42	87-A90-366-010		HEAD,PH YK50P-BF414 FPC
42	87-A90-367-010		HEAD,RPH YK56R-BF414 FPC
43	82-ZM1-225-21K		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM3-333-310		SLIP DISK ASSY 2
46	82-ZM1-338-010		BELT FR4
47	82-ZM1-349-110		FLY-WHL,R W(DECK 2)
47	82-ZM3-338-110		FLY-WHL,R3 W(DECK 1)
48	82-ZM1-348-010		FLY-WHL,L W(DECK 2)
48	82-ZM1-348-010		FLY-WHL,L W(DECK 1)
49	82-ZM3-329-210		BELT,SBU R2
50	82-ZM1-245-210		HLDR,IC
51	87-045-347-019		MOT,SHU2L 70(M1)
52	82-ZM3-221-010		PULLEY,MOT 2M
53	82-ZM1-288-019		SH,1.63-3.2-0.5 SLT
54	80-ZM6-243-019		SH,1.75-3.6-0.5 SLT
55	82-ZM3-335-210		PULLEY,COUPLER M3(DECK 1)
56	82-ZM3-337-010		BELT,SBU MOT 2
57	82-ZM3-339-010		SHAFT,COUPLER N3(DECK 1)
58	86-ZM1-206-010		BELT,MAIN L
59	82-ZM3-340-010		SH,BELT D2
A	85-ZM3-202-010		S-SCREW,TG
B	80-ZM6-207-019		V+1.6-7
C	82-ZM3-318-019		S-SCRW MOTOR M2
D	87-B10-043-010		W-P,0.99-4-0.25 SLT
E	82-ZM3-334-010		PW,2.16-6-0.4

SPRING APPLICATION POSITION



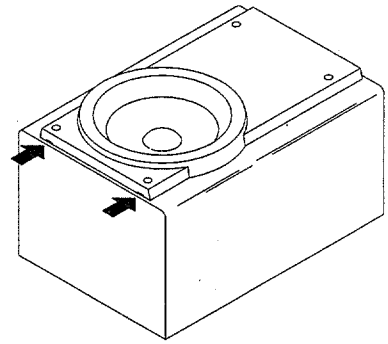


SPEAKER DISASSEMBLY INSTRUCTIONS

Type.1

矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットのビスを取り、スピーカーユニットを外してください。

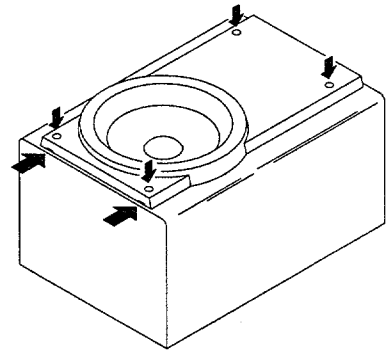
Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



Type.2

グリルフレームを外し、4個のゴムキャプをマイナスドライバーで端の方から持ち上げて外すと中にビスが有りますので、ビスを取り外します。矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットのビスを取り、スピーカーユニットを外してください。

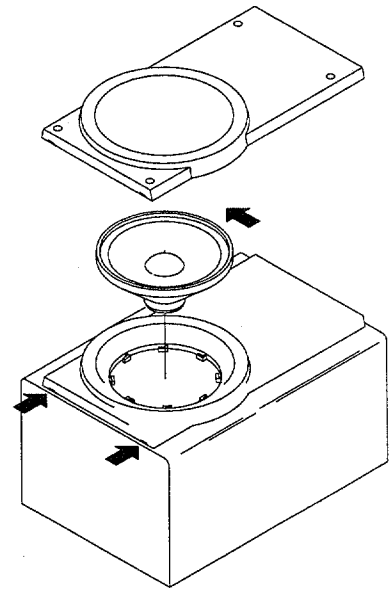
Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then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



Type.3

矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットの凹にマイナスドライバーを差し込んで、反時計方向に回転させスピーカーユニットを外してください。スピーカーユニット交換後は時計方向にクリック音がするまで、回転させて取り付けます。

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 arround speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



SPEAKER PARTS LIST 1 / 1 (SX-ZR900)

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-MSP-001-019		PANEL,FR R
2	87-MSP-002-019		PANEL,FR L
3	87-MSP-005-019		PANEL,TW R
4	87-MSP-006-019		PANEL,TW L
5	87-MSP-008-019		HLDR,TW
6	87-MSP-601-019		SPKR,W 200
7	84-NS6-604-019		SPKR,T 80
8	87-MSP-011-019		GRILLE,FRAME ASSY
9	87-MSP-606-019		SPKR,CORD

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-MA3-901-010		IB,H(ECA)M<HE>
1	87-MA3-902-010		IB,LH(ES)M<LH>
2	87-006-225-010		ANT,LOOP ANT NC2
3	87-043-115-010		FEEDER-ANT,FM
4	87-MA6-702-010		RC UNIT,7AS01
⚠ 5	87-A90-312-010		PLUG,CONVERSION WTN-1157R1

REFERENCE NAME LIST

ELECTRICAL SECTION

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

MECHANICAL SECTION

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

サービス技術ニュース	
番号	連絡内容
G－ －	
G－ －	
G－ －	

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