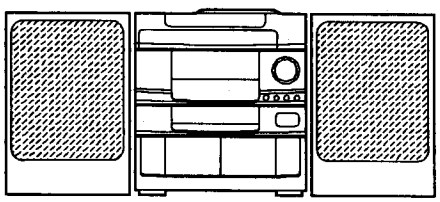
aiwa

aiwa SERVICE

Z-M2900



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK2 PR6
- BASIC CD MECHANISM : 6ZG-1 DF
- TYPE : [illegible]

SYSTEM	CD – CASSEIVER	SPEAKER
Z-M2900	CX-ZM2900	SX-Z290

- If requiring information about the Speaker, see Service Manual of SX-ANV900/SX-NAV900, S/M Code No. 09-964-137-8FP.

SERVICE MANUAL

S/M Code No. 09-966-139-3FE

TABLE OF CONTENTS

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, HR : 150 W + 150 W (6 ohms, T.H.D. 10%, 1 kHz) LH : 180 W + 180 W (6 ohms, T.H.D. 10%, 1 kHz)
* (without connecting to the SURROUND SPEAKERS)	
Total harmonic distortion	0.1% (75 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX : 150 mV (adjustable) PHONO : 250 mV (47 kohms) MIC 1, MIC 2 : 1 mV (10 kohms)
Outputs	LINE OUT : 200 mV SUPER WOOFER : 3.3 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	CrO_2 tape : 50 Hz – 16000 Hz Normal tape : 50 Hz –15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, CrO_2 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-Z290>

Cabinet type	3 way, bass reflex
Speakers	Woofer : 220 mm cone type Tweeter : 80mm cone type Super tweeter : 20 mm ($^{13}/_{16}$ in.) ceramic type
Impedance	6 ohms
Output sound pressure level	90 dB/W/m
Dimensions (W x H x D)	260 x 444 x 270 mm
Weight	4.8 kg (9 lbs 15 oz.)

<General>

Power requirements	120 V/ 220 – 230 V/240 V AC, switchable 50/60 Hz
Power consumption	180 W
Dimensions of main unit (W x H x D)	360 x 394.5 x 375.5 mm
Weight of main unit	11 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.

ACCESSORIES / PACKAGE LIST

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MA2-901-019		IB,H(ECA)-M<HE, HR>
1	86-MA2-902-019		IB,LH(ES)-M<LH>
2	86-MA3-701-019		RC UNIT,6AS01
3	87-006-225-019		AM LOOP ANT NC2
4	87-043-115-01B		ANT,FEEDER FM
⚠ 5	87-099-789-019		PLUG,ADPTR IR44
6	86-MA2-950-019		MIC,DM-M100A YJ<LH>

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

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

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

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

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

ADVARSEL!
Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

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

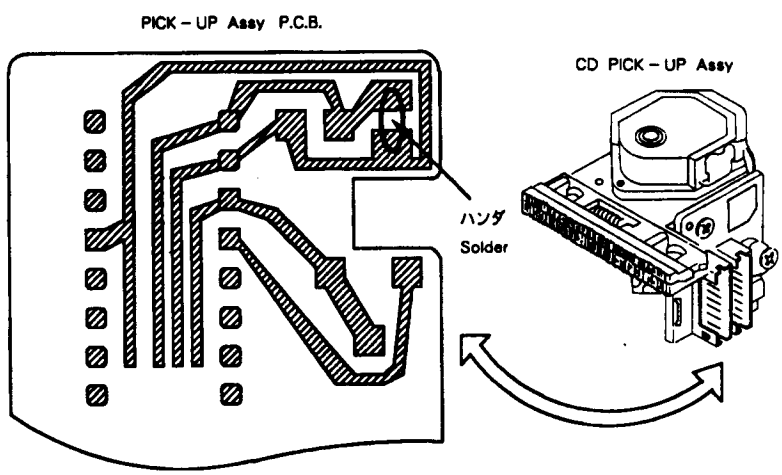
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

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 care 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-A20-264-019		IC,STK-419-150
	87-070-121-010		IC,HA12185NT
	87-001-874-019		IC,HA12134A
	87-A20-107-019		IC,BA3836
	87-027-666-019		IC,TC4052BP
	87-A20-056-019		IC,BA3880S
	87-017-374-019		IC,TC4094BP
	87-070-127-119		IC,LC72131
	87-020-454-010		IC,DN6851
	86-MA2-611-010		IC,LC866440W-5790
	87-070-083-019		IC,GP1U281X
	87-017-914-019		IC,BU4094 BC
	87-070-232-019		IC,BA3834S
	87-017-022-089		IC,NJM2068M-D
	87-002-272-089		IC,TC4052BF
	87-017-888-089		IC,NJM4558MD
	87-001-530-019		IC,LA3607
	87-070-249-049		IC,NJU7305M
	87-A20-067-040		C-IC,M65849FP
	87-017-714-119		IC,LA1836
	87-001-982-019		IC,TA7291S
	87-070-305-019		IC,BA6897S
	87-017-745-019		IC,CXA1782BQ
	87-070-294-019		IC,CXD2508AQ
TRANSISTOR			
	89-213-702-019		TR 2SB1370E
	89-113-187-089		TR,2SA1318TU
	87-026-610-089		TR,KTC3198GR
	89-332-665-089		TR,2SC3266GR
	89-337-221-389		C-TR,2SC3722K
	89-327-125-088		C-TR,2SC2712GR
	89-111-625-089		C-TR,2SA1162GR
	87-026-210-089		C-TR,DTC144EK T147
	89-333-266-089		C-TR,2SC3326B
	87-026-609-089		TR,KTA1266GR
	89-109-705-089		TR,2SA970GR
	89-502-466-089		TR,FET 2SK246-BL (TPE2)
	89-333-317-089		TR,2SC3331T
	87-026-214-089		TR,DTA114YS
	87-026-463-089		TR,2SA933 (RS)
	89-324-121-089		C-TR,2SC2412K
	87-026-226-089		C-TR,DTA143EK
	87-026-211-089		C-TR,DTA144EK T147
	89-109-521-089		TR,2SA952K
	87-026-235-089		C-TR,DTC114 EK
	89-112-965-089		TR,2SA1296GR
	89-406-555-089		TR,2SD655E
	87-026-238-089		C-TR,DTC144WK
	89-327-143-089		C-TR,2SC2714 (O)
	89-505-434-549		C-FET,2SK543(4/5)
	87-026-239-089		C-TR,DTC114 TK
	89-110-155-089		TR,2SA1015GR
	89-320-011-089		TR,2SC2001K
	89-421-722-389		TR,2SD2172V/W
	87-A30-047-089		TR,CSD655E
	87-026-226-089		C-TR,DTA143TK
	87-026-233-089		C-TR,DTA114TK
	87-026-608-089		C-TR,DTC123JK
DIODE			
	87-A40-115-069		DIODE,RS603M
	87-A40-116-069		DIODE,RS403L-B-D-51
	87-070-274-089		DIODE,1N4003 SEM
	87-020-027-089		C-DIODE,1SS184
	87-020-125-089		C-DIODE,1SS181
	87-017-437-089		DIODE,1N4148M
	87-017-174-089		ZENER,HZS11A3L
	87-017-147-089		ZENER,HZS33-2
	87-A40-183-099		DIODE,RK36(F)
	87-017-148-089		ZENER,HZS6A1L
	87-001-914-089		ZENER UTZJ 6.2B
	87-020-691-089		DIODE,1SS132 T-72
	87-070-136-089		ZENER,MTZJ5.1B
	87-020-331-089		C-DIODE,DAN202K
	87-020-339-089		C-DIODE,1SS226
	87-001-290-089		ZENER,HZS6B1L
	87-001-636-089		ZENER,HZS3C1
	87-020-465-089		DIODE,1SS133 T-72
MAIN C.B			
C101	87-A10-231-090		CAP,E 3300-80 <HE,LH>
C101	87-A10-059-090		CAP,E 3300-75 SME<HR>
C102	87-A10-231-090		CAP,E 3300-80 <HE,LH>
C102	87-A10-059-090		CAP,E 3300-75 SME<HR>
C104	87-010-235-089		CAP,E 470-16 SME
C105	87-010-235-089		CAP,E 470-16 SME
C106	87-010-347-089		CAP,E 100-50 SME
C107	87-010-247-089		CAP,E 100-50 SME
C108	87-010-247-089		CAP,E 100-50 SME
C109	87-010-263-089		CAP,E 100-10 SME 5X11
C112	87-010-382-089		CAP,E 22-25 SME
C113	87-010-403-089		CAP,E 3.3-50 SME
C116	87-012-140-089		C-CAP,S 470P-50 CH
C121	87-010-196-089		C-CAP,S 0.1-25 F
C122	87-010-196-089		C-CAP,S 0.1-25 F
C122	87-010-196-089		C-CAP,S 0.1-25 F
C123	87-018-209-089		CAP,TC-U 0.1-50 F
C124	87-010-196-089		C-CAP,S 0.1-25 F
C145	87-010-186-089		C-CAP,S 4700P-50 BK
C146	87-010-186-089		C-CAP,S 4700P-50 BK
C152	87-010-260-089		CAP,E 47-25 SME
C171	87-016-440-099		CAP,E 4700-35(JAM1)
C172	87-016-440-099		CAP,E 4700-35(JAM1)
C173	87-010-196-089		C-CAP,S 0.1-25 F
C174	87-010-196-089		C-CAP,S 0.1-25 F
C175	87-010-196-089		C-CAP,S 0.1-25 F
C176	87-015-785-089		C-CAP,0.1-25 F
C220	87-010-194-089		C-CAP,S 0.047-25 F
C221	87-010-401-089		CAP,E 1-50 SME
C222	87-010-401-089		CAP,E 1-50 SME
C223	87-010-187-089		C-CAP,S 5600P-50 B
C224	87-010-187-089		C-CAP,S 5600P-50 B
C225	87-010-179-089		C-CAP,S 1200P-50 B
C226	87-010-179-089		C-CAP,S 1200P-50 B
C227	87-010-405-089		CAP,E 10-50 SME
C228	87-010-405-089		CAP,E 10-50 SME
C229	87-010-405-089		CAP,E 10-50 SME
C230	87-010-405-089		CAP,E 10-50 SME
C231	87-010-147-089		C-CAP,S 3P-50 CH
C232	87-018-098-089		CAP,TC-U 3.3P-50 SL
C233	87-010-196-089		C-CAP,S 0.1-25 F
C234	87-010-196-089		C-CAP,S 0.1-25 F
C236	87-010-196-089		C-CAP,S 0.1-25 F
C243	87-010-322-089		C-CAP,S 1000P-50 CH
C244	87-010-322-089		C-CAP,S 1000P-50 CH
C250	87-A10-200-080		CAP,E 10-100 BP
C260	87-015-785-089		C-CAP,0.1-25 F
C301	87-010-318-089		C-CAP,S 47P-50 CH
C302	87-010-318-089		C-CAP,S 47P-50 CH
C303	87-012-157-089		C-CAP,S 330P-50 CH
C304	87-012-157-089		C-CAP,S 330P-50 CH
C305	87-012-145-089		C-CAP S 270P-50CH
C306	87-012-145-089		C-CAP S 270P-50CH
C307	87-010-196-089		C-CAP,S 0.1-25 F
C311	87-010-198-089		C-CAP,S 0.022-25 B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C312	87-010-198-089		C-CAP,S 0.022-25 B
C313	87-010-184-089		C-CAP,S 3300P-50 B
C314	87-010-184-089		C-CAP,S 3300P-50 B
C315	87-010-181-089		C-CAP,S 1800P-50 B
C316	87-010-181-089		C-CAP,S 1800P-50 B
C317	87-012-142-089		C-CAP,S 0.33-16 F
C318	87-012-142-089		C-CAP,S 0.33-16 F
C319	87-012-141-089		C-CAP,S 0.22-16 F
C320	87-012-141-089		C-CAP,S 0.22-16 F
C321	87-010-196-089		C-CAP,S 0.1-25 F
C322	87-010-196-089		C-CAP,S 0.1-25 F
C324	87-010-260-089		CAP,E 47-25 SME
C325	87-010-370-089		CAP,E 330-6.3 SME
C326	87-010-196-089		C-CAP,S 0.1-25 F
C330	87-010-401-089		CAP,E 1-50 SME
C332	87-015-785-089		C-CAP,0.1-25 F
C335	87-010-805-089		C-CAP,S 1-16F
C336	87-010-805-089		C-CAP,S 1-16F
C337	87-010-196-089		C-CAP,S 0.1-25 F
C338	87-010-196-089		C-CAP,S 0.1-25 F
C339	87-010-196-089		C-CAP,S 0.1-25 F
C340	87-015-785-089		C-CAP,0.1-25 F
C351	87-012-154-089		C-CAP,S 150P-50 CH
C352	87-012-154-089		C-CAP,S 150P-50 CH
C451	87-012-140-089		C-CAP,S 470P-50 CH
C452	87-012-140-089		C-CAP,S 470P-50 CH
C453	87-010-178-089		C-CAP,S 1000P-50 B
C456	87-010-260-089		CAP,E 47-25 SME
C457	87-010-197-089		C-CAP,S 0.01-25 B
C458	87-010-183-089		C-CAP,S 2700P-50 B
C459	87-010-183-089		C-CAP,S 2700P-50 B
C460	87-010-183-089		C-CAP,S 2700P-50 B
C470	87-010-196-089		C-CAP,S 0.1-25 F
C501	87-010-179-089		C-CAP,S 1200P-50 B
C502	87-010-179-089		C-CAP,S 1200P-50 B
C503	87-012-155-089		C-CAP,S 180P-50 CH
C504	87-012-155-089		C-CAP,S 180P-50 CH
C515	87-010-545-089		CAP,E 0.22-50 SME
C516	87-010-545-089		CAP,E 0.22-50 SME
C519	87-015-785-089		C-CAP,0.1-25 F
C521	87-010-197-089		C-CAP,S 0.01-25 B
C522	87-010-318-089		C-CAP,S 47P-50 CH
C523	87-010-197-089		C-CAP,S 0.01-25 B
C524	87-010-402-089		CAP,E 2.2-50 SME
C525	87-010-184-089		C-CAP,S 3300P-50 B
C526	87-010-196-089		C-CAP,S 0.1-25 F
C527	87-010-401-089		CAP,E 1-50 SME
C528	87-010-401-089		CAP,E 1-50 SME
C529	87-010-384-089		CAP,E 100-25 SME
C530	87-010-197-089		C-CAP,S 0.01-25 B
C531	87-010-183-089		C-CAP,S 2700P-50 B
C532	87-010-194-089		C-CAP,S 0.047-25 F
C533	87-010-196-089		C-CAP,S 0.1-25 F
C534	87-010-263-089		CAP,E 100-10 SME 5X11
C535	87-010-401-089		CAP,E 1-50 SME
C536	87-010-401-089		CAP,E 1-50 SME
C537	87-010-545-089		CAP,E 0.22-50 SME
C540	87-010-196-089		C-CAP,S 0.1-25 F
C541	87-010-196-089		C-CAP,S 0.1-25 F
C542	87-010-405-089		CAP,E 10-50 SME
C543	87-010-546-089		CAP,E 0.33-50 SME
C544	87-010-546-089		CAP,E 0.33-50 SME
C547	87-015-632-089		C-CAP,S 0.015-50 BK<HE,HR>
C547	87-010-198-089		C-CAP,S 0.022-25 B<LH>
C548	87-015-632-089		C-CAP,S 0.015-50 BK<HE,HR>
C548	87-010-198-089		C-CAP,S 0.022-25 B<LH>
C551	87-010-178-089		C-CAP,S 1000P-50 B
C552	87-010-178-089		C-CAP,S 1000P-50 B
C553	87-015-627-089		C-CAP,1000P-50 B
C554	87-010-178-089		C-CAP,S 1000P-50 B
C555	87-012-358-089		C-CAP,S 0.47-10 ZF
C556	87-012-358-089		C-CAP,S 0.47-10 ZF
C597	87-010-404-089		CAP,E 4.7-50 SME
C598	87-010-404-089		CAP,E 4.7-50 SME
C601	87-010-177-089		C-CAP,S 820P-50 SL
C602	87-010-177-089		C-CAP,S 820P-50 SL
C603	87-010-405-089		CAP,E 10-50 SME
C604	87-010-405-089		CAP,E 10-50 SME
C605	87-010-260-089		CAP,E 47-25 SME
C606	87-010-101-089		CAP,E 220-16 SME
C607	87-010-188-089		C-CAP,S 6800P-50 B
C608	87-010-188-089		C-CAP,S 6800P-50 B
C609	87-018-127-089		CAP,TC-U 470P-50 B
C610	87-018-127-089		CAP,TC-U 470P-50 B
C611	87-010-197-089		C-CAP,S 0.01-25 B
C612	87-010-197-089		C-CAP,S 0.01-25 B
C613	87-010-195-089		C-CAP,S 0.068-25 F
C614	87-010-195-089		C-CAP,S 0.068-25 F
C615	87-010-404-089		CAP,E 4.7-50 SME
C616	87-010-404-089		CAP,E 4.7-50 SME
C617	87-010-404-089		CAP,E 4.7-50 SME
C618	87-010-404-089		CAP,E 4.7-50 SME
C641	87-010-196-089		C-CAP,S 0.1-25 F
C642	87-010-196-089		C-CAP,S 0.1-25 F
C700	87-018-196-089		CAP,TC-U 1500P-16 Y
C701	87-010-381-089		CAP,E 330-16 SME
C702	87-010-404-089		CAP,E 4.7-50 SME
C703	87-010-197-089		C-CAP,S 0.01-25 B
C704	87-010-197-089		C-CAP,S 0.01-25 B
C711	87-010-263-089		CAP,E 100-10 SME 5X11
C712	87-010-196-089		C-CAP,S 0.1-25 F
C721	87-010-196-089		C-CAP,S 0.1-25 F
C722	87-010-152-089		C-CAP,S 8P-50 CH
C723	87-010-196-089		C-CAP,S 0.1-25 F
C725	87-010-196-089		C-CAP,S 0.1-25 F
C727	87-010-196-089		C-CAP,S 0.1-25 F
C728	87-010-248-089		CAP,E 220-10 SME
C735	87-018-134-089		CAP,TC-U 0.01-16 Y
C770	87-010-405-089		CAP,E 10-50 SME
C771	87-010-405-089		CAP,E 10-50 SME
C772	87-010-194-089		C-CAP,S 0.047-25 F
C773	87-015-785-089		C-CAP,0.1-25 F
C775	87-010-405-089		CAP,E 10-50 SME
C776	87-010-197-089		C-CAP,S 0.01-25 B
C777	87-010-400-089		CAP,E 0.47-50 SME
C778	87-010-401-089		CAP,E 1-50 SME
C779	87-010-401-089		CAP,E 1-50 SME
C780	87-010-197-089		C-CAP,S 0.01-25 B
C781	87-010-405-089		CAP,E 10-50 SME
C782	87-010-405-089		CAP,E 10-50 SME
C785	87-010-197-089		C-CAP,S 0.01-25 B
C787	87-010-184-089		C-CAP,S 3300P-50 B
C788	87-010-184-089		C-CAP,S 3300P-50 B
C789	87-015-826-089		C-CAP,1200-50 B K
C790	87-010-179-089		C-CAP,S 1200P-50 B
C791	87-010-401-089		CAP,E 1-50 SME
C792	87-018-196-089		CAP,TC-U 1500P-50 B
C793	87-010-189-089		C-CAP,S 8200P-50 B
C794	87-010-408-089		CAP,E 47-50 SME
C795	87-010-194-089		C-CAP,S 0.047-25 F
C796	87-010-403-089		CAP,E 3.3-50 SME
C802	87-010-197-089		C-CAP,S 0.01-25 B
C803	87-018-134-089		CAP,TC-U 0.01-16 Y
C814	87-010-196-089		C-CAP,S 0.1-25 F
C815	87-018-134-089		CAP,TC-U 0.01-16 Y
C819	87-010-197-089		C-CAP,S 0.01-25 B
C820	87-010-408-089		CAP,E 47-50 SME
C821	87-010-197-089		C-CAP,S 0.01-25 B
C823	87-010-197-089		C-CAP,S 0.01-25 B
C828	87-010-197-089		C-CAP,S 0.01-25 B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C829	87-010-197-089		C-CAP,S 0.01-25 B
C830	87-015-819-089		CHIP CAP 0.01
C835	87-010-197-089		C-CAP,S 0.01-25 B
C901	87-010-197-089		C-CAP,S 0.01-25 B
C902	87-010-196-089		C-CAP,S 0.1-25 F
C903	87-018-119-089		CAP,TC U 100P-50 KB
C946	87-010-401-089		CAP,E 1-50 SME
C960	87-010-196-089		C-CAP,S 0.1-25 F
C961	87-010-151-089		C-CAP,S 7P-50 CH
C987	87-018-134-089		CAP,TC-U 0.01-16 Y
C990	87-010-197-089		C-CAP,S 0.01-25 B
C993	87-018-134-089		CAP,TC-U 0.01-16 Y
C995	87-010-197-089		C-CAP,S 0.01-25 B
C999	87-010-196-089		C-CAP,S 0.1-25 F
CF801	87-008-261-019		FLTR,SFE10.7MA5-A
CF802	87-008-261-019		FLTR,SFE10.7MA5-A
CON351	83-NEG-608-019		CONN ASSY 8P-RPB
FFE801	86-NF4-670-019		FE PACK 2 EX-N
J252	87-A60-024-019		JACK 6.3BLK W/SW KM
J253	87-099-802-019		JACK,PIN 3P BRW
J254	87-033-240-019		TERMINAL,SP 4P324V1-5
J652	87-099-814-019		JACK,PIN 3P WWW
J653	87-099-813-019		JACK,PIN 3P RRR
J801	87-033-239-019		TERMINAL,HSP-154V-2
L101	87-003-383-019		COIL,1UH-S
L102	87-003-383-019		COIL,1UH-S
L403	87-007-341-019		COIL,TRAP 85K
L404	87-007-341-019		COIL,TRAP 85K
L451	87-007-342-019		COIL,OSC 85K BIAS
L701	87-003-293-019		COIL,TRAP MPX
L702	87-003-293-019		COIL,TRAP MPX
L741	87-A50-015-019		COIL,FM DET(TOK)
L742	87-A90-051-019		FLTR,CFAZ-450(TOK)
L770	87-003-102-089		COIL,10UH
L790	87-005-564-089		C-COIL 2.2UH
L832	87-005-847-089		COIL,2.2UH(CECS)
L981	86-NF4-668-019		AM PACK 2(TOM)
⚠PR100	87-026-689-089		PROTECTOR,1A 60V 491
⚠PR103	87-026-681-089		PROTECTOR,5A 491 SERIES
⚠PR104	87-026-681-089		PROTECTOR,5A 491 SERIES
R100	87-029-060-089		RES,FUSE 33-1/4W J
R101	87-029-060-089		RES,FUSE 33-1/4W J
R105	87-022-600-089		RES,M/F 0.1-2W J
R106	87-022-600-089		RES,M/F 0.1-2W J
R998	87-029-060-019		RES,FR 33-1/4W J
R999	87-029-060-019		RES,FR 33-1/4W J
RY101	87-045-361-019		RELAY,DH12D2-OS(M)-2
RY102	87-045-382-019		RELAY,OUAZ-SH-112L
SFR301	87-024-355-089		SFR,33K DIA6 H
SFR302	87-024-355-089		SFR,33K DIA6 H
SFR303	87-024-355-089		SFR,33K DIA6 H
SFR304	87-024-355-089		SFR,33K DIA6 H
SFR305	87-024-356-089		SFR,47K DIA6 H
SFR306	87-024-356-089		SFR,47K DIA6 H
SFR451	87-024-356-089		SFR,47K DIA6 H
SFR452	87-024-356-089		SFR,47K DIA6 H
SFR722	87-024-352-089		SFR,4.7K DIA6 H
TC701	87-011-253-089		TRIMER,30P LAR
TH241	87-A90-157-089		C-THMS 4.7K<HE,HR>
VR651	82-NF5-660-019		VR 50K BX2 RK14K 12A
W101	85-NF5-628-019		F-CABLE 7P-2.5
X703	84-508-618-019		VIB,CER CSB 456 F/5
X721	87-030-372-019		VIB,XTAL 7.2MHZ

FRONT C.B

C101	87-010-318-089		C-CAP,S 47P-50 CH
C102	87-010-317-089		C-CAP,S 39P-50 CH
C103	87-010-315-089		C-CAP,S 27P-50 CH
C104	87-012-140-089		C-CAP,S 470P-50 CH
C105	87-010-196-089		C-CAP,S 0.1-25 F
C106	87-010-391-049		CAP,E 10-35 SME
C107	87-010-263-049		CAP,E 100-10
C108	87-010-401-049		CAP,E 1-50 SME
C109	87-015-695-049		CAP,E 1-50 7L
C110	87-010-248-049		CAP,E 220-10
C111	87-010-805-089		C-CAP,S 1-16F
C112	87-010-196-089		C-CAP,S 0.1-25 F
C113	87-018-209-089		CAP,TC-U 0.1-50 F
C201	87-015-690-049		CAP,E 22-35 7L
C202	87-010-258-049		CAP,E 22-35 SME
C203	87-015-699-049		CAP,E 10-50 7L
C205	87-010-196-089		C-CAP,S 0.1-25 F
C206	87-010-196-089		C-CAP,S 0.1-25 F
C212	87-010-196-089		C-CAP,S 0.1-25 F
C213	87-010-196-089		C-CAP,S 0.1-25 F
C214	87-010-196-089		C-CAP,S 0.1-25 F
C215	87-010-196-089		C-CAP,S 0.1-25 F
C301	87-010-196-089		C-CAP,S 0.1-25 F
C302	87-010-196-089		C-CAP,S 0.1-25 F
C303	87-010-196-089		C-CAP,S 0.1-25 F
C304	87-010-196-089		C-CAP,S 0.1-25 F
C305	87-010-196-089		C-CAP,S 0.1-25 F
C306	87-012-140-089		C-CAP,S 470P-50 CH
C601	87-010-677-049		CAP,E 0.15-50 7L
C602	87-010-321-089		C-CAP,S 82 P-50 CH
C603	87-010-196-089		C-CAP,S 0.1-25 F
C604	87-010-178-089		C-CAP,S 1000P-50 B
C605	87-010-177-089		C-CAP,S 820P-50 SL
C606	87-010-112-049		CAP,E 100-16
C608	87-010-406-049		CAP,E 22-50 SME
C609	87-010-263-049		CAP,E 100-10
C610	87-012-142-089		C-CAP,S 0.33-16 F
C611	87-010-401-049		CAP,E 1-50 SME
C612	87-010-196-089		C-CAP,S 0.1-25 F
C613	87-010-322-089		C-CAP,S 100P-50 CH
C620	87-018-208-089		CAP,TC-U 0.047-50 F
C705	87-010-401-049		CAP,E 1-50 SME
C706	87-010-401-049		CAP,E 1-50 SME
C707	87-010-401-049		CAP,E 1-50 SME
C708	87-010-401-049		CAP,E 1-50 SME
C709	87-015-697-049		CAP,E 3.3-50 7L
C710	87-015-697-049		CAP,E 3.3-50 7L
C711	87-010-322-089		C-CAP,S 100P-50 CH
C712	87-010-322-089		C-CAP,S 100P-50 CH
C713	87-010-318-089		C-CAP,S 47P-50 CH
C714	87-010-318-089		C-CAP,S 47P-50 CH
C715	87-010-401-049		CAP,E 1-50 SME
C716	87-010-401-049		CAP,E 1-50 SME
C718	87-010-545-049		CAP E 0.22-50 SME
C719	87-015-688-049		CAP E 4.7-35 7L SRA
C720	87-015-688-049		CAP,E 4.7-35 7L SRA
C722	87-010-370-049		CAP,E 330-6.3 SME
C732	87-010-197-089		C-CAP,S 0.01-25 B
C756	87-010-198-089		C-CAP,S 0.022-25 B
C801	87-016-552-089		C-CAP,S 0.082-16 BK
C802	87-010-186-089		C-CAP,S 4700P-50 B
C803	87-016-460-089		C-CAP,S 0.22-16 BK
C804	87-010-197-089		C-CAP,S 0.01-25 B
C805	87-016-369-089		C-CAP,S 0.033-25 BK
C806	87-010-426-089		C-CAP,S 0.012-25 BK
C807	87-016-552-089		C-CAP,S 0.082-16 B K
C808	87-012-365-089		C-CAP,S 0.027-25V BK
C809	87-010-426-089		C-CAP,S 0.012-25 B K
C810	87-016-369-089		C-CAP,S 0.033-25 B K
C811	87-012-365-089		C-CAP,S 0.027-25 B K
C812	87-016-552-089		C-CAP,S 0.082-16 B K
C813	87-010-181-089		C-CAP,S 1800P-50 B
C814	87-016-552-089		C-CAP,S 0.082-16 BK
C815	87-010-186-089		C-CAP,S 4700P-50 BK
C816	87-016-460-089		C-CAP,S 0.22-16 B K

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C817	87-010-177-089		C-CAP,S 820 P-50 SL
C818	87-016-460-089		C-CAP,S 0.22 -16 B
C819	87-010-181-089		C-CAP,S 1800P-50 B
C820	87-016-526-089		C-CAP,S 0.47-16 BK
C821	87-010-186-089		C-CAP,S 4700P-50 B
C822	87-010-177-089		C-CAP,S 820 P-50 B
C823	87-010-197-089		C-CAP,S 0.01-25 BK
C824	87-010-181-089		C-CAP,S 1800P-50 B
C825	87-016-460-089		C-CAP,S 0.22-16 B
C826	87-010-181-089		C-CAP,S 1800P-50 B
C827	87-016-526-089		C-CAP,S 0.47-16 BK
C828	87-010-186-089		C-CAP,S 4700P-50 B
C829	87-010-404-049		CAP,E 4.7-50 SME
C830	87-010-404-049		CAP,E 4.7-50 SME
C831	87-015-682-049		CAP,E 22-16 7L
C832	87-015-682-049		CAP,E 22-16 7L
C833	87-012-157-089		C-CAP,S 330P-50 CH
C834	87-012-157-089		C-CAP,S 330P-50 CH
C835	87-012-140-089		C-CAP,S 470P-50 CH
C836	87-012-140-089		C-CAP,S 470P-50 CH
C837	87-015-696-049		CAP,E 2.2-50 7L SRA
C838	87-015-696-049		CAP,E 2.2-50 7L SRA
C850	87-010-060-049		CAP,E 100-1 7L
C851	87-010-196-089		C-CAP,S 0.1-25 F
FL201	86-MA2-610-019		FL,29U56101BA
J601	87-099-659-019		JACK,6.3 JY-6314-01130
J602	87-099-659-019		JACK,6.3 JY-6314-01130
LED201	87-017-731-080		LED,SEL1510CM2
LED202	87-017-731-080		LED,SEL1510CM2
LED203	87-017-731-080		LED,SEL1510CM2
LED204	87-017-731-080		LED,SEL1510CM2
LED205	87-017-731-080		LED,SEL1510CM2
LED206	87-017-731-080		LED,SEL1510CM2
LED207	87-017-731-080		LED,SEL1510CM2
LED208	87-017-731-080		LED,SEL1510CM2
LED209	87-017-731-080		LED,SEL1510CM2
LED210	87-017-731-080		LED,SEL1510CM2
LED211	87-017-785-080		LED,SEL 4214S
LED212	87-017-785-080		LED,SEL 4214S
LED213	87-017-785-080		LED,SEL 4214S
LED214	87-017-785-080		LED,SEL 4214S
LED215	87-017-785-080		LED,SEL 4214S
LED216	87-017-297-080		LED,SEL1550CM TP7
LED217	87-017-297-080		LED,SEL1550CM TP7
LED218	87-017-297-080		LED,SEL1550CM TP7
LED219	87-017-297-080		LED,SEL1550CM TP7
LED220	87-017-297-080		LED,SEL1550CM TP7
LED221	87-017-297-080		LED,SEL1550CM TP7
LED224	87-070-270-010		LED,SEL1510CM2 LF34
LED225	87-070-300-010		LED,SEL1250SM LF34
LED226	87-070-270-010		LED,SEL1510CM2 LF34
LED227	87-070-270-010		LED,SEL1510CM2 LF34
LED228	87-070-300-019		LED,SEL 1250SM LF34
LED229	87-070-270-019		LED,SEL1510CM2 LF34
LED701	87-017-785-080		LED,SEL 4214S
LED702	87-017-785-080		LED,SEL 4214S
LED703	87-017-785-080		LED,SEL 4214S
LED704	87-017-785-080		LED,SEL 4214S
LED705	87-017-785-080		LED,SEL 4214S
LED706	87-017-785-080		LED,SEL 4214S
LED707	87-017-785-080		LED,SEL 4214S
LED708	87-017-785-080		LED,SEL 4214S
LED709	87-017-785-080		LED,SEL 4214S
LED710	87-017-785-080		LED,SEL 4214S
LED711	87-017-785-080		LED,SEL 4214S
LED712	87-017-785-080		LED,SEL 4214S
S201	87-036-215-089		SW,TACT EVQ21404M
S202	87-036-215-089		SW,TACT EVQ21404M
S203	87-036-215-089		SW,TACT EVQ21404M
S204	87-036-215-089		SW,TACT EVQ21404M
S207	87-036-215-089		SW,TACT EVQ21404M
S208	87-036-215-089		SW,TACT EVQ21404M
S209	87-036-215-089		SW,TACT EVQ21404M
S210	87-036-215-089		SW,TACT EVQ21404M
S211	87-036-215-089		SW,TACT EVQ21404M
S212	87-036-215-089		SW,TACT EVQ21404M
S213	87-036-215-089		SW,TACT EVQ21404M
S214	87-036-215-089		SW,TACT EVQ21404M
S215	87-036-215-089		SW,TACT EVQ21404M
S216	87-036-215-089		SW,TACT EVQ21404M
S217	87-036-215-089		SW,TACT EVQ21404M
S218	87-036-215-089		SW,TACT EVQ21404M
S219	87-036-215-089		SW,TACT EVQ21404M
S220	87-036-215-089		SW,TACT EVQ21404M
S221	87-036-215-089		SW,TACT EVQ21404M
S222	87-036-215-089		SW,TACT EVQ21404M
S223	87-036-215-089		SW,TACT EVQ21404M
S224	87-036-215-089		SW,TACT EVQ21404M
S225	87-036-215-089		SW,TACT EVQ21404M
S226	87-036-215-089		SW,TACT EVQ21404M
S227	87-036-215-089		SW,TACT EVQ21404M
S228	87-A90-095-089		SW,TACT EVQ11G04M
S229	87-A90-095-089		SW,TACT EVQ11G04M
S230	87-A90-095-089		SW,TACT EVQ11G04M
S231	87-A90-095-089		SW,TACT EVQ11G04M
S232	87-A90-095-089		SW,TACT EVQ11G04M
S233	87-036-215-089		SW,TACT EVQ21404M
S234	87-036-215-089		SW,TACT EVQ21404M
S236	87-036-215-089		SW,TACT EVQ21404M
VR601	85-MA2-605-019		VR,10KB
VR602	85-MA3-604-019		VR,20KA MIC
W102	84-MA1-692-019		CABLE,FFC 14P-1.25
W501	85-MA2-602-019		CABLE,FFC 15P 1.25
W801	86-MA2-613-019		F-CABLE,5P 2.0 170MM
WH801	87-009-311-019		CONN,5P 51048
X101	87-030-376-089		VIB,CER CSA5.76MG200

VR C.B

C751	87-010-404-049		CAP,E 4.7-50 SME
C752	87-010-404-049		CAP,E 4.7-50 SME
C753	87-010-402-049		CAP,E 2.2-50 SME
C754	87-010-402-049		CAP,E 2.2-50 SME
C755	87-010-263-049		CAP,E 100-10
C901	87-010-263-049		CAP,E 100-10
C902	87-010-196-089		C-CAP,S 0.1-25 F
C903	87-010-152-089		C-CAP,S 8P-50 CH
C904	87-010-152-089		C-CAP,S 8P-50 CH
C905	87-010-197-089		C-CAP,S 0.01-25 B
C906	87-010-179-089		C-CAP,S 1200P-50 B
C907	87-010-196-089		C-CAP,S 0.1-25 F
C908	87-012-142-089		C-CAP,S 0.33-16 F
C909	87-012-142-089		C-CAP,S 0.33-16 F
C910	87-010-196-089		C-CAP,S 0.1-25 F
C911	87-010-187-089		C-CAP,S 5600P-50 B
C912	87-010-177-089		C-CAP,S 820P-50 SL
C913	87-010-179-089		C-CAP,S 1200P-50 B
C914	87-012-182-089		C-CAP,S 2200P-50 B
C917	87-010-182-089		C-CAP,S 2200P-50 B
C918	87-010-182-089		C-CAP,S 2200P-50 B
C919	87-010-405-049		CAP,E 10-50 SME
C920	87-010-405-049		CAP,E 10-50 SME
C921	87-010-263-049		CAP,E 100-10
C922	87-010-401-049		CAP,E 1-50 SME
L901	87-003-153-089		COIL,45UH JFLR50

CD KEY C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LED401	87-017-785-080		LED,SEL 4214S
LED402	87-017-785-080		LED,SEL 4214S
LED403	87-017-785-080		LED,SEL 4214S
LED404	87-017-785-080		LED,SEL 4214S
LED405	87-017-785-080		LED,SEL 4214S
S401	87-036-215-089		SW,TACT EVQ21404M
S402	87-036-215-089		SW,TACT EVQ21404M
S403	87-036-215-089		SW,TACT EVQ21404M
S404	87-036-215-089		SW,TACT EVQ21404M
S405	87-036-215-089		SW,TACT EVQ21404M
S406	87-036-215-089		SW,TACT EVQ21404M
S407	87-036-215-089		SW,TACT EVQ21404M
W401	86-MA2-612-019		F-CABLE,8P 2.0 250MM
AC C.B			
⚠ PR101	87-026-682-089		PROTECTOR,10A 60V 491
⚠ PR102	87-026-682-089		PROTECTOR,10A 60V 491
PT C.B			
⚠	82-304-743-019		TERMINAL,1P
⚠ CF109	87-033-147-019		CLAMP,FUSE
⚠ CF110	87-033-147-019		CLAMP,FUSE
⚠ F109	87-035-370-019		FUSE,6.3A-250V T
⚠ PT1	86-MA2-606-019		PT,HR<HE,HR>
⚠ PT1	86-MA2-607-019		PT,LH<LH>
⚠ SW101	87-036-387-019		SW,SL 1-2-3
DECK C.B			
SFR1	87-024-581-089		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-010		SOL ASSY, 27
SOL2	82-ZM1-618-010		SOL ASSY, 27
SW1	87-036-378-010		SW, PUSH 1-1-1 SH2
SW2	87-036-378-010		SW, PUSH 1-1-1 SH2
SW3	87-036-378-010		SW, PUSH 1-1-1 SH2
SW4	87-036-378-010		SW, PUSH 1-1-1 SH2
SW5	87-036-378-010		SW, PUSH 1-1-1 SH2
SW6	87-036-378-019		SW, PUSH 1-1-1 SH2
SW8	87-036-378-019		SW, PUSH 1-1-1 SH2
HEAD-1 C.B			
HEAD-2 C.B			
CD MAIN C.B			
	86-ZG1-605-019		CABLE,FFC 16P
	86-ZG1-608-019		CABLE,FFC 8P
C11	87-010-182-089		C-CAP,S 2200P-50 B
C12	87-016-081-089		C-CAP,S 0.1-16 RK
C13	87-016-081-089		C-CAP,S 0.1-16 RK
C14	87-016-081-089		C-CAP,S 0.1-16 RK
C15	87-010-404-049		CAP,E 4.7-50 SME
C16	87-016-081-089		C-CAP,S 0.1-16 RK
C17	87-010-197-089		C-CAP,S 0.01-25 B
C18	87-010-402-049		CAP,E 2.2-50 SME
C19	87-010-382-049		CAP,E 22-25 SME
C20	87-010-213-089		C-CAP,S 0.015-25 B
C21	87-010-197-089		C-CAP,S 0.01-25 B
C22	87-010-263-049		CAP,E 100-10 SME
C23	87-010-197-089		C-CAP,S 0.01-25 B
C24	87-016-369-089		C-CAP,S 0.033-25 B K
C25	87-010-197-089		C-CAP,S 0.01-25 B
C26	87-016-369-089		C-CAP,S 0.033-25 B K
C27	87-010-197-089		C-CAP,S 0.01-25 B
C29	87-010-154-089		C-CAP,S 10P-50 D CH
C30	87-010-263-049		CAP,E 100-10 SME
C31	87-010-178-089		C-CAP,S 1000P-50 B
C32	87-010-198-089		C-CAP,S 0.022-25 B
C33	87-016-081-089		C-CAP,S 0.1-16 RK
C34	87-010-197-089		C-CAP,S 0.01-25 B
C35	87-010-263-049		CAP,E 100-10 SME
C36	87-015-677-049		CAP,E 100-6.3 7L
C37	87-010-197-089		C-CAP,S 0.01-25 B
C38	87-010-260-089		CAP,E 47-25 SME
C39	87-010-196-089		C-CAP,S 0.1-25 F
C91	87-010-263-049		CAP,E 100-10 SME
C101	87-010-596-089		C-CAP,S 0.047-16 RK
C102	87-010-188-089		C-CAP,S 6800P-50 B
C103	87-018-132-089		CAP,TC-U 2200P-16 X
C104	87-012-156-089		C-CAP,S 220P-50 CH
C105	87-010-404-049		CAP,E 4.7-50 SME
C106	87-010-263-049		CAP,E 100-10 SME
C107	87-010-197-089		C-CAP,S 0.01-25 B
C108	87-016-526-089		C-CAP,S 0.47-16 BK
C109	87-010-197-089		C-CAP,S 0.01-25 B
C112	87-010-318-089		C-CAP,S 47P-50 CH
C113	87-010-263-089		CAP,E 100-10 SME 5X11
C114	87-010-197-089		C-CAP,S 0.01-25 B
C115	87-010-318-089		C-CAP,S 47P-50 CH
C116	87-010-318-089		C-CAP,S 47P-50 CH
C117	87-010-197-089		C-CAP,S 0.01-25 B
C122	87-010-186-089		C-CAP,S 4700P-50 B
C123	87-010-382-049		CAP,E 22-25 SME
C201	87-010-318-089		C-CAP,S 47P-50 CH
C202	87-010-318-089		C-CAP,S 47P-50 CH
C203	87-010-321-089		C-CAP,S 82P-50 CH
C204	87-010-321-089		C-CAP,S 82P-50 CH
C205	87-010-321-089		C-CAP,S 82P-50 CH
C206	87-010-321-089		C-CAP,S 82P-50 CH
C207	87-012-153-089		C-CAP,S 120P-50 CH
C208	87-012-153-089		C-CAP,S 120P-50 CH
C209	87-012-153-089		C-CAP,S 120P-50 CH
C210	87-012-153-089		C-CAP,S 120P-50 CH
C211	87-010-403-049		CAP,E 3.3-50 SME
C212	87-010-403-089		CAP,E 3.3-50 SME
C213	87-010-186-089		C-CAP,S 4700P-50 B
C214	87-010-186-089		C-CAP,S 4700P-50 B
C231	87-016-251-049		CAP,E 220-16 SMG
C232	87-010-263-089		CAP,E 100-10 SME 5X11
C301	87-010-196-089		C-CAP,S 0.1-25 F
C302	87-010-260-089		CAP,E 47-25 SME
C401	87-010-403-089		CAP,E 3.3-50 SME
C402	87-010-403-049		CAP,E 3.3-50 SME
C501	87-016-459-049		CAP,E 470-10 SMG
C502	87-010-197-089		C-CAP,S 0.01-25 B
C503	87-010-263-049		CAP,E 100-10 SME
C504	87-010-196-089		C-CAP,S 0.1-25 F
C505	87-010-196-089		C-CAP,S 0.1-25 F
C506	87-010-196-089		C-CAP,S 0.1-25 F
C507	87-010-196-089		C-CAP,S 0.1-25 F
C508	87-016-459-049		CAP,E 470-10 SMG
C509	87-010-196-089		C-CAP,S 0.1-25 F
C510	87-010-196-089		C-CAP,S 0.1-25 F
C601	87-010-196-089		C-CAP,S 0.1-25 F
C602	87-016-251-049		CAP,E 220-16 SMG
C603	87-010-196-089		C-CAP,S 0.1-25 F
C701	87-010-322-089		C-CAP,S 100P-50 CH
C702	87-010-318-089		C-CAP,S 47P-50 CH
C703	87-010-318-089		C-CAP,S 47P-50 CH
C705	87-010-178-089		C-CAP,S 1000P-50 B
C901	87-010-260-049		CAP,E 47-25 SME
C902	87-010-196-089		C-CAP,S 0.1-25 F
L11	87-003-102-089		COIL,10UH K LAL02
LED901	87-A40-123-019		LED,SLZ-8128A-01-B
M601	87-045-305-019		MOTOR,RF-500TB
R36	87-022-365-089		C-RES,S 100K-1/10W F
R37	87-022-363-089		C-RES,S 68K-1/10W F

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
R38	87-022-363-089		C-RES,S 68K-1/10W F
R39	87-022-363-089		C-RES,S 68K-1/10W F
R40	87-022-363-089		C-RES,S 68K-1/10W F
R41	87-022-365-089		C-RES,S 100K-1/10W F
SFR11	87-024-175-089		SFR,47K DIA6V
SFR12	87-024-176-089		SFR,100K DIA6V
SFR13	87-024-176-089		SFR,100K DIA6V
SW601	87-036-109-019		SW,PUSH SPPB 61
SW602	87-036-109-019		SW,PUSH SPPB 61
SW603	87-036-109-019		SW,PUSH SPPB 61
X101	87-030-402-089		VIB,XTAL 16.9344MHZ
LED C.B			
LED701	87-017-733-080		LED,SEL1250SM
LED702	87-017-350-080		LED,SEL1550CM
LED703	87-017-733-080		LED,SEL1250SM
T-T C.B			
C411	87-018-214-089		CAP,TC U 0.1-50
LED411	87-070-288-019		LED,GL380
M401	87-A90-036-019		MOT ASSY,RF-300CA-11
PS401	87-A90-156-019		SNSR,SG-240
Q411	87-A30-031-019		P-TR,PT380F
SW401	87-036-109-019		SW,PUSH SPPB61
CD MOTOR C.B			
SW1	87-036-340-019		SW,LEAF LSA-1121
M20	87-045-358-019		MOT,RF-310TA 43
M21	87-045-356-019		MOT,RF-310TA 30

TRANSISTOR ILLUSTRATION

E C B

2SA1296
2SC3266
KTA1266
KTC3198

E C B

2SA952 2SA1015
2SD655 2SC2001
2SA970 CSD655

B C E

2SB1370

S G D

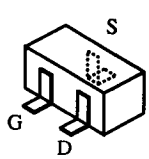
2SK246

E C B

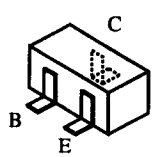
DTA114
2SA933

E C B

2SA1318
2SC3331



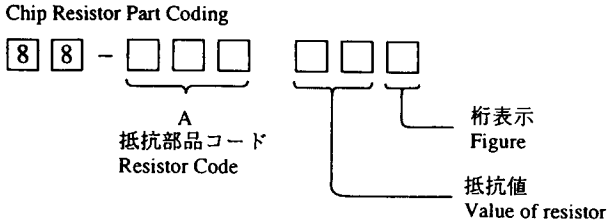
2SK543



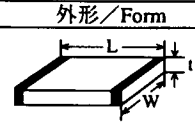
2SA1162 DTA114
2SC2712 DTA143
2SC2412 DTA144
2SC3722 DTC123
2SC3326 DTC114
2SC2714 DTC143
DTC144

○ 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

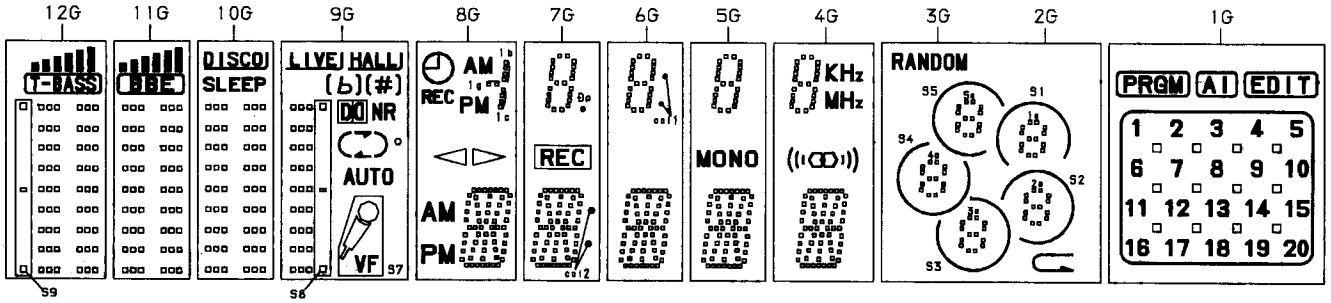


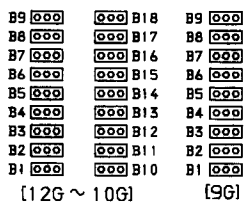
チップ抵抗
Chip resistor

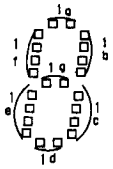
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード：A Resistor Code: A
1／16W	1608	±5%	CJ		1.6	0.8	0.45	108
1／10W	2125	±5%	CJ		2	1.25	0.45	118
1／8W	3216	±5%	CJ		3.2	1.6	0.55	128

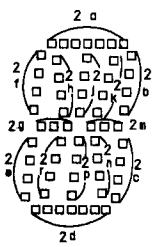
FL ANODE CONNECTION & GRID ASSIGNMENT

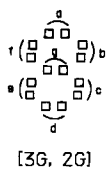
FL, 29U56101BA
GRID ASSIGNMENT

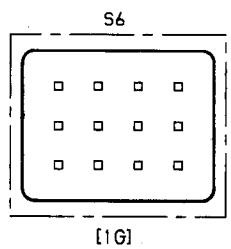








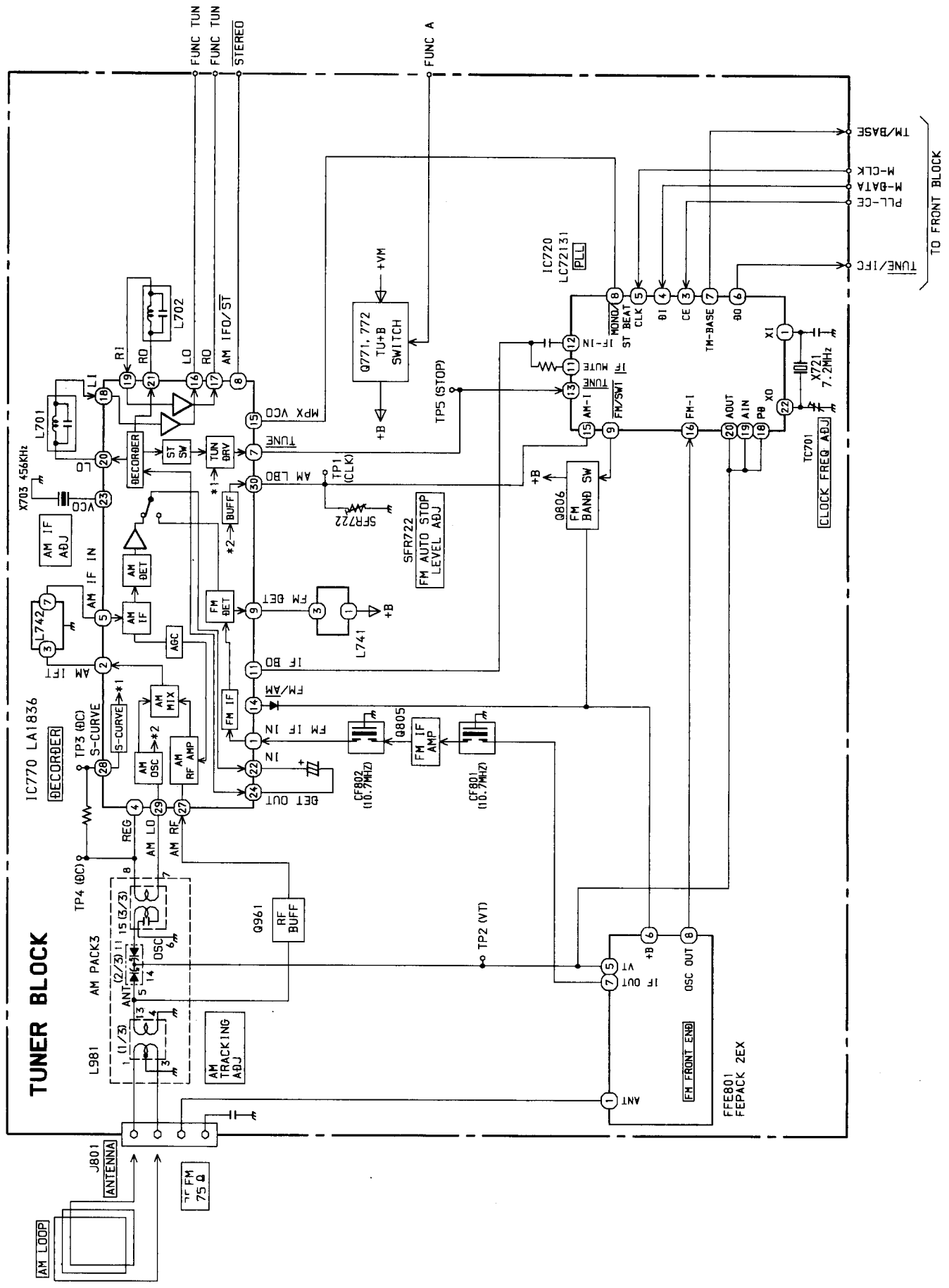




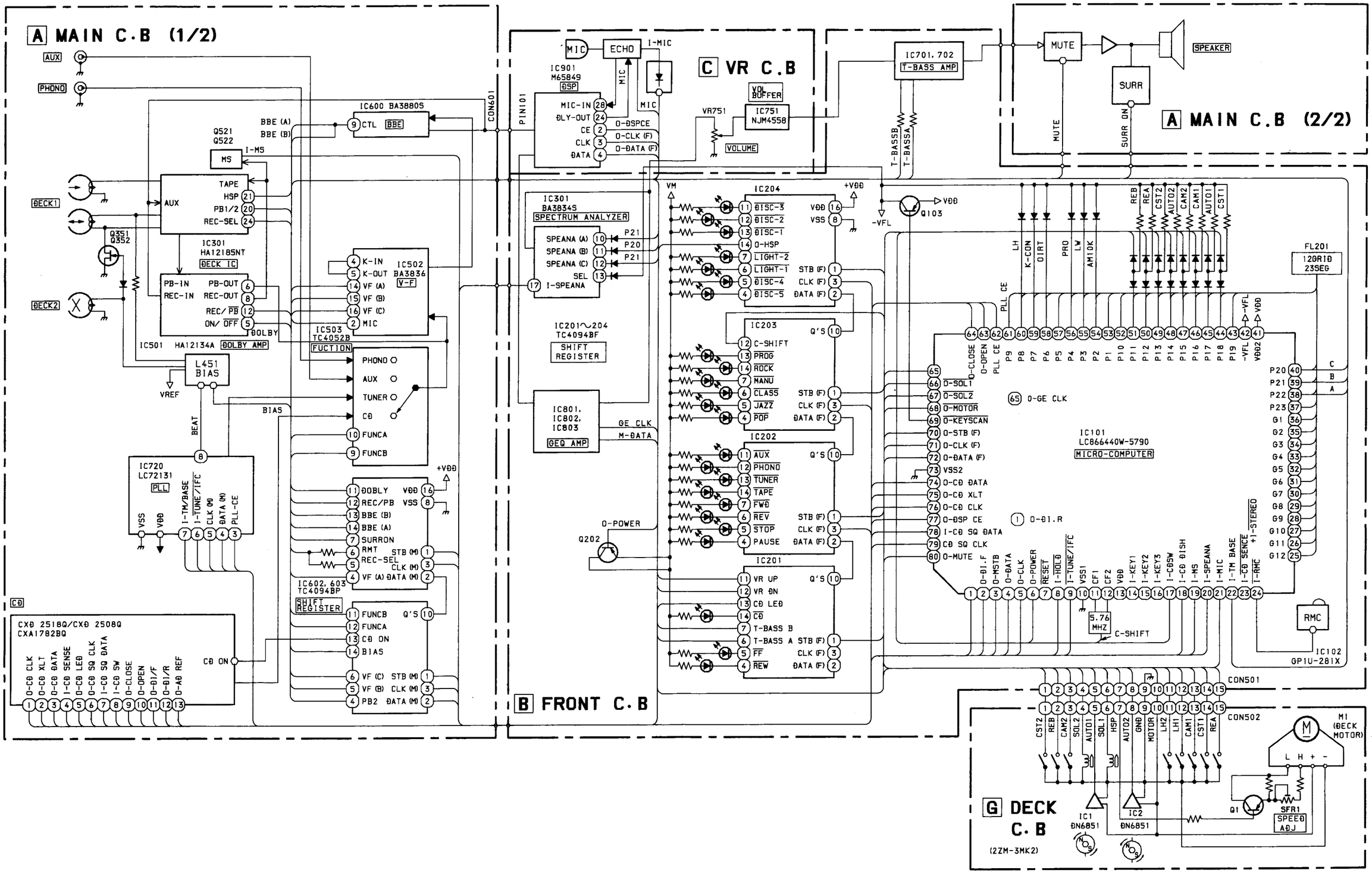
ANODE CONNECTION

	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B10	B10	B10	S7	2d	2d	2d	2d	2d	S3		20
P2	B1	B1	B1	B1	2j, 2p	2j, 2p	2j, 2p	2j, 2p	2j, 2p	3a,3d	↻	19
P3	B11	B11	B11	S8	2n	2n	2n	2n	2n	3e	—	18
P4	B2	B2	B2	B2	2r	2r	2r	2r	2r	3c		17
P5	B12	B12	B12	AUTO	2c	2c	2c	2c	2c	3g	—	16
P6	B3	B3	B3	B3	2e	2e	2e	2e	2e	3f	—	15
P7	B13	B13	B13	(	2m	2m	2m	2m	2m	3b		14
P8	B4	B4	B4	B4	2g	2g	2g	2g	2g	4a,4d	2a,2d	13
P9	B5	B5	B5	B5	2f	2f	2f	2f	2f	4e	2e	12
P10	B15	B15	B15	)	2b	2b	2b	2b	2b	4c	2c	11
P11	B6	B6	B6	B6	2k	2k	2k	2k	2k	4g	2g	10
P12	B16	B16	B16	○	2h	2h	2h	2h	2h	4f	2f	9
P13	B7	B7	B7	B7	2a	2a	2a	2a	2a	4b	2b	8
P14	B14	B14	B14	NR	AM (DOWN)	col2		—	(((	S4	S2	7
P15	B17	B17	B17	♭ ♯	PM (DOWN)	REC	col1 (UP)	—	MHz	S5		6
P16	B8	B8	B8	B8	▷	Ðp	col1 (DOWN)	MONO	KHz	S1		5
P17	B18	B18	B18	(♭)	◁	1d	1d	1d	1d	5a,5d	1a,1d	4
P18	B9	B9	B9	B9	REC	1e	1e	1e	1e	5e	1e	3
P19	B19	B19	SLEEP	(#)	PM (UP)	1c	1c	1c	1c	5c	1c	2
P20	B20	B20	DISCO	HALL	1g	1g	1g	1g	1g	5g	1g	1
P21	B21	B21	(DISCO)	(HALL)	1b, 1c	1f	1f	1f	1f	5f	1f	EDIT
P22	T-BASS	BBE	(LIVE)		◴	1b	1b	1b	1b	5b	1b	AI
P23	—	—	LIVE		AM (UP)	1a	1a	1a	1a	RANDOM		PRGM
P24	S9	—	—	—	—	—	—	—	—	—	—	S6

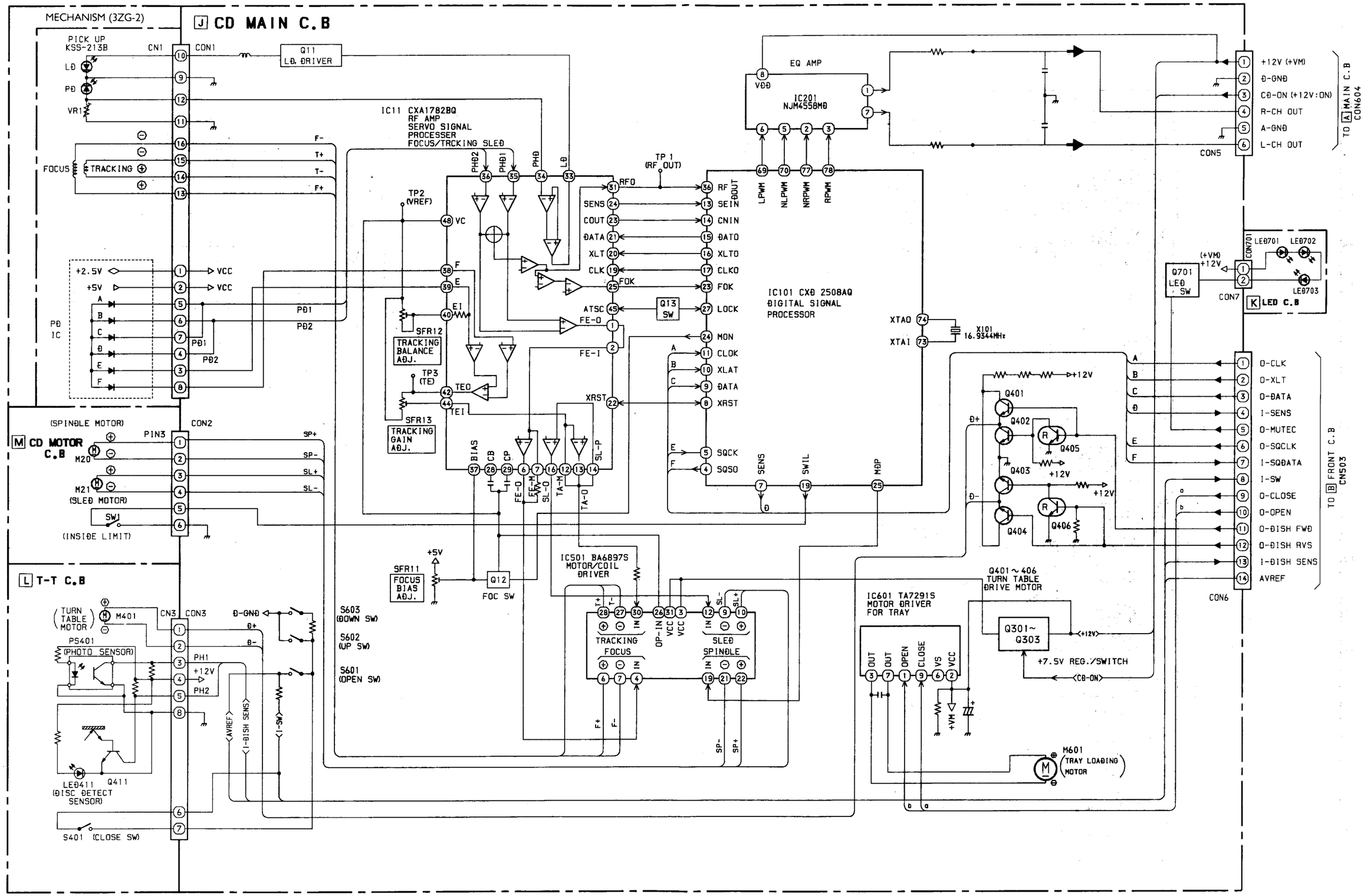
BLOCK DIAGRAM – 1 (TUNER)



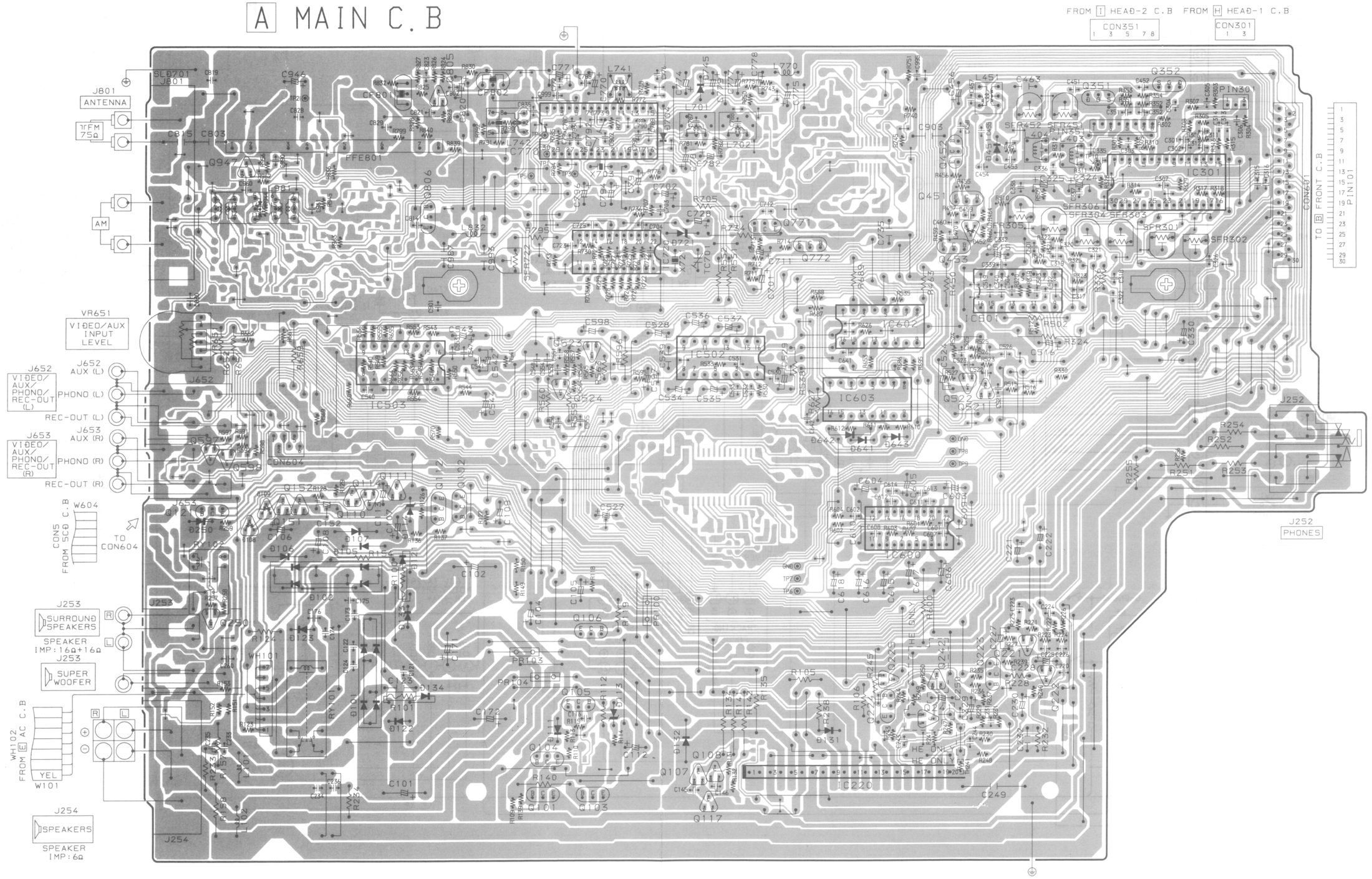
BLOCK DIAGRAM – 2 (MAIN / FRONT)



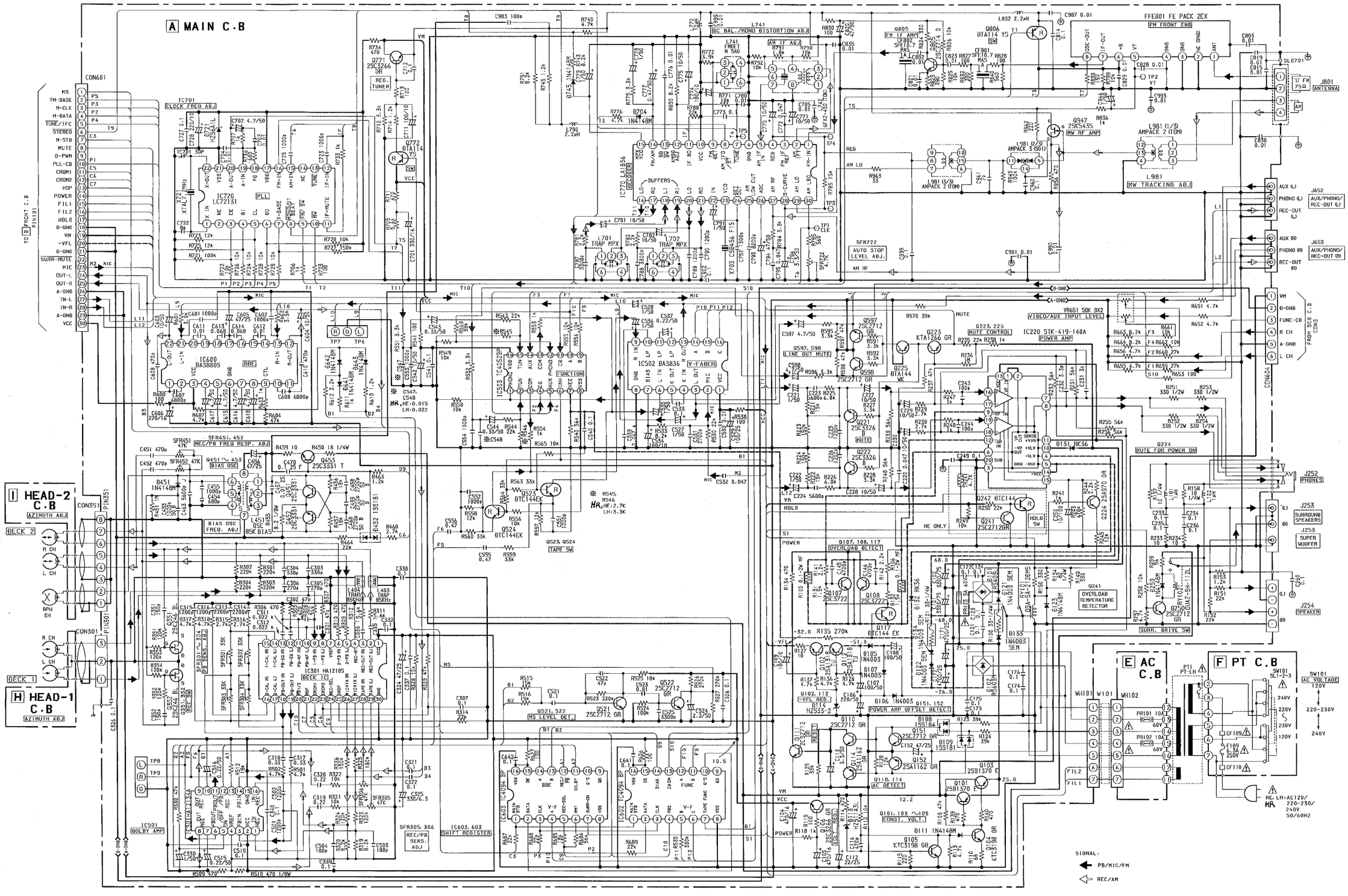
BLOCK DIAGRAM – 3 (CD)



A MAIN C.B

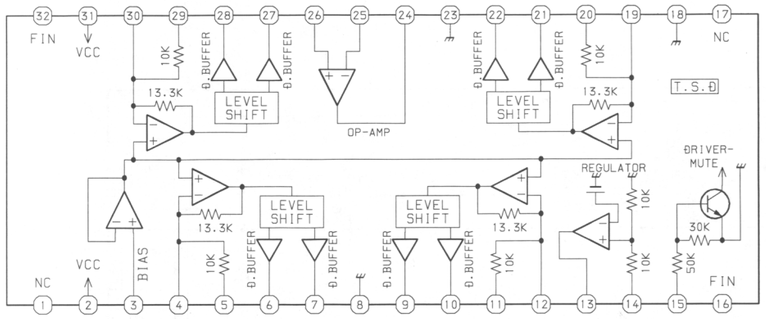

FROM I HEAD-2 C.B
CON351
FROM H HEAD-1 C.B
CON301
TO B FRONT C.B
CON601
J801
ANTENNA
FM 75Ω
AM
VR651
VIDEO/AUX INPUT LEVEL
J652
VIDEO/AUX/PHONO/REC-OUT (L)
AUX (L)
PHONO (L)
REC-OUT (L)
J653
VIDEO/AUX/PHONO/REC-OUT (R)
AUX (R)
PHONO (R)
REC-OUT (R)
CON5
FROM 5C0 C.B
W604
TO CON604
J253
SURROUND SPEAKERS
SPEAKER IMP:16Ω+16Ω
J253
SUPER WOOFER
WH102
FROM E AC C.B
YEL
W101
J254
SPEAKERS
SPEAKER IMP:6Ω
J252
PHONES
PIN101
IC301
IC501
IC502
IC503
IC603
IC600
IC220
HE ONLY

SCHEMATIC DIAGRAM – 1 (MAIN)

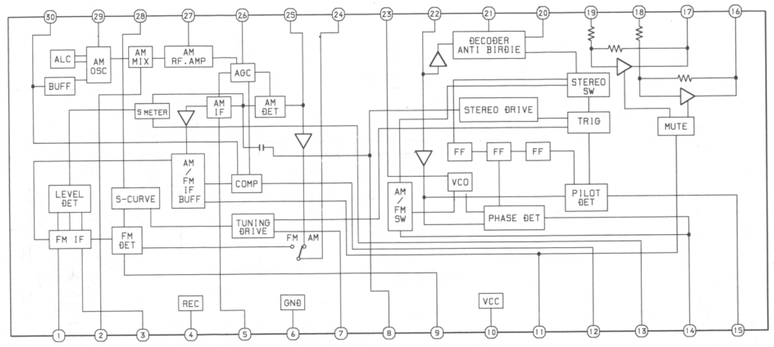


IC BLOCK DIAGRAM – 1

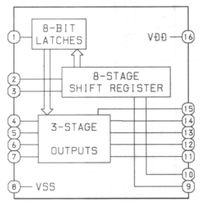
IC, BA6897



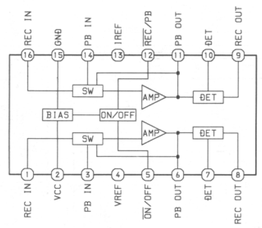
IC, LA1836



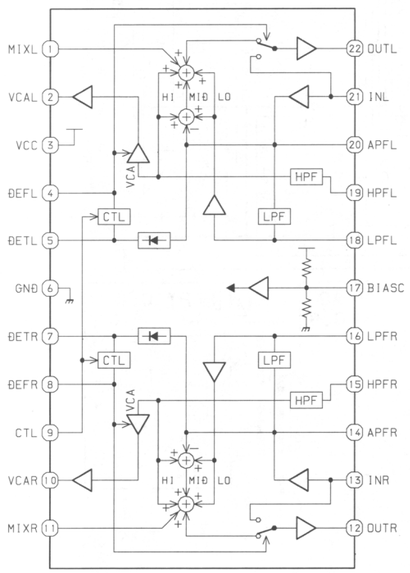
IC, TC4094BP



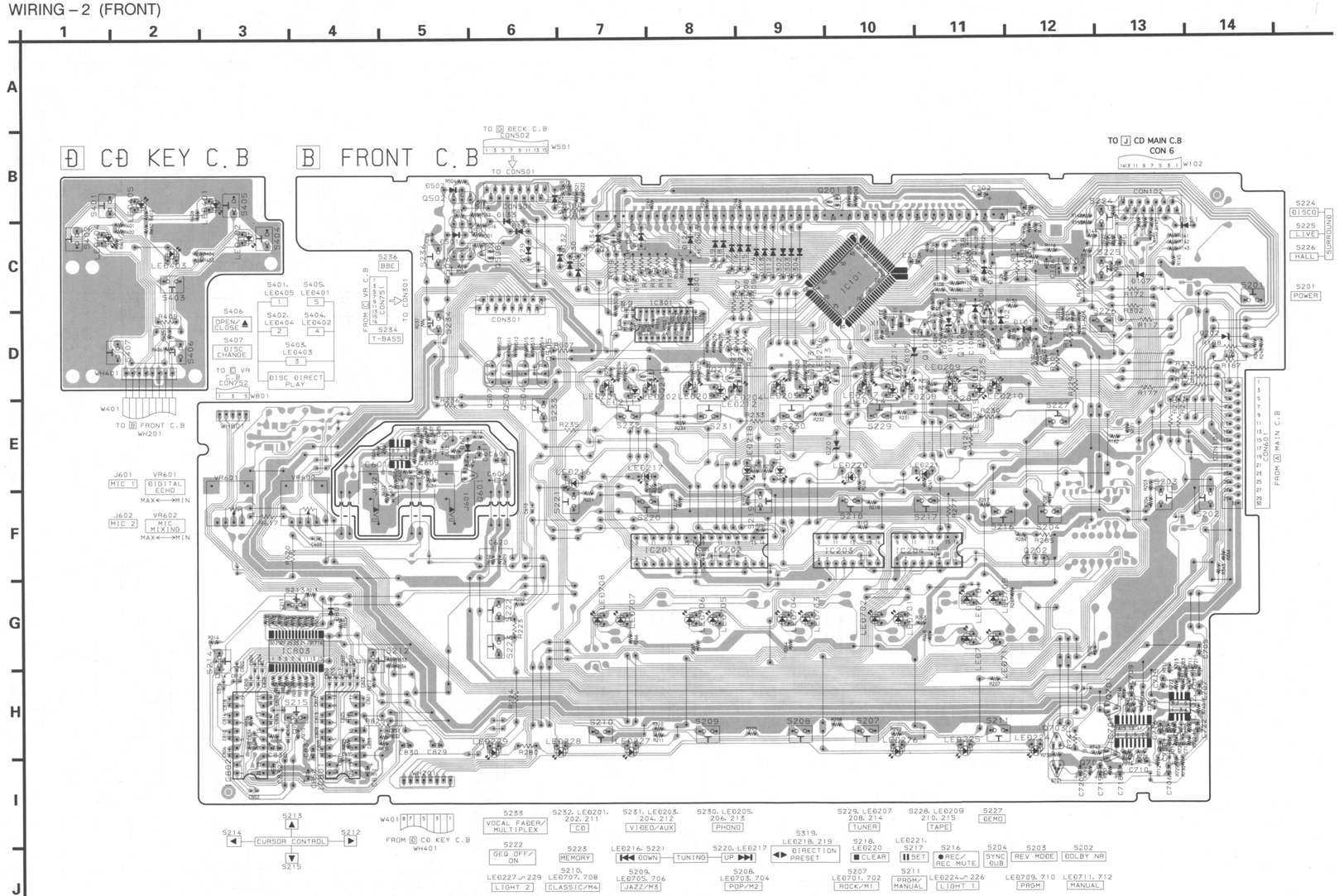
IC, HA12134

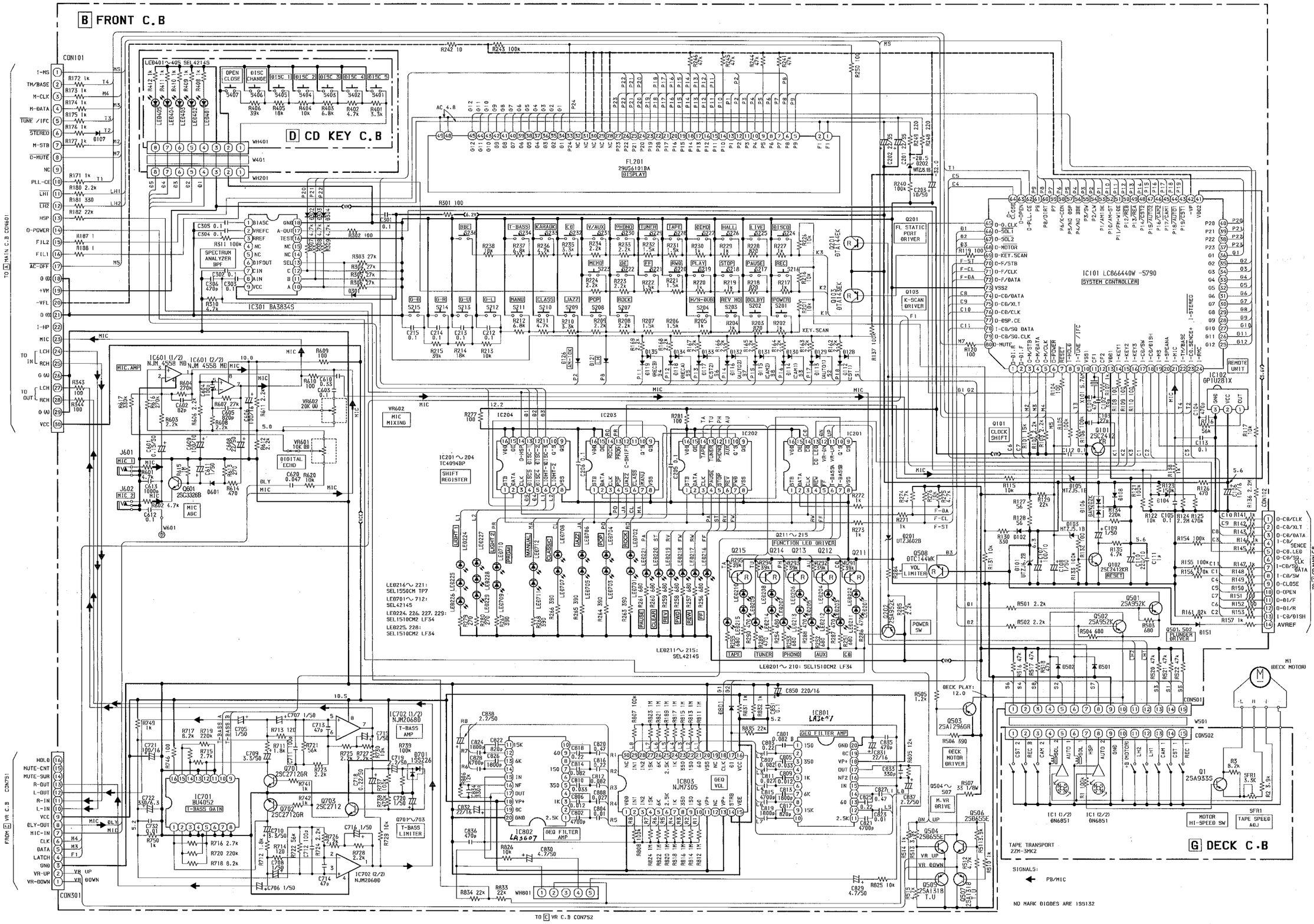


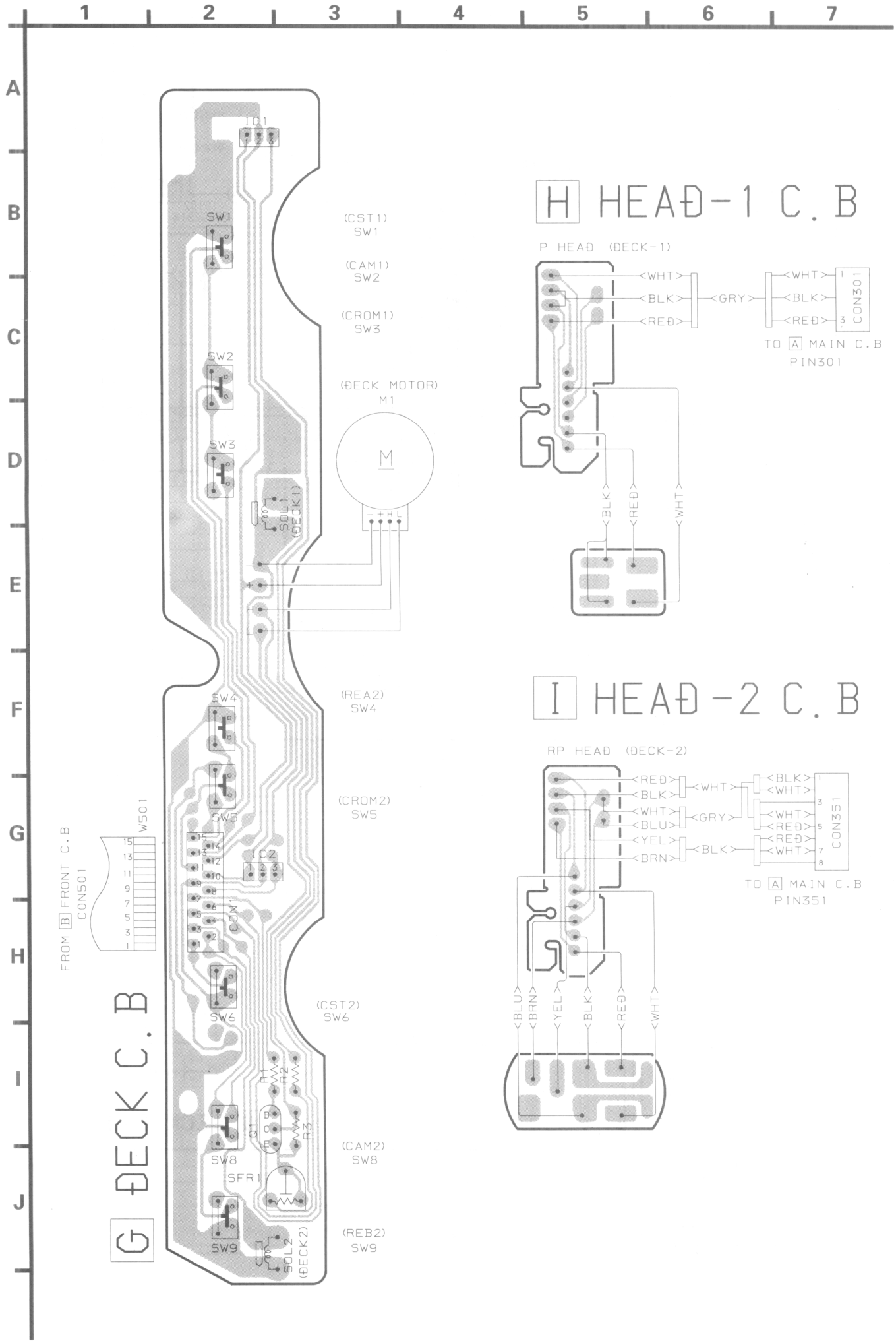
IC, BA3880S



WIRING – 2 (FRONT)




B FRONT C.B
D CD KEY C.B
CON101
TO A MAIN C.B CON601
LED401~405 SEL4214S
OPEN/CLOSE
DISC CHANGE
DISC 1
DISC 2
DISC 3
DISC 4
DISC 5
WH401
W401
WH201
FL201
29US6101BA
DISPLAY
IC101 LC866440W -5790
SYSTEM CONTROLLER
Q201
FL STATIC PORT DRIVER
Q103
K-SCAN DRIVER
KEY.SCAN
IC601 (1/2) NJM 4558 MD
IC601 (2/2) NJM 4558 MD
MIC.AMP
MIC MIXING
DIGITAL ECHO
MIC AGC
IC204
IC203
IC202
IC201
IC201~204 TC4094BP
SHIFT REGISTER
FUNCTION LED DRIVER
Q211~215
LED216~221: SEL1550CM TP7
LED701~712: SEL4214S
LED224, 226, 227, 229: SEL1510CM2 LF34
LED225, 228: SEL1510CM2 LF34
LED211~215: SEL4214S
LED201~210: SEL1510CM2 LF34
IC301 BA3834S
SPECTRUM ANALYZER BPF
Q508 DTC144WK
VOL LIMITER
Q201 UTZJ602B
Q501 2SA952K
Q502 2SA952K
PLUNGER DRIVER
POWER SW
Q102 2SC2412KR
RESET
Q101 2SC2412K
CLOCK SHIFT
IC102 GP1U281X
REMOTE UNIT
IC701 BU4052
T-BASS GAIN
IC702 (1/2) NJM2068D
T-BASS AMP
IC702 (2/2) NJM2068D
T-BASS LIMITER
Q701 2SC2712GR
Q702 2SC2712GR
Q703 2SC2712
IC802 LA3607
GEQ FILTER AMP
IC803 NJM7305
GEQ VOL
IC801 LA3607
GEQ FILTER AMP
Q503 2SA1296GR
DECK MOTOR DRIVER
Q504 2SD655E
M.VR DRIVE
Q505 2SA1318 T.U
Q506 2SD655E
M1 (DECK MOTOR)
MOTOR HI-SPEED SW
TAPE SPEED ADJ
TAPE TRANSPORT 2ZM-5MK2
G DECK C.B
SIGNALS:
PB/MIC
NO MARK DIODES ARE 1SS132
CON301
FROM C MAIN C.B CON751
TO C VR C.B CON752
CON501
CON502
CON102
TO D CD MAIN C.B CON601


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
G DECK C.B
IC1
SW1
(CST1)
SW1
(CAM1)
SW2
(CROM1)
SW3
SW2
(DECK MOTOR)
M1
M
SW3
SOL1
(DECK1)
SW4
(REA2)
SW4
SW5
(CROM2)
SW5
IC2
CON1
W501
FROM B FRONT C.B
CON501
SW6
(CST2)
SW6
R1
R2
R3
Q1
SW8
(CAM2)
SW8
SFR1
SW9
(REB2)
SW9
SOL2
(DECK2)
H HEAD-1 C.B
P HEAD (DECK-1)
WHT
BLK
RED
GRY
WHT
BLK
RED
CON301
TO A MAIN C.B
PIN301
BLK
RED
WHT
I HEAD-2 C.B
RP HEAD (DECK-2)
RED
BLK
WHT
BLU
YEL
BRN
WHT
GRY
BLK
BLK
WHT
WHT
RED
RED
WHT
CON351
TO A MAIN C.B
PIN351
BLU
BRN
YEL
BLK
RED
WHT

J CD MAIN C.B

FROM B FRONT C.B CN102

S601 OPEN SW

S602 UP SW

TO CD MOTOR C.B (ORG, BLK)

TO PICK UP

M2 (TRAY MOTOR)

IC101

IC501

IC11

IC212

IC601

CON6

CON2

CON7

CON5

CON701

Q15

Q14

Q12

Q11

Q401

Q901

Q701

S603

SW602

D103

D102

D401

D701

LED701 LED702 LED703

CD TRAY LIGHTING

CABL OPTICAL DIGITAL OUT (OPTICAL)

K LED C.B

M CD MOTOR C.B

SW1 INSIDE LIMIT SW

M20 SPINDLE MOTOR

M21 SLED MOTOR

PIN3

ORG

BLK

FROM CON2

L T.T C.B

TO CON3

S603 DOWN SW

FROM A MAIN C.B CON604

Q411, LED411 DISC DETECT SENSOR

CON8

Q411

R414

R413

R415

LED411

S401 CLOSE SW

M401 (DISH MOTOR)

BLK

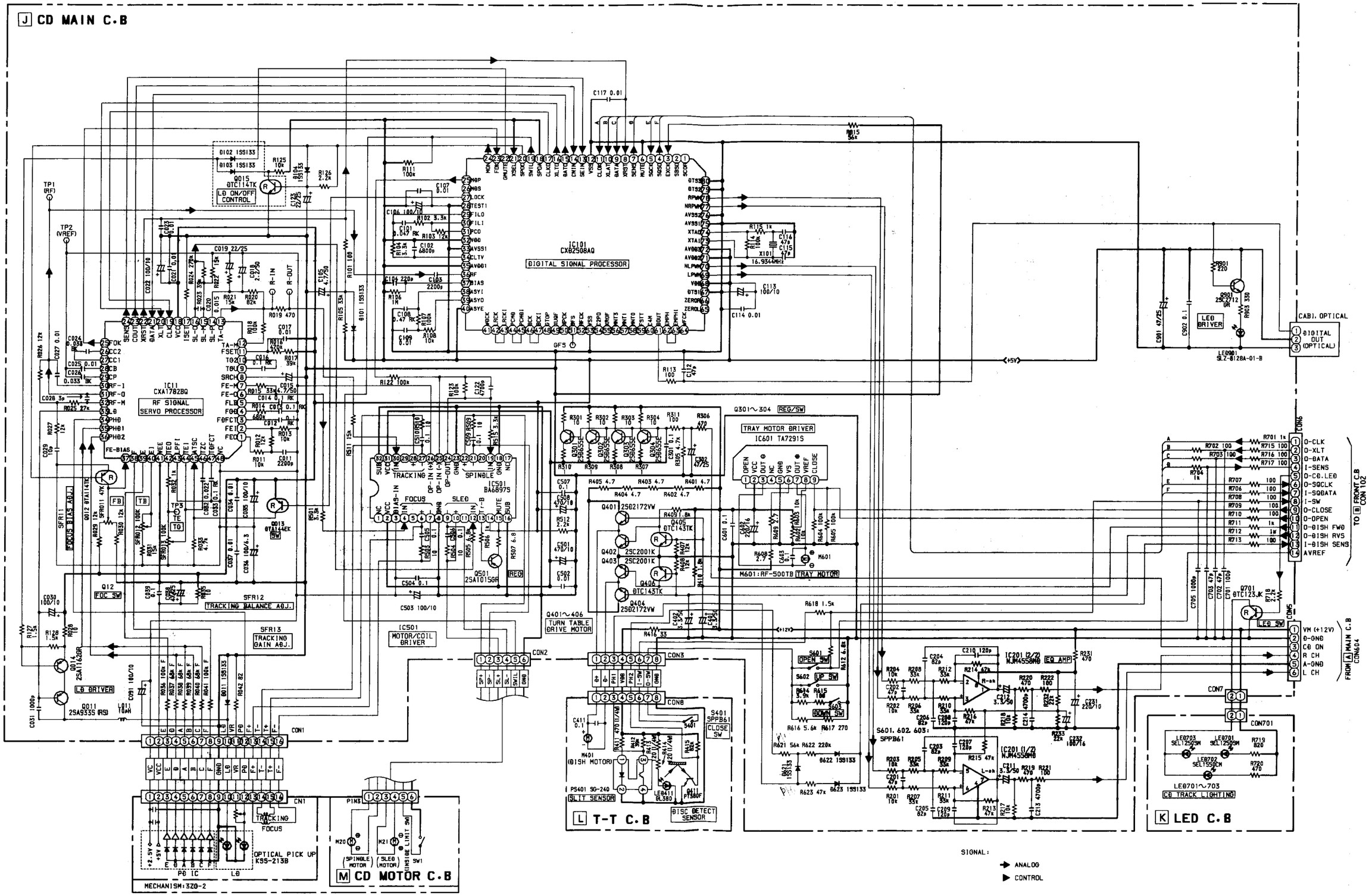
RED

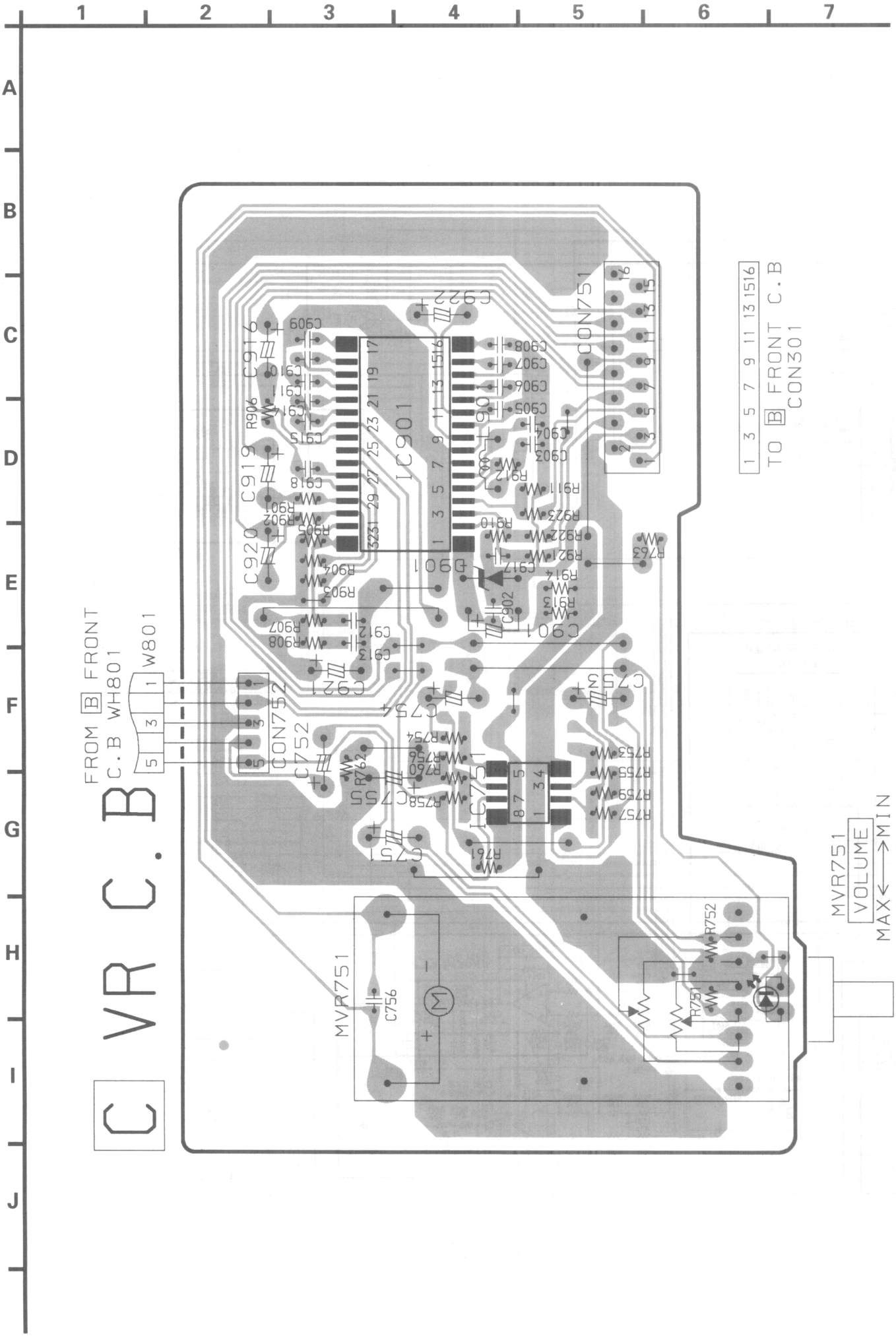
PS401

PICK UP ASSY

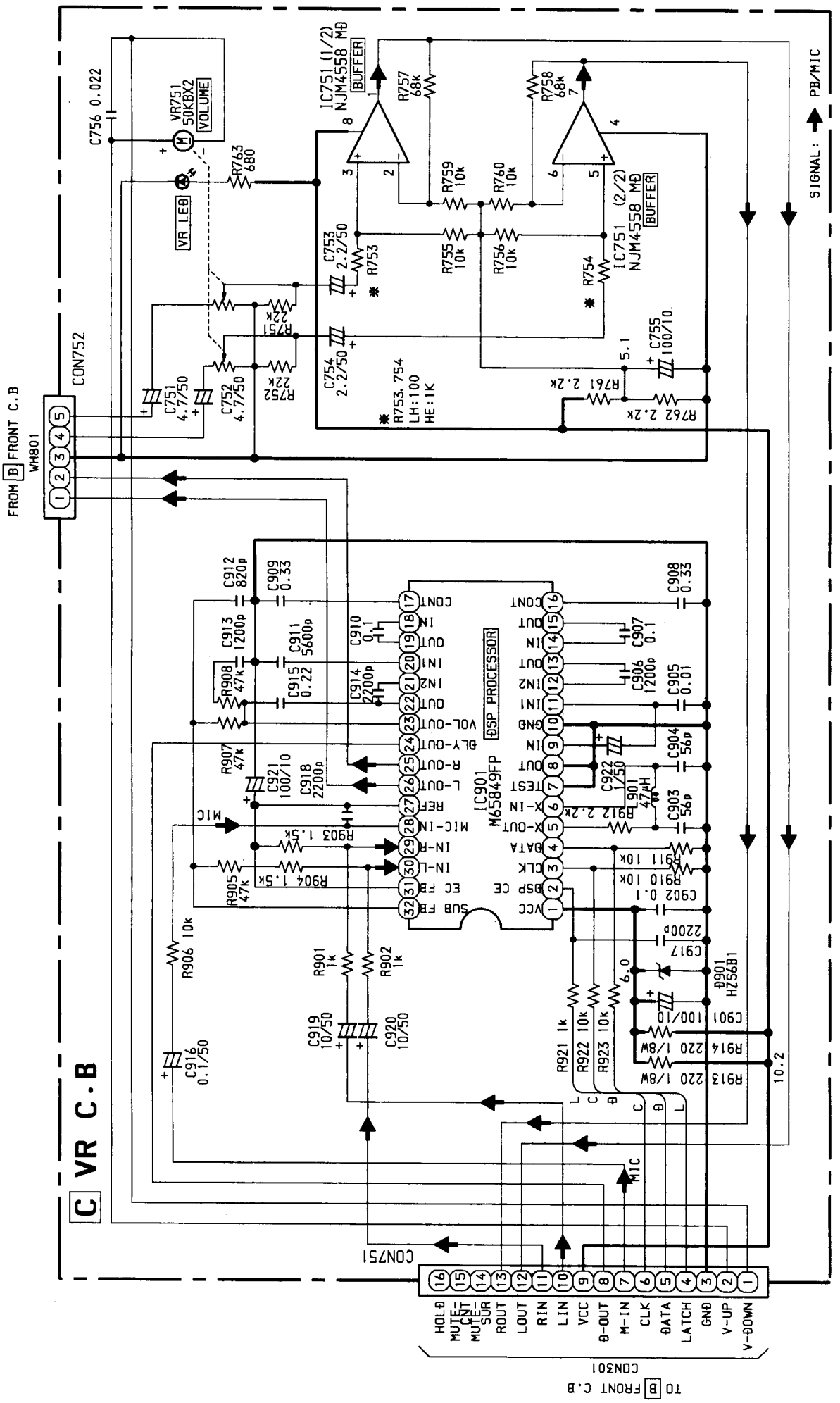
CN1

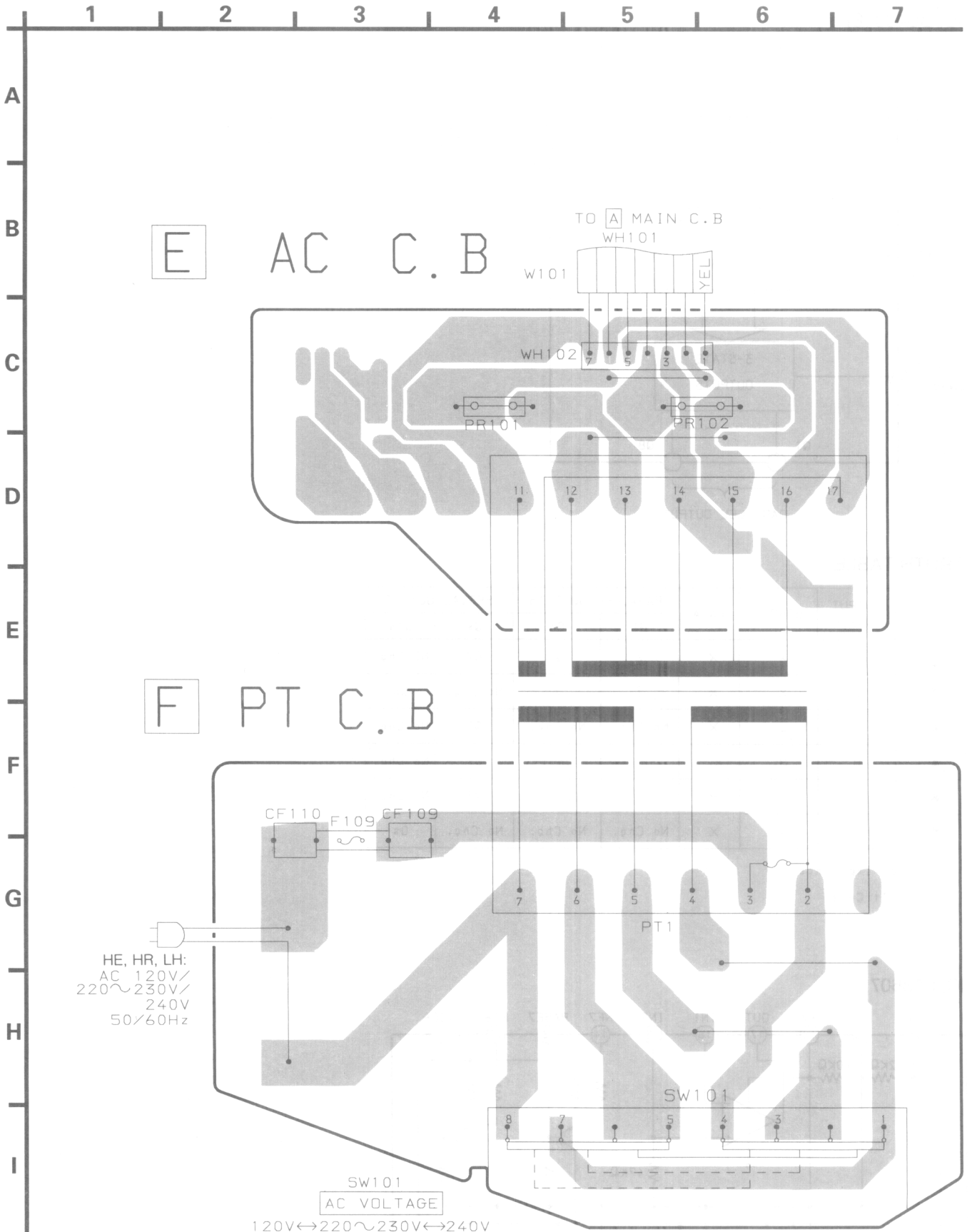
FROM CON1


J CD MAIN C.B
IC101
CXD2508AQ
DIGITAL SIGNAL PROCESSOR
IC11
CXA1782BQ
RF SIGNAL
SERVO PROCESSOR
IC501
MOTOR/COIL
DRIVER
IC601 TA7291S
TRAY MOTOR DRIVER
IC201 (1/2)
NJM4558MD
EQ AMP
IC201 (2/2)
NJM4558MD
Q301~304 REG/SW
Q401~406
TURN TABLE
DRIVE MOTOR
M601:RF-500TB TRAY MOTOR
LED DRIVER
LED ON/OFF
CONTROL
FOCUS BIAS ADJ.
TRACKING BALANCE ADJ.
TRACKING
GAIN ADJ.
FOC SW
LD DRIVER
OPTICAL PICK UP
KSS-213B
MECHANISM:3ZG-2
SPINDLE
MOTOR
SLED
MOTOR
INSIDE LIMIT SW
SLIT SENSOR
DISC DETECT
SENSOR
OPEN SW
UP SW
DOWN SW
CLOSE SW
CAB1. OPTICAL
DIGITAL
OUT
(OPTICAL)
TO B FRONT C.B
CON102
FROM A MAIN C.B
CON604
CON6
CON5
CON7
CON701
CON1
CON2
CON3
CON8
LE0703
SEL1259M
LE0701
SEL1259M
LE0702
SEL1559CM
LE0701~703
CD TRACK LIGHTING
L T-T C.B
K LED C.B
M CD MOTOR C.B
SIGNAL:
ANALOG
CONTROL


C VR C.B
FROM B FRONT C.B WH801
W801
CON752
C752
C754
C755
C751
IC901
Q901
C901
C902
C916
C919
C920
C922
CON751
TO B FRONT C.B CON301
1 3 5 7 9 11 13 1516
MVR751
C756
R752
R751
VOLUME
MAX ⟷ MIN

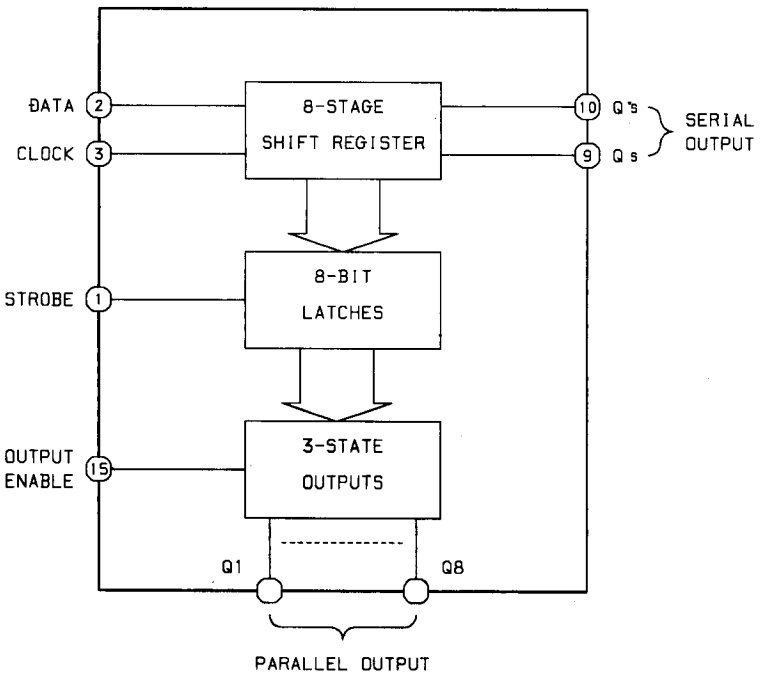
SCHEMATIC DIAGRAM – 4 (VR)




1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
E AC C.B
TO A MAIN C.B
WH101
W101
YEL
WH102
7
5
3
1
PR101
PR102
11
12
13
14
15
16
17
F PT C.B
CF110
F109
CF109
7
6
5
4
3
2
PT1
HE, HR, LH:
AC 120V/
220~230V/
240V
50/60Hz
SW101
8
7
5
4
3
1
SW101
AC VOLTAGE
120V↔220~230V↔240V

IC BLOCK DIAGRAM – 2

IC, BU4094BF



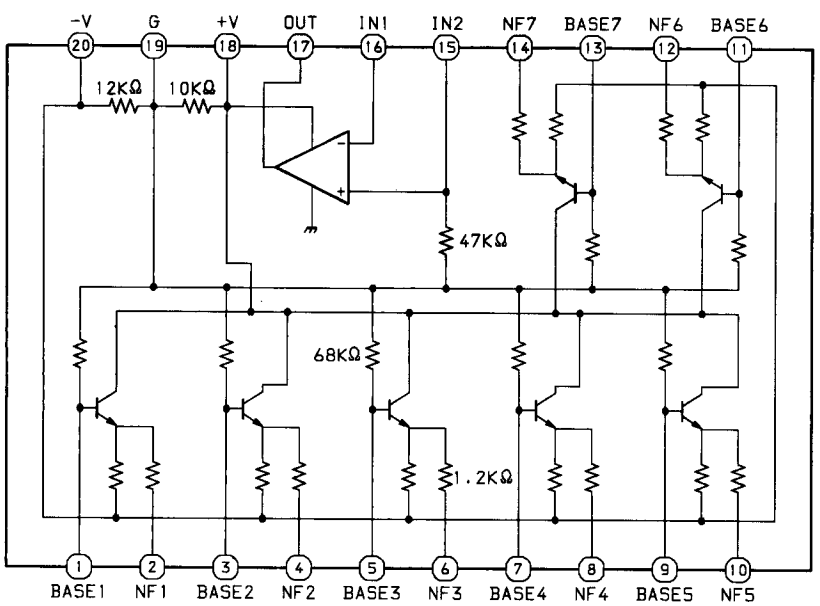
TRUTH TABLE

CLOCK	OUTPUT ENABLE	STROBE	DATA	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

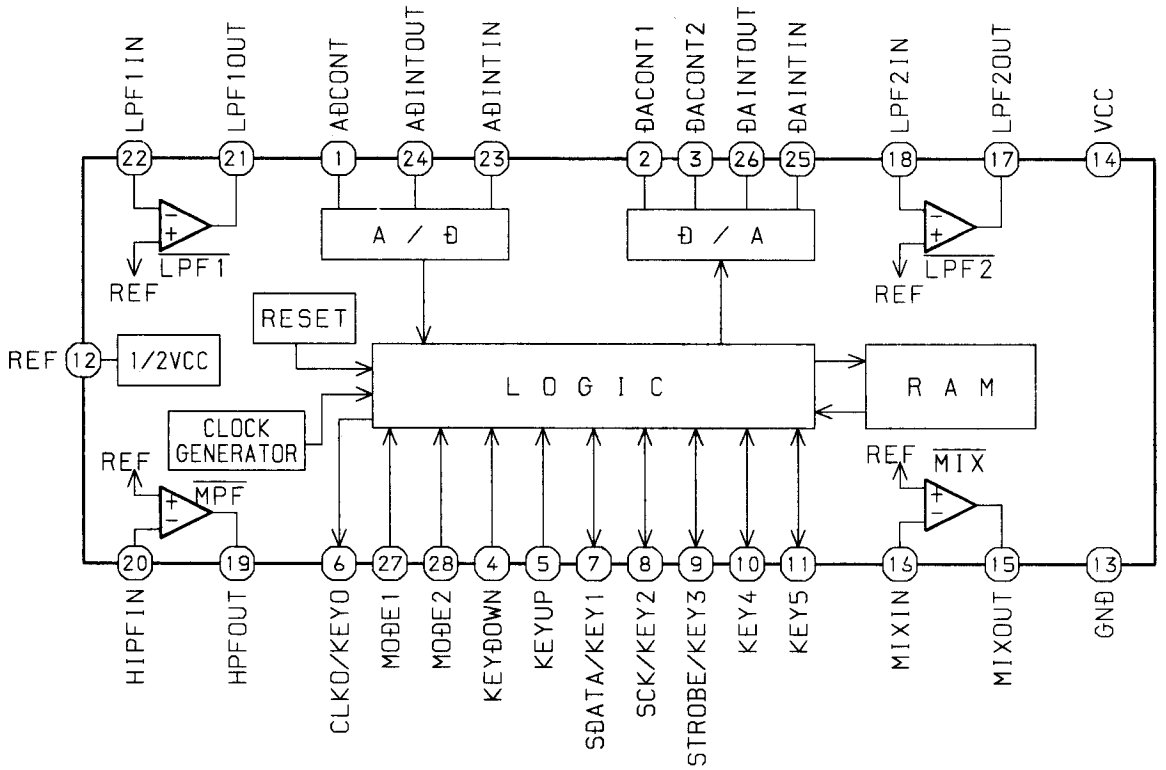
Z=High Impedance

X=Don't Care

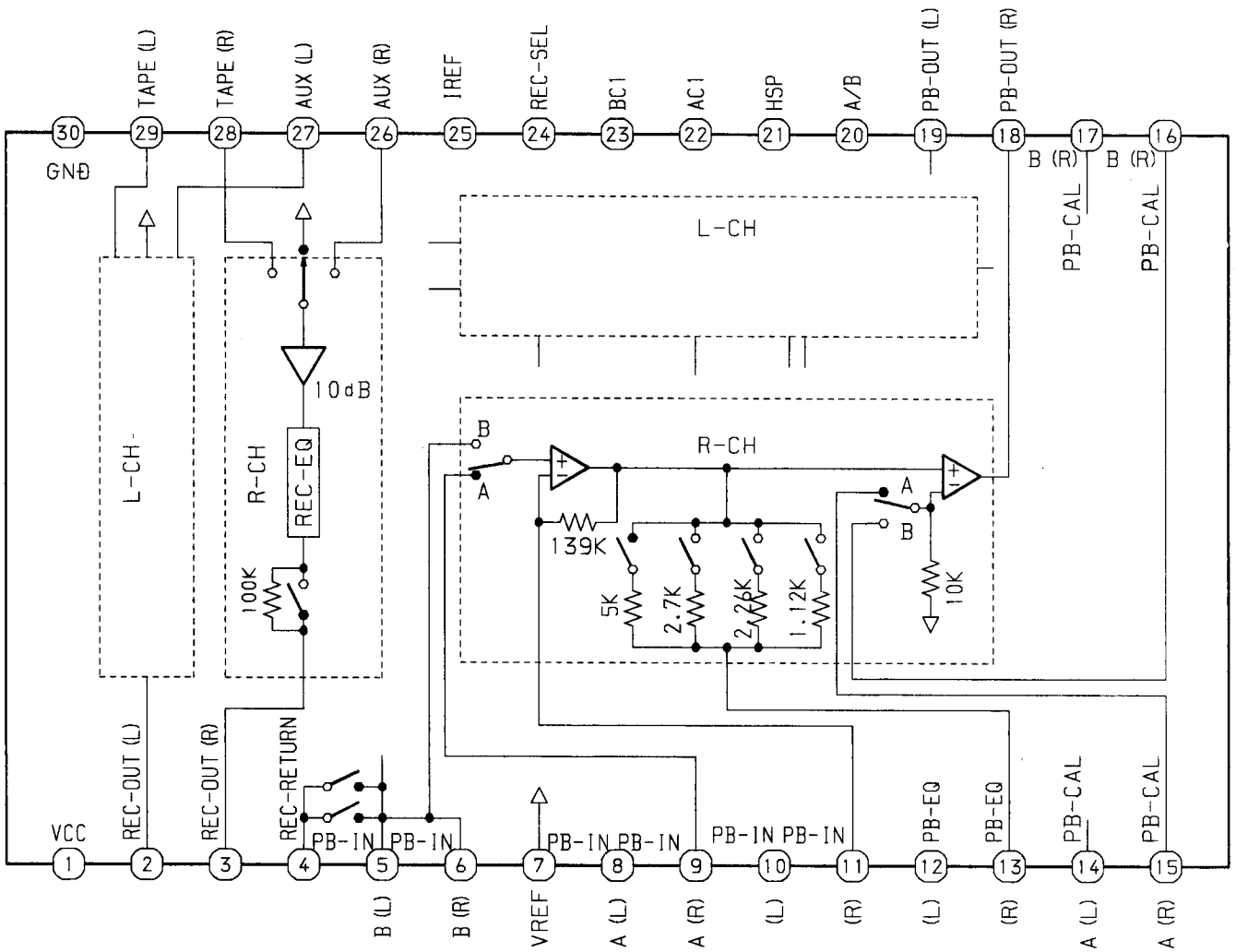
IC, LA3607



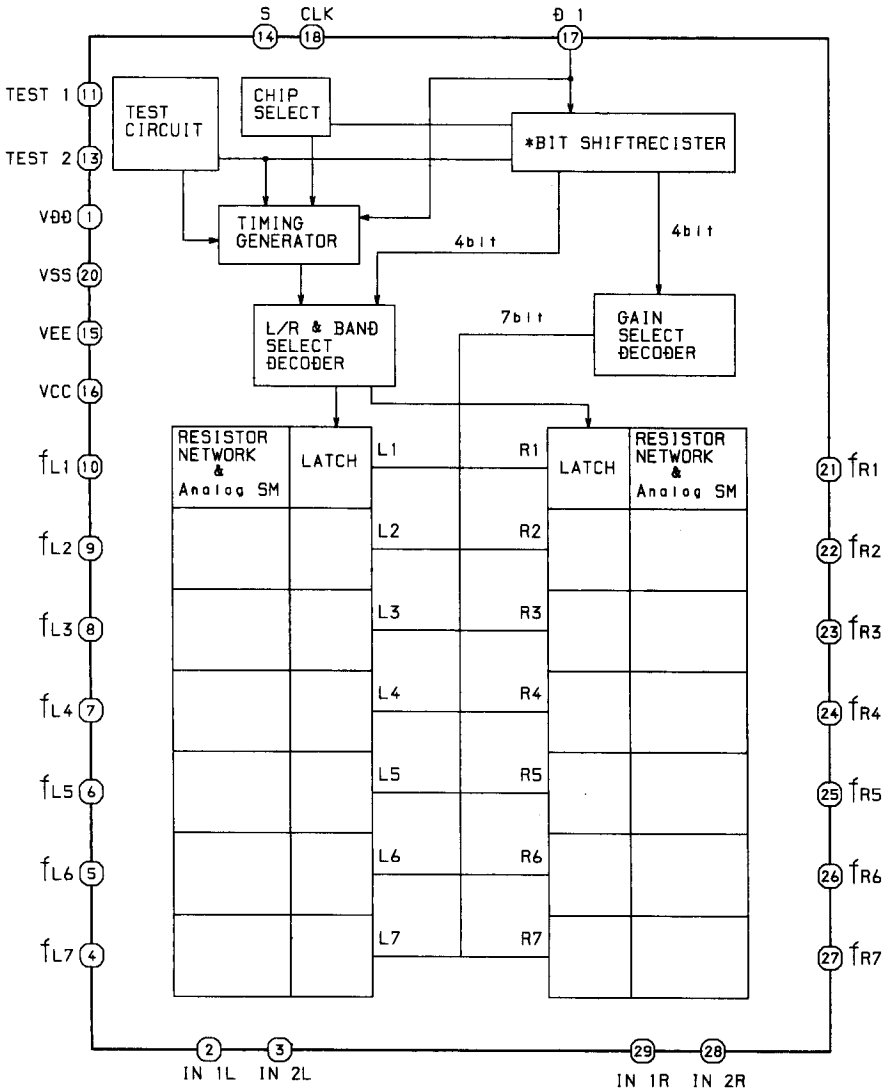
IC, M65847FP



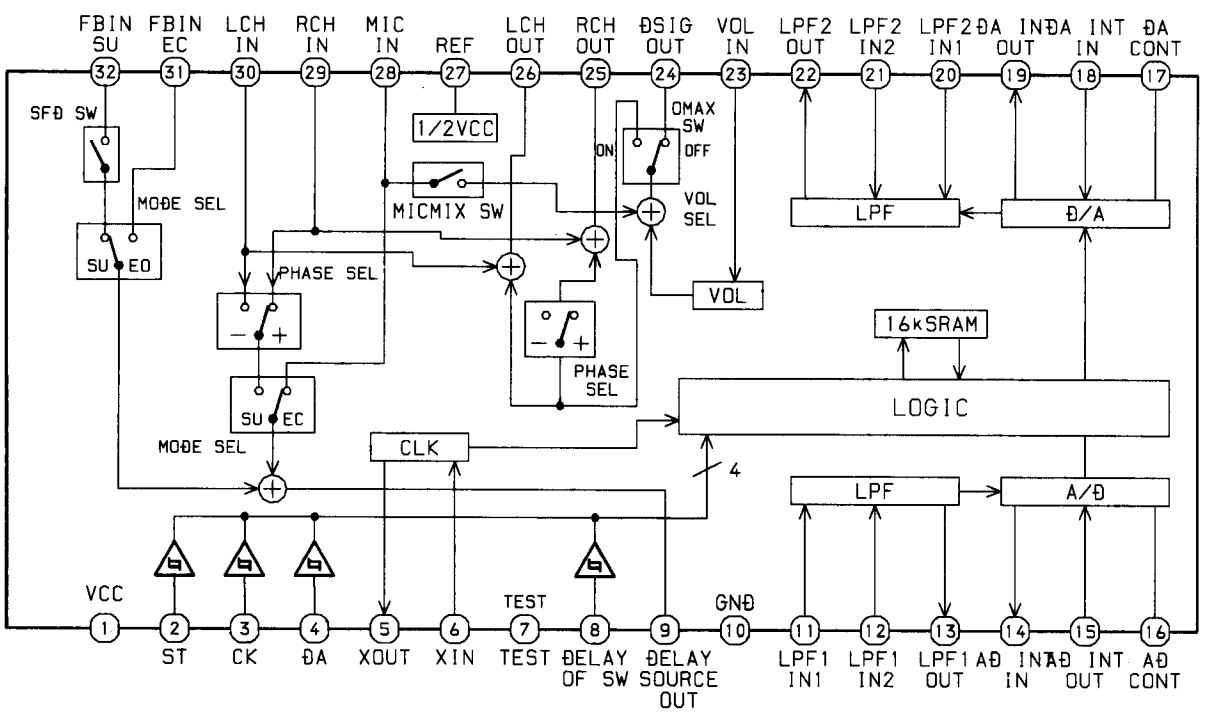
IC, HA12185NT



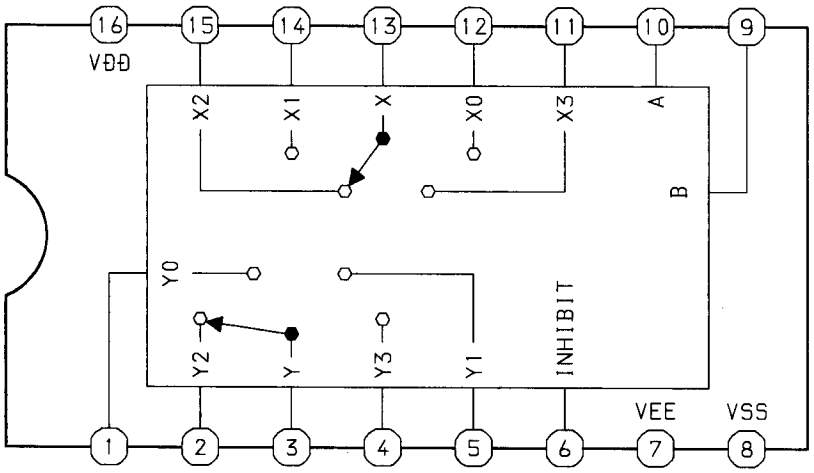
IC, NJU7305M



IC, M65849FP



IC, TC4052BP

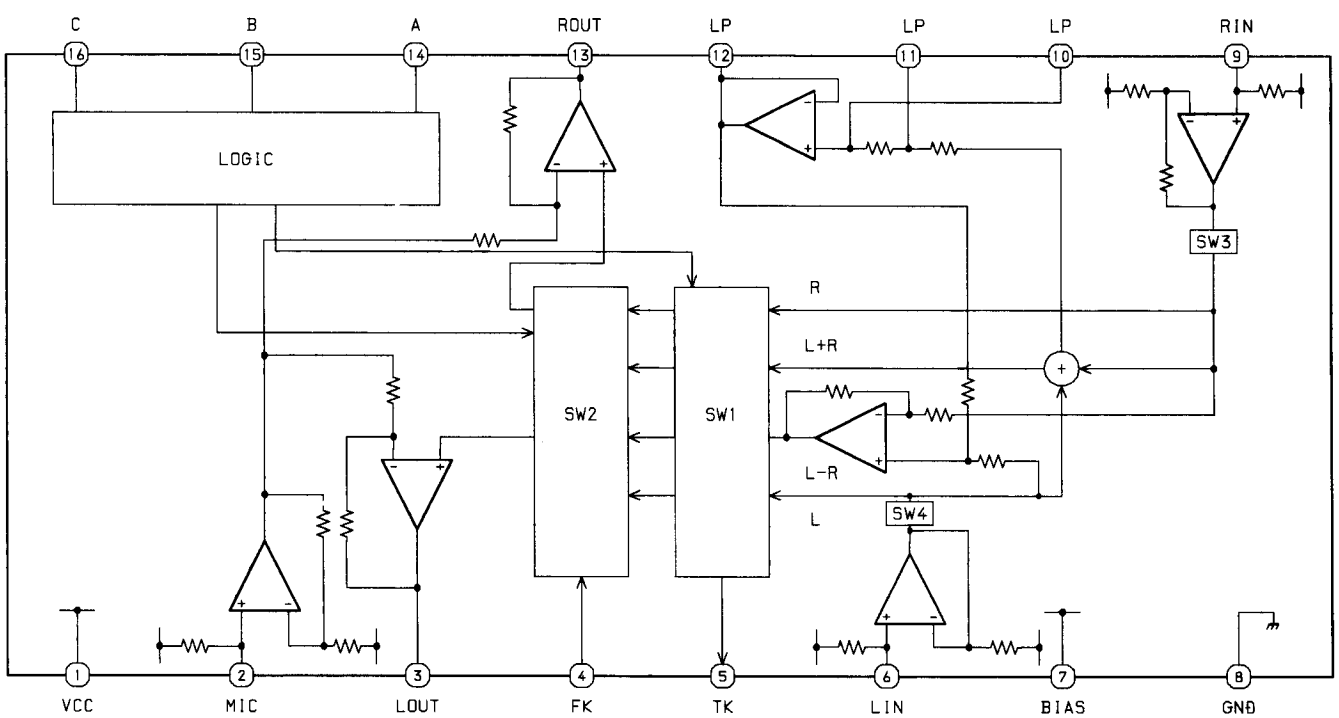


TRUTH TABLE

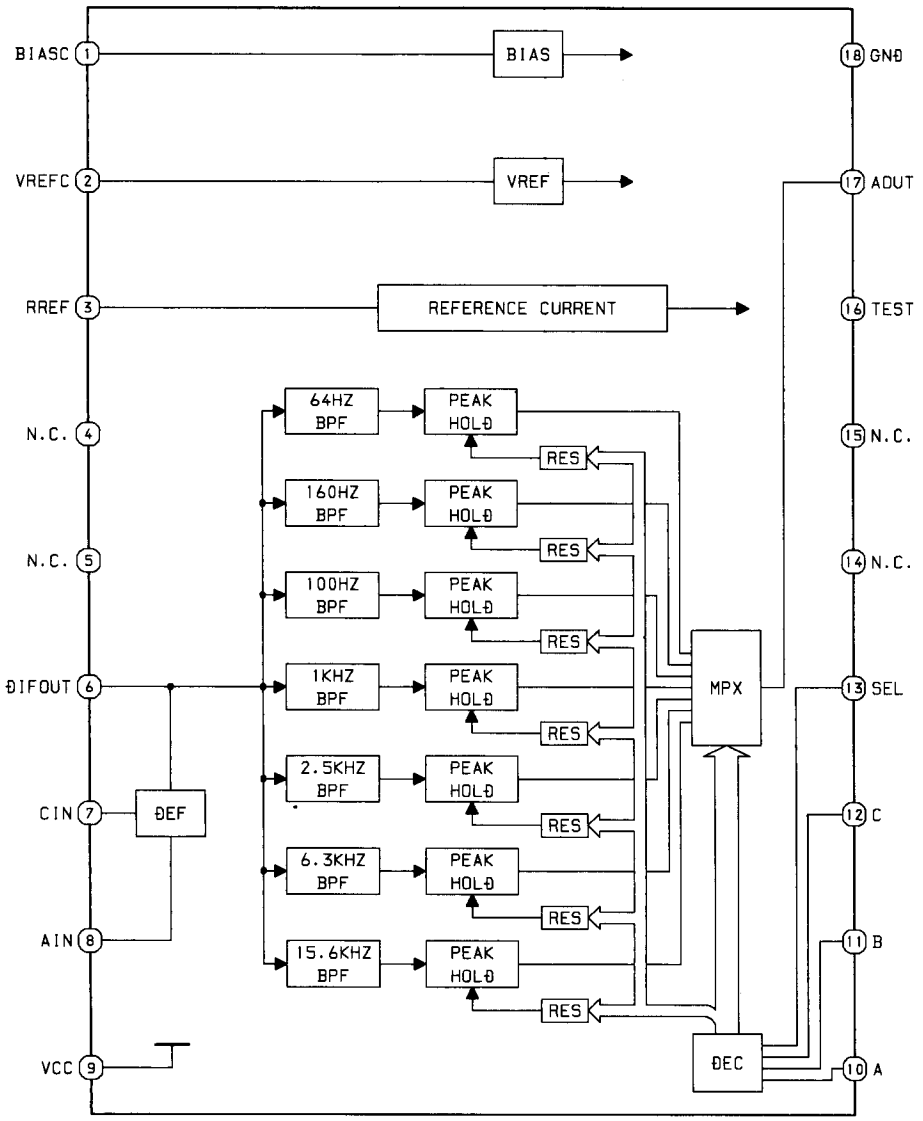
CONTROL INPUTS			ON SWITCH	
INHIBIT	B	A		
L	L	L	Y0	X0
L	L	H	Y1	X1
L	H	L	Y2	X2
L	H	H	Y3	X3
H	X	X	—	—

L:LOW LEVEL
H:HIGH LEVEL
H:IRRELEVANT

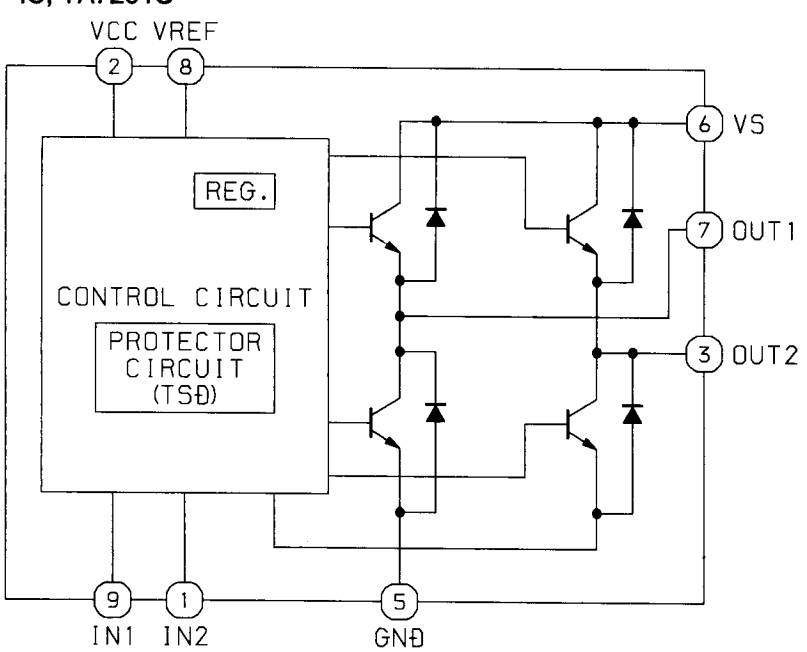
IC, BA3836



IC, BA3834S



IC, TA7291S



TRUTH TABLE

INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	OO	OO	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

OO : HIGH IMPEDANCE
INPUT IS "H" ACITVE

IC DESCRIPTION

IC, LC86640W-5790

Pin No.	Pin Name	I/O	Description
1	O-DI·R	O	CD turntable control output.
2	O-DI·F	O	
3	O-M·STB	O	Main shift register , DSP IC and G-EQ IC serial control control.
4	O-M·DATA	O	
5	O-M·CLK	O	
6	$\overline{\text{O-POWER}}$	O	System power control output.
7	$\overline{\text{RESET}}$	I	System reset input.
8	$\overline{\text{I-HOLD}}$	I	Power failure detected input.
9	$\overline{\text{I-TUNE/IFC}}$	I	Tuned detected input and serial data input of IF count.
10	VSS1	-	GND.
11,12	CF1, 2	I/O	5.76 MHz μ-con clock oscillator .
13	VDD1	-	Power supply input.
14~16	I-KEY1 - 3	I	Key A/D input.
17	I-CD/SW	I	CD tray and pick-up potential detected input.
18	I-CD/DISH	I	CD turntable potential detected input.
19	I-MS	I	Deck music sensor signal input.
20	I-SPEANA	I	A/D input for spectrum analyzer display.
21	I-MIC	I	Microphone level A/D input for DSP and vocal fader.
22	I-TM BASE	I	Reference clock input for system clock (8Hz).
23	$\overline{\text{I-CD·SENCE}}$ /$\overline{\text{I-STEREO}}$	I	CD control input and stereo (tuner) detected input.
24	$\overline{\text{I-RMC}}$	I	System remote control signal serial input.
25~36	G12~G1	O	FL grid output G1~G12.
37~40	P23~P20	O	FL segment output P20~P23.
41	VDD2	-	Power supply input.
42	-VP	-	Power supply input for FL display.
43~61	P19~P10,P1~P9	O	Digital output for FL display and digital scan input.
62	O-PLL CE	O	PLL IC chip enable control output.
63	O-OPEN	O	CD tray open / close control output.
64	O-CLOSE	O	
65	O-G·CLK	O	G-EQ IC clock output.
66	$\overline{\text{O-SOL1}}$	O	DECK plunger control output.
67	$\overline{\text{O-SOL2}}$	O	
68	$\overline{\text{O-MOTOR}}$	O	DECK motor control output.
69	$\overline{\text{O-KEY·SCAN}}$	O	Scan output for digital input.
70	O-F/STB	O	Front shift register serial control output.
71	O-F/CLK	O	
72	O-F/DATA	O	
73	VSS2	-	GND.
74	O-CD/DATA	O	CD IC control output.
75	O-CD/XLT	O	

Pin No.	Pin Name	I/O	Description
76	O-CD/CLK	O	CD IC control output.
77	O-DSP-CE	O	DSP IC chip enable control output.
78	I-CD-SQ DATA	I	CD IC control input / output.
79	O-CD SQ CLK	O	
80	O-MUTE	O	System mute control output.

IC, LC72131

Pin No.	Pin Name	I/O	Description
1	XIN	–	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 (LC866432V-5A45) when relevant key is operated. Active "H".
5	CLK	I	To clock in the data DI.
6	DO	O	Digital data output to CPU (LC866432V-5A45).
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, CXD2508AQ

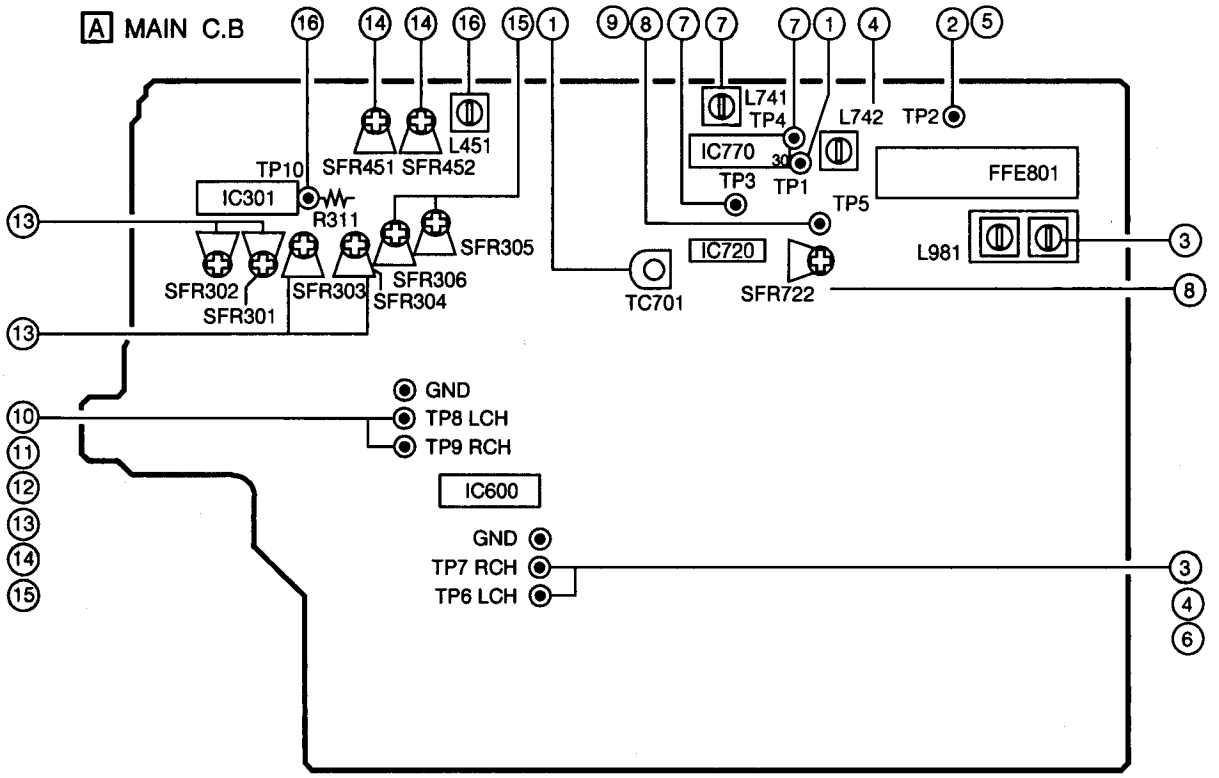
Pin No.	Pin Name	I/O	Description
1	SCOR	O	Outputs high signal when either subcode sync S0 or S1 is detected. (Not used)
2	SBSO	O	SUB P to W serial output. (Not used)
3	EXCK	I	SBSO readout clock input. (Connected to VDD)
4	SQSO	O	SUBQ 80-bit serial output.
5	SQCK	I	SQSO readout clock input.
6	MUTE	I	High to mute. Low to cancel.
7	SENS	O	SENS signal output to main CPU.
8	XRST	I	System reset. Reset when low.
9	DATA	I	Serial data input from main CPU.
10	XLAT	I	Latch input from main CPU. Serial data is latched at the falling edge.
11	CLOK	I	Serial data transfer clock input from main CPU.
12	VSS	–	GND.
13	SEIN	I	Sense input from SSP (CXA1782BQ).
14	CNIN	I	Track jump count signal input.
15	DATO	O	Serial data output to SSP (CXA1782BQ).
16	XLTO	O	Serial data latch output to SSP (CXA1782BQ). Latched at the falling edge.
17	CLKO	O	Serial data transfer clock output to SSP (CXA1782BQ).
18	SPOA	I	Test pin. Normally connected to VDD.
19	SWIL	I	Microcomputer extended interface (input B). (Connected to SW1)
20	SPOC	I	Microcomputer extended interface (input C). (Connected to VDD)
21	XSEL	I	Microcomputer extended interface (input D). (Connected to VDD)
22	GMUTE	O	Microcomputer extended interface (output).
23	FOK	I	Focus OK input. Used for SENS output and the servo auto sequencer.
24	MON	O	Spindle motor ON/OFF control output.
25	MDP	O	Spindle motor servo control output.
26	MDS	O	Spindle motor servo control output. (Not used)
27	LOCK	O	GFS is sampled at 460 Hz. When GFS is high, this pin outputs a high signal. If GFS is low eight consecutive samples, this pin outputs low.
28	TEST1	I	TEST pin. Normally connected to GND.
29	FILO	O	Master PLL (slave = digital PLL) filter output.
30	FILI	I	Master PLL filter input.
31	PCO	O	Master PLL charge pump output.
32	VDD	–	Digital power supply (+5V).
33	AVSS1	–	GND.
34	CLTV	I	Master PLL VCO control voltage input.
35	AVDD1	–	Analog power supply (+5V).
36	RF	I	EFM signal input.
37	BIAS	I	Constant current input to asymmetry correction circuit.
38	ASYI	I	Comparator voltage input to asymmetry correction circuit .
39	ASYO	O	EFM full swing output (Low = VSS, High = VDD).
40	ASYE	I	L: asymmetry correction OFF. H: asymmetry correction ON. (Connected to VDD)

Pin No.	Pin Name	I/O	Description
41	WDCK	O	D/A interface for 48-bit slot. Word clock (2FS). (Not used)
42	LRCK	O	D/A interface for 48-bit slot. LR clock (FS).
43	LRCKI	I	LR clock input for DAC. (48-bit slot)
44	PCMD	O	D/A interface. Serial data (two's complement, MSB first).
45	PCMDI	I	Audio data input for DAC. (48-bit slot)
46	BCK	O	D/A interface. Bit clock.
47	BCKI	I	Bit clock input for DAC. (48-bit slot)
48	GTOP	O	GTOP output. (Not used)
49	XUGF	O	XUGF output. (Not used)
50	XPCK	O	XPLCK output. (Not used)
51	GFS	O	GFS output. (Not used)
52	RFCK	O	RFCK output. (Not used)
53	VSS	–	GND.
54	C2PO	O	C2PO output. (Not used)
55	XROF	O	XRAOF output. (Not used)
56	MNT3	O	MNT3 output. (Not used)
57	MNT1	O	MNT1 output. (Not used)
58	MNT0	O	MNT0 output. (Not used)
59	FSTT	O	2/3 frequency divider output for Pins 73 and 74. (Not used)
60	C4M	O	4.2336 MHz output. (Not used)
61	DOUT	O	Digital Out connector output signal.
62	EMPH	O	Outputs high signal when the playback disc has emphasis, low signal when no emphasis.
63	EMPHI	I	DAC de-emphasis ON/OFF. High: on; low: off.
64	WFCK	O	WFCK (Write Frame Clock) output. (Not used)
65	ZEROL	O	No sound data detection output. High (Lch) when no sound data is detected. (Not used)
66	ZEROR	O	No sound data detection output. High (Rch) when no sound data is detected. (Not used)
67	DTSI	I	Test pin for DAC; normally low. (Connected to GND)
68	VDD	–	Digital power supply. (+5V).
69	LPWM	O	Left channel PWM output. (Forward phase)
70	NLPWM	O	Left channel PWM output. (Reverse phase)
71	AVDD2	–	Power supply for left channel PWM driver (+5V).
72	AVDD3	–	Power supply for crystal (+5V).
73	XTAI	I	33.8688 MHz crystal oscillator circuit input.
74	XTAO	O	33.8688 MHz crystal oscillator circuit output.
75	AVSS1	–	GND for crystal.
76	AVSS2	–	GND for PWM driver.
77	NRPWM	O	Right channel PWM output. (Reverse phase)
78	RPWM	O	Right channel PWM output. (Forward phase)
79	DTS2	I	DAC test pin 2; normally low. (Connected to GND)
80	DTS3	I	DAC test pin 3; normally low. (Connected to GND)

IC, CXA1782BQ

Pin No.	Pin Name	I/O	Description
1	FEO	O	Focus error amplifier output pin. This pin is connected to the FZC comparator input internally.
2	FEI	I	Focus error input pin.
3	FDFCT	I	Capacitor connection pin for the time constant used when there is defect.
4	FGD	I	Corrects the focus servo high frequency gain.
5	FLB	I	This is a pin where the time constant is externally connected to raise the low frequency gain of the focus servo.
6	FEO	O	Focus drive output.
7	FEM	I	Focus amplifier inverted input pin.
8	SRCH	I	This is a pin where the time constant is externally connected to generate the focus search waveform.
9	TGU	I	This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain.
10	TG2	I	This is a pin where the selection time constant is externally connected to set the tracking high frequency gain.
11	FSET	I	Pin for setting peak of the phase compensator of the focus tracking.
12	TAM	I	Tracking amplifier inverted input pin.
13	TAO	O	Tracking drive ouput.
14	SLP	I	Sled amplifier non-inverted input pin.
15	SLM	I	Sled amplifier inverted input pin.
16	SLO	O	Sled drive output.
17	ISET	I	The current which determines height of the focus search, track jump and sled kick is input.
18	VCC	–	Power supply (+5V).
19	CLK	I	Serial data transfer clock input from main CPU.
20	XLT	I	Latch input from main CPU.
21	DATA	I	Serial data input from main CPU.
22	XRST	I	Reset input pin. Reset at low.
23	COUNT	O	Signal output to count the number of tracks.
24	SENS	O	FZC, DFCT, TZC, Gain or BAL is output depending on tne command from main CPU.
25	FOK	O	Output pin of the focus OK comparator.
26	CC2	O	Input pin where the DEFECT bottom hold output is capacitance coupled.
27	CC1	I	DEFECT bottom hold output pin.
28	CB	I	This is a pin where the DEFECT bottom hold capacitor is connected.
29	CP	I	This is a pin where the MIRR hold capacitor is connected and MIRR comparator non-inverted signal is input.
30	RFI	I	Input pin where the RF summing amplifier output is capacitance coupled.
31	RFO	O	RF summing amplifier output pin.
32	RFM	I	RF summing amplifier inverted input pin. Gain of RF amplifier is determined by the resistor connected between RFO and this pin.

Pin No.	Pin Name	I/O	Description
33	LD	O	APC amplifier output pin.
34	PHD	I	APC amplifier input pin.
35 ~ 36	PHD 1 ~ 2	I	RF I–V amplifier inverted input pins. These pins are connected to the A+C and B+D pins of the optical pickup.
37	FE-BIAS	I	Bias adjustment pin of the non-inverted side of the focus error amplifier.
38 ~ 39	F ~ E	I	F and E I–V amplifier non-inverted input pins. These pins are connected to the F and E of the optical pickup.
40	EI	–	Gain adjustment pin of the I–V amplifier E.
41	VEE	–	GND connection pin.
42	TEO	O	Tracking error amplifier output pin. E–F signal is output.
43	LPFI	I	BAL adjustment comparator input pin.
44	TEI	I	Tracking error input pin.
45	ATSC	I	Window comparator input pin for detecting ATSC.
45	TZC	I	Tracking zero-cross comparator input pin.
47	TDFCT	I	Capacitor connection pin for the time constant used when there is defect.
48	VC	O	DC voltage output pin of VREF. (VDD/2)



< TUNER SECTION >

1. Clock Frequency Adjustment
   Settings : • Test point : TP1
   • Adjustment location : TC701
   Method : Set to MW 1710kHz (LH), 1602kHz (HE,HR) and adjust TC701 so that the test point becomes 2160kHz ± 0.01kHz (LH), 2052kHz ± 0.01kHz (HE,HR).

2. MW VT Check
   Settings : • Test point : TP2 (VT)
   Method : Set to MW 1710kHz (LH), 1602kHz (HE,HR) and check that the test point is 7.0V ± 1.0V (LH), 6.8V ± 1.0V (HE,HR).

3. MW Tracking Adjustment
   Settings : • Test point : TP6, TP7
   • Adjustment location : L981
   Method : The level at 999kHz (HE,HR), 1000kHz (LH) is adjusted to MAX by L981.

4. MW IF Adjustment
   Settings : • Test point : TP6, TP7
   • Adjustment location : L742
   Method : The level at 999kHz (HE,HR), 1000kHz (LH) is adjusted to MAX by L742.

5. FM VT Check
   Settings : • Test point : TP2 (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 : TP6, TP7
   Method : Set to FM 98.0MHz and check that the test point is 2dB ± 6dB.

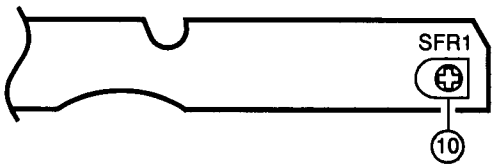
7. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4
   • Adjustment location : L741
   • Input level : 54dB
   Method : Set to FM 98.0MHz and adjust L741 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V. Next, check that the distortion is less than 1.3%.

8. Auto Stop Level Adjustment
   Settings : • Test point : TP5
   • Adjustment location : SFR722
   • Input level : 18dB
   Method : Set to FM 98.0 MHz and adjust voltage low (about 0.01V) by SFR722. After that voltage high (about 7.0V) out by 2dB down.

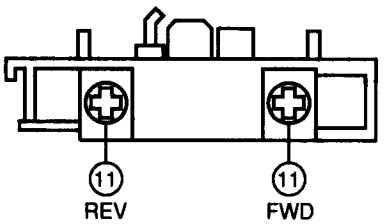
9. Auto Stop Level Check
   MW
   Settings : • Test point : TP5
   • Input level : 50dB
   Method : Set to MW 1000kHz(LH), MW 999kHz (HE,HR) and check that the test point is 40 ~ 65 dB.

   FM
   Settings : • Test point : TP5
   • Input level : 20dB
   Method : Set to FM 98.0MHz and check that the test point is 20 dB ± 5 dB.

G DECK C.B



DECK–1 P, DECK–2 R / P / E HEAD



< DECK SECTION >

10. Tape Speed Adjustment
Settings : • Test tape : TTA–100
• Test point : TP8, TP9
• Adjustment location : SFR1
Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz.

11. Head Azimuth Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA–300
• Test point : TP8, TP9
• 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. Next, perform on each FWD PLAY and REV PLAY mode.

12. PB Frequency Response Check (DECK 1, DECK 2)
Settings : • Test tape : TTA–300
• Test point : TP8, TP9
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 0 ± 2dB.

13. PB Sensitivity Adjustment (DECK 1, DECK 2)
Settings : • Test tape : TTA–200
• Test point : TP8, TP9
• 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 300mV ± 10mV.

14. REC/PB Frequency Response Adjustment
Settings : • Test tape : TTA–602
• Test point : TP8, TP9
• Input signal : 1kHz / 10kHz (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 17mV. 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.

15. REC/PB Sensitivity Adjustment
Settings : • Test tape : TTA–602
• Test point : TP8, TP9
• 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 TP8, TP9 becomes 17mV. Record and play back the 1kHz signals and adjust SFRs so that the output is 17mV ± 0.5dB.

16. Bias OSC Frequency Adjustment (DECK II)
Settings : • Test tape : TTA–615
• Test point : TP10 (R311)
• Adjustment location : L451
Method : Set to the REC mode. Adjust L451 so that the frequency counter of the test point becomes 85kHz ± 1kHz.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

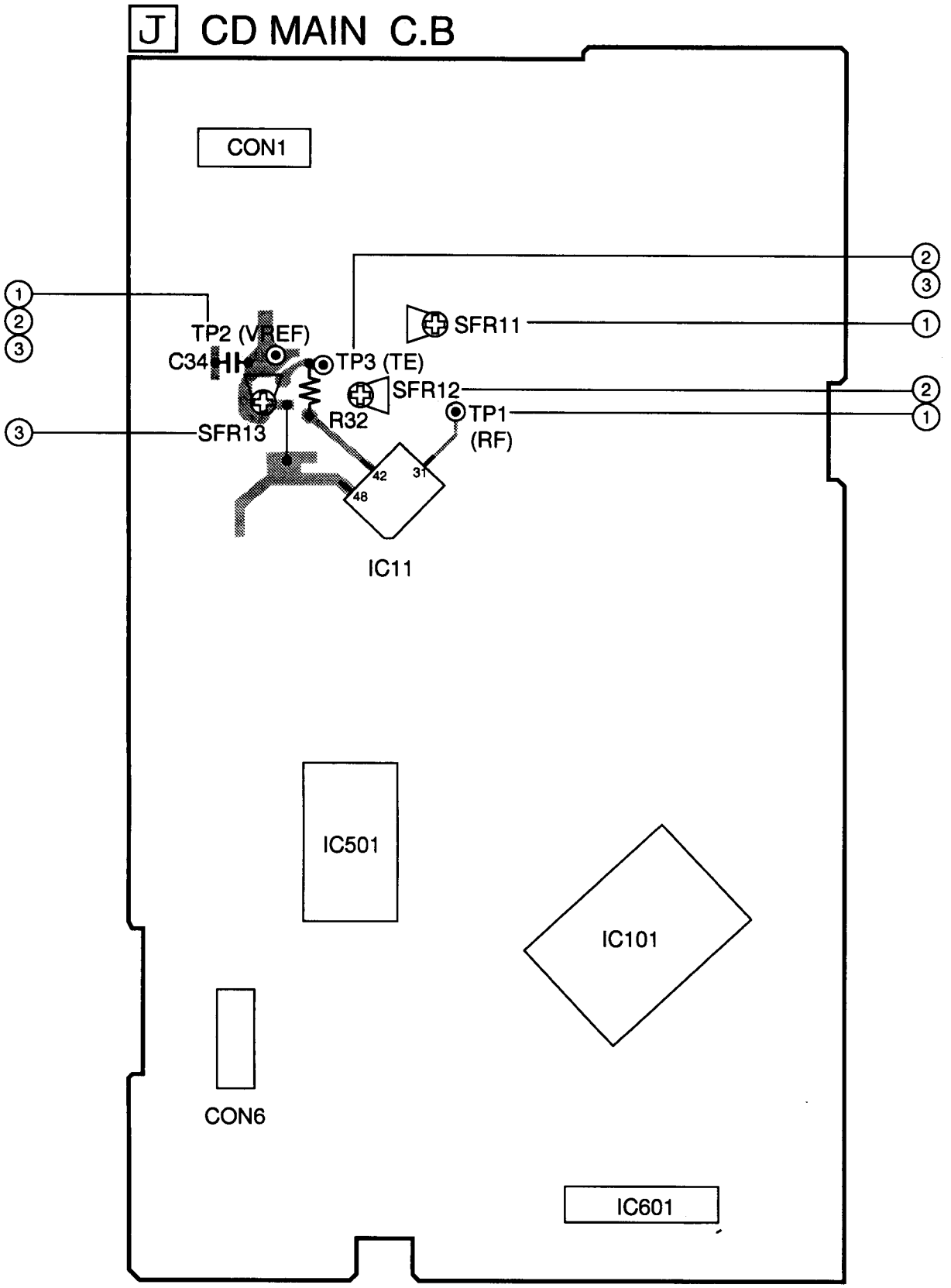
S/N 50dB Quieting sensitivity :	36dB ± 5dB (87.5 / 98.0 / 108.0MHz)
Signal to noise ratio :	More than 64dB (98.0MHz)
Distortion :	Less than 2.0% (98.0MHz)
Stereo separation :	More than 25dB (98.0MHz)
Intermediate frequency :	10.7MHz

<MW SECTION>

Sensitivity : (S/N 20 dB)	57dB ± 5dB [at 600kHz (LH)] [at 603kHz (HE,HR)]
	53dB ± 5dB [at 1000 / 1400kHz (LH)] [at 999 / 1404kHz (HE,HR)]
Distortion :	Less than 1.5% [at 1000kHz (LH)] [at 999kHz (HE,HR)]
Intermediate frequency :	450kHz

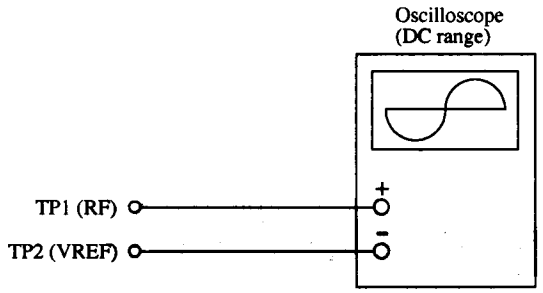
<DECK SECTION>

Tape speed :	3000Hz ± 45Hz
Wow & flutter :	Less than 0.15% (R.M.S)
Take-up torque :	30 ~ 55g-cm (FWD, REV)
F.F & REW torque :	75 ~ 160g-cm
Back tension :	2 ~ 7g-cm (FWD, REV)
PB Output level :	260mV ± 1dB (SP OUT 2V)
REC/PB Output level :	150mV ± 1dB (SP OUT 2V)
Distortion (REC/PB) :	Less than 2.0% (NORM, CrO2)
Noise level (PB) :	Less than 1.1mV (DOLBY NR ON / OFF CrO2 Vol MAX.) Less than 1.8mV (DOLBY NR ON / OFF NORM. Vol MAX.)
Noise level (REC/PB) :	Less than 1.2mV (DOLBY NR ON / OFF CrO2 SP OUT 2V) Less than 2.0mV (DOLBY NR ON / OFF NORM. SP OUT 2V)
Crosstalk :	More than 60dB (1kHz, 0VU)
Channel separation :	More than 30dB (1kHz, 0VU)
Erasing ratio :	More than 60dB (at 125Hz)
Test tape :	NORMAL : TTA-602 CrO2 : TTA-615


J CD MAIN C.B
CON1
TP2 (VREF)
C34
TP3 (TE)
SFR11
SFR12
R32
TP1
(RF)
SFR13
42
31
48
IC11
IC501
IC101
CON6
IC601

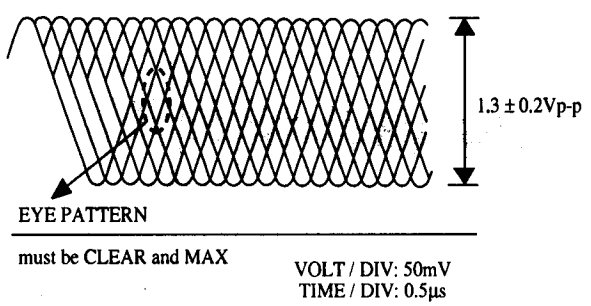
Note :
Connect a probe (10:1) of the oscilloscope or the frequency counter to a test point TP2(VREF).

1. Focus Bias Adjustment
   Make the focus bias adjustment when replacing and repairing the optical block.

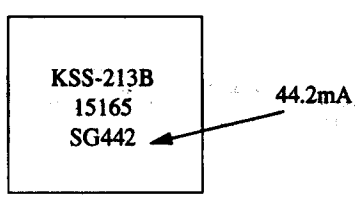


1) Connect an oscilloscope to the test points TP1 (RF) and TP2 (VREF).
2) Turn on the power switch.
3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4) Adjust SFR11 so that RF signal of the test point TP1 (RF) is MAX and CLEARREST.

RF signal waveform

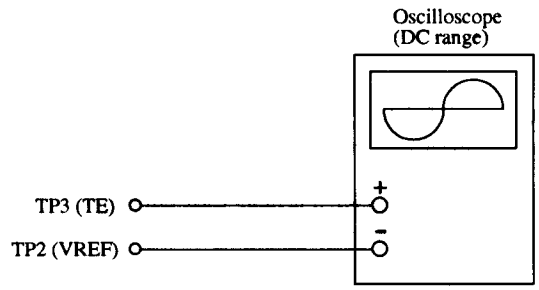


Note:
The current of the laser signal can be checked with the voltages on both sides of R23 (10Ω). The difference for the specified value shown on the level must be within ± 6.0mA.

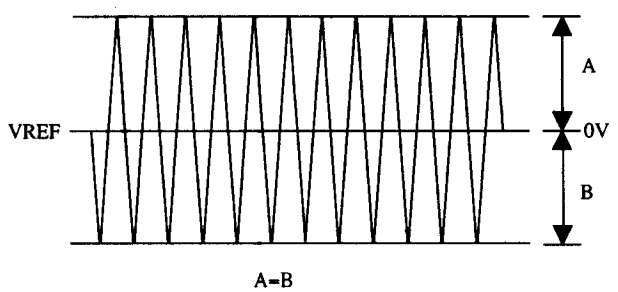


$$\text{Laser current Iop} = \frac{\text{Voltage across R23}}{10\Omega}$$

2. Tracking Balance Adjustment



1) Connect an oscilloscope to the test points TP3 (TE) and TP2 (VREF).
2) Active the CD test mode.
3) Insert test disc TCD-782 (YEDS-18) and set the traverse mode (No.4) of CD test mode.
4) Adjust SFR12 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
5) After the adjustment is completed, remove the connected lead wires from the terminals.



3. Tracking Gain Adjustment
A servo analyzer is necessary in order to perform this adjustment exactly. However, this gain has a margin, so even if it is slightly off, there is no problem.
Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when 2-axis device operates. However, as these gains are reciprocate, the adjustment is performed at the point where both gains are satisfied.

- When gain is raised, the noise increases when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.

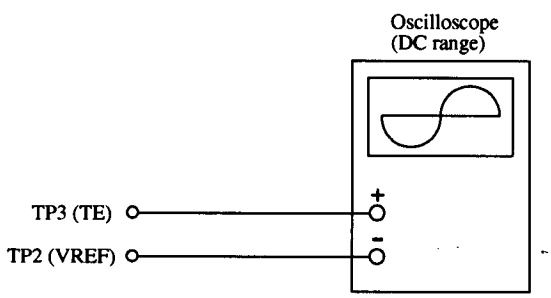
When the gain adjustment is not satisfied, the symptoms below appear.

Symptoms \ Gain	(Focus)	Tracking
• The time until music starts becomes longer for STOP → ▶PLAY or automatic selection (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
• Music does not start and disc continues to rotate for STOP → ▶PLAY or automatic selection (⏮, ⏭ buttons pressed.)	–	low
• Disc stops to rotate shortly after STOP → ▶PLAY.	low or high	–
• Sound is interrupted during PLAY. Or time counter display stops.	–	low
• More noises during the 2-axis device operation.	high	high

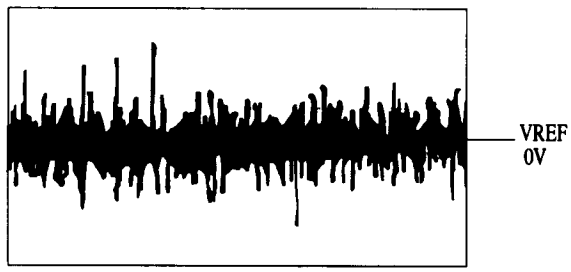
The following is simple adjustment method.

– Simple adjustment –
Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment.
If the positions after the simple adjustment are only a little different, return the controls to the original position.

Procedure:



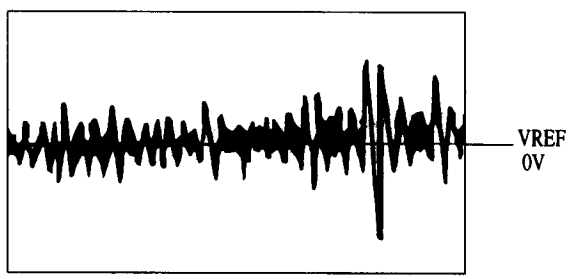
1) Keep the set horizontal. (If the set is not kept horizontally,
this adjustment cannot be performed due to the gravity against the 2-axis device.)
2) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
3) Connect an oscilloscope to TP2 (VREF) and TP3(TE).
4) Adjust SFR13 so that the waveform appears as shown in the figure below.
(tracking gain adjustment)



VOLT/DIV: 50 mV
TIME/DIV: 1 mS

- Incorrect example

Low tracking gain
(The fundamental wave appears as compared with the waveform adjusted)



VOLT/DIV: 50 mV
TIME/DIV: 1 mS

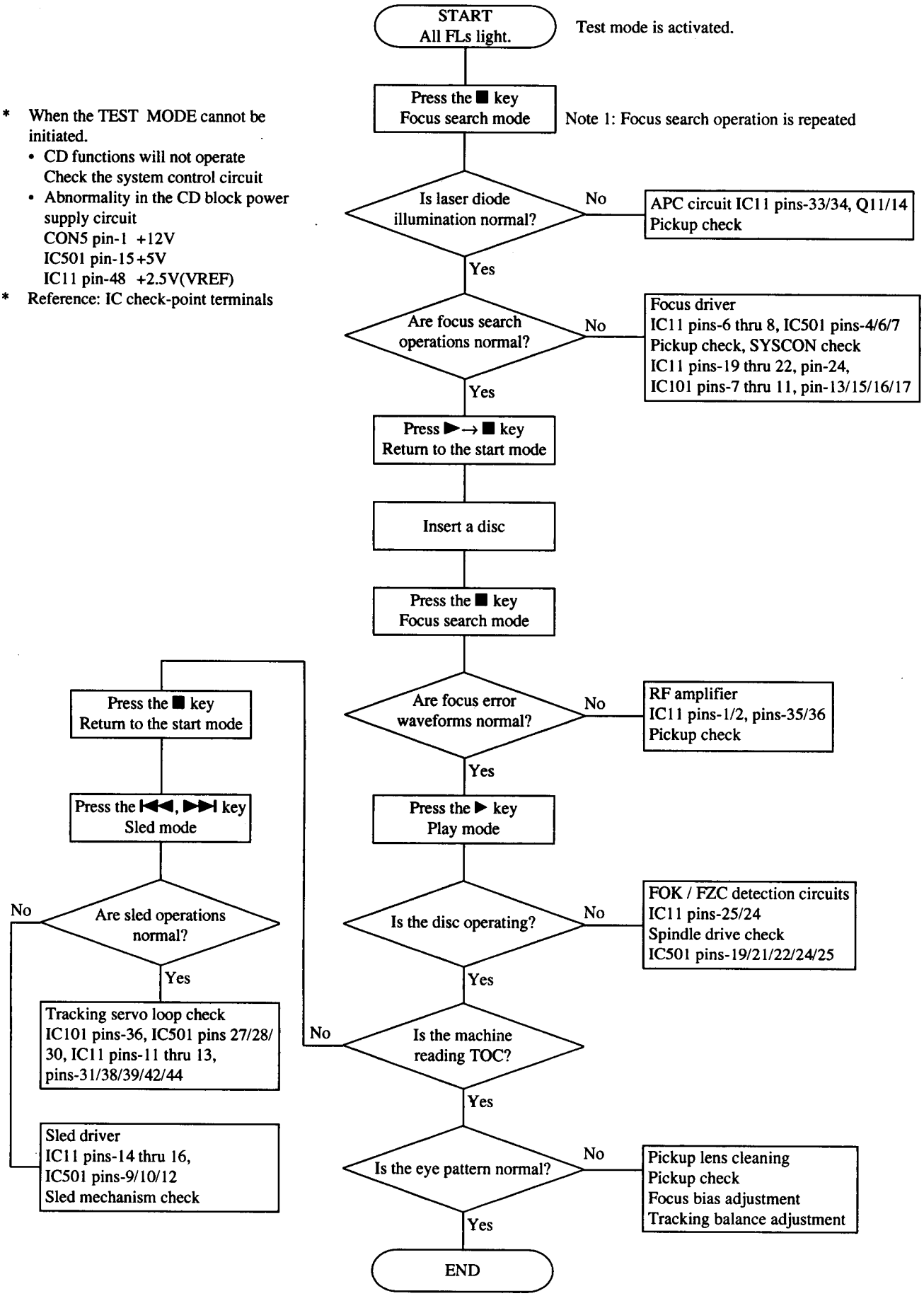
High tracking gain
(The frequency of the fundamental wave is higher than in low gain)

VOLT/DIV: 50 mV
TIME/DIV: 1 mS

CD TROUBLE-SHOOTING

Flow Chart

* When the TEST MODE cannot be initiated.
  - CD functions will not operate
    Check the system control circuit
  - Abnormality in the CD block power supply circuit
    CON5 pin-1 +12V
    IC501 pin-15 +5V
    IC11 pin-48 +2.5V(VREF)
* Reference: IC check-point terminals



TEST MODE

1. How to Activate CD Test Mode

1) Insert the AC plug while pressing the function CD button. All FL display tubes will light up, and the test mode will be activated.

2. How to cancel CD Test Mode

Either one of the following operations will cancel the CD test mode.

- Press the function button (except CD button).
- Press the power switch button.
- Disconnect the AC plug.

3. CD Test Mode Functions

When test mode is activated, the following mode functions from No. 1 to No. 5 can be used by pressing the operation keys.

Mode / No.	Operation	FL display	Operation	Contents
Start mode No. 1	Test mode activation	All FL light up	• Active the test mode. (CD block power supply ON)	All FL displays light up
Search mode No. 2	■ key	C0--	• Laser diode illuminated under normal circumstances • Continual focus search * NOTE 1 (The pickup lens repeats the full-swing up-down motion.) * Avoid continual searches that last for more than 10 minutes.	• Laser current measurement (Across R28 resistor) FOCUS SERVO • Check focus search waveform • Check focus error waveform * FOK / FZC are not monitored in the search mode.
Play mode No. 3	◀ ▶ key	C01	• Normal playback • Focus search is continued if TOC cannot be read * NOTE 1	FOCUS SERVO / TRACKING SERVO CLV SERVO / SLED SERVO Check FOK / FZC
Traverse mode No. 4	⏸ key	C01	• During normal disc playback Press once; tracking servo OFF Press twice; tracking servo ON * NOTE 2	TRACKING SERVO ON / OFF Tracking balance (traverse) adjustment TP2 (VREF), TP3 (TE)
Sled mode No. 5	⏮ key ⏭	All FL light up	• Pickup moves to the outermost track • Pickup moves to the innermost track * NOTE 3 (During playback, machine operates normally.)	SLED SERVO Check SLED mechanism operation

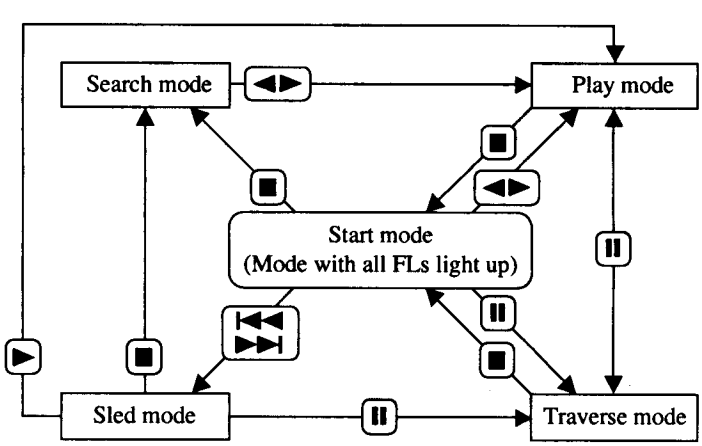
* NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases, the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.

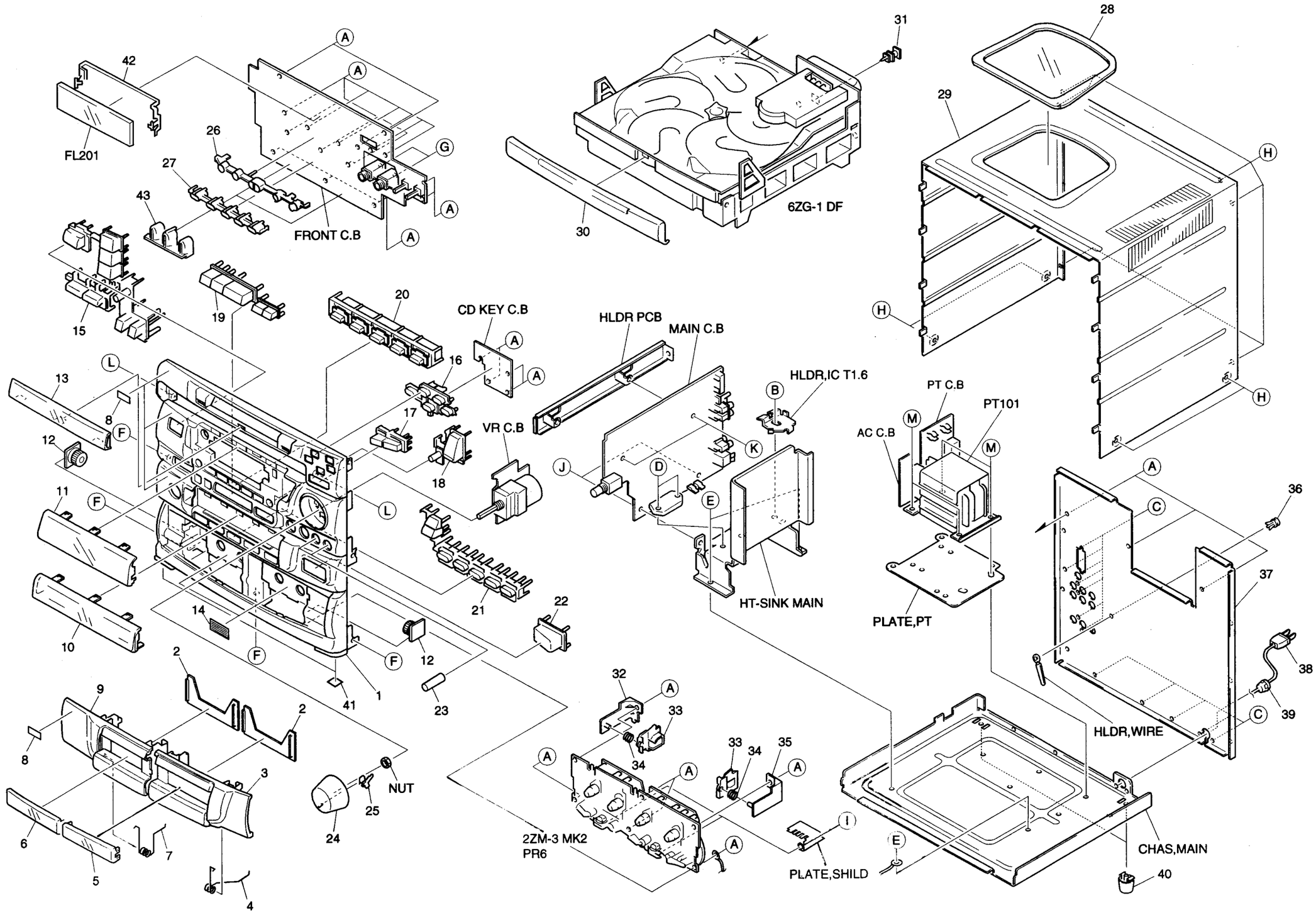
* NOTE 2: Do not press the ⏮ or ⏭ keys when the machine is in the ⏸ status is active. If they are pressed, playback will not be possible after the ⏸ status has been canceled. If the ⏮ or ⏭ keys are pressed in the ⏸ status, press the ■ key and return to start mode (No. 1).

* NOTE 3: When pressing the ⏮ or ⏭ keys, take care to avoid damage to the gears. Because the sled motor is activated when the ⏮ or ⏭ keys are pressed, even when the pick-up is at the outermost or innermost track.

4. Operation Outline

- The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.
- When DISC DIRECT key is pressed, test mode is operated same as pressing the PLAY key.
- When CD tray is opened by OPEN / CLOSE key while play and traverse modes, test mode goes back start mode.



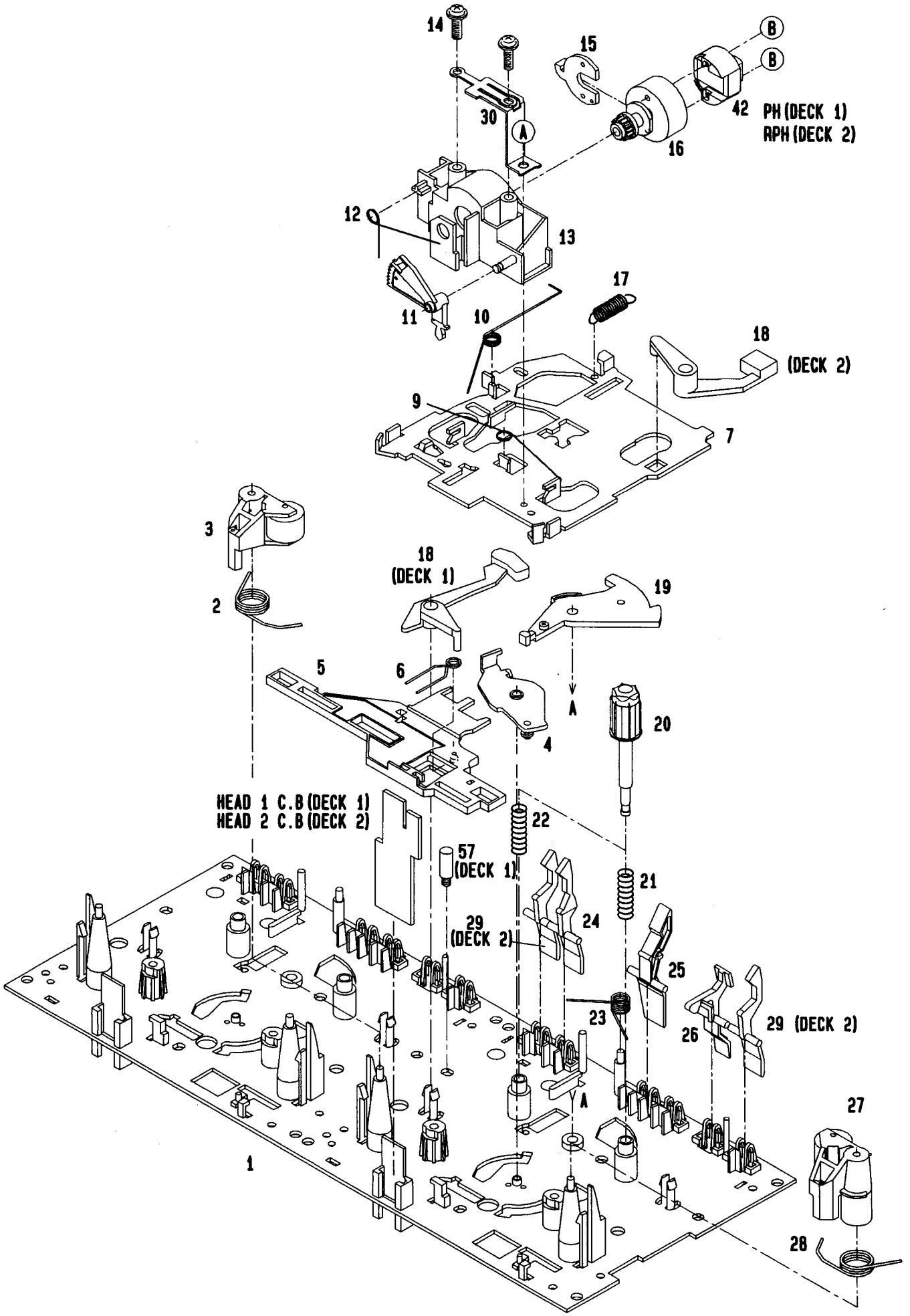

FL201
FRONT C.B
6ZG-1 DF
CD KEY C.B
HLDR PCB
MAIN C.B
VR C.B
HLDR,IC T1.6
HT-SINK MAIN
PT C.B
PT101
AC C.B
PLATE,PT
HLDR,WIRE
CHAS,MAIN
PLATE,SHILD
2ZM-3 MK2
PR6
NUT

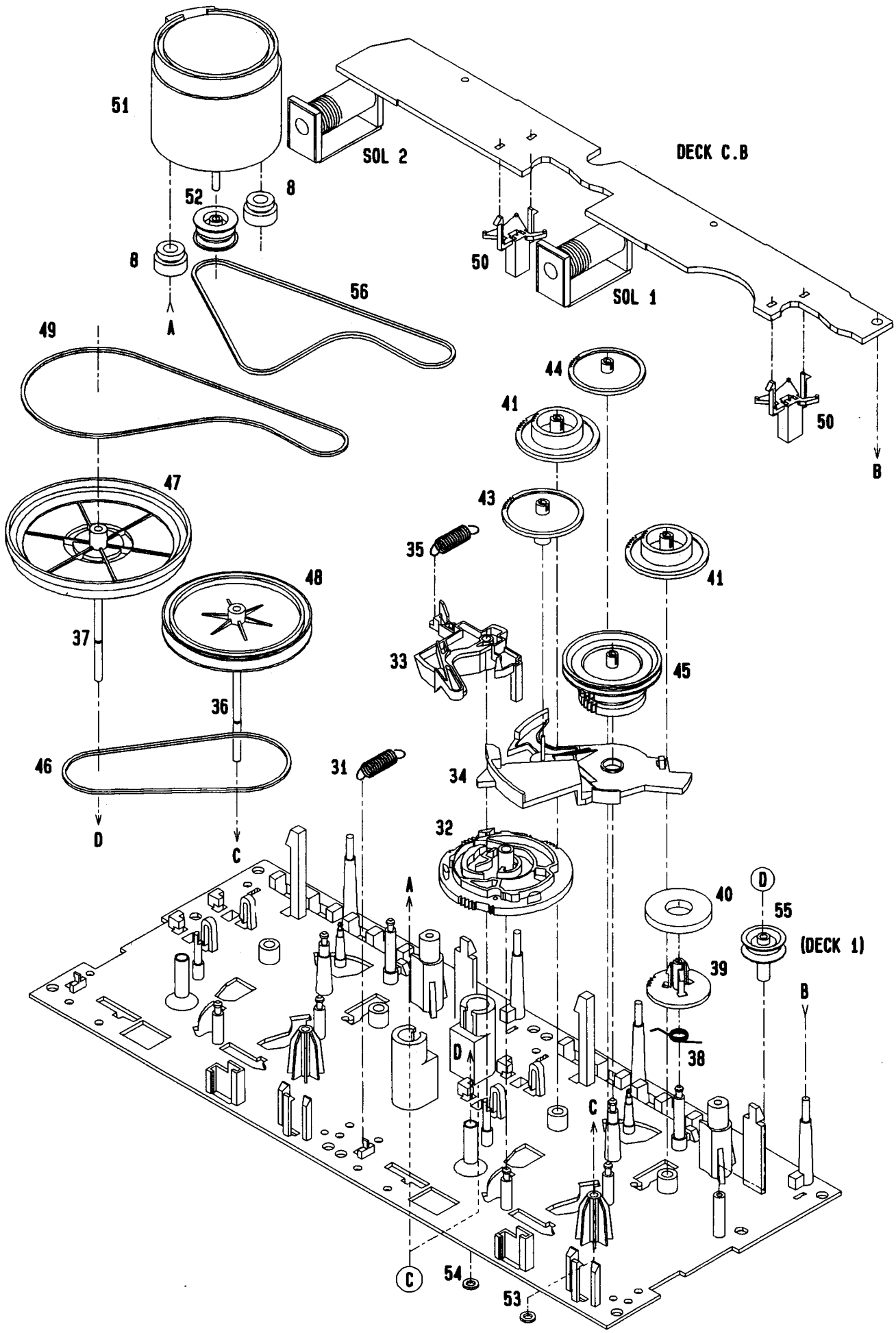
MECHANICAL PARTS LIST 1/1

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-MA2-001-019		CABI,FR HE
2	86-NF6-061-019		REFLECTOR,CASS
3	86-MA3-005-019		BOX,CASS R
4	82-NF5-219-019		SPR-T,EJECT 2 (SIN)
5	86-MA3-032-019		WINDOW,CASS R
6	86-MA3-031-019		WINDOW,CASS L
7	82-NF5-218-019		SRT-T,EJECT 1 (SIN)
8	82-NE8-032-019		BADGE AIWA 27.5
9	86-MA3-004-019		BOX,CASS L
10	86-MA3-030-019		WINDOW,GEQ
11	86-MA3-029-019		WINDOW,AMP
12	87-063-165-019		OIL-DMPR 150
13	86-MA3-028-019		WINDOW,CD
14	81-532-080-019		LBL,CASS-COMPT
15	86-MA3-013-019		KEY,POWER
16	86-MA3-012-019		KEY,DIRECT
17	86-MA3-011-019		KEY,OPEN
18	86-MA3-015-019		KEY,BBE
19	86-MA3-016-019		KEY,PLAY
20	86-MA3-041-019		KEY,FUN ASSY
21	86-MA3-038-019		KEY,GEQ<HE,HR>
21	86-MA3-046-019		KEY,GEQ<LH>
22	86-MA3-018-019		KEY,CURSOR
23	81-MX4-019-019		KNOB,MIC
24	86-MA3-019-019		KNOB,RTRY MAIN
25	86-MA3-020-019		LENS,VOL
26	86-MA3-202-019		GUIDE,PLAY
27	86-MA3-203-019		GUIDE,GEQ
28	86-MA3-042-019		WINDOW,TOP
29	86-MA3-010-019		CABI,STEEL
30	86-MA3-008-019		PANEL,TRAY H
31	84-ZG1-245-019		CAP,OPTICAL
32	82-NF5-226-019		HLDR LOCK 1N
33	82-NF5-229-019		PLATE,LOCK
34	82-NF5-228-019		SPR-C,LOCK
35	82-NF5-227-019		HLDR,LOCK 2N
36	87-084-077-019		NYLON RIVET DIA 3.5 - 4.5
37	86-MA2-003-019		PANEL,REAR HEJBNM<HE>
37	86-MA2-008-019		PANEL,REAR LHBN<LH>
37	86-MA2-004-019		PANEL,REAR HRJBNM<HR>
⚠ 38	87-050-079-019		AC-CORD ASSY,E
39	87-085-185-010		BUSHING,AC CORD E
40	87-085-224-010		FOOT,H17
41	83-MA1-203-019		FELT,15-20-2 LEG
42	82-NF5-212-019		GUIDE FL
43	85-NF5-211-119		GUIDE,LED R
A	87-078-060-019		BVIT 3PB+3-10
B	87-067-579-019		BVT 2+3-8 W/O SLOT
C	87-067-761-019		BVT2+3-10 BLK
D	87-067-581-019		BVT2+3-15 W/O SLOT
E	87-067-688-019		BVTT +3-6
F	87-591-095-419		QIT+3-8
G	81-MK1-210-019		S-SCREW BFT2+3-16
H	87-067-641-019		UTT2+3-8 W/O SLOT BLK
I	87-571-032-419		VIT+2-3
J	87-067-633-019		BVT2+3-8 W/CONVEX
K	87-078-084-019		BVTT+3-6 W,CONVEX
L	87-721-097-019		QT 2+3-12 GLD
M	87-067-975-019		S-SCREW IT+4-8

TAPE MECHANISM EXPLODED VIEW 1/1



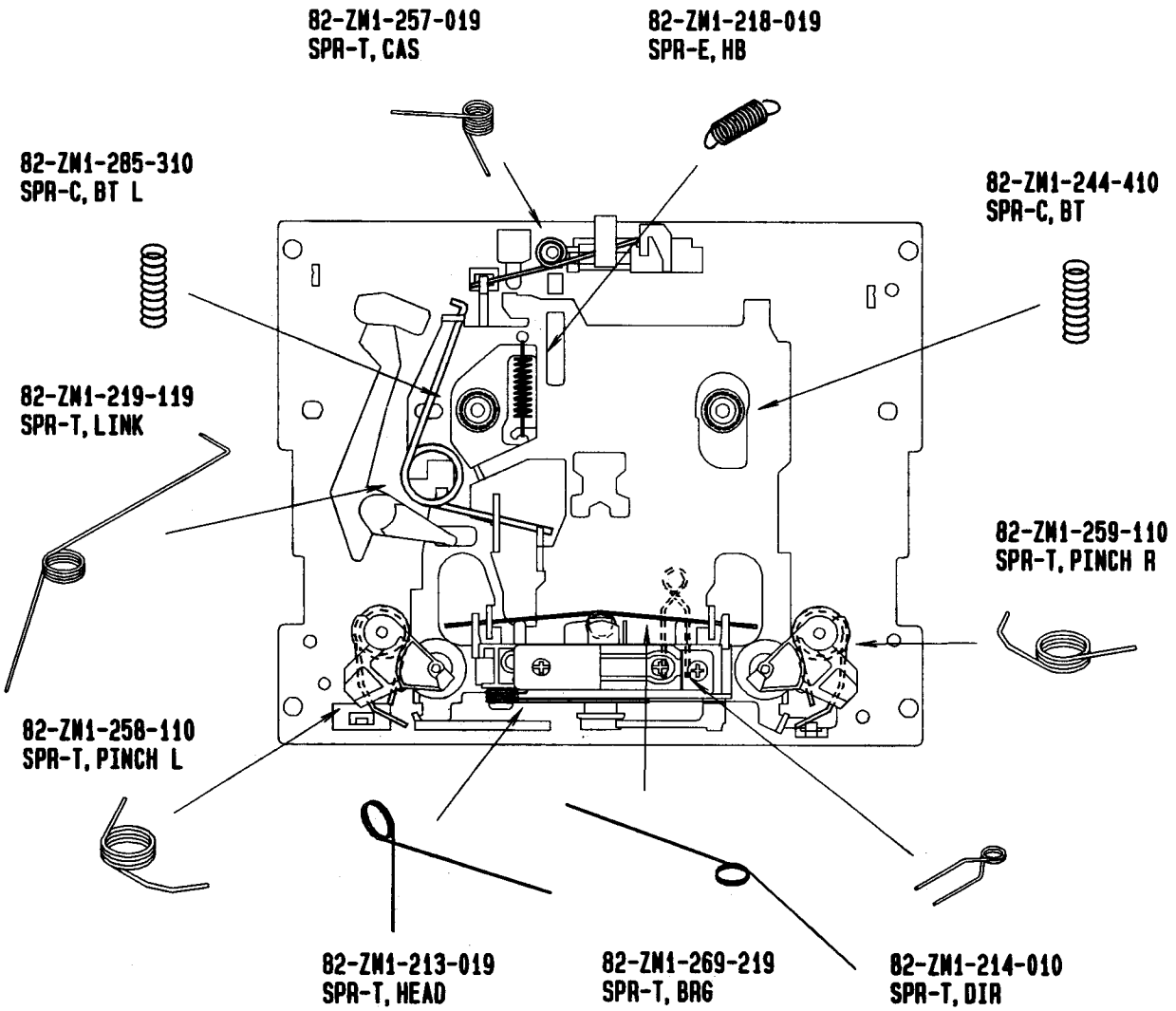

51
SOL 2
DECK C.B
52
8
8
A
56
50
SOL 1
49
44
41
50
B
47
43
35
41
48
37
33
45
36
46
31
34
D
C
32
A
40
D
55
(DECK 1)
39
B
38
D
C
C
54
53

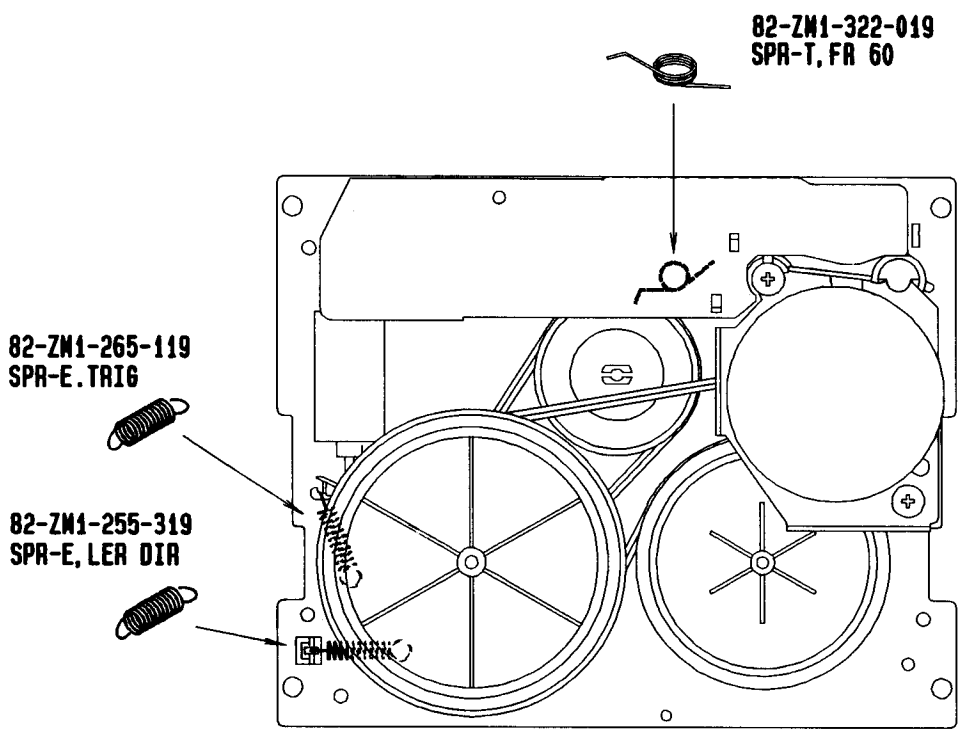
TAPE MECHANISM PARTS LIST 1/1

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

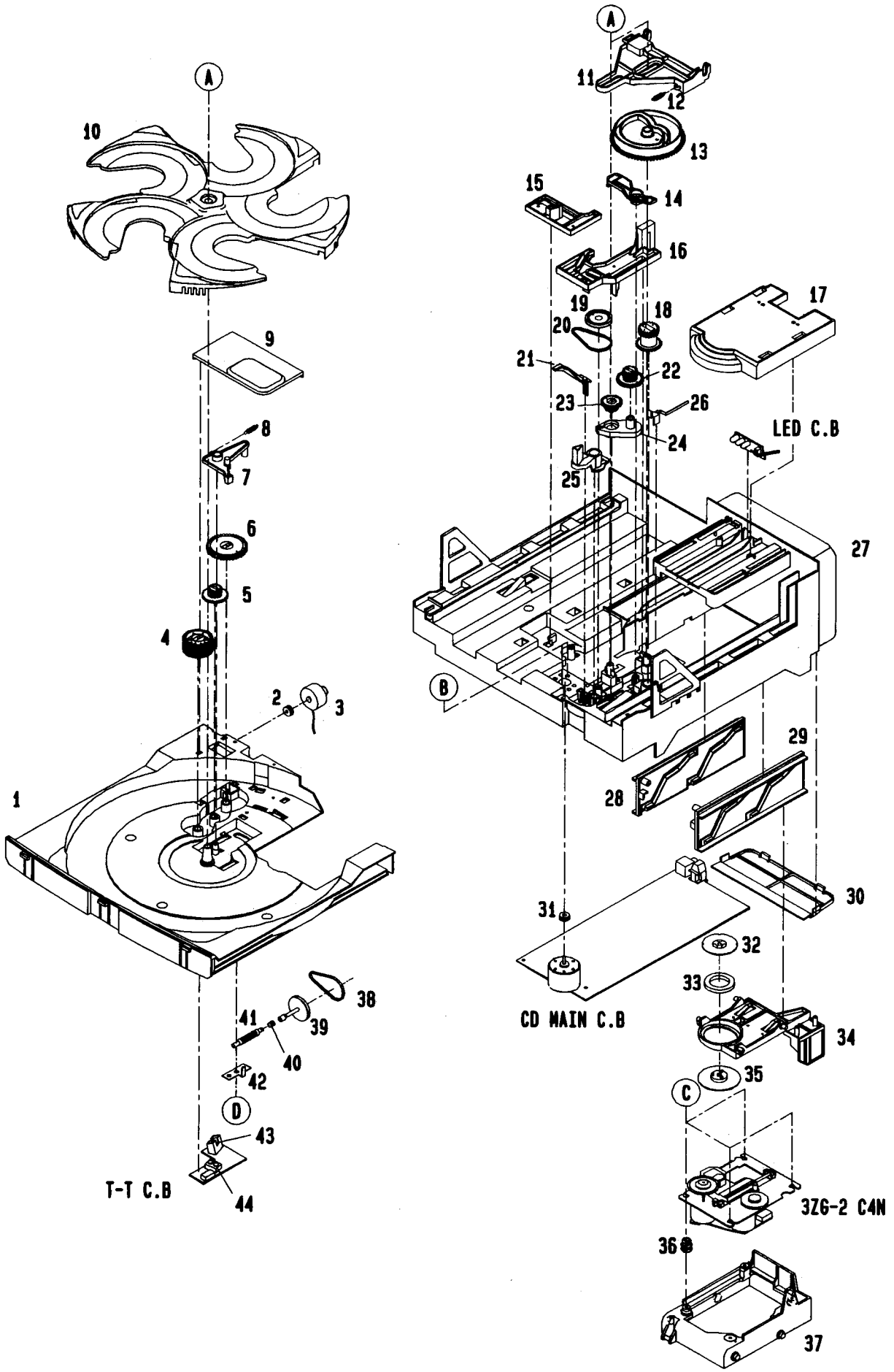
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-519		CHAS ASSY,M2
2	82-ZM1-258-110		SPR-T,PINCH L
3	82-ZM1-345-019		LVR ASSY,PINCH L W
4	82-ZM1-333-010		PLATE,LINK 2
5	82-ZM1-266-11K		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-81K		CHAS,HEAD
8	82-ZM3-307-019		CUSH-G,DIA3.7-8-3.2
9	82-ZM1-269-219		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	82-ZM1-283-310		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-ZM1-346-019		LVR ASSY,PINCH R W
28	82-ZM1-259-110		SPR-T,PINCH R
29	82-ZM1-240-11K		LVR,REC (DECK 2)
30	82-ZM1-298-010		SPR-P,EARTH
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-A90-110-019		HEAD,PH KP7442
42	87-A90-107-019		HEAD,RPH KC9242
43	82-ZM1-225-21K		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM1-228-810		SLIP DISK ASSY
46	82-ZM1-338-010		BELT FR4
47	82-ZM1-238-81K		FLY-WHL ASSY,R (DECK 2)
47	82-ZM3-210-71K		FLY-WHL ASSY,R2 (DECK 1)
48	82-ZM1-235-51K		FLY-WHL ASSY,L (DECK 2)
48	82-ZM3-208-61K		FLY-WHL ASSY,L2 (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-ZM3-304-110		PULLEY,COUPLER (DECK 1)
56	82-ZM3-328-110		BELT,SBU P2
57	82-ZM3-216-019		SHAFT,COUPLER N(DECK 1)
A	82-ZM1-315-010		S-SCREW,GVIDE TAPE
B	80-ZM6-207-019		V+1.6-7
C	82-ZM3-318-019		S-SCRW MOTOR M2
D	87-067-972-019		PW,1.05-3-0.25 SLT

SPRING APPLICATION POSITION





CD MECHANISM EXPLODED VIEW 1/2

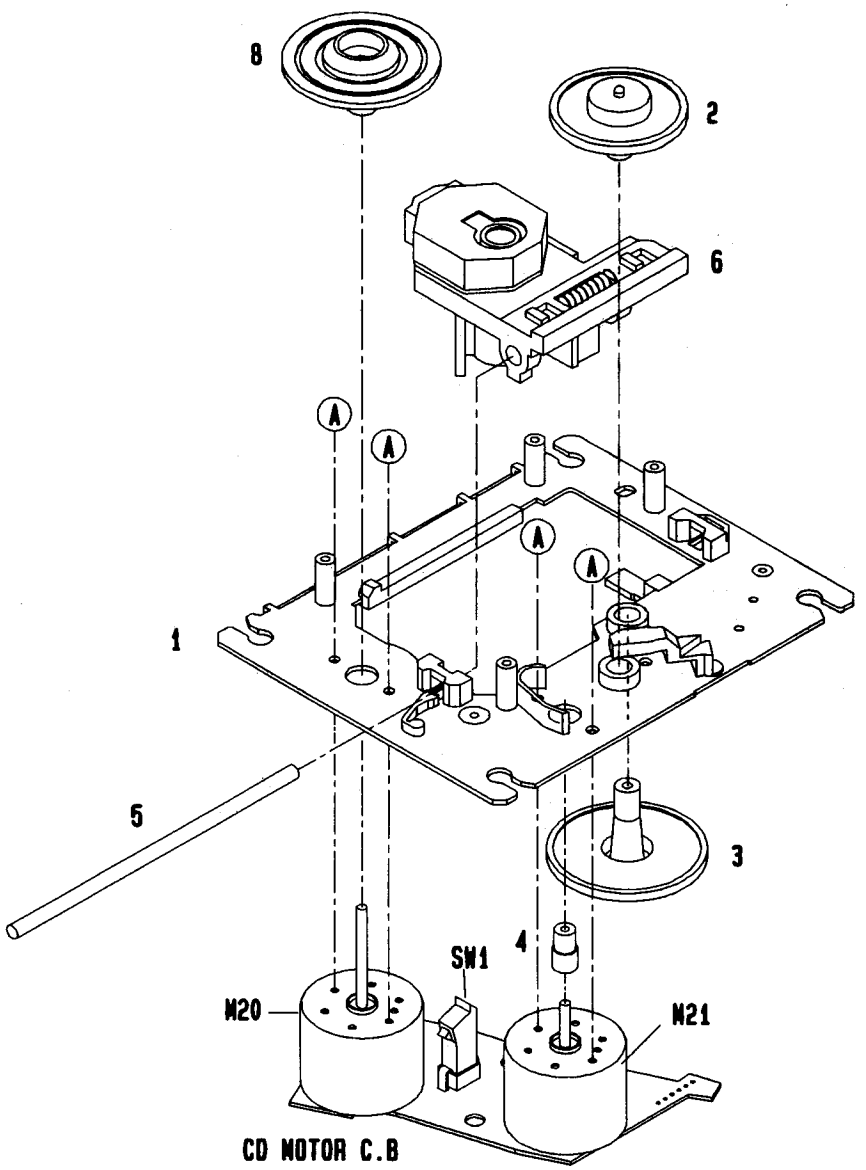


CD MECHANISM PARTS LIST 1/2

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-ZG1-001-01K		TRAY,5CD
2	81-ZG1-212-01K		PULLY,LOAD MO(*)
3	87-A90-036-019		MOT ASSY,RF-300CA-11
4	86-ZG1-228-01K		GEAR,TT-B
5	86-ZG1-227-01K		GEAR,TT-A
6	86-ZG1-223-01K		WORM-WHEEL,TT
7	86-ZG1-224-01K		LEVER,TT
8	86-ZG1-226-010		SPR-E,LEVER TT
9	86-ZG1-003-01K		COVER,TRAY
10	86-ZG1-002-01K		TURN TABLE,5CD
11	86-ZG1-211-01K		JOINT,CAM
12	86-ZG1-216-010		SPR-E,JT
13	86-ZG1-203-01K		GEAR,MAIN CAM
14	86-ZG1-213-01K		LEVER,LOAD
15	86-ZG1-214-01K		LEVER,PROTECT
16	86-ZG1-212-01K		SLIDER,LOAD
17	86-ZG1-004-01K		REFLECTOR,CD
18	86-ZG1-205-01K		GEAR,TRAY
19	84-ZG1-219-019		PULLY,RELAY BGE
20	84-ZG1-209-010		BELT,SQ1.8-117.7
21	86-ZG1-217-01K		LEVER,SW
22	86-ZG1-206-01K		GEAR,RELAY B
23	86-ZG1-204-01K		GEAR,RELAY A
24	86-ZG1-218-01K		PLATE,GEAR
25	86-ZG1-208-01K		LEVER,TRAY
26	86-ZG1-220-110		SPR-P,LOCK
27	86-ZG1-201-01K		CHAS,MECHA
28	86-ZG1-209-01K		SLIDER,CAM L
29	86-ZG1-210-01K		SLIDER,CAM R
30	86-ZG1-005-01K		COVER,CHAS
31	84-ZG2-228-019		PULLEY,MOT
32	83-ZG3-211-01K		PLATE,DISC
33	83-ZG3-602-010		RING,MAG
34	86-ZG1-215-01K		HLDR,CHUCK
35	83-ZG3-212-019		CAP,DISC
36	80-CD3-214-019		CUSH CD A
37	86-ZG1-202-01K		HLDR,MECHA
38	86-ZG1-225-019		BELT,SQ1.2-32.9
39	86-ZG1-221-01K		PULLEY,TT
40	86-ZG1-231-010		SPR-C,WORM
41	84-ZG1-238-01K		GEAR,WORM N
42	86-ZG1-232-010		SPR-P,WORM
43	86-ZG1-229-010		HLDR,SENSOR
44	86-ZG1-230-010		HLDR,DISC SENSOR
A	87-078-148-019		VFT 2+3-12(F10)BLK
B	87-251-072-419		U+2.6-5
C	81-ZG1-254-019		S-SCEW,MECH HLDR
D	87-067-579-010		BVT2+3-8 W/O SLOT

CD MECHANISM EXPLODED VIEW 2/2



CD MECHANISM PARTS LIST 2/2

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-232-11K		O-SERT S ASSY,S5
2	83-ZG2-204-419		GEAR,A
3	83-ZG2-205-219		GEAR,B
4	83-ZG2-220-01K		GEAR MOTOR 2
5	83-ZG2-207-119		SHAFT,SLIDE
6	87-070-445-010		PICK-UP,KSS-213B
8	83-ZG2-227-01K		TURN TABLE,C1
A	87-261-032-219		SCREW V+2-3

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
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
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〒110　東京都台東区池之端1－2－11　☎03（3827）3111　（代表）

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