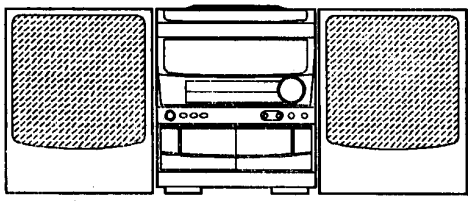
aiwa

aiwa SERVICE

NSX-AV80

SERVICE MANUAL



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK2 PR4
- BASIC CD MECHANISM : 4ZG-1 AD
- TYPE : EEZ, HR, HD

CD – CASSEIVER	SPEAKER	REMOTE CONTROLLER
CX-NAV80 (TYPE : HD)	SX – NAV80 SX – CR423	RC – T501
CX-NAV80 (TYPE : EEZ,HR)	SX – NAV80 SX – CR421	

- If requiring information about the CD mechanism, see Service Manual of 4ZG-1, S/M Code No. 09-963-128-10T.
- If requiring information about the Speaker, see Service Manual of SX-NAV80, SX-CR423, SX-CR421, S/M Code No. 09-964-137-8FP.

S/M Code No. 09-966-144-9FE

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SPECIFICATIONS

<FM Tuner section>

Tuning range	EXCEPT HD: 87.5 MHz to 108 MHz HD: 76.0 MHz to 108 MHz
Usable sensitivity (IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<AM (MW) Tuner section>

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

<SW Tuner section> (HR only)

Tuning range	5.900 MHz ~ 17.900 MHz
Antenna	Wire antenna

<LW Tuner section> <EEZ only>

Tuning range	144 kHz ~ 290 kHz
Usable sensitivity	1400 μV/m
Antenna	Loop antenna

<Amplifier section>

Power output

Front
EEZ :
Rated : 50 W + 50 W
(6 ohms, T.H.D. 1%, 1 kHz/DIN 45500)
Reference : 65 W + 65 W
(6 ohms, T.H.D. 10%, 1 kHz/DIN 45324)
HD,HR:
Rated : 85 W + 85 W
(6 ohms, T.H.D. 1%, 1 kHz)
Reference : 100 W + 100 W
(6 ohms, T.H.D. 10%, 1 kHz/EIAJ)

Rear (Surround)
EEZ : Rated : 10 W + 10 W
HD,HR : Rated : 9 W + 9 W
(16 ohms, T.H.D 1%, 1 kHz)
EEZ : Reference : 13 W + 13 W
HD,HR : Reference : 10 W + 10 W
(16 ohms, T.H.D 10 %, 1 kHz)

Center
EEZ : Rated : 20 W
HD,HR : Rated : 18 W
(8 ohms, T.H.D 1%, 1 kHz)
EEZ : Reference : 26 W
HD,HR : Reference : 20 W
(8 ohms, T.H.D 10%, 1 kHz)

Total harmonic distortion

EEZ:
0.1% (25 W, 1 kHz, 6 ohms, DIN AUDIO/Front)
HD,HR :
0.1% (50 W, 1 kHz, 6 ohms, DIN AUDIO/Front)

Inputs

VIDEO/AUX : 250 mV (adjustable)
MIC 1, MIC 2 : 1 mV (10 kohms)

Outputs

EEZ :
SUPER WOOFER : 1.7 V
HD,HR :
SUPER WOOFER : 2.45 V
SPEAKERS: accept speakers of 6 ohms or more
CENTER SPEAKERS : accept speakers of 8 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)
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	83 dB (1 kHz, 0 dB)
Harmonic distortion	0.05% (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX-NAV80>

Cabinet type	3 way, bass reflex (magnetic sealed type)
Speakers	Woofer : 140 mm (5⅝ in.) cone type Tweeter : 60 mm (2⅜ in.) cone type Super tweeter : 20 mm (13/16 in.) ceramic type
Impedance	6 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	235 x 302 x 250 mm (9⅜ x 12 x 9⅞ in.)
Weight	3.5 kg (9 lbs 15 oz.)

<General>

Power requirements	HD:100 –120 V/ 200 – 240 V AC, switchable 50/60 Hz EEZ:230 V AC, 50 Hz HR: 120 V/ 220 – 230 V/240 V AC, switchable 50/60 Hz
Power consumption	400 W (EEZ) 170 W (HD) 150 W (HR)
Dimensions of main unit (W x H x D)	260 x 307 x 345 mm
Weight of main unit	8.0 kg

- Design and specifications are subject to change without notice.
- Manufactured under license from Dolby Laboratories Licensing Corporation.
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- 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 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.

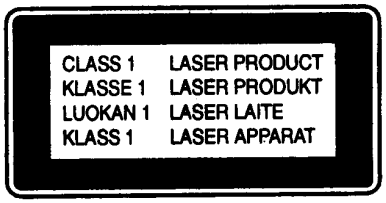
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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.

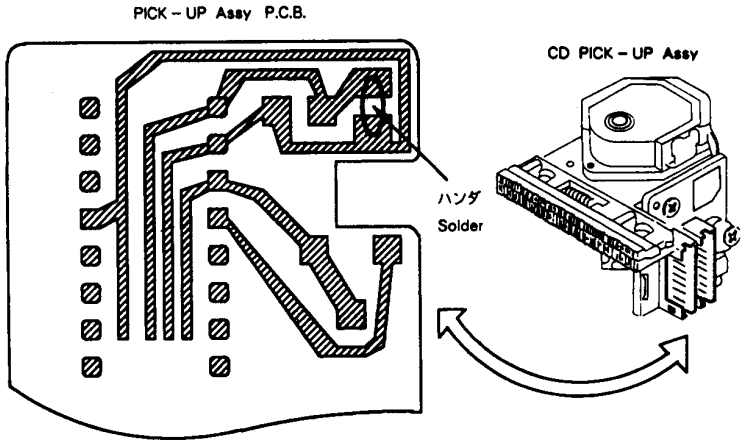


Precaution to replace Optical block

(KSS – 210A)

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			
	S6-804-060-030		IC,LB9051A
	86-NFS-602-010		C-IC,LC866440W-5A91
	87-070-083-019		IC,GP1U281X
	87-A20-060-019		IC,STK-419-110<EZ>
	87-A20-062-019		IC,STK419-130<HD,HR>
	87-070-121-010		IC,HA12185NT
	87-070-232-019		IC,BA3834S
	87-017-915-089		IC,BU4094BCF
	87-001-874-019		IC,HA12134A
	87-A20-107-019		IC,BA3836
	87-017-804-019		IC,BU4052BC
	87-A20-056-019		IC,BA3880S
	87-017-914-019		IC,BU4094 BC
	87-017-888-089		IC,NJM4558MD
	87-070-184-040		IC,M65846FP-600D
	87-A20-069-049		C-IC,BA3842F
	87-070-127-119		IC,LC72131
	87-017-714-119		IC,LA1836
	87-002-642-089		IC,TA8124P<HD>
	87-A20-082-010		C-IC,NJW1102AFG1
	87-070-267-019		IC,STK405-050<EZ>
	87-070-163-019		IC,STK405-030<HR,HD>
TRANSISTOR			
	87-026-463-089		TR,2SA933S(RS)
	89-213-702-019		TR,2SB1370E
	89-113-187-089		TR,2SA1318TU
	87-026-610-089		TR,KTC3198GR
	89-332-665-089		TR,2SC3266GR
	89-327-126-089		C-TR,2SC2712BL<EXCEPT HD>
	89-337-221-389		C-TR,2SC3722K
	89-327-125-088		C-TR,2SC2712GR
	87-026-286-089		TR,DTA143ES<HD>
	89-111-625-089		C-TR,2SA1162GR
	87-026-210-089		C-TR,DTC144EK T147
	87-026-211-089		C-TR,DTA144EK T147
	89-333-266-089		C-TR,2SC3326B
	87-026-609-089		TR, KTA1266GR
	89-109-705-089		TR,2SA970GR
	89-026-210-088		C-TR,DTC144EK<HR>
	87-026-226-089		C-TR,DTA143EK
	89-502-466-089		TR FET 2SK246-BL (TPE2)
	87-026-228-089		C-TR,DTA124EK
	89-112-965-089		TR,2SA1296GR
	89-333-317-089		TR,2SC3331T
	89-109-521-089		TR,2SA952K
	89-406-555-089		TR,2SD655E
	87-026-238-089		C-TR,DTC144WK
	87-026-214-089		TR,DTA114YS
	89-327-143-089		C-TR,2SC2714 (O)
	87-026-269-089		TR,DTA114ES
	89-421-141-289		C-TR,2SD2114K,UV<EXCEPT HD>
	89-505-434-589		C-FET,2SK543(4/5)
	87-026-213-089		TR,DTC114YK<HD>
	87-026-232-089		C-TR,DTA144WK
	87-026-235-089		C-TR,DTC114EK
	89-316-236-089		C-TR,2SC1623L6
	89-110-155-089		TR,2SA1015GR
DIODE			
	87-A40-116-069		DIODE,RS403L-B-D-51
	87-A40-115-069		DIODE,RS603M
	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<HD>
	87-017-978-089		DIODE,1N4003
	87-A40-184-090		DIODE,RK34
	87-A40-200-089		ZENER,UZL11L3<EZ,HR>
	87-020-331-089		C-DIODE,DAN202K
	87-017-123-089		ZENER,HZS11A3L<HD>
	87-020-330-089		C-DIODE,DAP202K
	87-017-148-089		ZENER,HZS6A1L<HD>
	87-001-559-089		DIODE,1SS131
	87-A40-211-089		ZENER,UZ36BSA<EZ,HR>
	87-A40-197-089		ZENER,UZL6L1<EZ,HR>
	87-001-290-089		ZENER,HZS6B1L
	87-001-731-089		ZENER,HZ6C2L
	87-017-093-089		ZENER,HZ5C3
MAIN C.B			
C101	87-016-474-099		CAP,E 3300-50<EZ>
C101	87-016-520-099		CAP,E 3300-65 SMG<HD,HR>
C102	87-016-474-099		CAP,E 3300-50<EZ>
C102	87-016-520-099		CAP,E 3300-65 SMG<HD,HR>
C104	87-010-235-089		CAP,E 470-16 SME
C105	87-010-235-089		CAP,E 470-16 SME
C106	87-010-409-089		CAP,E 220-50 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
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,4700P-50B
C146	87-010-186-089		C-CAP,4700P-50B
C152	87-010-260-089		CAP,E 47-25 SME
C171	87-016-565-099		CAP,E 4700-25(JAM1)<EZ,HR>
C171	87-A10-056-099		CAP,E 4700-35(JAM1)<HD>
C171	87-A10-056-099		CAP,E 4700-35(JAM1)<HD>
C172	87-016-565-099		CAP,E 4700-25(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	87-012-179-089		C-CAP,S 1200P-50 B
C226	87-012-179-089		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
C235	87-010-196-089		C-CAP,S 0.1-25 F
C236	87-010-196-089		C-CAP,S 0.1-25 F
C239	87-018-134-089		CAP,TC-U 100P-50B<EZ>
C240	87-018-134-089		CAP,TC-U 100P-50B<EZ>
C243	87-010-318-089		C-CAP,S 47P-50CH<EZ>
C243	87-010-322-089		C-CAP,S100P-50CH<HD>
C244	87-010-318-089		C-CAP,S 47P-50CH<EZ>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C244	87-010-322-089		C-CAP,S100P-50CH<HD>
C249	87-018-209-089		CAP,TC-U 0.1-50 F
C250	87-A10-200-010		CAP,E 10-100 PP
C260	87-015-785-089		C-CAP,0.1-25 F
C261	87-018-134-089		CAP,TC-U 100P-50B<EZ>
C262	87-018-134-089		CAP,TC-U 100P-50B<EZ>
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-50 CH
C306	87-012-145-089		C-CAP,S 270P-50 CH
C307	87-010-196-089		C-CAP,S 0.1-25 F
C311	87-010-198-089		C-CAP,S 0.022-25 B
C312	87-010-198-089		C-CAP,S 0.022-25 B
C313	87-010-182-089		C-CAP,S 2200P-50 B
C314	87-010-182-089		C-CAP,S 2200P-50 B
C315	87-010-180-089		C-CAP,S 1500P-50 B
C316	87-010-180-089		C-CAP,S 1500P-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
C454	87-010-175-089		C-CAP,560P-50SL<EZ>
C455	87-010-178-089		C-CAP,S 1000P-50 B<EZ>
C456	87-010-408-089		CAP,E 47-50 SME<HR,EZ>
C456	87-010-260-089		CAP,E 47-25 SME<HD>
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	87-010-196-089		C-CAP,S 0.1-25 F
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
C545	87-010-400-089		CAP,E 0.47-50 SME
C546	87-010-400-089		CAP,E 0.47-50 SME
C547	87-015-632-089		C-CAP,0.015-50 BK
C548	87-015-632-089		C-CAP,0.015-50 BK
C553	87-015-627-089		C-CAP,1000P-50 B
C554	87-015-627-089		C-CAP,1000P-50 B
C557	87-010-178-089		C-CAP,S 1000P-50 B
C558	87-010-178-089		C-CAP,S 1000P-50 B
C597	87-010-404-089		CAP,E 4.7-50 SME<HD>
C601	87-010-178-089		C-CAP,S 1000P-50 B
C602	87-010-178-089		C-CAP,S 1000P-50 B
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
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
C722	87-010-152-089		C-CAP,S 8P-50 CH
C723	87-010-178-089		C-CAP,S 1000P-50 B
C725	87-010-178-089		C-CAP,S 1000P-50 B
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
C739	87-010-313-089		C-CAP,S 18P-50 CH<HD>
C741	87-010-545-089		CAP,E 0.22-50 SME<HD>
C742	87-010-154-089		C-CAP,S 10P-50 CH<HD>
C743	87-010-404-089		CAP,E 4.7-50 SME<HD>
C744	87-010-263-089		CAP,E 100-10 SME<HD>
C745	87-010-401-089		CAP,E 1-50 SME<HD>
C746	87-010-401-089		CAP,E 1-50 SME<HD>
C747	87-010-197-089		C-CAP,S 0.01-25 B<HD>
C748	87-010-198-089		C-CAP,S 0.022-25 B<HD>
C749	87-010-248-089		CAP,E 220-10 SME<HD>
C753	87-010-402-089		CAP,E 2.2-50 SME<HD>
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
C774	87-010-263-089		CAP,E 100-10 SME 5X11
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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
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
C783	87-010-182-089		C-CAP,S 2200P-50 B<HD>
C784	87-010-182-089		C-CAP,S 2200P-50 B<HD>
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	87-010-182-089		C-CAP,S 2200P-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<HD>
C817	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT HD>
C818	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT HD>
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
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	87-010-119-089		CAP,TC-U 100P-50 B
C941	87-010-314-089		C-CAP,S 22P-50 CH<HR>
C943	87-010-197-089		C-CAP,S 0.01-25 B<HR>
C944	87-014-051-089		CAP,PP 560P-100 J<HR>
C945	87-010-197-089		C-CAP,S 0.01-25 B<HR>
C946	87-010-401-089		CAP,E 1-50 SME
C950	87-014-073-089		CAP,PP 4700P-100 J<HR>
C952	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT HD>
C953	87-010-197-089		C-CAP,S 0.01-25 B<HR>
C954	87-010-400-089		CAP,E 0.47-50<EXCEPT HD>
C956	87-010-263-089		CAP,E 100-10 SME 5X11<HR>
C957	87-010-315-089		C-CAP,S 27P-50 CH<EZ>
C958	87-010-197-089		C-CAP,S 0.01-25 B<EZ>
C960	87-010-196-089		C-CAP,S 0.1-25 F
C961	87-010-152-089		C-CAP,S 8P-50 CH<HD>
C961	87-010-150-089		C-CAP,S 6P-50 CH<EZ>
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<EXCEPT HD>
CF801	87-008-261-019		FLTR,SFE10.7MA5-A<HD,HR>
CF801	87-008-423-019		CF,SFE10.7MS3G-A<EZ>
CF801	87-008-261-019		FLTR,SFE10.7MA5-A<HD,HR>
CF802	82-785-747-019		CF,MS2GHY,R<EZ>
FR121	87-029-060-089		RES,FUSE 33-1/4W J
FR122	87-029-060-089		RES,FUSE 33-1/4W J
J252	87-A60-031-019		JACK 6.3BLK ST W/S
J253	87-A60-244-019		JACK,PIN 1P BLK
J254	87-033-240-019		TERMINAL,SP 4P32SV1-05
J652	87-099-741-019		JACK,PIN 2P (JT)
J801	87-033-241-019		TERMINAL,ANT AJ-2039
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-A50-027-019		COIL,1 POLE MPX(TOK)
L702	87-A50-027-019		COIL,1 POLE MPX(TOK)
L770	87-003-102-089		COIL,10UH<HD>
L721	87-A50-015-019		COIL,FM DET(TOK)
L742	87-A90-051-019		FLTR,CFAZ-450(TOK)<EZ>
L742	87-A90-052-019		FLTR,CFMT-450A(TOK)<HR>
L742	87-A90-053-019		FLTR,PCFMT-60<HD>
L770	87-003-102-089		COIL,10UH
L832	87-005-847-089		COIL,2.2UH(CECS)
L941	87-A50-020-019		COIL,ANT LW<EZ>
L941	87-A50-022-019		COIL,ANT SW(COJ)<HR>
L942	87-A50-019-019		COIL,OSC LW<EZ>
L942	87-A50-021-019		COIL,OSC SW(COJ)<HR>
L943	87-005-372-089		COIL,S 1MH TAPG<HR>
L944	87-003-131-089		COIL,10MH J<HR>
L981	86-NF4-665-019		AM PACK 1(TOK)<EZ,HD>
L981	86-NF4-666-019		AM PACK 3(TOK)<HR>
⚠PR110	87-026-681-089		PROTECTOR,5A 60V 491
⚠PR111	87-026-681-089		PROTECTOR,5A 60V 491
⚠PR112	87-026-689-089		PROTECTOR,1A 60V 491
R105	87-022-600-089		RES,M/F 0.1-2W J
R106	87-022-600-089		RES,M/F 0.1-2W J
RY101	87-045-361-019		RELAY,DH12D2-OS(M)-2<HR>
RY101	87-A90-143-019		RELAY,DG12D2-OS(M)<EZ,HD>
RY102	87-045-382-019		RELAY,OUAZ-SH-112L
SFR301	87-024-174-089		SFR33K DIA6 V
SFR302	87-024-174-089		SFR33K DIA6 V
SFR303	87-024-174-089		SFR33K DIA6 V
SFR304	87-024-174-089		SFR33K DIA6 V
SFR305	87-024-175-089		SFR,47K DIA6 V
SFR306	87-024-175-089		SFR,47K DIA6 V
SFR451	87-024-175-089		SFR,47K DIA6 V
SFR452	87-024-175-089		SFR,47K DIA6 V
SFR722	87-024-171-089		SFR 4.7K DIA6 V
TC701	87-011-253-089		TRIMER,30P LAR
TC941	87-011-254-089		TRIMER,20P LAR<HR>
TC942	87-011-253-089		TRIMER,30P LAR<EXCEPT HD>
TH241	87-A90-157-089		C-THMS,4.7K<EXCEPT HD>
VR651	82-NF5-660-019		VR 50K BX2 RK14K 12A
W101	85-NF5-628-019		F-CABLE 7P-2.5
W301	86-NF5-618-019		CONN ASSY,8P RPB
W604	85-NF5-617-019		CABLE,FFC 6P-1.25
X702	87-030-283-019		VIB,CER CSA 3.60MGFN<HD>
X703	84-508-618-019		VIB,CER CSB 456 F/5
X721	87-030-372-019		VIB,XTAL 7.2MHZ
X722	87-030-354-019		VIB,CF BFU 450C<HR>

FRONT C.B

C201	87-015-698-049		CAP,E 4.7-50 7L
C202	87-015-698-049		CAP,E 4.7-50 7L
C203	87-010-392-049		CAP,E 33-35 SME
C204	87-010-401-049		CAP,E 1-50 SME
C205	87-010-263-049		CAP,E 100-10
C206	87-A10-116-049		CAP,E 330-6.3 GAS
C207	87-010-494-049		CAP,E 1-50 GAS
C208	87-010-196-089		C-CAP,S 0.1-25 F
C209	87-010-316-089		C-CAP,S 33P-50 CH
C210	87-010-154-089		C-CAP,S 10P-50 CH
C211	87-015-689-049		CAP,E 10-35 7L
C212	87-010-498-049		CAP,E 10-16 GAS
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
C220	87-010-178-089		C-CAP,S 1000P-50 B
C223	87-010-178-089		C-CAP,S 1000P-50 B
C250	87-010-178-089		C-CAP,S 1000P-50 B
C251	87-010-196-089		C-CAP,S 0.1-25 F
C381	87-010-196-089		C-CAP,S 0.1-25 F

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C382	87-010-196-089		C-CAP,S 0.1-25 F
C383	87-010-196-089		C-CAP,S 0.1-25 F
C384	87-010-196-089		C-CAP,S 0.1-25 F
C385	87-010-178-089		C-CAP,S 1000P-50 B
C389	87-010-196-089		C-CAP,S 0.1-25 F
C401	87-010-196-089		C-CAP,S 0.1-25 F
C402	87-010-196-089		C-CAP,S 0.1-25 F
C501	87-010-553-049		CAP,E 47-16 GAS
C602	87-010-322-089		C-CAP,S 100P-50 CH
C603	87-010-177-089		C-CAP,S 820P-50 SL
C604	87-010-186-089		C-CAP,S 4700P-50 B
C605	87-010-491-049		CAP,E 0.22-50 GAS
C606	87-010-196-089		C-CAP,S 0.1-25 F
C607	87-010-321-089		C-CAP,S 82P-50 CH
C608	87-010-112-049		CAP,E 100-16
C609	87-010-196-089		C-CAP,S 0.1-25 F
C611	87-010-248-049		CAP,E 220-10 SME
C612	87-010-322-089		C-CAP,S 100P-50 CH
C613	87-010-196-089		C-CAP,S 0.1-25 F
C630	87-010-498-049		CAP,E 10-16 GAS
C640	87-010-406-049		CAP,E 22-50 SME
C646	87-010-196-089		C-CAP,S 0.1-25 F
C701	87-010-401-049		CAP,E 1-50 SME
C702	87-010-401-049		CAP,E 1-50 SME
C703	87-010-993-089		C-CAP,S 0.056-25 B
C704	87-010-182-089		C-CAP,S 2200P-50 B
C705	87-012-393-089		C-CAP,S 0.22-16,R,K
C706	87-012-393-089		C-CAP,S 0.22-16,R,K
C707	87-010-182-089		C-CAP,S 2200P-50 B
C708	87-010-993-089		C-CAP,S 0.056-25 B
C709	87-012-393-089		C-CAP,S 0.22-16,R,K
C710	87-012-393-089		C-CAP,S 0.22-16,R,K
C711	87-010-401-049		CAP,E 1-50
C712	87-010-260-049		CAP,E 47-25 SME
C713	87-010-401-049		CAP,E 1-50 SME
C714	87-010-263-049		CAP,E 100-10
C715	87-016-081-089		C-CAP,S 0.1-16 R K
FB601	87-008-372-089		FLTR,EMI BL 01RN1
FB640	87-008-372-089		FLTR,EMI BL 01RN1
FB641	87-008-372-089		FLTR,EMI BL 01RN1
FL101	86-NF5-603-019		FL BJ454GK
J601	82-NF7-630-019		JACK,3.5 MO
J621	82-NF7-630-019		JACK,3.5 MO
L201	87-A50-052-019		COIL,CLOCK 5.76MHZ T1
LED401	87-070-281-089		LED,SLZ736A-25-S-T
LED402	87-070-281-089		LED,SLZ736A-25-S-T
LED403	87-070-281-089		LED,SLZ736A-25-S-T
LED404	87-070-281-089		LED,SLZ736A-25-S-T
LED405	87-070-281-089		LED,SLZ736A-25-S-T
LED406	87-070-281-089		LED,SLZ736A-25-S-T
LED407	87-070-199-089		LED,SLP738F-81-S-T1
LED408	87-070-199-089		LED,SLP738F-81-S-T1
LED409	87-070-199-089		LED,SLP738F-81-S-T1
LED410	87-070-199-089		LED,SLP738F-81-S-T1
LED411	87-070-199-089		LED,SLP738F-81-S-T1
LED412	87-070-199-089		LED,SLP738F-81-S-T1
LED413	87-070-199-089		LED,SLP738F-81-S-T1
LED414	87-070-199-089		LED,SLP738F-81-S-T1
LED420	87-070-201-089		LED,SLP9118C-51-S-T1
LED421	87-070-201-089		LED,SLP9118C-51-S-T1
LED422	87-070-201-089		LED,SLP9118C-51-S-T1
LED423	87-070-201-089		LED,SLP9118C-51-S-T1
LED424	87-070-278-019		LED,SLZ-738A-24-S
LED425	87-070-278-019		LED,SLZ-738A-24-S
LED426	87-070-278-019		LED,SLZ-738A-24-S
LED427	87-070-278-019		LED,SLZ-738A-24-S
LED428	87-070-290-019		LED,SLZ 936-30-S
LED429	87-070-290-019		LED,SLZ 936-30-S
LED451	87-070-201-089		LED,SLP9118C-51-S-T1
LED452	87-070-201-089		LED,SLP9118C-51-S-T1
LED453	87-070-201-089		LED,SLP9118C-51-S-T1
LED454	87-070-201-089		LED,SLP9118C-51-S-T1
LED455	87-070-201-089		LED,SLP9118C-51-S-T1
LED456	87-070-201-089		LED,SLP9118C-51-S-T1
LED801	87-070-201-089		LED,SLP9118C-51-S-T1
LED802	87-070-201-089		LED,SLP9118C-51-S-T1
LED803	87-070-201-089		LED,SLP9118C-51-S-T1
LED804	87-070-199-089		LED,SLP738F-81-S-T1
LED805	87-070-199-089		LED,SLP738F-81-S-T1
S301	87-036-215-089		SW,TACT EVQ21404M
S302	87-036-215-089		SW,TACT EVQ21404M
S303	87-036-215-089		SW,TACT EVQ21404M
S304	87-036-215-089		SW,TACT EVQ21404M
S305	87-036-215-089		SW,TACT EVQ21404M
S321	87-036-215-089		SW,TACT EVQ21404M
S322	87-036-215-089		SW,TACT EVQ21404M
S323	87-036-215-089		SW,TACT EVQ21404M
S324	87-036-215-089		SW,TACT EVQ21404M
S325	87-036-215-089		SW,TACT EVQ21404M
S326	87-036-215-089		SW,TACT EVQ21404M
S327	87-036-215-089		SW,TACT EVQ21404M
S328	87-036-215-089		SW,TACT EVQ21404M
S329	87-036-215-089		SW,TACT EVQ21404M
S341	87-036-215-089		SW,TACT EVQ21404M
S342	87-036-215-089		SW,TACT EVQ21404M
S343	87-036-215-089		SW,TACT EVQ21404M
S344	87-036-215-089		SW,TACT EVQ21404M
S345	87-036-215-089		SW,TACT EVQ21404M
S346	87-036-215-089		SW,TACT EVQ21404M
S347	87-036-215-089		SW,TACT EVQ21404M
S348	87-036-215-089		SW,TACT EVQ21404M
VR601	86-NFS-604-019		VR,10KB RK11K1130 CT
VR602	82-NK7-615-019		VR,10KA RK11K1130
W104	88-913-181-119		FF-CABLE,13P 1.25
W301	83-NF8-613-019		F-CABLE 2P-2.0 KEY
W501	88-915-181-119		FF-CABLE,15P 1.25
W801	88-916-201-119		FF-CABLE,16P 1.25

MVR C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C631	87-010-805-089		C-CAP,S 1-16 F
C632	87-010-805-089		C-CAP,S 1-16 F
C651	87-010-319-089		C-CAP,S 56P-50 CH
C652	87-010-319-089		C-CAP,S 56P-50 CH
C653	87-010-426-089		C-CAP,S 0.012-25 B
C654	87-010-178-089		C-CAP,S 1000P-50 B
C656	87-012-358-089		C-CAP S 0.47-10FZ
C657	87-010-263-089		CAP,E 100-10
C659	87-010-263-089		CAP,E 100-10
C661	87-010-177-089		C-CAP,S 820P-50 SL
C664	87-012-141-089		C-CAP,S 0.22-16 F
C665	87-010-181-089		C-CAP,S 1800P-50 B
C666	87-010-426-089		C-CAP,S 0.012-25 B
C668	87-012-358-089		C-CAP S 0.47-10FZ
C669	87-010-404-089		CAP,E 4.7-50 SME
C671	87-012-158-089		C-CAP,S 390P-50 CH
C672	87-010-196-089		C-CAP,S 0.1-25 F
C675	87-010-180-089		C-CAP,S 1500P-50 B
C716	87-010-196-089		C-CAP,S 0.1-25 F
C801	87-010-405-089		CAP,E 10-50 SME
C802	87-010-405-089		CAP,E 10-50 SME
C831	87-010-176-089		C-CAP,S 680P-50 SL
C832	87-010-176-089		C-CAP,S 680P-50 SL
C837	87-016-456-089		CAP,E 22-16 LLA
C838	87-010-112-089		CAP,E 100-16 11L
C839	87-018-209-089		CAP,TC-U 0.1-50 F
C840	87-010-260-089		CAP,E 47-25 SME
C842	87-016-472-089		CAP,E 22-16,SME (K)
C843	87-010-263-089		CAP,E 100-10 SME 5X11
C844	87-018-209-089		CAP,TC-U 0.1-50 F

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C845	87-010-378-089		CAP,E 10-16 11L
C846	87-010-378-089		CAP,E 10-16 11L
C847	87-010-378-089		CAP,E 10-16 11L
C848	87-010-378-089		CAP,E 10-16 11L
C849	87-010-378-089		CAP,E 10-16 11L
C850	87-010-101-089		CAP,E 220-16 SME
C851	87-012-140-089		C-CAP,S 470P-50 CH
C852	87-010-186-089		C-CAP,S 4700P-50 B
C853	87-010-187-089		C-CAP,S 5600P-50 B
C855	87-010-194-089		C-CAP,S 0.047-25 F
C856	87-012-394-089		C-CAP,0.68-16,R,K
C857	87-012-393-089		C-CAP,S 0.22-16,R,K
C858	87-012-393-089		C-CAP,S 0.22-16,R,K
C859	87-010-404-089		CAP,E 4.7-50
C860	87-010-404-089		CAP,E 4.7-50
C861	87-012-393-089		C-CAP,S 0.22-16,R,K
C862	87-012-393-089		C-CAP,S 0.22-16,R,K
C863	87-018-209-089		CAP,TC-U 0.1-50 F
C866	87-016-081-089		C-CAP,S 0.1-16 RK
C867	87-016-081-089		C-CAP,S 0.1-16 RK
C870	87-016-081-089		C-CAP,S 0.1-16 RK
C880	87-010-198-089		C-CAP,S 0.022-25 B
C881	87-010-402-089		CAP,E 2.2-50 SME
C882	87-010-402-089		CAP,E 2.2-50 SME
C883	87-010-402-089		CAP,E 2.2-50 SME
C884	87-010-402-089		CAP,E 2.2-50 SME
C885	87-016-081-089		C-CAP,S 0.1-16 RK
L650	87-005-481-089		COIL,42UH J FLR50
MVR751	86-NFS-603-019		VR,RTRY 50KBX4(AL)
R757	87-025-407-089		RES,M/F 100K-1/8W
W802	88-906-301-119		FF-CABLE,6P 1.25

KEY C.B

S349	87-036-215-089		SW,TACT EVQ21404M
S350	87-036-215-089		SW,TACT EVQ21404M
S351	87-036-215-089		SW,TACT EVQ21404M
S352	87-036-215-089		SW,TACT EVQ21404M
S353	87-036-215-089		SW,TACT EVQ21404M

AMP C.B

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	87-016-566-099		CAP,E 2200-35(JAM1)
C304	87-016-566-099		CAP,E 2200-35(JAM1)
C305	87-010-408-089		CAP,E 47-50 SME
C306	87-010-194-089		C-CAP,S 0.047-25 F
C307	87-010-177-089		C-CAP,S 820P-50 SL
C308	87-010-177-089		C-CAP,S 820P-50 SL
C309	87-010-402-089		CAP,E 2.2-50 SME
C310	87-010-402-089		CAP,E 2.2-50 SME
C311	87-010-378-089		CAP,E 10-16 11L
C312	87-010-378-089		CAP,E 10-16 11L
C315	87-010-147-089		C-CAP,S 3P-50 CH
C316	87-010-147-089		C-CAP,S 3P-50 CH
C317	87-012-361-089		C-CAP,S 0.056-25 Y
C318	87-012-361-089		C-CAP,S 0.056-25 Y
C319	87-016-081-089		C-CAP,S 0.1-16 R K
C320	87-016-081-089		C-CAP,S 0.1-16 R K
C321	87-010-193-089		C-CAP,S 0.033-25 F
C322	87-010-193-089		C-CAP,S 0.033-25 F
C323	87-010-197-089		C-CAP,S 0.01-25 B
C921	87-010-197-089		C-CAP,S 0.01-25 B
C922	87-010-197-089		C-CAP,S 0.01-25 B
J701	87-099-803-019		JACK,PIN 3P OWR
L701	87-003-383-019		COIL,1UH-S
L702	87-003-383-019		COIL,1UH-S
R607	87-022-050-089		RESIS METAL 1W-0.22J
R608	87-022-050-089		RESIS METAL 1W-0.22J

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION

AC C.B

C103	87-010-187-089		C-CAP,S 0.01-25 B
⚠PR101	87-026-682-089		PROTECTOR,10A 60V 491
⚠PR102	87-026-682-089		PROTECTOR,10A 60V 491
⚠PR103	87-026-681-089		PROTECTOR,5A 60V 491
⚠PR104	87-026-681-089		PROTECTOR,5A 60V 491

PT C.B

⚠	82-304-743-019		TERMINAL,1P
⚠CF109	87-033-213-088		CLAMP FUSE SMK<EZ>
⚠CF109	87-033-147-019		CLAMP,FUSE<HD,HR>
⚠CF110	87-033-213-089		CLAMP FUSE SMK<EZ>
⚠CF110	87-033-147-019		CLAMP,FUSE<HD,HR>
⚠F109	87-035-369-019		FUSE,5A 250V T E<HD,HR>
⚠F109	87-035-365-019		FUSE,T 2A 250V T E<EZ>
⚠PT001	86-NFS-601-019		PT,HD 6NF-S<HD>
⚠PT001	86-NFS-608-019		PT,E 6NF-S<EZ>
⚠PT001	86-NFS-616-019		PT,HR 6NF-S<HR>
⚠SW101	87-036-387-019		SW,SL 1-2-3<HR>
⚠SW101	87-036-388-019		SW,SL 1-2-2<HD>

DECK C.B

SFR1	87-024-581-089		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-310		SOL ASSY,27
SOL2	82-ZM1-626-310		SOL ASSY,27K
SW1	87-036-378-019		SW,PUSH 1-1-1 SH2
SW2	87-036-378-019		SW,PUSH 1-1-1 SH2
SW3	87-036-378-019		SW,PUSH 1-1-1 SH2
SW4	87-036-378-019		SW,PUSH 1-1-1 SH2
SW5	87-036-378-019		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

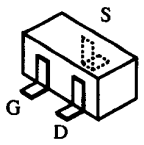
TRANSISTOR ILLUSTRATION

2SA1296GR
2SC3266GR
KTA1266GR
KTC3198GR

2SA952K
2SD655E
2SA970GR
2SA1015GR

DTA114YS
DTA114ES
2SA933S
DTA143ES

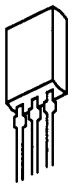
2SA1318
2SC3331T



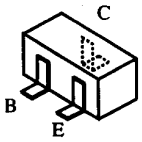
2SK543

2SB1370

2SK246



2SD2005

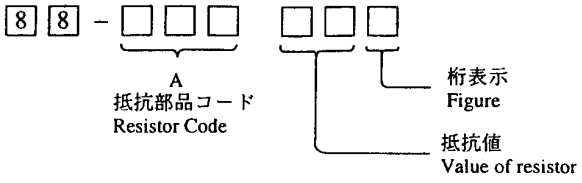


2SA1162GR
2SC2712GR/BL
2SC2714
2SC3722K
2SC3326B
DTC144EK
DTA144EK
DTA143EK

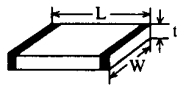
DTA124EK
DTC144WK
2SD2114 K,U,V
DTC114YK
DTA144WK
DTC114EK
2SC1623(L6)

○ チップ抵抗部品コード／CHIP RESISTOR PART CODE

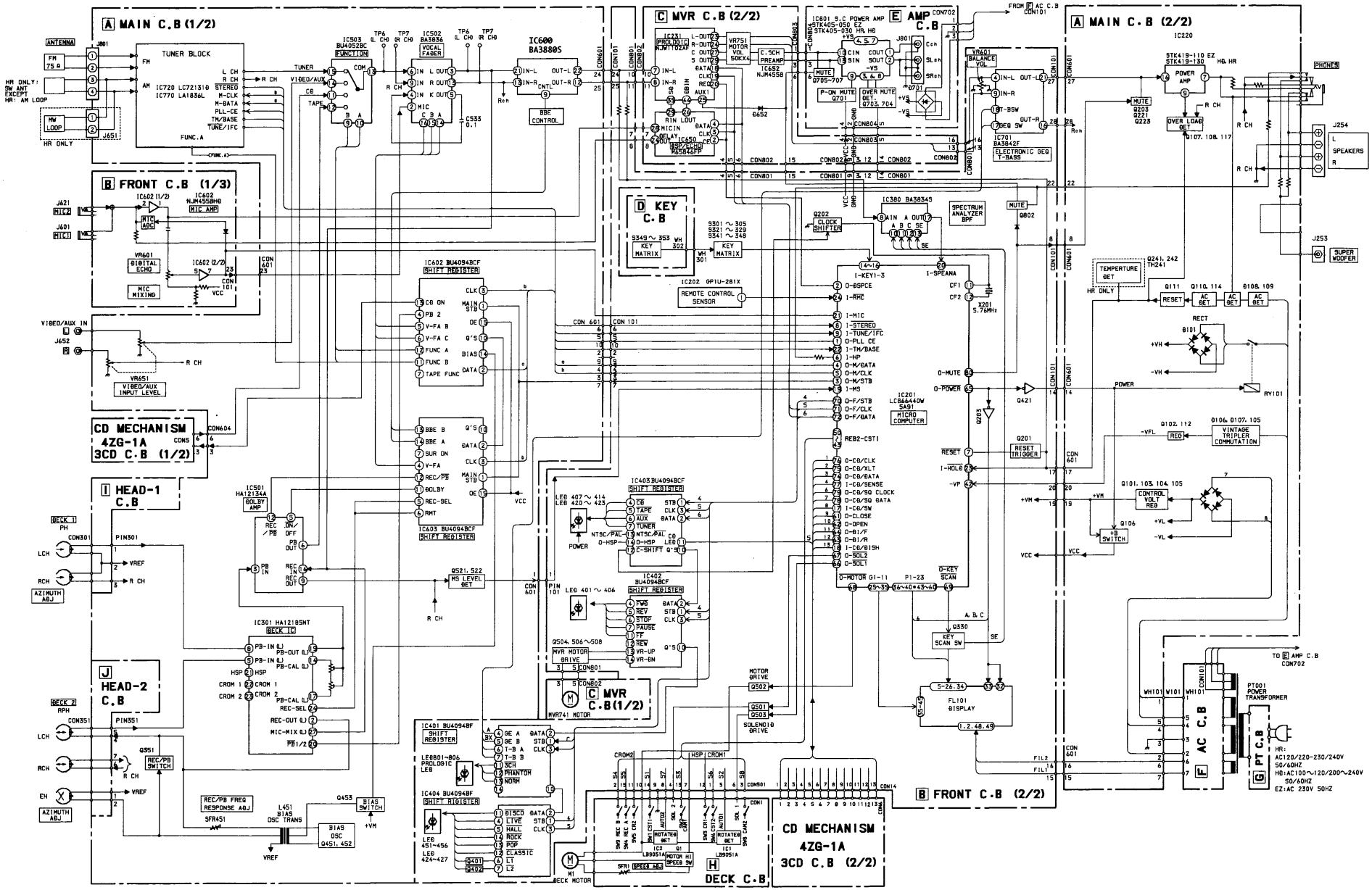
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



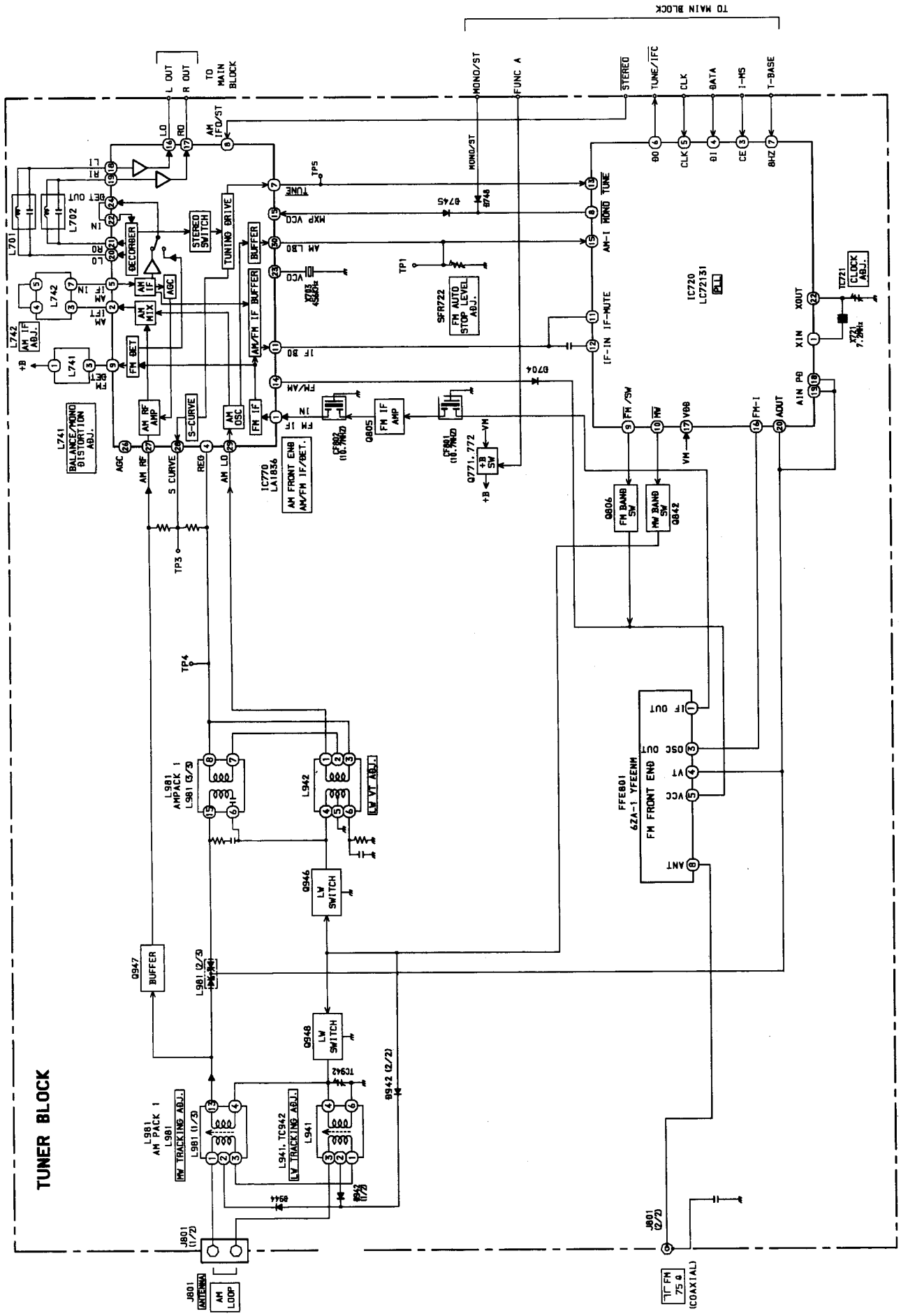
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード ：A Resistor Code: A
				外形／Form	L	W	t	
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

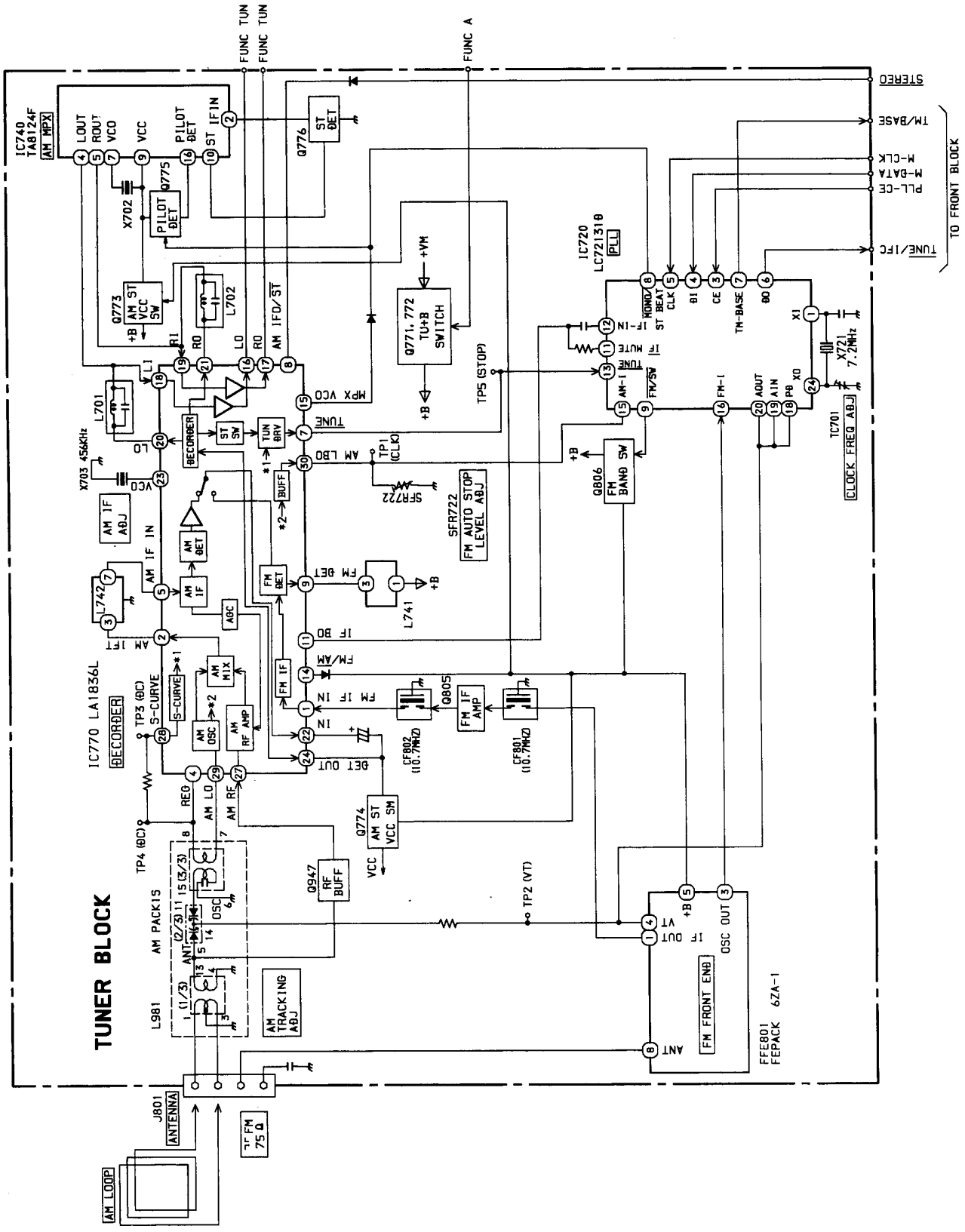
BLOCK DIAGRAM – 1 (MAIN / FRONT)



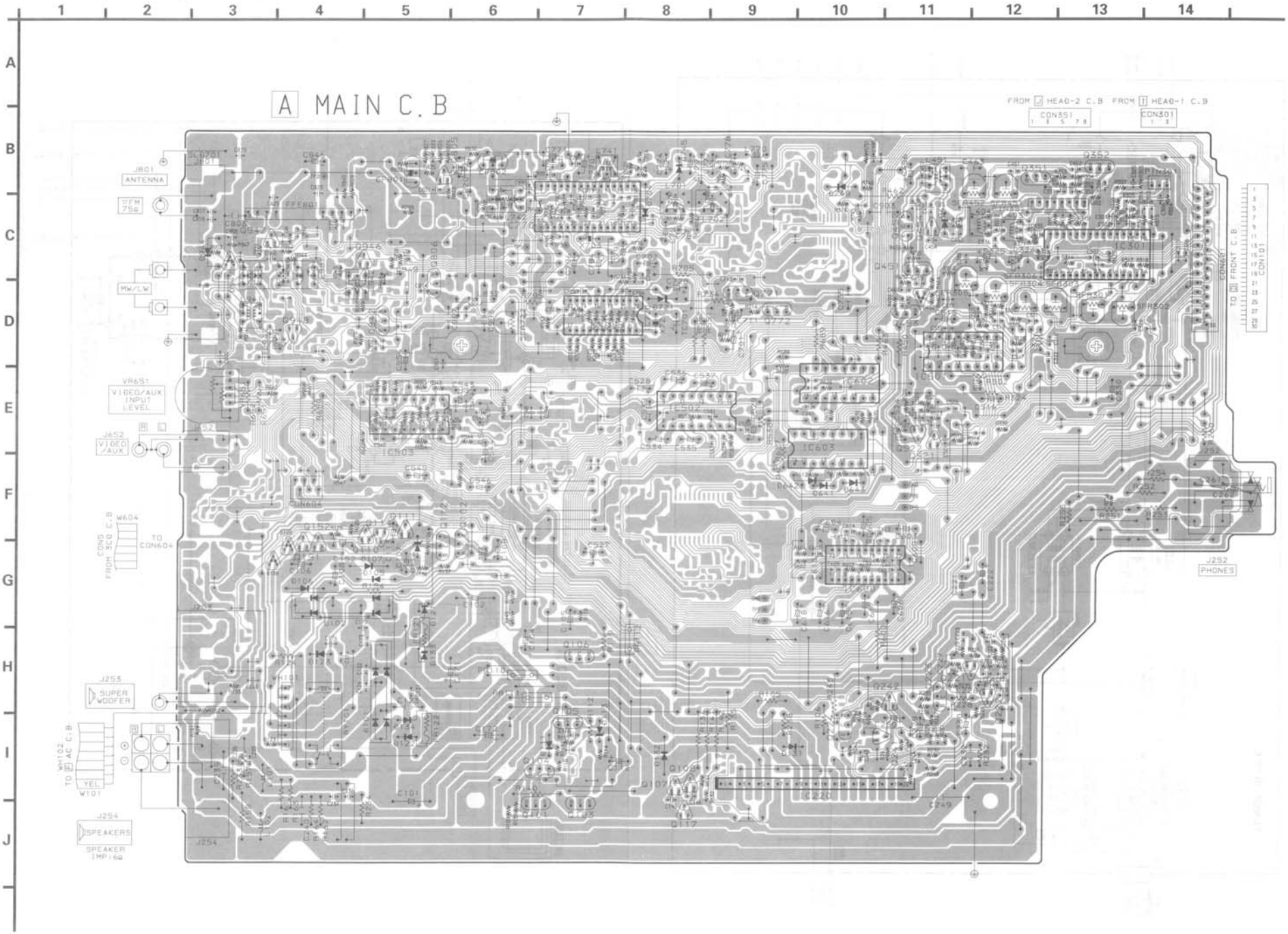
BLOCK DIAGRAM – 2 (TUNER : EEZ)

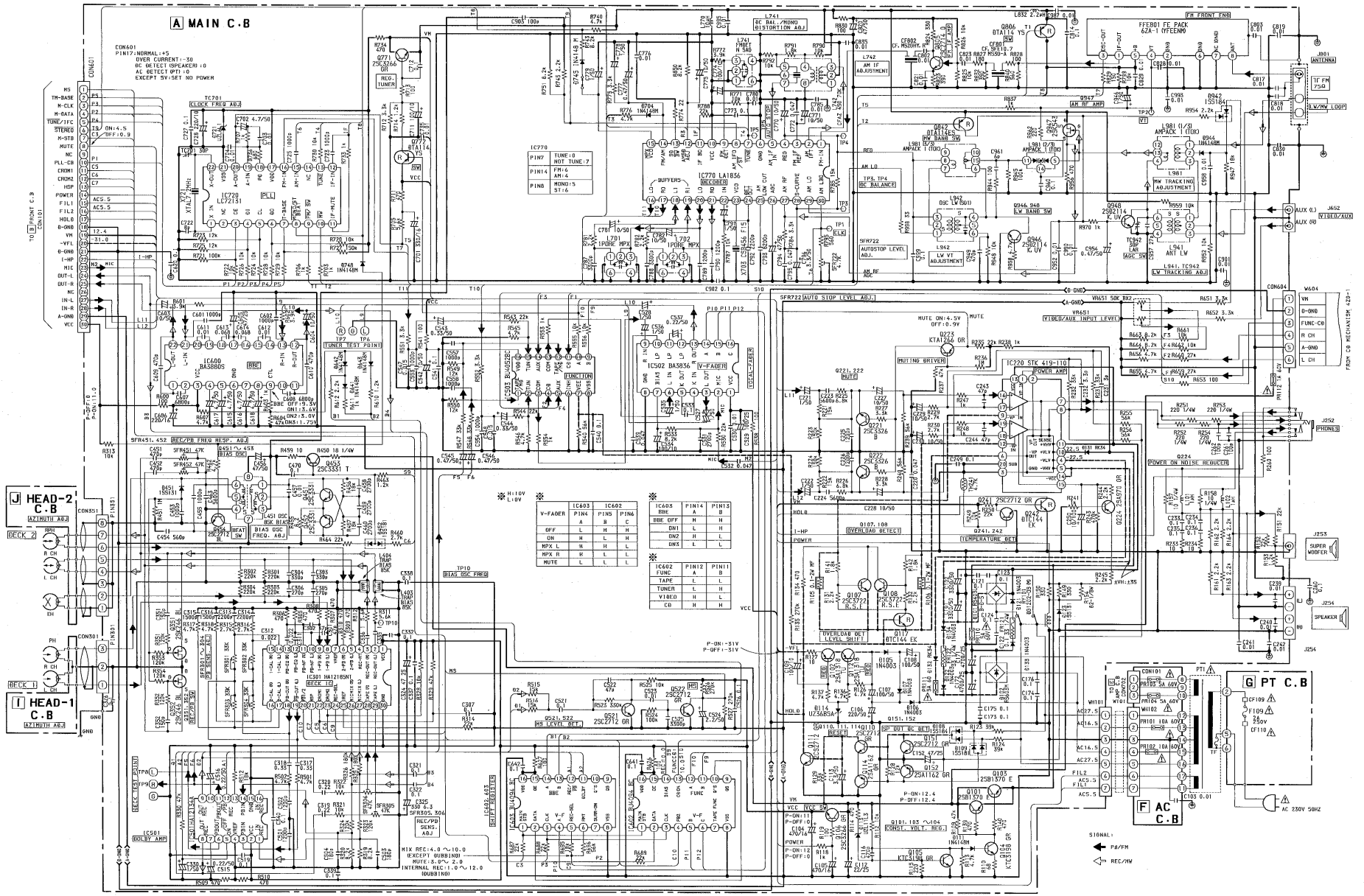


BLOCK DIAGRAM – 3 (TUNER : HD)



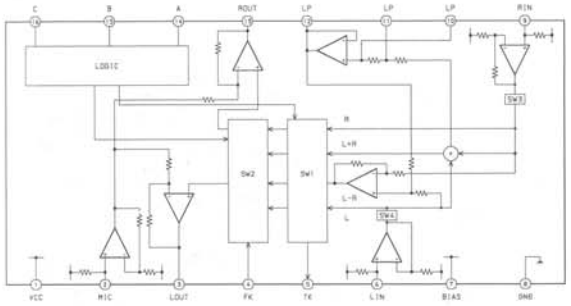
WIRING – 1 (MAIN : EEZ)



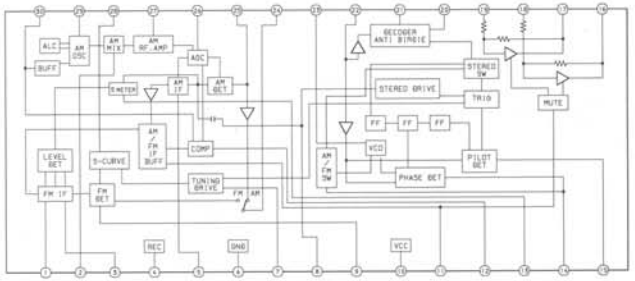

A MAIN C.B
J HEAD-2 C.B
I HEAD-1 C.B
G PT C.B
F AC C.B
FM FRONT END
IC770 LA1856
IC720 LC72131
IC501 HA12085NT
IC502 BA3526
IC503 BU4052BC
IC600 BA5886S
IC220 STK 419-110
POWER AMP
TUNER TEST POINT
BIAS OSC FREQ. ADJ
REC/PB FREQ RESP. ADJ
REC/PB SENS. ADJ
AUTOSTOP LEVEL ADJ.
V-FADER
FUNCTION
VOCAL-FADER
DOLBY AMP
DECK 2
DECK 1
SIGNAL:
PB/FM
REC/MW

IC BLOCK DIAGRAM – 1

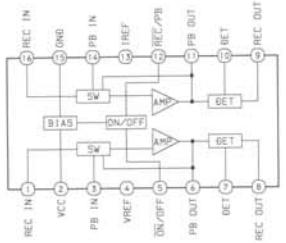
IC, BA3836



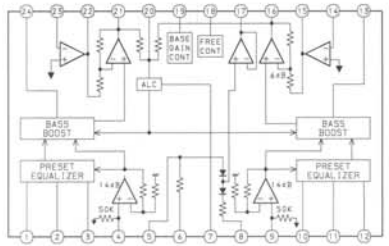
IC, LA1836L



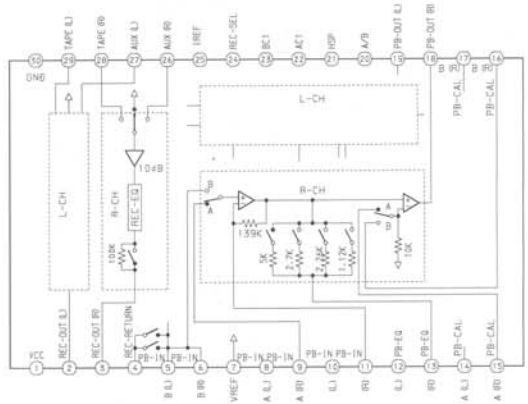
IC, HA12134A



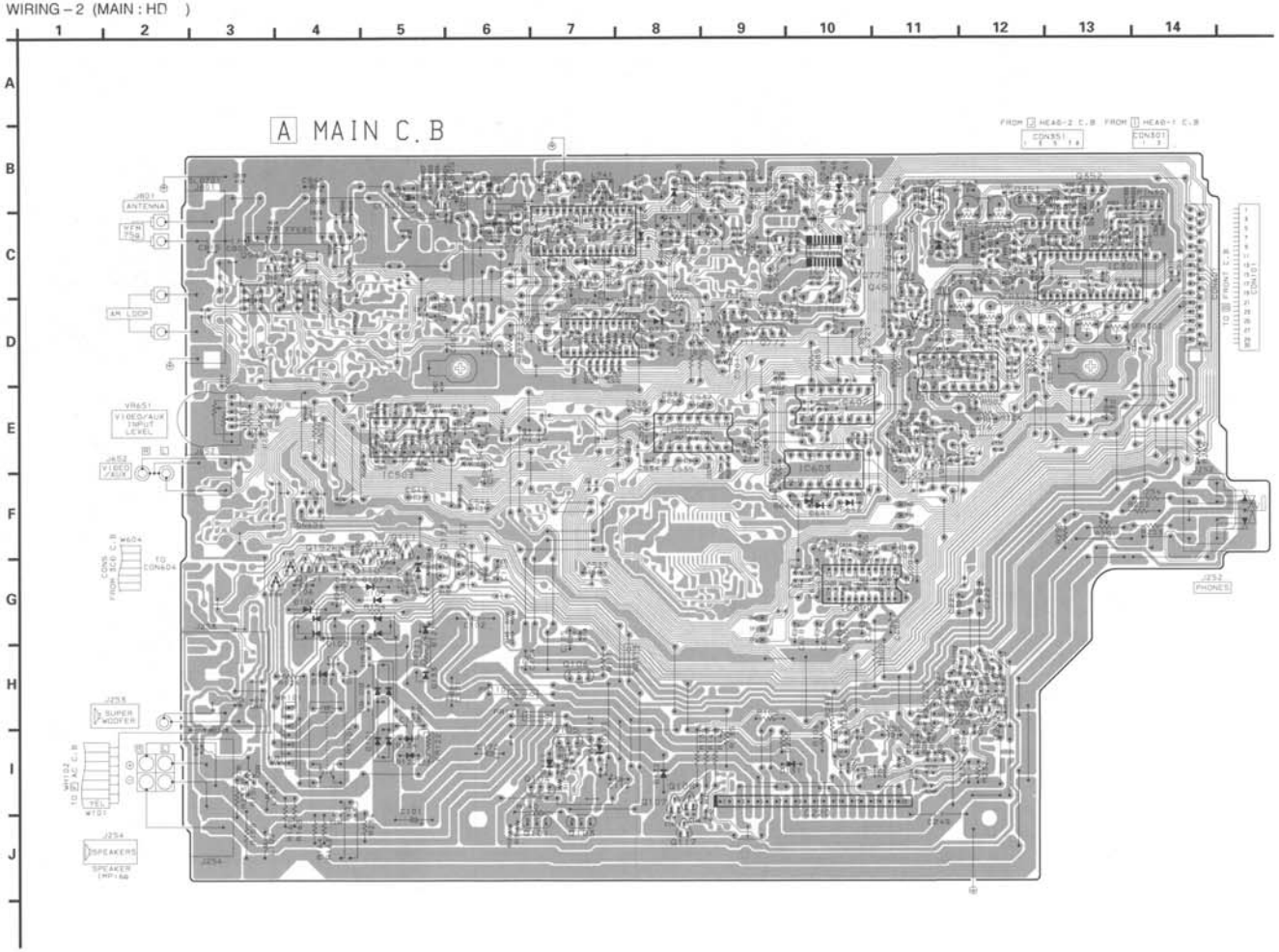
IC, BA3842F



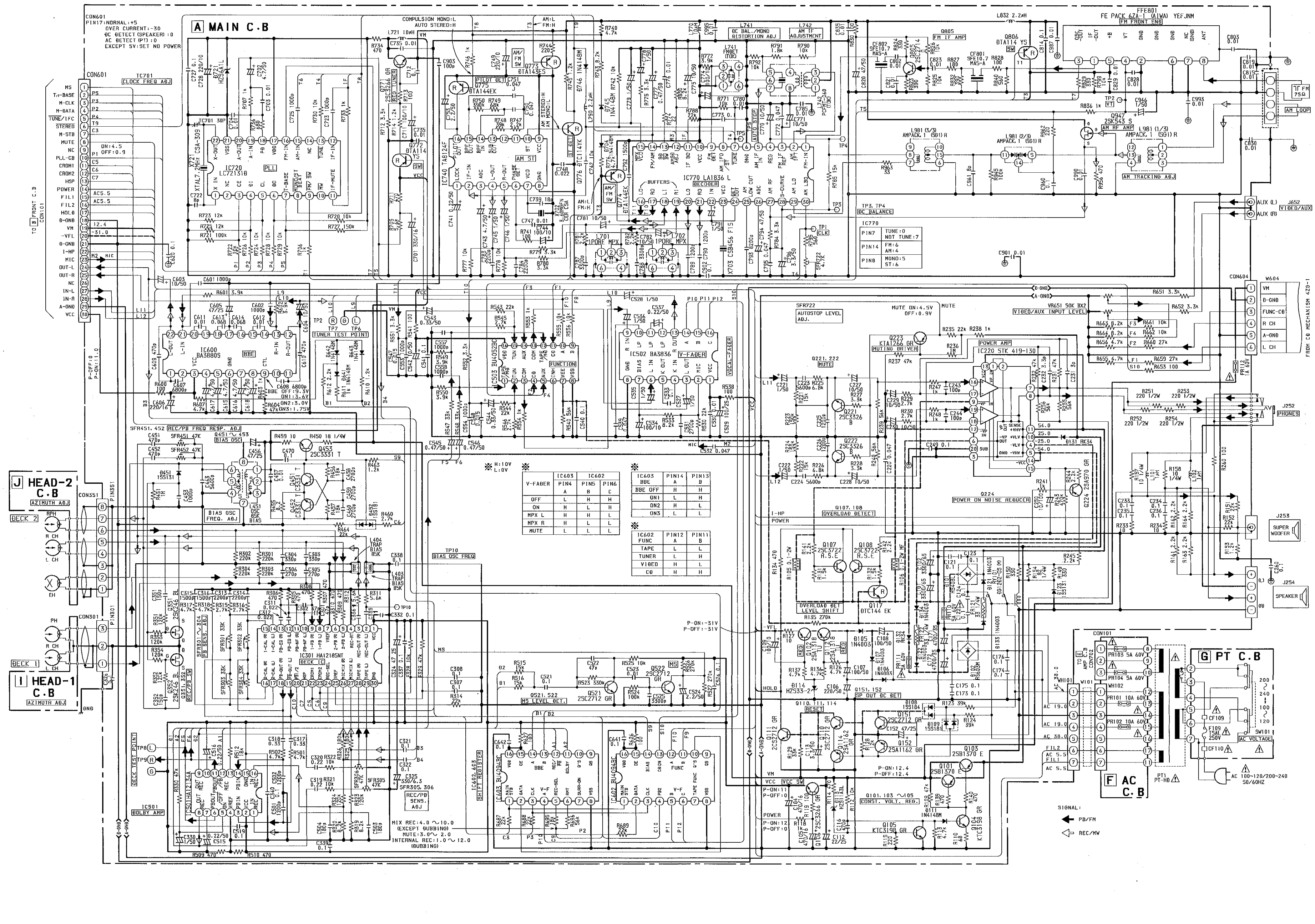
IC, HA12185NT



WIRING – 2 (MAIN : HD)

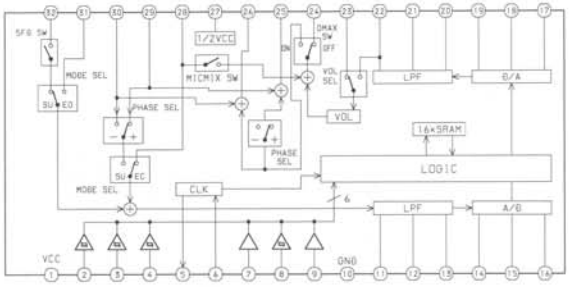


SCHEMATIC DIAGRAM – 2 (MAIN : HD)

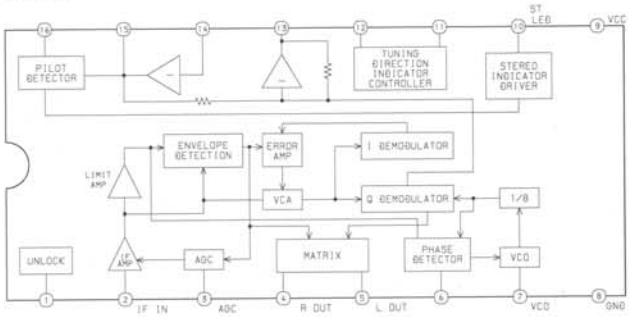


IC BLOCK DIAGRAM – 1

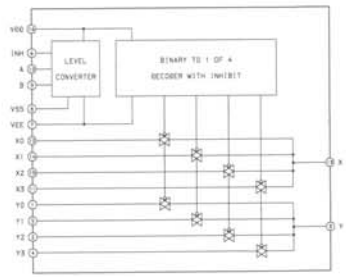
IC, M65846FP-600D



IC, TA8124F



IC, BU4052BC/BCF

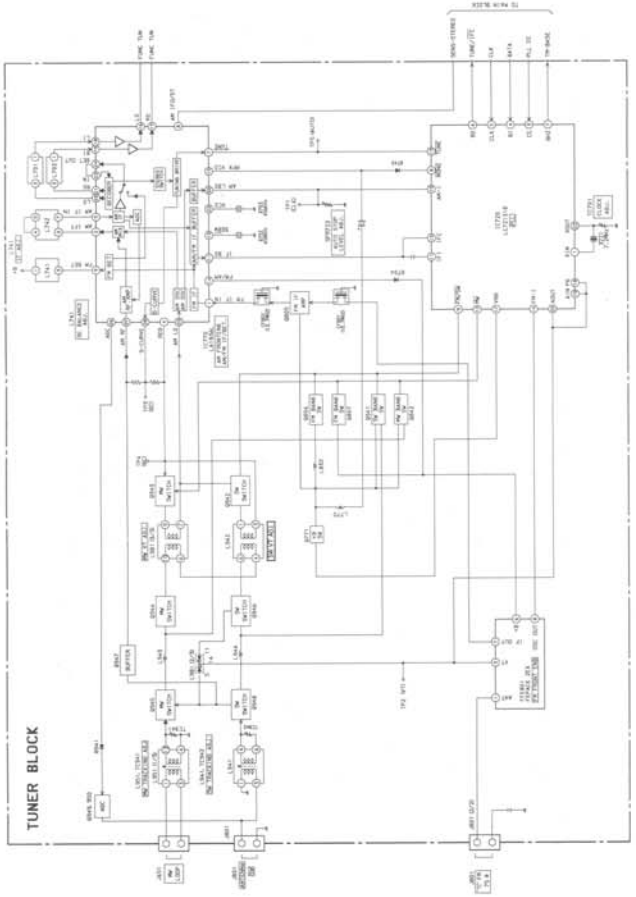


TRUTH TABLE

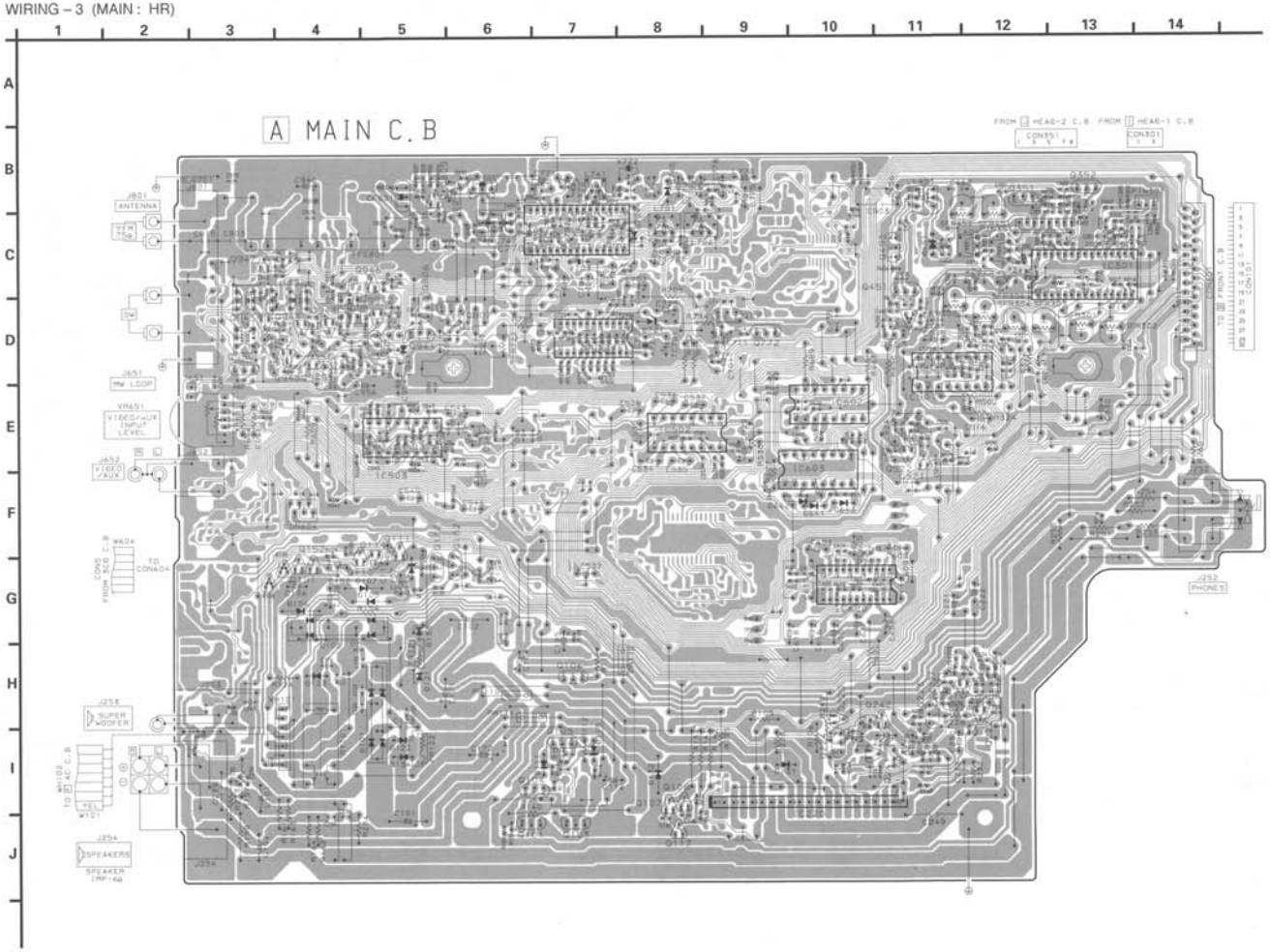
INHIBIT	A	B	ON SWITCH
L	L	L	X0 Y0
L	H	L	X1 Y1
L	L	H	X2 Y2
L	H	H	X3 Y3
H	X	X	NONE

X : DON'T CARE.

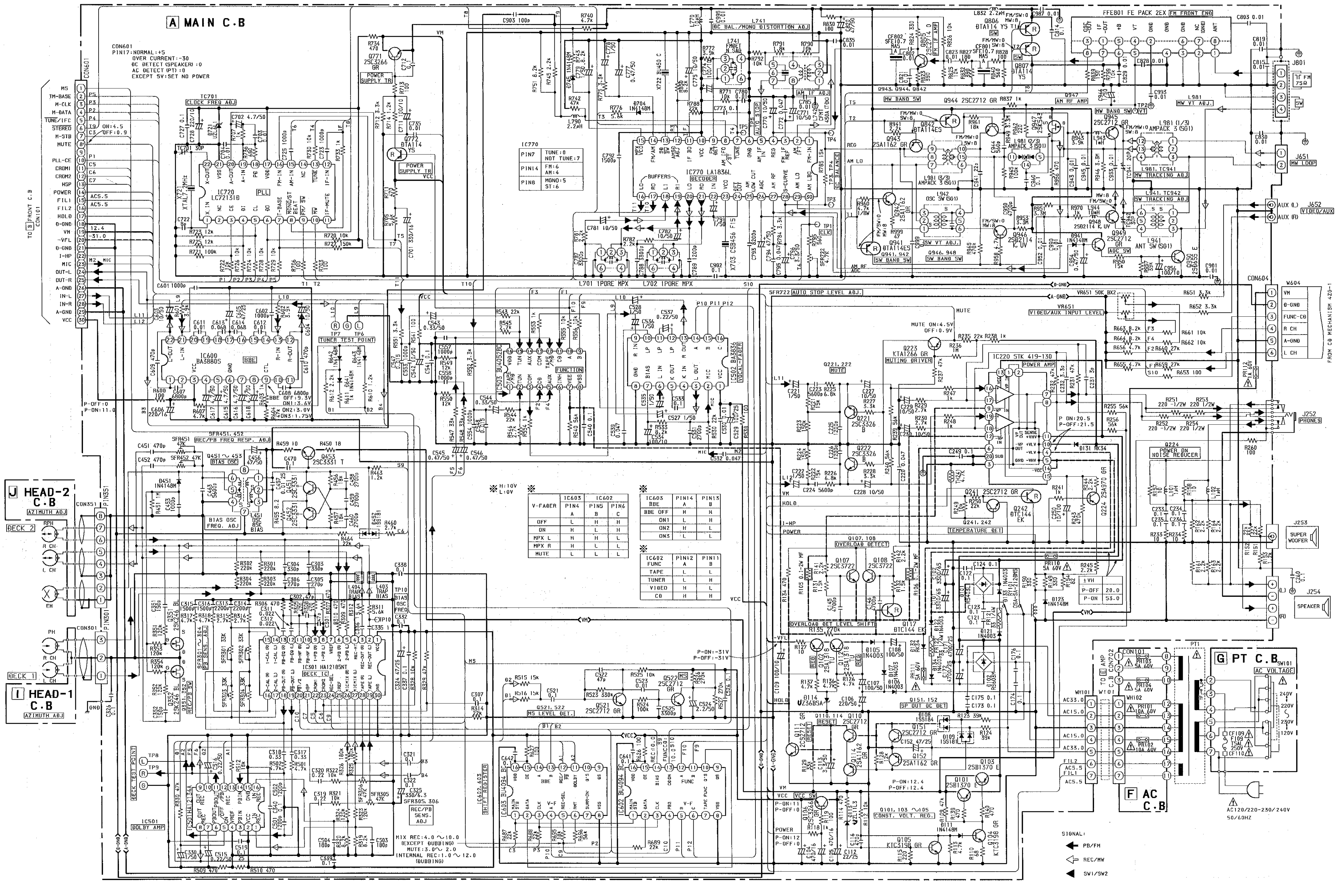
BLOCK DIAGRAM – 4 (TUNER : HR)



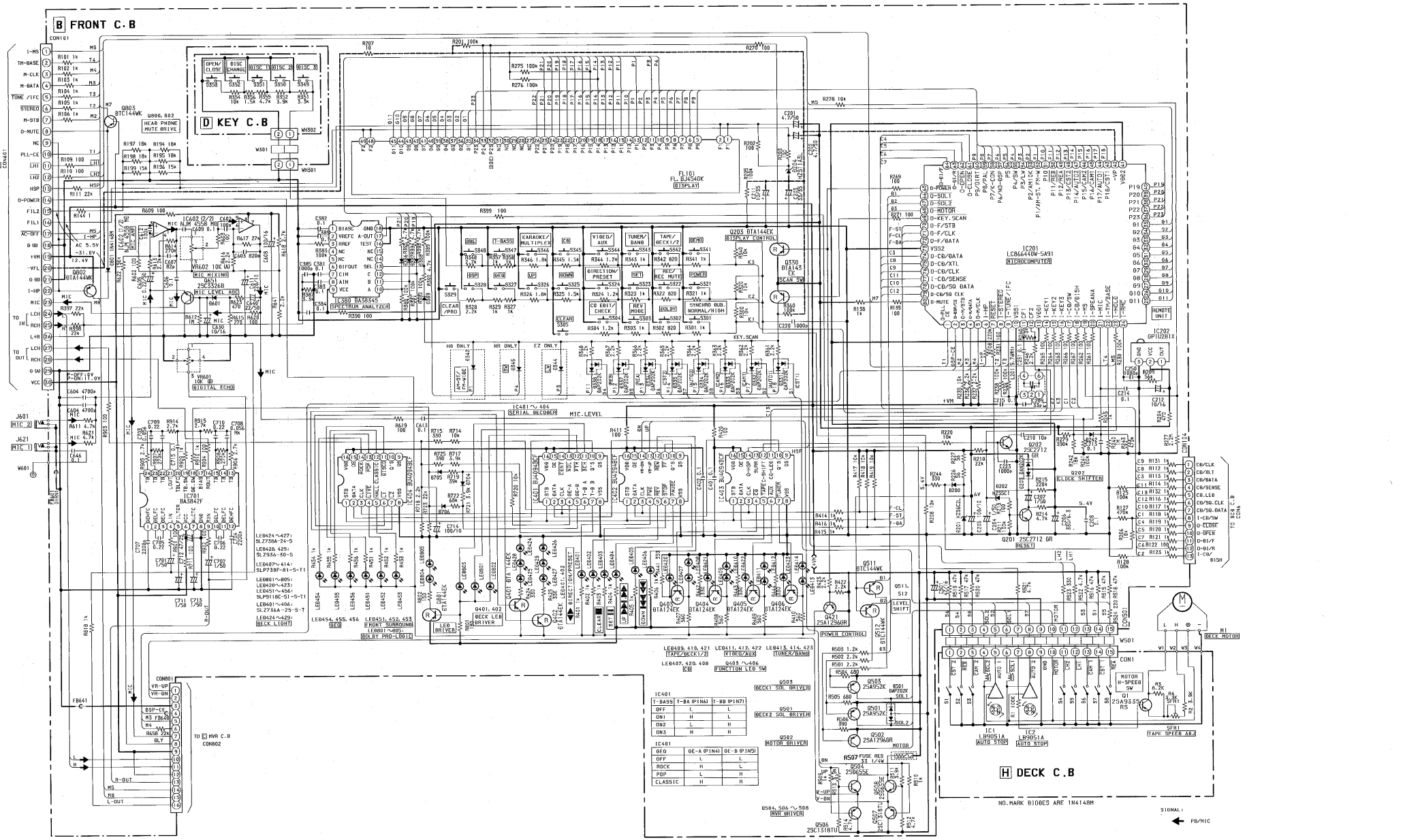
WIRING – 3 (MAIN : HR)

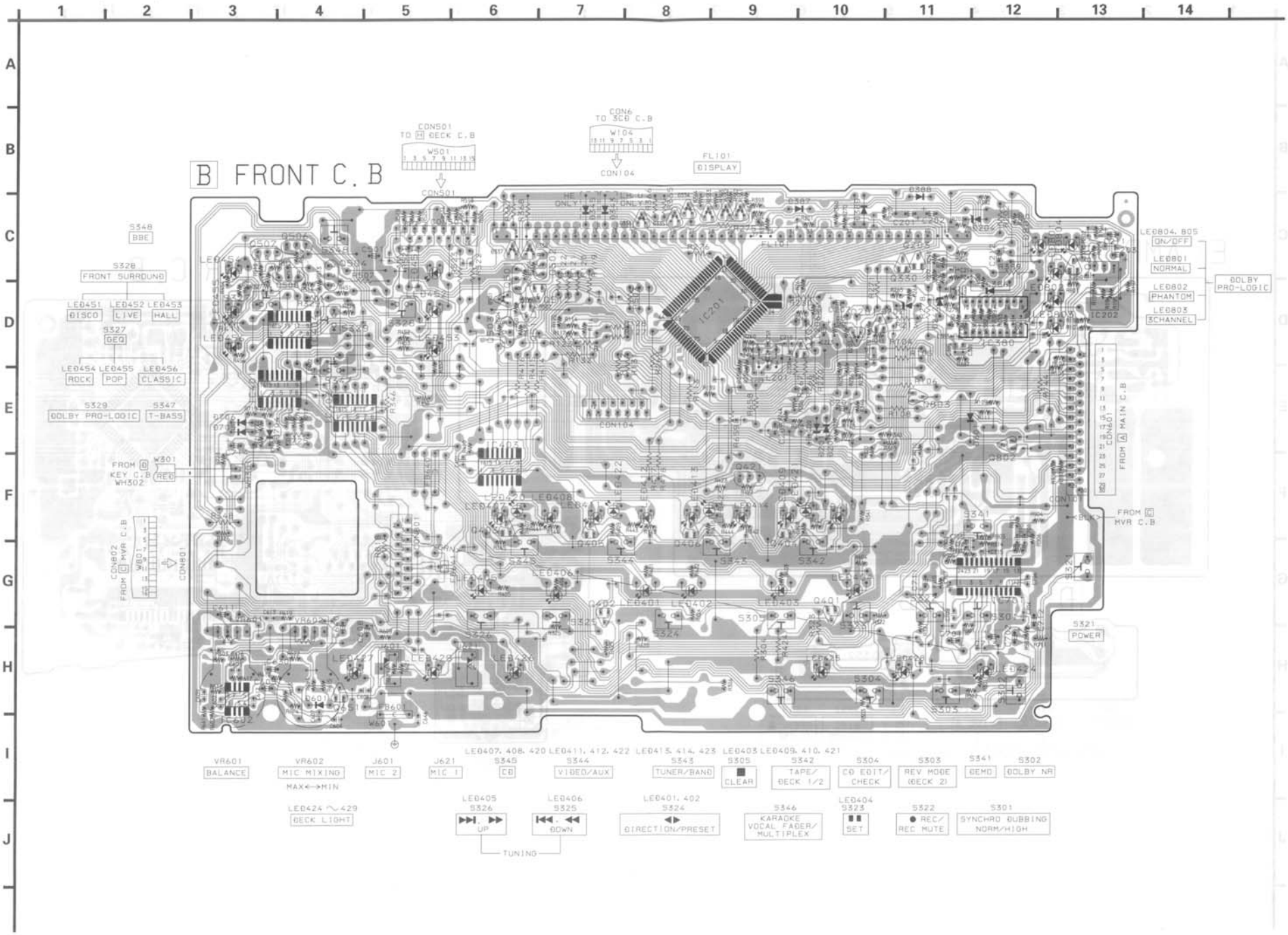


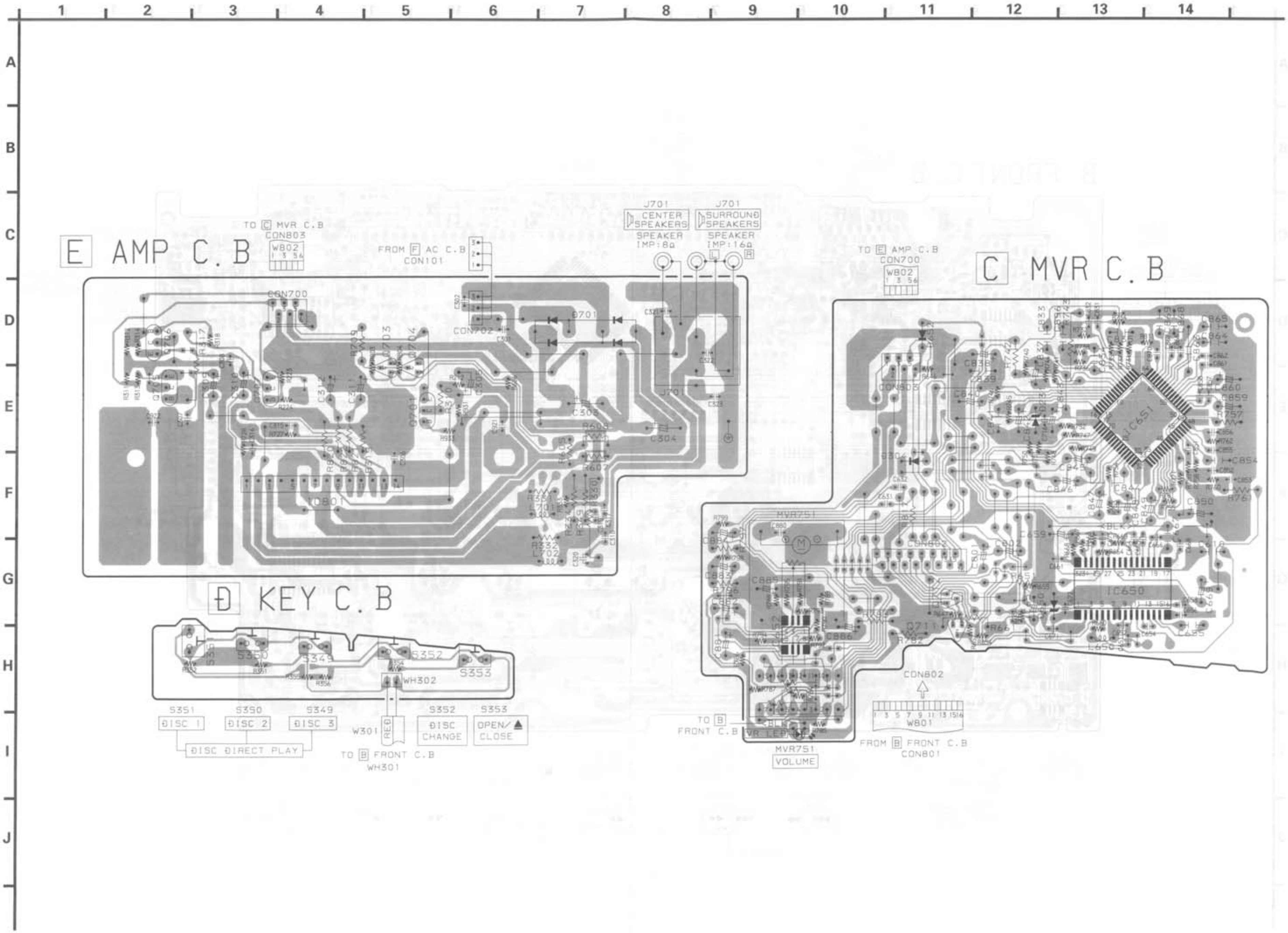
SCHEMATIC DIAGRAM – 3 (MAIN : HR)



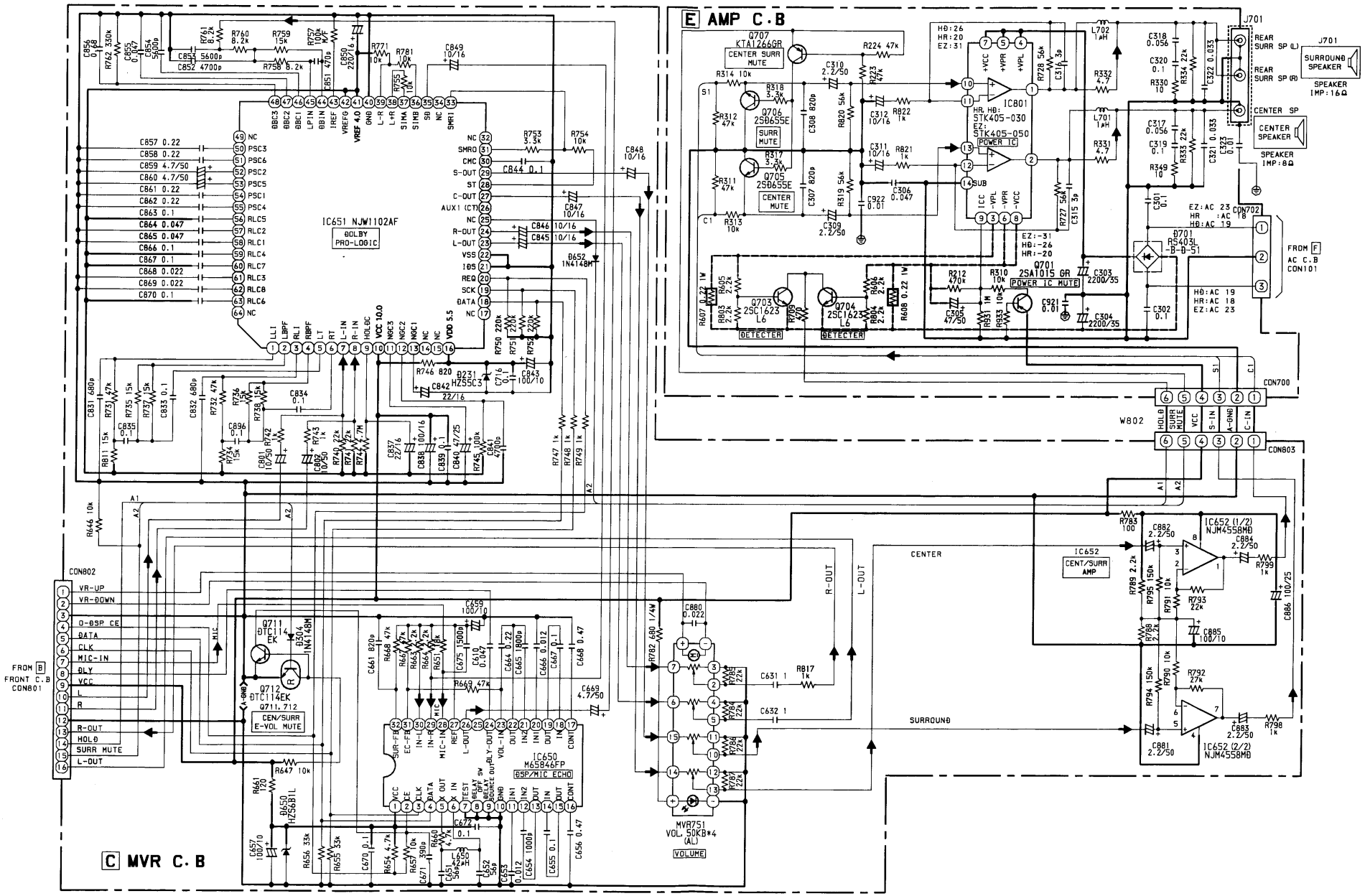
SCHEMATIC DIAGRAM – 4 (FRONT)

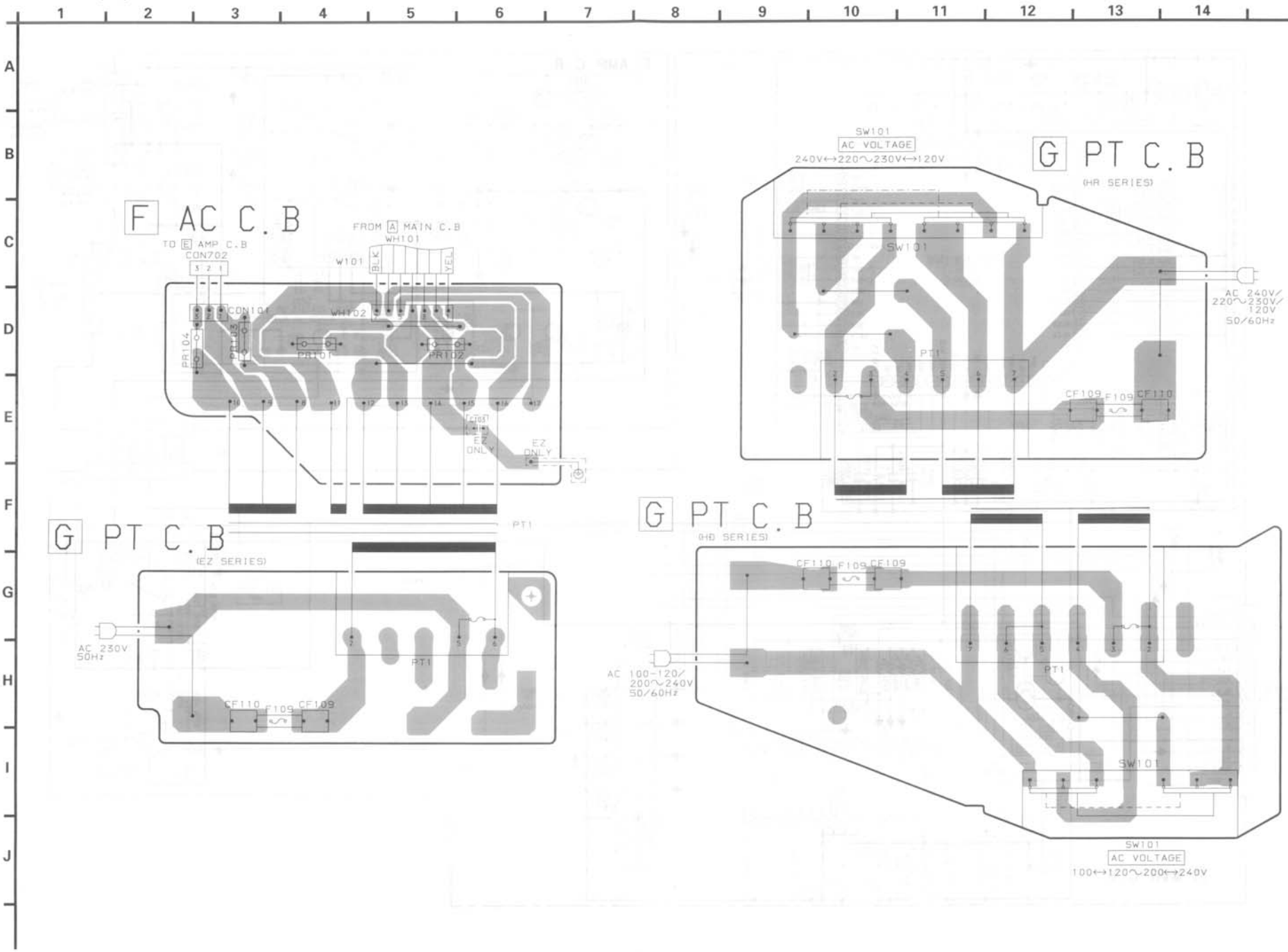


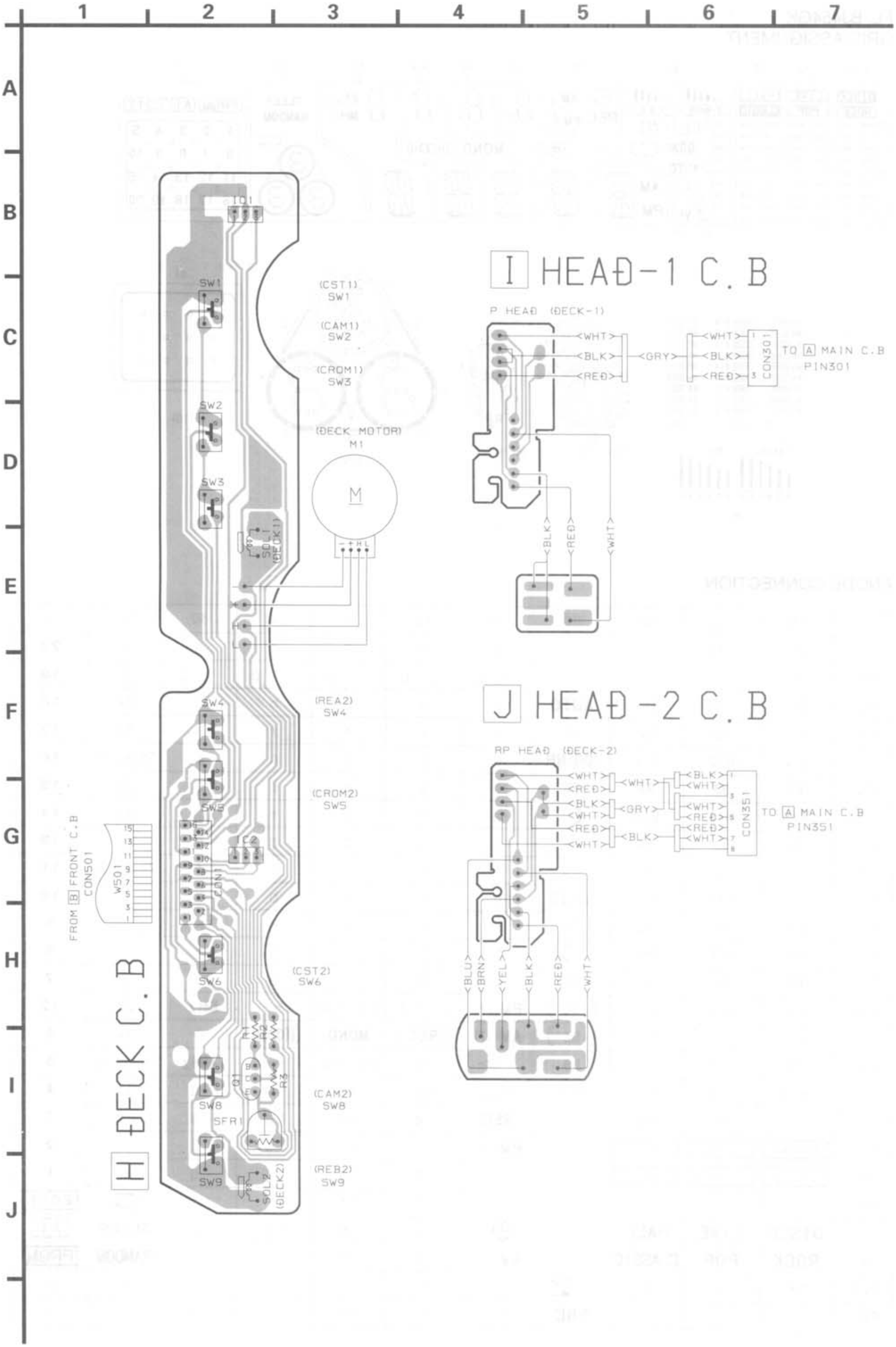

B FRONT C.B
CON501
TO DECK C.B
W501
CON501
CON6
TO SCD C.B
W104
CON104
FL101
DISPLAY
S348
BBE
S328
FRONT SURROUND
LED451 DISCO
LED452 LIVE
LED453 HALL
S327
GEQ
LED454 ROCK
LED455 POP
LED456 CLASSIC
S329
DOLBY PRO-LOGIC
S347
T-BASS
FROM B
KEY C.B
WH302
W301
RED
CON802
FROM H MVR C.B
W801
CON801
IC201
IC202
LED804, 805
ON/OFF
LED801
NORMAL
LED802
PHANTOM
LED803
3CHANNEL
DOLBY
PRO-LOGIC
CON601
FROM A MAIN C.B
FROM H
MVR C.B
S321
POWER
LED407, 408, 420 LED411, 412, 422 LED413, 414, 423 LED403 LED409, 410, 421
VR601
BALANCE
VR602
MIC MIXING
MAX←→MIN
J601
MIC 2
J621
MIC 1
S345
CD
S344
VIDEO/AUX
S343
TUNER/BAND
S305
CLEAR
S342
TAPE/
DECK 1/2
S304
CD EDIT/
CHECK
S303
REV MODE
(DECK 2)
S341
DEMO
S302
DOLBY NR
LED424 ~ 429
DECK LIGHT
LED405
S326
UP
LED406
S325
DOWN
TUNING
LED401, 402
S324
DIRECTION/PRESET
S346
KARAOKE
VOCAL FADER/
MULTIPLEX
LED404
S323
SET
S322
REC/
REC MUTE
S301
SYNCHRO DUBBING
NORM/HIGH


E AMP C.B
TO C MVR C.B
CON803
W802
FROM F AC C.B
CON101
CON700
CON702
J701
CENTER SPEAKERS
SPEAKER IMP:8Ω
J701
SURROUND SPEAKERS
SPEAKER IMP:16Ω
TO E AMP C.B
CON700
W802
C MVR C.B
IC651
IC650
MVR751
CON802
D KEY C.B
S351
DISC 1
S350
DISC 2
S349
DISC 3
DISC DIRECT PLAY
W301
RED
TO B FRONT C.B
WH301
WH302
S352
DISC CHANGE
S353
OPEN/▲ CLOSE
TO B FRONT C.B
MVR751
VOLUME
CON802
W801
FROM B FRONT C.B
CON801

SCHEMATIC DIAGRAM – 5 (MVR/AMP)

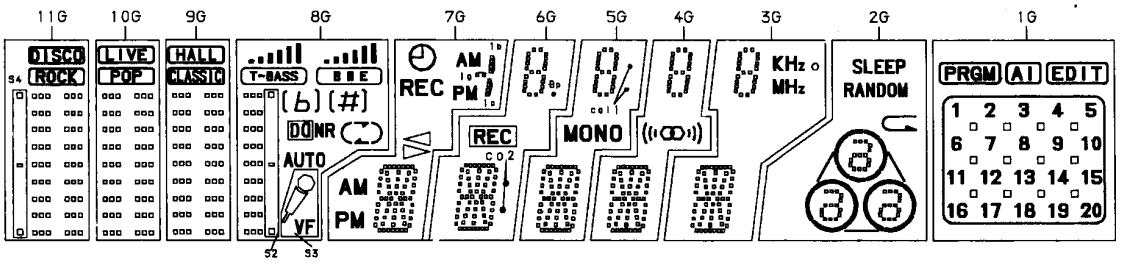


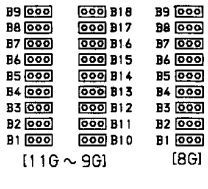

F AC C.B
TO E AMP C.B
CON702
FROM A MAIN C.B
WH101
W101
BLK
YEL
WH102
CON101
PR104
PR103
PR101
PR102
EZ ONLY
G PT C.B
(EZ SERIES)
PT1
AC 230V 50Hz
CF110
F109
CF109
SW101
AC VOLTAGE
240V↔220~230V↔120V
G PT C.B
(HR SERIES)
AC 240V/ 220~230V/ 120V 50/60Hz
G PT C.B
(HB SERIES)
AC 100-120/ 200~240V 50/60Hz
SW101
AC VOLTAGE
100↔120~200↔240V

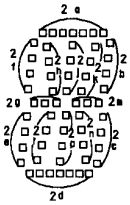

H DECK C.B
I HEAD-1 C.B
J HEAD-2 C.B
P HEAD (DECK-1)
RP HEAD (DECK-2)
TO A MAIN C.B PIN301
TO A MAIN C.B PIN351
CON301
CON351
FROM B FRONT C.B CON501
W501
CON1
IC1
IC2
(CST1) SW1
(CAM1) SW2
(CROM1) SW3
(DECK MOTOR) M1
SOL1 (DECK1)
(REA2) SW4
(CROM2) SW5
(CST2) SW6
(CAM2) SW8
(REB2) SW9
SOL2 (DECK2)
SFR1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

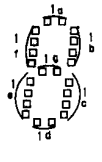
FL GRID ASSIGNMENT & ANODE CONNECTION

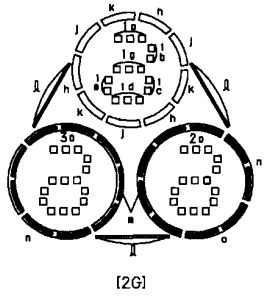
FL, BJ454GK
GRID ASSIGNMENT

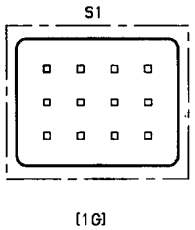












ANODE CONNECTION

	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B10	B10	B10	S3	d	d	d	d	d	n	**20**
P2	B1	B1	B1	B1	j, p	j, p	j, p	j, p	j, p	o	**19**
P3	B11	B11	B11	**AUTO**	n	n	n	n	n	3e	**18**
P4	B2	B2	B2	B2	r	r	r	r	r	3c	**17**
P5	B12	B12	B12	**DOLBY NR**	c	c	c	c	c	3a,3d,3g	**16**
P6	B3	B3	B3	B3	e	e	e	e	e	3b	**15**
P7	B13	B13	B13	(	m	m	m	m	m	2e	**14**
P8	B4	B4	B4	B4	g	g	g	g	g	2c	**13**
P9	B5	B5	B5	B5	f	f	f	f	f	2a,2d,2g	**11**
P10	B15	B15	B15	b #	b	b	b	b	b	1	**10**
P11	B6	B6	B6	B6	k	k	k	k	k	j	**9**
P12	B16	B16	B16	)	h	h	h	h	h	h	**8**
P13	B7	B7	B7	B7	a	a	a	a	a	k	**7**
P14	B14	B14	B14	([#])	**PM** [下]	col 2	col 1 [上]	—	**KHz**	2b	**12**
P15	B17	B17	B17	([b])	**AM** [下]	**REC**	**MONO**	((( )))	○	1e	**6**
P16	B8	B8	B8	B8	▷	Ðp	col 1 [上]	—	**MHz**	1a,1d,1g	**5**
P17	B18	B18	B18	B12	◁	1d	1d	1d	1d	1c	**4**
P18	B9	B9	B9	B9	**REC**	1e	1e	1e	1e	1b	**3**
P19	[ROCK]	[POP]	[CLASSIC]	B13	**PM** [上]	1c	1c	1c	1c	—	**2**
P20	[ÐISCO]	[LIVE]	[HALL]	B14	1g	1g	1g	1g	1g	m	**1**
P21	—	—	—	B11	1b, 1c	1f	1f	1f	1f	↩	**EDIT**
P22	**DISCO**	**LIVE**	**HALL**	B10	◔	1b	1b	1b	1b	**SLEEP**	**AI**
P23	**ROCK**	**POP**	**CLASSIC**	B15	**AM** [上]	1a	1a	1a	1a	**RANDOM**	**PRGM**
P24	S4	—	—	S2 ↗	—	—	—	—	—	—	S1
P25	—	—	—	**BBE**	—	—	—	—	—	—	—

IC DESCRIPTION

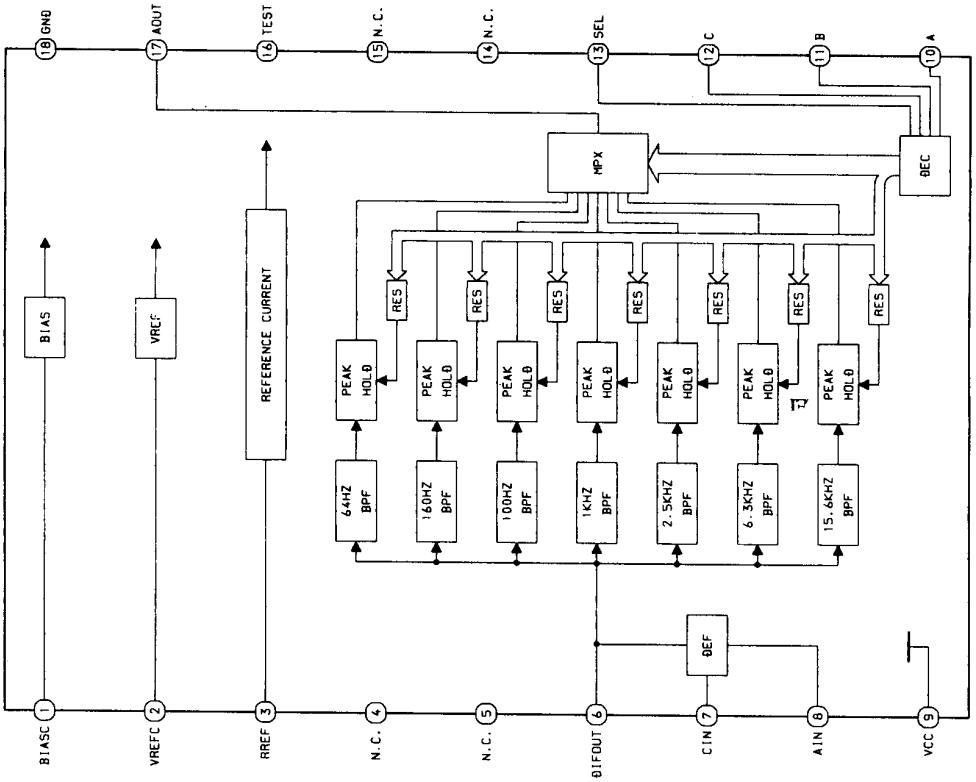
IC, LC866440W-5A91

Pin No.	Pin Name	I/O	Description
1	O-PLL CE	O	PLL IC chip enable.
2	O-DSP/CE	O	DSP data latch strobe output.
3	O-M/STB	O	Main shift register data latch strobe output.
4	O-M/DATA	O	Main shift register, PLL/Key control/DSP related data output.
5	O-M/CLK	O	Main shift register, PLL/Key control/DSP related clock.
6	I-HP	I	"L" input DSP, PROLOGIC off.
7	$\overline{\text{RESET}}$	I	Reset input.
8	I-$\overline{\text{STEREO}}$	I	Tuner stereo detected input.
9	I-$\overline{\text{TUNE/IFC}}$	I	Tuner $\overline{\text{SD}}$ detected input. IF count serial data input.
10	VSS1	-	GND.
11,12	CF1, 2	-	5.76 MHz oscillator circuit.
13	VDD1	-	Power supply input.
14~16	I-KEY1 - 3	I	Key input. (A/D)
17	I-CD/SW	I	CD mechanical switch A/D converter input.
18	I-CD/DISH	I	CD turntable photo sensor A/D converter 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 input for auto VF display.
22	I-TM BASE	I	Reference clock input for timer watch.
23	I-$\overline{\text{HOLD}}$	I	Power failure detected input "L" to stop clock and maintain memory.
24	I-$\overline{\text{RMC}}$	I	System remote control signal input.
25~35	G11~G1	O	FL grid output G11~G1.
36~40	P23~P19	O	FL segment output P23~P19.
41	VDD2	-	Power supply input.
42	-VP	-	Power supply input (-34.5V) for FL display.
43	P18/$\overline{\text{CST1}}$	I	FL segment output P18, DECK1 cassette detect switch data input.
44	P17/$\overline{\text{AUTO1}}$	I	FL segment output P17, DECK1 auto stop signal input.
45	P16/$\overline{\text{CAM1}}$	I	FL segment output P16, DECK1 cam switch data input.
46	P15/$\overline{\text{CAM2}}$	I	FL segment output P15, DECK2 cam switch data input.
47	P14/$\overline{\text{AUTO2}}$	I	FL segment output P14, DECK2 auto stop signal input.
48	P13/$\overline{\text{CST2}}$	I	FL segment output P13, DECK2 cassette detect switch data input.
49	P12/REA2	I	FL segment output P12, DECK2 side-A record OK switch data input.
50	P11/REB2	I	FL segment output P11, DECK2 side-B record OK switch data input.
51	P10/MD	I	FL segment output P10, MD Func mode data input to diode.
52	P1/AM-ST,FM-W	I	FL segment output P1, AM stereo, FM-WIDE mode data input to diode.
53	P2/AM10K	I	FL segment output P2, AM 10kHz step data input to diode.
54	P3/LW	I	FL segment output P3, LW mode data input to diode.
55	P4/SW	I	FL segment output P4, SW mode data input to diode.
56	P5/$\overline{\text{PRO}}$	I	FL segment output P5, No PROLOGIC data input to diode.
57	P6/NO·DSP	I	FL segment output P6, NO·DSP data input to diode.
58	P7/KEY·CON	I	FL segment output P7, key control data input to diode.

Pin No.	Pin Name	I/O	Description
59	P8/PAL	I	FL segment output P8, PAL data input to diode.
60	P9/OIRT	I	FL segment output P9, OIRT mode data input to diode.
61	O-CLOSE	O	CD tray close data output.
62	O-OPEN	O	CD tray open data output.
63	O-DI/R	O	CD turntable reverse rotation output.
64	O-DI/F	O	CD turnable forward rotation output.
65	O-$\overline{\text{POWER}}$	O	System power supply $\overline{\text{ON}}$/OFF output.
66	O-$\overline{\text{SOL1}}$	O	DECK1 solenoid output.
67	O-$\overline{\text{SOL2}}$	O	DECK2 solenoid output.
68	O-$\overline{\text{MOTOR}}$	O	DECK motor output.
69	O-$\overline{\text{KEY·SCAN}}$	O	Switch scan timing output.
70	O-F/STB	O	Front shift register, data latch strobe output.
71	O-F/CLK	O	Front shift register, data transfer clock output.
72	O-F/DATA	O	Front shift register, data output.
73	VSS2	-	GND.
74	O-CD/DATA	O	CD IC control data output.
75	O-CD/XTL	O	CD IC control latch strobe output.
76	O-CD/CLK	O	CD IC control clock output.
77	I-CD/SENSE	I	CD IC control data bus data input.
78	O-CD/SQ·DATA	O	CD IC control data bus data output.
79	O-CD/SQ·CLK	O	CD IC control data bus clock output.
80	O-MUTE	O	System mute output.

IC BLOCK DIAGRAM – 3

IC, BA3834S

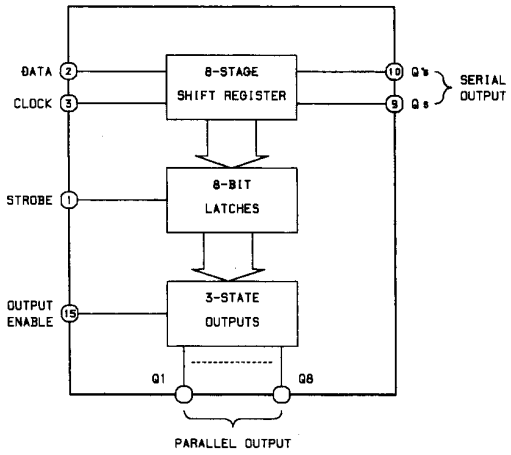


IC, LC72131D

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 (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 BLOCK DIAGRAM – 4

IC, BU4094BC/BCF



TRUTH TABLE

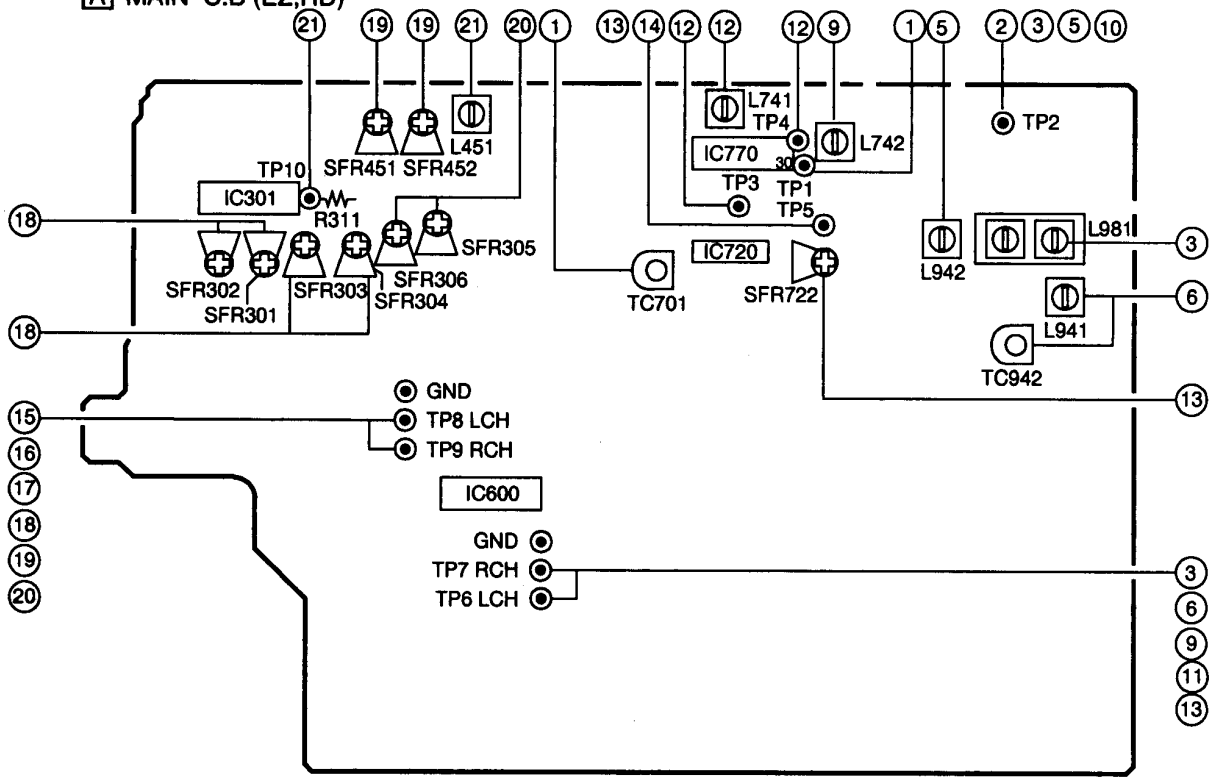
CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Q8	Q'8
↓	L	X	X	Z	Z	Q7	NO Chg.
↑	L	X	X	Z	Z	No Chg.	Q8
↓	H	L	X	No Chg.	No Chg.	Q7	No Chg.
↓	H	H	L	L	Qn-1	Q7	No Chg.
↓	H	H	H	H	Qn-1	Q7	No Chg.
↑	H	X	X	No Chg.	No Chg.	No Chg.	Q8

Z=High Impedance

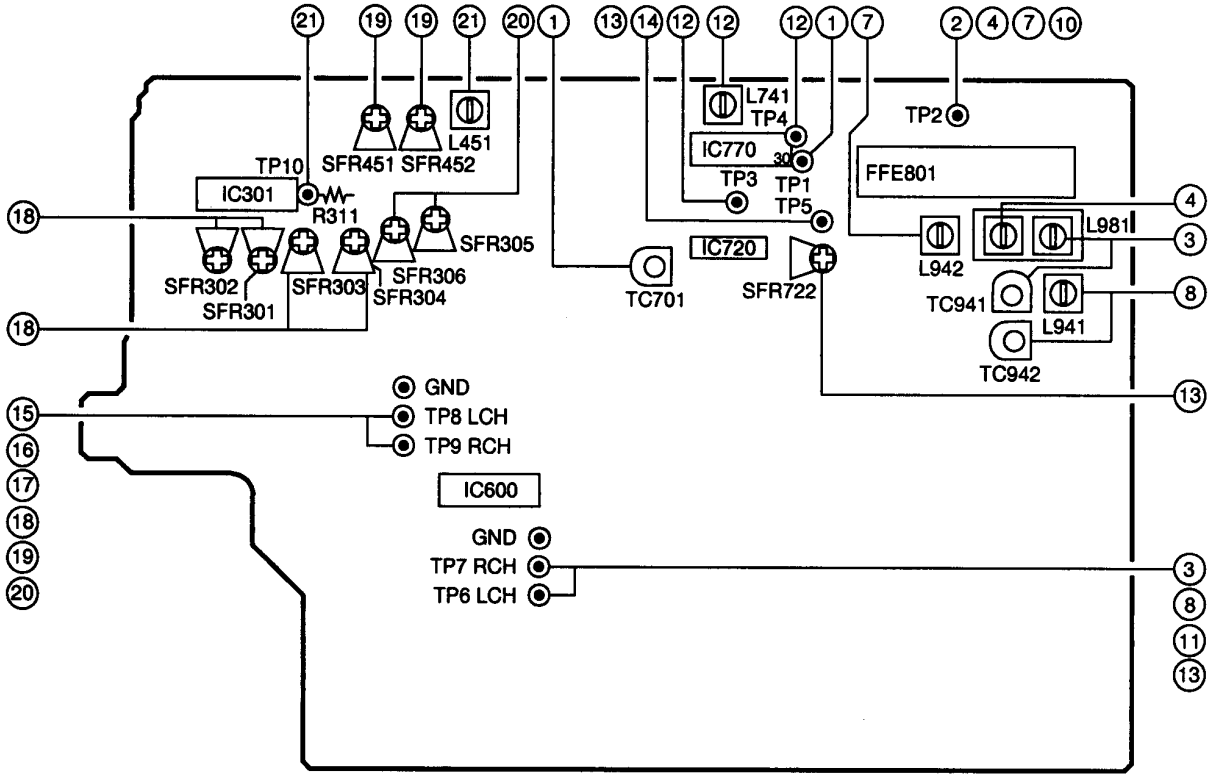
IC, NJW1102AFG1

Pin No.	Pin Name	I/O	Description
1	LLI	I	Lch BPF in.
2	LBPF	O	Lch BPF feed back out.
3	RLI	I	Rch BPF in.
4	RBPF	O	Rch BPF feed back out.
5	LT	O	Lch selector #1 out.
6	RT	O	Rch selector #1 out·
7	LIN	I	Lch signal input.
8	RIN	I	Rch signal input.
9	HOLDC	I	Auto input balance control.
10	VCC	–	Power supply.
11~13	NGC 3~1	I	Noise sequencer control.
14,15	NC	–	Not connect.
16	VDD	–	Power supply.
17	NC	–	–
18	DATA	I	Serial data input.
19	SCK	I	Serial clock input.
20	REQ	I	Serial request (strobe) input.
21	IDS	I	IC select sw.
22	VSS	–	GND.
23	LOUT	O	Lch serial output.
24	ROUT	O	Rch serial output.
25	AUX1	O	AUX1 output (serial data change parallel output.
26	CT	O	Cch output (before trimmer).
27	C-OUT	O	Cch output (after trimmer).
28	ST	O	Sch output (before trimmer).
29	S-OUT	O	Sch output (after trimmer).
30	CMC	I	Center mode control.
31	SMRO	O	Sch amp (front L,R mix) output.
32	NC	–	–
33	SMRI	I	Sch amp (front L,R mix) input.
34	AUX2	O	AUX2 output (serial data change parallel output).
35	SD	O	Selector #2 out (to delay IC).
36	SIMBB	I	Selector #2 input B (L-R).
37	SIMBA	I	Selector #2 input A (L+R).
38	L+R	O	L+R ch output.
39	L-R	O	L-R ch output.
40	GND	–	Gnd.
41	VREF	I	VREF in.
42	VREFG	O	Vref out.
43	IREF	I	Iref in.
44	DBIBN	O	Output to modify dolby B IC (inclused NJW1102).
45	LPIN	I	From delay input.
46~48	DBC 1~3	I	Dolby B NR control.
49	NC	–	–
50~55	PSC 1~6	I	Dual time constant and threshold switches control.
56~63	RLC 1~8	I	Full wave rectifier and log difference amp control.
64	NC	–	–

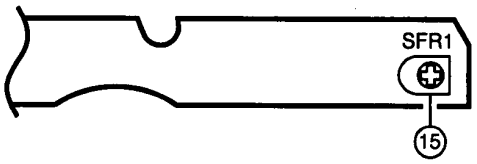
A MAIN C.B (EZ,HD)



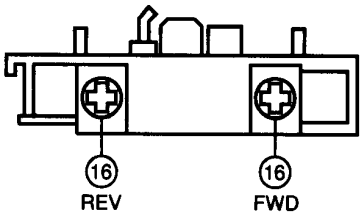
A MAIN C.B (HR)



H DECK C.B



DECK–1 P, DECK–2 R / P / E HEAD



< TUNER SECTION >

1. Clock Frequency Adjustment
   Settings : • Test point : TP1 (CLK IC770 pin30)
   • Adjustment location : TC701
   <EZ,HD>
   Method : Set to MW 1602kHz and adjust TC701 so that the test point becomes 2052kHz ± 0.01kHz.
   <HR>
   Method : Set to MW 1710kHz and adjust TC701 so that the test point becomes 2160kHz ± 0.01kHz.

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

3. MW Tracking Adjustment
   <EZ,HD>
   Settings : • Test point : TP6, TP7
   • Adjustment location :
   L981 ..... 999kHz
   Method : The level at 999kHz is adjusted to MAX by L981.
   <HR>
   Settings : • Test point : TP6, TP7
   • Adjustment location :
   L981 ..... 600kHz
   TC941 ..... 1400kHz
   Method : Set up TC941 to center before adjustment. The level at 600kHz is adjusted to MAX by L981. Then the level at 1400kHz is adjusted to MAX by TC941.

4. MW VT Adjustment <HR>
   Settings : • Test point : TP2 (VT)
   • Adjustment location : L981
   Method : Set to MW 1710kHz and adjust L981 so that the test point becomes 8.5V ± 0.05V. Then set to MW 530kHz and check that the test point is more than 0.3V.

5. LW VT Adjustment < EZ>
   Settings : • Test point : TP2 (VT)
   • Adjustment location : L942
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V.

6. LW Tracking Adjustment < EZ>
   Settings : • Test point : TP6, TP7
   • Adjustment location :
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC942.

7. SW VT Adjustment <HR>
   Settings : • Test point : TP2 (VT)
   • Adjustment location : L942
   Method : Set to SW 17.9MHz and adjust L942 so that the test point becomes 8.0V ± 0.05V.

8. SW Tracking Adjustment <HR>
   Settings : • Test point : TP6, TP7
   • Adjustment location :
   L941 ..... 5.9MHz
   TC942 ..... 17.9MHz
   Method : Set up TC942 to center before adjustment. The level at 5.9MHz is adjusted to MAX by L941. Then the level at 17.9MHz is adjusted to MAX by TC942.

9. AM IF Adjustment<EZ,HD>
   Settings : • Test point : TP6, TP7
   • Adjustment location : L742
   Method : Set to MW 999kHz and adjust L742 so that the test point becomes maximum.

10. FM VT Check
    Settings : • Test point : TP2 (VT)
    <EZ,HR>
    Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 1.3V (87.5MHz) and less than 8.0V (108.0MHz).
    <HD>
    Method : Set to FM 76.0MHz, 108.0MHz and check that the test point is more than 1.0V (76.0MHz) and less than 8.5V (108.0MHz).

11. FM Tracking Check
Settings : • Test point : TP6, TP7
< EZ>
Method : • Set to FM 98.0MHz and check that the test point is 6dB ± 6dB.
<HD,HR>
Method : • Set to FM 83.0MHz and check that the test point is 3dB ± 6dB.

12. DC Balance / Mono Distortion Adjustment
Settings : • Test point : TP3, TP4 (DC balance)
: TP6, TP7 (Distortion)
• Adjustment location : L741
• Input level : 54dB
Method : Set to FM 98.0MHz (EZ,HR), 83.0MHZ (HD) 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%.

13. Auto Stop Level Adjustment
Settings : • Test point : TP5
• Adjustment location : SFR722
• Input level : 16dB
Method : • Set to FM 98.0MHz (EZ,HR), FM 83.0MHz (HD) and adjust voltage low (about 0.01V) by SFR722. After that voltage high (about 7.0V) by 2dB down.

14. Auto Stop Level Check
MW
Settings : • Test point : TP5
• Input level : 50dB
Method : Set to MW 999kHz and check that the test point is 45 ~ 65 dB.

FM
Settings : • Test point : TP5
• Input level : 18dB
<EZ,HR>
Method : Set to FM 98.0MHz and check that the test point is 20 dB ± 5 dB.
<HD>
Method : Set to FM 83.0MHz and check that the test point is 20 dB ± 5 dB.
SW<HR>
Settings : • Test point : TP5
• Input level : 65dB
Method : Set to SW 12.0MHz and check that the test point is less than 65 dB.

< DECK SECTION >

15. 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.

16. Head Azimuth Adjustment
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 and REV PLAYmode.

17. 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 ±2dB.

18. 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.

19. 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.

20. 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.

21. Bias OSC Frequency Adjustment
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 85 kHz ± 1kHz.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

<EZ>

IHF Sensitivity :	-2dB ~ 14dB
(THD 3%)	[at 87.5 / 98.0MHz]
	0dB ~ 16dB
	[at 108.0MHz]
S/N 46dB Quieting sensitivity :	
	Less than 39dB
	[at 87.5 / 98.0 / 108.0MHz]
Signal to noise ratio :	(MONO) More than 60dB
	[at 98.0MHz]
	(STEREO) More than 57dB
	[at 98.0MHz]
Distortion :	(MONO) Less than 1.3%
	[at 98.0MHz]
	(STEREO) Less than 2.0%
	[at 98.0MHz]
Auto stop level :	20dB ± 10dB [at 98.0MHz]
Stereo separation :	More than 20dB [at 98.0MHz]
Intermediate frequency :	10.7MHz

<HD>

IHF Sensitivity :	-3 dB ~ 9 dB
(THD 3%)	[at 76.0 / 83.0 / 108.0MHz]
S/N 50dB Quieting sensitivity :	
	Less than 36dB
	[at 76.0 / 83.0 / 108.0MHz]
Signal to noise ratio :	(MONO) More than 65dB
	[at 83.0MHz]
	(STEREO) More than 64dB
	[at 83.0MHz]
Distortion :	(MONO) 1.3%
	[at 83.0MHz]
	(STEREO) Less than 2%
	[at 83.0MHz]
Auto stop level :	20dB ± 10dB [at 83.0MHz]
Stereo separation :	More than 25dB [at 83.0MHz]
Intermediate frequency :	10.7MHz

<HR>

IHF Sensitivity :	3dB ± 6dB
(THD 3%)	[at 87.5 / 98.0MHz]
	6dB ± 6dB
	[at 108.0MHz]
S/N 50dB Quieting sensitivity :	
	Less than 36dB
	[at 87.5 / 98.0 / 108.0MHz]
Signal to noise ratio :	(STEREO) More than 64dB
	[at 98.0MHz]
	(MONO) More than 65dB
	[at 98.0MHz]
Distortion :	(STEREO)Less than 2%
	[at 98.0MHz]
	(MONO) Less than 1.3%
Auto stop level :	20dB ± 10dB [at 98.0MHz]
Stereo separation :	More than 25dB [at 98.0MHz]
Intermediate frequency :	10.7MHz

<AM(MW) SECTION>

Sensitivity :	52 ~ 62dB
(S/N 20 dB)	[at 603kHz]
	48 ~ 58dB
	[at 999 / 1404kHz]
Signal to noise ratio :	More than 35dB
	[at 999kHz]
Distortion :	Less than 1.5%
	[at 999kHz]
Auto stop level :	42 ~ 68dB
	[at 999kHz]
Intermediate frequency :	450kHz

<HD>

Stereo seperation :	More than 12dB
	(999kHz)

<SW SECTION>(HR only)

Sensitivity :	33 ~ 43dB (5.90MHz)
(S/N 20dB)	27 ~ 37dB (12.0MHz)
	25 ~ 35dB (17.9MHz)
Distortion :	Less than 2.0% (12.0MHz)
Intermediate frequency :	450kHz

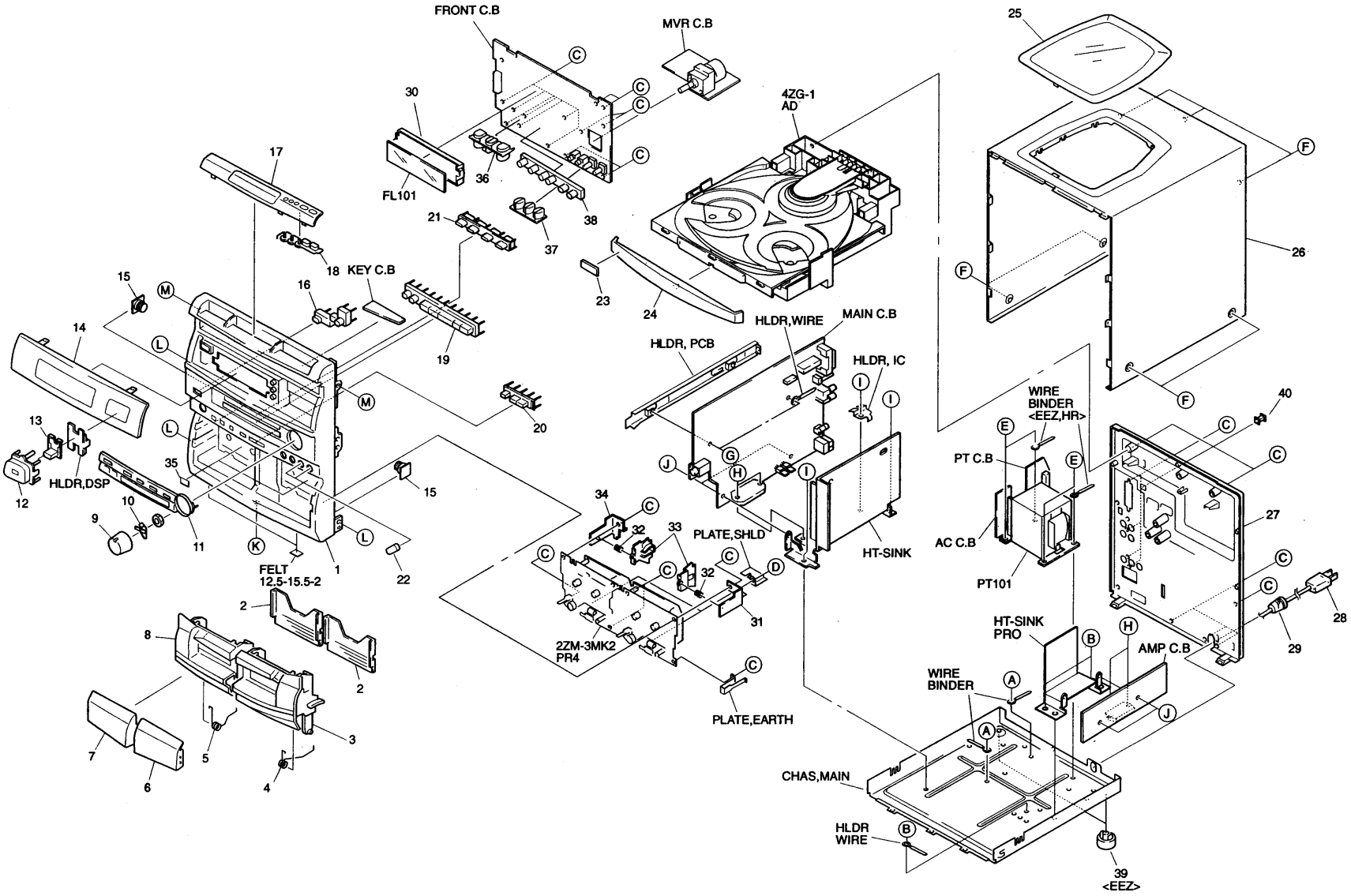
<LW SECTION> <E, K, EZ>

Sensitivity :	64dB ± 5dB (144kHz)
(S/N 20dB)	62dB ± 5dB (198kHz)
	60dB ± 5dB (290kHz)
Distortion :	Less than 1.4% (198kHz)
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 :	2.8V ± 2dB
	(SP OUT 2V)
REC/PB output level :	1.6V ± 2dB<EEZ,HR>
	2.0V ± 2dB<HD>
	(SP OUT 2V)
Distortion (REC/PB) :	Less than 2.0%
	(NORM, CrO_2)
Noise level (PB) :	Less than 110mV
	(NORM, SP OUT 2V, DOLBY OFF)
	Less than 90mV
	(CrO_2, SP OUT 2V, DOLBY OFF)
Noise level (REC/PB) :	Less than 120mV
	(DOLBY OFF, NORM, SP OUT 2V)
	Less than 100mV
	(DOLBY OFF, CrO_2, SP OUT 2V)
Crosstalk :	More than 58dB
	(1kHz, 0VU)
Channel separation :	More than 45dB
	(1kHz, 0VU)
Erasing ratio :	More than 60dB
	(at 125Hz)
Test tape :	TTA-602 (NORMAL)
	TTA-615 (CrO_2)

MECHANICAL EXPLODED VIEW 1/1

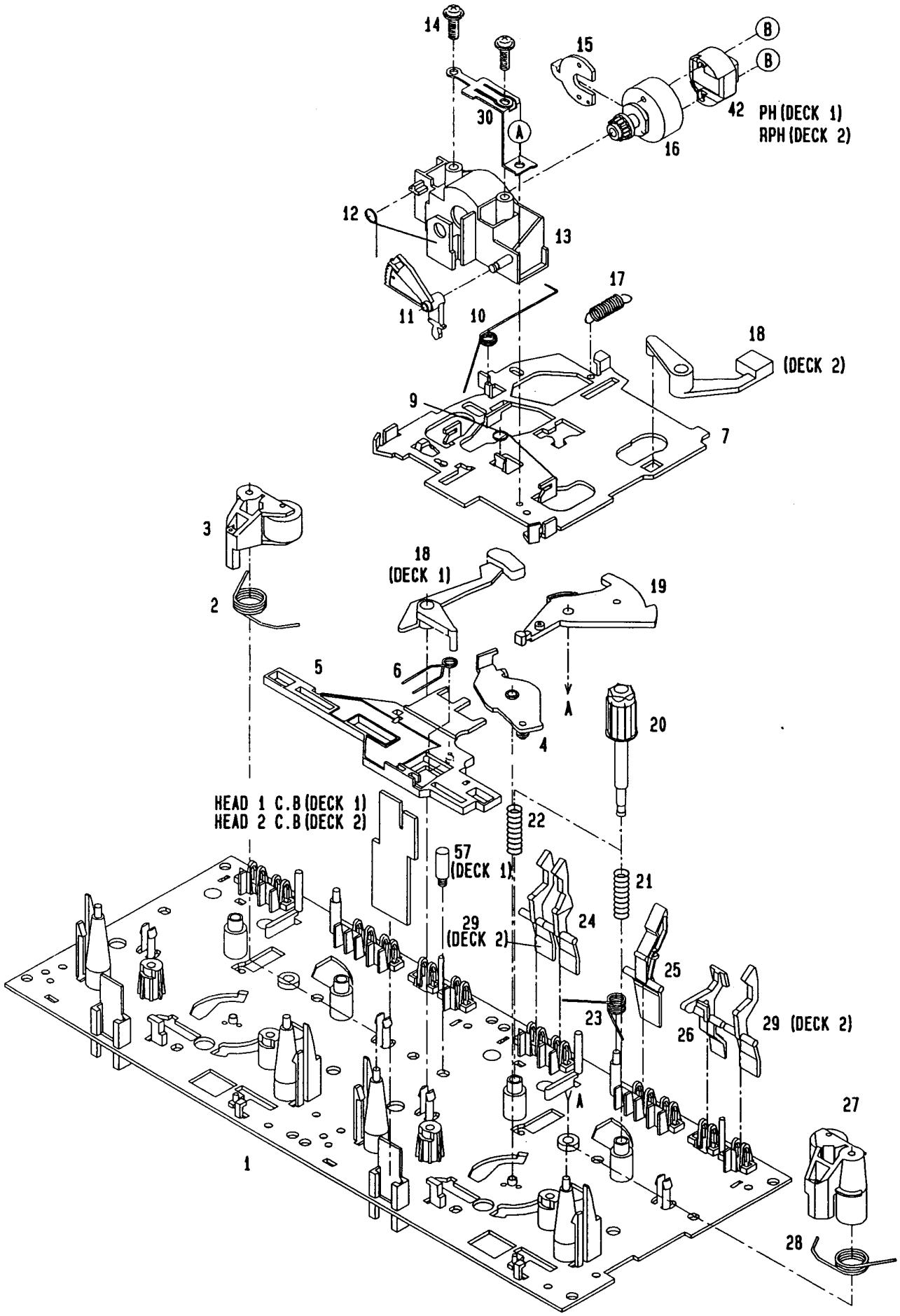


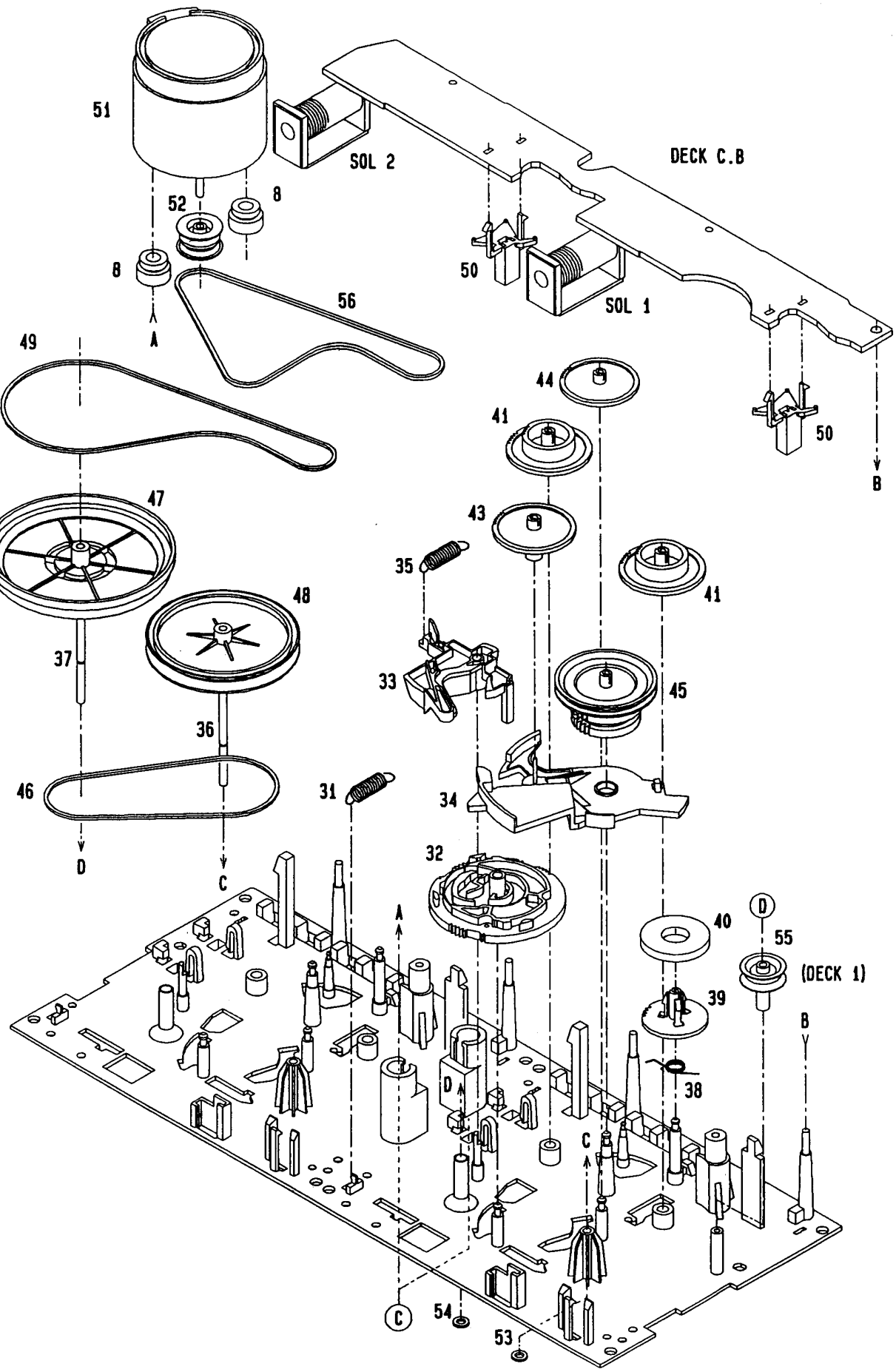
MECHANICAL PARTS LIST 1/1

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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NFS-003-01S		CABI,FR E[ST]<EEZ>
1	86-NFS-001-019		CABI,FR H[B]<HR>,[B]<HD>
2	86-NF6-061-01S		REFLECTOR,CASS
3	86-NF5-003-019		BOX,CASS R[B]<HR>,[B]<HD>
3	86-NFS-014-01S		BOX,CASS R E[ST]<EEZ>
4	82-NF5-219-019		SPR-T,EJECT 2 (SIN)
5	82-NF5-218-019		SRT-T,EJECT 1 (SIN)
6	86-NF5-007-01S		WINDOW,CASS R
7	86-NF5-006-01S		WINDOW,CASS L
8	86-NF5-002-019		BOX,CASS L[B]<HR>,[B]<HD>
8	86-NFS-013-01S		BOX,CASS L E[ST]<EEZ>
9	86-NF5-020-01S		KNOB,RTRY MAIN
10	86-NF5-021-019		LENS,VOL
11	86-NF5-009-01S		PANEL,FUN
12	86-NFW-022-01S		KEY,DSP
13	86-NFS-018-01S		KEY,PRO
14	86-NFS-020-01S		WINDOW,DISPLAY
15	87-063-165-019		OIL-DMPR 150
16	86-NF5-010-019		KEY,POWER[B]<HR>,[B]<HD>
16	86-NFS-026-01S		KEY,POWER[ST]<EEZ>
17	86-NF5-005-01S		WINDOW,CD
18	86-NF5-018-01S		KEY,OPEN
19	86-NF5-016-01S		KEY,PLAY
20	86-NF5-017-019		KEY,KARAOKE[B]<HR>,[B]<HD>
20	86-NFS-028-01S		KEY,KARAOKE[ST]<EEZ>
21	86-NF5-011-01S		KEY ASSY,FUN
22	86-NF6-050-01S		KNOB,RTRY MIC M
23	82-NE6-067-01S		BADGE AIWA 30N
24	86-NFS-016-01S		PANEL,TRAY E[ST]<EEZ>
24	86-NF5-008-019		PANEL,TRAY H[B]<HR>,[B]<HD>
25	86-NF6-007-018		WINDOW,TOP
26	86-NF3-038-010		CABI,STEEL 25J[B]<HR>,[B]<HD>
26	86-NFS-037-010		CABI,STEEL TS[ST]<EEZ>
27	86-NFS-034-019		CABI,REAR HD[B]<HD>
27	86-NFS-040-019		CABI,REAR HR[B]<HR>
27	86-NFS-011-01S		PANEL,REAR EEZSTNE[ST]<EEZ>
⚠ 28	87-050-016-018		AC CORD ASSY,E[ST]<EEZ>
⚠ 28	87-050-079-019		AC-CORD ASSY,E[B]<HR>
⚠ 28	87-050-097-019		AC-CORD ASSY,H[B]<HD>
29	87-085-185-010		BUSHING,AC CORD E<EXCEPT [B]HD>
29	87-085-184-010		BUSHING,CORD[B]<HD>
30	82-NF5-212-019		GUIDE FL
31	82-NF5-227-019		HLDR,LOCK 2N
32	82-NF5-228-019		SPR-C,LOCK
33	82-NF5-229-019		PLATE,LOCK
34	82-NF5-226-019		HLDR LOCK 1N
35	81-532-080-019		LBL,CASS-COMPT
36	85-NF5-210-119		GUIDE,LED L
37	85-NF5-211-119		GUIDE,LED R
38	86-NF5-202-019		GUIDE,LED PLAY
39	87-085-221-019		FOOT,H 13.5[ST]<EEZ>
40	84-ZG1-245-110		CAP,OPTICAL
A	87-067-585-019		BVTT +4-6
B	87-067-584-019		BVT2+36 W/O SLOT
C	87-067-703-019		BVT2+3-10 (W/O SLOT)
D	87-571-032-419		VIT+2-3
E	87-078-083-019		BUTT SEMS+4-8SW
F	87-067-641-019		UTT2+3-8 W/O SLOT BLK
G	87-078-084-019		BVTT+3-6 W,CONVEX
H	87-067-581-019		BVT2+3-15 W/O SLOT
I	87-067-579-019		BVT 2+3-8 W/O SLOT
J	87-067-633-019		BVT2+3-8 W/CONVEX
K	87-067-716-019		BVTT+3-6 BLK
L	87-591-094-419		QIT + 3 - 6 GOLD
M	87-721-097-419		QT2+3-12 GLD

TAPE MECHANISM EXPLODED VIEW 1/1




51
SOL 2
DECK C.B
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SOL 1
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A
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D
C
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A
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D
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(DECK 1)
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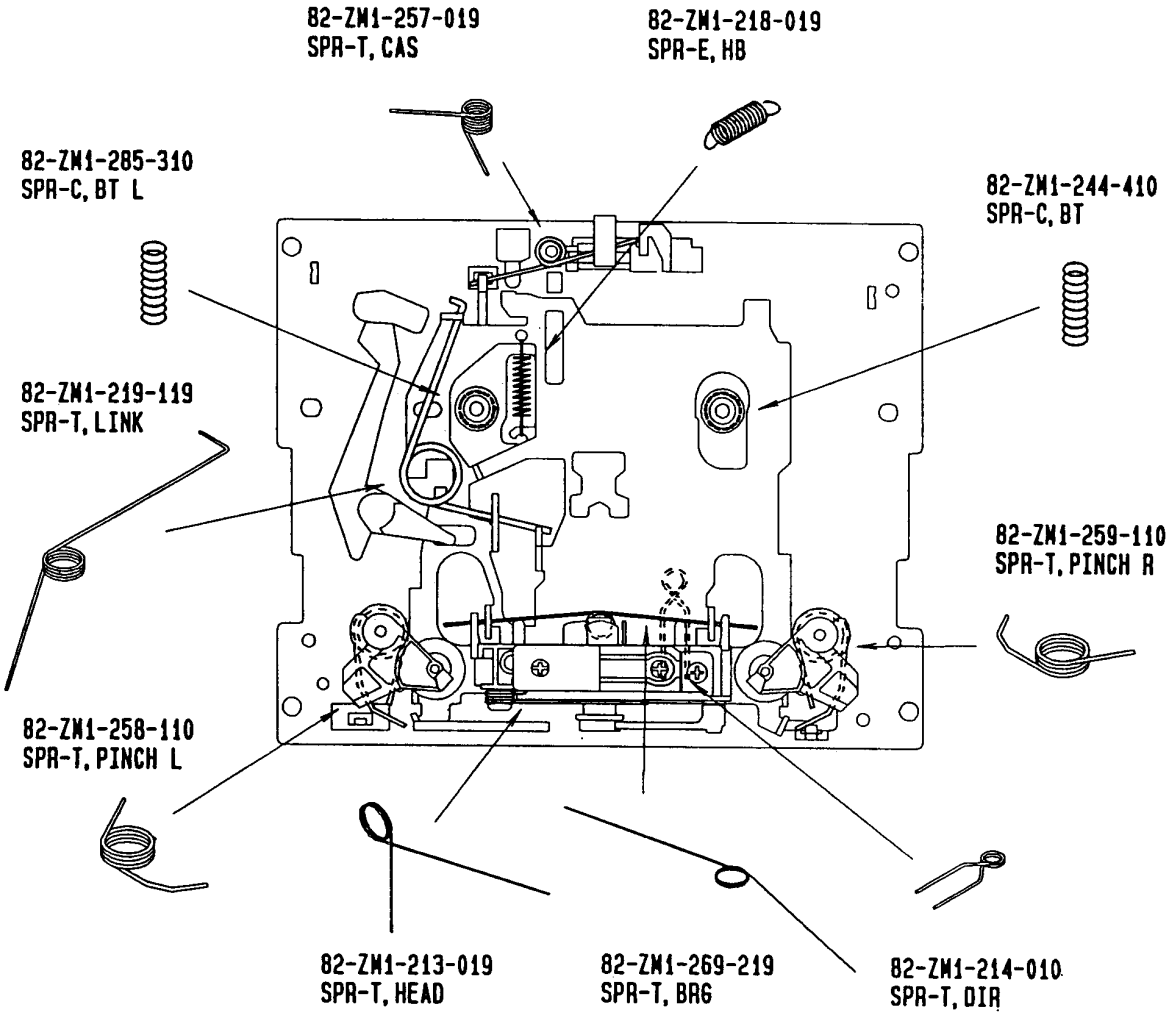
B
38
D
C
C
54
53

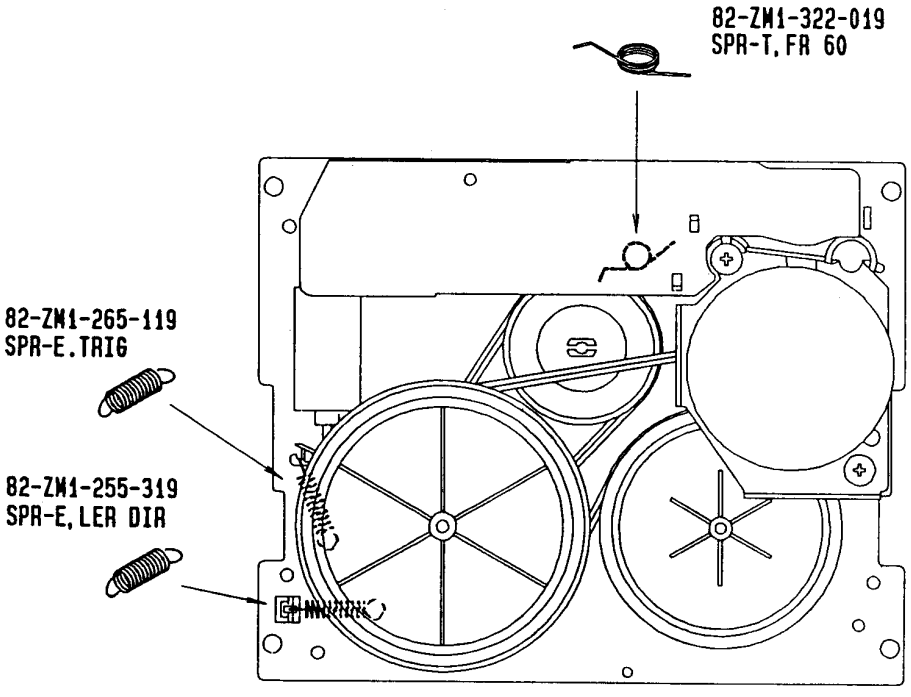
TAPE MECHANISM PARTS LIST 1/1

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	87-046-355-019		HEAD,PH HADKH2529B(PH)
42	87-046-356-019		HEAD,RPH HADKH5581B(RPH)
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





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

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-NFS-904-018		IB,E(EGFSI)E<EEZ>
1	86-NFS-902-019		IB,H(ECA)M<HR>
1	86-NFS-906-010		IB,HD(ECA)I<HD>
1	86-NFS-907-010		IB,H(ECA)I<HD>
2	85-NT3-661-019		RC-T506<HR,HD>
2	85-NT3-662-018		RC-T506<EEZ>
3	87-006-225-019		AM LOOP ANT NC2<EEZ,HD>
3	87-A90-054-019		ANT,LOOP AM-CON C<HR>
4	87-043-095-019		5M(SW)WIRE-ANT(S)<HR>
5	87-043-115-019		ANT,FEEDER FM<HR,HD>
5	87-043-106-019		ANT,FM 1007AWG<EEZ>
⚠6	87-099-789-019		PLUG,ADPTR IR44<HR>
⚠6	87-009-724-019		PLUG,ADPTR IR39<HD>

サービス技術ニュース	
番号	連絡内容
G－　－	
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アイワ株式会社
AIWA CO.,LTD.

〒110　東京都台東区池之端1－2－11　☎03（3827）3111　（代表）

9420208, 750038

Tokyo Japan

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