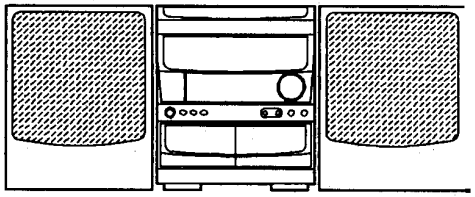
aiwa

aiwa SERVICE

NSX-AV70

SERVICE MANUAL



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK2 PR5N
- BASIC CD MECHANISM : 4ZG-1 ZDNM
- TYPE: EZ,K,G

CD-CASSEIVER	SPEAKER	REMOTE CONTROLLER
CX-NAV70 (TYPE: K,G,EZ)	SX-NAV70 SX-CR421 SX-CR423	RC UNIT,6AS02

- 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-NAV70, SX-CR421, SX-CR423, S/M Code No.09-964-137-8FP

S/M Code No. 09-966-144-8FE

SPECIFICATIONS

<FM tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity(IHF)	13.2 dBf
Antenna	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

<LW tuner section>

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

<Amplifier section>

Power output	**Front :** Rated : 30 W + 30 W (6 ohms, T.H.D. 1%, 1 kHz/ DIN 45500) Reference: 40 W + 40 W (6 ohms, T.H.D. 10%, 1 kHz/ DIN 45324) **Surround (Rear) :** Rated : 10 W + 10 W (16 ohms, T.H.D. 1%, 1 kHz/ DIN 45500) Reference: 13 W + 13 W (16 ohms, T.H.D. 10%, 1 kHz/ DIN 45324) **Center :** Rated : 20 W (8 ohms, T.H.D. 1%, 1 kHz/ DIN 45500) Reference: 26 W (8 ohms, T.H.D. 10%, 1 kHz/ DIN 45324)
Total Harmonic distortion	0.05% (15 W, 1 kHz, 6 ohms, DIN AUDIO/Front)
Inputs	VIDEO/AUX: 150mV MIC 1, MIC 2: 1 mV (10 kohms)
Outputs	SUPER WOOFER: 1.2 V SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS: accept speakers of 16 ohms or more CENTER SPEAKER: accept speakers of 8 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 NR ON, CrO_2 tape peak level)
Recording system	AC bias
Heads	Deck 1: Playback head x 1 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	0.05% (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX-NAV70>

Cabinet type	3way, bass reflex (Magnetic sealed type)
Speakers	Woofer: 140 mm (5⅝ in.) cone type Tweeter: 60mm (3¼ 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 10⅞ in.)
Weight	3.3 kg

<General>

Power requirements	K,EZ : 230 V AC, 50 Hz G : 230-240 V AC, 50 Hz
Power consumption	295 W
Dimensions of main unit (W x H x D)	260 x 307 x 328 mm (10¼ x 12⅛ x 13 in.)
Weight of main unit	7.4 kg

- Design and specifications are subject to change without notice.

- Manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY", the double-D symbol ◻◻ and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

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.

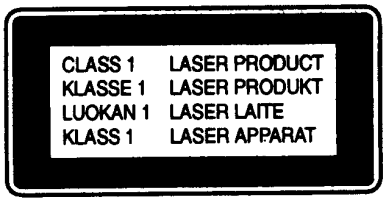
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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.

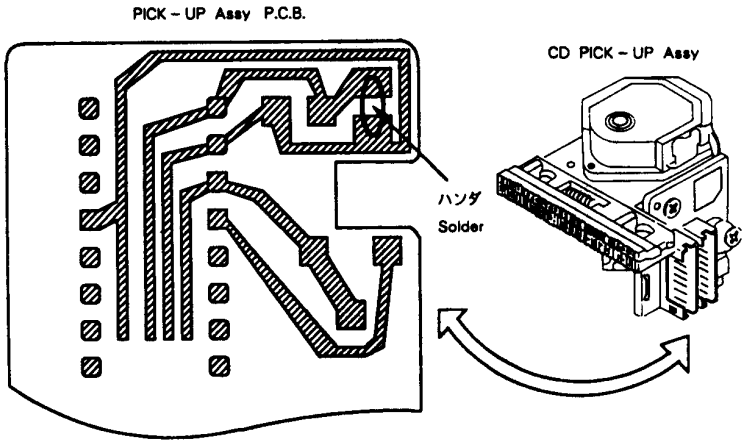


Precaution to replace Optical block

(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			
	86-NFT-650-010		C-IC UPD78045BGF-017
	87-A20-101-019		IC,STK405-070A
	87-070-453-010		IC,SPS-442-1
	87-070-121-010		IC,HA12185NT
	87-017-914-019		IC,BU4094 BC
	87-017-804-019		IC,BU4052BC
	87-A20-107-019		IC,BA3836
	87-017-888-089		IC,NJM4558MD
	87-A20-069-049		C-IC,BA3842F
	87-070-127-119		IC,LC72131D
	87-017-714-119		IC,LA1836L
	87-070-267-019		IC,STK405-050
	87-001-874-019		IC-HA12134A
	87-A20-082-010		C-IC,NJW1102AFG1
	87-017-915-089		IC,BU4094BCF
	87-A20-067-040		C-IC,M65849FP
TRANSISTOR			
	87-026-610-089		TR,KTC3198GR
	89-327-125-089		C-TR,2SC2712GR
	89-111-625-089		C-TR,2SA1162GR
	87-026-609-089		TR,KTA1266GR
	89-213-702-019		TR 2SB1370E
	89-332-665-089		TR,2SC3266GR
	89-406-555-089		TR,2SD655E
	87-026-218-089		TR,DTC144ES
	87-026-286-089		TR,DTA143ES
	89-502-466-089		TR FET 2SK246-BL (TPE2)
	89-333-317-089		TR,2SC3331T
	87-026-216-089		TR,DTA124ES
	89-109-521-089		TR,2SA952K
	89-112-965-089		TR,2SA1296GR
	87-026-219-089		TR,DTA144ES
	89-327-143-089		C-TR,2SC2714 (O)
	89-328-785-089		TR 2SC2878-A (E2-M)
	87-026-269-089		TR,DTA114ES
	89-503-602-089		C-FET,2SK360E
	87-026-214-089		TR,DTA114YS
	89-505-434-549		C-FET,2SK543(4/5)
	87-026-462-089		TR,2SC1740SRS
	89-320-011-089		TR,2SC2001K
	89-110-155-089		TR,2SA1015GR
DIODE			
	87-020-027-089		C-DIODE,1SS184
	87-020-125-089		C-DIODE,1SS181
	87-017-078-089		DIODE,1N4003
	87-017-437-089		DIODE,1N4148M
	87-A40-116-069		DIODE,RS403L-B-D-51
	87-001-559-089		DIODE,ISS131(T-72)
	87-020-339-089		C-DIODE,1SS226
	87-A40-199-089		ZENER,UZL6H2
	87-A40-201-089		ZENER,UZ4.7BSA
	87-A40-203-089		ZENER,UZ5.1BSC
	87-A40-209-089		ZENER,UZ27BSD
	87-A40-200-089		ZENER,UZL11L3
	87-A40-202-089		ZENER,UZ5.1BSB
	87-A40-198-089		ZENER,UZL6M1
MAIN C.B			
BPF831	87-030-105-019		FLTR,BPMB6A
C131	87-010-403-089		CAP,E 3.3-50 SME
C141	87-010-384-089		CAP,E 100-25 SME
C142	87-010-384-089		CAP,E 100-25 SME
C143	87-010-764-089		CAP,E 47-63V
C144	87-010-196-089		C-CAP,S 0.1-25 F
C145	87-010-196-089		C-CAP,S 0.1-25 F
C146	87-010-390-019		CAP,E 3300-25 SME
C151	87-012-368-089		C-CAP,S 0.1-50F
C152	87-012-368-089		C-CAP,S 0.1-50F
C153	87-016-474-099		CAP,E 3300-50
C154	87-016-474-099		CAP,E 3300-50
C161	87-010-401-089		CAP,E 1-50 SME
C172	87-012-140-089		C-CAP,S 470P-50 CH
C173	87-010-405-089		CAP,E 10-50 SME
C181	87-010-101-089		CAP,E 220-16 SME
C182	87-010-381-089		CAP,E 330-16 SME
C197	87-010-196-089		C-CAP,S 0.1-25 F
C198	87-010-196-089		C-CAP,S 0.1-25 F
C201	87-010-404-089		CAP,E 4.7-50 SME
C202	87-010-404-089		CAP,E 4.7-50 SME
C203	87-010-177-089		C-CAP,S 820P-50 SL
C204	87-010-177-089		C-CAP,S 820P-50 SL
C205	87-010-182-089		C-CAP,S 2200P-50 B
C206	87-010-182-089		C-CAP,S 2200P-50 B
C207	87-010-402-089		CAP,E 2.2-50 SME
C208	87-010-402-089		CAP,E 2.2-50 SME
C209	87-010-404-089		CAP,E 4.7-50 SME
C210	87-010-404-089		CAP,E 4.7-50 SME
C211	87-010-318-089		C-CAP,S 47P-50 CH
C212	87-010-318-089		C-CAP,S 47P-50 CH
C213	87-010-147-089		C-CAP,S 3P-50 CH
C214	87-010-147-089		C-CAP,S 3P-50 CH
C215	87-010-196-089		C-CAP,S 0.1-25 F
C216	87-010-196-089		C-CAP,S 0.1-25 F
C217	87-010-196-089		C-CAP,S 0.1-25 F
C218	87-010-196-089		C-CAP,S 0.1-25 F
C219	87-010-198-089		C-CAP,S 0.022-25 B
C220	87-010-198-089		C-CAP,S 0.022-25 B
C221	87-010-194-089		C-CAP,S 0.047-25 F
C261	87-010-197-089		C-CAP,S 0.01-25 B
C262	87-010-197-089		C-CAP,S 0.01-25 B
C263	87-010-197-089		C-CAP,S 0.01-25 B
C264	87-010-197-089		C-CAP,S 0.01-25 B
C301	87-010-197-089		C-CAP,S 0.01-25 B
C311	87-012-155-089		C-CAP,S 180P-50 CH
C312	87-012-155-089		C-CAP,S 180P-50 CH
C313	87-010-181-089		C-CAP,S 1800P-50 B
C314	87-010-181-089		C-CAP,S 18500P-50 B
C321	87-012-145-089		C-CAP S 270P-50CH
C322	87-012-145-089		C-CAP S 270P-50CH
C323	87-012-154-089		C-CAP,S 150P-50 CH
C324	87-012-154-089		C-CAP,S 150P-50 CH
C325	87-010-179-089		C-CAP,S 1200P-50 B
C326	87-010-179-089		C-CAP,S 1200P-50 B
C333	87-010-198-089		C-CAP,S 0.022-25 B
C334	87-010-198-089		C-CAP,S 0.022-25 B
C337	87-010-400-089		CAP,E 0.47-50 SME
C338	87-010-400-089		CAP,E 0.47-50 SME
C339	87-010-371-089		CAP,E 470-6.3 11L
C340	87-010-196-089		C-CAP,S 0.1-25 F
C355	87-010-401-089		CAP,E 1-50 SME
C356	87-010-401-089		CAP,E 1-50 SME
C357	87-010-178-089		C-CAP,S 1000P-50 B
C359	87-010-196-089		C-CAP,S 0.1-25 F
C360	87-010-196-089		C-CAP,S 0.1-25 F
C371	87-012-156-089		C-CAP,S 220P-50 CH
C372	87-012-156-089		C-CAP,S 220P-50 CH
C373	87-010-177-089		C-CAP,S 820P-50 SL
C374	87-010-175-089		C-CAP,S 560P-50 UJ
C376	87-010-392-089		CAP,E 33-35 SME
C377	87-010-198-089		C-CAP,S 0.022-25 B
C378	87-010-197-089		C-CAP,S 0.01-25 B
C379	87-010-183-089		C-CAP,S 2700P-50 B
C380	87-010-183-089		C-CAP,S 2700P-50 B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C381	87-010-183-089		C-CAP,S 2700P-50 B
C401	87-012-142-089		C-CAP,S 0.33-16 F
C402	87-012-142-089		C-CAP,S 0.33-16 F
C403	87-010-177-089		C-CAP,S 820P-50 SL
C404	87-010-177-089		C-CAP,S 820P-50 SL
C405	87-010-545-089		CAP,E 0.22-50 SME
C406	87-010-545-089		CAP,E 0.22-50 SME
C407	87-010-400-089		CAP,E 0.47-50 SME
C408	87-010-400-089		CAP,E 0.47-50 SME
C409	87-010-405-089		CAP,E 10-50 SME
C452	87-010-184-089		C-CAP,S 3300P-50 B
C453	87-010-312-089		C-CAP,S 15P-50 CH
C455	87-010-197-089		C-CAP,S 0.01-25 B
C456	87-010-402-089		CAP,E 2.2-50 SME
C521	87-010-181-089		C-CAP,S 1800P-50 B
C522	87-010-181-089		C-CAP,S 1800P-50 B
C523	87-010-178-089		C-CAP,S 1000P-50 B
C524	87-010-178-089		C-CAP,S 1000P-50 B
C527	87-010-220-089		C-CAP,S 0.018-25 B
C528	87-010-220-089		C-CAP,S 0.018-25 B
C529	87-010-400-089		CAP,E 0.47-50 SME
C530	87-010-400-089		CAP,E 0.47-50 SME
C531	87-010-382-089		CAP,E 22-25 SME
C532	87-010-198-089		C-CAP,S 0.022-25 B
C551	87-010-401-089		CAP,E 1-50 SME
C552	87-010-401-089		CAP,E 1-50 SME
C553	87-010-194-089		C-CAP,S 0.047-25 F
C554	87-010-183-089		C-CAP,S 2700P-50 B
C555	87-010-196-089		C-CAP,S 0.1-25 F
C556	87-010-263-089		CAP,E 100-10 SME 5X11
C557	87-010-596-089		C-CAP,S 0.047-16 RK
C558	87-010-545-089		CAP,E 0.22-50 SME
C562	87-010-596-089		C-CAP,S 0.047-16 RK
C601	87-010-198-089		C-CAP,S 0.022-25 B
C701	87-010-404-089		CAP,E 4.7-50 SME
C702	87-010-197-089		C-CAP,S 0.01-25 B
C703	87-010-197-089		C-CAP,S 0.01-25 B
C704	87-010-178-089		C-CAP,S 1000P-50 B
C707	87-010-402-089		CAP,E 2.2-50 SME
C708	87-010-402-089		CAP,E 2.2-50 SME
C711	87-010-263-089		CAP,E 100-10 SME 5X11
C712	87-010-112-089		CAP,E 100-16 11L
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
C729	87-010-197-089		C-CAP,S 0.01-25 B
C730	87-018-134-089		CAP,TC-U 0.01-16 Y
C770	87-010-197-089		C-CAP,S 0.01-25 B
C771	87-010-405-089		CAP,E 10-50 SME
C772	87-010-194-089		C-CAP,S 0.047-25 F
C773	87-010-196-089		C-CAP,S 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
C779	87-010-401-089		CAP,E 1-50 SME
C780	87-010-197-089		C-CAP,S 0.01-25 B
C781	87-010-404-089		CAP,E 4.7-50 SME
C782	87-010-404-089		CAP,E 4.7-50 SME
C787	87-010-184-089		C-CAP,S 3300P-50 B
C788	87-010-184-089		C-CAP,S 3300P-50 B
C789	87-010-179-089		C-CAP,S 1200-50 B
C790	87-010-179-089		C-CAP,S 1200-50 B
C791	87-010-401-089		CAP,E 1-50 SME
C792	87-010-183-089		C-CAP,S 2700P-50 B
C793	87-010-189-089		C-CAP,S 8200P-50 B
C794	87-010-260-089		CAP,E 47-25 SME
C795	87-010-194-089		C-CAP,S 0.047-25 F
C796	87-010-403-089		CAP,E 3.3-50 SME
C797	87-010-197-089		C-CAP,S 0.01-25 B
C799	87-010-405-089		CAP,E 10-50 SME
C801	87-010-197-089		C-CAP,S 0.01-25 B
C802	87-010-312-089		C-CAP,S 15P-50 CH
C803	87-018-134-089		CAP,TC-U 0.01-16 Y
C805	87-010-146-089		C-CAP,S 2P-50 CH
C806	87-010-147-089		C-CAP,S 3P-50 CH
C807	87-010-312-089		C-CAP,S 15P-50 CH
C808	87-010-322-089		C-CAP,S 100P-50 CH
C809	87-010-197-089		C-CAP,S 0.01-25 B
C810	87-010-197-089		C-CAP,S 0.01-25 B
C811	87-010-149-089		C-CAP,S 5P-50 CH
C812	87-010-314-089		C-CAP,S 22P-50 CH
C813	87-010-197-089		C-CAP,S 0.01-25 B
C814	87-010-197-089		C-CAP,S 0.01-25 B
C817	87-010-196-089		C-CAP,S 0.1-25 F
C820	87-010-260-089		CAP,E 47-25 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
C825	87-010-196-089		C-CAP,S 0.1-25 F
C827	87-010-145-089		C-CAP,S 1P-50 CH
C831	87-010-312-089		C-CAP,S 15P-50 CH
C832	87-010-314-089		C-CAP,S 22P-50 CH
C833	87-010-197-089		C-CAP,S 0.01-25 B
C834	87-010-311-089		C-CAP,S 12P-50 CH
C835	87-010-154-089		C-CAP,S 10P-50 CH
C836	87-010-312-089		C-CAP,S 15P-50 CH
C837	87-010-312-089		C-CAP,S 15P-50 CH
C843	87-010-146-089		C-CAP,S 2P-50 CH
C849	87-010-197-089		C-CAP,S 0.01-25 B
C851	87-010-197-089		C-CAP,S 0.01-25 B
C901	87-010-197-089		C-CAP,S 0.01-25 B
C942	87-010-148-089		C-CAP,S 4P-50 CH
C946	87-010-401-089		CAP,E 1-50 SME
C952	87-010-197-089		C-CAP,S 0.01-25 B
C955	87-010-197-089		C-CAP,S 0.01-25 B
C957	87-010-315-089		C-CAP,S 27P-50CH
C958	87-010-197-089		C-CAP,S 0.01-25 B
C960	87-010-196-089		C-CAP,S 0.1-25 F
C988	87-010-198-089		C-CAP,S 0.022-25 B
C999	87-010-196-089		C-CAP,S 0.1-25 F
CF801	87-008-423-089		CF,SFE 10.7 MS3G-A
CF802	82-785-747-089		CF,MS2 GHY,R
D801	87-002-730-089		VARI-CAP SVC203SPA
D802	87-002-730-089		VARI-CAP SVC203SPA
D803	87-002-730-089		VARI-CAP SVC203SPA
D804	87-002-730-089		VARI-CAP SVC203SPA
FT510	83-NF5-632-019		CABLE FFC 6P-1.25
IFT806	87-A50-018-019		COIL,FM IFT(4T)COI
J241	87-A60-031-019		JACK,6.3 BLK ST W/S
J261	87-A60-238-019		TERMINAL,SP 4PMSC
J281	87-099-801-019		JACK,PIN 1P BLK
J501	87-099-715-019		JACK,PIN 2P
J802	87-033-241-019		TERMINAL,ANT AJ-2039
L261	87-003-383-019		COIL,1UH-S
L262	87-003-383-019		COIL,1UH-S
L351	87-A50-149-019		COIL,TRAP 85K
L352	87-A50-149-019		COIL,TRAP 85K
L371	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)
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(CECS)
L790	87-005-564-089		C-COIL,2.2UH
L801	87-006-249-019		COIL,ANT FM3/4TS,L4
L802	87-006-251-019		COIL,ANT FM2-3/4TS,L4
L803	87-006-244-019		COIL,RF FM 3-1/2T,L4

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
L804	87-006-250-019		COIL,RF FM 3-1/2TS,L4
L805	87-003-098-089		COIL,2.2UH(CECS)
L807	87-A50-031-019		COIL,FM OSC (TOK)
L831	87-006-250-019		COIL,RF FM 3-1/2TS,L4
L832	87-003-098-089		COIL,2.2UH(CECS)
L941	87-A50-020-019		COIL,ANT LW
L942	87-A50-019-019		COIL,OSC LW
L981	86-NF4-665-019		AM PACK 1(TOK)
R191	87-022-050-089		RESIS METAL 1W-0.22J
R192	87-022-050-089		RESIS METAL 1W-0.22J
RY151	87-045-361-019		RELAY,DH12D2-OS(M)-2
SFR311	87-024-174-089		SFR 33K DIA.6 V
SFR312	87-024-174-089		SFR 33K DIA.6 V
SFR321	87-024-174-089		SFR 33K DIA.6 V
SFR322	87-024-174-089		SFR 33K DIA.6 V
SFR371	87-024-175-089		SFR,47K DIA6 V
SFR372	87-024-175-089		SFR,47K DIA6 V
SFR401	87-024-175-089		SFR,47K DIA6 V
SFR402	87-024-175-089		SFR,47K DIA6 V
SFR722	87-024-353-089		SFR,10K DIA6 H
TC721	87-011-253-089		TRIMER,30P LAR
TC801	87-011-252-089		TRIMMER 10P LAR
TC802	87-011-252-089		TRIMMER 10P LAR
TC803	87-011-252-089		TRIMMER 10P LAR
TC942	87-011-253-089		TRIMER,30P LAR
VR501	82-NF5-660-019		VR,50KBX2 RK14K12A
W111	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			
C201	87-010-196-089		C-CAP,S 0.1-25 F
C203	87-012-155-089		C-CAP,S 180P-50 CH
C204	87-010-313-089		C-CAP,S 18P-50 CH
C205	87-010-314-089		C-CAP,S 22P-50 CH
C206	87-012-140-089		C-CAP,S 470P-50 CH
C207	87-018-209-089		CAP,TC-U 0.1-50 F
C251	87-010-405-049		CAP,E 10-50 SME
C252	87-010-263-049		CAP,E 100-10
C253	87-010-248-049		CAP,E 220-10 SME
C255	87-010-494-049		CAP,E 1-50 GAS
C256	87-010-494-049		CAP,E 1-50 GAS
C351	87-010-490-049		CAP,ELECT 0.1-50
C352	87-010-490-049		CAP,ELECT 0.1-50
C353	87-010-408-049		CAP,E 47-50 SME
C401	87-010-198-089		C-CAP,S 0.022-25 B
C508	87-010-112-049		CAP,E 100-16
C601	87-010-405-049		CAP,E 10-50 SME
C602	87-010-248-049		CAP,E 220-10 SME
C603	87-010-196-089		C-CAP,S 0.1-25 F
C604	87-010-186-089		C-CAP,S 4700P-50 B
C605	87-010-545-049		CAP,E 0.22-50 SME
C606	87-010-321-089		C-CAP,S 82P-50 CH
C607	87-010-196-089		C-CAP,S 0.1-25 F
C608	87-010-196-089		C-CAP,S 0.1-25 F
C609	87-010-177-089		C-CAP,S 820P-50 SL
C651	87-010-494-049		CAP,E 1-50 GAS
C652	87-010-196-089		C-CAP,S 0.1-25 F
C653	87-010-491-049		CAP,E 0.22-50 GAS
C654	87-010-196-089		C-CAP,S 0.1-25 F
C715	87-010-553-049		CAP,E 47-16 GAS
C851	87-010-196-089		C-CAP,S 0.1-25 F
C853	87-010-406-049		CAP,E 22-50 SME
C854	87-010-560-049		CAP,E 10-50 GAS
EMI600	87-008-372-089		FLTR,EMI BL 01RN1
FL301	86-NF6-609-019		FL,8-ST-18GK
FT101	85-NF5-615-019		CABLE,FFC 15P-1.25
FT102	88-913-261-119		CABLE FFC,13P-1.25
J601	82-NF7-630-019		JACK,3.5 MO
J602	82-NF7-630-019		JACK,3.5 MO
L201	87-007-340-019		COIL,CLOCK 4.19MHZ
L220	87-003-098-019		COIL,2.2UH
LED401	87-070-201-089		LED,SLP9118C-51-S-T1
LED402	87-070-201-089		LED,SLP9118C-51-S-T1
LED403	87-070-201-089		LED,SLP9118C-51-S-T1
LED404	87-070-201-089		LED,SLP9118C-51-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
LED415	87-070-199-089		LED,SLP738F-81-S-T1
LED416	87-070-199-089		LED,SLP738F-81-S-T1
LED417	87-070-199-089		LED,SLP738F-81-S-T1
LED418	87-070-199-089		LED,SLP738F-81-S-T1
LED421	87-017-784-080		LED,SEL 1550CM TP8
LED422	87-017-784-080		LED,SEL 1550CM TP8
LED423	87-017-784-080		LED,SEL 1550CM TP8
LED424	87-017-784-080		LED,SEL 1550CM TP8
LED425	87-017-784-080		LED,SEL 1550CM TP8
LED426	87-017-784-080		LED,SEL 1550CM TP8
LED431	87-070-278-019		LED,SLZ-738A-24-S
LED432	87-070-278-019		LED,SLZ-738A-24-S
LED433	87-070-278-019		LED,SLZ-738A-24-S
LED434	87-070-278-019		LED,SLZ-738A-24-S
LED435	87-070-290-019		LED,SLZ 936-30-S
LED436	87-070-290-019		LED,SLZ 936-30-S
LED441	87-017-733-080		LED,SEL1250SM
LED442	87-017-733-080		LED,SEL1250SM
LED443	87-017-733-080		LED,SEL1250SM
LED444	87-017-733-080		LED,SEL1250SM
LED445	87-017-733-080		LED,SEL1250SM
S301	87-036-397-089		SW,TACT SKQNAB
S302	87-036-397-089		SW,TACT SKQNAB
S303	87-036-397-089		SW,TACT SKQNAB
S304	87-036-397-089		SW,TACT SKQNAB
S305	87-036-397-089		SW,TACT SKQNAB
S306	87-036-397-089		SW,TACT SKQNAB
S307	87-036-397-089		SW,TACT SKQNAB
S313	87-036-397-089		SW,TACT SKQNAB
S314	87-036-397-089		SW,TACT SKQNAB
S315	87-036-397-089		SW,TACT SKQNAB
S316	87-036-397-089		SW,TACT SKQNAB
S317	87-036-397-089		SW,TACT SKQNAB
S318	87-036-397-089		SW,TACT SKQNAB
S319	87-036-397-089		SW,TACT SKQNAB
S320	87-036-397-089		SW,TACT SKQNAB
S321	87-036-397-089		SW,TACT SKQNAB
S322	87-036-397-089		SW,TACT SKQNAB
S323	87-036-397-089		SW,TACT SKQNAB
S324	87-036-397-089		SW,TACT SKQNAB
S325	87-036-397-089		SW,TACT SKQNAB
S326	87-036-397-089		SW,TACT SKQNAB
S327	87-036-397-089		SW,TACT SKQNAB
S328	87-036-397-089		SW,TACT SKQNAB
S329	87-036-397-089		SW,TACT SKQNAB
S330	87-036-397-089		SW,TACT SKQNAB
VR601	81-MX4-637-019		VR 10KA RK11K1130
VR801	86-NT1-634-019		VR,100K W-L20
MVR C.B			
C451	87-010-176-089		C-CAP,S 680P-50 SL
C452	87-010-176-089		C-CAP,S 680P-50 SL
C457	87-010-405-049		CAP,E 10-50 SME
C458	87-010-405-049		CAP,E 10-50 SME
C459	87-016-456-049		CAP,E 22-16 LLA
C460	87-010-112-049		CAP,E 100-16
C461	87-016-081-089		C-CAP,S 0.1-16 RK

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C462	87-010-260-049		CAP,E 47-25 SME
C464	87-016-472-049		CAP,E 22-16 SME (K)
C465	87-010-263-049		CAP,E 100-10
C466	87-016-081-089		C-CAP,S 0.1-16 RK
C467	87-010-378-049		CAP,E 10-16
C468	87-010-378-049		CAP,E 10-16
C469	87-010-378-049		CAP,E 10-16
C470	87-010-378-049		CAP,E 10-16
C471	87-010-378-049		CAP,E 10-16
C472	87-010-101-089		CAP,E 220-16 SME
C473	87-012-140-089		C-CAP,S 470P-50 CH
C474	87-010-187-089		C-CAP,S 5600P-50 B
C475	87-010-186-089		C-CAP,S 4700P-50 CH
C478	87-012-394-089		C-CAP,0.68-16,R,K
C479	87-012-393-089		C-CAP,S 0.22-16,R,K
C480	87-012-393-089		C-CAP,S 0.22-16,R,K
C481	87-010-404-049		CAP,E 4.7-50 SME
C482	87-010-404-049		CAP,E 4.7-50 SME
C483	87-012-393-089		C-CAP,S 0.22-16,R,K
C484	87-012-393-089		C-CAP,S 0.22-16,R,K
C485	87-016-081-089		C-CAP,S 0.1-16 RK
C488	87-016-081-089		C-CAP,S 0.1-16 RK
C489	87-016-081-089		C-CAP,S 0.1-16 RK
C492	87-016-081-089		C-CAP,S 0.1-16 RK
C495	87-018-134-089		CAP,TC-U 0.01-16 NYU
C671	87-010-402-049		CAP,E 2.2-50 SME
C672	87-010-402-049		CAP,E 2.2-50 SME
C673	87-010-401-049		CAP,E 1-50 SME
C674	87-010-401-049		CAP,E 1-50 SME
C675	87-010-263-049		CAP,E 100-10
C676	87-010-384-049		CAP,E 100-25 SME
C701	87-010-993-089		C-CAP,S 0.056-25 B
C702	87-010-993-089		C-CAP,S 0.056-25 B
C703	87-016-460-089		C-CAP,S 0.22-16 B
C704	87-016-460-089		C-CAP,S 0.22-16 B
C705	87-016-081-089		C-CAP,S 0.1-16 RK
C706	87-010-260-049		CAP,E 47-25 SME
C707	87-010-182-089		C-CAP,S 2200P-50 B
C708	87-010-182-089		C-CAP,S 2200P-50 B
C709	87-010-545-049		CAP E 0.22-50 SME
C710	87-010-545-049		CAP E 0.22-50 SME
C711	87-010-401-049		CAP,E 1-50 SME
C712	87-010-401-049		CAP,E 1-50 SME
C713	87-010-260-049		CAP,E 47-25 SME
C714	87-010-405-049		CAP,E 10-50 SME
C716	87-018-209-019		CAP,TC-U 0.1-50 F
C717	87-010-401-049		CAP,E 1-50 SME
C718	87-010-401-049		CAP,E 1-50 SME
C773	87-010-198-089		C-CAP,S 0.022-25 B
C871	87-012-358-089		C-CAP,S 0.47-10FZ
C872	87-010-179-089		C-CAP,S 1200P-50 B
C873	87-010-180-089		C-CAP,S 1500P-50 B
C874	87-010-180-089		C-CAP,S 1500P-50 B
C875	87-010-177-089		C-CAP,S 820P-50 SL
C876	87-010-180-089		C-CAP,S 1500P-50 B
C877	87-010-263-049		CAP,E 100-10
C878	87-010-194-089		C-CAP,S 0.047-25 F
C879	87-012-141-089		C-CAP,S 0.22-16 F
C880	87-010-179-089		C-CAP,S 1200P-50 B
C881	87-010-426-089		C-CAP,S 0.012-25 B
C883	87-010-404-049		CAP,E 4.7-50 SME
C884	87-010-263-049		CAP,E 100-10
C885	87-010-196-089		C-CAP,S 0.1-25 F
C886	87-012-156-089		C-CAP,S 220P-50 CH
C887	87-010-319-089		C-CAP,S 56P-50 CH
C888	87-010-319-089		C-CAP,S 56P-50 CH
C889	87-010-196-089		C-CAP,S 0.1-25 F
C890	87-012-358-089		C-CAP,S 0.47-10 F
C891	87-010-197-089		C-CAP,S 0.01-25 B
C892	87-010-179-089		C-CAP,S 1200P-50 B
C894	87-012-358-089		C-CAP,S 0.47-10FZ
FT103	88-906-201-119		FF-CABLE,6P 1.25
L871	87-005-440-089		COIL,47UH FLR50
MVR771	86-NF6-651-019		VR,MOT 50KBX4EUW
R477	87-025-407-089		RES,M/F 100K-1/8W
KEY C.B			
S308	87-036-397-089		SW,TACT SKQNAB
S309	87-036-397-089		SW,TACT SKQNAB
S310	87-036-397-089		SW,TACT SKQNAB
S311	87-036-397-089		SW,TACT SKQNAB
S312	87-036-397-089		SW,TACT SKQNAB
AMP C.B			
C561	87-010-177-089		C-CAP,S 820P-50 SL
C562	87-010-177-089		C-CAP,S 820P-50 SL
C563	87-010-402-049		CAP E2.2-50 SME
C564	87-010-402-049		CAP E2.2-50 SME
C565	87-010-378-049		CAP,E 10-16
C566	87-010-378-049		CAP,E 10-16
C569	87-010-147-089		C-CAP,S 3P-50 CH
C570	87-010-147-089		C-CAP,S 3P-50 CH
C571	87-012-361-089		C-CAP,S 0.056-25 Y
C572	87-012-361-089		C-CAP,S 0.056-25 Y
C573	87-010-196-089		C-CAP,S 0.1-25 F
C574	87-010-196-089		C-CAP,S 0.1-25 F
C575	87-010-193-089		C-CAP,S 0.033-25 F
C576	87-010-193-089		C-CAP,S 0.033-25 F
C577	87-010-197-089		C-CAP,S 0.01-25 B
C578	87-010-194-089		C-CAP,S 0.047-25 F
C581	87-010-405-049		CAP,E 10-50 SME
C582	87-010-398-099		CAP,E 2200-35V
C583	87-010-398-099		CAP,E 2200-35V
C584	87-012-368-089		C-CAP,S 0.1-50F
C585	87-010-196-089		C-CAP,S 0.1-25 F
J561	87-099-803-019		JACK,PIN 3P OWR
L561	87-003-383-019		COIL,1UH-S
L562	87-003-383-019		COIL,1UH-S
R585	87-022-050-089		RESIS METAL 1W-0.22J
R586	87-022-050-089		RESIS METAL 1W-0.22J
AC C.B			
C103	87-010-197-089		C-CAP,S 0.1-25 B
R111	87-022-184-089		RES,METAL 0.33-1W
R112	87-022-184-089		RES,METAL 0.33-1W
⚠PR101	87-026-690-089		PROTECTOR,5A 125V
⚠PR102	87-026-690-089		PROTECTOR,5A 125V
PT C.B			
⚠	82-304-743-019		TERMINAL,1P
⚠F101	87-035-363-019		FUSE,1.25A 250V T E
⚠FC101	87-033-213-089		CLAMP FUSE SMK
⚠FC102	87-033-213-089		CLAMP FUSE SMK
⚠PT101	86-NFT-635-019		PT,6NF-26 EK
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

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
HEAD-1 C.B			
HEAD-2 C.B			

TRANSISTOR ILLUSTRATION

E C B

2SA1296
2SC3266
2SC2878
KTA1266
KTC3198

E C B

DTA114YS
DTA114ES
DTA144ES
DTA143ES
DTC144ES
DTA124ES
2SC1740(S-RS)

S G D

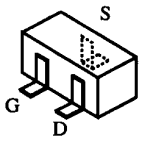
2SK246

E C B

2SA952
2SD655
2SC2001(K)
2SA1015GR

E C B

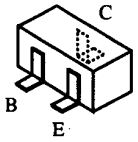
2SA1318
2SC3331



2SK543
2SK360

B C E

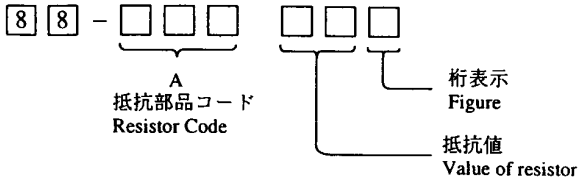
2SB1370



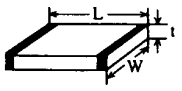
2SA1162
2SC2712
2SC2714

○ 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

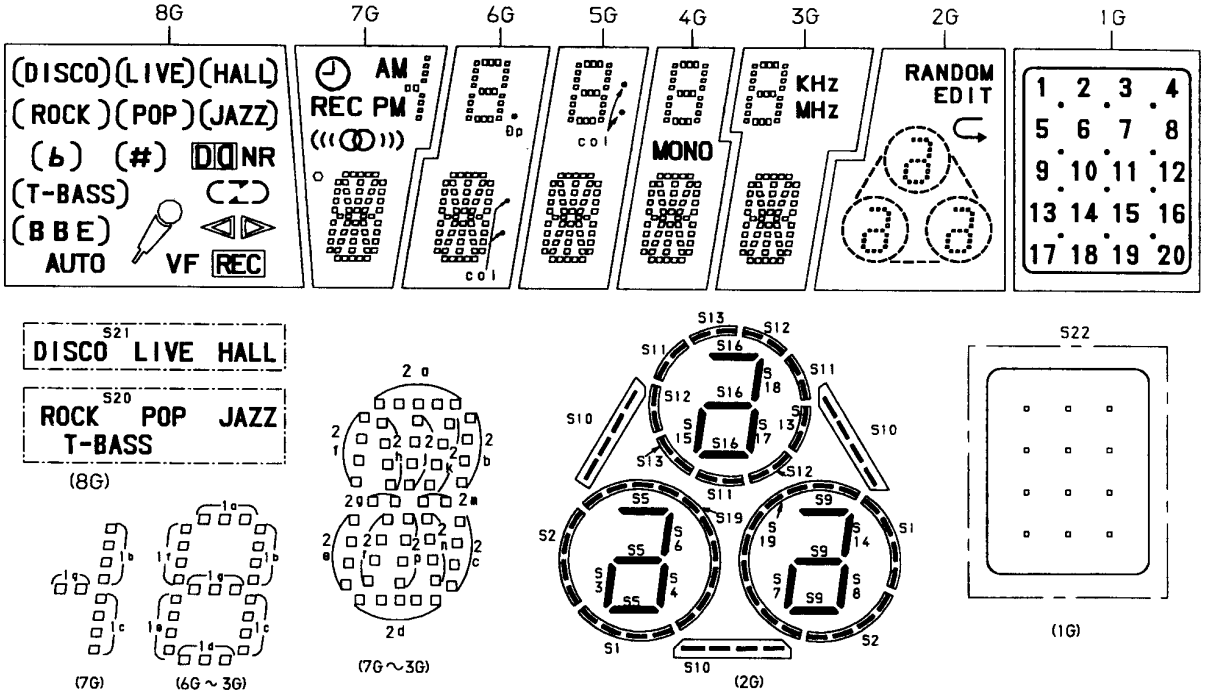


チップ抵抗
Chip resistor

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 GRID ASSIGNMENT & ANODE CONNECTION

FL, 8-ST-18GK
FL GRID ASSIGNMENT

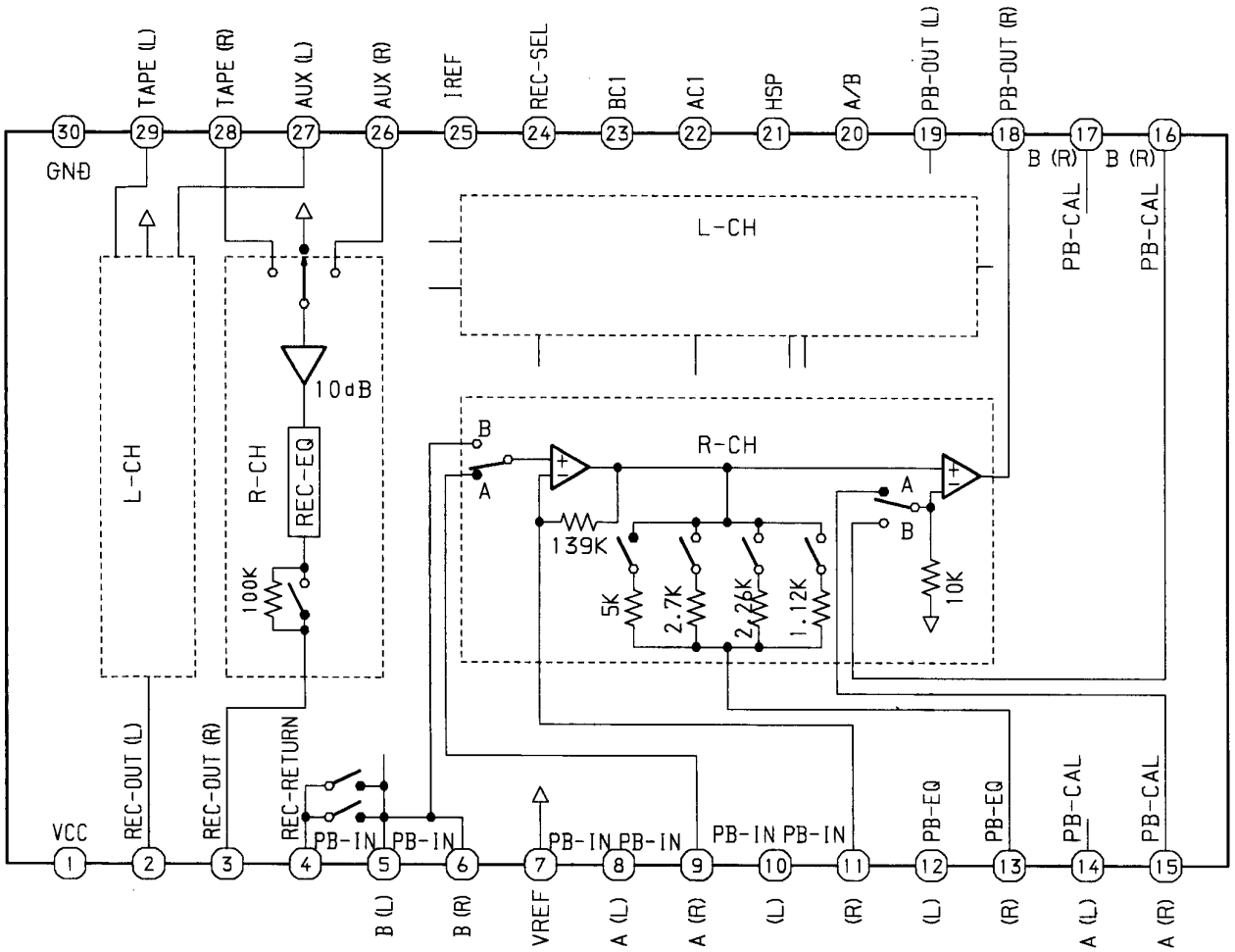


ANODE CONNECTION

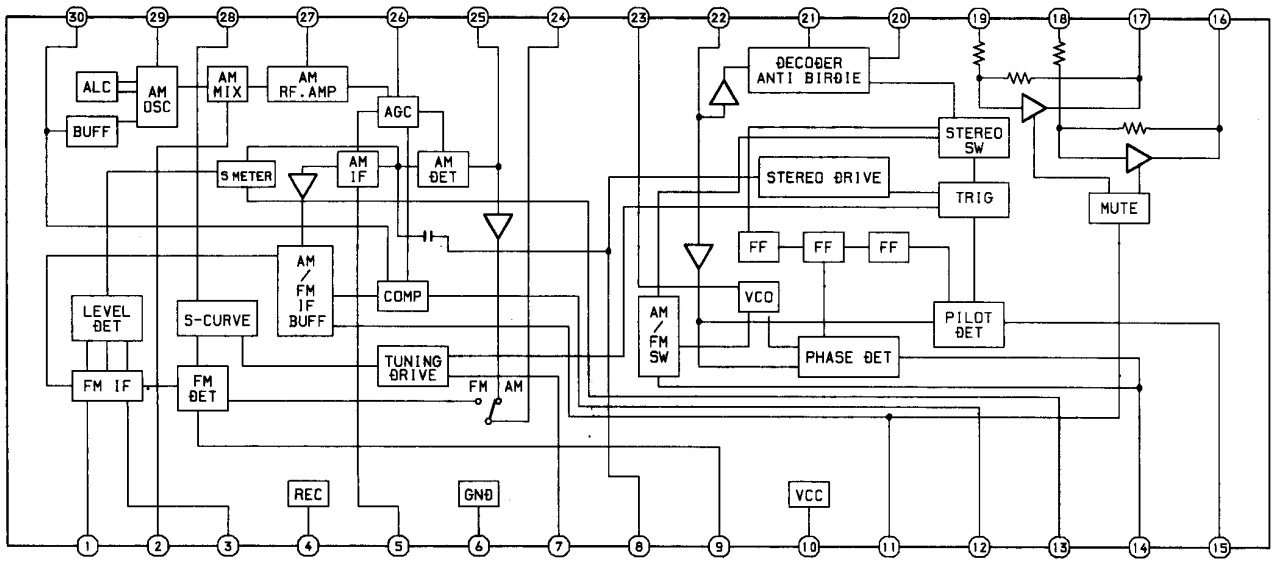
	8G	7G	6G	5G	4G	3G	2G	1G
P1	(T-BASS)	2d	2d	2d	2d	2d	S1	**20**
P2	(BBE)	2j , 2p	2j , 2p	2j , 2p	2j , 2p	2j , 2p	S2	**19**
P3	(♭)	2n	2n	2n	2n	2n	S3	**18**
P4	**AUTO**	2r	2r	2r	2r	2r	S4	**17**
P5	VF	2c	2c	2c	2c	2c	S5	**16**
P6	(DISCO)	2e	2e	2e	2e	2e	S6	**15**
P7	(LIVE)	2m	2m	2m	2m	2m	S7	**14**
P8	(HALL)	2g	2g	2g	2g	2g	S8	**13**
P9	REC	2f	2f	2f	2f	2f	S9	**12**
P10	(#)	2b	2b	2b	2b	2b	S10	**11**
P11	♭ #	2k	2k	2k	2k	2k	S11	**10**
P12	◁	2h	2h	2h	2h	2h	S12	**9**
P13	▷	2a	2a	2a	2a	2a	S13	**8**
P14	☾	○	col	col(below)	**MONO**	**MHz**	S14	**7**
P15	⇄	((◎))	Ωp	col(upper)	-	**kHz**	S15	**6**
P16	☽	**REC**	1d	1d	1d	1d	S16	**5**
P17	DOLBY NR	◴	1e	1e	1e	1e	S17	**4**
P18	(ROCK)	**PM**	1c	1c	1c	1c	S18	**3**
P19	(POP)	**AM**	1g	1g	1g	1g	S19	**2**
P20	(JAZZ)	1g	1f	1f	1f	1f	↩	**1**
P21	S20	1b , 1c	1b	1b	1b	1b	**EDIT**	S22
P22	S21	-	1a	1a	1a	1a	**RANDOM**	-
P23	**BBE**	-	-	-	-	-	-	-

IC BLOCK DIAGRAM – 1

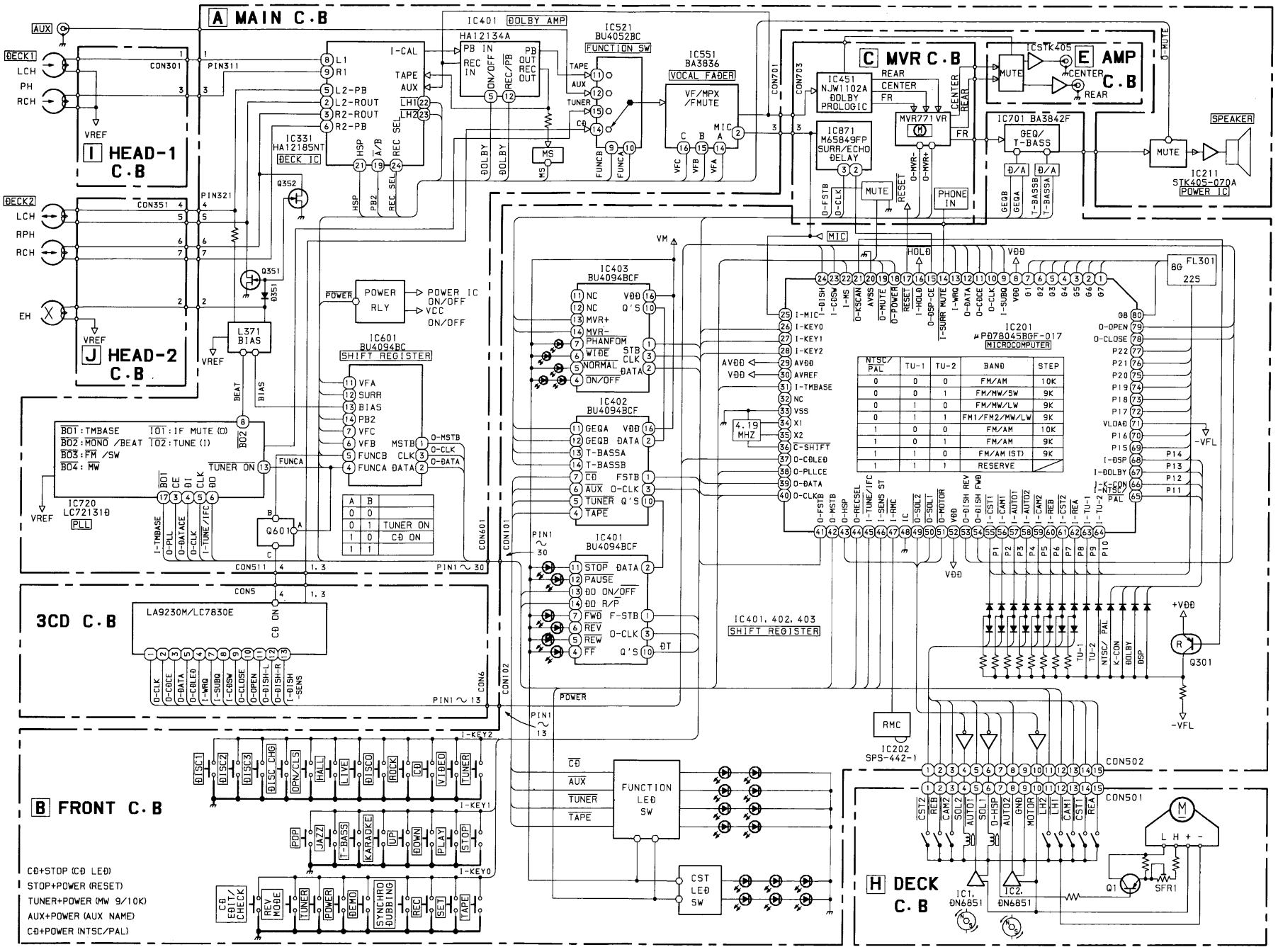
IC, HA12185NT



IC, LA1836L



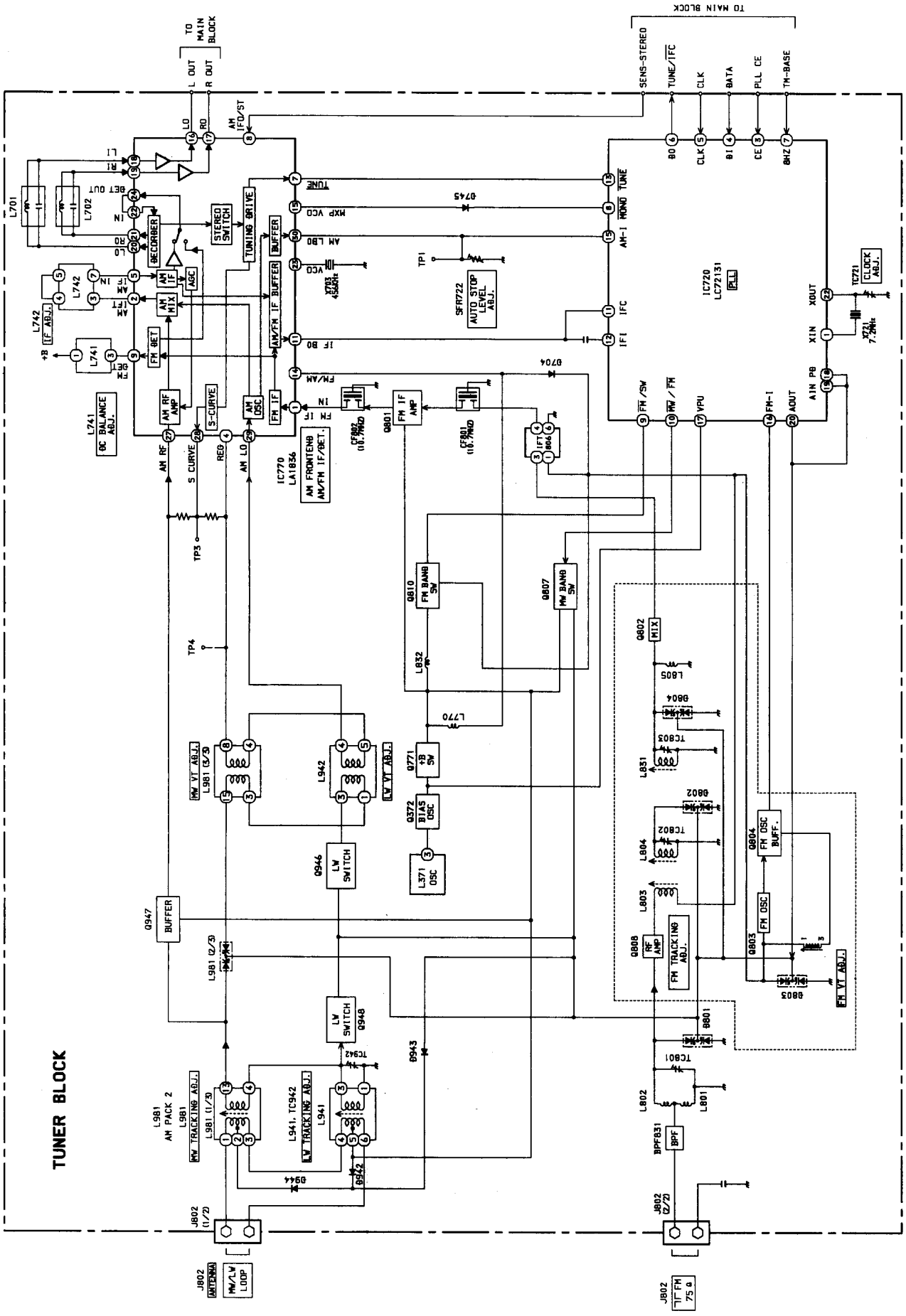
BLOCK DIAGRAM – 1 (MAIN / FRONT)



NTSC/PAL	TU-1	TU-2	BAND	STEP
0	0	0	FM/AM	10K
0	0	1	FM/MW/SW	9K
0	1	0	FM/MW/LW	9K
0	1	1	FM1/FM2/MW/LW	9K
1	0	0	FM/AM	10K
1	0	1	FM/AM	9K
1	1	0	FM/AM (ST)	9K
1	1	1	RESERVE	

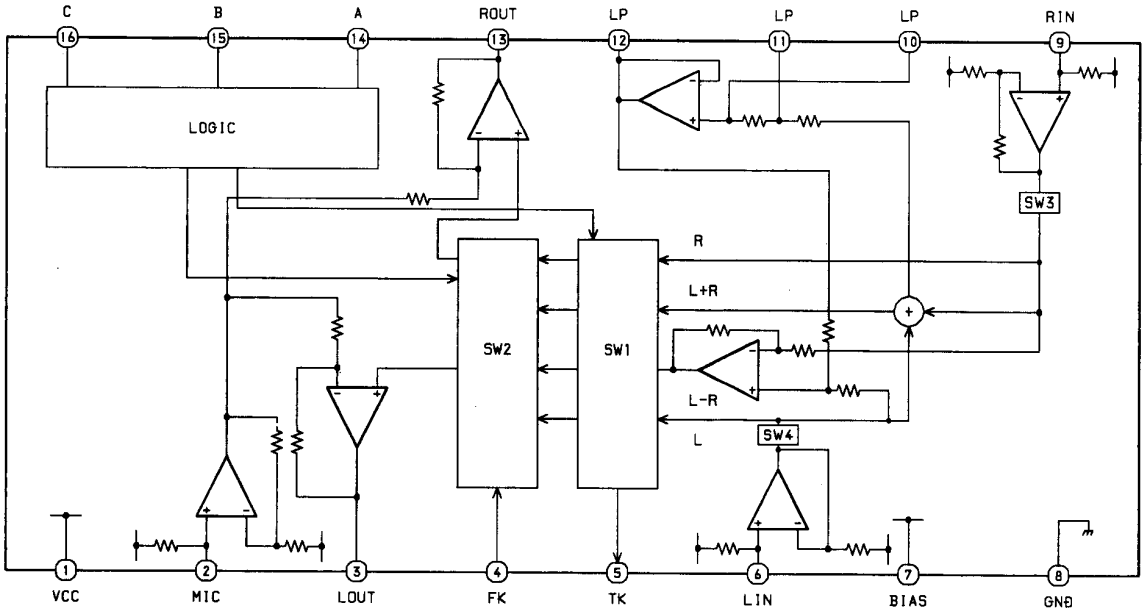
A	B	
0	0	
0	1	TUNER ON
1	0	CD ON
1	1	

BLOCK DIAGRAM – 2 (TUNER)

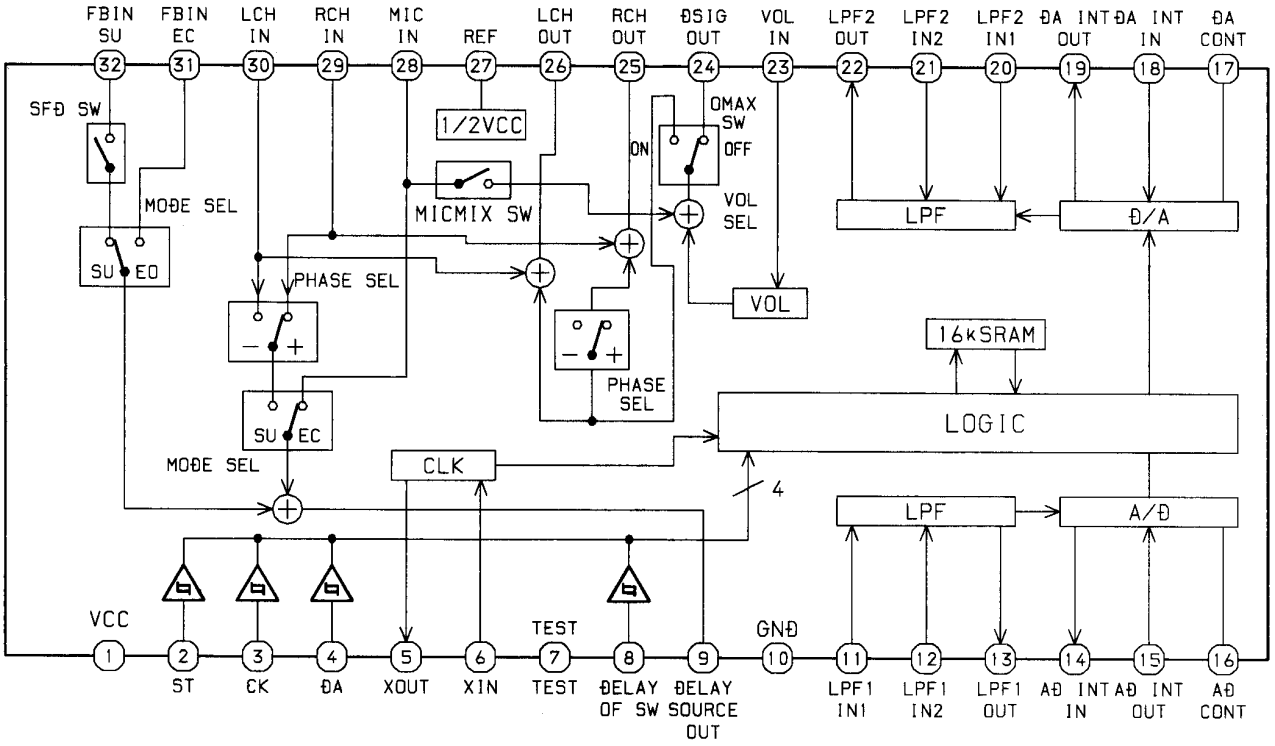


IC BLOCK DIAGRAM – 2

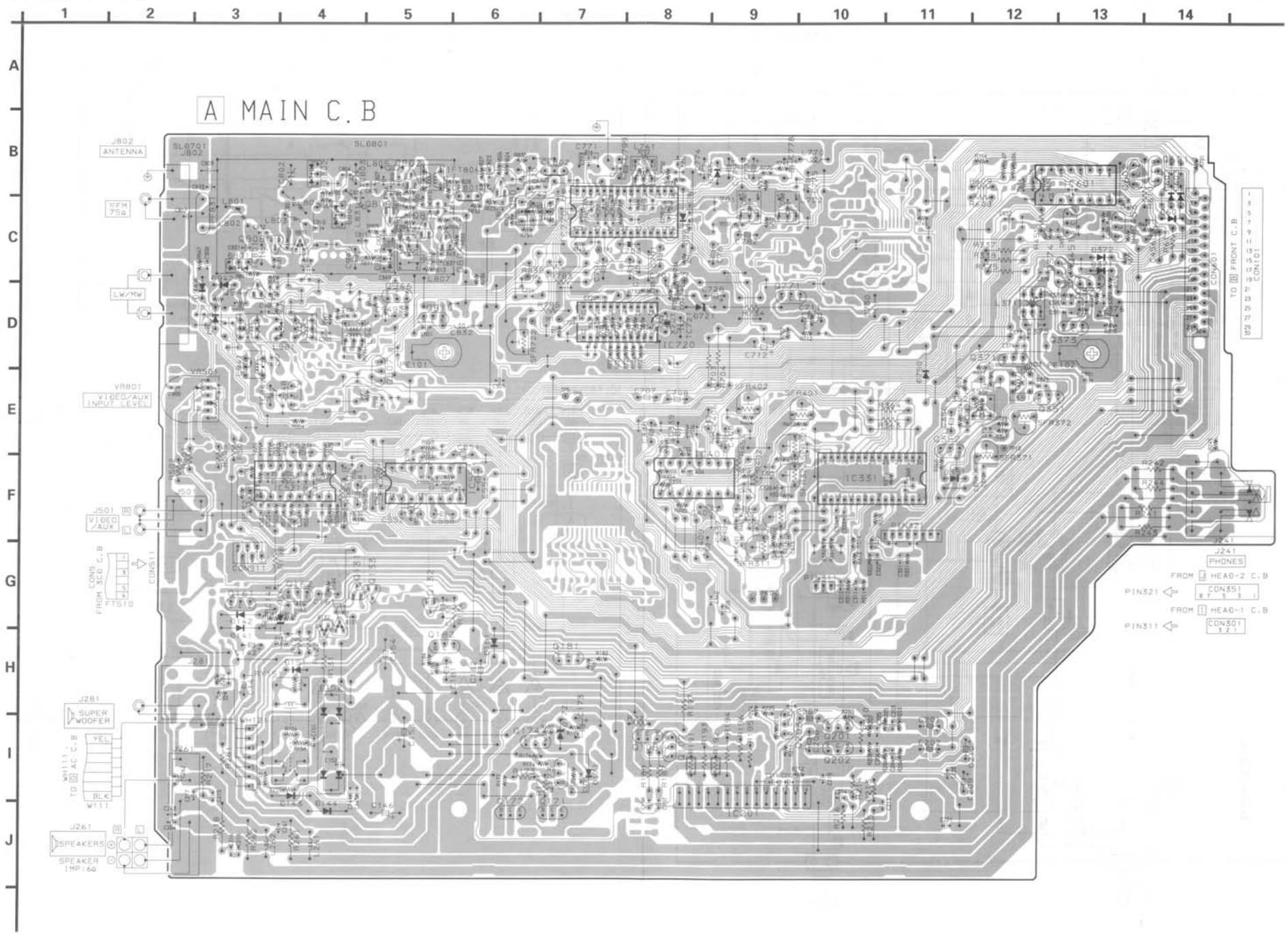
IC, BA3836

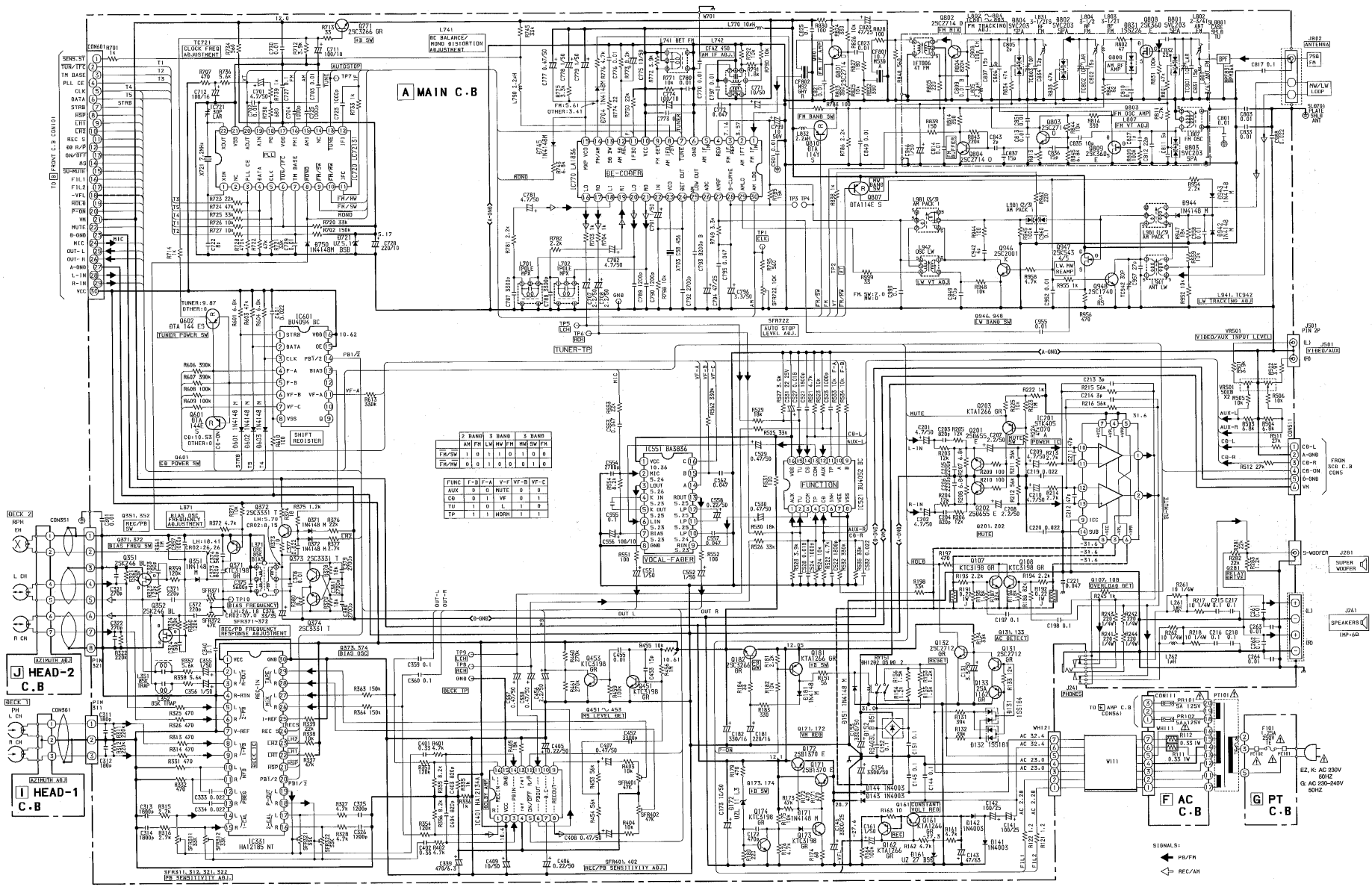


IC, M65849FP

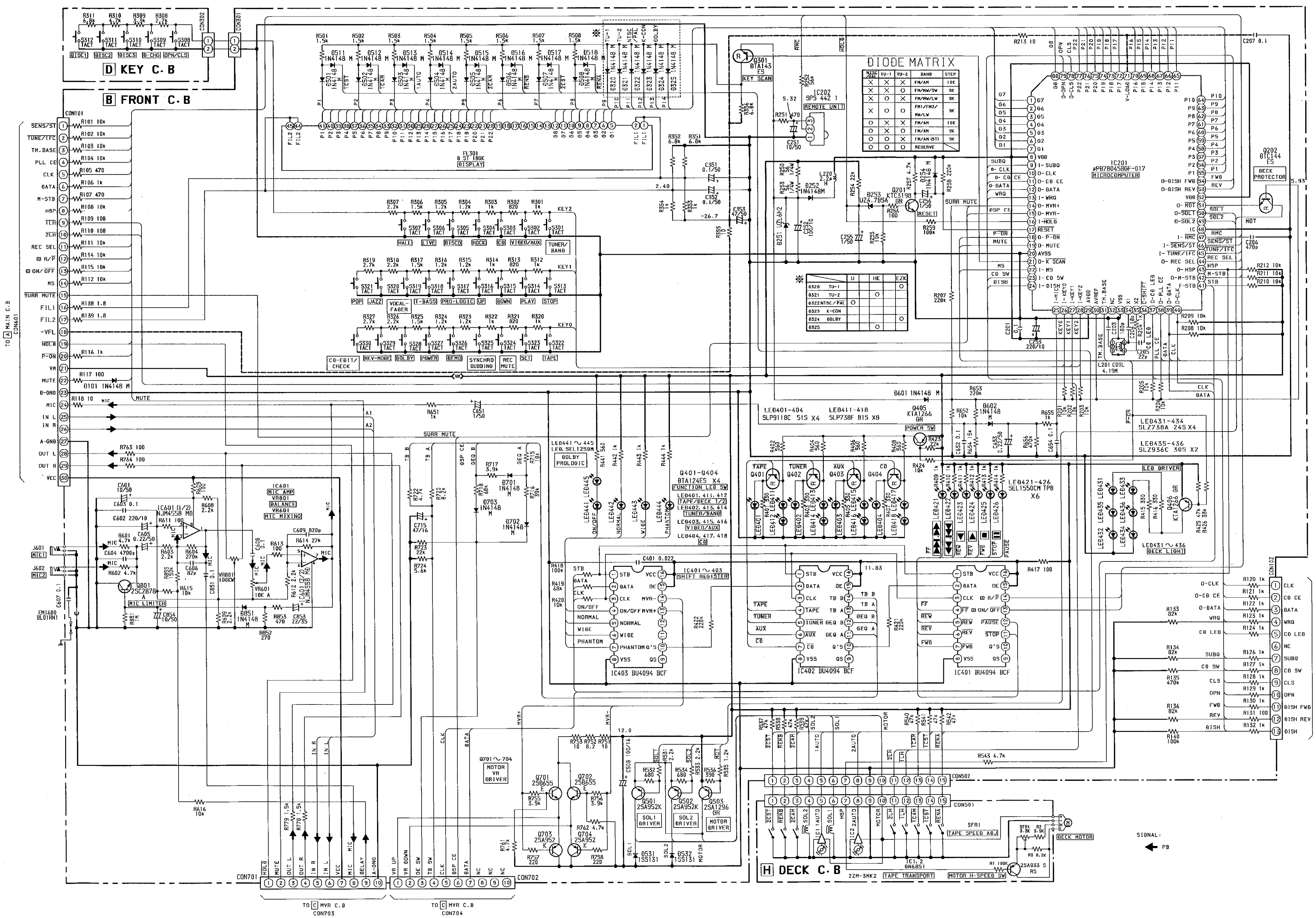


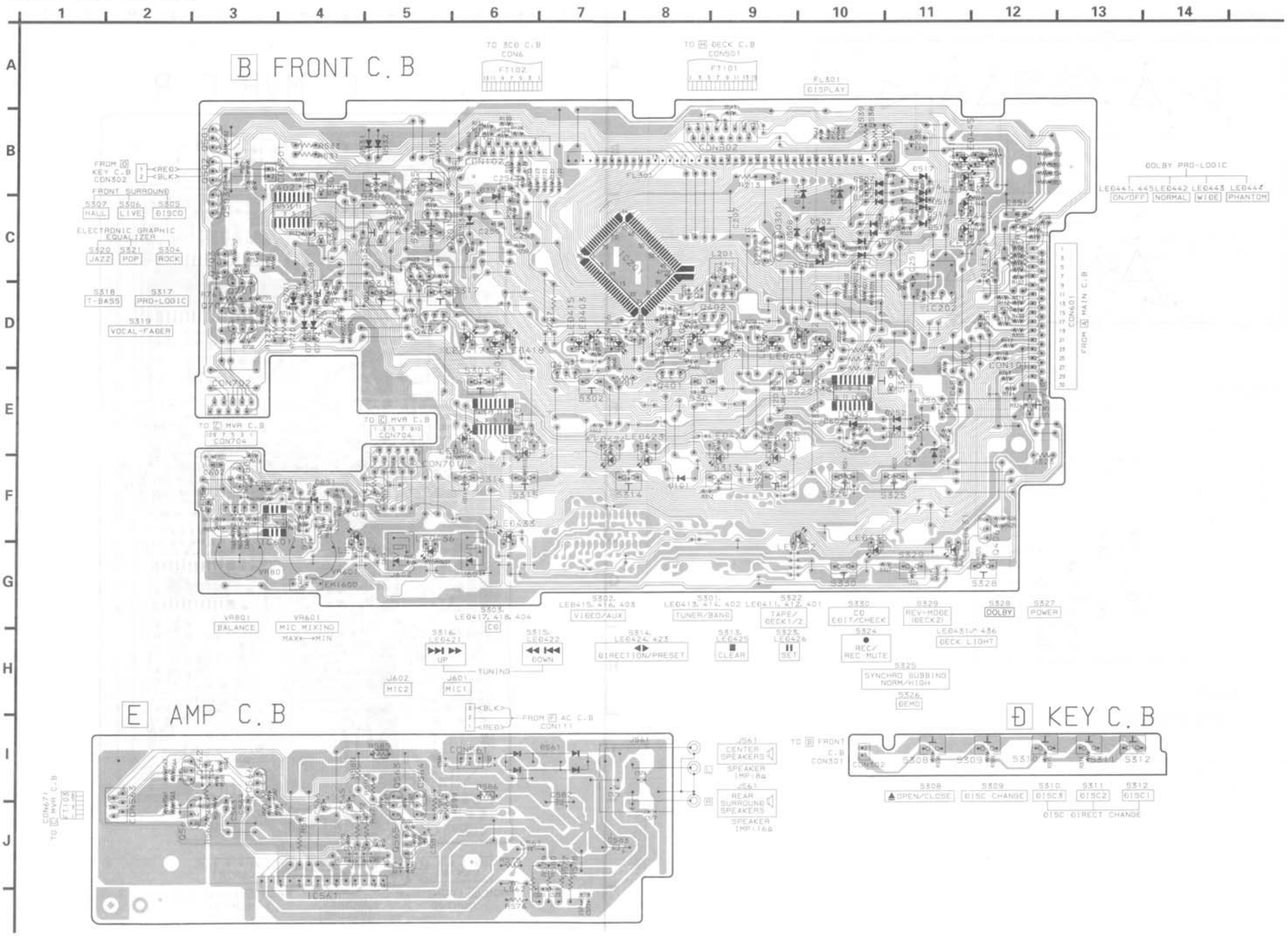
WIRING – 1 (MAIN)




A MAIN C.B
J HEAD-2 C.B
I HEAD-1 C.B
F AC C.B
G PT C.B
TUNER-TP
VOCAL-FADER
FUNCTION
SIGNALS:
PB/FM
REC/AM

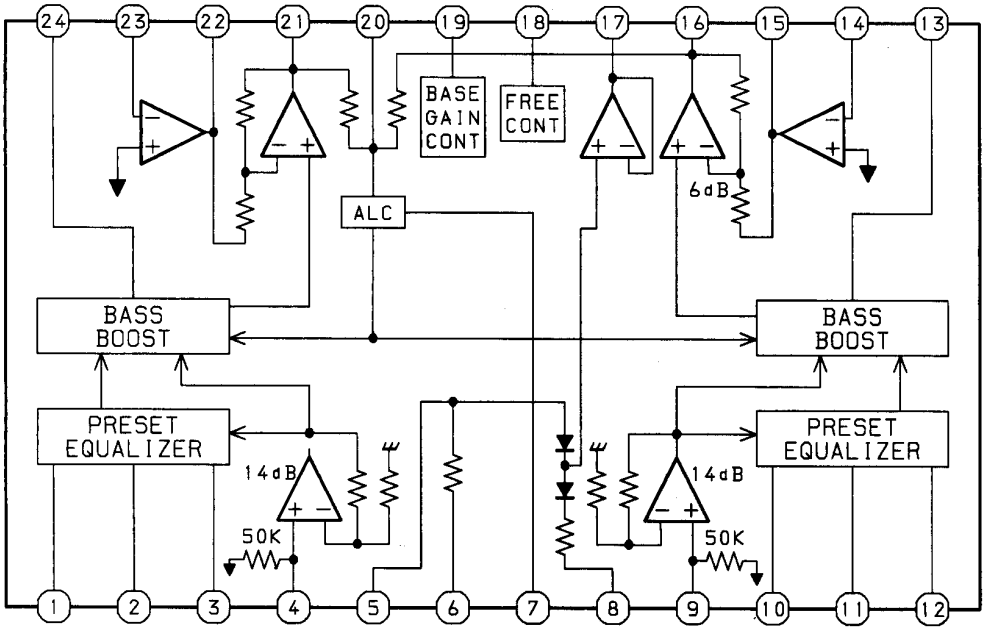
SCHEMATIC DIAGRAM – 2 (FRONT)



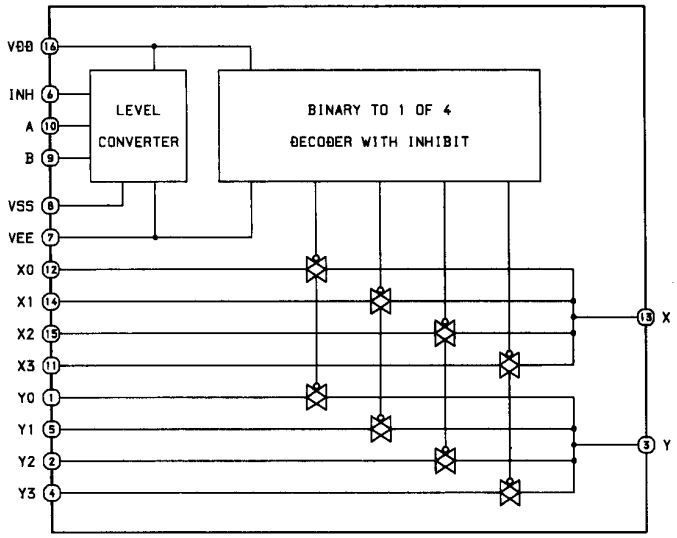

B FRONT C.B
E AMP C.B
Đ KEY C.B
FL301 DISPLAY
DOLBY PRO-LOGIC
LED441, 445 LED442 LED443 LED444
ON/OFF NORMAL WIDE PHANTOM
FRONT SURROUND
S307 HALL
S306 LIVE
S305 DISCO
ELECTRONIC GRAPHIC EQUALIZER
S320 JAZZ
S321 POP
S304 ROCK
S318 T-BASS
S317 PRO-LOGIC
S319 VOCAL-FADER
VR801 BALANCE
VR601 MIC MIXING
MAX←→MIN
S316 LED421 UP
S315 LED422 DOWN
TUNING
S314 LED424, 423 DIRECTION/PRESET
S313 LED425 CLEAR
S323 LED426 SET
S324 REC/REC MUTE
S325 SYNCHRO DUBBING NORM/HIGH
S326 DEMO
S330 CD EDIT/CHECK
S329 REV-MODE (DECK2)
S328 DOLBY
S327 POWER
LED431~436 DECK LIGHT
S308 OPEN/CLOSE
S309 DISC CHANGE
S310 DISC 5
S311 DISC 2
S312 DISC 1
DISC DIRECT CHANGE
J602 MIC2
J601 MIC1
J561 CENTER SPEAKERS
J561 REAR SURROUND SPEAKERS
SPEAKER IMP.16Ω
SPEAKER IMP.16Ω

IC BLOCK DIAGRAM – 3

IC, BA3842F



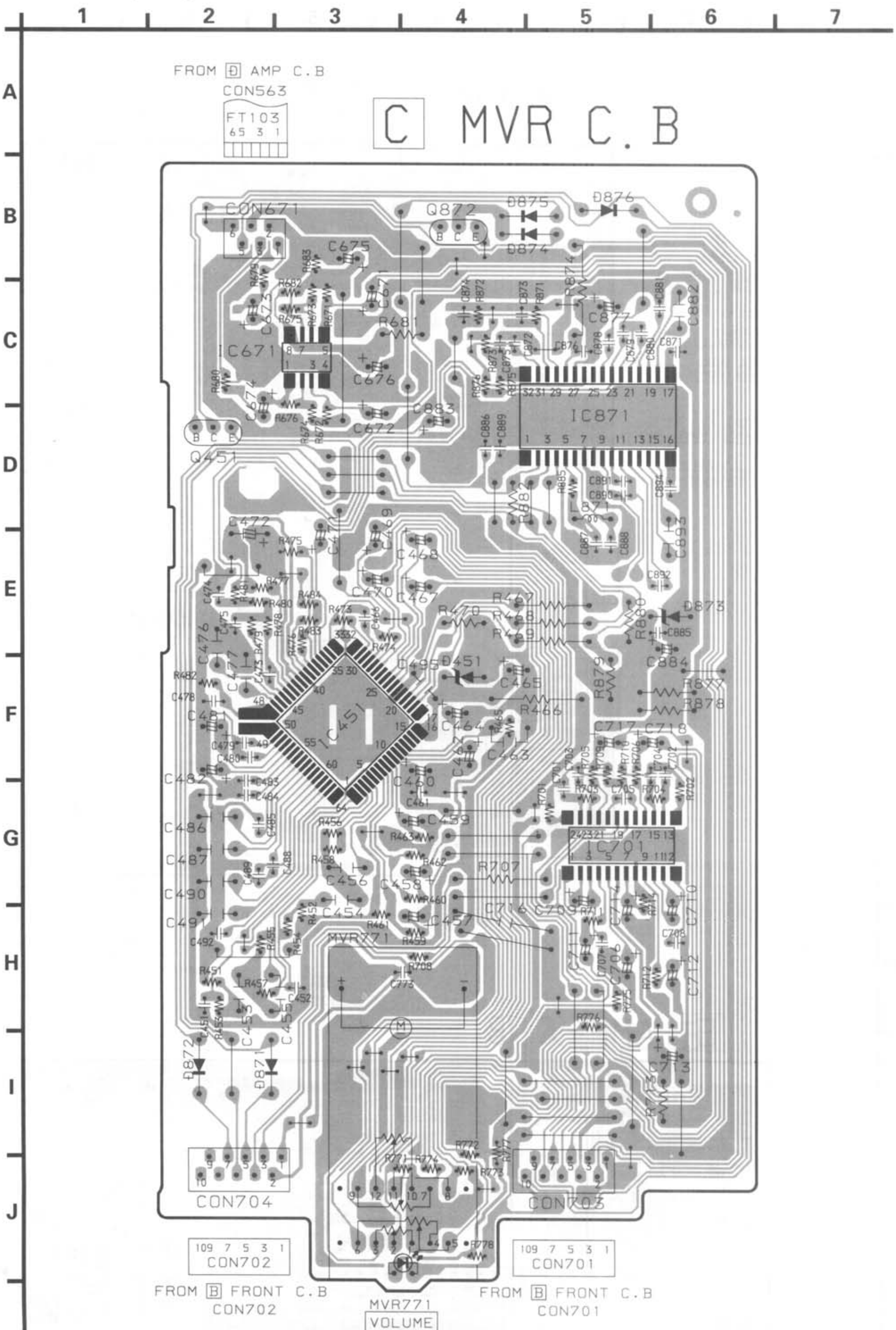
IC, BU4052BC



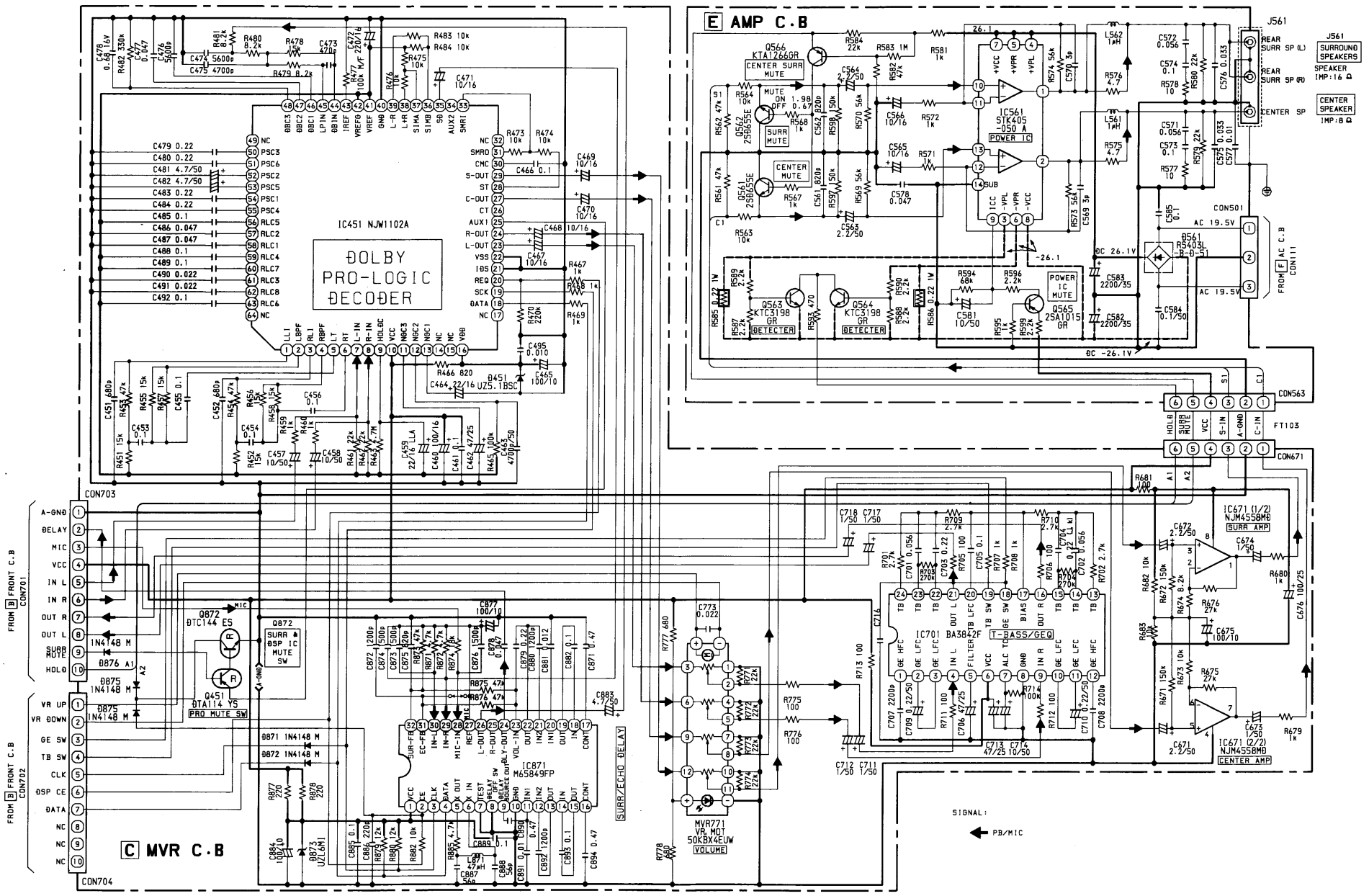
TRUTH TABLE

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.

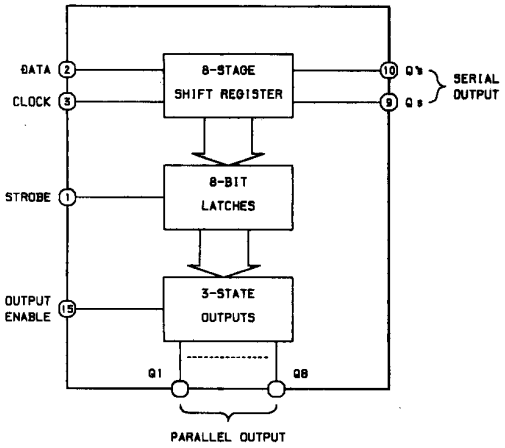

1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
FROM D AMP C.B
CON563
FT103
C MVR C.B
CON671
IC671
Q451
Q872
D875
D876
D874
IC871
IC451
IC701
MVR771
CON704
CON703
109 7 5 3 1
CON702
FROM B FRONT C.B
CON702
CON701
FROM B FRONT C.B
CON701
MVR771
VOLUME

SCHEMATIC DIAGRAM – 3 (MVR /AMP)



IC BLOCK DIAGRAM – 4

IC, BU4094BC/BCF



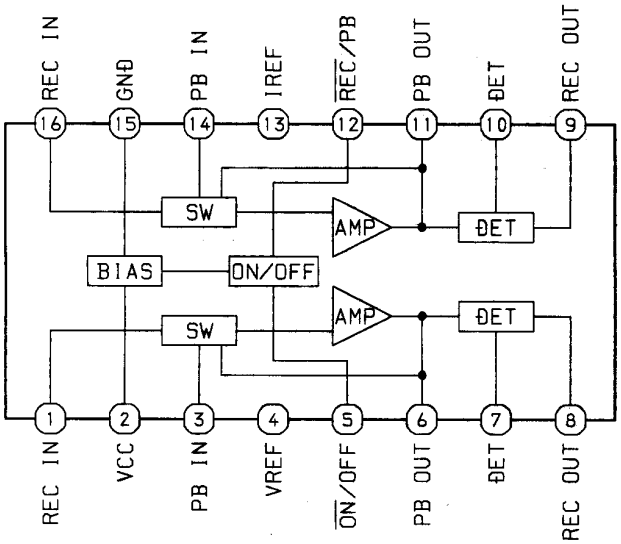
TRUTH TABLE

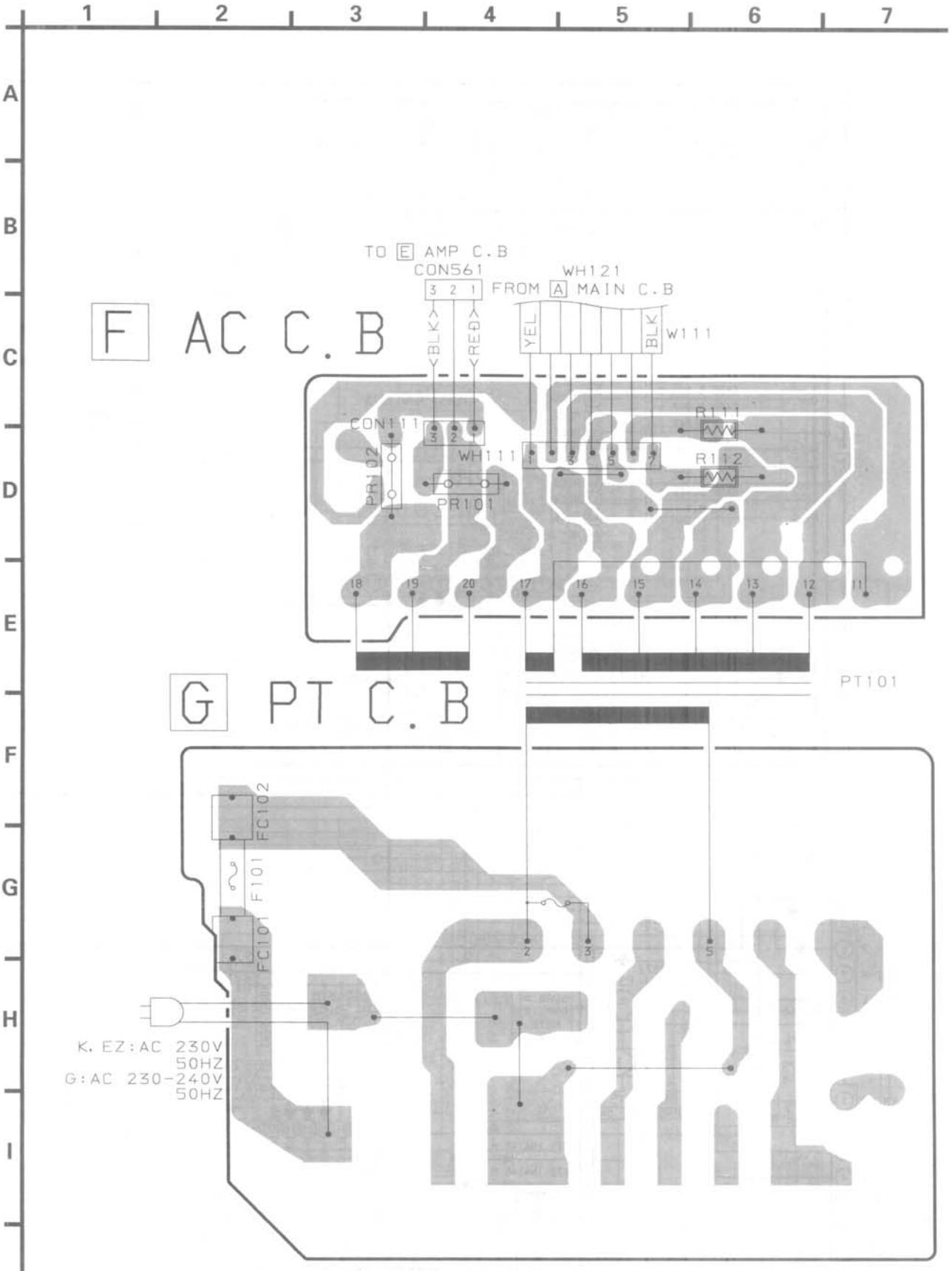
CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Qs	Q's
↑	L	X	X	Z	Z	Q7	NO Chg.
↓	L	X	X	Z	Z	No Chg.	Qs
↑	H	L	X	No Chg.	No Chg.	Q7	No Chg.
↑	H	H	L	L	Qn-1	Q7	No Chg.
↑	H	H	H	H	Qn-1	Q7	No Chg.
↓	H	X	X	No Chg.	No Chg.	No Chg.	Qs

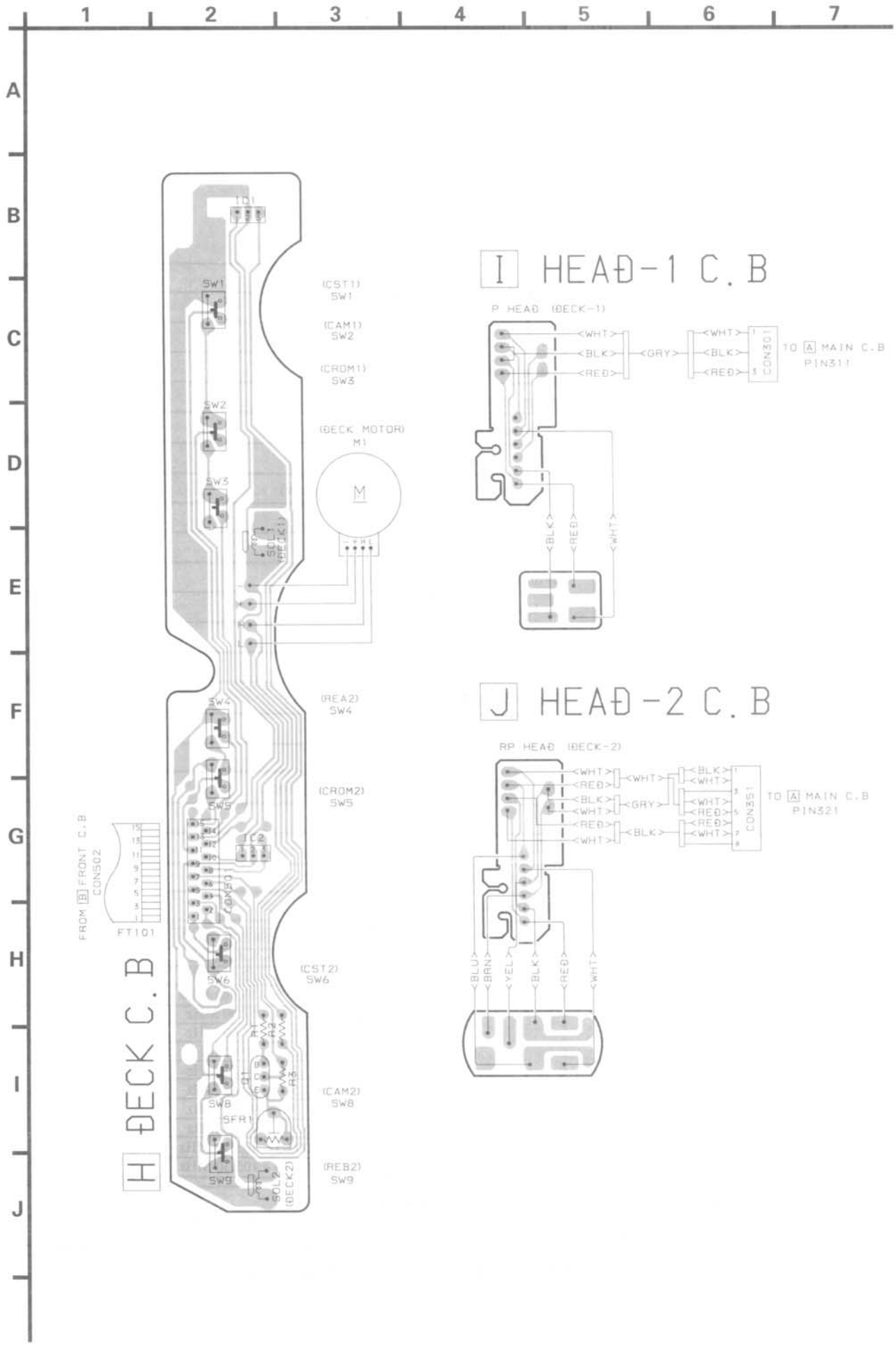
Z=High Impedance

X=Don't Care

IC, HA12134A




1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
F AC C.B
TO E AMP C.B
CON561
3 2 1
WH121
FROM A MAIN C.B
BLK
RED
YEL
BLK
W111
CON111
3 2 1
WH111
1 3 5 7
PR102
PR101
R111
R112
18 19 20 17 16 15 14 13 12 11
G PT C.B
PT101
FC102
F101
FC101
2
3
5
K. EZ: AC 230V
50HZ
G: AC 230-240V
50HZ


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
H DECK C.B
TD1
SW1
(CST1)
SW1
(CAM1)
SW2
(CROM1)
SW3
SW2
SW3
(DECK MOTOR)
M1
M
SOL1
(DECK1)
SW4
(REA2)
SW4
SW5
(CROM2)
SW5
FROM B FRONT C.B
CON502
CON301
FT101
SW6
(CST2)
SW6
R1
R2
R3
Q1
SW8
SFR1
(CAM2)
SW8
SW9
(REB2)
SW9
SOL2
(DECK2)
I HEAD-1 C.B
P HEAD (DECK-1)
<WHT>
<BLK>
<RED>
<GRY>
CON301
TO A MAIN C.B
PIN311
J HEAD-2 C.B
RP HEAD (DECK-2)
CON351
TO A MAIN C.B
PIN321
<BLU>
<BRN>
<YEL>

IC DESCRIPTION

IC, μPD78045BGF-017

Pin No.	Pin Name	I/O	Description
1~7	G7 ~G1	O	FL grid output. (G1~G7)
8	VDD	-	Power supply terminal. (+5V)
9	I-SUBQ	I/O	CD IC control input/output.
10	O-CLK		
11	O-CD-CE		
12	O-DATA		
13	I-WRQ		
14	$\overline{\text{I-SURR MUTE}}$	I	"L" input DSP, PROLOGIC off.
15	O-DSP CE	O	DSP data latch strobe output.
16	$\overline{\text{I-HOLD}}$	I	Power failure detected input. (Low when Hold)
17	$\overline{\text{RESET}}$	I	System reset input.
18	$\overline{\text{O-POWER}}$	O	System power supply $\overline{\text{ON}}$/OFF output.
19	O-MUTE	O	System mute ON/$\overline{\text{OFF}}$ output.
20	AVSS	-	GND.
21	$\overline{\text{O-KSCAN}}$	O	Segment input permitted output. (Active low)
22	I-MS	I	DECK MS detected A/D input.
23	I-CD SW	I	CD Mechanical switch AD input.
24	I-DISH	I	CD turntable photo sensor A/D input.
25	I-MIC	I	Mic level A/D input for auto vocal fader.
26	I-KEY0	I	KEY0 A/D input.
27	I-KEY 1	I	KEY1 A/D input.
28	I-KEY 2	I	KEY2 A/D input.
29	AVDD	-	Power supply terminal.
30	AVREF	I	Reference voltage. (+5V)
31	I-TMBASE	I	Input a reference clock signal (8Hz) to the clock.
32	NC	-	-
33	VSS	-	GND.
34	X1	I	4.19MHz clock oscillator input.
35	X2	I	4.19MHz clock oscillator input.
36	$\overline{\text{O-C-SHIFT}}$	O	Micro clock shift output. LC oscillator, "L" clock shift.
37	O-CD LED	O	CD flash window LED ON/$\overline{\text{OFF}}$ output.
38	O-PLL-CE	O	PLL IC chip enable output.
39	O-DATA	O	Main and front PLL shift register data output.

	SHIFT FREQUENCY	REQUIRED STEP
SW	8.337 ~ 8.423 MHz	1 kHz
	12.506 ~ 12.634 MHz	
	16.675 ~ 16.845 MHz	
FM (OIRT)	66.70 ~ 67.40 MHz	10 kHz
	70.85 ~ 71.60 MHz	
FM	79.20 ~ 80.05 MHz	50 kHz
	83.35 ~ 84.25 MHz	
	87.50 ~ 88.45 MHz	
	91.70 ~ 92.65 MHz	
	95.85 ~ 96.90 MHz	
	100.05 ~ 101.10 MHz	
	104.20 ~ 105.30 MHz	

Pin No.	Pin Name	I/O	Description
40	O-CLK	O	Main and front PLL shift register clock output.
41	O-FSTB	O	Front shift register data latch strobe output.
42	O-MSTB	O	Main shift register data latch strobe output.
43	O-HSP	O	Deck motor high speed ON/$\overline{\text{OFF}}$ output.
44	O-REC SEL	O	Deck recording input switch.(HiZ-RMT, H-MIX, L-TAPE) "HiZ" (MUTE) / "H" (MIX) / "L" (TAPE) / Dolby On : "L"(TAPE) Dolby Off : "H" (MIX) REC muting / Manual dubbing / Synchronize dubbing / Tuner/Aux/CD Recording
45	$\overline{\text{I-TUNE/IFC}}$	I	SD detected input or serial data input of IF count to and from Tuner.
46	$\overline{\text{I-SENS ST}}$	I	Stereo detected input to and from Tuner. (Active low)
47	$\overline{\text{I-RMC}}$	I	System remote controller input. (Active low)
48	IC	-	Internal connection. (connected to GND)
49	$\overline{\text{O-SOL2}}$	O	DECK 2 solenoid $\overline{\text{ON}}$/OFF output.
50	$\overline{\text{O-SOL1}}$	O	DECK 1 solenoid $\overline{\text{ON}}$/OFF output.
51	$\overline{\text{O-MOTOR}}$	O	DECK motor $\overline{\text{ON}}$/OFF output.
52	VDD	-	Power supply terminal. (+5V)
53	O-DISH RVS	O	3 disc table slet rotation output.
54	O-DISH FWD	O	3 disc table slet rotation output.
55	P1 /$\overline{\text{SCTI}}$	O	FL segment output. (P1, DECK 1 cassette detection switch input)
56	P2/$\overline{\text{CAM1}}$	O	FL segment output. (P2, DECK 1 cam switch input)
57	P3/$\overline{\text{AUTO1}}$	O	FL segment output. (P3, DECK 1 auto stop input)
58	P4/$\overline{\text{AUTO2}}$	O	FL segment output. (P4, DECK 2 auto stop input)
59	P5/$\overline{\text{CAM2}}$	O	FL segment output. (P5, DECK 2 cam switch input)
60	P6/$\overline{\text{REB}}$	O	FL segment output. (P6, DECK 2 B side recording permission switch input)
61	P7/$\overline{\text{CST2}}$	O	FL segment output. (P7, DECK 2 cassette detection switch input)
62	P8/$\overline{\text{REA}}$	O	FL segment output. (P8, DECK 2 A side recording permission switch input)
63	P9/TU1	O	FL segment output. (P9, Diode (TU1) input)
64	P10/TU2	O	FL segment output. (P10, Diode (TU2) input)
65	P11/NTSC/$\overline{\text{PAL}}$	O	FL segment output. (P11, NTSC initial diode input)
66	P12/KEYCON	O	FL segment output. (P12, Key con diode input)
67	P13/DOLBY	O	FL segment output. (P13, Dolby diode input)
68	P14/DSP	O	FL segment output. (P14, DSP diode input)
69~77	P15~22	O	FL segment output. (P15~22)
78	O-CLOSE	O	CD tray close output.
79	O-OPEN	O	CD tray open output.
80	G8	O	FL grid output. (G8)

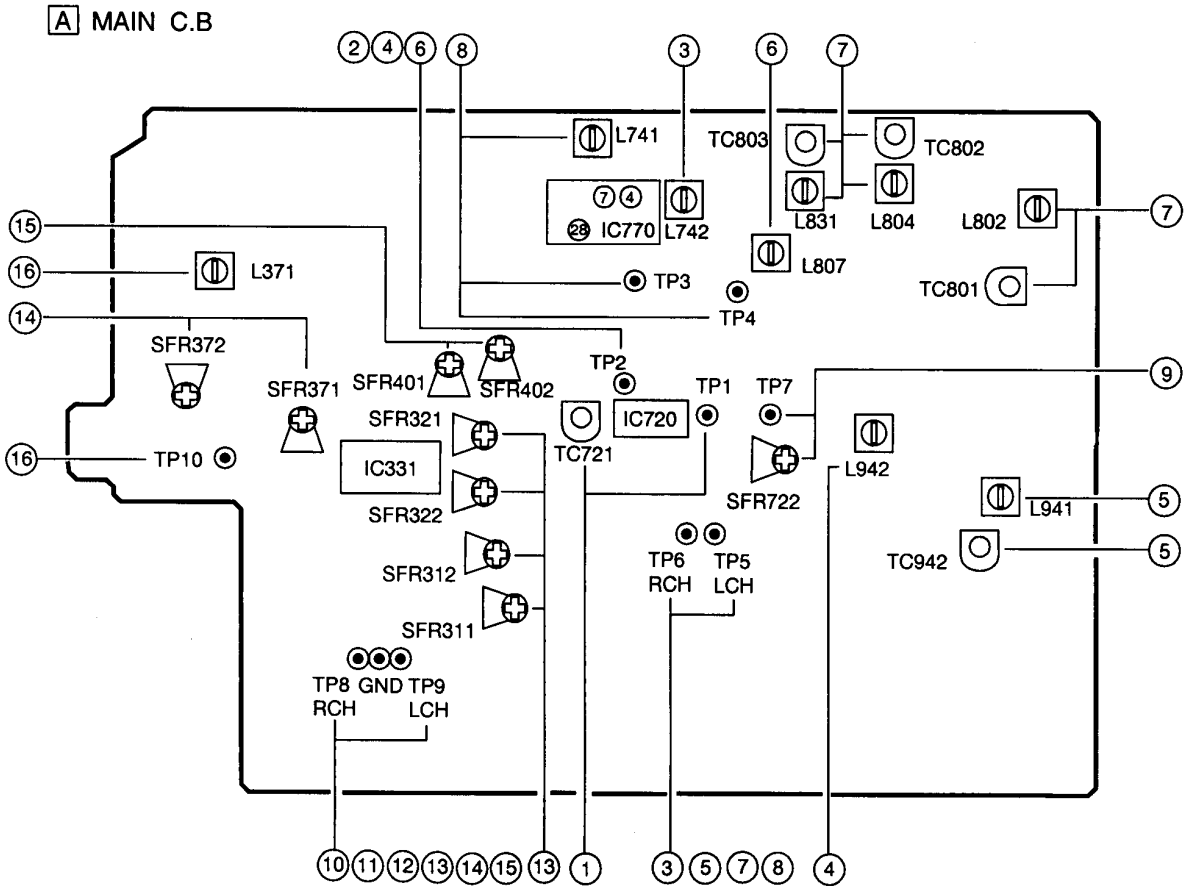
IC, LC72131D

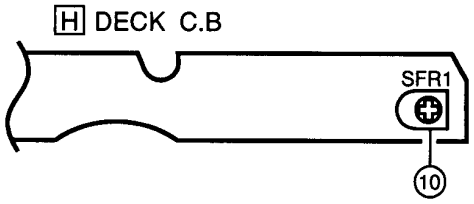
<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>XIN</td><td rowspan="2">–</td><td rowspan="2">A crystal oscillator (7.2MHz) is connected between these pins.</td></tr>
<tr><td>22</td><td>XOUT</td></tr>
<tr><td>2</td><td>NC</td><td>–</td><td>Not used.</td></tr>
<tr><td>3</td><td>CE</td><td>I</td><td>To enable the IC. Active "H".</td></tr>
<tr><td>4</td><td>DI</td><td>I</td><td>Digital data input from CPU (LC866432V-5A45) when relevant key is operated. Active "H".</td></tr>
<tr><td>5</td><td>CLK</td><td>I</td><td>To clock in the data DI.</td></tr>
<tr><td>6</td><td>DO</td><td>O</td><td>Digital data output to CPU (LC866432V-5A45).</td></tr>
<tr><td>7</td><td>TM-BASE</td><td>O</td><td>Outputs a reference clock signal (8Hz) for the clock.</td></tr>
<tr><td>8</td><td>$\overline{\text{MONO}}$ / BEAT</td><td>O</td><td>Outputs "H" when MONO / BEAT is switched.</td></tr>
<tr><td>9</td><td>$\overline{\text{FM}}$ / AM</td><td>O</td><td>Output "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>MW</th><th>SW</th><th>FM</th></tr>
<tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>10</td><td>$\overline{\text{MW}}$</td><td>O</td><td>Outputs "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>MW</th><th>SW</th><th>FM</th></tr>
<tr><td>L</td><td>L</td><td>H</td><td>L</td><td>L</td><td>L</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>11</td><td>IF-MUTE</td><td>O</td><td>To control internal counter.</td></tr>
<tr><td>12</td><td>IFIN</td><td>I</td><td>General purpose counter input.</td></tr>
<tr><td>13</td><td>$\overline{\text{TUNE}}$</td><td>I</td><td>Receives "L" when station is tuned.</td></tr>
<tr><td>14</td><td>NC</td><td>–</td><td>Not used.</td></tr>
<tr><td>15</td><td>A MIN</td><td>I</td><td>Receives the AM local oscillator frequency signal.</td></tr>
<tr><td>16</td><td>F MIN</td><td>I</td><td>Receives the FM local oscillator frequency signal.</td></tr>
<tr><td>17</td><td>VDD</td><td>–</td><td>Supply power to IC (+5V).</td></tr>
<tr><td>18</td><td>PD</td><td>O</td><td>PLL charge pump output.</td></tr>
<tr><td>19</td><td>AIN</td><td>I</td><td rowspan="2">The MOS transistor for PLL active low pass filter.</td></tr>
<tr><td>20</td><td>AOUT</td><td>O</td></tr>
<tr><td>21</td><td>VSS</td><td>–</td><td>Ground.</td></tr>
</table>

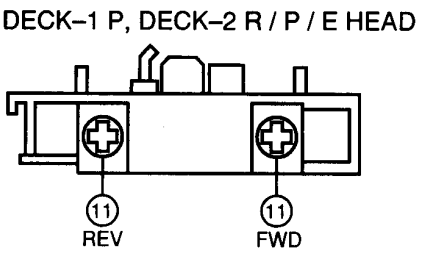
IC, NJW1102AFG1

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	–	–

ELECTRICAL ADJUSTMENT <TUNER / DECK>







< TUNER SECTION >

1. Clock Frequency Adjustment
   Settings : • Test point : TP1
   • Adjustment location : TC721
   Method : Set to MW 1602kHz and adjust TC721 so that the test point becomes 2052kHz ± 0.01kHz.

2. MW VT Check
   Settings : • Test point : TP2 (VT)
   Method : Set to MW 1602kHz and check that the test point is 5.8V ± 1.0V.

3. AM IF Adjustment
   Settings : • Test point : TP-5, TP-6
   • Ajustment location : L742
   Method : Set to MW 999kHz and adjust L742 so that the test point becomes maximum.

4. LW VT Adjustment
   Settings : • Test point : TP2 (VT)
   • Ajustment location : L942
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.5V ± 0.05V.

5. LW Tracking Adjustment
   Settings : • Test point : TP-5, TP-6
   • Adjustment location :
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method : Set up TC942 to center before adjustment. The level at 144kHz is adjusted to MAX by L941. Then the level at 290kHz is adjusted to MAX by TC942.

6. FM VT Adjustment
   Settings : • Test point : TP2 (VT)
   • Adjustment location : L807
   Method : Set to FM 108MHz and adjust L807 so that test point is 8.0V ± 0.05V. Then set to FM 87.5MHz and adjust L807 so that test point is more than 1.5V.

7. FM Tracking Adjustment
   Settings : • Test point : TP5, TP6
   • Adjustment location :
   L802,L804,L831
   ..... 87.5MHz
   TC801,TC802,TC803
   ..... 108.0MHz
   Method : • The level at 87.5MHz is adjusted by L802, L804, L831. Then the level at 108.0MHz is adjusted by TC801, TC802, TC803 so that the distortion is less than 3%.

8. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3, TP4 (DC balance)
   TP5, TP6 (Distortion)
   • Ajustment 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%.

9. Auto Stop Level Adjustment
   Settings : • Test point : TP7
   • Adjustment location : SFR722
   • Input level : 20dB
   Method : Set to FM 98.0 MHz and adjust voltage low (about 0.1V) by SFR722. After that voltage high (about 7.0V) by 2dB down.

< DECK SECTION >

10. Tape Speed Adjustment
    Settings : • Test tape : TTA–100
    • Test point : TP8, TP9
    • Adjustment location : SFR1
    Method : Play back the test tape by DECK 2 and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz.

11. 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 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 is with respect to that of the 315Hz signal is ± 2dB.

13. PB Sensitivity Adjustment
    Settings : • Test tape : TTA–200
    • Test point : TP8, TP9
    • Adjustment location :
    SFR311 (DECK 1, Lch)
    SFR312 (DECK 1, Rch)
    SFR321 (DECK 2, Lch)
    SFR322 (DECK 2, Rch)
    Method : Play back the test tape and adjust SFRs so that the output level of the test point become 300mV.

14. REC/PB Frequency Response Adjustment
    Settings : • Test tape : TTA–602
    • Test point : TP8, TP9
    • Input signal : 1kHz / 10kHz (LINE IN)
    • Adjutment location : SFR371 (Lch)
    SFR372 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 21mV. 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. PB/REC Sensitivity Adjustment
    Settings : • Test tape : TTA–602
    • Test point : TP8, TP9
    • Input signal : 1kHz (LINE IN)
    • Adjustment location : SFR401 (Lch)
    SFR402 (Rch)
    Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 21mV. Record and play back the 1kHz and adjust SFRs so that the output is 21mV ± 0.5dB.

16. Bias OSC Frequency Adjustment
    Settings : • Test tape : TTA–601
    • Test point : TP10
    • Adjustment location : L371
    Method : Set to the REC mode. Adjust L371 so that the frequency counter of the test point becomes 85 kHz ± 0.1 kHz.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity :	8dB ± 6dB
(THD 3%)	[at 87.5MHz]
	7dB ± 6dB
	[at 98 / 108.0MHz]
S/N 46dB Quieting sensitivity :	
	34dB ± 5dB
	[at 87.5 / 98.0 / 108.0MHz]
Signal to noise ratio :	(MONO) More than 65dB
	[at 98.0MHz]
	(STEREO) More than 59dB
	[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

<AM(MW) SECTION>

Sensitivity :	52 ~ 64dB
(S/N 20 dB)	[at 603kHz]
	50 ~ 62dB
	[at 999 / 1404kHz]
Signal to noise ratio :	More than 36dB
	[at 999kHz]
Distortion :	Less than 1.5%
	[at 999kHz]
Auto stop level :	40dB ~ 65dB
	[at 999kHz]
Intermediate frequency :	450kHz

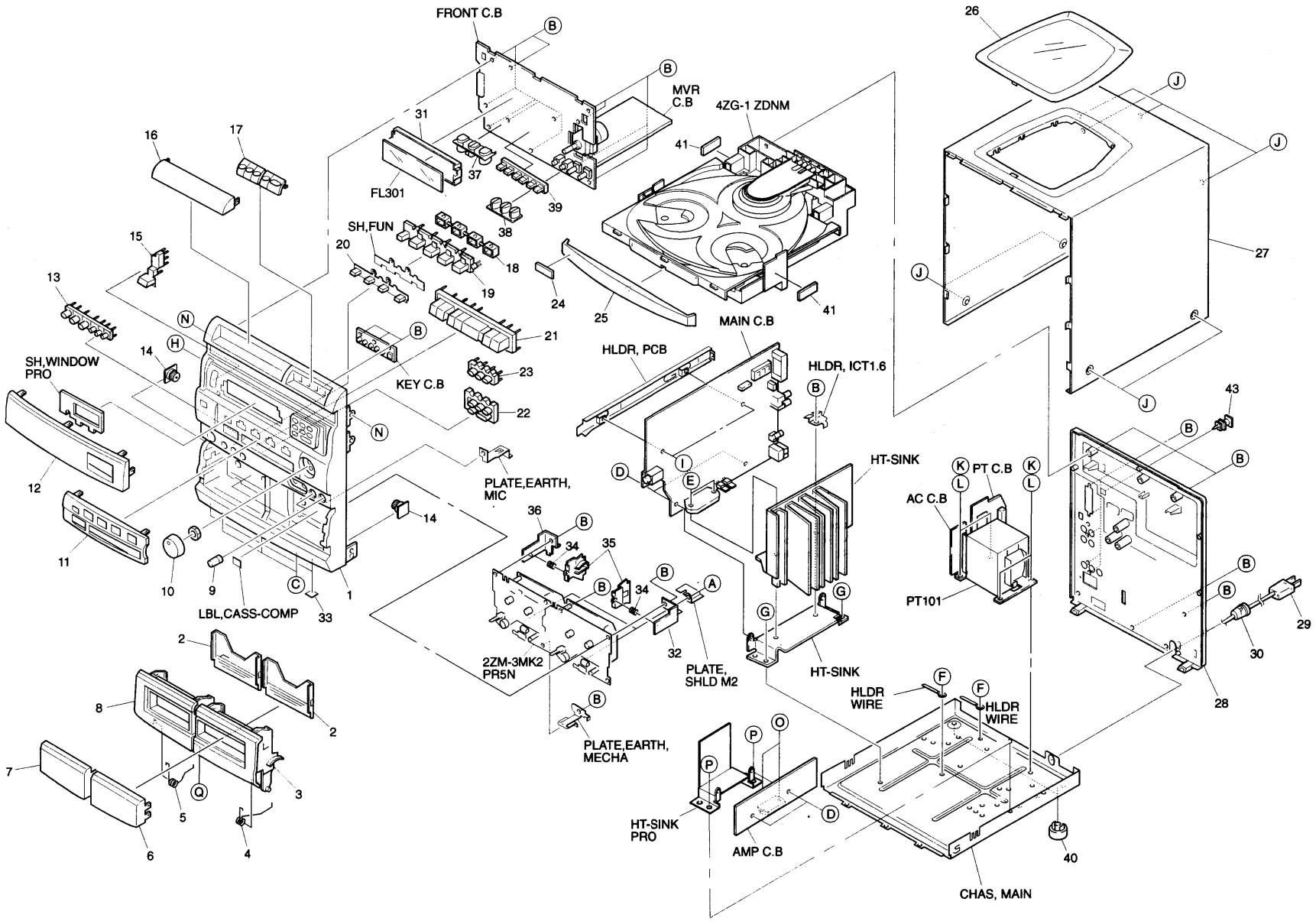
<LW SECTION>

Sensitivity :	68dB ± 5dB (144kHz)
(S/N 20dB)	65dB ± 5dB (198kHz)
	65dB ± 5dB (290kHz)
Distortion :	Less than 1.5% (198kHz)
Intermediate frequency :	450kHz

<DECK SECTION>

Tape speed :	3000Hz ± 45Hz
Wow & flutter :	Less than 0.15%
	(W. R.M.S)
Take-up torque :	30 ~ 55g-cm
	(FWD, REV)
F.F & REW torque :	75 ~ 180g-cm
Back tension :	2 ~ 7g-cm
	(FWD, REV)
PB output level :	2.8V ± 3dB
	(SP OUT 2V)
REC/PB output level :	1.6V ± 3dB
	(SP OUT 2V)
Distortion (REC/PB) :	Less than 2.0%
Noise level (PB) :	Less than 300mV (NORM)
	Less than 150mV (CrO_2)
	(DOLBY OFF LINEAR, SP OUT 2V)
Noise level (REC/PB) :	Less than 25mV/12mV (NORM)
	Less than 18mV/10mV (CrO_2)
	(DOLBY OFF LINEAR / WTD, SP OUT 2V)
Crosstalk :	More than 55dB
	(1kHz, 0VU)
Channel separation :	More than 40dB
	(1kHz, 0VU)
Erasing ratio :	More than 60dB
	(at 125Hz)
Test tape :	TTA-602 (NORMAL)
	TTA-610 (CrO_2)

MECHANICAL EXPLODED VIEW 1/1

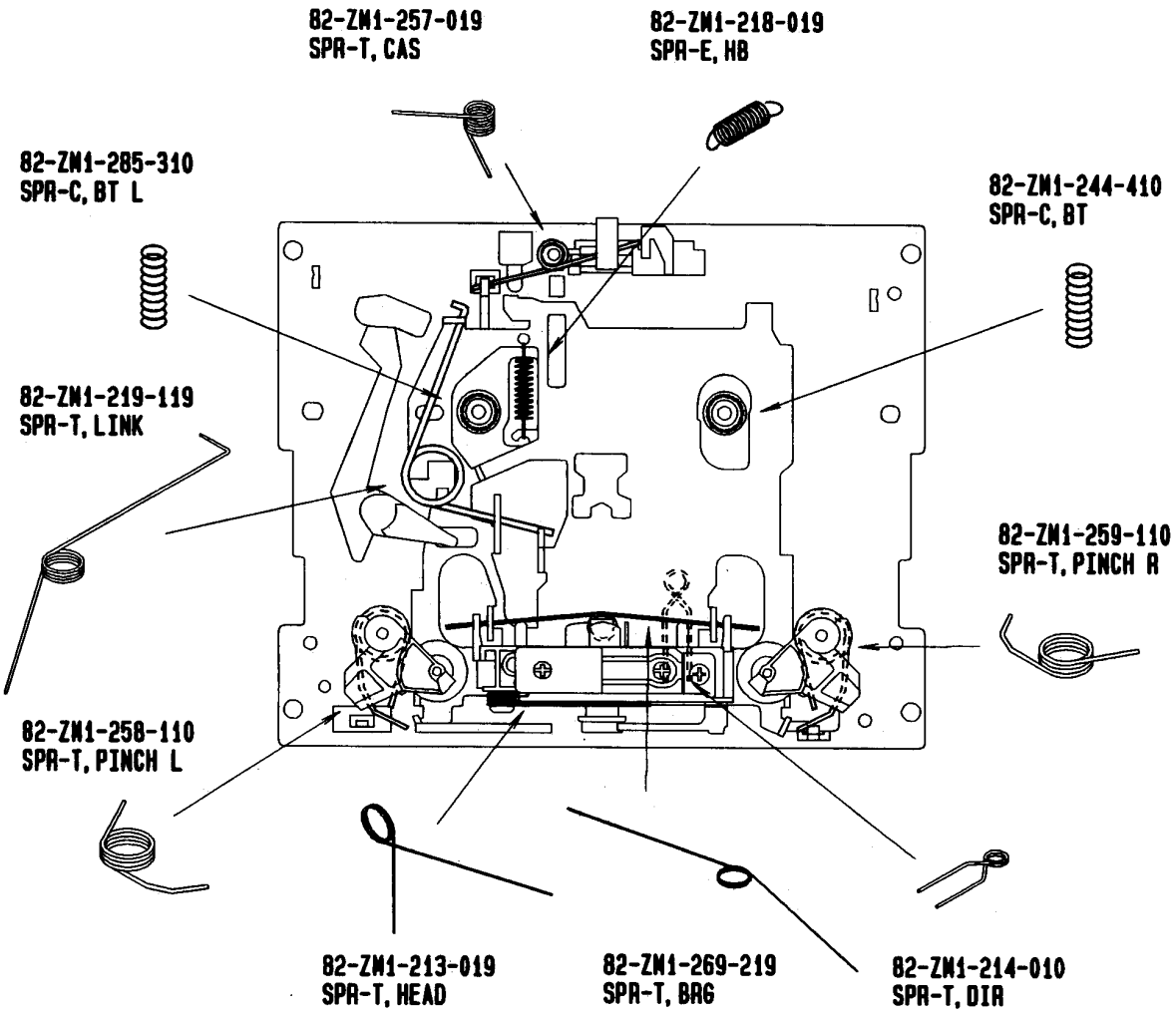


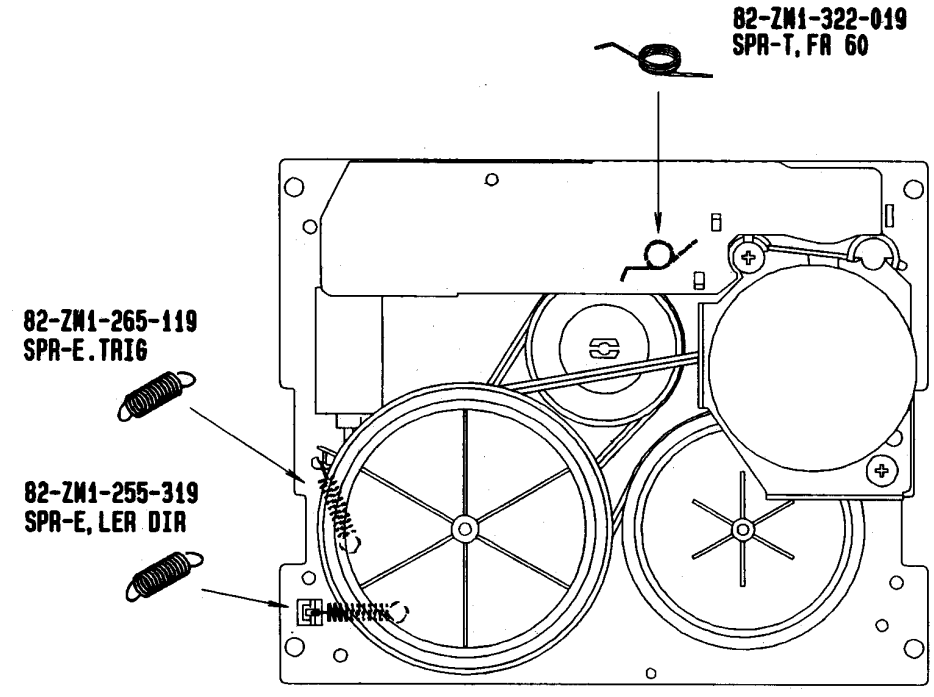
MECHANICAL PARTS LIST 1/1

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

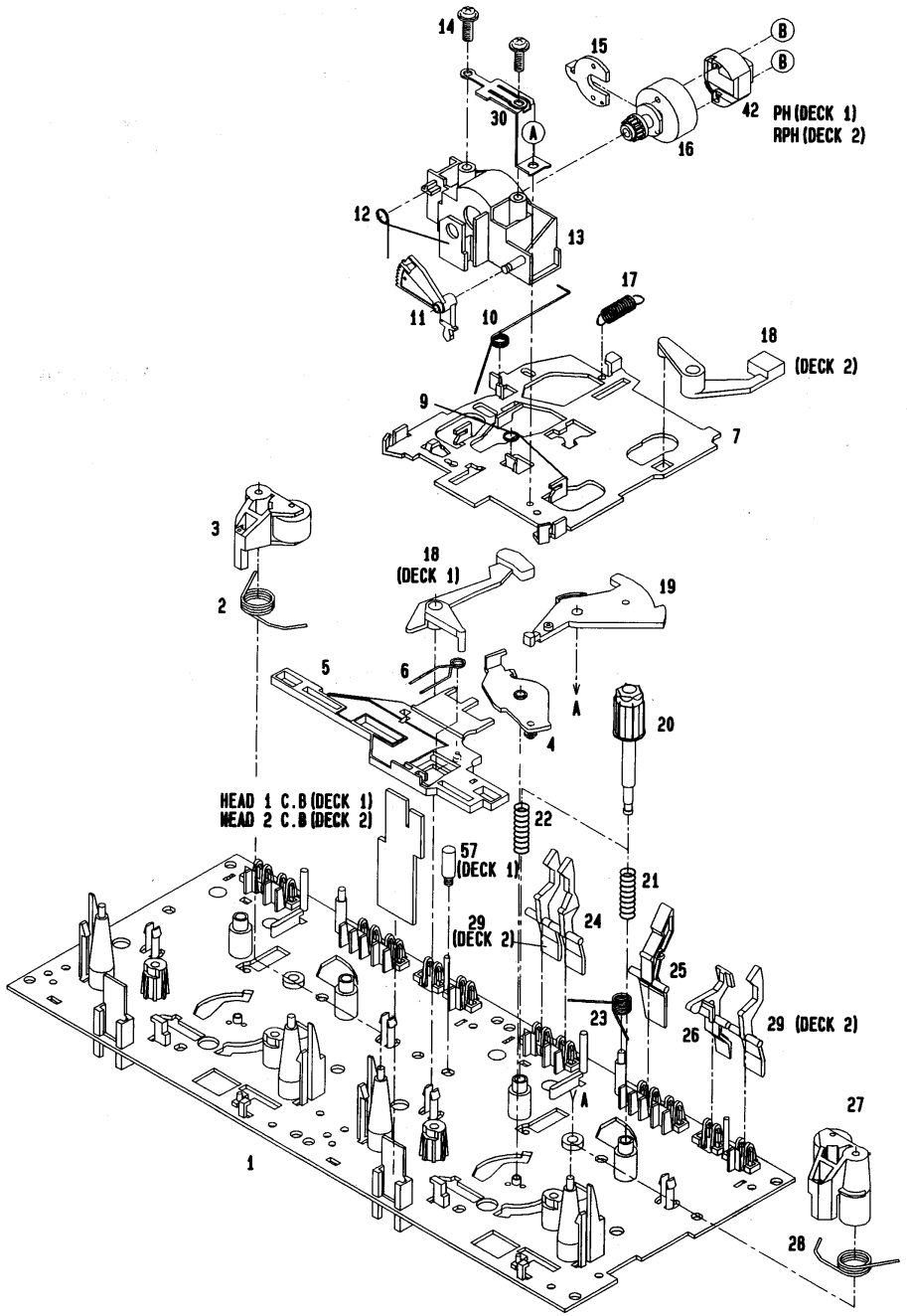
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-NFT-002-019		CABI,FR E[B]<K>,[B]<G>
1	86-NFT-004-019		CABI,STEEL TS[ST]<EZ>
2	86-NF6-061-019		REFLECTOR,CASS
3	86-NF6-004-019		BOX,CASS 2[B]<G>
3	86-NF6-047-019		BOX,CASS 2E[B]<K>
3	86-NFT-022-019		BOX,CASS 2TS[ST]<EZ>
4	82-NF5-219-019		SPR-T,EJECT 2 (SIN)
5	82-NF5-218-019		SRT-T,EJECT 1 (SIN)
6	86-NF6-020-019		WINDOW,CASS 2
7	86-NF6-019-019		WINDOW,CASS 1
8	86-NF6-003-019		BOX,CASS 1[B]<G>
8	86-NF6-046-019		BOX,CASS 1E[B]<K>
8	86-NFT-021-019		BOX,CASS 1TS[ST]<EZ>
9	86-NF6-050-019		KNOB,RTRY MIC M
10	86-NF6-063-019		KNOB,RTRY VOL[B]<K>,[B]<G>
10	86-NFT-032-019		KNOB,RTRY VOL TS[ST]<EZ>
11	86-NF6-006-019		PANEL,CONTROL
12	86-NFT-006-119		WINDOW,DISP
13	86-NF6-013-019		KEY,DOLBY[B]<K>,[B]<G>
13	86-NFT-035-019		KEY,DOLBY TS[ST]<EZ>
14	87-063-165-019		OIL-DMPR 150
15	86-NF6-009-019		KEY,POWER[B]<K>,[B]<G>
15	86-NFT-033-019		KEY,POWER TS[ST]<EZ>
16	86-NF6-018-019		WINDOW,CD
17	86-NF6-015-019		KEY,CD[B]<K>,[B]<G>
17	86-NFT-031-019		KEY,CD TS[ST]<EZ>
18	86-NF6-208-019		GUIDE,FUN
19	86-NF6-011-019		KEY,FUN
20	86-NF6-016-019		REFLECTOR,FUN
21	86-NF6-012-019		KEY,OPE
22	86-NFT-008-019		KEY,PL
23	86-NF6-014-019		KEY,DSP
24	82-NE6-067-019		BADGE AIWA 30N
25	86-NFT-023-019		PANEL,TRAY TS[ST]<EZ>
25	86-NF6-051-019		PANEL,TRAY U[B]<K>,[B]<G>
26	86-NF6-007-019		WINDOW,TOP
27	86-NF6-048-019		CABI,STEEL H-S[B]<K>,[B]<G>
27	86-NFT-005-019		CABI,STEEL TS[ST]<EZ>
28	86-NFT-015-019		PANEL,REAR EZ[ST]<EZ>
28	86-NFT-020-019		PANEL,REAR GBNM[B]<G>
28	86-NFT-014-019		PANEL,REAR KBNM[B]<K>
⚠ 29	87-050-081-110		AC CORD ASSY G[B]<G>
⚠ 29	87-A80-007-110		AC CORD ASSY K[B]<K>
⚠ 29	87-050-079-019		AC CORD ASSY,E[ST]<EZ>
30	87-085-185-010		BUSHING,CORD E
31	82-NF7-210-019		GUIDE,FL
32	82-NF5-227-019		HLDR,LOCK 2N
33	80-VT1-202-019		FELT,12.5-15.5-2
34	82-NF5-228-019		SPR-C,LOCK
35	82-NF5-229-019		PLATE,LOCK
36	82-NF5-226-019		HLDR LOCK 1N
37	86-NF6-210-019		GUIDE,LED L
38	86-NF6-209-019		GUIDE,LED R
39	86-NF6-205-019		GUIDE,OPE
40	87-085-221-019		FOOT,H 13.5
41	87-063-173-019		CLOTH,30-10-0.35
43	84-ZG1-245-110		CAP OPTICAL
A	87-571-032-419		VIT+2-3
B	87-067-703-019		BVT2+3-10 (W/O SLOT)
C	87-067-673-019		BVTT +3-8 BLK
D	87-067-633-019		BVT2+3-8 W/CONVEX
E	87-067-698-019		BVT 2+3-18 (W/O SLOT)
F	87-067-584-019		BVT2+3-6
G	87-067-689-019		BVTT+3-8
H	87-591-094-419		QIT + 3 - 6 GOLD
I	87-078-084-019		BVTT+3-6 W,CONVEX
J	87-067-641-019		UTT2+3-8 W/O SLOT BLK
K	87-078-083-019		BUTT SEMS+4-8SW
L	87-410-225-019		W4-10-0.8
N	87-721-097-419		QT2+3-12 GLD
O	87-067-581-019		BVT2+3-15 W/O SLOT
P	87-067-688-019		BVTT +3-6
Q	82-NE8-215-019		W4.2-7-0.188

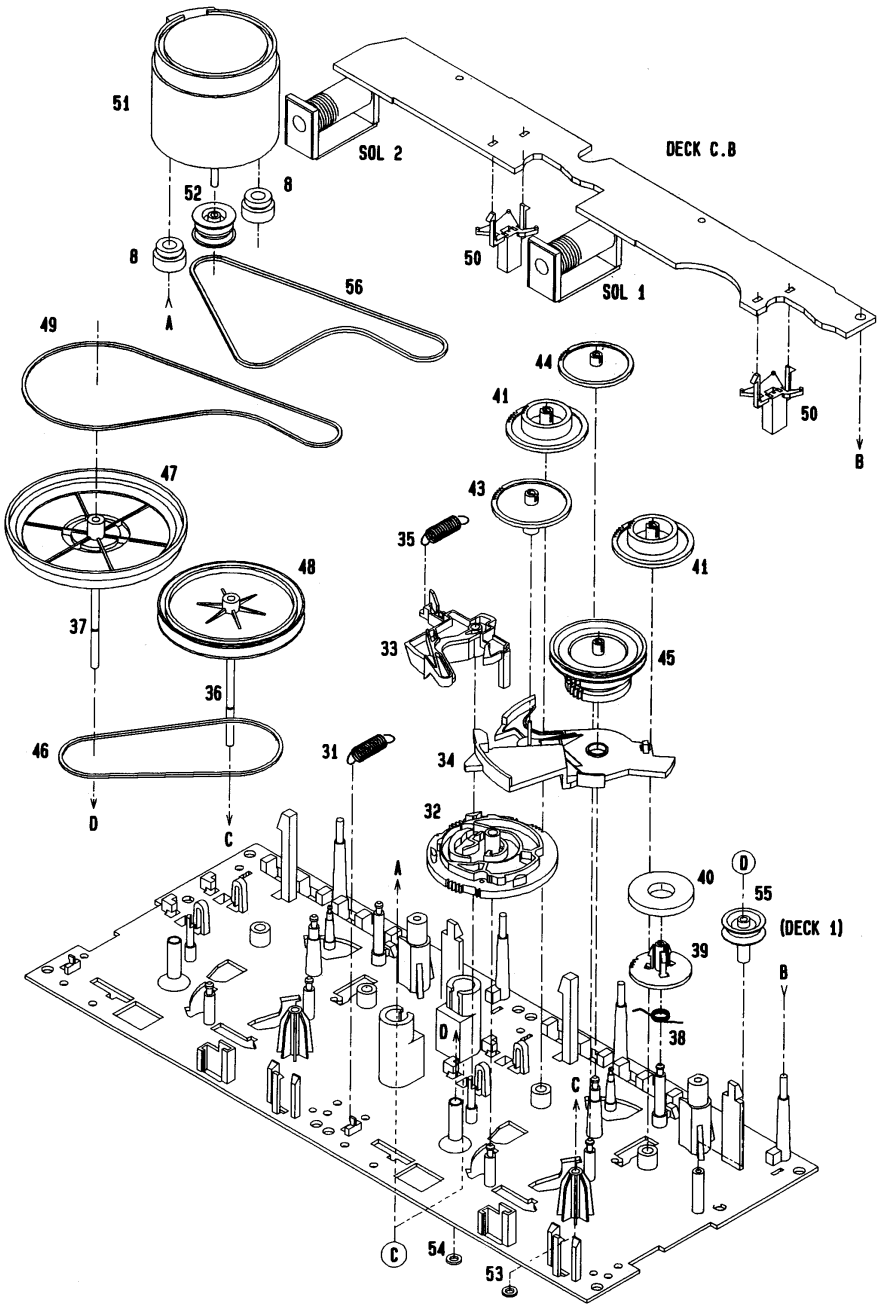
SPRING APPLICATION POSITION





TAPE MECHANISM EXPLODED VIEW 1/1





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

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-NFT-903-019		IB,E(EGFSI)-M<EZ>
1	86-NFT-904-019		IB,K(E)-M<K>
1	86-NFT-905-019		IB,G(E)-M<G>
2	86-MAP-701-119		RC UNIT,6AS02
3	87-006-225-019		AM LOOP ANT NC2
4	87-043-106-019		FM,WIRE ANT (Z)

REFERENCE NAME LIST

ELECTRICAL SECTION

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

MECHANICAL SECTION

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

サービス技術ニュース	
番号	連絡内容
G－　－	
G－　－	
G－　－	

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

Printed in Singapore