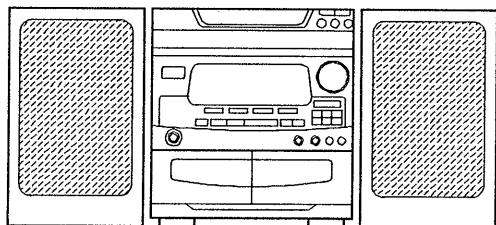


aiwa



CX-NV90 SX-NV90



COMPACT DISC STEREO SYSTEM

- BASIC TAPE MECHANISM: 2ZM-3 MK2PR1
- BASIC CD MECHANISM: 4ZG-1 TDFR
- TYPE: EE,K,EEZ,EZ,G

REVISION PUBLISHING

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" NSX-V90 (S/M Code No. 09-956-110-60T).
- If requiring information about the CD mechanism, see Service Manual of 4ZG-1T (S/M Code No. 09-94C-086-20T).

MANUAL
SERVICE

TABLE OF CONTENTS

SPECIFICATIONS	3
ELECTRICAL MAIN PARTS LIST	4~9
CHIP RESISTOR PART CODE	9
TRANSISTOR ILLUSTRATION	9
FL GRID ASSIGNMENT / ANODE CONNECTION	10
BLOCK DIAGRAM-1 (MAIN)	11~12
BLOCK DIAGRAM-2 (PRO/DSP)	13~14
BLOCK DIAGRAM-3 (TUNER:EE,K,EEZ,EZ)	15
BLOCK DIAGRAM-4 (TUNER:G)	16
WIRING-1 (MAIN:EE,K,EEZ,EZ)	17~18
SCHEMATIC DIAGRAM-1 (MAIN:EE,K,EEZ,EZ)	19~21
SCHEMATIC DIAGRAM-2 (MAIN:G)	22~24
WIRING-2 (MAIN:G)	25~26
SCHEMATIC DIAGRAM-3 (FRONT)	27~28
WIRING-3 (FRONT)	29~31
SCHEMATIC DIAGRAM-4 (VOLUME,PRO/DSP)	32~34
WIRING-4 (PRO/DSP)	35~36
WIRING-5 (SW,HEAD,PT)	37~38
IC BLOCK DIAGRAM	39~43
IC DISCRIPTION	44~45
ELECTRICAL ADJUSTMENT	46~51
PRACTICAL SERVICE FIGURE	49
MECHANICAL PARTS LIST-1/1	52
MECHANICAL EXPLODED VIEW-1/1	53~54
TAPE MECHANISM EXPLODED VIEW-1/1	55~56
TAPE MECHANISM PARTS LIST-1/1	57
SPRING APPLICATION POSITION	58
SPEAKER PARTS LIST	59
ACCESSORIES / PACKAGE LIST	60
REFERENCE NAME LIST	61

SPECIFICATIONS

Main unit CX-NV90

FM tuner section

Tuning range 87.5 MHz to 108 MHz
Usable sensitivity (IHF) G: 13.2 dBf
EE, EZ: 16.8 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 μ V/m
Antenna Loop antenna

LW tuner section (EE, EEZ, EZ, K ONLY)

Tuning range 144 kHz to 290 kHz
Usable sensitivity 1400 μ V/m
Antenna Loop antenna

Amplifier section

<G MODEL>

Power output **Front:** (without connecting to the SURROUND SPEAKERS)
80 W + 80 W (6 ohms, T.H.D. 10 %, 1 kHz)
Rear (Surround): 10 W + 10 W (16 ohms, T.H.D. 10 %, 1 kHz)
Center: 20 W (8 ohms, T.H.D. 10 %, 1 kHz)

<EE, EEZ, EZ, K MODELS>

Power output **Front:**
Rated 50 W + 50 W (6 ohms, T.H.D. 1 %, 1 kHz/ DIN 45500)
Reference 60 W + 60 W (6 ohms, T.H.D. 10 %, 1 kHz/ DIN 45324)
DIN MUSIC POWER 105 W + 105 W
Rear (Surround):
Rated 7.5 W + 7.5 W (16 ohms, T.H.D. 1 %, 1 kHz)
Reference 10 W + 10 W (16 ohms, T.H.D. 10 %, 1 kHz)
DIN MUSIC POWER 16 W + 16 W
Center:
Rated 15 W (8 ohms, T.H.D. 1 %, 1 kHz)
Reference 20 W (8 ohms, T.H.D. 10 %, 1 kHz)
DIN MUSIC POWER 32 W

Inputs VIDEO/AUX: 300 mV adjustable
MIC 1, MIC 2: 1 mV (10 kohms)

Outputs LINE OUT: 300 mV
SUPER WOOFER:
G: 2.45 V
EE, EEZ, EZ, K: 2.0 V
SPEAKERS: accepts speakers of 6 ohms or more
CENTER SPEAKER: accepts speakers of 8 ohms or more
SURROUND SPEAKERS: accepts speakers of 16 ohms or more
PHONES (stereo jack): accepts headphones of 32 ohms or more

Cassette deck section

Track format 4 tracks, 2 channels stereo
Frequency response CrO₂ tape: 50 Hz – 16000 Hz
Normal tape: 50 Hz – 15000 Hz
Signal-to-noise ratio 60 dB (Dolby B NR ON, CrO₂ tape peak level)
Recording system AC bias
Heads DECK 1: Playback head \times 1
DECK 2: Recording/playback/erase head \times 1

Compact disc player section


Laser Semiconductor laser ($\lambda = 780$ nm)
D-A converter 1 bit dual
Signal-to-noise ratio 85 dB (1 kHz, 0 dB)
Wow and flutter Unmeasurable

SPEAKER SYSTEM SX-NV90

Cabinet type 3 way, bass reflex (Magnetism sealed type)
Speaker Woofer: 140 mm (5⁵/₈ in.) cone type
Tweeter: 60 mm (2³/₈ 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 \times H \times D) 206 \times 302 \times 245 mm (8¹/₈ \times 12 \times 9³/₄ in.)
Weight 2.9 kg (6 lbs. 6 oz)

GENERAL

Power requirements G: 220-230 V AC, fixed 50 Hz
EE, EEZ, EZ, K: 230 V AC, 50 Hz
Power consumption G: 125 W
EE, EEZ, EZ, K: 380 W
Dimensions of main unit (W \times H \times D) 260 \times 307.8 \times 337 mm (10¹/₄ \times 12¹/₈ \times 13³/₈ in.)
Weight of main unit 7.9 kg (17 lbs. 7 oz)

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.
- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc. Under license from BBE Sound, Inc.

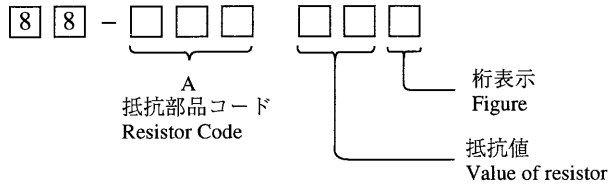
REF. NO	PART NO.	カンリ NO.	DESCRIPTION	REF. NO	PART NO.	カンリ NO.	DESCRIPTION
C305	87-012-155-089		C-CAP, S 180P-50 CH	C554	87-010-178-089		C-CAP, S 1000P-50 B<G>
C306	87-012-155-089		C-CAP, S 180P-50 CH	C554	87-010-182-089		C-CAP, S 2200P-50 B<EXCEPT G>
C307	87-010-196-089		C-CAP, S 0.1-25 F	C557	87-010-178-089		C-CAP, S 1000P-50 B
C308	87-010-196-089		C-CAP, S 0.1-25 F	C558	87-010-178-089		C-CAP, S 1000P-50 B
C313	87-010-181-089		C-CAP, S 1800P-50 B	C597	87-010-404-089		CAP, E 4.7-50 SME
C314	87-010-181-089		C-CAP, S 1800P-50 B	C598	87-010-404-089		CAP, E 4.7-50 SME
C315	87-010-179-089		C-CAP, S 1200P-50 B	C601	87-010-401-089		CAP, E 1-50 SME
C316	87-010-179-089		C-CAP, S 1200P-50 B	C602	87-010-405-089		CAP, E 10-50 SME
C317	87-012-142-089		C-CAP, S 0.33-16 F	C603	87-010-101-089		CAP, E 220-16 SME
C318	87-012-142-089		C-CAP, S 0.33-16 F	C605	87-010-178-089		C-CAP, S 1000P-50 B
C319	87-012-141-089		C-CAP, S 0.22-16 F	C606	87-010-178-089		C-CAP, S 1000P-50 B
C320	87-012-141-089		C-CAP, S 0.22-16 F	C607	87-010-404-089		CAP, E 4.7-50 SME
C321	87-010-196-089		C-CAP, S 0.1-25 F	C608	87-010-404-089		CAP, E 4.7-50 SME
C322	87-010-196-089		C-CAP, S 0.1-25 F	C609	87-010-404-089		CAP, E 4.7-50 SME
C324	87-010-260-089		CAP, E 47-25 SME	C610	87-010-404-089		CAP, E 4.7-50 SME
C325	87-010-370-089		CAP, E 330-6.3 SME	C611	87-010-179-089		C-CAP, S 1200P-50 B
C326	87-010-196-089		C-CAP, S 0.1-25 F	C612	87-010-179-089		C-CAP, S 1200P-50 B
C332	87-010-196-089		C-CAP, S 0.1-25 F	C613	87-010-404-089		CAP, E 4.7-50 SME
C335	87-016-462-089		C-CAP, S 1-16 F	C614	87-010-404-089		CAP, E 4.7-50 SME
C336	87-016-462-089		C-CAP, S 1-16 F	C615	87-010-400-089		CAP, E 0.47-50 SME
C351	87-012-154-089		C-CAP, S 150P-50 CH	C616	87-010-400-089		CAP, E 0.47-50 SME
C352	87-012-154-089		C-CAP, S 150P-50 CH	C617	87-010-197-089		C-CAP, S 0.01-25 B
C451	87-012-140-089		C-CAP, S 470P-50 CH	C618	87-010-197-089		C-CAP, S 0.01-25 B
C452	87-012-140-089		C-CAP, S 470P-50 CH	C619	87-010-184-089		C-CAP, S 3300P-50 B
C453	87-010-178-089		C-CAP, S 1000P-50 B	C620	87-010-184-089		C-CAP, S 3300P-50 B
C454	87-010-178-089		C-CAP, S 1000P-50 B<EXCEPT G>	C621	87-012-155-089		C-CAP, S 180P-50 CH
C454	87-010-175-089		C-CAP, S 560P-50 SL<G>	C622	87-012-155-089		C-CAP, S 180P-50 CH
C455	87-010-178-089		C-CAP, S 1000P-50 B<EXCEPT G>	C623	87-010-405-089		CAP, E 10-50 SME
C455	87-010-175-089		C-CAP, S 560P-50 SL<G>	C624	87-010-405-089		CAP, E 10-50 SME
C456	87-010-260-089		CAP, E 47-25 SME	C630	87-010-405-089		CAP, E 10-50 SME
C457	87-010-197-089		C-CAP, S 0.01-25 B	C631	87-010-401-089		CAP, E 1-50 SME
C458	87-010-183-089		C-CAP, S 2700P-50 B	C641	87-010-196-089		C-CAP, S 0.1-25 F
C459	87-010-183-089		C-CAP, S 2700P-50 B	C642	87-010-196-089		C-CAP, S 0.1-25 F
C460	87-010-183-089		C-CAP, S 2700P-50 B	C650	87-010-316-089		C-CAP, S 33P-50 CH<EXCEPT G>
C470	87-010-196-089		C-CAP, S 0.1-25 F	C651	87-010-316-089		C-CAP, S 33P-50 CH<EXCEPT G>
C501	87-010-177-089		C-CAP, S 820P-50 SL	C701	87-010-381-089		CAP, E 330-16 SME
C502	87-010-177-089		C-CAP, S 820P-50 SL	C702	87-010-404-089		CAP, E 4.7-50 SME
C503	87-012-155-089		C-CAP, S 180P-50 CH	C703	87-010-197-089		C-CAP, S 0.01-25 B
C504	87-012-155-089		C-CAP, S 180P-50 CH	C704	87-010-197-089		C-CAP, S 0.01-25 B
C515	87-010-545-089		CAP, E 0.22-50 SME	C711	87-010-263-089		CAP, E 100-10 SME
C516	87-010-545-089		CAP, E 0.22-50 SME	C712	87-010-196-089		C-CAP, S 0.1-25 F
C519	87-010-196-089		C-CAP, S 0.1-25 F	C720	87-018-209-089		CAP, TC-U 0.1-50 F
C521	87-010-197-089		C-CAP, S 0.01-25 B	C722	87-010-311-089		C-CAP, S 12P-50 CH
C522	87-010-318-089		C-CAP, S 47P-50 CH	C723	87-010-178-089		C-CAP, S 1000P-50 B
C523	87-010-197-089		C-CAP, S 0.01-25 B	C725	87-010-178-089		C-CAP, S 1000P-50 B
C524	87-010-402-089		CAP, E 2.2-50 SME	C727	87-010-196-089		C-CAP, S 0.1-25 F
C530	87-010-194-089		C-CAP, S 0.047-25 F	C728	87-010-248-089		CAP, E 220-10 SME
C531	87-010-545-089		CAP, E 0.22-50 SME	C732	87-018-209-089		CAP, TC-U 0.1-50 F<EXCEPT G>
C532	87-010-382-089		CAP, E 22-25 SME	C770	87-010-405-089		CAP, E 10-50 SME
C533	87-010-404-089		CAP, E 4.7-50 SME	C771	87-010-405-089		CAP, E 10-50 SME
C534	87-010-404-089		CAP, E 4.7-50 SME	C772	87-010-194-089		C-CAP, S 0.047-25 F
C535	87-010-546-089		CAP, E 0.33-50 SME	C773	87-010-196-089		C-CAP, S 0.1-25 F
C536	87-010-546-089		CAP, E 0.33-50 SME	C774	87-010-263-089		CAP, E 100-10 SME
C537	87-018-209-089		CAP, TC-U 0.1-50 F	C775	87-010-405-089		CAP, E 10-50 SME
C538	87-010-384-089		CAP, E 100-25 SME	C777	87-010-400-089		CAP, E 0.47-50 SME
C539	87-012-142-089		C-CAP, S 0.33-16 F	C778	87-010-401-089		CAP, E 1-50 SME
C540	87-010-196-089		C-CAP, S 0.1-25 F	C779	87-010-401-089		CAP, E 1-50 SME
C541	87-010-196-089		C-CAP, S 0.1-25 F	C780	87-010-197-089		C-CAP, S 0.01-25 B
C543	87-010-544-089		CAP, E 0.1-50 SME<EXCEPT G>	C781	87-010-405-089		CAP, E 10-50 SME
C543	87-010-546-089		CAP, E 0.33-50 SME<G>	C782	87-010-405-089		CAP, E 10-50 SME
C544	87-010-544-089		CAP, E 0.1-50 SME<EXCEPT G>	C787	87-010-184-089		C-CAP, S 3300P-50 B
C544	87-010-546-089		CAP, E 0.33-50 SME<G>	C788	87-010-184-089		C-CAP, S 3300P-50 B
C545	87-010-400-089		CAP, E 0.47-50 SME	C789	87-010-179-089		C-CAP, S 1200P-50 B
C546	87-010-400-089		CAP, E 0.47-50 SME	C790	87-010-179-089		C-CAP, S 1200P-50 B
C547	87-010-213-089		C-CAP, S 0.015-25 B	C791	87-010-401-089		CAP, E 1-50 SME
C548	87-010-213-089		C-CAP, S 0.015-25 B	C792	87-010-180-089		C-CAP, S 1500P-50 B<G>
C549	87-018-209-089		CAP, TC-U 0.1-50 F	C792	87-010-182-089		C-CAP, S 2200P-50 B<EXCEPT G>
C550	87-010-183-089		C-CAP, S 2700P-50 B	C793	87-010-189-089		C-CAP, S 8200P-50 B
C553	87-010-178-089		C-CAP, S 1000P-50 B<G>	C794	87-010-408-089		CAP, E 47-50 SME
C553	87-010-182-089		C-CAP, S 2200P-50 B<EXCEPT G>	C795	87-010-194-089		C-CAP, S 0.047-25 F

REF. NO	PART NO.	カリ NO.	DESCRIPTION	REF. NO	PART NO.	カリ NO.	DESCRIPTION
C796	87-010-403-089		CAP,E 3.3-50 SME	R205	87-022-619-089		RES,M/F 0.47-3W J
C812	87-018-134-089		CAP,TC-U 0.01-16 Y	R206	87-022-619-089		RES,M/F 0.47-3W J
C814	87-010-197-089		C-CAP,S 0.01-25 B<G>	RY101	87-045-361-019		RELAY, DH12D2-OS(M)-2
C815	87-018-134-089		CAP,TC-U 0.01-16 Y<G>	SFR301	87-024-174-089		SFR33K DIA6 V
C816	87-018-134-089		CAP,TC-U 0.01-16 Y<EXCEPT G>	SFR302	87-024-174-089		SFR33K DIA6 V
C817	87-010-197-089		C-CAP,S 0.01-25 B	SFR303	87-024-174-089		SFR33K DIA6 V
C818	87-010-197-089		C-CAP,S 0.01-25 B	SFR304	87-024-174-089		SFR33K DIA6 V
C819	87-010-197-089		C-CAP,S 0.01-25 B	SFR305	87-024-175-089		SFR,47K DIA6 V
C820	87-010-260-089		CAP,E 47-25 SME	SFR306	87-024-175-089		SFR,47K DIA6 V
C821	87-010-197-089		C-CAP,S 0.01-25 B	SFR451	87-024-175-089		SFR,47K DIA6 V
C822	87-010-197-089		C-CAP,S 0.01-25 B	SFR452	87-024-175-089		SFR,47K DIA6 V
C823	87-010-197-089		C-CAP,S 0.01-25 B	SFR722	87-024-171-089		SFR 4.7K DIA6 V<G>
C824	87-018-134-089		CAP,TC-U 0.01-16 Y<G>	SFR722	87-024-170-089		SFR,3.3K DIA6 V<EXCEPT G>
C824	87-018-209-089		CAP,TC-U 0.1-50 F<EXCEPT G>	TC701	87-011-253-089		TRIMMER,30P LAR
C825	87-015-819-089		C-CAP 0.01	TC942	87-011-253-089		TRIMMER,30P LAR<EXCEPT G>
C826	87-010-196-089		C-CAP,S 0.1-25 F	VR651	82-NF5-660-019		VR,50K BX2 RK14K 12A
C827	87-010-196-089		C-CAP,S 0.1-25 F	W101	85-NF5-628-019		F-CABLE,7P-2.5
C828	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT G>	X703	84-508-618-019		VIB,CER CSB 456 F15
C829	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT G>				
C830	87-015-819-089		C-CAP 0.01				
FRONT C.B							
C831	87-010-197-089		C-CAP,S 0.01-25 B	C201	87-010-404-049		CAP,E 4.7-50 SME
C835	87-010-197-089		C-CAP,S 0.01-25 B	C202	87-010-404-049		CAP,E 4.7-50 SME
C840	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT G>	C203	87-010-408-049		CAP,E 47-50 SME
C926	87-010-196-089		C-CAP,S 0.1-25 F	C204	87-010-401-049		CAP,E 1-50 SME
C941	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT G>	C205	87-010-555-049		CAP,E 100-10 GAS
C942	87-010-196-089		C-CAP,S 12P-50 CH<EXCEPT G>	C206	87-010-550-049		CAP,E 100-6.3 GAS
C944	87-010-154-089		C-CAP,S 10P-50 CH<EXCEPT G>	C207	87-010-494-049		CAP,E 1-50 GAS
C946	87-014-401-089		CAP,PP 510P-100<EXCEPT G>	C208	87-016-462-089		C-CAP,S 1-16 F
C947	87-010-401-089		CAP,E 1-50 SME	C209	87-010-550-049		CAP,E 100-6.3 GAS
C948	87-010-196-089		C-CAP,S 0.1-25 F<EXCEPT G>	C212	87-010-560-049		CAP,E 10-50 GAS
C952	87-010-196-089		C-CAP,S 12P-50 CH<G>	C213	87-010-196-089		C-CAP,S 0.1-25 F
C987	87-015-819-089		C-CAP 0.01	C214	87-010-196-089		C-CAP,S 0.1-25 F
C988	87-015-785-089		C-CAP,0.1-25 F	C215	87-010-196-089		C-CAP,S 0.1-25 F
C993	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT G>	C220	87-010-316-089		C-CAP,S 33P-50 CH
C993	87-010-197-089		C-CAP,S 0.01-25 B<EXCEPT G>	C221	87-010-316-089		C-CAP,S 33P-50 CH
C995	87-010-197-089		C-CAP,S 0.01-25 B	C222	87-010-319-089		C-CAP,S 56P-50 CH
CF801	87-008-423-019		CF,SFE 10.7MS3G-A<EXCEPT G>	C223	87-010-178-089		C-CAP,S 1000P-50 B
CF801	87-008-261-019		FLTR,SFE10.7MA5-A<G>	C250	87-010-178-089		C-CAP,S 1000P-50 B
CF802	82-785-747-019		CF,MS2,GHY,R<EXCEPT G>	C381	87-010-196-089		C-CAP,S 0.1-25 F
CF802	87-008-261-019		FLTR,SFE10.7MA5-A<G>	C382	87-010-196-089		C-CAP,S 0.1-25 F
FFE801	85-NF5-605-019		FE PACK 2 EX<G>	C383	87-010-196-089		C-CAP,S 0.1-25 F
FFE802	85-NF5-604-019		FE PACK 4(AL)<EXCEPT G>	C384	87-010-196-089		C-CAP,S 0.1-25 F
FT104	85-NF5-617-019		CABLE,FFC 6P-1.25	C385	87-010-322-089		C-CAP,S 100P-50 CH
J250	87-099-794-019		JACK,6.3 W/S BLK	C389	87-010-196-089		C-CAP,S 0.1-25 F
J253	87-009-621-019		JACK,PIN 1P BLK	C401	87-010-196-089		C-CAP,S 0.1-25 F
J254	87-033-227-019		TERMINAL,SP 4P R (Z)	C501	87-010-060-049		CAP,E 100-16 7L
J652	82-MA2-631-019		JACK,PIN 4P RVS	C601	87-010-405-049		CAP,E 10-50 SME
J801	87-033-235-019		TERMINAL,ANT (H)<G>	C602	87-010-176-089		C-CAP,S 680P-50 SL
J801	87-033-230-019		TERMINAL,ANT AJ-2016<EXCEPT G>	C605	87-010-319-089		C-CAP,S 56P-50 CH
L201	87-003-383-010		COIL,1UH<EXCEPT G>	C606	87-016-462-089		C-CAP,S 1-16 F
L202	87-003-383-010		COIL,1UH<EXCEPT G>	C607	87-010-196-089		C-CAP,S 0.1-25 F
L403	81-598-635-019		COIL,TRAP BIAS<G>	C608	87-010-322-089		C-CAP,S 100P-50 CH
L403	87-007-341-019		COIL,TRAP BIAS<EXCEPT G>	C609	87-010-491-049		CAP,E 0.22-50 GAS
L404	87-007-341-019		COIL,TRAP BIAS<EXCEPT G>	C610	87-012-155-089		C-CAP,S 180P-50 CH
L404	81-598-635-019		COIL,TRAP BIAS<G>	C611	87-010-382-049		CAP,E 22-25 SME
L451	87-007-336-019		COIL,OSC 85K BIAS	C614	87-010-248-049		CAP,E 220-10 SME
L701	81-631-643-019		COIL,1 POLE MPX	C615	87-010-498-049		CAP,E 10-16 GAS
L702	81-631-643-019		COIL,1 POLE MPX	C628	87-010-196-089		C-CAP,S 0.1-25 F
L741	87-006-253-019		COIL,FM DET N	C646	87-010-196-089		C-CAP,S 0.1-25 F
L742	82-NT1-659-019		FLTR,CPAZ-450 ZNT	FL101	85-NF5-630-019		FL,BJ350GK
L770	87-003-102-089		COIL,10UH	FT101	88-915-251-119		FF-CABLE,15P 1.25
L832	87-003-098-089		COIL,2.2UH	FT102	85-NF5-616-019		CABLE,FFC 6P-1.25
L941	87-006-208-019		COIL,ANT LW<EXCEPT G>	FT103	88-914-351-219		FF-CABLE,14P 1.25
L942	87-007-305-019		OSC,LW<EXCEPT G>	J601	82-NF7-630-019		JACK,3.5 MO
L981	81-MX4-620-019		AM PACK 35<G>	J621	82-NF7-630-019		JACK,3.5 MO
L981	81-MX4-619-019		AM PACK 4<EXCEPT G>	LED401	87-070-198-089		LED,SLP736A-81-S-T1
R105	87-022-600-089		RES,M/F 0.1-2W J	LED402	87-070-198-089		LED,SLP736A-81-S-T1
R106	87-022-600-089		RES,M/F 0.1-2W J	LED403	87-070-198-089		LED,SLP736A-81-S-T1
R203	87-022-619-089		RES,M/F 0.47-3W J	LED404	87-070-198-089		LED,SLP736A-81-S-T1
R204	87-022-619-089		RES,M/F 0.47-3W J				

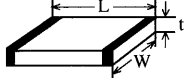
REF. NO	PART NO.	カリ NO.	DESCRIPTION	REF. NO	PART NO.	カリ NO.	DESCRIPTION
C101	87-012-393-089		C-CAP,S 0.22-16,R,K	C514	88-707-949-810		CAP,M 0.47-50 J TF
C102	87-012-393-089		C-CAP,S 0.22-16,R,K	C515	88-707-949-810		CAP,M 0.47-50 J TF
C103	87-012-393-089		C-CAP,S 0.22-16,R,K	C516	87-010-196-089		C-CAP,S 0.1-25 F
C104	87-010-404-089		CAP,E 4.7-50 SME	C517	87-010-404-089		CAP,E 4.7-50 SME
C105	87-010-404-089		CAP,E 4.7-50 SME	C518	87-010-404-089		CAP,E 4.7-50 SME
C106	87-012-393-089		C-CAP,S 0.22-16,R,K	C519	87-010-187-089		C-CAP,S 5600P-50 B
C107	87-016-081-089		C-CAP,S 0.1-16 RK	C520	87-010-182-089		C-CAP,S 2200P-50 B
C108	87-016-081-089		C-CAP,S 0.1-16 RK	C521	87-012-141-089		C-CAP,S 0.22-16 F
C109	87-016-081-089		C-CAP,S 0.1-16 RK	C524	87-010-184-089		C-CAP,S 3300P-50 B
C110	87-016-081-089		C-CAP,S 0.1-16 RK	C611	87-012-140-089		C-CAP,S 470P-50 CH
C113	87-010-176-089		C-CAP,S 680P-50 SL	C612	87-012-140-089		C-CAP,S 470P-50 CH
C117	87-010-176-089		C-CAP,S 680P-50 SL	C613	87-010-402-089		CAP,E 2.2-50 SME
C119	87-016-456-089		CAP,E 22-16 LLA	C614	87-010-402-089		CAP,E 2.2-50 SME
C120	87-010-405-089		CAP,E 10-50 SME	C615	87-010-194-089		C-CAP,S 0.047-25 F
C123	87-010-405-089		CAP,E 10-50 SME	C616	87-010-405-089		CAP,E 10-50 SME
C124	87-010-405-089		CAP,E 10-50 SME	C617	87-010-405-089		CAP,E 10-50 SME
C125	87-010-186-089		C-CAP,S 4700P-50 B	C621	87-010-408-089		CAP,E 47-50 SME
C126	87-016-472-089		CAP,E 22-16, SME (K)	C622	87-010-147-089		C-CAP,S 3P-50 CH
C127	87-010-405-089		CAP,E 10-50 SME	C623	87-010-147-089		C-CAP,S 3P-50 CH
C128	87-010-405-089		CAP,E 10-50 SME	C631	87-010-993-089		C-CAP,S 0.056-25 B
C129	87-010-384-089		CAP,E 100-25 SME	C632	87-010-993-089		C-CAP,S 0.056-25 B
C130	87-010-248-089		CAP,E 220-10 SME	C633	87-010-196-089		C-CAP,S 0.1-25 F
C132	87-012-394-089		C-CAP,0.68-16,R,K	C634	87-010-196-089		C-CAP,S 0.1-25 F
C201	87-010-197-089		C-CAP,S 0.01-25 B	C651	87-010-178-089		C-CAP,S 1000P-50 B
C202	87-010-405-089		CAP,E 10-50 SME	C652	87-010-178-089		C-CAP,S 1000P-50 B
C301	87-010-197-089		C-CAP,S 0.01-25 B	C653	87-010-197-089		C-CAP,S 0.01-25 B
C302	87-010-402-089		CAP,E 2.2-50 SME	C720	87-010-398-099		CAP,E 2200-35V
C303	87-010-545-089		CAP,E 0.22-50 SME	C721	87-010-398-099		CAP,E 2200-35V
C304	87-010-405-089		CAP,E 10-50 SME	C722	87-012-369-089		C-CAP,S,0.047-50 F
C331	87-012-393-089		C-CAP,S 0.22-16,R,K	C723	87-012-369-089		C-CAP,S,0.047-50 F
C351	87-010-401-089		CAP,E 1-50 SME	C725	87-010-197-089		C-CAP,S 0.01-25 B
C352	87-010-196-089		C-CAP,S 0.1-25 F	C799	87-010-318-089		CAP,47P-50 CH
C401	87-010-248-089		CAP,E 220-10 SME	J101	87-099-803-019		JACK,PIN 3P OWR
C402	87-010-405-089		CAP,E 10-50 SME	L501	87-005-487-089		COIL,150UH J FLR50
C403	87-010-402-089		CAP,E 2.2-50 SME	R117	87-025-407-089		RES,M/F 100K-1/8W
C404	87-010-402-089		CAP,E 2.2-50 SME	R635	88-130-100-089		RES,10-1/4W J
C411	87-010-248-089		CAP,E 220-10 SME	R636	88-130-100-089		RES,10-1/4W J
C412	87-010-405-089		CAP,E 10-50 SME	R703	87-022-050-089		RES,METAL 1W-0.22J
C415	87-010-402-089		CAP,E 2.2-50 SME	R708	87-022-050-089		RES,METAL 1W-0.22J
C416	87-010-402-089		CAP,E 2.2-50 SME				
C452	87-010-263-089		CAP,E 100-10 SME 5X11				
C455	87-010-402-089		CAP,E 2.2-50 SME	HEAD-1	C.B		
C456	87-010-402-089		CAP,E 2.2-50 SME				
C457	87-010-402-089		CAP,E 2.2-50 SME	HEAD-2	C.B		
C458	87-010-402-089		CAP,E 2.2-50 SME				
C459	87-010-405-089		CAP,E 10-50 SME	CON351	83-NEG-608-010		CONN ASSY 8P-RPB
C471	87-010-402-089		CAP,E 2.2-50 SME				
C472	87-010-402-089		CAP,E 2.2-50 SME	DECK	C.B		
C481	87-010-402-089		CAP,E 2.2-50 SME				
C482	87-010-402-089		CAP,E 2.2-50 SME	SFR1	87-024-581-010		SFR,3.3K DIA 6H
C501	87-010-177-089		C-CAP,S 820P-50 SL	SOL1	82-ZM1-618-310		SOL ASSY,27
C502	87-010-179-089		C-CAP,S 1200P-50 B	SOL2	82-ZM1-618-310		SOL ASSY,27
C503	87-010-263-089		CAP,E 100-10 SME 5X11	SW1	87-036-378-010		SW,PUSH 1-1-1 SH2
C504	87-010-263-089		CAP,E 100-10 SME 5X11	SW2	87-036-378-010		SW,PUSH 1-1-1 SH2
C505	87-010-196-089		C-CAP,S 0.1-25 F	SW3	87-036-378-010		SW,PUSH 1-1-1 SH2
C507	87-010-317-089		C-CAP,S 39P-50 CH	SW4	87-036-378-010		SW,PUSH 1-1-1 SH2
C508	87-010-151-089		C-CAP,S 7P-50 CH	SW5	87-036-378-010		SW,PUSH 1-1-1 SH2
C510	87-010-197-089		C-CAP,S 0.01-25 B	SW6	87-036-378-010		SW,PUSH 1-1-1 SH2
C512	87-010-179-089		C-CAP,S 1200P-50 B	SW8	87-036-378-010		SW,PUSH 1-1-1 SH2
C513	87-010-196-089		C-CAP,S 0.1-25 F	SW9	87-036-378-010		SW,PUSH 1-1-1 SH2

○ 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



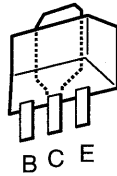
チップ抵抗
Chip resistor

Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions / 寸法 (mm)			Resistor Code: A 抵抗コード : A	
				Form / 外形	L	W		t
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.5 ~0.7	128

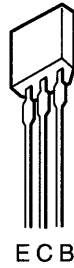
TRANSISTOR ILLUSTRATION



2SA933 2SC2240
2SA935 2SC3266
2SA952 2SC3331
2SA1296 2SD655
2SA1318 KTC3198



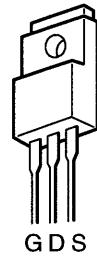
2SB1119
2SD1619



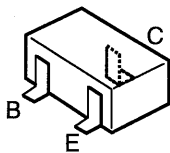
2SC1740
DTA114YS



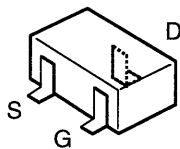
2SK365



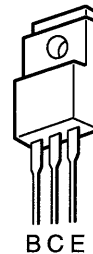
2SJ176
2SK1094



2SA1162 DTA143EK
2SC1623 DTA144EK
2SC2712 DTA144WK
2SC2714 DTC114EK
2SC3326 DTC114YK
2SC3722 DTC144EK
DTC144WK



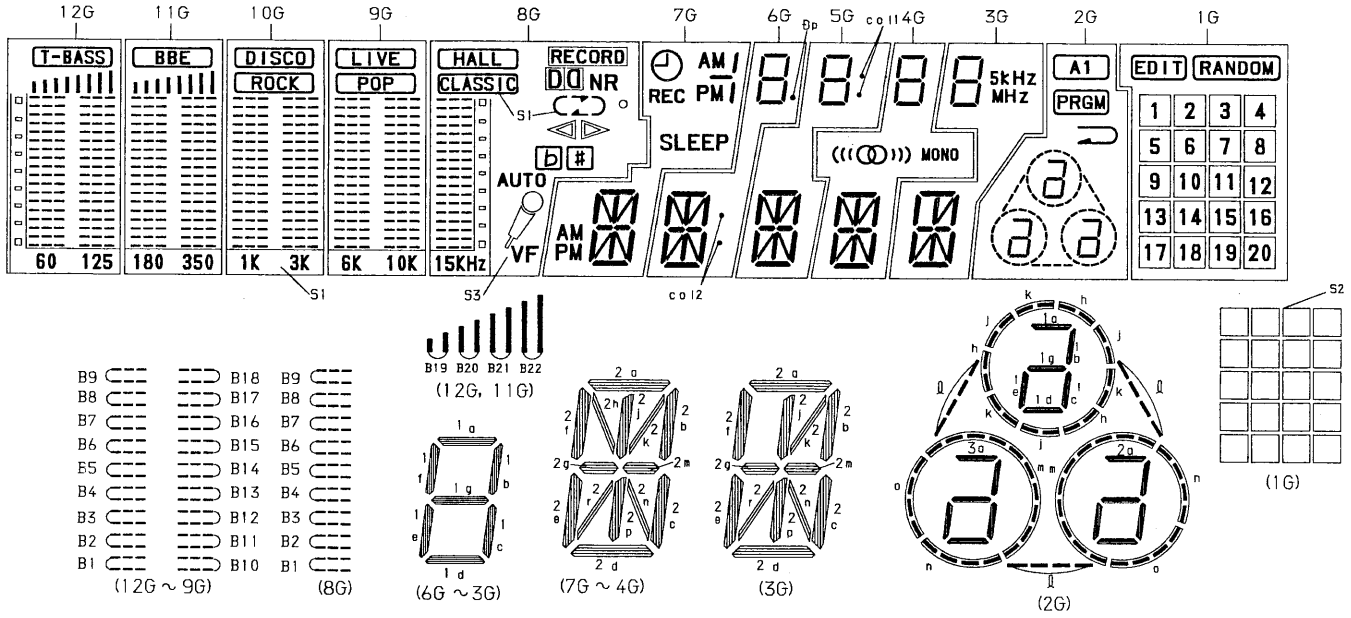
2SK543



2SB1370

FL (BJ350GK) GRID ASSIGNMENT / ANODE CONNECTION

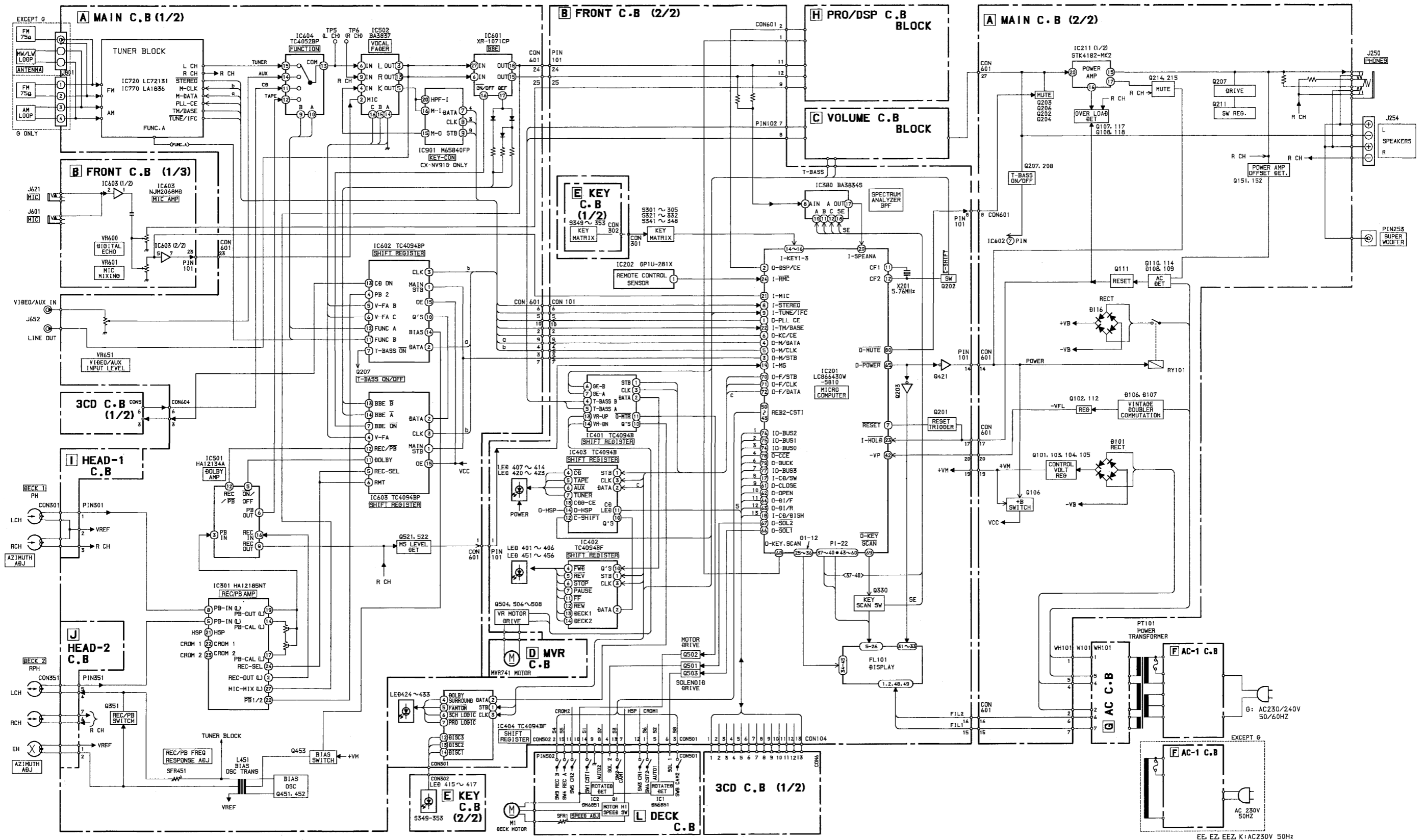
GRID ASSIGNMENT

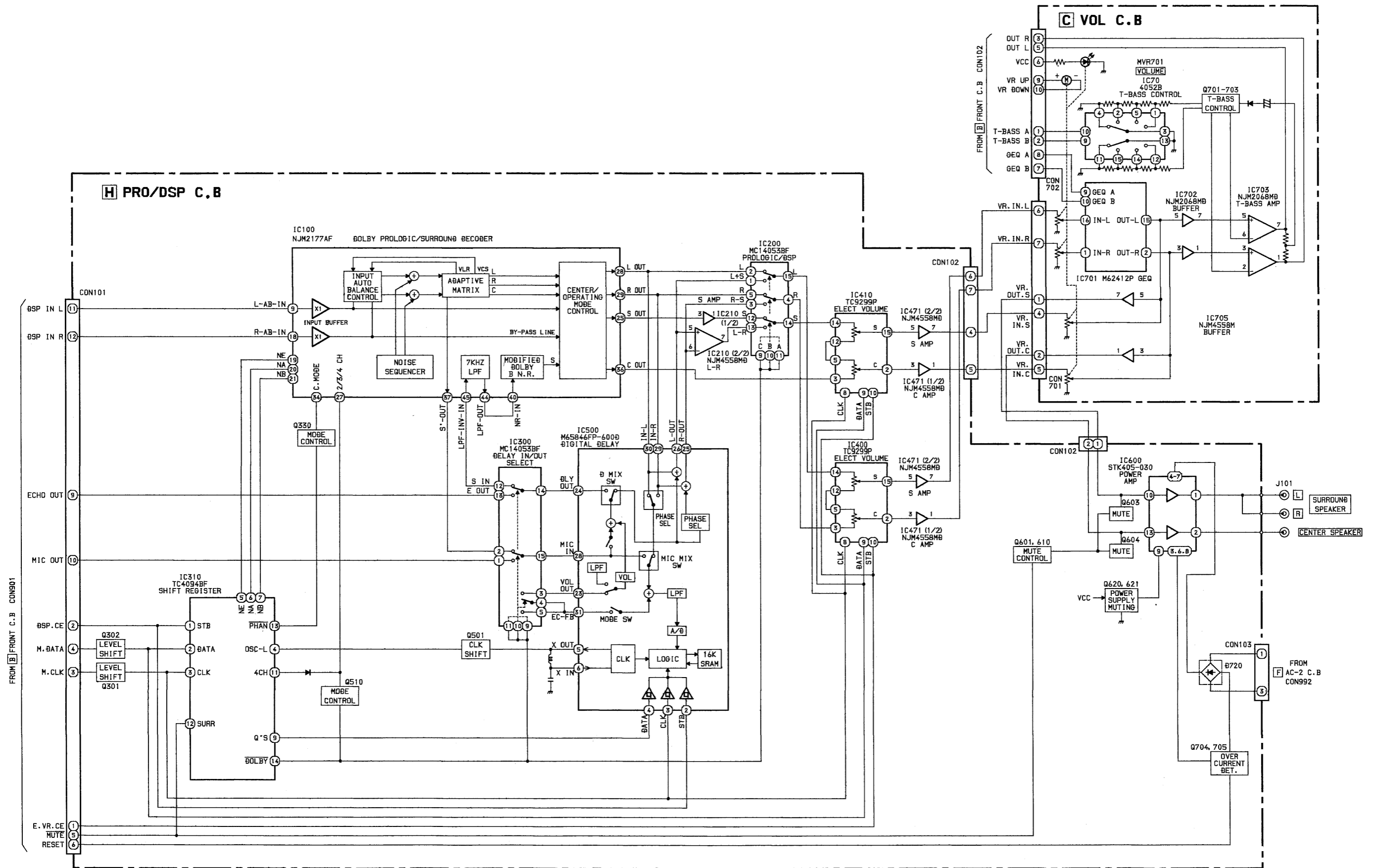


ANODE CONNECTION

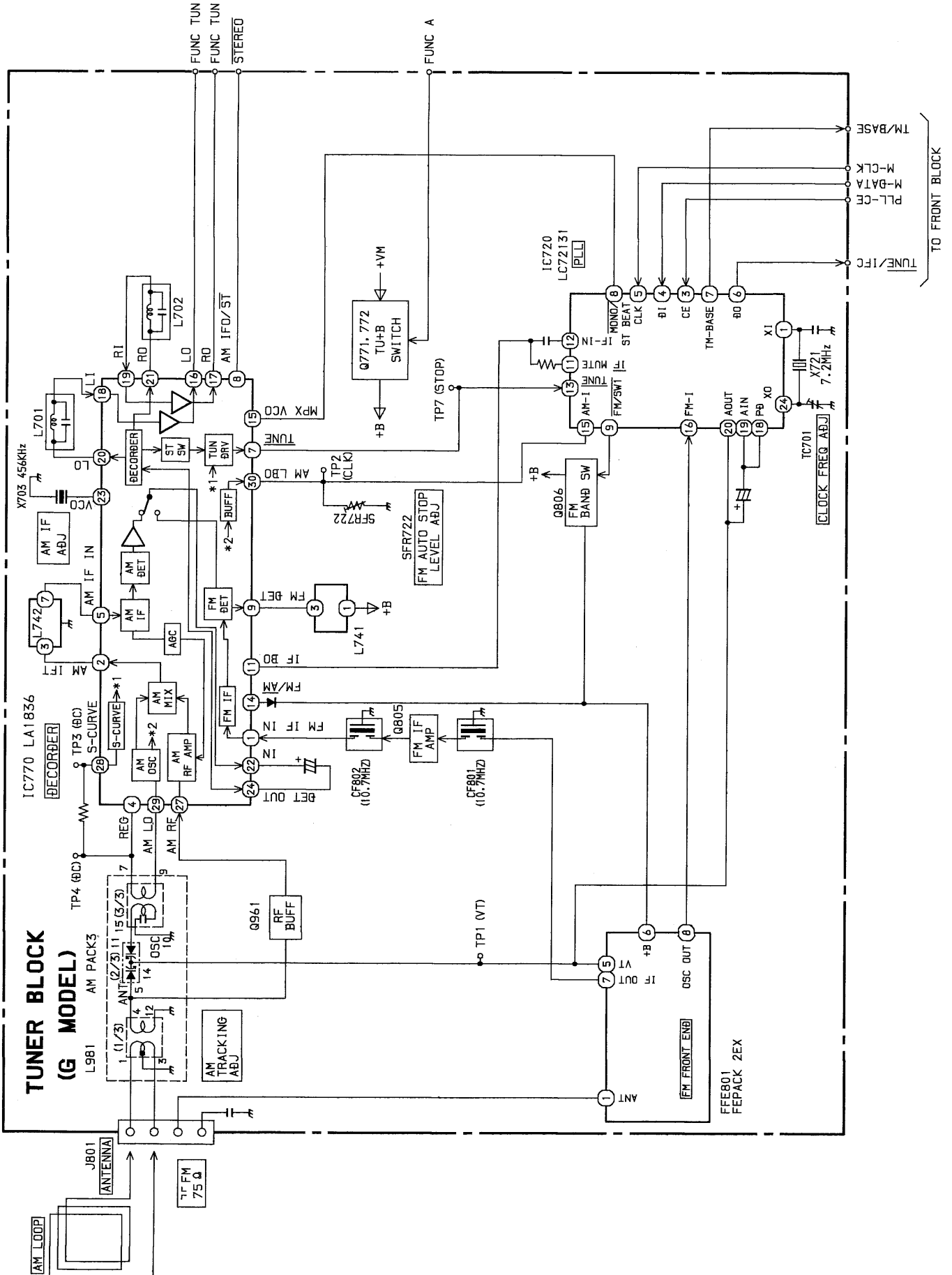
	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B10	B10	B10	B10	S3	2d	2d	2d	2d	2d	n	20
P2	B1	B1	B1	B1	B1	2j, 2p	2j, 2p	2j, 2p	2j, 2p	2j, 2p	o	19
P3	B11	B11	B11	B11	AUTO	2n	2n	2n	2n	2n	3e	18
P4	B2	B2	B2	B2	B2	2r	2r	2r	2r	2r	3c	17
P5	B12	B12	B12	B12	(b)	2c	2c	2c	2c	2c	3a, 3d, 3g	16
P6	B3	B3	B3	B3	B3	2e	2e	2e	2e	2e	3b	15
P7	B13	B13	B13	B13	(#)	2m	2m	2m	2m	2m	2e	14
P8	B4	B4	B4	B4	B4	2g	2g	2g	2g	2g	2c	13
P9	B5	B5	B5	B5	B5	2f	2f	2f	2f	2f	2a, 2d, 2g	12
P10	B15	B15	B15	B15	▷	2b	2b	2b	2b	2b	i	11
P11	B6	B6	B6	B6	B6	2k	2k	2k	2k	2k	j	10
P12	B16	B16	B16	B16	◁	2h	2h	2h	2h	2h	MHz	9
P13	B7	B7	B7	B7	B7	2a	2a	2a	2a	2a	k	8
P14	B14	B14	B14	B14)	PM (DOWN)	col 2	col 1 (UP)	MONO	KHz	2b	7
P15	B17	B17	B17	B17	C	AM (DOWN)	⊕p	col 1 (DOWN)	((CO))	5	1e	6
P16	B8	B8	B8	B8	B8	SLEEP	1d	1d	1d	1d	1a, 1d, 1g	5
P17	B18	B18	B18	B18	B18	REC	1e	1e	1e	1e	1c	4
P18	B9	B9	B9	B9	B9	PM (UP)	1c	1c	1c	1c	1b	3
P19	B19 (T-BASS)	B19 (BBE)	(ROCK)	(POP)	(DNR)	AM (UP)	1g	1g	1g	1g	m	2
P20	B20	B20	(DISCO)	(LIVE)	(RECORD)	—	1f	1f	1f	1f	A1	1
P21	B21	B21	—	—	(CLASSIC)	/	1b	1b	1b	1b	—	EDIT
P22	B22	B22	—	—	(HALL)	⌚	1a	1a	1a	1a	PRGM	RANDOM
P23	S1 T-BASS	S1	S1 ROCK	S1 POP	S1	—	—	—	—	—	—	S2
P24	—	BBE	—	—	—	—	—	—	—	—	—	—
P25	—	—	DISCO	LIVE	HALL	—	—	—	—	—	—	—
P26	—	—	—	—	b #	—	—	—	—	—	—	—

BLOCK DIAGRAM-1 (MAIN)





BLOCK DIAGRAM-4 (TUNER: G)



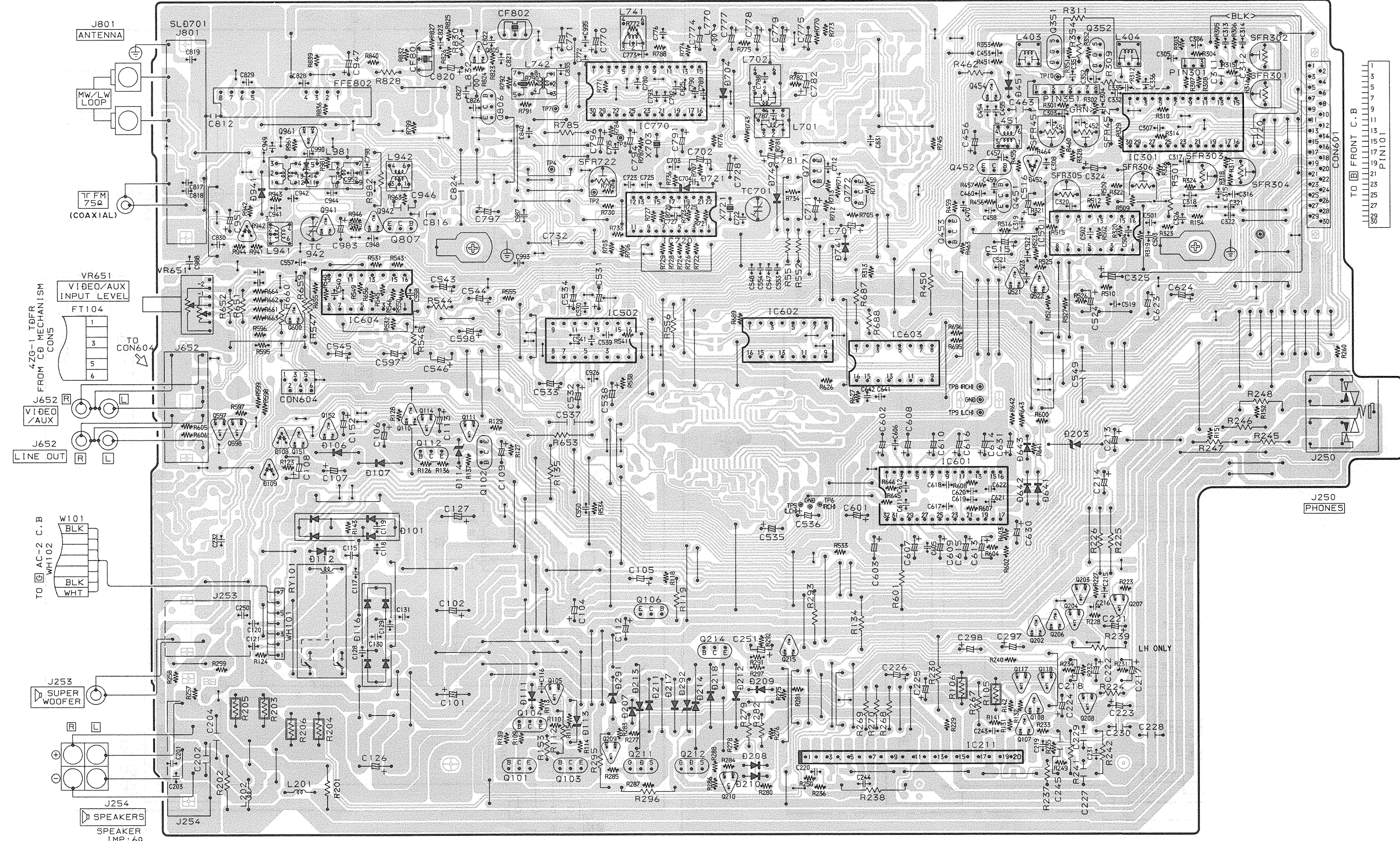
1 2 3 4 5 6 7 8 9 10 11 12 13 14

A
B
C
D
E
F
G
H
I
J
K

A MAIN C. B (K, EE, EEZ, EZ)

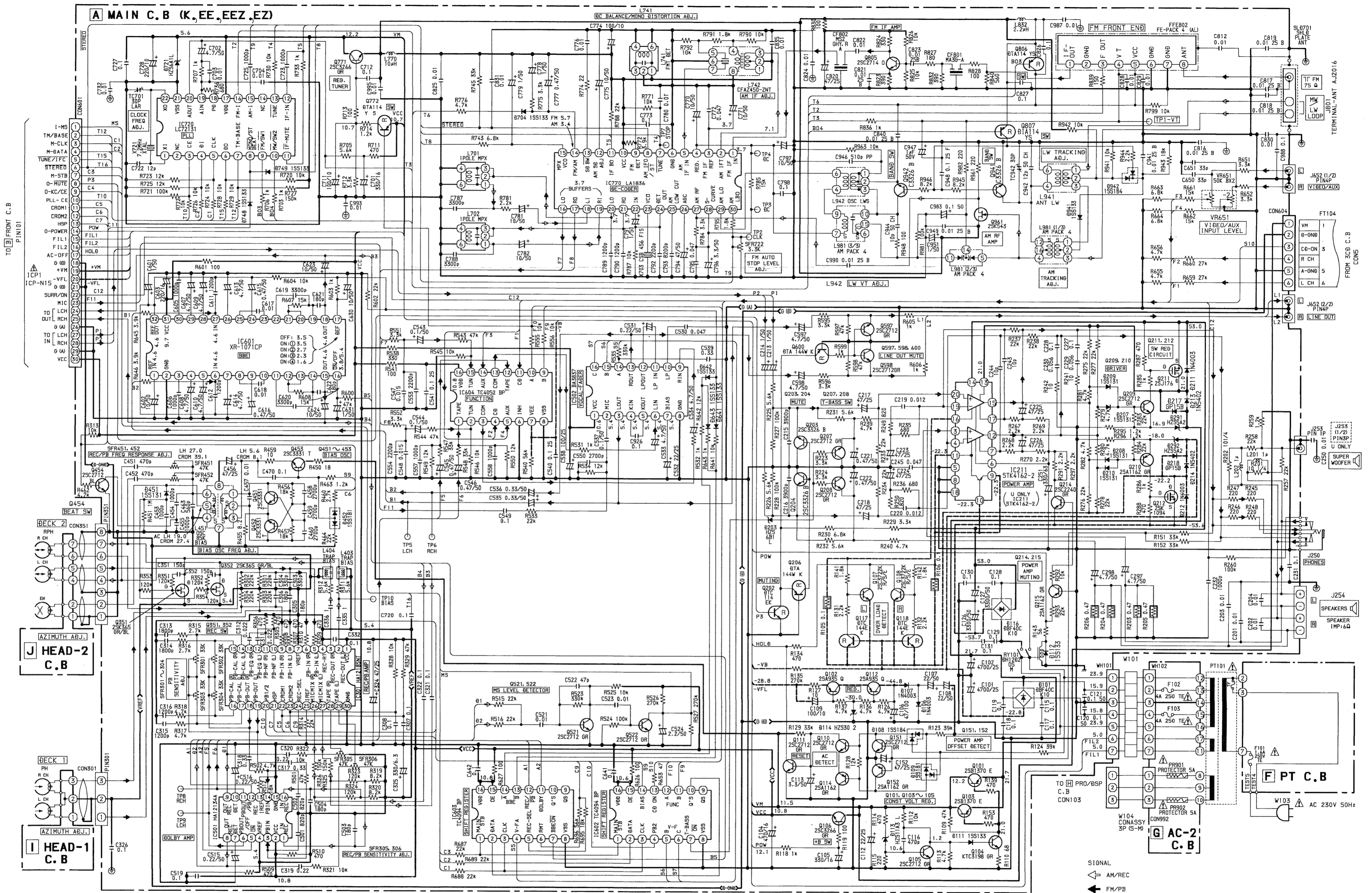
FROM HEAD-2 C.B
CON351
3 5 7 8
TO PIN351

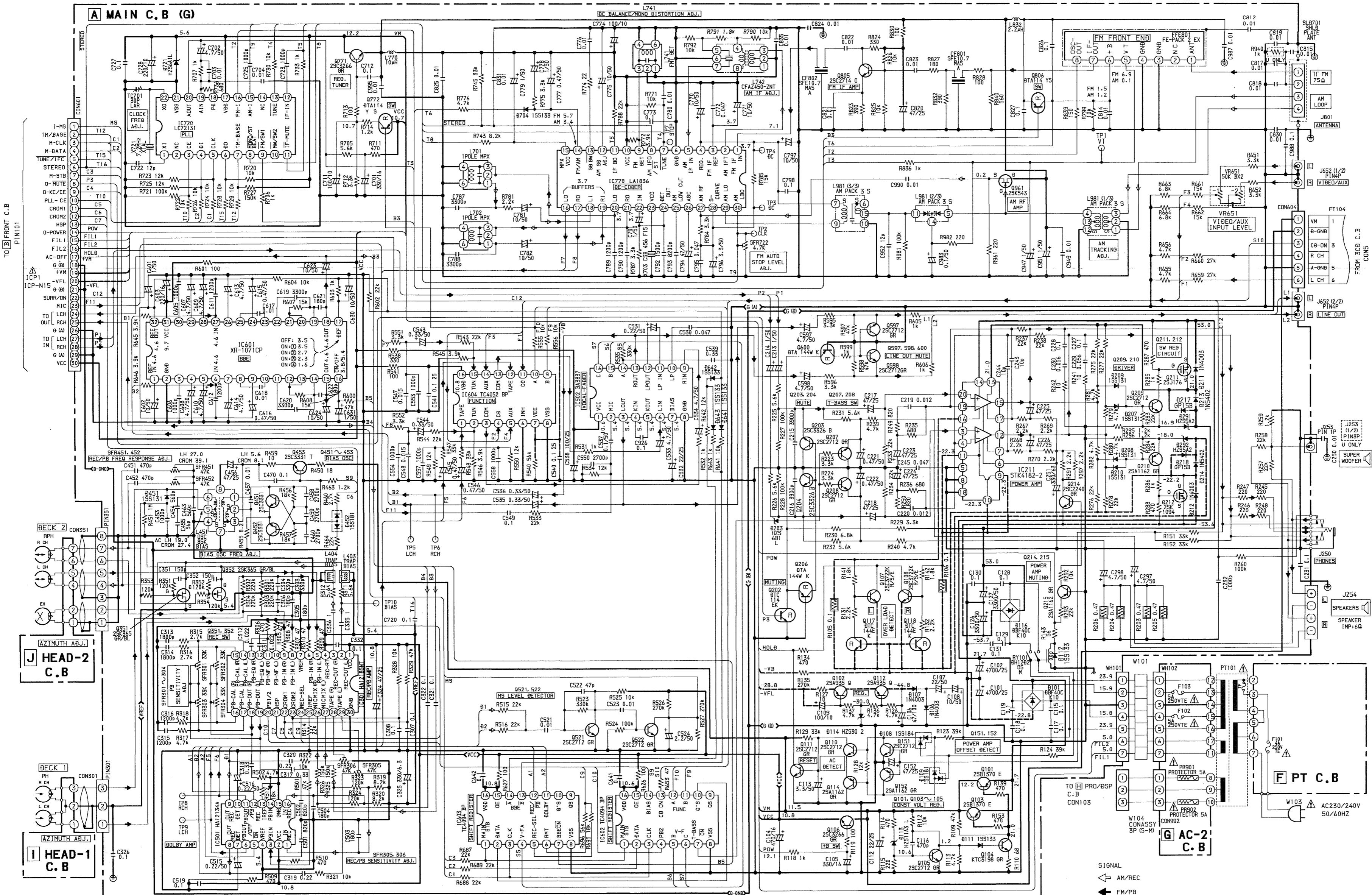
FROM HEAD-1 C.B
CON301
1 3
TO PIN301



TO FRONT C.B
CON601
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
PIN101

SCHMATIC DIAGRAM-1 (MAIN: EE, K, EEZ, EZ)

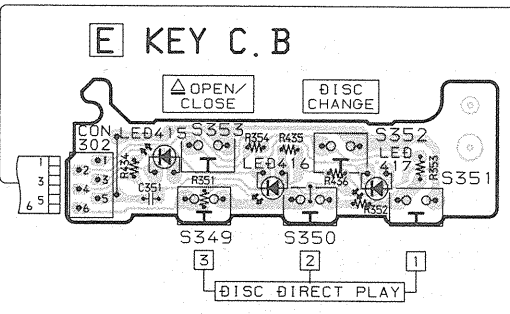




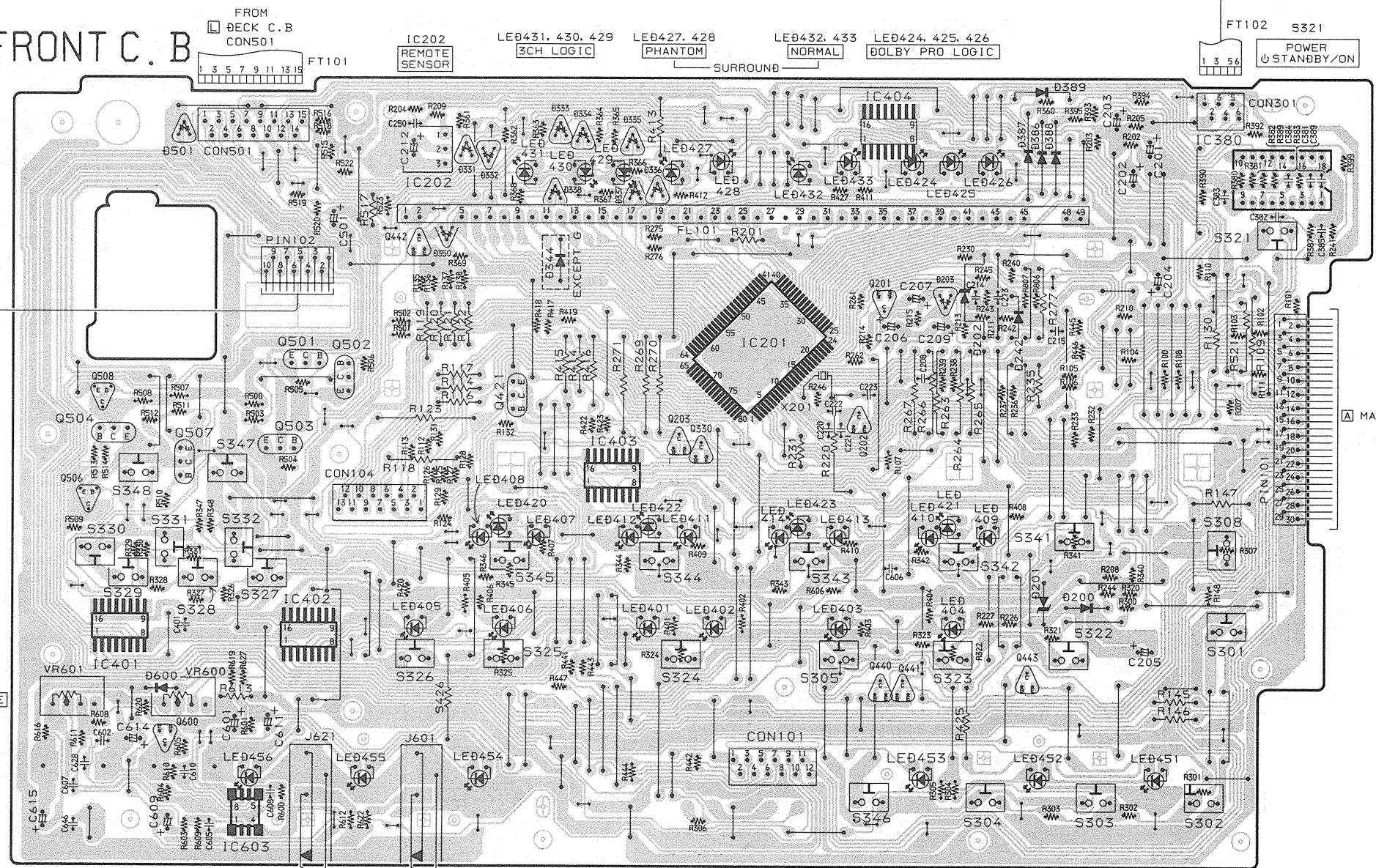
SIGNAL
 ← AM/REC
 ← FM/PB

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

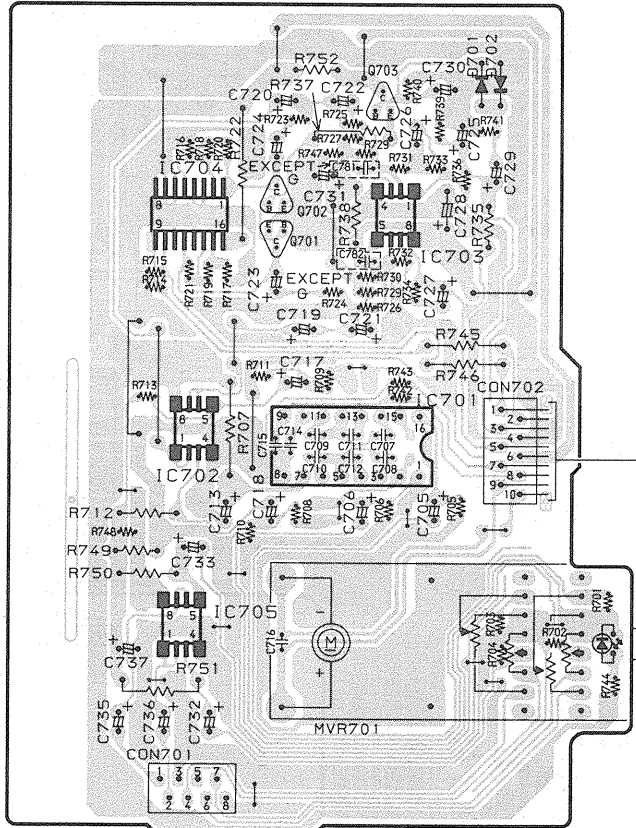
A
B
C
D
E
F
G
H
I
J
K



B FRONT C. B



C VOLUME C. B



FROM W902
CON102

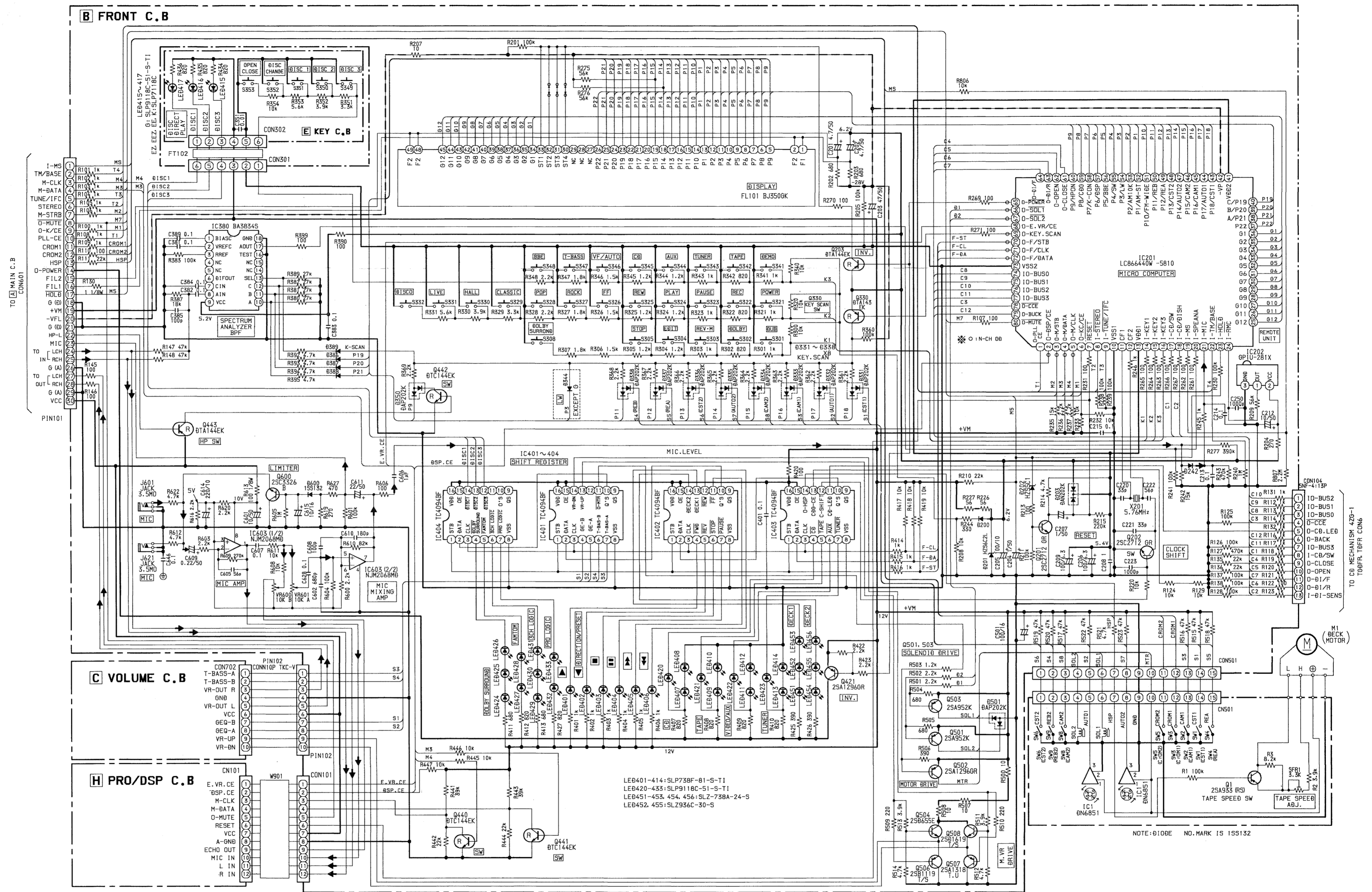
S348 BBE
S330 HALL
S329 CLASSIC
VR601 MIC MIXING
S331 LIVE
S328 POP
VR600 DIGITAL ECHO
S332 DISCO
S327 ROCK
LED456, 455, 454 DECK2
S326/LED405 S325/LED406 UP-TUNING-DOWN
S344, LED412, 422, 411 VIDEO/AUX
S343/LED414, 423, 413 DECK1/2 TAPE
S342/LED410, 421, 409 DIRECTION/PRESET
S305/LED403 LEEB401/S324/LED402
S346 VOCAL FABER/MULTIPLEX
S323/LED404 REC/REC MUTE
S304 EDIT/CHECK
S303 REV MODE
S308 DOLBY PRO LOGIC
S301 SYNCHRO/DUBBING NORMAL/HIGH
S302 DOLBY NR
LEB453, 452, 451 DECK1

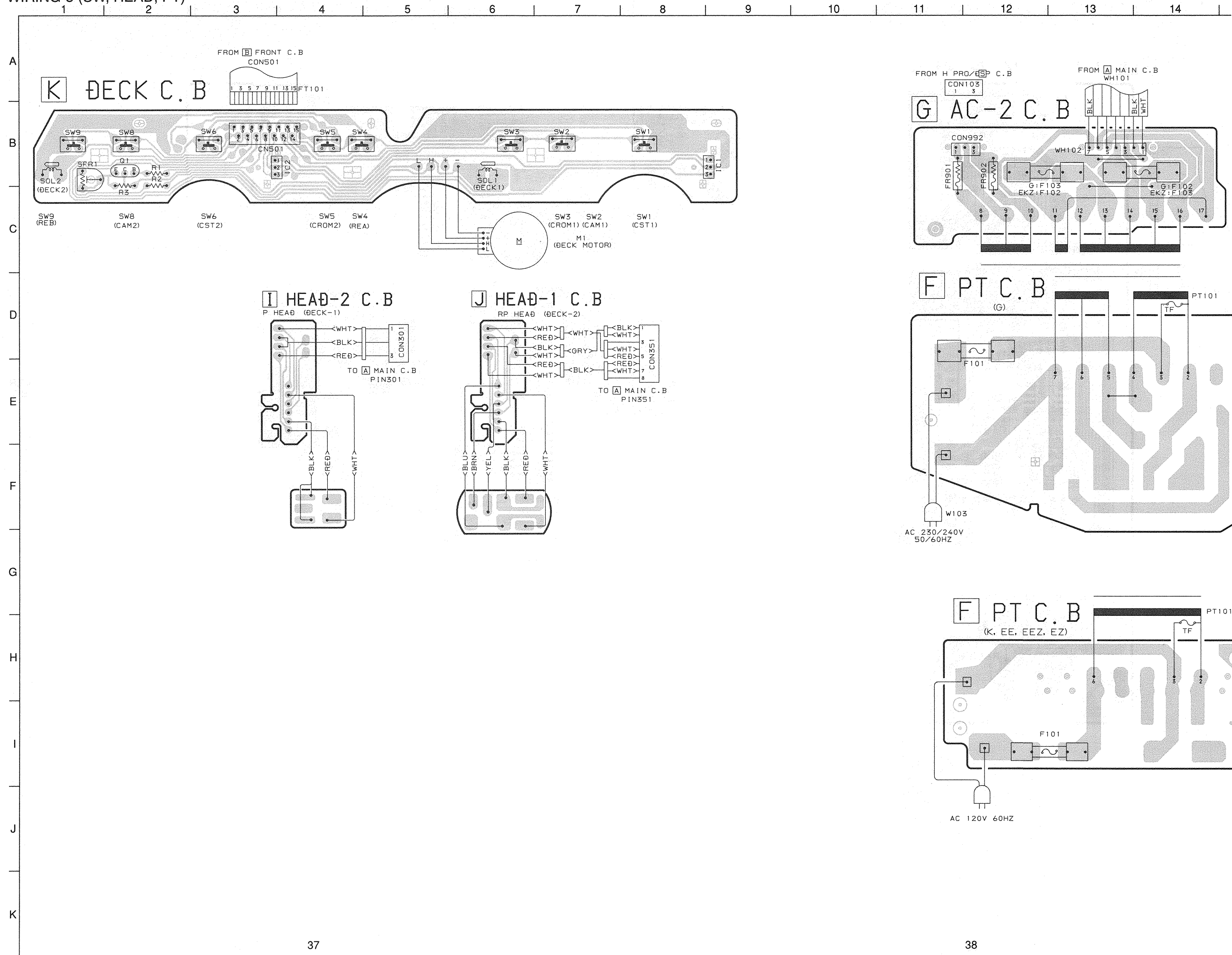
TO CON104
FROM CD MECHANISM 420-1 TDR CON6

TO CON101
FROM PRO/DSP C. B CN101

FROM MAIN C. B CON601

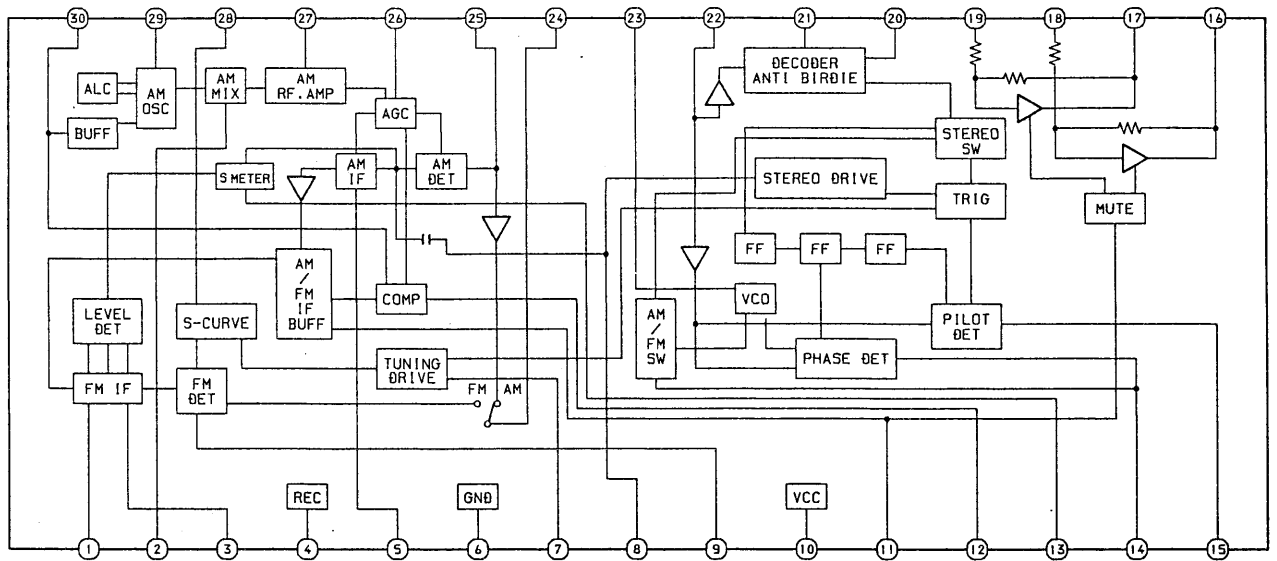
SCHMATIC DIAGRAM-3 (FRONT)



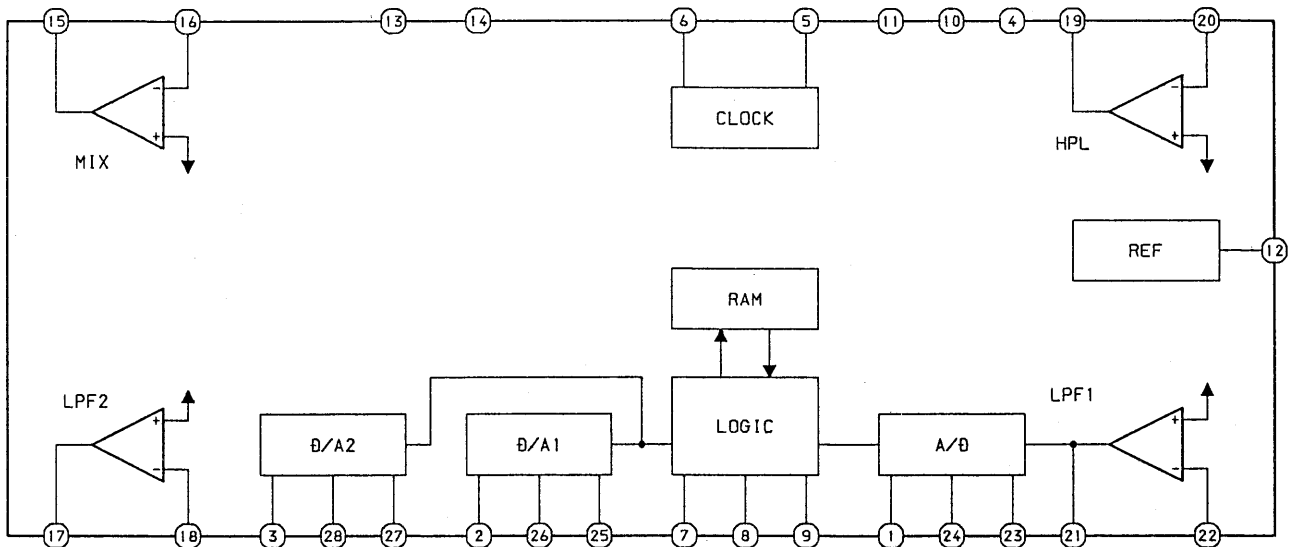


IC BLOCK DIAGRAM

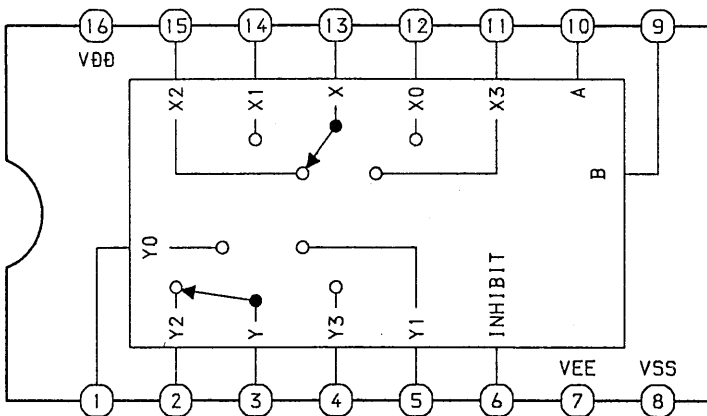
IC, LA1836



IC, M65840



IC, TC4052

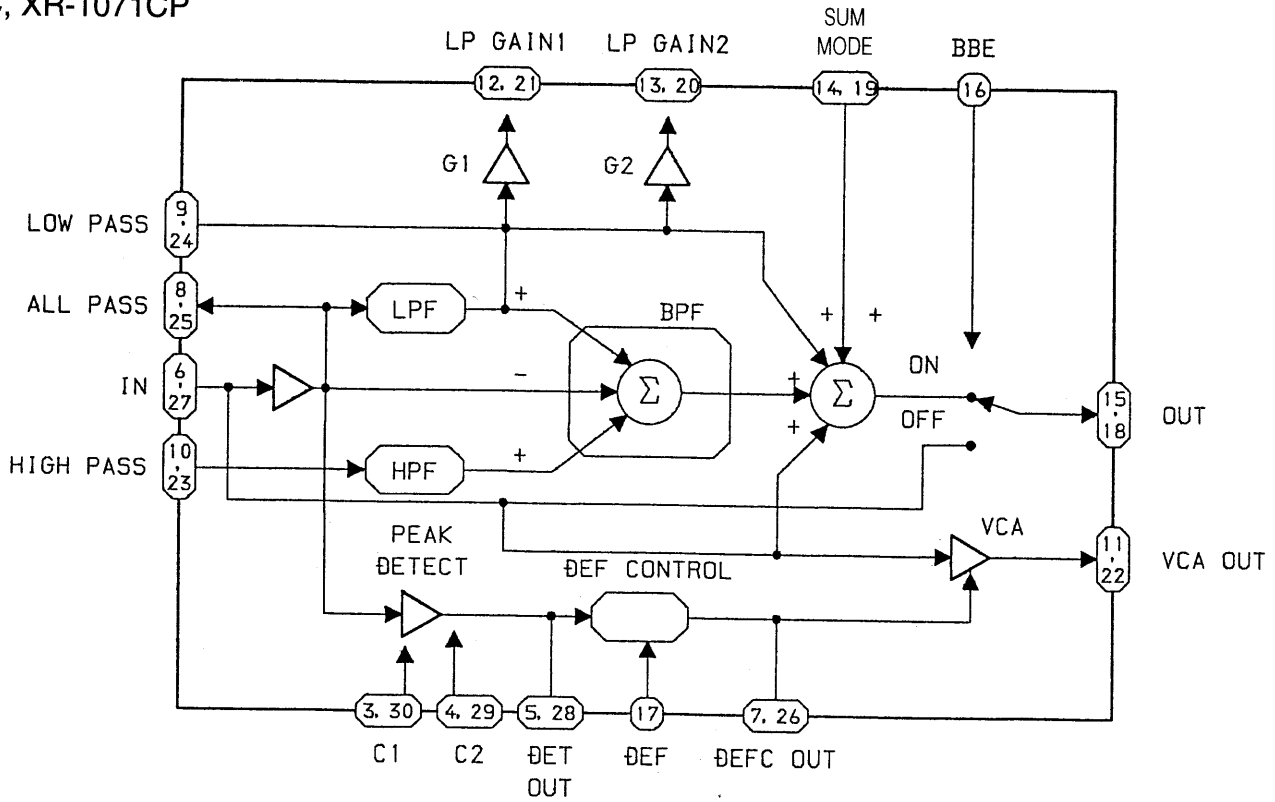


TRUTH TABLE

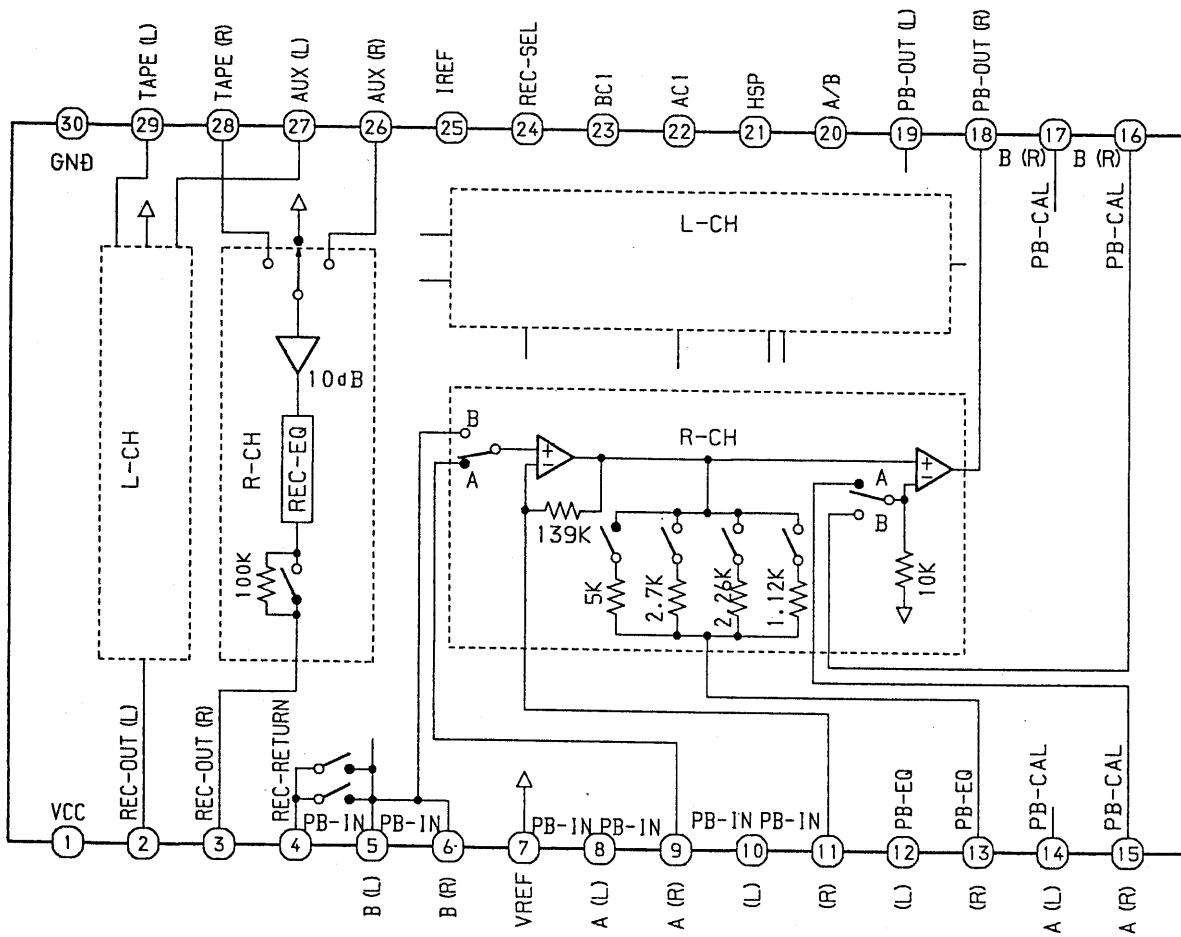
CONTROL INPUTS			ON SWITCH	
INHIBIT	B	A	Y0	X0
L	L	L	Y0	X0
L	L	H	Y1	X1
L	H	L	Y2	X2
L	H	H	Y3	X3
H	X	X	—	—

L: LOW LEVEL
 H: HIGH LEVEL
 X: IRRELEVANT

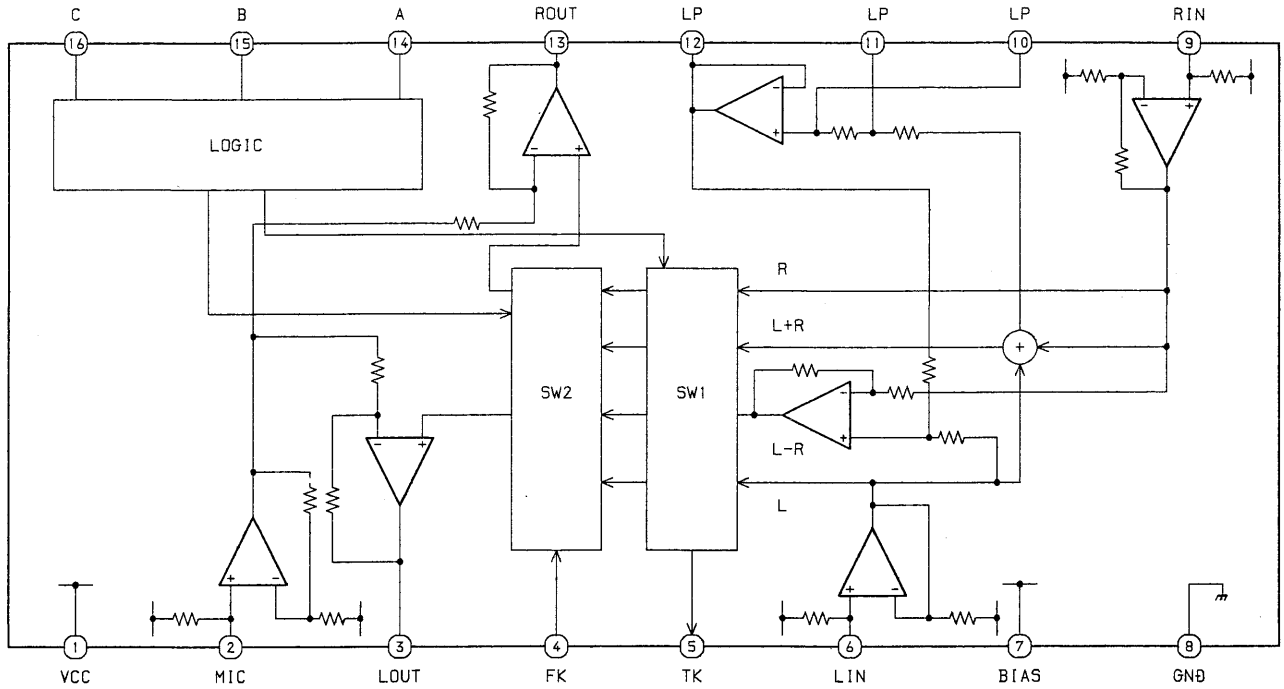
IC, XR-1071CP



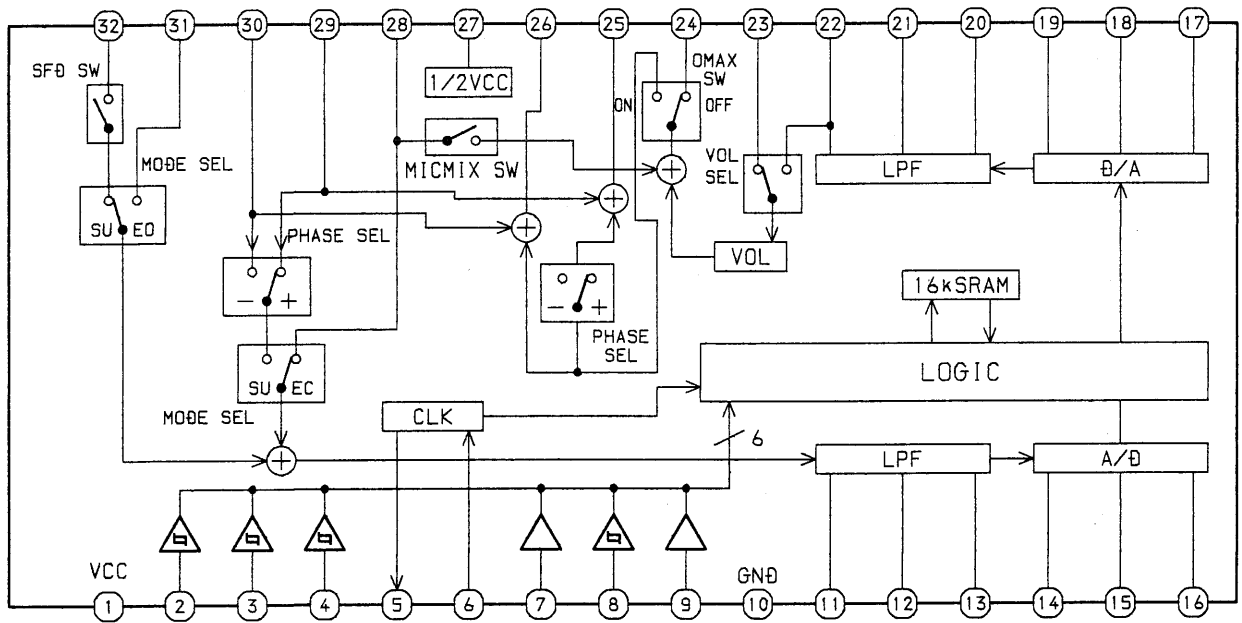
IC, HA12185NT



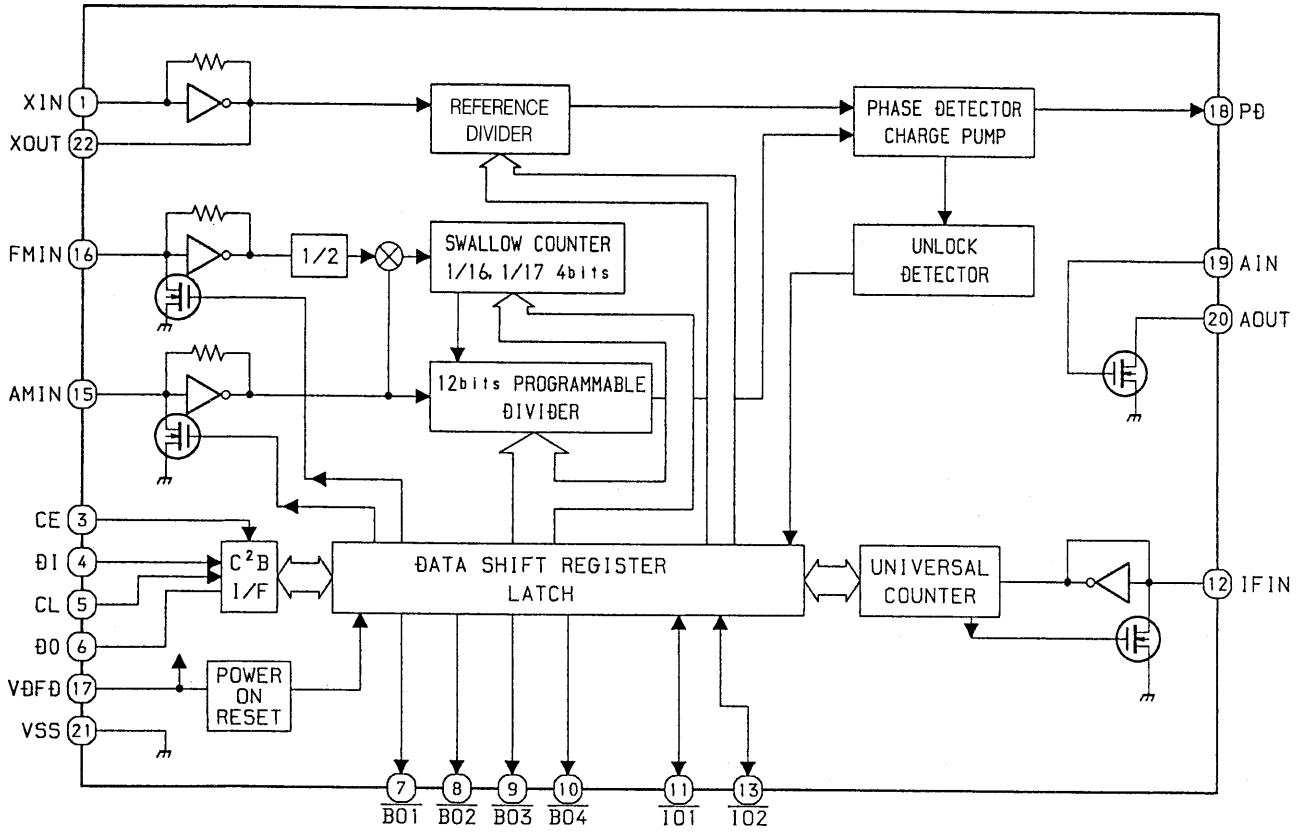
IC, BA3837



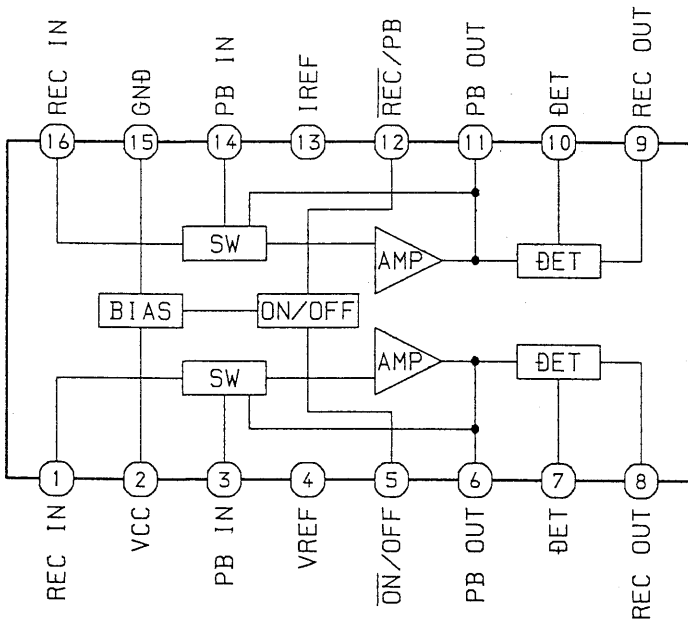
IC, M65846FP-600D



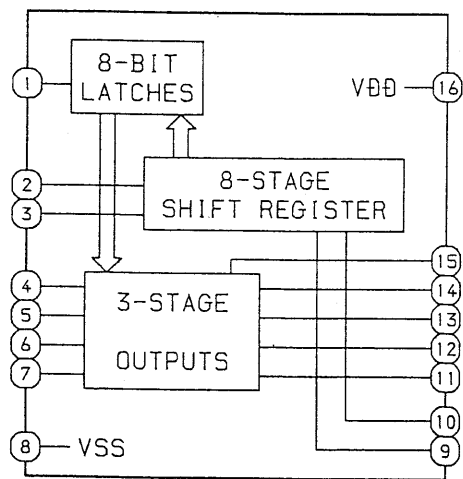
IC, LC72131



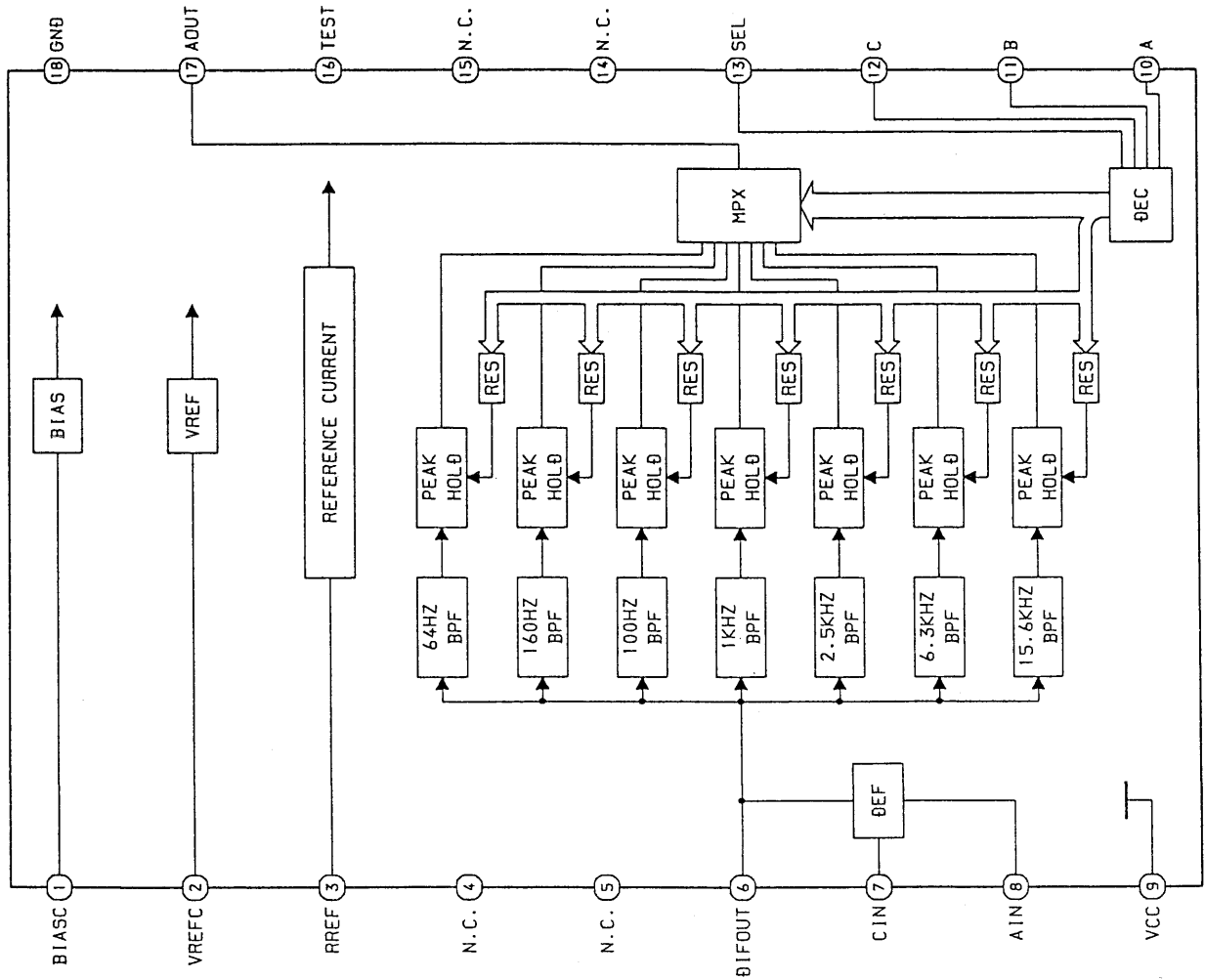
IC, HA12134A



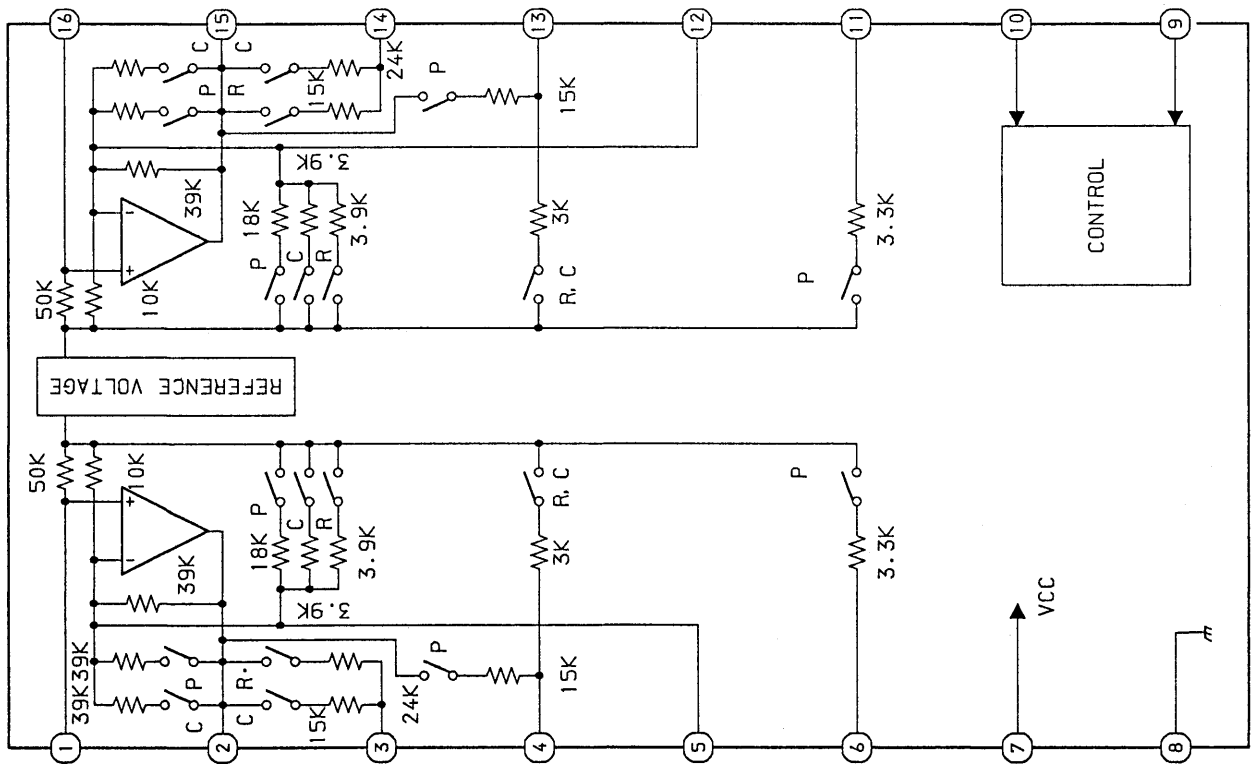
IC, TC4094BP



IC, BA3834S



IC, M62412P



IC DESCRIPTION

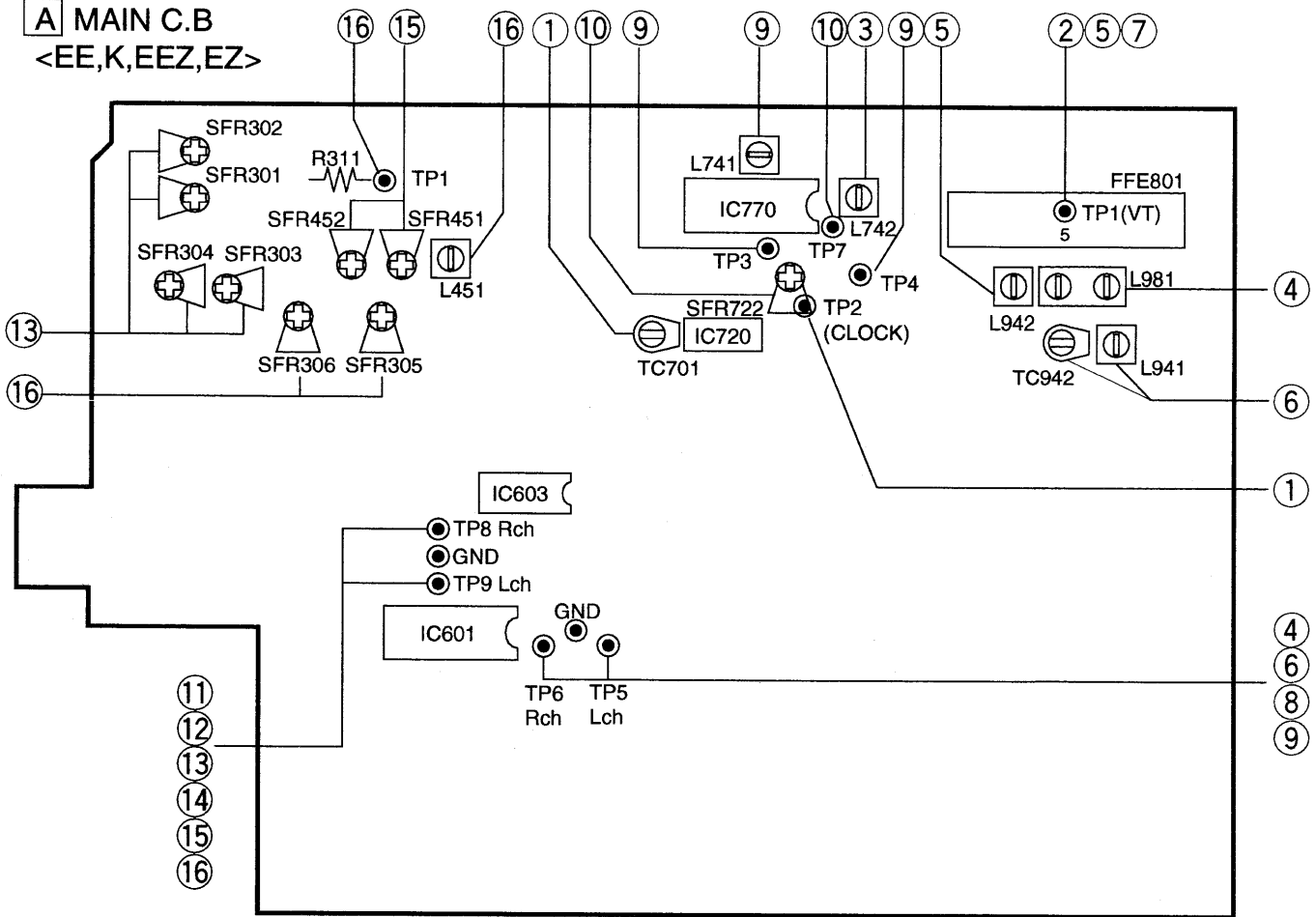
LC866440W-5810

Pin No.	Pin Name	I/O	Description
1	O-PLL CE	O	PLL IC chip enable output.
2	O-DSP/CE	O	DSP IC M65946 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 output.
6	O-KC-CE	O	Key control IC M65946 data latch strobe output.
7	$\overline{\text{RESET}}$	I	Reset input.
8	$\overline{\text{I-STEREO}}$	I	Tuner stereo detected input.
9	$\overline{\text{I-TUNE/IFC}}$	I	Tuner SD detected input. IF count serial data input.
10	VSS1	-	Power pin (-).
11~12	CF1~2	-	5.7MHz oscillator circuit.
13	VDD1	-	Power supply input.
14~16	I-KEY1~3	I	Key input. (A/D)
17	I-CD/SW	I	CD mechanism 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	$\overline{\text{I-HOLD}}$	I	Power failure detected input. ("L" hold)
24	$\overline{\text{I-RMC}}$	I	System remote control signal input.
25~36	G12~G1	O	FL grid output G12 ~ G1.
37	P22	O	FL segment output P22.
38	A/P21	O	FL segment output P21, spectrum analyzer band switch output (A).
39	B/P20	O	FL segment output P20, spectrum analyzer band switch output (B).
40	C/P19	O	FL segment output P19, spectrum analyzer band switch output (C).
41	VDD2	-	Power supply input.
42	-VP	-	Power supply input (-34.5V) for FL display .
43	P18/CST1	I/O	FL segment output P18, DECK1 cassette detect switch data input.
44	P17/AUTO1	I/O	FL segment output P17, DECK1 auto stop data input.
45	P16/CAM1	I/O	FL segment output P16, DECK1 cam switch signal input.
46	P15/CAM2	I/O	FL segment output P15, DECK2 cam switch signal input.
47	P14/AUTO2	I/O	FL segment output P14, DECK2 auto stop data input.
48	P13/CST2	I/O	FL segment output P13, DECK2 cassette detect switch data input.
49	P12/REA	I/O	FL segment output P12, DECK2 side-A record OK switch data input.
50	P11/REB	I/O	FL segment output P11, DECK2 side-B record OK switch data input.
51	P10/FM-WIDE	I/O	FL segment output P10, FM wide mode data input to diode.
52	P1/AM-ST	I/O	FL segment output P1, AM stereo mode data input to diode.
53	P2/AM10K	I/O	FL segment output P2, AM 10kHz step data input to diode.

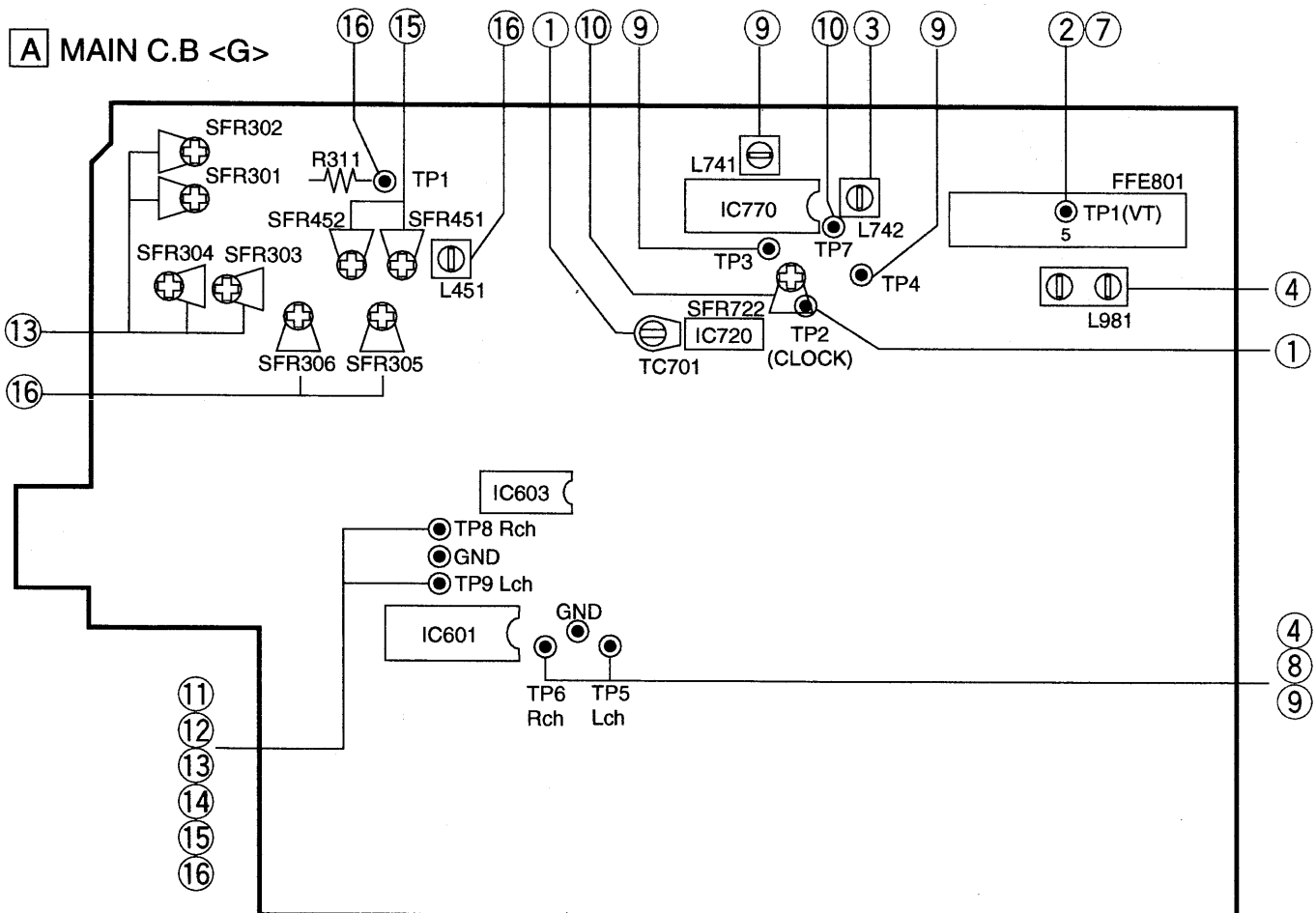
Pin No.	Pin Name	I/O	Description
44	P17/AUTO1	I/O	FL segment output P17, DECK1 auto stop data input.
45	P16/CAM1	I/O	FL segment output P16, DECK1 cam switch signal input.
46	P15/CAM2	I/O	FL segment output P15, DECK2 cam switch signal input.
47	P14/AUTO2	I/O	FL segment output P14, DECK2 auto stop data input.
48	P13/CST2	I/O	FL segment output P13, DECK2 cassette detect switch data input.
49	P12/REA	I/O	FL segment output P12, DECK2 side-A record OK switch data input.
50	P11/REB	I/O	FL segment output P11, DECK2 side-B record OK switch data input.
51	P10/FM-WIDE	I/O	FL segment output P10, FM wide mode data input to diode.
52	P1/AM-ST	I/O	FL segment output P1, AM stereo mode data input to diode.
53	P2/AM10K	I/O	FL segment output P2, AM 10kHz step data input to diode.
54	P3/LW	I/O	FL segment output P3, LW mode data input to diode.
55	P4/SW	I/O	FL segment output P4, SW mode data input to diode.
56	P5/BBE	I/O	FL segment output P5, BBE mode data input to diode.
57	P6/DSP	I/O	FL segment output P6, DSP data input to diode.
58	P7/K-CON	I/O	FL segment output P7, key control data input to diode.
59	P8/CDG	I/O	FL segment output P8, CDG data input to diode.
60	P9/HPON	I/O	FL segment output P9, HEADPHONE inserted set, E, VOL 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 turntable forward rotation output.
65	O-POWER	O	System power supply ON/OFF output.
66	O-SOL1	O	DECK solenoid 1 output.
67	O-SOL2	O	DECK solenoid 2 output.
68	O-E,VR/CE	O	E,VR TC9299P data latch strobe output.
69	O-KEY,SCAN	O	Switch scan timing output.
70	O-F/STB	O	Front shift register (IC401~404), data latch strobe output.
71	O-F/CLK	O	Front shift register (IC401~404), data transfer clock output.
72	O-F/DATA	O	Front shift register (IC401~404), data output.
73	VSS2	-	Power pin (-).
74~77	IO-BUS0~3	I/O	CD IC control data bus input/output.
78	O-CCE	O	CD IC control chip enable output.
79	O-BUCK	O	CD IC control data bus clock output.
80	O-MUTE	O	System mute output.

ELECTRICAL ADJUSTMENT

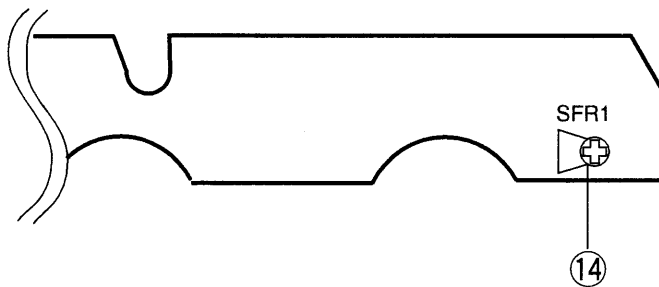
A MAIN C.B <EE,K,EEZ,EZ>



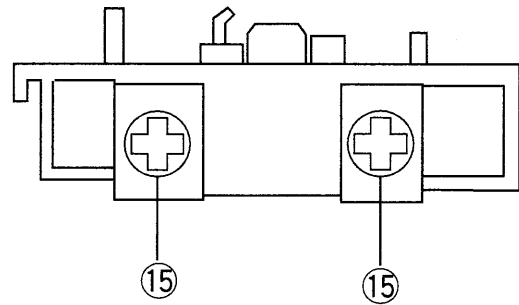
A MAIN C.B <G>



K DECK C.B



DECK-1 P HEAD, DECK-2 R/P/E HEAD



TUNER SECTION

1. Clock Frequency Adjustment

Settings: · Test point : TP2 (CLK IC770 pin30)
 · Adjustment location : TC701

Method: Set to MW 1602kHz and adjust TC701 so the test point becomes $2160\text{kHz} \pm 0.01\text{kHz}$.

2. MW VT Check

Setting: · Test point : TP1(VT)

Method: Set to MW 1602kHz and check the test point is $6.8\text{V} \pm 1.0\text{V}$

3. AM IF Adjustment

Setting: · Test point : TP5, TP6

L742 450kHz

4. MW Tracking Adjustment

Settings: · Test point : TP5, TP6

· Adjustment location : L981

Method: Set to MW 999kHz and adjust L981 so that the test point becomes maximum.

5. LW VT Adjustment <EE,K,EEZ,EZ>

Settings: · Test point : TP1 (VT)

· Adjustment location : L942

Method: Set to LW 144kHz and adjust L942 so that the test point becomes $1.5 \pm 0.05\text{V}$.

6. LW Tracking Adjustment <EE,K,EEZ,EZ>

Settings: · Test point : TP5, TP6

· Adjustment location :

L941 144kHz

TC942 290kHz

Method: Set up TC953 to center before adjustment. The level at 9.5MHz is adjusted to MAX by L953. Then the level at 21.85MHz is adjusted to MAX by TC953.

7. FM VT Check

Setting: · Test point : TP1(VT)

Method: Set to FM 87.5MHz and check so that the test point is more than 1.0V. Then set to FM 108.0MHz and check that the test point is less than 8.0V.

8. FM Tracking Check

Setting: · Test point : TP5, TP6

Method: Set to FM 98.0MHz and Check distortion that the test point is less than 3%.

9. DC Balance/MONO Distortion Adjustment

Settings: · Test point : TP3, TP4 (DC Balance)

TP5, TP6 (Distortion)

· Adjustment location : L741

· Input level : 54dB

Method: Set to FM 98.0MHz and adjust L741 so that the voltage between TP3 and TP4 becomes $0\text{V} \pm 0.04\text{V}$. Next check that the distortion is less than 1.3%.

10. Auto Stop Level Adjustment

Settings: · Test point : TP7

· Adjustment location : SFR722

· Input level : 16dB

Method: Set to FM 98.0MHz and adjust voltage low (about 0.01V) by SFR722. After that voltage high (about 7.0V) out by 2dB down.

TAPE SECTION

11. Tape Speed Adjustment

- Settings:
- Test tape : TTA-100
 - Test point : TP8, TP9
 - Adjustment location : SFR1

Method: Play back the test tape by DECK2 and adjust SFR1 so that the frequency counter reads $3000\text{Hz} \pm 5\text{Hz}$.

12. Head Azimuth Adjustment

- Settings:
- Test tape : TTA-310
 - 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.

13. PB Sensitivity Adjustment (DECK1, DECK2)

- Settings:
- Test tape : TTA-200
 - Test point : TP8, TP9
 - Adjustment location : SFR301 (DECK1, Lch)
SFR302 (DECK1, Rch)
SFR303 (DECK2, Lch)
SFR304 (DECK2, Rch)

Method: Play back the test tape and adjust SFRs so that the output level of the test point becomes 300mV.

14. PB Frequency Response Check (DECK1, DECK2)

- 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 $\pm 2\text{dB}$.

15. REC/PB Frequency Response Adjustment (DECK2)

- 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 21mV. Record and play back the 1kHz and 10kHz signal and adjust SFRs so that the output of the 10kHz signals becomes $0\text{dB} \pm 0.5\text{dB}$ with respect to that of the for 1kHz signal.

16. REC/PB Sensitivity Adjustment

- Settings:
- Test tape : TTA-602
 - Test point : TP8, TP9
 - Input signal : 1kHz/10kHz (LINE IN)
 - Adjustment location : SFR305 (Lch)
SFR306 (Rch)

Method: Apply a 1kHz signal and adjust REC mode. Then adjust OSC attenuator so that the output level at the TP8, TP9 becomes 21mV. Record and play back the 1kHz signals and adjust SFRs so that the output level is $21\text{mV} \pm 0.5\text{dB}$.

17. Bias OSC Frequency Adjustment

- Settings:
- Test tape : TTA-601
 - Test point : TP1 (R311)
 - Adjustment location : L451

Method: Set to the REC mode. Then adjust L451 so that the frequency counter of the test point becomes minimum.

PRACTICAL SERVICE FIGURE

TUNER SECTION

<FM SECTION>

IHF Sensitivity (THD 3%)	
(EE,EEZ,EZ):	6dB±6dB (87.5/98.0/108.0MHz)
(K,G):	3dB±6dB (87.5/98.0/108.0MHz)
S/N 46dB Quieting sensitivity (EE,EEZ,EZ):	
	31dB±5dB (87.5/98.0/108.0MHz)
S/N 50dB Quieting sensitivity (K,G):	
	31dB±5dB (87.5/98.0/108.0MHz)
Signal to noise ratio:	More than 64dB (98.0MHz)
Distortion:	Less than 1.2% (98.0MHz)
Stereo separation	
(EE,K,EEZ,EZ):	More than 22dB (98.0MHz)
(G):	More than 25dB (98.0MHz)
Intermediate frequency:	10.7MHz

<AM(MW) SECTION>

Sensitivity:	55dB±7dB (603kHz)
(S/N 20dB)	53dB±6dB (999/1404kHz)
Distortion:	Less than 1.5% (999kHz)
Intermediate frequency:	450kHz

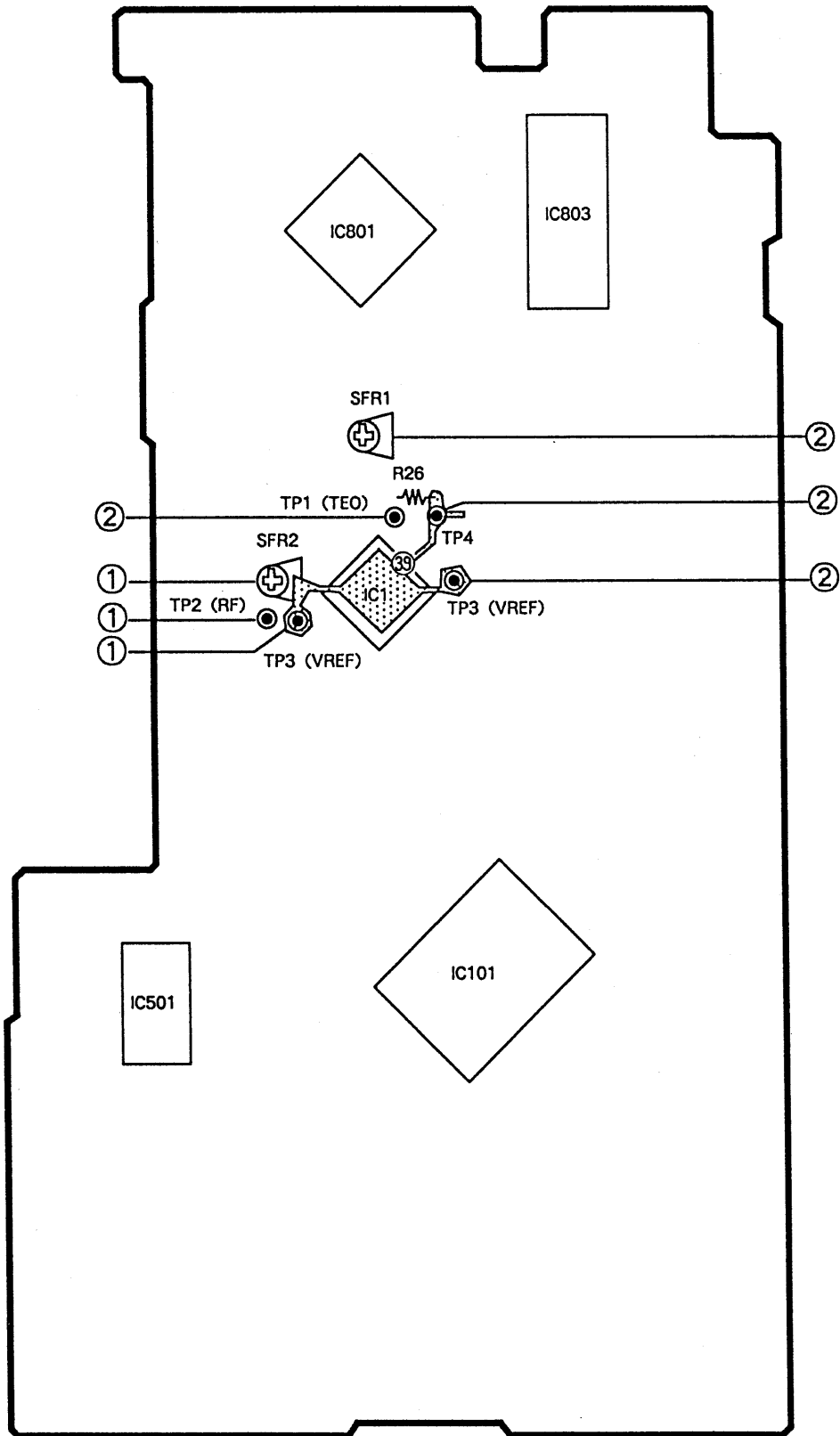
<LW SECTION> (EE,K,EEZ,EZ)

Sensitivity:	66dB±5dB (144kHz)
(S/N 20dB)	63dB±5dB (198kHz)
	62dB±5dB (290kHz)
Distortion:	Less than 1.5% (198kHz)
Intermediate frequency:	450kHz

DECK SECTION

Tape speed:	3000Hz±1.5%
Wow & flutter:	Less than 0.4% (R,M,S)
Take-up torque:	30~55-cm (FWD,REV)
F.F & REW torque:	75~180-cm
Back tension:	2~7-cm (FWD,REV)
PB Output level:	1.2V±0.2V (SP OUT)
REC/PB Output level:	1.0V±2dB (SP OUT 2V)
Distortion (REC/PB):	Less than 2% (NORM,CrO2)
Noise level (PB):	Less than 100mV/170mV (DOLBY NR ON/OFF CrO2, Vol MAX)
	Less than 90mV/200mV (DOLBY NR ON/OFF NORM, Vol MAX)
Noise level (REC/PB):	Less than 3.0mV/7.0mV (DOLBY NR ON/OFF CrO2, SP OUT 2V)
	Less than 3.5mV/8.0mV (DOLBY B NR ON/OFF NORM SP OUT 2V)
Crosstalk:	More than 60dB (1kHz, 0VU)
Erasing ratio:	More than 60dB (125Hz)
Channel separation:	More than 45dB (1kHz, 0VU)
REC bias frequency:	85kHz
Test tape:	NORMAL TTA-602 CrO2 TTA-610

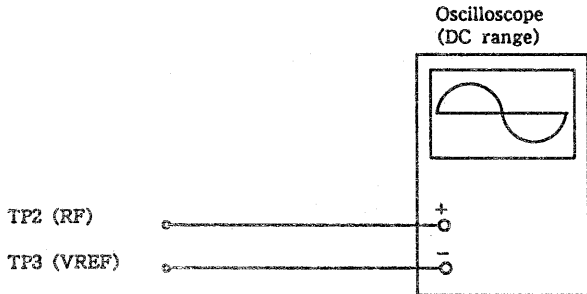
A 3CD C.B



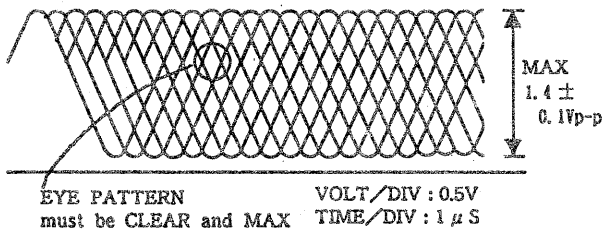
Note : Connect a probe (10 : 1) of the osilloscope to a test point.

1. Focus Bias Adjustment

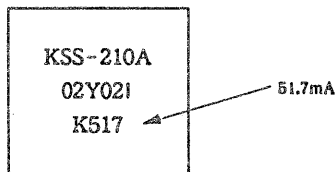
Make the focus bias adjustment when replacing and repairing the optical block.



- 1) Connect an oscilloscope to the test points TP2 (RF) and TP3 (VREF).
- 2) Turn on the power switch.
- 3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
- 4) Adjust SFR2 so that RF signal of the test point TP2 (RF) is MAX and CLEARREST.

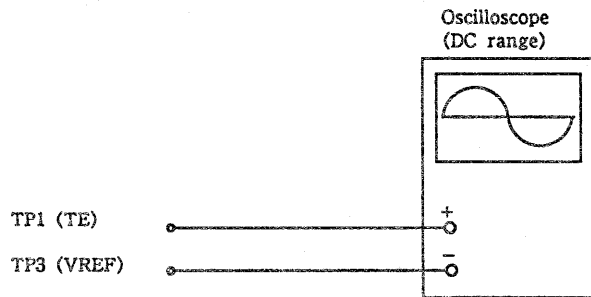


Note : The current of the laser signal can be checked with the voltages on both sides of R2 (10 Ω). The difference for the specified value shown on the level must be within ± 6.0mA.

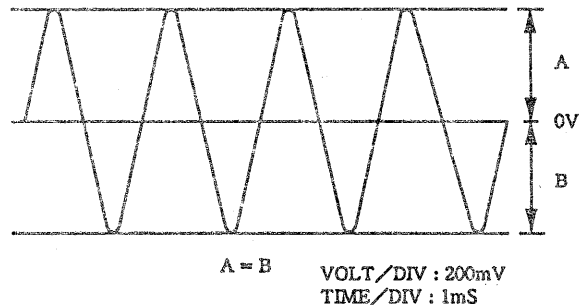


$$\text{Laser current } I_{op} = \frac{\text{Voltage across R2}}{10 \Omega}$$

2. TRACKING Balance Adjustment



- 1) Short circuit between TP3 (VREF) and TP4.
- 2) Connect an oscilloscope to the test points TP1 (TE) and TP3 (VREF).
- 3) Turn on the power switch.
- 4) Insert test disc TCD-782 (YEDS-18) and press the PLAY button.
- 5) Adjust SFR1 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
- 6) After the adjustment is completed, remove the connected lead wires from the test point TP3 (VREF) and TP4.

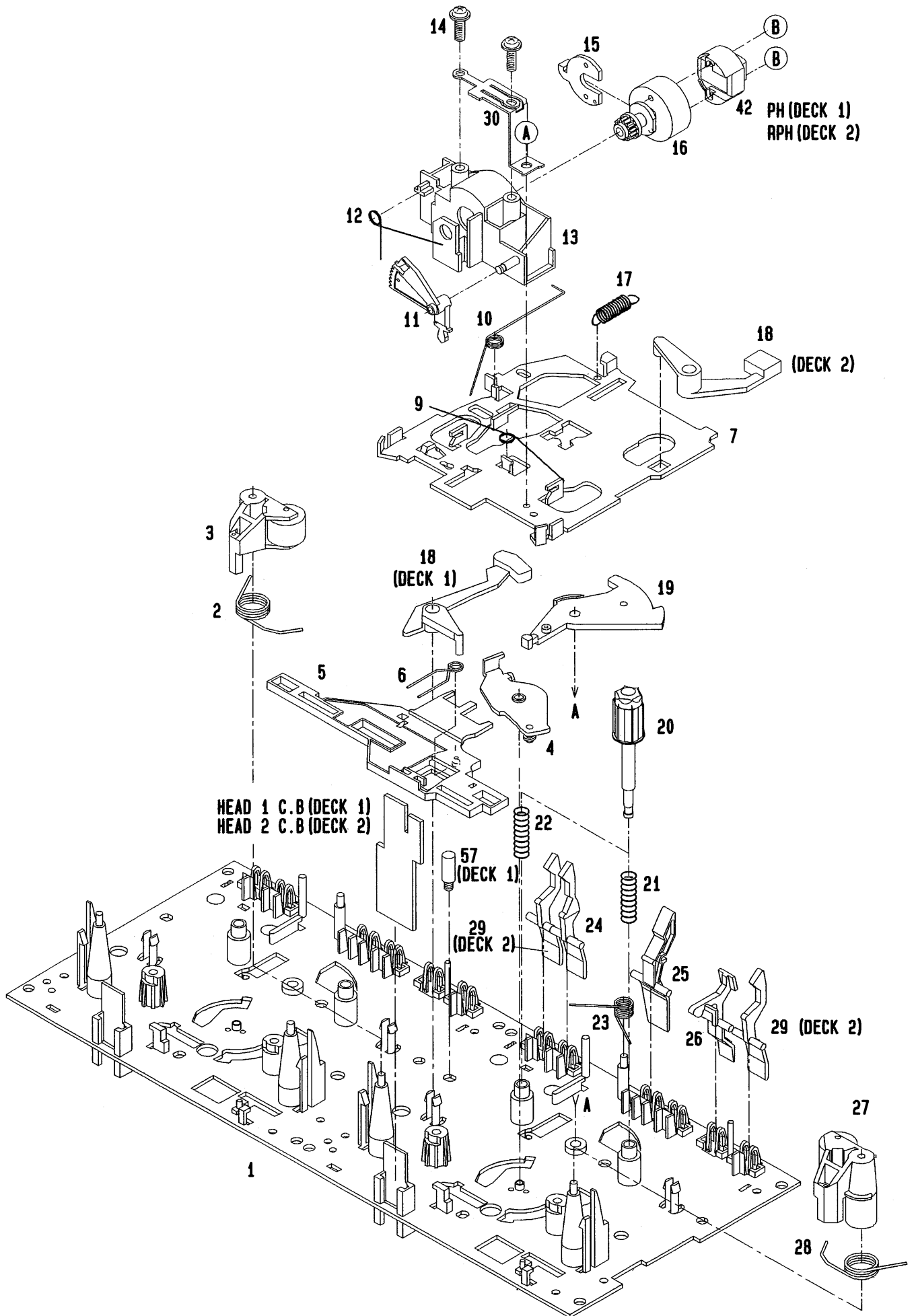


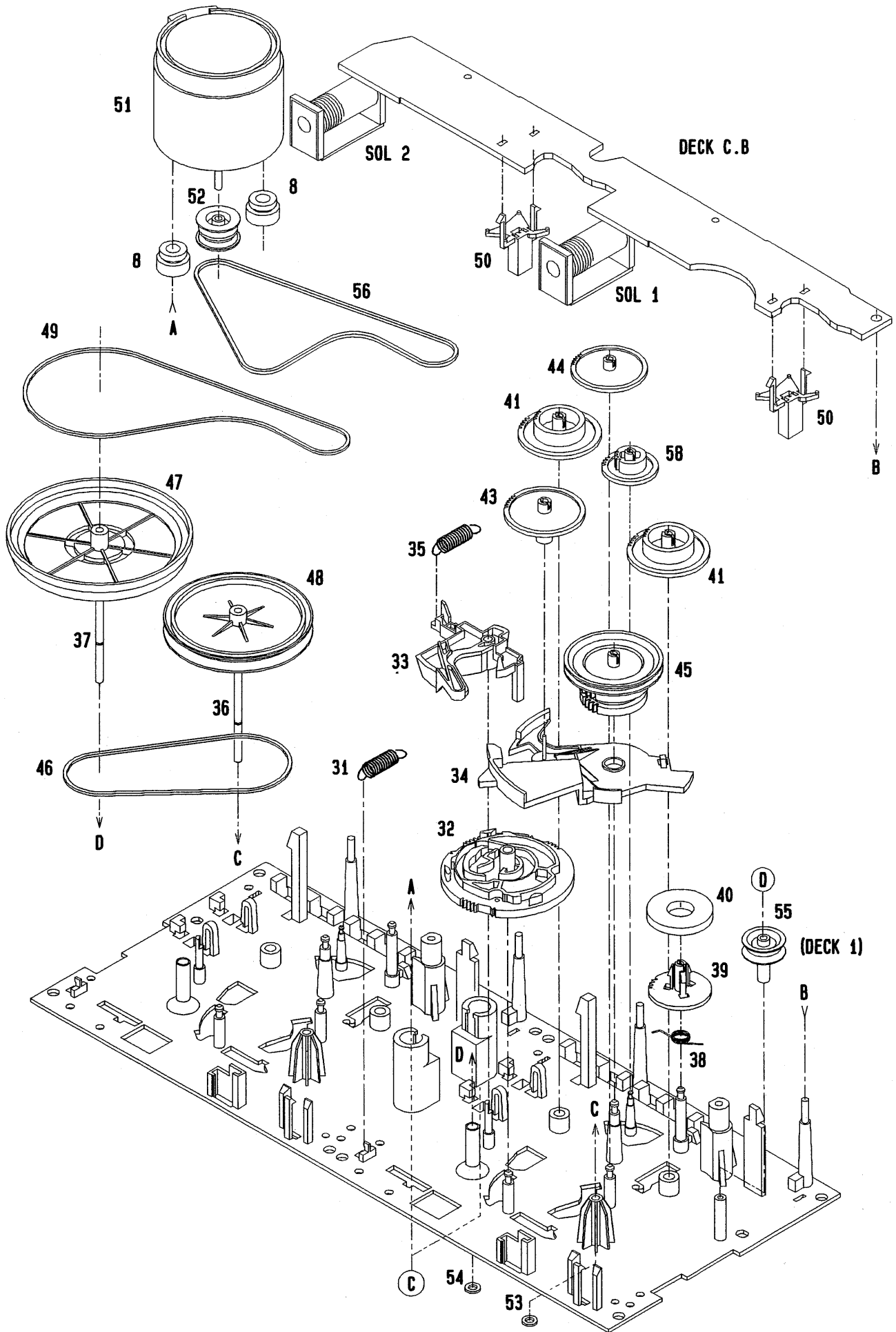
MECHANICAL PARTS LIST 1/1

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF NO.	PART NO.	カンリ NO.	DESCRIPTION	REF NO.	PART NO.	カンリ NO.	DESCRIPTION
1	85-NF4-012-019		CAB,FR EZ	35	85-NF5-072-019		PANEL,TRAY U
2	80-VT1-202-019		FELT,12.5-15.5-2	36	85-NF5-031-119		WINDOW, TOP
3	85-NF5-026-019		IND,CASS	37	85-NF5-007-019		CAB,STEEL
4	85-NF5-034-019		WINDOW,BOX 2	38	85-NF4-019-019		PANEL,REAR EEBNE<EE>
5	85-NF5-062-119		BOX,CASS 2 EZ	38	85-NF4-020-019		PANEL,REAR EZBNE<EEZ, EZ>
6	82-NF5-219-019		SPR-T,EJECT 2 (SIN)	38	85-NF4-026-019		PANEL,REAR GBNM<G>
7	82-NF5-218-019		SPR-T,EJECT 1 (SIN)	38	85-NF4-021-019		PANEL,REAR KBNE<K>
8	85-NF5-061-119		BOX,CASS 1 EZ	△39	87-050-016-018		AC CORD ASSY,E<EE,EEZ,EZ>
9	80-CD3-218-110		SPR-P,CASS	△39	87-050-081-119		AC CORD ASSY,G<G>
10	85-NF5-033-019		WINDOW,BOX 1	△39	87-050-029-018		AC CORD ASSY,K 3P<K>
11	85-NF5-021-019		KEY,DSP	40	87-085-185-010		BUSHING,AC CORD E
12	85-NF4-202-019		PLATE,HLDR FFC	41	87-085-221-019		FOOT,H 13.5
13	85-NF4-005-019		PANEL,CONTROL 4	42	82-NF5-227-019		HLDR,LOCK 2N
14	85-NF4-007-019		WINDOW,DISPLAY	43	82-NF5-228-019		SPR-C,LOCK
15	87-063-165-019		OIL-DMPR 150	44	82-NF5-229-019		PLATE,LOCK
16	82-NR6-067-019		BADGE,AIWA 30M	45	82-NF5-226-019		HLDR,LOCK 1N
17	85-NF5-023-019		KEY,DOLBY	46	85-NF4-006-019		PLATE,LED
18	85-NF5-013-019		KEY,POWER	47	85-NF4-201-019		GUIDE,LED
19	85-NF5-032-019		WINDOW,CD	A	87-571-032-419		VIT+2-3
20	85-NF4-004-019		KEY,PRO	B	87-078-084-019		BVTT+3-6 W,CONVEX
21	85-NF5-011-019		KEY,OPEN	C	87-067-633-019		BVT2+3-8 W/CONVEX
22	85-NF5-012-019		KEY,DISC	D	87-067-698-019		BVT 2+3-18 (W/O SLOT)
23	83-NF5-020-019		KNOB,MIC	E	87-067-579-019		BVT 2+3-8 W/O SLOT
24	83-NF5-009-019		KNOB,VOL	F	87-067-703-019		BVT2+3-10 (W/O SLOT)
25	83-NF5-010-019		IND,VOL	G	87-571-092-419		VIT+3-4
26	85-NF5-022-019		KEY,GEQ	H	87-591-094-419		QIT+3-6 GOLD
27	85-NF5-020-019		KEY,BBE	I	87-067-975-019		S-SCREW IT+4-8<G>
28	83-NF5-207-019		HLDR,FFC<G>	J	87-067-689-019		BVTT+3-8
28	83-NF5-208-018		HLDR,FFC G<EXCEPT G>	K	87-067-747-019		W,4.3-14-1<G>
29	85-NF5-014-119		KEY ASSY,FUN	L	87-721-097-419		QT2+3-12 GLD
30	85-NF5-019-019		KEY,OPE	M	87-067-641-019		UTT2+3-8 W/O SLOT BLK
31	85-NF5-202-019		GUIDE,OPE	N	87-084-077-019		NYLON RIVET DIA 3.5 - 4.5
32	85-NF5-202-019		GUIDE,FL	O	87-078-083-019		BVTT SEMS+4-8SW<EXCEPT G>
33	85-NF5-210-119		GUIDE,LED L				
34	85-NF5-211-119		GUIDE,LED R				

TAPE MECHANISM EXPLODED VIEW 1 / 1



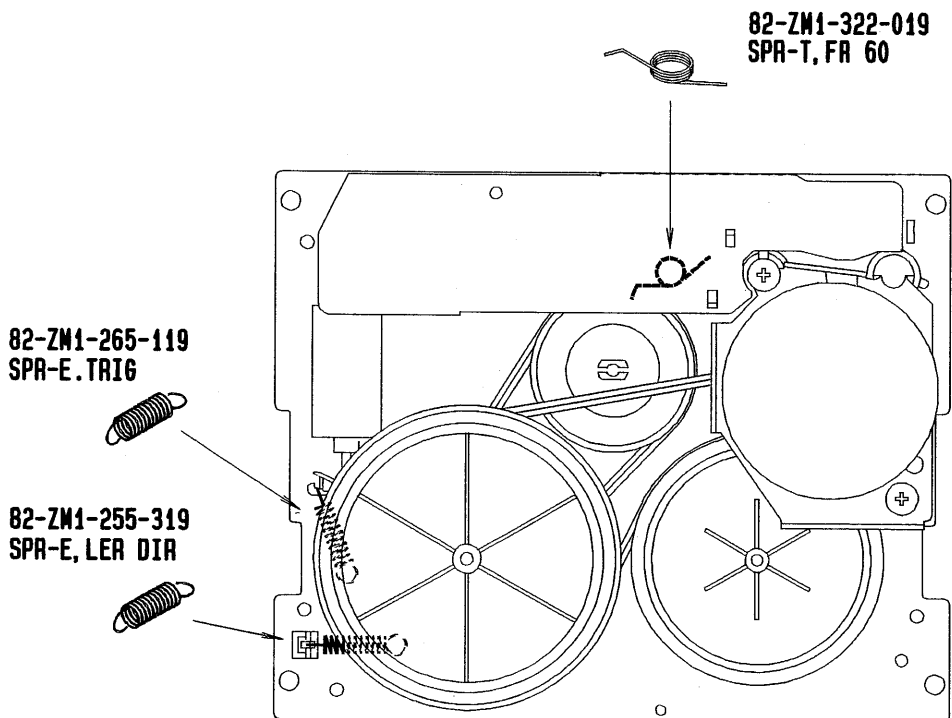
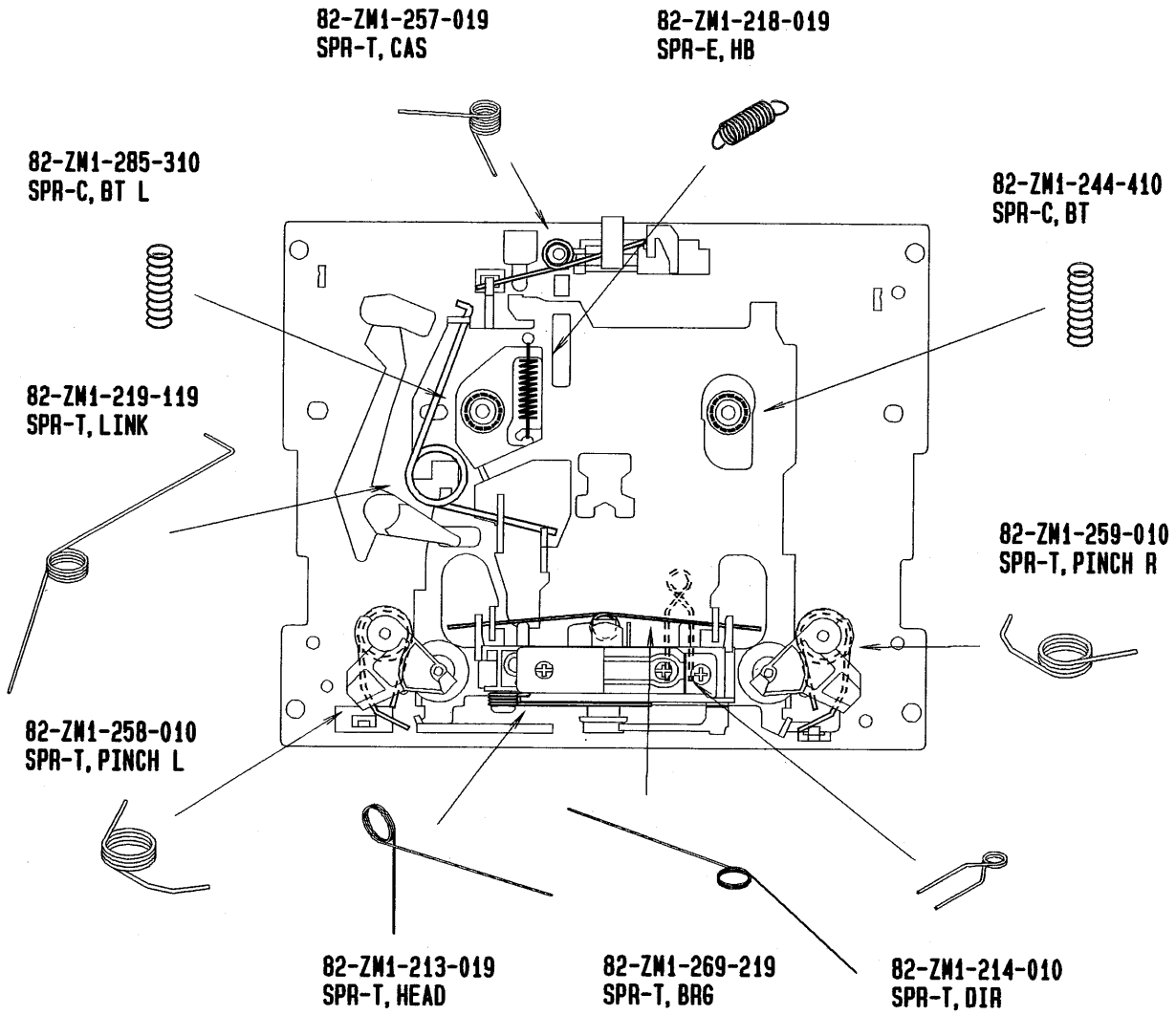


TAPE MECHANISM PARTS LIST 1/1

DESCRIPTIONで判断できない物は“REFERENME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カンリ NO.	DESCRIPTION	REF. NO	PART NO.	カンリ NO.	DESCRIPTION
1	82-ZM3-301-019		CHAS ASSY,M2	35	82-ZM1-265-119		SPR-E, TRIG
2	82-ZM1-258-010		SPR-T, PINCH L	36	82-ZM1-313-019		CAPSTAN N 2-41.5
3	82-ZM1-248-419		LVR ASSY, PINCH L	37	82-ZM1-312-019		CAPSTAN N 2.2-41.7
4	82-ZM1-295-31K		PLATE ASSY, LINK	38	82-ZM1-322-019		SPR-T, FR60
5	82-ZM1-266-11K		LVR, DIR	39	82-ZM1-220-219		GEAR, IDLER
6	82-ZM1-214-010		SPR-T, DIR	40	82-ZM1-316-010		RING MAGNET 3
7	82-ZM1-206-61K		CHAS, HEAD	41	82-ZM1-216-21K		GEAR, REEL
8	82-ZM3-307-019		CUSH-G, DIA3.7-8-3.2	42	87-046-355-019		HEAD, PH HADKH2529B (PH)
9	82-ZM1-269-219		SPR-T, BRG	42	87-046-356-019		HEAD, RPH HADKH5581B (RPH)
10	82-ZM1-219-119		SPR-T, LINK	43	82-ZM1-225-11K		GEAR, FR
11	82-ZM1-210-019		GEAR, H T	44	82-ZM1-226-019		GEAR, REW
12	82-ZM1-213-019		SPR-T, HEAD	45	82-ZM1-228-510		SLIP DISK ASSY
13	82-ZM1-207-519		GUIDE, TAPE	46	82-ZM1-328-010		BELT FR2 (DECK 1)
14	82-ZM1-283-310		S-SCREW, AZIMUTH	46	82-ZM1-335-010		BELT FR2M (DECK 2)
15	82-ZM1-314-119		PLATE, HEAD	47	82-ZM1-238-61K		FLY-WHL ASSY, R (DECK 2)
16	82-ZM1-208-019		HLDR, HEAD	47	82-ZM3-210-51K		FLY-WHL ASSY, R2 (DECK 1)
17	82-ZM1-218-019		SPR-E, HB	48	82-ZM1-235-31K		FLY-WHL ASSY, L (DECK 2)
18	82-ZM1-263-110		LVR, EJECT L (DECK 1)	48	82-ZM3-208-41K		FLY-WHL ASSY, L2 (DECK 1)
18	82-ZM1-264-010		LVR, EJECT R (DECK 2)	49	82-ZM3-313-019		BELT R10
19	82-ZM1-222-11K		LVR, PLAY	50	82-ZM1-245-210		HLDR, IC
20	82-ZM1-217-319		REEL TABLE	51	87-045-347-019		MOT, SHU2L 70 (M1)
21	82-ZM1-244-410		SPR-C, BT	52	82-ZM3-202-019		PULLEY, MOT 2M
22	82-ZM1-285-310		SPR-C, BT L	53	82-ZM1-288-019		SH, 1.63-3.2-0.5 SLT
23	82-ZM1-257-019		SPR-T, CAS	54	80-ZM6-243-019		SH, 1.75-3.6-0.5 SLT
24	82-ZM1-241-319		LVR, MC	55	82-ZM3-304-010		PULLEY, COUPLER (DECK 1)
25	82-ZM1-242-019		LVR, CAS	56	82-ZM3-312-019		BELT P10
26	82-ZM1-243-019		LVR, STOP	57	82-ZM3-216-019		SHAFT, COUPLER N (DECK 1)
27	82-ZM1-253-419		LVR ASSY, PINCH R	58	82-ZM1-223-019		GEAR, PLAY
28	82-ZM1-259-010		SPR-T, PINCH R	A	82-ZM1-315-010		S-SCREW, GVIDE TAPE
29	82-ZM1-240-11K		LVR, REC (DECK 2)	B	80-ZM6-207-019		V+1.6-7
30	82-ZM1-298-010		SPR-P, EARTH	C	82-ZM3-318-019		S-SCRW MOTOR M2
31	82-ZM1-255-319		SPR-E, LVR DIR	D	87-067-972-019		PW, 1.05-3-0.25 SLT
32	82-ZM3-305-01K		GEAR, CAM M2				
33	82-ZM1-227-21K		LVR, TRIG				
34	82-ZM3-306-01K		LVR, FR M2				

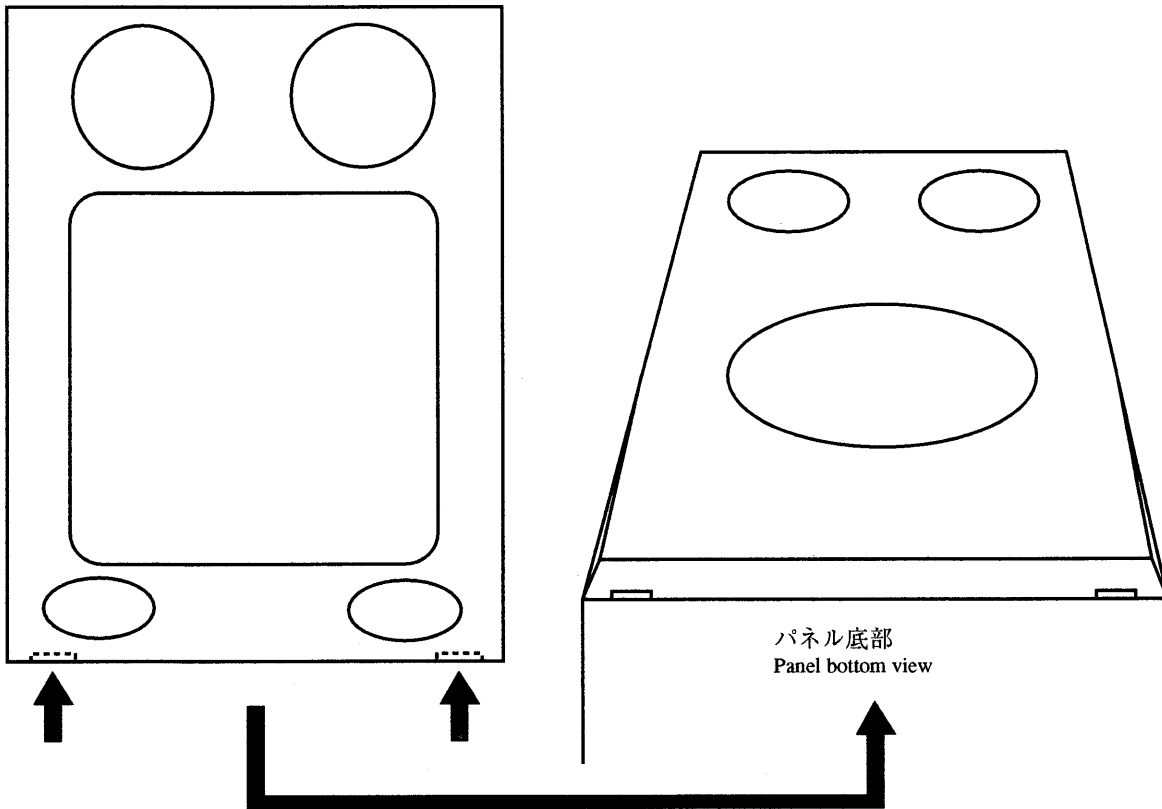
SPRING APPLICATION POSITION



DISASSEMBLY INSTRUCTIONS

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

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



SPEAKER PARTS LIST 1 / 1

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
1	85-NSF-001-010		PANEL FR, R
2	85-NSF-002-010		PANEL FR, L
3	85-NSF-007-010		GRILL FRAME ASSY
4	82-MSE-610-010		CERAMIC
5	85-NS4-602-010		SPEAKER WOOFER
6	85-NSF-604-010		SPEAKER TWEETER
7	83-096-614-010		SPEAKER CORD
A	87-343-172-010		UT, +4-12
B	87-342-097-010		UT, +3-10

■ ACCESSORIES / PACKAGE LIST

DESCRIPTIONで判断できない物は“REFERENCE NAME LIST”を参照してください。
If can't understand for Description please kindly refer to “REFERENCE NAME LIST”.

REF. NO	PART NO.	カリ NO.	DESCRIPTION
1	87-006-225-019		AM LOOP ANT NC2
2	87-043-115-01B		ANT, FEEDER FM<G>
2	87-043-106-019		FM, WIRE ANT (Z) <EXCEPT G>
3	85-NF4-904-018		IB, EGI (G) <EE, EEZ, EZ>
3	85-NF4-903-018		IB, ESF (G) <EXCEPT G>
4	85-NF4-905-019		IB, ESF (M) LH, G<G>
5	85-NT3-661-019		RC-T506

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
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER
サージサプレッサ	SERGESUPPRESSOR
セラコン	CAP, CERA

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
ジグアーム	ARM, SHAFT
ジグガイド	GUIDE, SHAFT
ストラップ	STRAP
トクナベ	S-SCREW
ヒンジ	HINGE
ヒンジビス	S-SCREW
ビスセレート	SCREW, SERRART

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.

931196 750038

Tokyo Japan