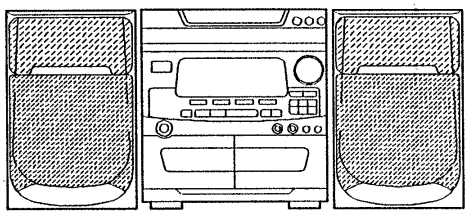
aiwa

aiwa SERVICE

NSX-K600D

SERVICE MANUAL



COMPACT DISC
STEREO CASSETTE RECEIVER

- BASIC TAPE MECHANISM:2ZM-3MK2-PR1
- BASIC CD MECHANISM:4ZG-1GFRV3
- TYPE:HR,HK,TH,EZ

SYSTEM	CENTER UNIT	SPEAKER	REMOTE CONTROLLER
NSX-K600D	CX-NK600D	SX-FNK600L	RC-T520
		SX-FNK600	

● このサービスマニュアルにはメカニズムの説明が含まれていません。メカニズムについては、4ZG-1/4ZG-1T/4ZG-1S, S/M Code No. 09-95C-124-90Tのマニュアルを参照してください。

● If requiring information about the mechanism, see Service Manual of 4ZG-1/4ZG-1T/4ZG-1S (S/M Code No. 09-95C-124-90T).

S/M Code No. 09-961-122-40T

TABLE OF CONTENTS

SPECIFICATIONS

HR, HK, TH MODELS

Main unit CX-NK600D

FM tuner section

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

MW tuner section

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

SW tuner section

Tuning range	SW 1: 3.20 MHz to 7.30 MHz SW 2: 9.50 MHz to 21.85 MHz
Antenna	Wire antenna

Amplifier section

Power output	HK, TH: 50 W + 50 W (6 ohms, T.H.D. 10 %, 1 kHz) HR (without connecting to the SURROUND SPEAKERS): Rated 38 W + 38 W (6 ohms, T.H.D. 1 %, 1 kHz) Reference: 50 W + 50 W (6 ohms, T.H.D. 10 %, 1 kHz)
Total harmonic distortion	0.07 % (20 W, 1 kHz, 6 ohms)
Inputs	VIDEO/AUX: 150 mV (adjustable) MIC 1, MIC 2: 1 mV (10 kohms)
Outputs	LINE OUT: 200 mV VIDEO OUT: 1.0 Vp-p (75 ohms) SUPER WOOFER: 1.7 V SPEAKERS: accepts speakers of 6 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	CrO_2 tape: 50 Hz – 16000 Hz Normal tape: 50 Hz – 15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, CrO_2 tape peak level)
Recording system	AC bias
Heads	DECK 1: Playback head × 1 DECK 2: Recording/playback/erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	16 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.03 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable
Video signal	HR, HK: PAL color format TH: NTSC color format
Video data	MPEG 1
Audio data	MPEG 1, LAYER 2

Speaker system SX-FNK600L

Cabinet type	3 way, bass reflex with surround speaker (Magnetic sealed type)
Speaker	Woofer: 140 mm (5⅝ in.) cone type Tweeter: 80 mm (3¼ in.) cone type Super tweeter: 50 mm (2 in.) ceramic type Surround speaker: 80 mm (3¼ in.) cone type
Impedance	Front speaker: 6 ohms Surround speaker: 16 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W × H × D)	206 × 302 × 265 mm (8⅛ × 12 × 10½ in.)
Weight	3.7 kg (8 lbs 3 oz.)

General

Power requirements	120/220 – 230/240 V AC, switchable 50/60 Hz
Power consumption	130 W
Dimensions of main unit (W × H × D)	260 × 306.8 × 339.5 mm (10¼ × 12⅛ × 13⅜ in.)
Weight of main unit	7.8 kg (17 lbs 3 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 ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

EZ MODEL

Main unit CX-NK600D

FM tuner section

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

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	144 kHz to 290 kHz
Usable sensitivity	1400 µV/m
Antenna	Loop antenna

Amplifier section

Power output	(without connecting to the SURROUND SPEAKERS): 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) DIN MUSIC POWER 55 W + 55 W
Total harmonic distortion	0.07 % (15 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX: 150 mV (adjustable) MIC 1, MIC 2: 1 mV (10 kohms)
Outputs	LINE OUT: 200 mV VIDEO OUT: 1.0 Vp-p (75 ohms) SUPER WOOFER: 1.7 V SPEAKERS: accepts speakers of 6 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	CrO_2 tape: 50 Hz – 16000 Hz Normal tape: 50 Hz – 15000 Hz
Signal-to-noise ratio	60 dB (Dolby B NR ON, CrO_2 tape peak level)
Recording system	AC bias
Heads	DECK 1: Playback head × 1 DECK 2: Recording/playback/erase head × 1

Compact disc player section

Laser	Semiconductor laser (λ = 780 nm)
D-A converter	16 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.03 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable
Video signal	PAL color format
Video data	MPEG 1
Audio data	MPEG 1, LAYER 2

Speaker system SX-FNK600

Cabinet type	3 way, bass reflex with surround speaker (Magnetic sealed type)
Speaker	Woofer: 140 mm (5⅝ in.) cone type Tweeter: 80 mm (3¼ in.) cone type Super tweeter: 50 mm (2 in.) ceramic type Surround speaker: 80 mm (3¼ in.) cone type
Impedance	Front speaker: 6 ohms Surround speaker: 16 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W × H × D)	206 × 302 × 260 mm (8⅛ × 12 × 10¼ in.)
Weight	3.5 kg (7 lbs 11 oz.)

General

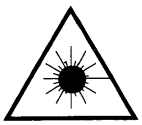
Power requirements	230 V AC, 50 Hz
Power consumption	200 W
Dimensions of main unit (W × H × D)	260 × 307 × 339.5 mm (10¼ × 12⅛ × 13⅜ in.)
Weight of main unit	7.7 kg (17 lbs.)

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.

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.

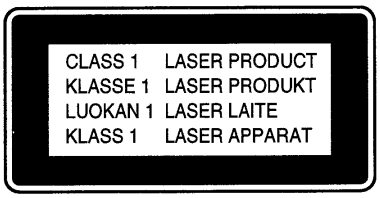
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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.



TRANSISTOR ILLUSTRATION

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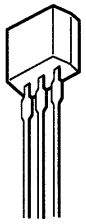
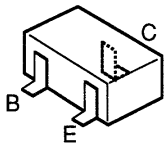
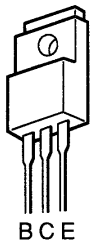
2SA1296 2SC3331
2SA1318 2SD655
2SC1815 KTA1266
2SC2001 KTC3198
2SC2240



2SA933S
2SC1740S
DTA114YS



2SA1162 DTA144EK
2SC2712 DTA144WK
2SC2714 DTC114YK
2SC3326 DTC114EK
DTA143EK DTC144WK



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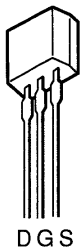
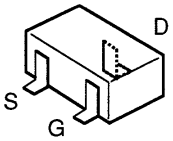


2SK365



2SK543

ELECTRICAL MAIN PARTS 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.	カンリ NO.	DESCRIPTION
IC			
	87-020-454-010		IC,DN 6851
	85-NFT-615-010		IC,LC866432V
	87-070-083-010		IC,GP1U281X
	87-020-966-010		IC STK4142-MK2<K,EZ>
	87-001-582-010		IC,STK4152 2<HR,HK,TH>
	87-070-121-010		IC,HA12185NT
	87-070-232-010		IC,BA3834S
	87-017-375-080		IC,TC4094BF
	87-001-874-010		IC,HA12134A
	87-017-673-010		IC,BA3837
	87-017-374-010		IC,TC4094BP
	87-017-022-080		IC,NJM 2068 M-D(T1)
	87-017-804-010		IC,BU4052BC
	87-070-184-040		IC,M65846FP-600D
	87-017-787-010		IC,M62412P
	87-070-127-010		IC,LC72131
	87-017-714-010		IC,LA1836
	87-017-675-080		IC,M65840FP
TRANSISTOR			
	87-026-463-080		TR,2SA933S
	89-213-702-010		TR,2SB1370E
	87-026-609-080		TR,KTA1266GR
	87-026-610-080		TR,KTC3198GR
	89-327-125-080		C-TR,2SC2712GR
	89-332-665-080		TR,2SC3266GR
	89-111-625-080		C-TR,2SA1162GR
	89-113-187-880		TR,2SA1318TU<HR,HK>
	87-026-235-080		C-TR,DTC114EK
	89-333-266-080		C-TR,2SC3326B
	87-026-211-080		C-TR,DTA144EK
	87-026-232-080		C-TR,DTA144WK
	89-322-405-080		TR,2SC2240GR
	87-026-226-080		C-TR,DTA143EK
	89-503-655-680		FET,2SK365GR/BL
	89-112-965-080		TR,2SA1296GR
	89-333-317-080		TR,2SC3331 T
	89-327-126-080		C-TR,2SC2712BL<K,EZ>
	89-109-521-080		TR,2SA952K
	89-406-555-080		TR,2SD655E
	87-026-238-080		C-TR,DTC144WK
	87-026-214-080		TR,DTA114YS
	89-327-143-080		TR,2SC2714(O)
	89-406-555-089		TR,2SD655E<HR,HK,TH>
	89-318-154-089		TR,2SC1815Y<HR,HK,TH>
	87-026-462-089		TR, 2SC1740S (RS)<HR,HK,TH>
	89-320-011-089		TR,2SC2001K<HR,HK,TH>
	89-505-434-589		C-FET,2SK543(4/5)<HR,HK,TH>
	89-318-155-089		TR,2SC1815GR<HR,HK,TH>
	89-505-434-580		C-FET,2SK543(4/5)<K,EZ>
	87-026-214-089		TR,DTA114YS<HR,HK,TH>
DIODE			
	87-017-978-080		DIODE,1N4003
	87-020-027-080		C-DIODE,1SS184
	87-020-125-080		C-DIODE,1SS181
	87-020-465-080		DIODE,1SS133
	87-017-174-080		ZENER,HZS11A3L
	87-070-150-080		ZENER,MTZJ33D
	87-002-225-010		DIODE DBF 40C-K10
	87-020-691-080		DIODE,1SS132
	87-002-608-080		DIODE,DSF10TC
	87-001-731-080		ZENER,HZS6C2L
	87-017-091-080		ZENER,HZS5C1
	87-020-331-080		C-DIODE,DAN202K
	87-001-290-080		ZENER,HZS6B1L
	87-020-330-080		C-DIODE,DAP202K
	87-001-559-080		DIODE,1SS131
	87-017-148-080		ZENER,HZS6A1L
	87-070-136-080		ZENER,MTZJ5.1B
	87-020-125-089		C-DIODE,1SS181<HR,HK,TH>
	87-020-465-089		DIODE,1SS133<HR,HK,TH>
	87-020-027-089		C-DIODE,1SS184<HR,HK,TH>
MAIN C.B			
C102	87-010-390-090		CAP ELECT 3300-25SME
C104	87-010-235-080		CAP,E 470-16 SME
C105	87-010-381-080		CAP,E 330-16 SME
C106	87-010-764-080		CAP,E 47-63
C107	87-010-406-080		CAP,E 22-50 SME
C108	87-010-406-080		CAP,E 22-50 SME
C109	87-010-263-080		CAP,E 100-10
C112	87-010-406-080		CAP,E 22-50 SME
C113	87-010-403-080		CAP,E 3.3-50 SME
C115	87-016-247-080		C-CAP,0.1-50 F
C116	87-010-179-080		C-CAP,S 1200P-50 B
C117	87-012-368-080		C-CAP S 0.1-50F
C118	87-012-368-080		C-CAP S 0.1-50F
C119	87-012-368-080		C-CAP S 0.1-50F
C126	87-016-055-090		CAP,E 3300-42 HI-R
C127	87-016-055-090		CAP,E 3300-42 HI-R
C128	87-012-368-080		C-CAP S 0.1-50F
C131	87-012-368-080		C-CAP S 0.1-50F
C152	87-010-260-080		CAP,E 47-25 SME
C201	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C202	87-018-211-080		TC CAP U 0.01-50<K,EZ>
C203	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C204	87-018-211-080		TC CAP U 0.01-50<K,EZ>
C213	87-010-401-080		CAP,E 1-50 SME
C214	87-010-401-080		CAP,E 1-50 SME
C215	87-010-178-080		C-CAP,S 1000P-50 B
C216	87-010-178-080		C-CAP,S 1000P-50 B
C217	87-010-404-080		CAP,E 4.7-50 SME
C218	87-010-404-080		CAP,E 4.7-50 SME
C223	87-010-260-080		CAP,E 47-25 SME
C224	87-010-260-080		CAP,E 47-25 SME
C225	87-010-260-080		CAP,E 47-25 SME
C226	87-010-260-080		CAP,E 47-25 SME
C227	87-018-209-080		CAP,TC-U 0.1-50 F
C228	87-018-209-080		CAP,TC-U 0.1-50 F
C231	87-010-196-080		C-CAP,S 0.1-25 F
C235	87-010-318-080		C-CAP,S 47P-50 CH<K,EZ>
C236	87-010-318-080		C-CAP,S 47P-50 CH<K,EZ>
C237	87-012-342-089		C-CAP,0.15<K,EZ>
C243	87-010-154-080		C-CAP,S 10P-50 CH
C244	87-015-879-080		C-CAP,10P CH
C245	87-018-208-080		CAP,TC-U 0.047-50 F<HR,HK,TH>
C250	87-010-197-080		C-CAP,S 0.01-25 B
C251	87-010-386-080		CAP,E 330-25 SME
C303	87-012-157-080		C-CAP,S 330P-50 CH
C304	87-012-157-080		C-CAP,S 330P-50 CH
C305	87-012-155-080		C-CAP,S 180P-50 CH
C306	87-012-155-080		C-CAP,S 180P-50 CH
C307	87-010-197-080		C-CAP,S 0.01-25 B
C308	87-010-197-080		C-CAP,S 0.01-25 B
C313	87-010-181-080		C-CAP,S 1800P-50 B
C314	87-010-181-080		C-CAP,S 1800P-50 B
C315	87-010-179-080		C-CAP,S 1200P-50 B
C316	87-010-179-080		C-CAP,S 1200P-50 B
C317	87-012-142-080		C-CAP,S 0.33-16 F

REF. NO.	PART NO.	カンリ NO.	DESCRIPTION
C318	87-010-955-080		C-CAP,0.33-16 R
C319	87-012-141-080		C-CAP,S 0.22-16 F
C320	87-012-141-080		C-CAP,S 0.22-16 F
C321	87-010-196-080		C-CAP,S 0.1-25 F
C322	87-010-196-080		C-CAP,S 0.1-25 F
C324	87-010-260-080		CAP,E 47-25 SME
C325	87-010-370-080		CAP,E 330-6.3 SME
C326	87-010-196-080		C-CAP,S 0.1-25 F<HR,HK,TH>
C332	87-010-196-080		C-CAP,S 0.1-25 F
C335	87-010-805-080		C-CAP,S 1-16 F
C336	87-010-805-080		C-CAP,S 1-16 F
C351	87-012-154-080		C-CAP,S 150P-50 CH
C352	87-012-154-080		C-CAP,S 150P-50 CH
C451	87-012-140-080		C-CAP,S 470P-50 CH
C452	87-012-140-080		C-CAP,S 470P-50 CH
C453	87-010-178-080		C-CAP,S 1000P-50 B
C454	87-010-178-080		C-CAP,S 1000P-50 B<K,EZ>
C454	87-010-175-080		C-CAP,S 560P-50 SL<HR,HK,TH>
C455	87-010-178-080		C-CAP,S 1000P-50 B<K,EZ>
C455	87-010-175-080		C-CAP,S 560P-50 SL<HR,HK,TH>
C456	87-010-260-080		CAP,E 47-25 SME
C457	87-010-197-080		C-CAP,S 0.01-25 B
C458	87-010-183-080		C-CAP,S 2700P-50 B
C459	87-010-183-080		C-CAP,S 2700P-50 B
C460	87-010-183-080		C-CAP,S 2700P-50 B
C470	87-010-196-080		C-CAP,S 0.1-25 F
C501	87-010-177-080		C-CAP,S 820P-50 SL
C502	87-010-177-080		C-CAP,S 820P-50 SL
C503	87-012-155-080		C-CAP,S 180P-50 CH
C504	87-012-155-080		C-CAP,S 180P-50 CH
C515	87-010-545-080		CAP,E 0.22-50 SME
C516	87-010-545-080		CAP,E 0.22-50 SME
C519	87-010-196-080		C-CAP,S 0.1-25 F
C521	87-010-197-080		C-CAP,S 0.01-25 B
C522	87-010-318-080		C-CAP,S 47P-50 CH
C523	87-010-197-080		C-CAP,S 0.01-25 B
C524	87-010-402-080		CAP,E 2.2-50 SME
C530	87-010-194-080		C-CAP,S 0.047-25 F
C531	87-010-545-080		CAP,E 0.22-50 SME
C532	87-010-382-080		CAP,E 22-25 SME
C533	87-010-404-080		CAP,E 4.7-50 SME
C534	87-010-404-080		CAP,E 4.7-50 SME
C535	87-010-404-080		CAP,E 4.7-50 SME
C536	87-010-404-080		CAP,E 4.7-50 SME
C537	87-018-209-080		CAP,TC-U 0.1-50 F
C538	87-010-384-080		CAP,E 100-25 SME
C539	87-010-196-080		C-CAP,S 0.1-25 F
C540	87-010-196-080		C-CAP,S 0.1-25 F
C541	87-010-196-080		C-CAP,S 0.1-25 F
C543	87-010-544-080		CAP,E 0.1-50<K,EZ>
C543	87-010-546-080		CAP,E 0.33-50 SME<HR,HK,TH>
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C544	87-010-546-080		CAP,E 0.33-50 SME<HR,HK,TH>
C545	87-010-400-080		CAP,E 0.47-50 SME
C546	87-010-400-080		CAP,E 0.47-50 SME
C547	87-010-426-080		C-CAP,S 0.012-25 B<HR,HK,TH>
C547	87-010-428-080		C-CAP,S 0.015-25 B<K,EZ>
C548	87-010-426-080		C-CAP,S 0.012-25 B<HR,HK,TH>
C548	87-010-428-080		C-CAP,S 0.015-25 B<K,EZ>
C549	87-018-209-080		CAP,TC-U 0.1-50 F
C550	87-010-183-080		C-CAP,S 2700P-50 B
C553	87-010-182-080		C-CAP,S 2200P-50 B<K,EZ>
C553	87-010-183-080		C-CAP,S 2700P-50 B<HR,HK,TH>
C554	87-010-182-080		C-CAP,S 2200P-50 B<K,EZ>
C554	87-010-183-080		C-CAP,S 2700P-50 B<HR,HK,TH>
C557	87-010-178-080		C-CAP,S 1000P-50 B
C558	87-010-178-080		C-CAP,S 1000P-50 B
C597	87-010-404-080		CAP,E 4.7-50 SME
C598	87-010-404-080		CAP,E 4.7-50 SME
C601	87-010-404-080		CAP,E 4.7-50 SME
C602	87-010-404-080		CAP,E 4.7-50 SME
C641	87-010-196-080		C-CAP,S 0.1-25 F
C642	87-010-196-080		C-CAP,S 0.1-25 F
C701	87-010-381-080		CAP,E 330-16 SME
C702	87-010-404-080		CAP,E 4.7-50 SME
C703	87-010-197-080		C-CAP,S 0.01-25 B
C704	87-010-197-080		C-CAP,S 0.01-25 B
C711	87-010-263-080		CAP,E 100-10
C712	87-010-196-080		C-CAP,S 0.1-25 F
C722	87-010-311-080		C-CAP,S 12P-50 CH
C723	87-010-178-080		C-CAP,S 1000P-50 B
C725	87-010-178-080		C-CAP,S 1000P-50 B
C727	87-010-196-080		C-CAP,S 0.1-25 F
C728	87-010-248-080		CAP,E 220-10 SME
C732	87-018-211-080		TC CAP U 0.01-50<K,EZ>
C770	87-010-405-080		CAP,E 10-50 SME
C771	87-010-405-080		CAP,E 10-50 SME
C772	87-010-194-080		C-CAP,S 0.047-25 F
C773	87-010-196-080		C-CAP,S 0.1-25 F
C774	87-010-263-080		CAP,E 100-10
C775	87-010-405-080		CAP,E 10-50 SME
C776	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C777	87-010-400-080		CAP,E 0.47-50 SME
C778	87-010-401-080		CAP,E 1-50 SME
C779	87-010-401-080		CAP,E 1-50 SME
C780	87-010-197-080		C-CAP,S 0.01-25 B
C781	87-010-405-080		CAP,E 10-50 SME
C782	87-010-405-080		CAP,E 10-50 SME
C787	87-010-184-080		C-CAP,S 3300P-50 B
C788	87-010-184-080		C-CAP,S 3300P-50 B
C789	87-010-179-080		C-CAP,S 1200P-50 B
C790	87-010-179-080		C-CAP,S 1200P-50 B
C791	87-010-401-080		CAP,E 1-50 SME
C792	87-010-180-080		C-CAP,S 1500P-50 B<HR,HK,TH>
C792	87-010-182-080		C-CAP,S 2200P-50 B<K,EZ>
C793	87-010-189-080		C-CAP,S 8200P-50 B
C794	87-010-408-080		CAP,E 47-50 SME
C795	87-010-194-080		C-CAP,S 0.047-25 F
C796	87-010-403-080		CAP,E 3.3-50 SME
C797	87-010-405-080		CAP,E 10-50 SME<K,EZ>
C798	87-010-196-080		C-CAP,S 0.1-25 F<K,EZ>
C812	87-018-134-080		CAP,TC-U 0.01-16 Y<HR,HK,TH>
C815	87-018-134-080		CAP,TC-U 0.01-16 Y<HR,HK,TH>
C816	87-018-211-080		TC CAP U 0.01-50<K,EZ>
C817	87-010-197-080		C-CAP,S 0.01-25 B
C818	87-010-197-080		C-CAP,S 0.01-25 B
C819	87-010-197-080		C-CAP,S 0.01-25 B
C820	87-010-260-080		CAP,E 47-25 SME
C821	87-010-197-080		C-CAP,S 0.01-25 B
C822	87-010-197-080		C-CAP,S 0.01-25 B
C823	87-010-197-080		C-CAP,S 0.01-25 B
C824	87-018-209-080		CAP,TC-U 0.1-50 F<K,EZ>
C825	87-015-819-080		C-CAP,0.01-50 B K<K,EZ>
C826	87-010-196-080		C-CAP,S 0.1-25 F
C827	87-010-196-080		C-CAP,S 0.1-25 F
C828	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C829	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C830	87-015-819-080		C-CAP,0.01-50 B K
C831	87-010-197-080		C-CAP,S 0.01-25 B
C832	87-010-197-080		C-CAP,S 0.01-25 B<HR,HK,TH>
C833	87-010-197-080		C-CAP,S 0.01-25 B<HR,HK,TH>
C835	87-010-197-080		C-CAP,S 0.01-25 B
C840	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C850	87-018-134-080		CAP,TC-U 0.01-16 Y<K,EZ>
C901	87-010-545-080		CAP,E 0.22-50 SME
C902	87-010-178-080		C-CAP,S 1000P-50 B
C903	87-010-178-080		C-CAP,S 1000P-50 B
C904	87-010-184-080		C-CAP,S 3300P-50 B
C905	87-010-177-080		C-CAP,S 820P-50 SL
C906	87-010-178-080		C-CAP,S 1000P-50 B

REF. NO.	PART NO.	カンリ NO.	DESCRIPTION
C907	87-010-185-080		C-CAP,S 3900P-50 B
C909	87-010-175-080		C-CAP,S 560P-50 SL
C910	87-010-176-080		C-CAP,S 680P-50 SL
C911	87-010-196-080		C-CAP,S 0.1-25 F
C918	87-010-186-080		C-CAP,S 4700P-50 B
C920	87-010-408-080		CAP,E 47-50 SME
C921	87-010-247-080		CAP,E 100-50 SME
C922	87-010-196-080		C-CAP,S 0.1-25 F
C923	87-010-316-080		C-CAP,S 33P-50 CH
C924	87-010-154-080		C-CAP,S 10P-50 CH
C925	87-018-209-080		CAP,TC-U 0.1-50 F
C927	87-010-197-080		C-CAP,S 0.01-25 B
C941	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C942	87-010-311-080		C-CAP,S 12P-50 CH<K,EZ>
C944	87-010-154-080		C-CAP,S 10P-50 CH<K,EZ>
C945	87-012-154-080		C-CAP,S 150P-50 CH
C946	87-014-050-080		CAP,PP 510P-100 J<K,EZ>
C947	87-010-401-080		CAP,E 1-50 SME
C948	87-010-196-080		C-CAP,S 0.1-25 F<K,EZ>
C949	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C951	87-010-401-080		CAP,E 1-50 SME<K,EZ>
C983	87-010-544-080		CAP,E 0.1-50<K,EZ>
C987	87-015-819-080		C-CAP,0.01-50 B K
C988	87-016-247-080		C-CAP,0.1-50 F
C990	87-010-197-080		C-CAP,S 0.01-25 B<K,EZ>
C993	87-010-197-080		C-CAP,S 0.01-25 B
C995	87-010-197-080		C-CAP,S 0.01-25 B
CF801	87-008-423-010		CF,SFE10.7MS3GA<K,EZ>
CF801	87-008-261-010		FLTR,SFE10.7MA5-A<HR,HK,TH>
CF802	87-785-747-010		FLTR,CFAZ-450 2NT<K,EZ>
CF802	87-008-261-010		FLTR,SFE10.7MA5-A<HR,HK,TH>
FFE801	85-NF5-605-010		FE PACK 2 EX<HR,HK,TH>
FFE802	85-NF5-604-010		FE PACK (AL)<K,EZ>
J250	87-099-678-010		JACK,6.3W/S BLK
J253	87-009-621-010		JACK PIN 1P BLK<HR,HK,TH>
J253	87-099-802-010		JACK PIN 3P BRW<K,EZ>
J254	87-033-227-010		TERMINAL,SP 4P R(Z)*
J652	87-099-625-010		JACK PIN 4P,RVS (KM)
J801	87-033-230-010		ANT TERM ,ANT AJ-2016<K,EZ>
J801	82-NF5-621-010		ANT TERM JBT0222<HR,HK,TH>
L201	87-003-383-010		COIL,1UH-S<K,EZ>
L202	87-003-383-010		COIL,1UH-S<K,EZ>
L403	87-007-341-010		COIL,TRAP 85K
L404	87-007-341-010		COIL,TRAP 85K
L451	87-007-336-010		COIL,OSC 85K BIAS
L701	81-631-643-010		COIL 1 POLE MPX
L702	81-631-643-010		COIL 1 POLE MPX
L741	87-006-253-010		COIL,FM DET N
L742	81-631-612-010		CFMT 450A<HR,HK,TH>
L742	82-NT1-659-010		FLTR,CFAZ-450 2NT<K,EZ>
L770	87-003-102-080		COIL,10UH
L832	87-003-098-080		COIL,2.2UH
L941	87-006-208-010		COIL,ANT LW<K,EZ>
L942	87-007-305-010		COIL,OSC LW<K,EZ>
L981	81-MX4-619-010		AM PACK 4<K,EZ>
R105	87-022-050-080		RES,M/F 0.22-1W
R106	87-022-050-080		RES,M/F 0.22-1W
RY101	87-045-361-010		RELAY,DH12D2-OS(M)-2
RY102	87-045-382-010		RELAY,OUAZ-SH-112L
SFR301	87-024-174-080		SFR,33K DIA6 V
SFR302	87-024-174-080		SFR,33K DIA6 V
SFR303	87-024-174-080		SFR,33K DIA6 V
SFR304	87-024-174-080		SFR,33K DIA6 V
SFR305	87-024-175-080		SFR,47K DIA6 V
SFR306	87-024-175-080		SFR,47K DIA6 V
SFR451	87-024-175-080		SFR,47K DIA6 V
SFR452	87-024-175-080		SFR,47K DIA6 V
SFR722	87-024-171-080		SFR 4.7K DIA6 V
TC701	87-011-253-080		TRIMER,30P LAR
TC942	87-011-253-080		TRIMER,30P LAR

REF. NO.	PART NO.	カンリ NO.	DESCRIPTION
VR651	82-NF5-660-010		VR,50KBX2 RK14K12A
W101	85-NF5-628-010		F-CABLE,7P-2.5
W102	85-NF5-617-010		CABLE,FFC 6P-1.25
X703	84-508-618-010		VIB,CER CSB 456 F15
X721	87-030-163-010		VIB,XTAL 7.2MHZ<K,EZ>
X721	87-030-278-080		VIB,XTAL 7.2MHZ,S<HR,HK,TH>
X722	87-030-354-010		VIB,CF BFU450C<HR,HK,TH>
X901	87-030-348-080		VIB,CER 16.0MHZ CST

FRONT C.B

C201	87-010-404-040		CAP,E 4.7-50 SME
C202	87-010-404-040		CAP,E 4.7-50 SME
C203	87-010-408-040		CAP,E 47-50 SME
C204	87-010-401-040		CAP,E 1-50 SME
C205	87-010-555-040		CAP,E 100-10 GAS
C206	87-010-550-040		CAP,E 100-6.3 GAS
C207	87-010-494-040		CAP,E 1-50 GAS
C208	87-010-196-080		C-CAP,S 0.1-25 F
C209	87-010-550-040		CAP,E 100-6.3 GAS
C212	87-010-560-040		CAP,E 10-50 GAS
C213	87-010-196-080		C-CAP,S 0.1-25 F
C214	87-010-196-080		C-CAP,S 0.1-25 F
C215	87-010-196-080		C-CAP,S 0.1-25 F
C220	87-010-317-080		C-CAP,S 39P-50 CH
C221	87-010-315-080		C-CAP,S 27P-50 CH
C222	87-010-318-080		C-CAP,S 47P-50 CH
C223	87-010-178-080		C-CAP,S 1000P-50 B
C250	87-010-178-080		C-CAP,S 1000P-50 B
C381	87-010-196-080		C-CAP,S 0.1-25 F
C382	87-010-196-080		C-CAP,S 0.1-25 F
C383	87-010-196-080		C-CAP,S 0.1-25 F
C384	87-010-196-080		C-CAP,S 0.1-25 F
C385	87-010-322-080		C-CAP,S 100P-50 CH
C389	87-010-196-080		C-CAP,S 0.1-25 F
C401	87-010-196-080		C-CAP,S 0.1-25 F
C402	87-010-196-080		C-CAP,S 0.1-25 F
C501	87-010-060-080		CAP,E 100-16 7L
C601	87-010-405-040		CAP,E 10-50 SME
C602	87-010-176-080		C-CAP,S 680P-50 SL
C603	87-010-196-080		C-CAP,S 0.1-25 F
C605	87-010-319-080		C-CAP,S 56P-50 CH
C606	87-010-494-040		CAP,E 1-50 GAS
C607	87-010-196-080		C-CAP,S 0.1-25 F
C608	87-010-322-080		C-CAP,S 100P-50 CH
C609	87-010-491-040		CAP,E 0.22-50 GAS
C610	87-012-155-080		C-CAP,S 180P-50 CH
C611	87-010-406-040		CAP,E 22-50 SME
C614	87-010-555-040		CAP,E 100-10 GAS
C615	87-010-405-040		CAP,E 10-50 SME
C616	87-018-209-080		CAP,TC-U 0.1-50 F
C622	87-016-247-080		C-CAP,0.1-50F
C646	87-010-196-080		C-CAP,S 0.1-25 F
C647	87-010-180-080		C-CAP,S 1500P-50 B
C648	87-012-156-080		C-CAP,S 220P-50 CH
C650	87-010-152-080		C-CAP,S 8P-50 CH
C651	87-010-152-080		C-CAP,S 8P-50 CH
C653	87-012-358-080		C-CAP,S 0.47-10FZ
C654	87-010-178-080		C-CAP,S 1000P-50 B
C656	87-010-196-080		C-CAP,S 0.1-25 F
C657	87-010-555-040		CAP,E 100-10 GAS
C659	87-010-184-080		C-CAP,S 3300P-50 B
C660	87-010-426-080		C-CAP,S 0.012-25 B
C661	87-012-358-080		C-CAP,S 0.47-10FZ
C663	87-010-555-040		CAP,E 100-10 GAS
C664	87-012-141-080		C-CAP,S 0.22-16 F
C666	87-010-179-080		C-CAP,S 1200P-50 B
C667	87-010-177-080		C-CAP,S 820P-50 SL
C669	87-010-497-040		CAP,E 4.7-35 GAS
C670	87-010-497-040		CAP,E 4.7-35 GAS
C671	87-010-426-080		C-CAP,S 0.012-25 B

REF. NO.	PART NO.	カンリ NO.	DESCRIPTION
C672	87-018-209-080		CAP,TC-U 0.1-50 F
C701	87-012-158-089		C-CAP,S 390P
C702	87-012-158-089		C-CAP,S 390P
C710	87-010-553-040		CAP,E 47-16 GAS
C711	87-010-194-080		C-CAP,S 0.047-25 F
C712	87-010-194-080		C-CAP,S 0.047-25 F
C713	87-010-195-080		C-CAP,S 0.068-25 F
C714	87-010-195-080		C-CAP,S 0.068-25 F
C715	87-010-186-080		C-CAP,S 4700P-50 B
C716	87-010-186-080		C-CAP,S 4700P-50 B
C717	87-010-497-040		CAP,E 4.7-35 GAS
C718	87-010-497-040		CAP,E 4.7-35 GAS
C721	87-010-495-040		CAP,E 2.2-50 GAS
C722	87-010-495-040		CAP,E 2.2-50 GAS
FB100	87-008-372-080		FLTR,EMI BL 01RN1
FL101	85-NF6-601-010		FL,BJ362GK
J601	82-NF7-630-010		JACK,3.5 MO
J621	82-NF7-630-010		JACK,3.5 MO
L650	87-005-487-080		COIL,150UH J FLR50
LED401	87-070-281-080		LED,SLZ736A-25-S-T1
LED402	87-070-281-080		LED,SLZ736A-25-S-T1
LED403	87-070-281-080		LED,SLZ736A-25-S-T1
LED404	87-070-281-080		LED,SLZ736A-25-S-T1
LED405	87-070-281-080		LED,SLZ736A-25-S-T1
LED406	87-070-281-080		LED,SLZ736A-25-S-T1
LED407	87-070-199-080		LED,SLP738F-81-S-T1
LED408	87-070-199-080		LED,SLP738F-81-S-T1
LED409	87-070-199-080		LED,SLP738F-81-S-T1
LED410	87-070-199-080		LED,SLP738F-81-S-T1
LED411	87-070-199-080		LED,SLP738F-81-S-T1
LED412	87-070-199-080		LED,SLP738F-81-S-T1
LED413	87-070-199-080		LED,SLP738F-81-S-T1
LED414	87-070-199-080		LED,SLP738F-81-S-T1
LED420	87-070-201-080		LED,SLP9118C-51-S-T1
LED421	87-070-201-080		LED,SLP9118C-51-S-T1
LED422	87-070-201-080		LED,SLP9118C-51-S-T1
LED423	87-070-201-080		LED,SLP9118C-51-S-T1
LED437	87-070-278-010		LED,SLZ-738A-24-S
LED438	87-070-290-010		LED,SLZ936C-30-S
LED439	87-070-278-010		LED,SLZ-738A-24-S
LED440	87-070-278-010		LED,SLZ-738A-24-S
LED441	87-070-290-010		LED,SLZ936C-30-S
LED442	87-070-278-010		LED,SLZ-738A-24-S
S301	87-036-397-080		SW,TACT SKQNAB
S302	87-036-397-080		SW,TACT SKQNAB
S303	87-036-397-080		SW,TACT SKQNAB
S304	87-036-397-080		SW,TACT SKQNAB
S305	87-036-397-080		SW,TACT SKQNAB
S306	87-036-397-080		SW,TACT SKQNAB
S307	87-036-397-080		SW,TACT SKQNAB
S321	87-036-397-080		SW,TACT SKQNAB
S322	87-036-397-080		SW,TACT SKQNAB
S323	87-036-397-080		SW,TACT SKQNAB
S324	87-036-397-080		SW,TACT SKQNAB
S325	87-036-397-080		SW,TACT SKQNAB
S326	87-036-397-080		SW,TACT SKQNAB
S327	87-036-215-080		SW,TACT EVQ-21404M
S328	87-036-215-080		SW,TACT EVQ-21404M
S329	87-036-215-080		SW,TACT EVQ-21404M
S330	87-036-397-080		SW,TACT SKQNAB
S331	87-036-397-080		SW,TACT SKQNAB
S332	87-036-397-080		SW,TACT SKQNAB
S341	87-036-397-080		SW,TACT SKQNAB
S342	87-036-397-080		SW,TACT SKQNAB
S343	87-036-397-080		SW,TACT SKQNAB
S344	87-036-397-080		SW,TACT SKQNAB
S345	87-036-397-080		SW,TACT SKQNAB
S346	87-036-397-080		SW,TACT SKQNAB
S347	87-036-397-080		SW,TACT SKQNAB
S348	87-036-397-080		SW,TACT SKQNAB

REF. NO.	PART NO.	カンリ NO.	DESCRIPTION
VR600	83-NM1-627-010		VR,10KB RK11K1130
VR601	81-MX4-637-010		VR,10KA RK11K1130
W103	85-NF5-617-010		CABLE,FFC 6P-1.25
W104	85-NF5-615-010		CABLE,FFC 15P-1.25
W105	85-NF5-616-010		CABLE,FFC 6P-1.25
X201	87-030-376-080		VIB,CER CSA5.76MG200

MVR C.B

C731	87-010-322-080		C-CAP,S 100P-50 CH
C732	87-010-322-080		C-CAP,S 100P-50 CH
C735	87-010-402-040		CAP,E 2.2-50 SME
C736	87-010-402-040		CAP,E 2.2-50 SME
C737	87-010-374-040		CAP,E 47-10
C738	87-010-374-040		CAP,E 47-10
C741	87-010-198-080		C-CAP,S 0.022-25 B
C745	87-016-073-040		CAP,E 1-50 FX
C746	87-016-073-040		CAP,E 1-50 FX
C747	87-010-401-040		CAP,E 1-50 SME
C748	87-010-401-040		CAP,E 1-50 SME
C750	87-010-381-080		CAP,E 330-16 SME
C751	87-010-401-040		CAP,E 1-50 SME
C752	87-010-401-040		CAP,E 1-50 SME
C757	87-010-404-040		CAP,E 4.7-50 SME
C773	87-010-545-080		CAP,E 0.22-50 SME
C777	87-010-403-080		CAP,E 3.3-50 SME
C778	87-010-403-080		CAP,E 3.3-50 SME
C797	87-010-402-040		CAP,E 2.2-50 SME
MVR741	85-NF6-608-010		VR,50KBX2 W/S (M)

KEY C.B

LED415	87-070-197-080		LED,SLP7118C-51-S-T1<K,EZ>
LED415	87-070-201-080		LED,SLP9118C-51-S-T1<HR,HK,TH>
LED416	87-070-197-080		LED,SLP7118C-51-S-T1<K,EZ>
LED416	87-070-201-080		LED,SLP9118C-51-S-T1<HR,HK,TH>
LED417	87-070-197-080		LED,SLP7118C-51-S-T1<K,EZ>
LED417	87-070-201-080		LED,SLP9118C-51-S-T1<HR,HK,TH>
S349	87-036-397-080		SW,TACT SKQNAB
S350	87-036-397-080		SW,TACT SKQNAB
S351	87-036-397-080		SW,TACT SKQNAB
S352	87-036-397-080		SW,TACT SKQNAB
S353	87-036-397-080		SW,TACT SKQNAB

AC2 C.B

⚠PR101	87-026-681-080		PROTECTOR,5A 60V 491
⚠PR102	87-026-681-080		PROTECTOR,5A 60V 491<HR,HK,TH>
⚠PR103	87-026-681-080		PROTECTOR,5A 60V 491<HR,HK,TH>
⚠PT101	85-NFT-632-010		PT,EZK<K,EZ>
⚠PT101	85-NFT-631-010		PT,HR<HR,HK,TH>
R101	87-022-050-080		RES,M/F 0.22-1W<K,EZ>
R102	87-022-050-080		RES,M/F 0.22-1W<K,EZ>

AC1 C.B<HR,HK,TH>

⚠	87-033-147-010		CLAMP,FUSE<HR,HK,TH>
⚠	82-304-743-010		TERMINAL,1P<HR,HK,TH>
⚠F101	87-035-365-010		FUSE,2A 250V T E<HR,HK,TH>
⚠SW101	87-036-387-010		SW,SL 1-2-3<HR,HK,TH>

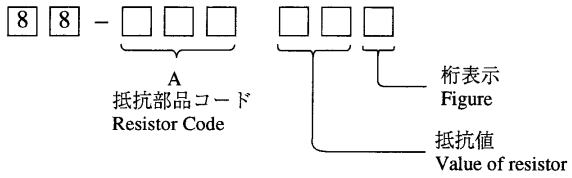
S.WAVE C.B<HR,HK,TH>

C951	87-010-197-089		C-CAP,S 0.01-25 B<HR,HK,TH>
C952	87-010-197-089		C-CAP,S 0.01-25 B<HR,HK,TH>
C953	87-010-197-089		C-CAP,S 0.01-25 B<HR,HK,TH>
C954	87-010-263-089		CAP,E 100-10<HR,HK,TH>
C955	87-010-154-089		C-CAP,S 10P-50 CH<HR,HK,TH>
C956	87-010-197-089		C-CAP,S 0.01-25 B<HR,HK,TH>
C957	87-010-197-089		C-CAP,S 0.01-25 B<HR,HK,TH>
C959	87-010-196-089		C-CAP,S 0.1-25 F<HR,HK,TH>
C961	87-014-051-089		CAP,PP 560P-100 J<HR,HK,TH>
C962	87-014-073-089		CAP,PP 4700P-100 J<HR,HK,TH>

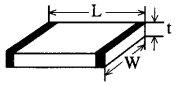
REF. NO.	PART NO.	カンリ NO.	DESCRIPTION
C963	87-010-311-089		C-CAP,S 12P-50 CH<HR,HK,TH>
C964	87-010-313-089		C-CAP,S 18P-50 CH<HR,HK,TH>
C965	87-010-186-089		C-CAP,S 4700P-50 B<HR,HK,TH>
C966	87-010-263-089		CAP,E 100-10<HR,HK,TH>
C974	87-010-196-089		C-CAP,S 0.1-25 F<HR,HK,TH>
C976	87-010-400-089		CAP,E 0.47-50 SME<HR,HK,TH>
D958	87-017-568-089		VARI-CAP,SVC 342 M/L<HR,HK,TH>
L951	87-006-316-019		COIL,ANT MW(SGB)<HR,HK,TH>
L952	87-006-255-019		COIL,ANT SW1(SG7)<HR,HK,TH>
L953	87-006-256-019		COIL,ANT SW2(SG7)<HR,HK,TH>
L954	87-005-372-089		COIL S 1 MH TAPG<HR,HK,TH>
L955	87-005-372-089		COIL S 1 MH TAPG<HR,HK,TH>
L956	87-007-326-019		COIL,OSC MW(SG)<HR,HK,TH>
L957	87-007-327-019		COIL,OSC SW1(SG)<HR,HK,TH>
L958	87-007-332-019		COIL,OSC SW2(SG7)<HR,HK,TH>
TC951	87-011-220-089		CAP TRIMMER 20P VCT<HR,HK,TH>
TC952	87-011-221-089		TRIMER.30P VCT51<HR,HK,TH>
TC953	87-011-221-089		TRIMER.30P VCT51<HR,HK,TH>
DECK C.B			
	82-ZM1-625-019		RBN-CORD,4P-55
CON501	87-099-756-019		CONN,15P 9604S F
SFR1	87-024-581-010		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-310		SOL ASSY,27
SOL2	82-ZM1-626-010		SOL ASSY,27K
SW1	87-036-378-010		SW,PUSH 1-1-1 SH2
SW2	87-036-378-010		SW,PUSH 1-1-1 SH2
SW3	87-036-378-010		SW,PUSH 1-1-1 SH2
SW4	87-036-378-010		SW,PUSH 1-1-1 SH2
SW5	87-036-378-010		SW,PUSH 1-1-1 SH2
SW6	87-036-378-010		SW,PUSH 1-1-1 SH2
SW8	87-036-378-010		SW,PUSH 1-1-1 SH2
SW9	87-036-378-010		SW,PUSH 1-1-1 SH2
HEAD-1 C.B			
HEAD-2 C.B			
CON351	83-NEG-608-010		CONN ASSY 8P-RPB

○ チップ抵抗部品コード／CHIP RESISTOR PART CODE

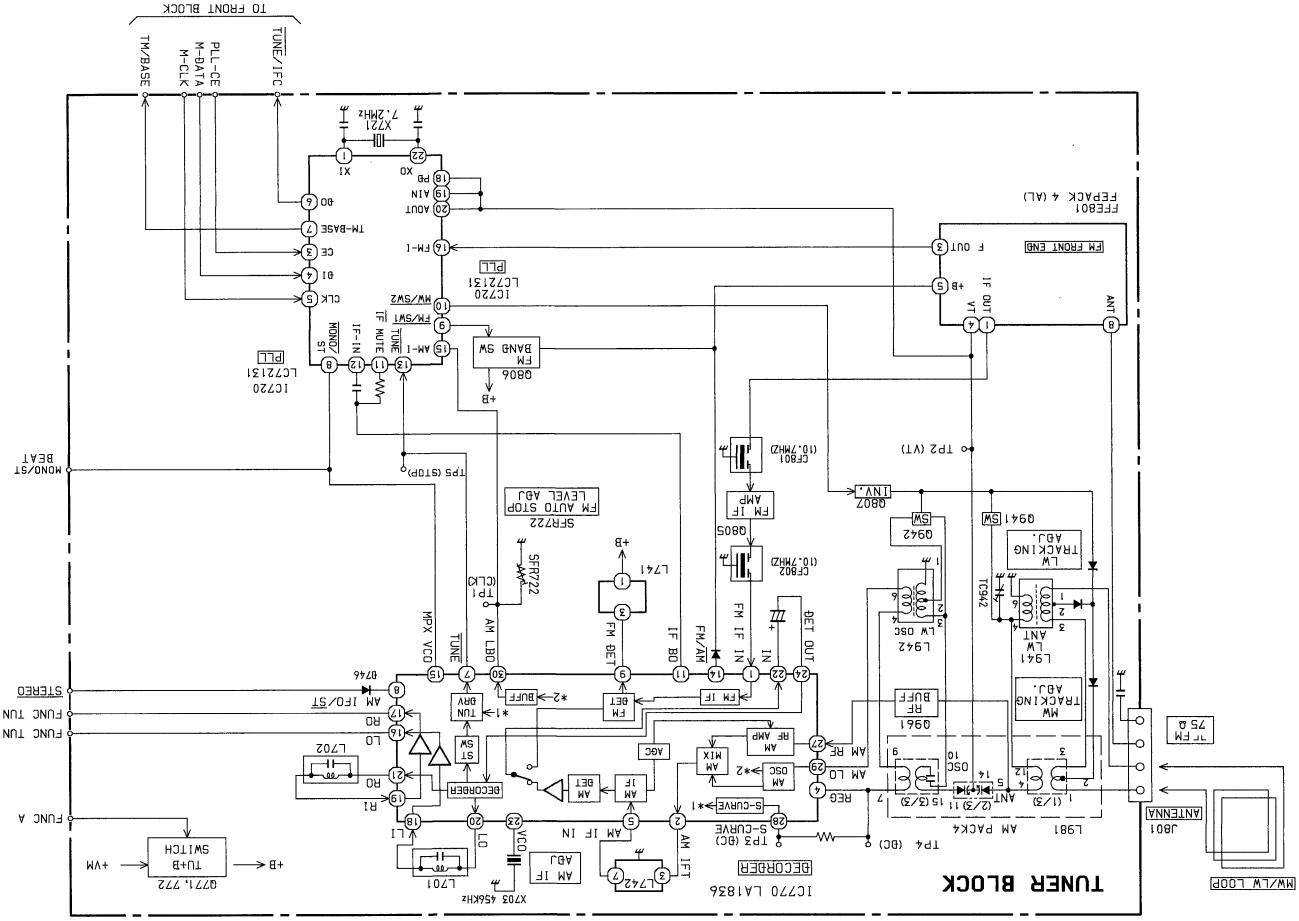
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



チップ抵抗
Chip resistor

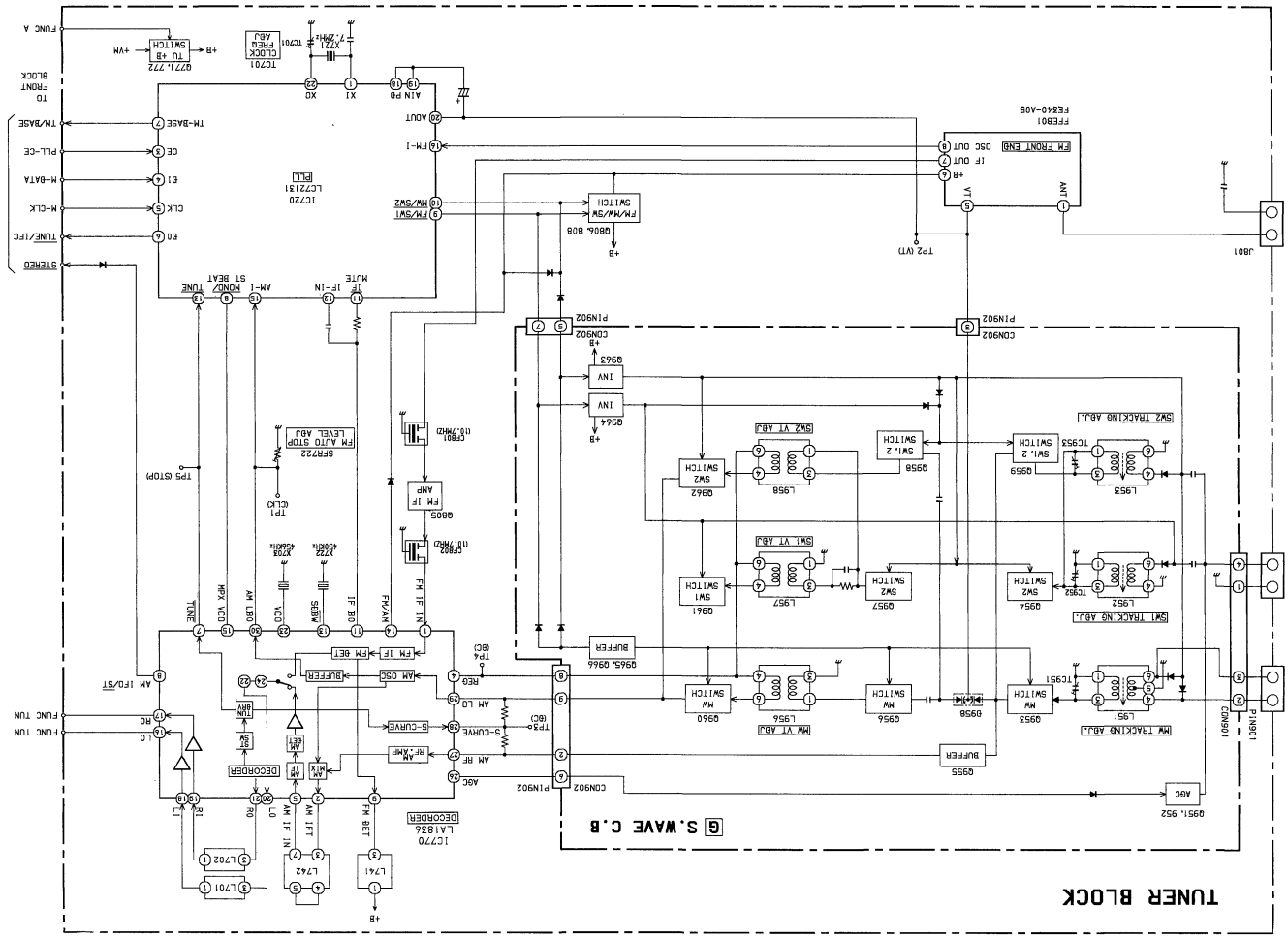
容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード ：A Resistor Code: A
				外形／Form	L	W	t	
1／16W	1608	±5%	CJ		1.6	0.8	0.45	108
1／10W	2125	±5%	CJ		2	1.25	0.45	118
1／8W	3216	±5%	CJ		3.2	1.6	0.55	128

BLOCK DIAGRAM-2 (TUNER: EZ)



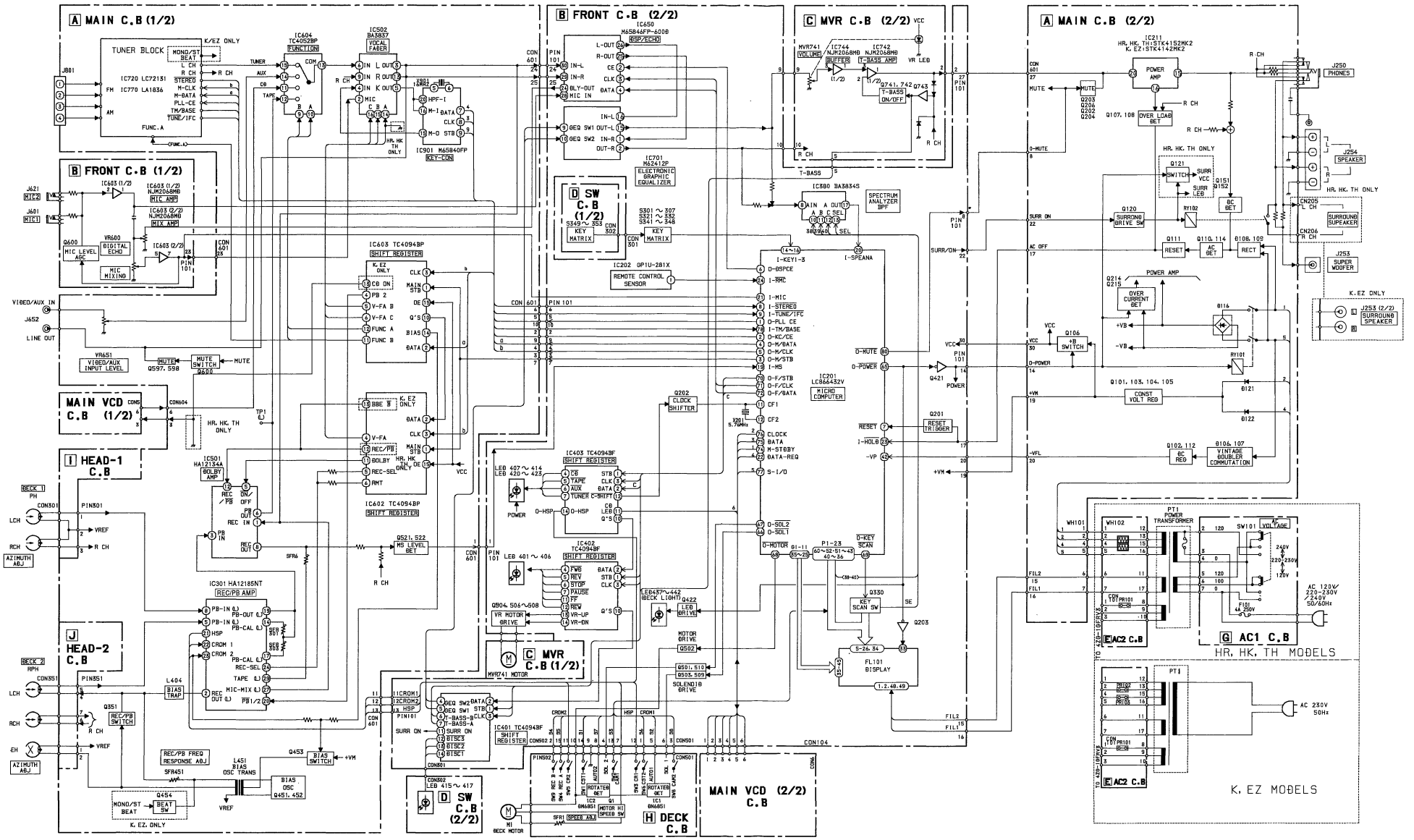
12

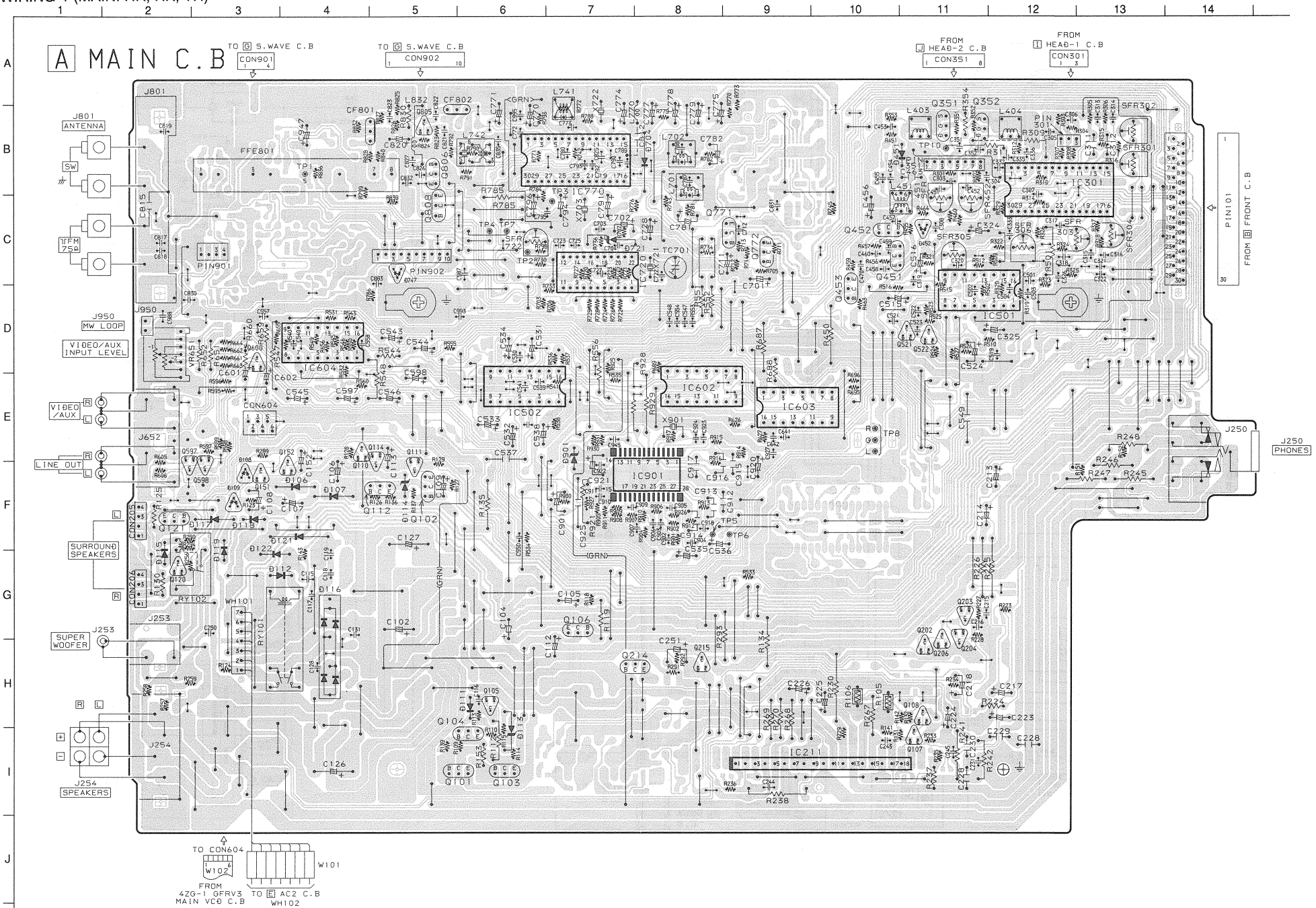
BLOCK DIAGRAM-1 (TUNER: HR, HK, TH)



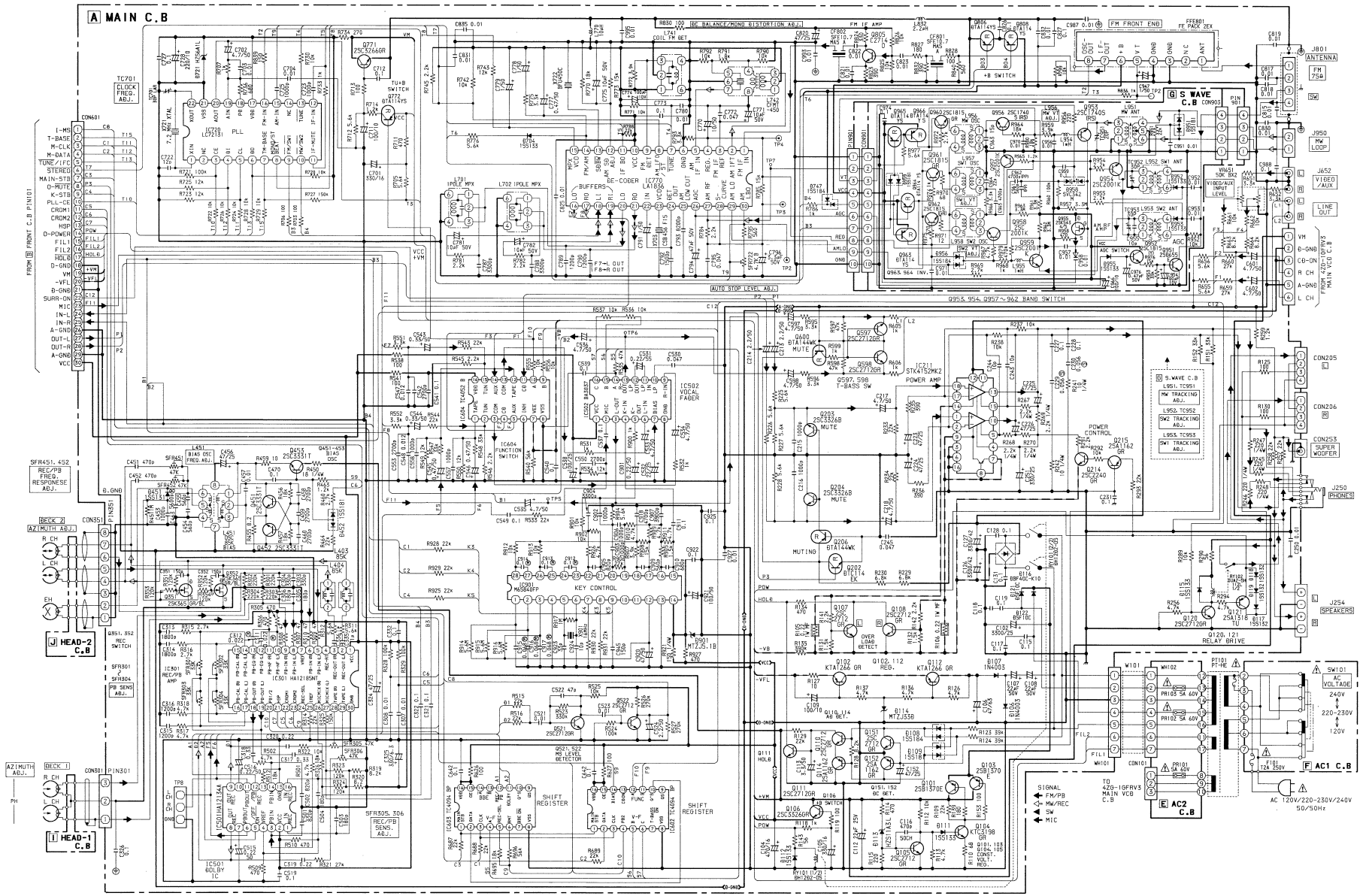
11

BLOCK DIAGRAM-3 (MAIN ／ FRONT)

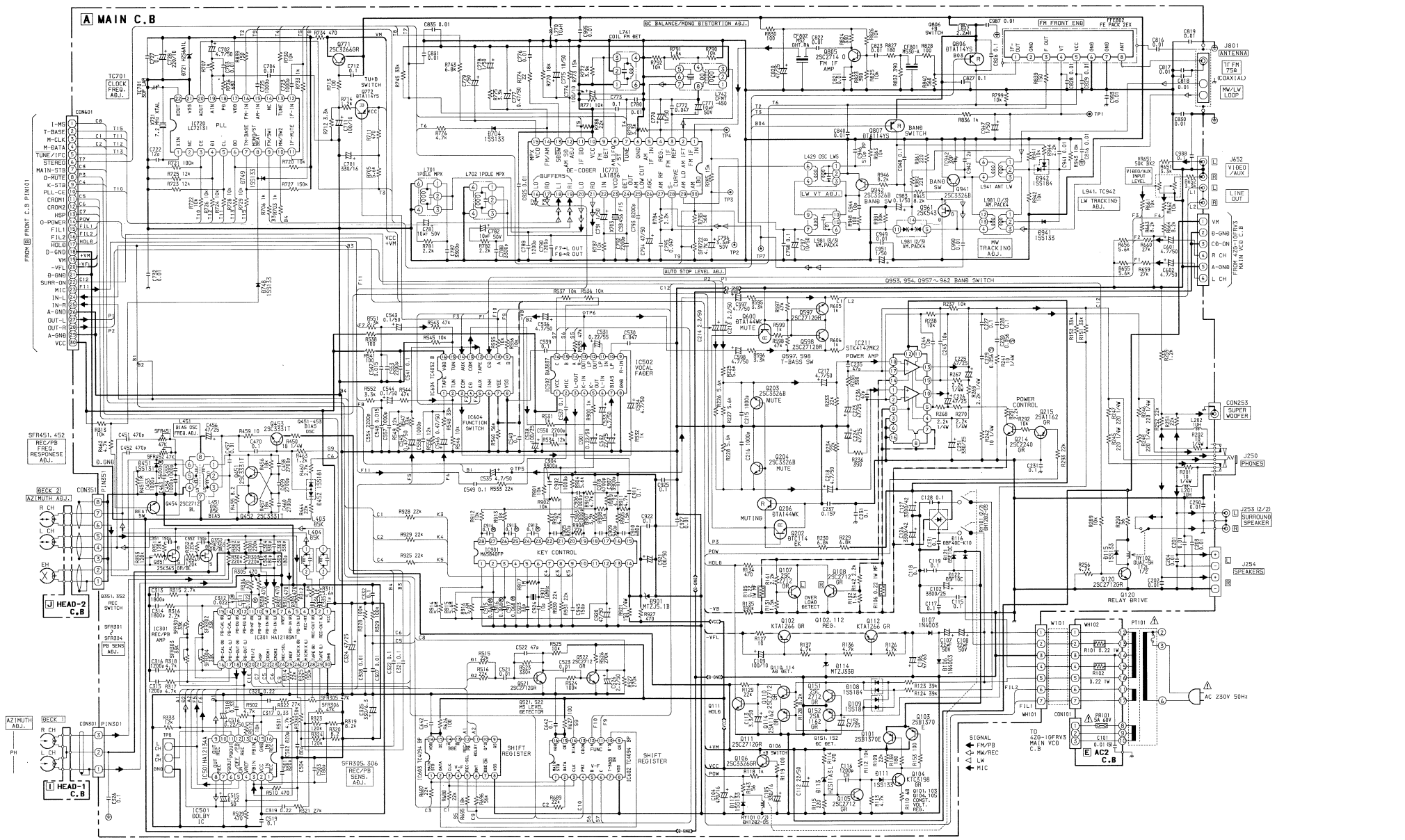


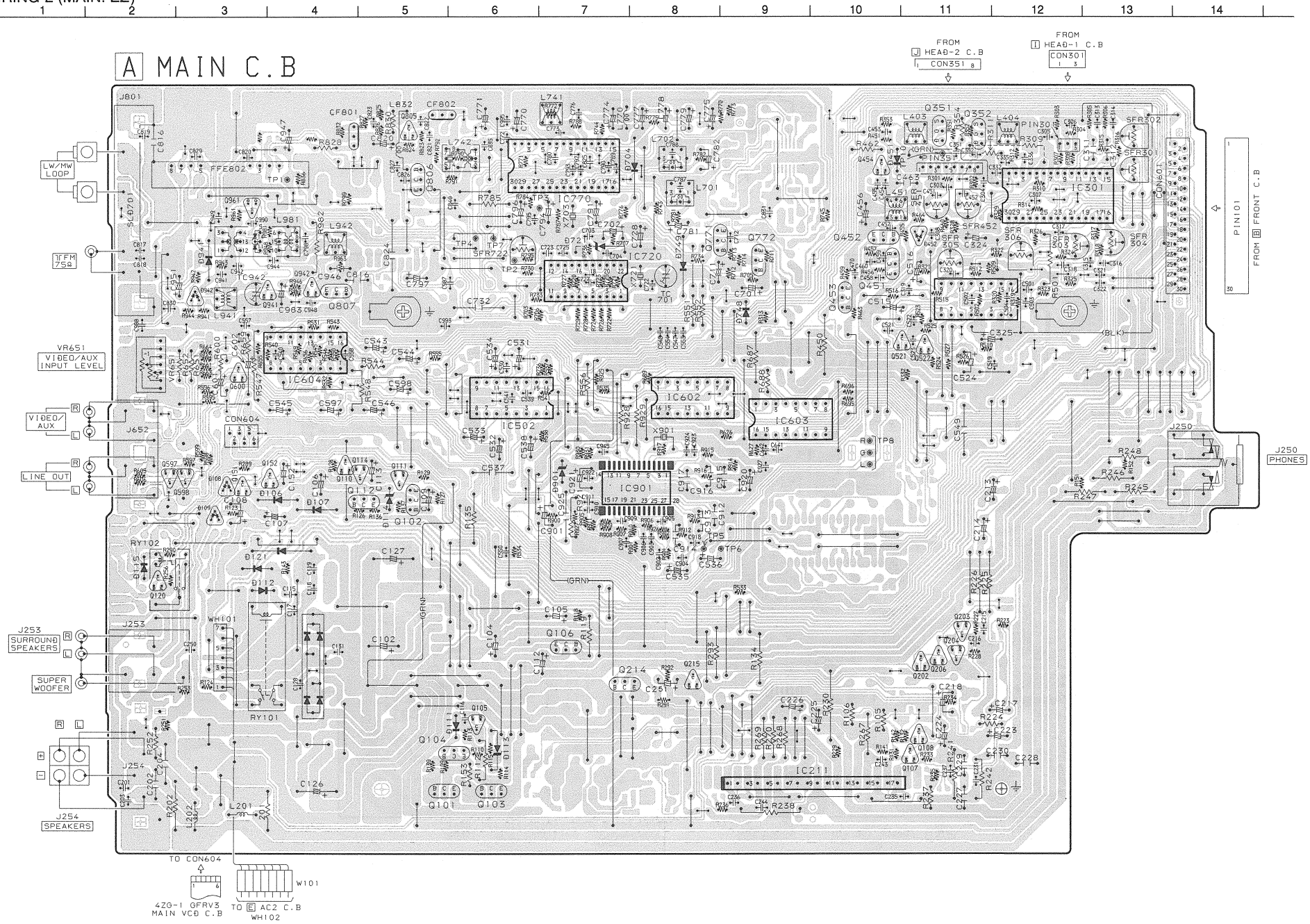

A MAIN C.B
TO G S.WAVE C.B
CON901
TO G S.WAVE C.B
CON902
FROM
J HEAD-2 C.B
CON351
FROM
I HEAD-1 C.B
CON301
J801
ANTENNA
SW
TFM
75Ω
J950
MW LOOP
VIDEO/AUX
INPUT LEVEL
VIDEO
/AUX
LINE OUT
SURROUND
SPEAKERS
SUPER
WOOFER
J254
SPEAKERS
J250
PHONES
FROM B FRONT C.B
PIN101
TO CON604
W102
W101
FROM
4ZG-1 GFRV3
MAIN VCD C.B
TO E AC2 C.B
WH102
IC501
IC502
IC602
IC603
IC604
IC901
IC211
IC301
IC770

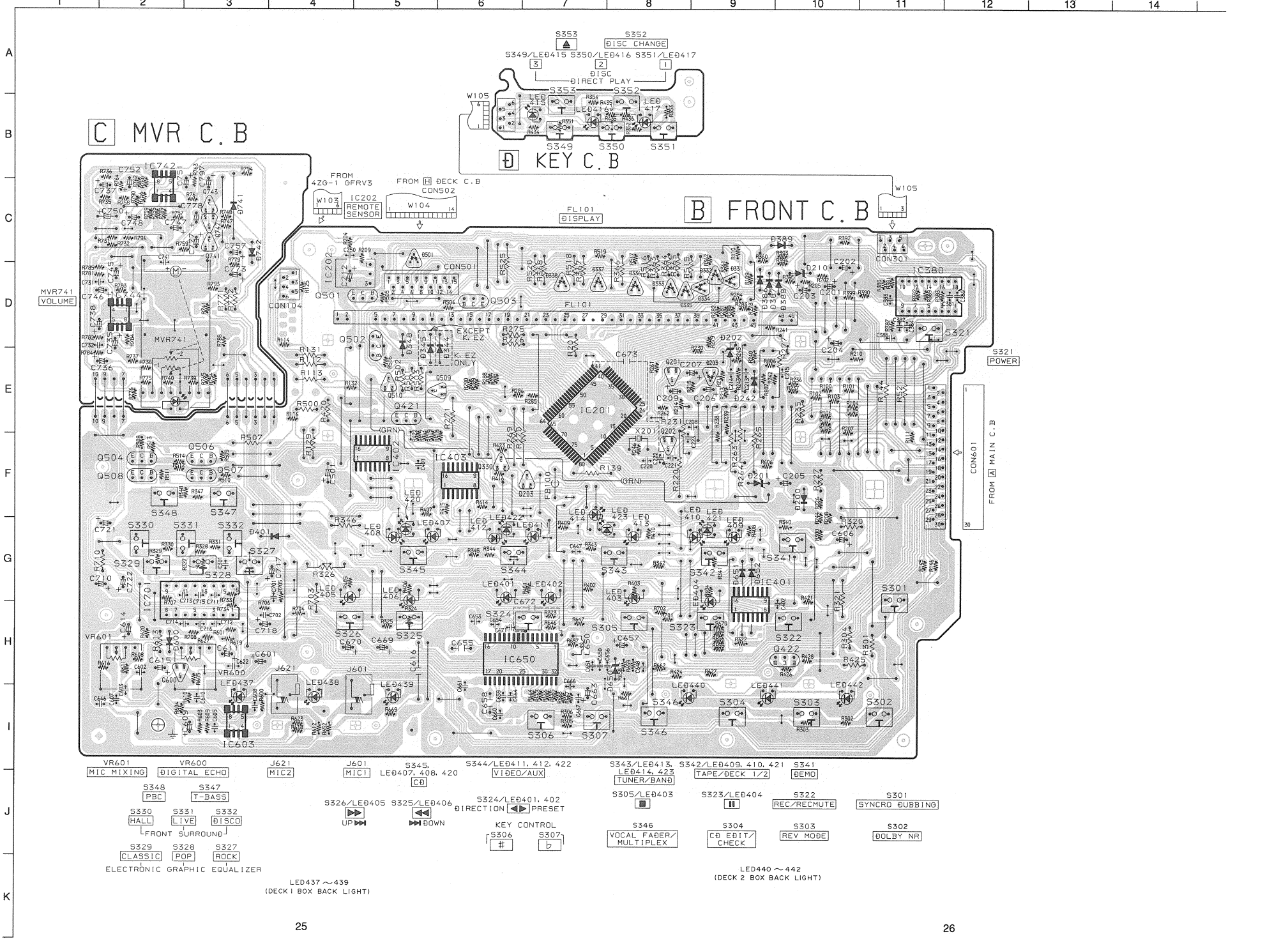
SCHEMATIC DIAGRAM-1 (MAIN: HR, HK, TH)



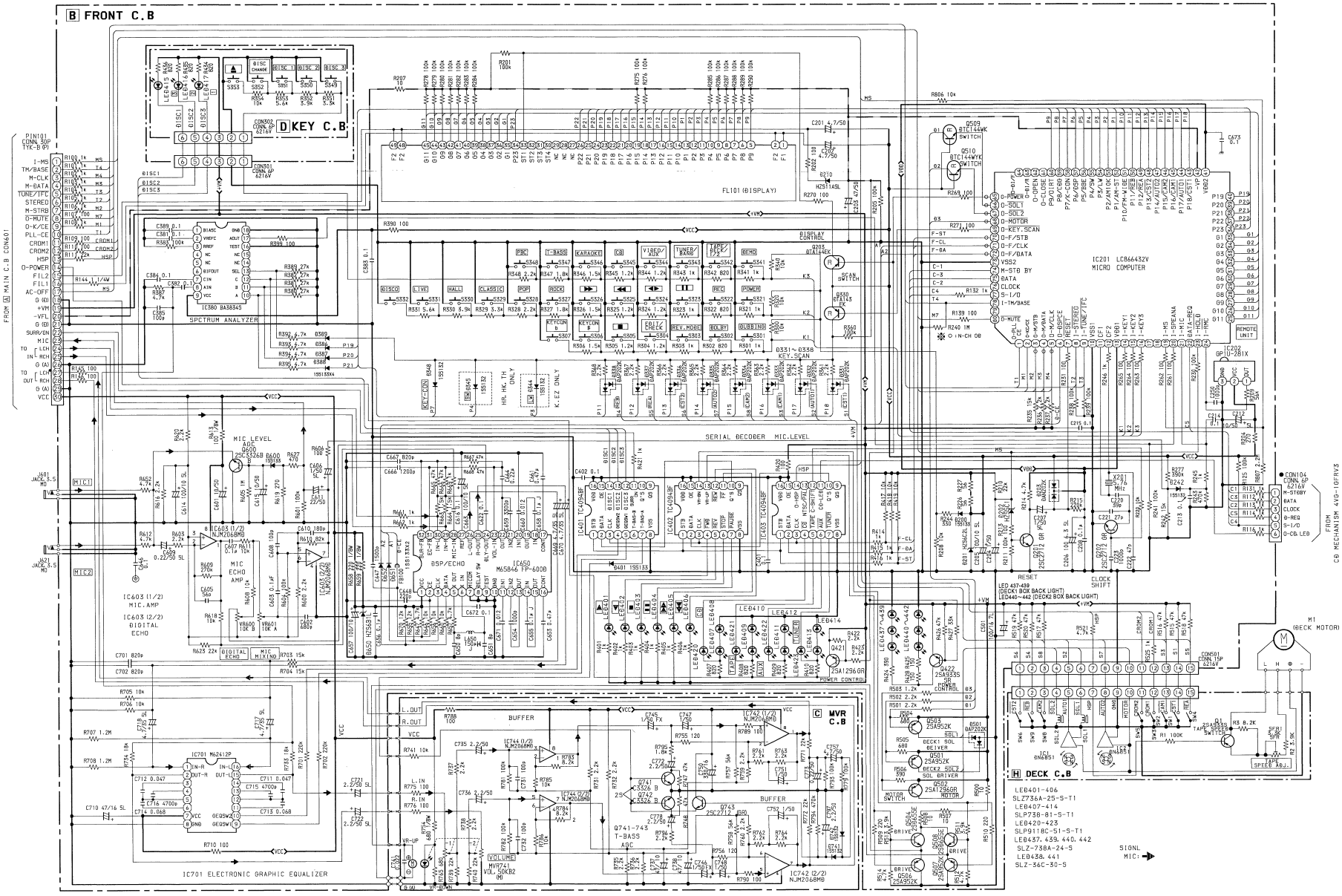
SCHEMATIC DIAGRAM-2 (MAIN: EZ)

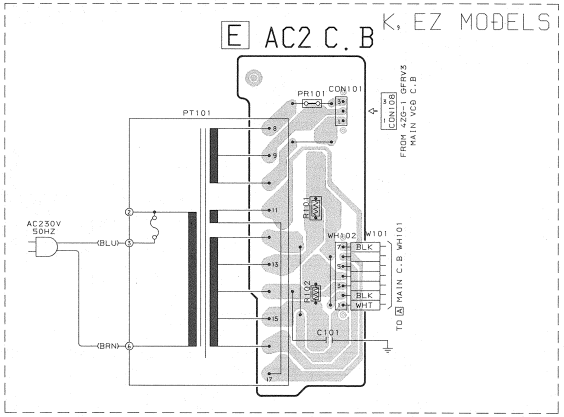


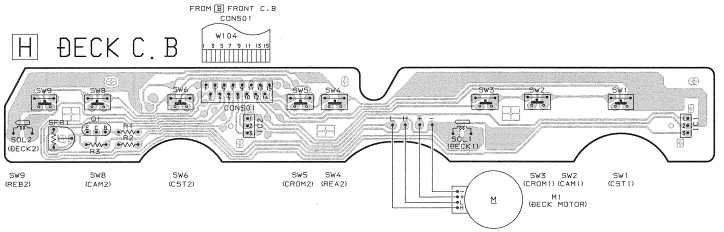

A MAIN C.B
FROM J HEAD-2 C.B CON351
FROM I HEAD-1 C.B CON301
FROM B FRONT C.B PIN101
LW/MW LOOP
FM 75Ω
VR651 VIDEO/AUX INPUT LEVEL
VIDEO/AUX
LINE OUT
J253 SURROUND SPEAKERS
SUPER WOOFER
J254 SPEAKERS
J250 PHONES
TO CON604
4ZG-1 GFRV3 MAIN VCD C.B
TO E AC2 C.B WH102
W101
IC604
IC502
IC602
IC603
IC901
IC720
IC701
IC301
IC211
Q807
Q772
Q452
Q455
Q351
Q352
Q102
Q104
Q101
Q103
Q106
Q214
RY102
RY101
WH101
L201
(GRN)
(BLK)

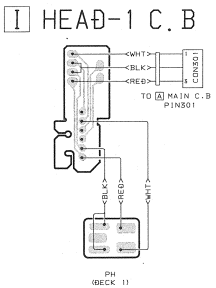

C MVR C.B
Đ KEY C.B
B FRONT C.B
MVR741 VOLUME
FROM 4ZG-1 GFRV3
W103
IC202 REMOTE SENSOR
FROM H ĐECK C.B CON502
W104
FL101 ĐISPLAY
W105
S353
S352 ĐISC CHANGE
S349/LEĐ415 S350/LEĐ416 S351/LEĐ417
ĐISC DIRECT PLAY
S349
S350
S351
S321 POWER
CON601
FROM A MAIN C.B
EXCEPT K. EZ
K. EZ ONLY
VR601 MIC MIXING
VR600 ĐIGITAL ECHO
J621 MIC2
J601 MIC1
S345. LEĐ407. 408. 420 CĐ
S344/LEĐ411. 412. 422 VIĐEO/AUX
S343/LEĐ413. LEĐ414. 423 TUNER/BANĐ
S342/LEĐ409. 410. 421 TAPE/ĐECK 1/2
S341 ĐEMO
S348 PBC
S347 T-BASS
S330 HALL
S331 LIVE
S332 ĐISCO
FRONT SURROUNĐ
S329 CLASSIC
S328 POP
S327 ROCK
ELECTRONIC GRAPHIC EQUALIZER
S326/LEĐ405 UP
S325/LEĐ406 ĐOWN
S324/LEĐ401. 402 ĐIRECTION PRESET
KEY CONTROL
S306 #
S307 b
S305/LEĐ403
S323/LEĐ404
S322 REC/RECMUTE
S301 SYNCRO ĐUBBING
S346 VOCAL FAĐER/ MULTIPLEX
S304 CĐ EĐIT/ CHECK
S303 REV MOĐE
S302 ĐOLBY NR
LED437～439 (DECK 1 BOX BACK LIGHT)
LED440～442 (DECK 2 BOX BACK LIGHT)

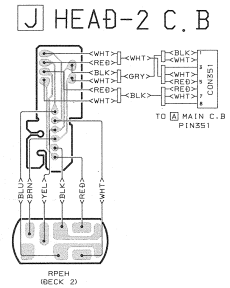
SCHEMATIC DIAGRAM-3 (FRONT)

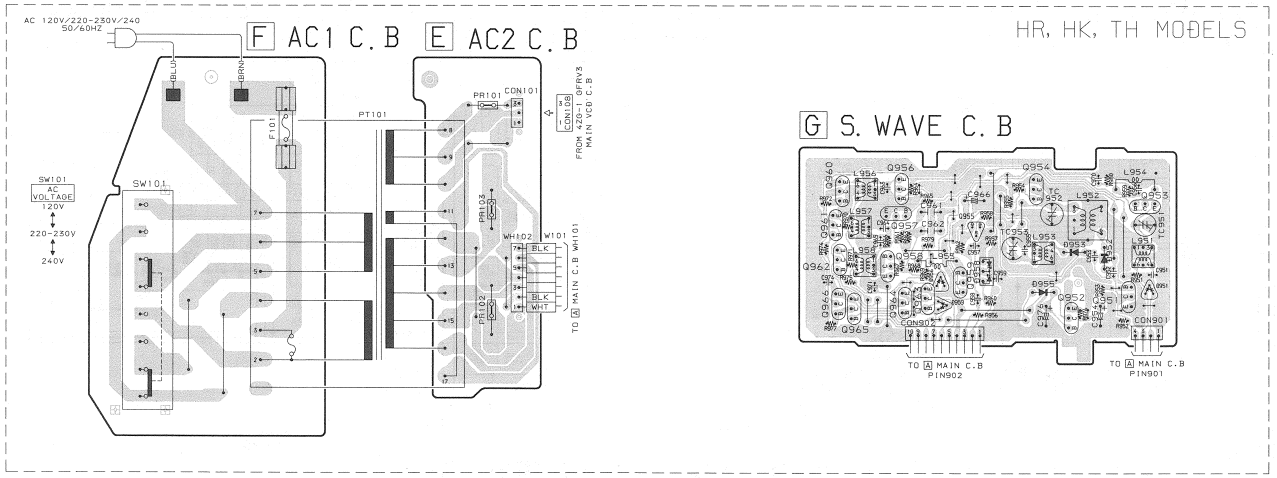



E AC2 C.B
K, EZ MODELS
PT101
PR101
CON101
CN108
FROM 420-1 GFRV3
MAIN VCB C.B
AC230V
50HZ
(BLU)
(BRN)
F102
C101
WH102
W101
BLK
WHT
TO A MAIN C.B WH101


FROM B FRONT C.B
CON501
W104
H DECK C.B
SW9
SW8
SW6
SW5
SW4
SW3
SW2
SW1
CON501
SOL.2
(DECK2)
SOL.1
(DECK1)
SW9
(REB2)
SW8
(CAM2)
SW6
(CST2)
SW5
(CROM2)
SW4
(REA2)
SW3
(CROM1)
SW2
(CAM1)
SW1
(CST1)
M1
(DECK MOTOR)

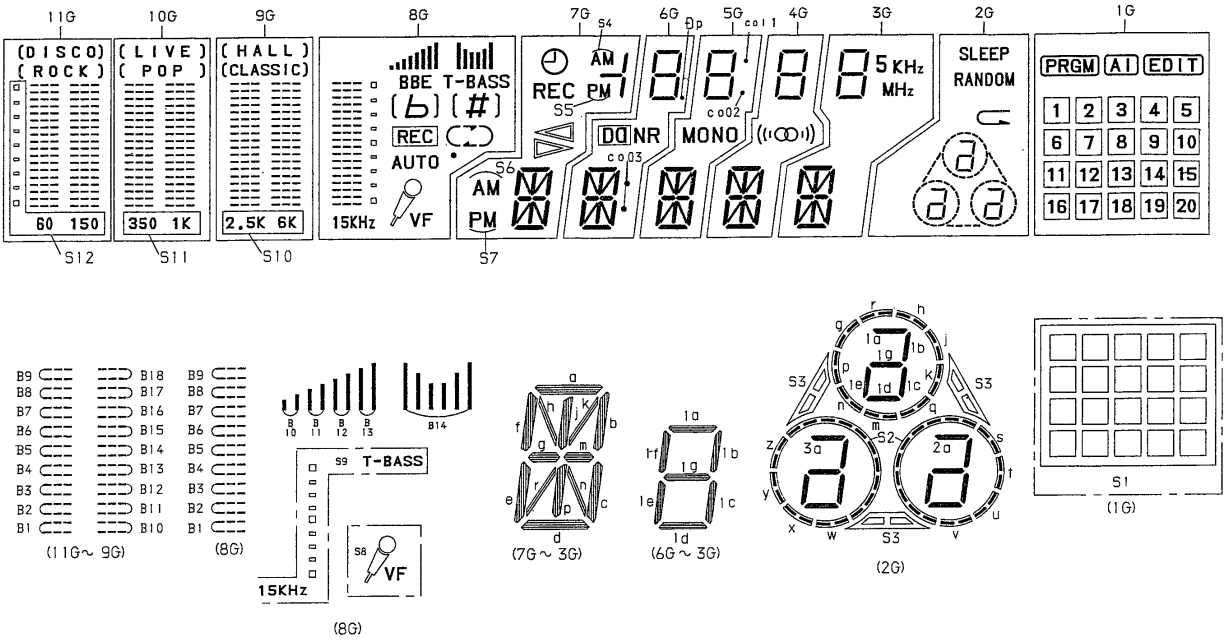

I HEAD-1 C.B
WHT
BLK
RED
CON501
TO A MAIN C.B
PIN301
PH
(DECK 1)


J HEAD-2 C.B
WHT
RED
BLK
GRY
CON351
TO A MAIN C.B
PIN351
BLU
BRN
YEL
RPEH
(DECK 2)


AC 120V/220-230V/240
50/60HZ
F AC1 C.B
E AC2 C.B
HR, HK, TH MODELS
BLU
BRN
F101
SW101
SW101
AC
VOLTAGE
120V
220-230V
240V
PT101
PR101
CON101
CN108
FROM 420-1 GFRV3
MAIN VCB C.B
PR103
PR102
WH102
W101
BLK
WHT
TO A MAIN C.B WH101
G S. WAVE C.B
CON902
CON901
TO A MAIN C.B
PIN902
TO A MAIN C.B
PIN901

FL DISPLAY (BJ362GK) GRID ASSIGNMENT / ANODE CONNECTION

GRID ASSIGNMENT



ANODE CONNECTION

	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B10	B10	B10	C	d	d	d	d	d	s, t, w, x	20
P2	B1	B1	B1	B1	j, p	j, p	j, p	j, p	j, p	u, v, y, z	19
P3	B11	B11	B11	S8	n	n	n	n	n	3e	18
P4	B2	B2	B2	B2	r	r	r	r	r	3c	17
P5	B12	B12	B12	D	c	c	c	c	c	3a,3d,3g	16
P6	B3	B3	B3	B3	e	e	e	e	e	3b	15
P7	B13	B13	B13	O	m	m	m	m	m	2e	14
P8	B4	B4	B4	B4	g	g	g	g	g	2c	13
P9	B5	B5	B5	B5	f	f	f	f	f	2a,2d,2g	11
P10	B15	B15	B15	AUTO	b	b	b	b	b	S3	10
P11	B6	B6	B6	B6	k	k	k	k	k	j, m, q	9
P12	B16	B16	B16	B10	h	h	h	h	h	h, l, p	8
P13	B7	B7	B7	B7	a	a	a	a	a	k, n, r	7
P14	B14	B14	B14	REC	S7	col3	col1	—	KHz	2b	12
P15	B17	B17	B17	B11	S6	DD NR	MONO	((( )))	5	1e	6
P16	B8	B8	B8	B8	▷	Dp1	col2	—	MHz	1a,1d,1g	5
P17	B18	B18	B18	B12	◁	1d	1d	1d	1d	1c	4
P18	B9	B9	B9	B9	REC	1e	1e	1e	1e	1b	3
P19	[ROCK]	[POP]	[CLASSIC]	B13	S5	1c	1c	1c	1c	—	2
P20	[DISCO]	[LIVE]	[HALL]	B14	—	1g	1g	1g	1g	S2	1
P21	—	—	—	[♭]	/	1f	1f	1f	1f	⊂	EDIT
P22	DISCO	LIVE	HALL	♭ ♯	◷	1b	1b	1b	1b	SLEEP	AI
P23	ROCK	POP	CLASSIC	[♯]	S4	1a	1a	1a	1a	RANDOM	PRGM
P24	S12	S11	S10	S9	—	—	—	—	—	—	S1
P25	—	—	—	BBE	—	—	—	—	—	—	—

IC DESCRIPTION

IC, LC866432V-5752

Pin No.	Pin Name	I/O	Description
1	O-PLL CE	O	PLL IC chip enable.
2	O-KC/CE	O	Key control IC data latch strobe output.
3	O-M/STB	O	Main shift register, data latch strobe output.
4	O-M/DATA	O	Main shift register, PLL/key control/DSP related data output.
5	O-M/CLK	O	Main shift register, PLL/key control/DSP related clock.
6	O-DSPCE	O	DSP data latch strobe output.
7	$\overline{\text{RESET}}$	I	Reset input.
8	I-$\overline{\text{STEREO}}$	I	Tuner stereo detection input.
9	I-$\overline{\text{TUNE/IFC}}$	I	$\overline{\text{SD}}$. IF.
10	VSS1	—	GND.
11, 12	CF1, 2	—	5.75 MHz oscillator circuit.
13	VDD1	—	Power supply input.
14～16	I-KEY1～3	I	Key input.
17	—	—	Not used.
18	—	—	Not used.
19	I-MS	I	Deck music sensor signal input.
20	I-SPEANA	I	A/D input for spectrum analyzer display.
21	I-MC	I	Microphone input for auto VF display.
22	DATA-REQ	O	Display data request output.
23	I-$\overline{\text{HOLD}}$	I	Power line failure detection input. Clock stop and memory hold at "L".
24	I-$\overline{\text{RMC}}$	I	System remote control signal input.
25～35	G1～G11	O	FL grid output. G11 to G1.
36～40	P23～P19	O	FL segment output. P23 to P19.
41	VDD2	—	Power supply input.
42	-VP	—	Power supply input for FL display (-34.5 V)
43	P18/$\overline{\text{CST1}}$	I/O	FL segment output. P18, DECK1 cassette detection switch data input.
44	P17/$\overline{\text{AUTO1}}$	I/O	FL segment output. P17, DECK1 auto stop signal input.
45	P16/$\overline{\text{CAM1}}$	I/O	FL segment output. P16, DECK1 camera switch data input.
46	P15/$\overline{\text{CAM2}}$	I/O	FL segment output. P15, DECK2 camera switch data input.
47	P14/$\overline{\text{AUTO2}}$	I/O	FL segment output. P14, DECK2 auto stop data input.
48	P13/$\overline{\text{CST2}}$	I/O	FL segment output. P13, DECK2 cassette detection switch data input.
49	P12/REA2	I/O	FL segment output. P12, DECK2 side-A record enable switch data input.
50	P11/REB2	I/O	FL segment output. P11, DECK2 side-B record enable switch data input.
51	P10/FM-WIDE	I/O	FL segment output. P10, FM wide mode data diode input.
52	P1/AM-ST	I/O	FL segment output. P1, AM stereo mode data diode input.
53	P2/AM10K	I/O	FL segment output. P2, AM 10 kHz step data diode input.
54	P3/LW	I/O	FL segment output. P3, LW mode data diode input.
55	P4/SW	I/O	FL segment output. P4, SW mode data diode input.
56	P5/BBE	I/O	FL segment output. P5, BEE mode data diode input.
57	P6/DSP	I/O	FL segment output. P6, DSP mode data diode input.
58	P7/KEY-CON	I/O	FL segment output. P7, key control data diode input.

Pin No.	Pin Name	I/O	Description
59	P8/CDG	I/O	FL segment output. P8, CDG data diode input.
60	P9	O	FL segment output. P9.
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-$\overline{\text{POWER}}$	O	System power supply $\overline{\text{ON}}$/OFF output.
66	O-$\overline{\text{SOL1}}$	O	DECK1 solenoid output.
67	O-$\overline{\text{SOL2}}$	O	DECK2 solenoid output.
68	O-$\overline{\text{MOTOR}}$	O	DECK motor output.
69	O-$\overline{\text{KEY. SCAN}}$	O	Switch cam timing output.
70	O-F/STB	O	Front shift register, data latch strobe output.
71	O-F/CLK	O	Front shift register, data transfer clock output.
72	O-F/DATA	O	Front shift register, data output.
73	VSS2	—	GND.
74	M-STD BY	O	Waiting output for CD microprocessor control.
75	DATA	O	Data output for CD microprocessor control.
76	CLOCK	O	Data input/output for CD microprocessor control.
77	S-I/O	I/O	Data input/output for CD microprocessor control.
78	I-TM BASE	I	Reference clock input for watch.
79	—	—	Not used.
80	O-$\overline{\text{MUTE}}$	O	System mute output.

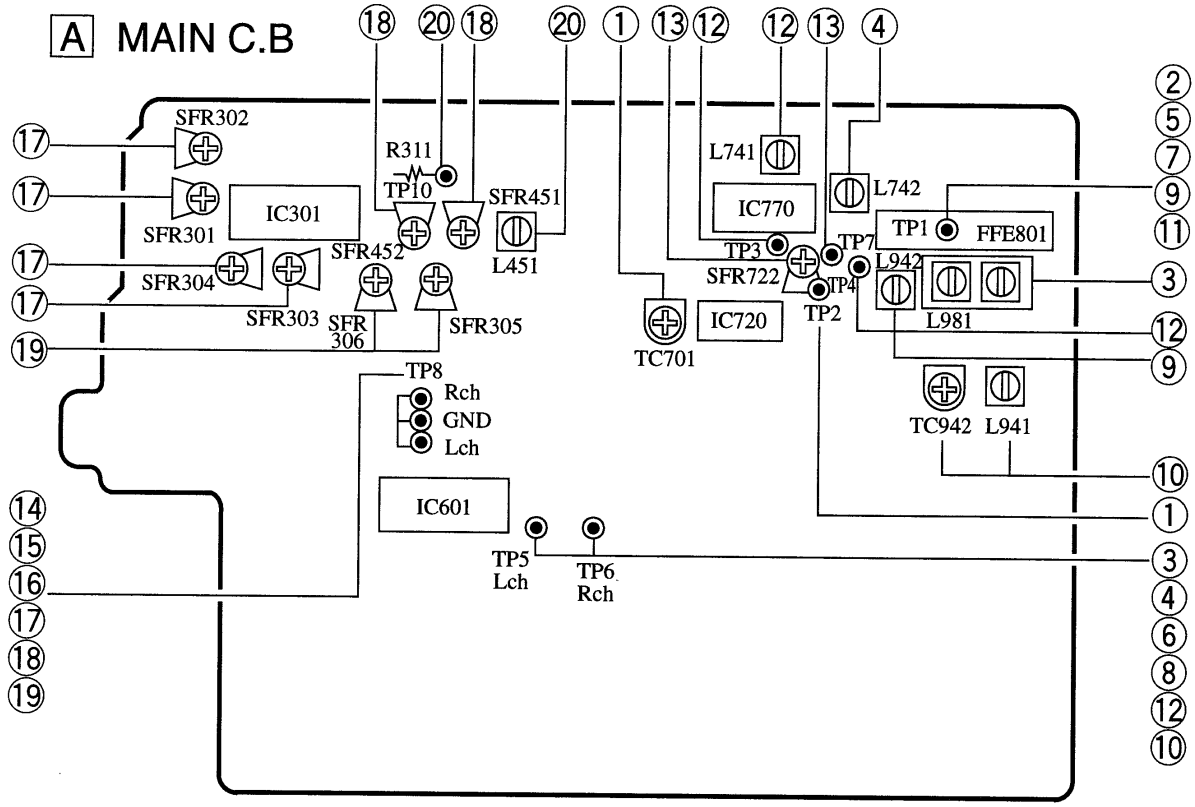
IC, LC72131

<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>XI</td><td>—</td><td>Crystal oscillator (6.2 MHz) is connected to this pin.</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>The terminal which enables this IC. Active H.</td></tr>
<tr><td>4</td><td>DI</td><td>I</td><td>Data from the CPU (LC866432V) is input when this key is operated. Active H.</td></tr>
<tr><td>5</td><td>CLK</td><td>I</td><td>Clock input to data DI.</td></tr>
<tr><td>6</td><td>DO</td><td>O</td><td>Digital data output to the CPU (LC866432V)</td></tr>
<tr><td>7</td><td>TM-BASE</td><td>O</td><td>Reference clock signal input (8 MHz).</td></tr>
<tr><td>8</td><td>$\overline{\text{MONO}}$/ST BEAT</td><td>O</td><td>H is output when the MONO/ST BEAT switch is operated.</td></tr>
<tr><td>9</td><td>$\overline{\text{FM/SW1}}$</td><td>O</td><td>H or L is output as follows.
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="4">4 BAND</th></tr>
<tr><td>AM</td><td>FM</td><td>LW</td><td>MW</td><td>FM</td><td>LW</td><td>SW1</td><td>SW2</td><td>FM</td></tr>
<tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>10</td><td>$\overline{\text{MW/SW2}}$</td><td>O</td><td>H or L is output as follows.
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="4">4 BAND</th></tr>
<tr><td>AM</td><td>FM</td><td>LW</td><td>MW</td><td>FM</td><td>LW</td><td>SW1</td><td>SW2</td><td>FM</td></tr>
<tr><td>H</td><td>L</td><td>H</td><td>L</td><td>L</td><td>H</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>11</td><td>$\overline{\text{IF-MUTE}}$</td><td>O</td><td>This pin controls the 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>L is input when tuned to a station.</td></tr>
<tr><td>14</td><td>NC</td><td>—</td><td>Not used.</td></tr>
<tr><td>15</td><td>AM-I</td><td>I</td><td>AM local oscillator frequency signal is input.</td></tr>
<tr><td>16</td><td>FM-I</td><td>I</td><td>FM local oscillator frequency signal is input.</td></tr>
<tr><td>17</td><td>VDD</td><td>—</td><td>Power supply input to IC (+5 V).</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>N-channel MOS transistor for PLL active low-pass filter.</td></tr>
<tr><td>20</td><td>AOUT</td><td>O</td><td>N-channel MOS transistor for PLL active low-pass filter.</td></tr>
<tr><td>21</td><td>VSS</td><td>—</td><td>GND.</td></tr>
<tr><td>22</td><td>XO</td><td>—</td><td>Crystal oscillator (6.2 MHz) is connected to this pin.</td></tr>
</table>

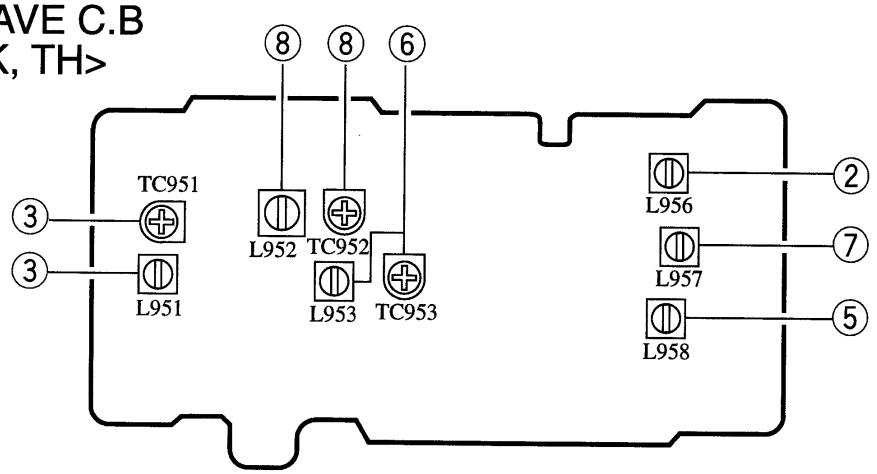
IC, M65840FP

Pin No.	Pin Name	I/O	Description
1	ADC	—	ADM A/D adaptive control.
2	DA1C	—	ADM D/A1 adaptive control.
3	DA2C	—	ADM D/A2 adaptive control.
4	TEST1	I	Normal function mode at L, test mode at H.
5	X-I	I	16 MHz ceramic oscillator.
6	X-O	O	
7	DATA	I	Serial bus data input.
8	CLK	I	Serial bus clock input.
9	STB	I	Serial bus strobe input.
10	TEST2	O	Test output.
11	TEST3	O	Test output.
12	REF	—	Analog 1/2 Vcc. Capacitor for filter is connected.
13	GND	—	GND.
14	VCC	—	Normally 5 V.
15	M-O	O	Mixing key control low-frequency signal and through output high frequency signal.
16	M-I	I	
17	LPF2-O	O	Post low-pass filter for digital key control is constituted by external CR.
18	LPF2-I	I	
19	HPF-O	O	High-pass filter for through output high frequency signal is constituted by external CR.
20	HPF-I	I	
21	LPF1-O	O	Pre low-pass filter for digital key control is constituted by external CR.
22	LPF1-I	I	
23	ADI-I	I	Integrator is constituted by external capacitor.
24	ADI-O	O	
25	DA1I-I	I	Integrator is constituted by external capacitor.
26	DA1I-O	O	
27	DA2I-I	I	Integrator is constituted by external capacitor.
28	DA2I-O	O	

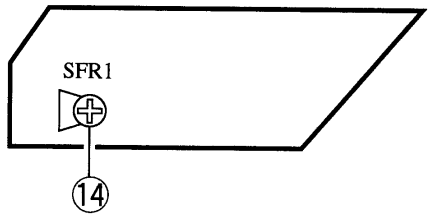
A MAIN C.B



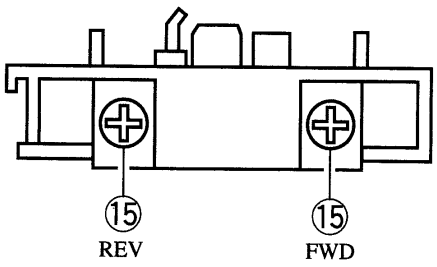
G S·WAVE C.B <HR, HK, TH>



H DECK C.B



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



< TUNER SECTION >

1. Clock Frequency Adjustment
   Settings: • Test point: TP2 (CLK IC770 pin30)
   • Adjustment location: TC701
   Method: Set to MW 1710kHz (HR, HK, TH), 1602kHz (K, EZ) and adjust TC701 so that the test point becomes 2160kHz±0.01kHz (HR, HK, TH), 2052kHz±0.01 kHz (K, EZ).

2. MW VT Adjustment <HR, HK, TH>
   Settings: • Test point: TP1 (VT)
   • Adjustment location: L956
   Method: Set to MW 1710kHz and adjust L956 so that the test point becomes 8.5V±0.05V.
   Then set to MW 530kHz and check that the test point is more than 0.3V.

2. MW VT Check <K, EZ>
   Settings: • Test point: TP1 (VT)
   Method: Set to 1602kHz and check that the test point is 6.8V±1.0V.

3. MW Tracking Adjustment <HR, HK, TH>
   Settings: • Test point: TP5, TP6
   • Adjustment location:
   L951 ..... 600kHz
   TC951 ..... 1400kHz
   Method: Set to TC951 to center before adjustment.
   The level at 600kHz is adjusted to MAX by L951. Then the level at 1400kHz is adjusted to MAX by TC951.

3. MW Tracking Adjustment <K, EZ>
   Settings: • Test point: TP5, TP6
   • Adjustment location:
   L981 ..... 1400kHz
   Method: Set to MW 999kHz and adjust L981 so that the test point becomes maximum.

4. AM IF Adjustment
   Settings: • Test point: TP5, TP6
   L742 ..... 450kHz

5. SW2 VT Adjustment <HR, HK, TH>
   Settings: • Test point: TP1 (VT)
   • Adjustment location: L958
   Method: Set to SW2 21.85MHz and adjust L958 so that the test point becomes 8.0V±0.05V.

6. SW2 Tracking Adjustment <HR, HK, TH>
   Settings: • Test point: TP5, TP6
   • Adjustment location:
   L953 ..... 9.5MHz
   TC953 ..... 21.85MHz
   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. SW1 VT Adjustment <HR, HK, TH>
   Settings: • Test point: TP1 (VT)
   • Adjustment location: L957
   Method: Set to SW1 7.3MHz and adjust L957 so that the test point becomes 7.7V±0.05V.

8. SW1 Tracking Adjustment <HR, HK, TH>
   Settings: • Test point: TP5, TP6
   • Adjustment location:
   L952 ..... 3.2MHz
   TC952 ..... 7.3MHz
   Method: Set up TC952 to center before adjustment.
   The level at 3.2MHz is adjusted to MAX by L952. Then the level at 7.3MHz is adjusted by TC952.

9. LW VT Adjustment <K, EZ>
   Settings: • Test point: TP1 (VT)
   • Adjustment location: L942
   Method: Set to LW 144kHz and adjust L942 so that the test point becomes 1.5V±0.05V.

10. LW Tracking Adjustment <K, EZ>
    Settings: • Test point: TP5, TP6
    • 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.

11. FM VT Check
    <HR, HK, TH>
    Settings: • Test point: TP1 (VT)
    Method: Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 1.0V (87.5MHz) and less than 8.0V (108.0MHz).
    <K, EZ>
    Settings: • Test point: TP1 (VT)
    Method: Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 1.5V (87.5MHz) and less than 8.2V (108.0MHz).

12. 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 0V±0.04V.
    Next, check that the distortion is less than 1.3%.

13. 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.

< DECK SECTION >

14. Tape Speed Adjustment
    Settings: • Test tape: TTA-100 (DECK2)
    • Test point: TP8, TP9
    • Adjustment location: SFR1
    Method: Play back the test tape by DECK2 and adjust SFR1 so that the frequency counter reads 3000Hz±5Hz.

15. Azimuth Adjustment (DECK1, DECK2)
    Settings: • Test tape: TTA-310
    • Test point: TP8
    • 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.

16. PB Frequency Response Check (DECK1, DECK2)
    Settings: • Test tape: TTA-300
    • Test point: TP8
    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.

17. PB Sensitivity Adjustment
Settings:
- Test tape: TTA-200
- Test point: TP8
- 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.

18. REC/PB Frequency Response Adjustment
Settings:
- Test tape: TTA-602
- Test point: TP8
- Input signal: 1kHz/10kHz (LINE IN)
- Adjustment location: SFR451 (Lch)
  SFR452 (Rch)

Method: Establish the record mode. Adjust the TP8 signal to 210mV and attenuate to –20dB. Record and playback 1kHz and 10kHz. Adjust SFR so that level difference between 1kHz and 10kHz is 0dB±0.5dB.

19. REC/PB Sensitivity Adjustment
Settings:
- Test tape: TTA-602
- Test point: TP8
- Input signal: 1kHz (LINE IN)
- Adjustment location: SFR305 (Lch)
  SFR306 (Rch)

Method: Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP8 becomes 21mV. Record and play back the 1kHz signals and adjust SFRs so that the output is 21mV±0.5dB.

20. Bias OSC Frequency Adjustment
Settings:
- Test tape: TTA-601
- Test point: TP10 (R311)
- Adjustment location: L451
- BEAT SW: OFF <K, EZ>

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

PRACTICAL SERVICE FIGURE

< TUNER SECTION >

<FM SECTION>

<HR, HK, TH>

IHF Sensitiviy:	3dB±6dB
(THD 3%)	(at 87.5/98.0/108.0MHz)
S/N 50dB Quieting sensitivity:	35dB±6dB
	(at 87.5/98.0/108.0MHz)
Signal to noise ratio:	More than 68dB
	(at 98.0MHz)
Distortion:	Less than 1.2% (at 98.0MHz)
(Input: 54dB)	
Stereo separation:	More than 25dB (at 98.0MHz)
Intermediate frequency:	10.7MHz

<K, EZ>

IHF Sensitiviy:	6dB±6dB
(DIN Filter at S/N 26dB)	(at 87.5/98.0/108.0MHz)
S/N 50dB Quieting sensitivity:	36dB±6dB
(S/N 46dB)	(at 87.5/98.0/108.0MHz)
Signal to noise ratio:	More than 65dB
	(at 98.0MHz)
Distortion:	Less than 1.3% (at 98.0MHz)
(Input: 54dB)	
Stereo separation:	More than 25dB (at 83.0MHz)
Intermediate frequency:	10.7MHz

<MW SECTION>

Sensitivity:	48~62dB (at 603kHz)
(S/N 20dB)	47~59dB (at 999/1404kHz)
Signal to noise ratio:	More than 36dB (at 999kHz)
(Input: 100dB)	
Distortion:	Less than 1.5% (at 999kHz)
Intermediate frequency:	450kHz

<LW SECTION> (K, EZ)

Sensitivity:	66±5dB (at 144kHz)
(S/N 20dB)	63±5dB (at 198kHz)
	62±5dB (at 290kHz)
Signal to noise ratio:	More than 32dB (at 198kHz)
(Input: 106dB)	
Distortion:	Less than 1.5% (at 198kHz)
(Input: 80dB)	

<SW1 SECTION> (HR, HK, TH)

Sensitivity:	29~37dB (at 3.2MHz)
(S/N 20dB)	26~34dB (at 5.0MHz)
	24~32dB (at 7.3MHz)
Signal to noise ratio:	More than 40dB
(Input: 80dB)	
Distortion:	Less than 1.5% (at 5.0MHz)
Intermediate frequency:	450kHz

<SW2 SECTION> (HR, HK, TH)

Sensitivity:	45dB±5dB (at 9.5MHz)
(S/N 20dB)	40dB±5dB (at 15.0MHz)
	34dB±5dB (at 21.85MHz)
Signal to noise ratio:	More than 36dB
(Input: 80dB)	
Distortion:	Less than 1.5% (at 15.0MHz)
Intermediate frequency:	450kHz

< DECK SECTION >

Tape speed:	3000Hz±1.5%
Wow & flutter:	Less than 0.4%
(W.R.M.S)	
Take-up torque:	30~55g-cm (FWD, REV)
F.F torque:	75~180g-cm
REW torque:	75~180g-cm
Back tension:	2~7.0g-cm
PB Output level:	(DECK1, 2)
	2.8V±1.5dB (SP OUT)
REC/PB Output level:	2.0V± –1.5±2dB (SP OUT)
Distortion (REC/PB):	Less than 2% (NORM, CrO_2)
Noise level (REC/PB):	Less than 8mV/15mV (DOLBY B NR ON/OFF NORM, SP OUT, Vol 2V)
	Less than 7mV/10mV (DOLBY B NR ON/OFF CrO_2, SP OUT, Vol 2V)
Crosstalk:	More than 60dB (1kHz, 0VU)
Erasing ratio:	More than 60dB (125Hz)
Channel separation:	More than 40dB (1kHz, 0VU)
REC bias frequency:	85kHz
Test tape:	NORMAL TTA-601/600
	CrO_2 TTA-610
	METAL TTA-630

TEST MODE

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

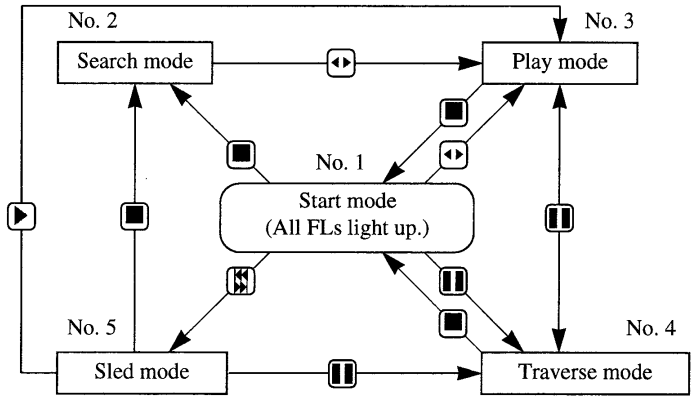
2. How to Cancel CD Test Mode
   Either one of the following operations will cancel the CD test mode.
   - Press the function button. (except CD function button)
   - Press the power switch button.
   - Disconnect the AC plug

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

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

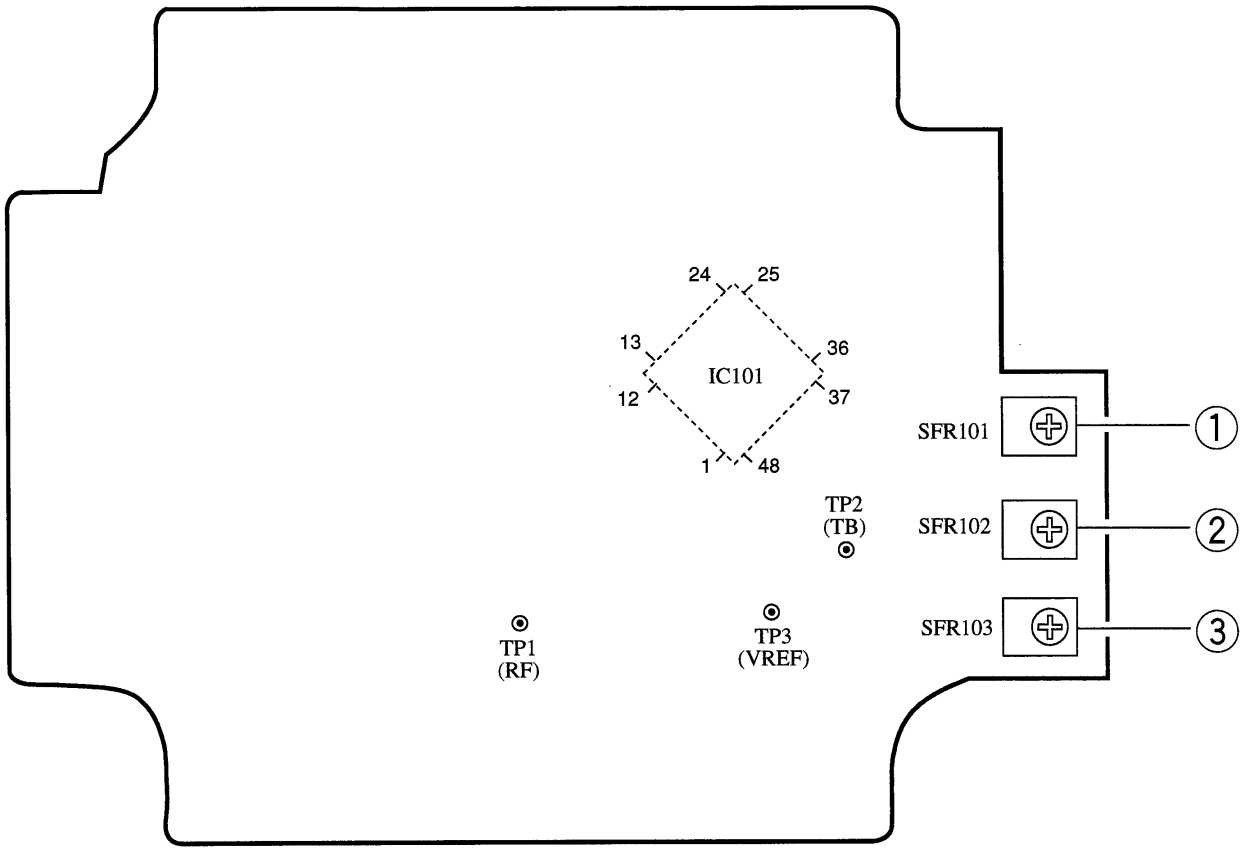
* NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.
* NOTE 2: Do not press the ⏮ or ⏭ keys when the machine is in the ❚❚ status is active. If they are pressed, playback will not be possible after the ❚❚ status has been canceled. If the ⏮ or ⏭ keys are pressed in the ❚❚ status, press the ■ key and return to the start mode (No.1).
* NOTE 3: When pressing the ⏮ or ⏭ keys, take care to avoid damage to the gears. Because the sled motor is activated when the ⏮ or ⏭ keys are pressed, even when the pick-up is at the outermost or innermost track.

4. Operation Outline
   The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.



If the DISC DIRECT PLAY button is pressed, the machine performs the same operation as the PLAY button is pressed as shown. If the tray is opened by pressing OPEN/CLOSE button during Play mode or Traverse mode, the machine returns to the Start mode.

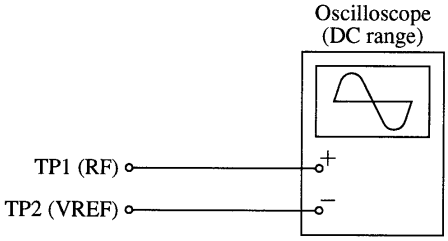
B CD MECHA C.B


24
25
13
36
IC101
12
37
1
48
SFR101
1
TP2
(TB)
SFR102
2
TP1
(RF)
TP3
(VREF)
SFR103
3

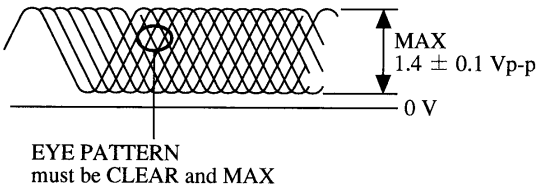
Note: Connect a probe (10: 1) of the oscilloscope or the frequency counter to a test point.

1. Focus Bias Adjustment

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

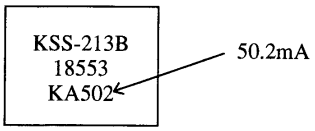


1) Connect an oscilloscope to test points TP1 (RF) and TP2 (VREF).
2) Turn on the power switch.
3) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4) Adjust SFR101 so that RF signal of test point TP1 (RF) is MAX and CLEARREST.



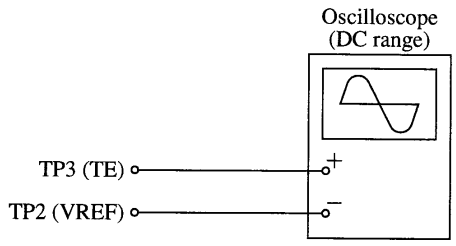
VOLT/DIV : 50mV
TIME/DIV : 0.5μS

Note: The current of the laser signal can be checked with the voltages on both sides of R127 (10Ω). The difference for the specified value shown on the lavel must be within± 6.0mA.

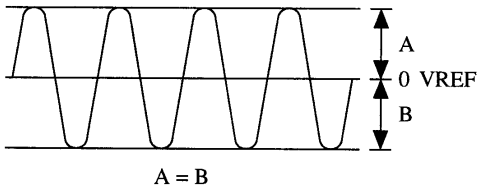


$$\text{Laser current Iop} = \frac{\text{Voltage across R127}}{10\Omega}$$

2. Tracking Balance Adjustment



1) Connect an oscilloscope to test points TP3 (TE) and TP2 (VREF).
2) Turn on the power switch.
3) Insert test disc TCD-782 (YEDS-18) and press the PLAY button.
4) Adjust SFR103 to decrease the tracking gain.
5) Adjust SFR102 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 terminals.



VOLT/DIV : 20mV
TIME/DIV : 1mS

3. Tracking Gain Adjustment

A servo analyzer is necessary in order to perform this adjustment exactly. However, this gain has a margin, so even if it is slightly off, there is no problem. Therfore, do not perform this adjustment.
Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when 2-axis device operates. However, as these reciprocate, the adjustment is at the point where both are satisfied.

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

When the gain adjustment is off, the symptoms below appear.

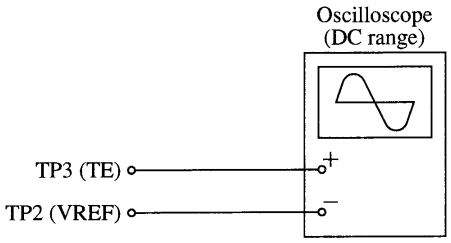
Symptoms \ Gain	(Focus)	Tracking
● The time until music starts becomes longer for STOP→▶PLAY or automatic selection (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP→▶PLAY or automatic selection (⏮, ⏭ buttons pressed.)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

The following is simple adjustment method.

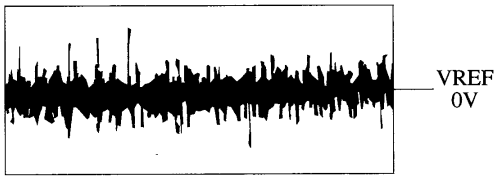
— Simple adjustment —

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

Procedure:



1) Keep the set horizontal. (If the set is not kept horizontally, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2) Insert test disc TCD-782 (YEDS-18) and play back the second composition.
3) Connect an oscilloscope to TP3 (TE), TP2 (VREF) of the CD MECHA C.B.
4) Adjust SFR103 so that the waveform appears as shown in the figure below. (tracking gain adjustment)



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

● Incorrect example

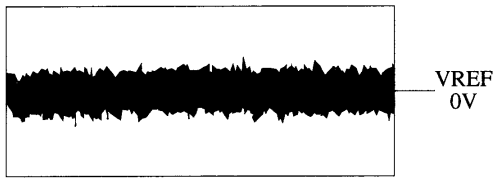
Low tracking gain

The fundamental wave appears as compared with the waveform adjusted.

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

High tracking gain

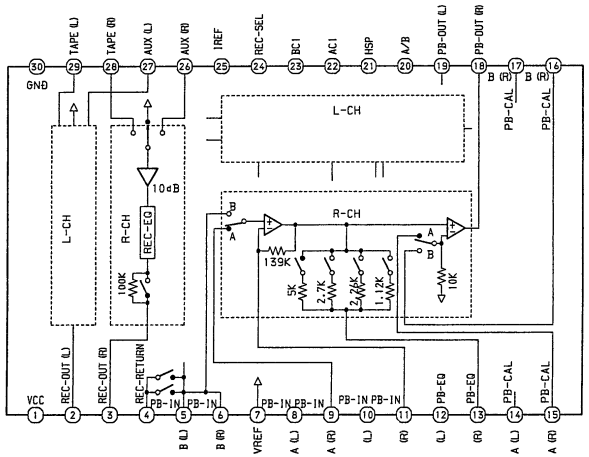
The frequency of the fundamental wave is higher than that in low gain.



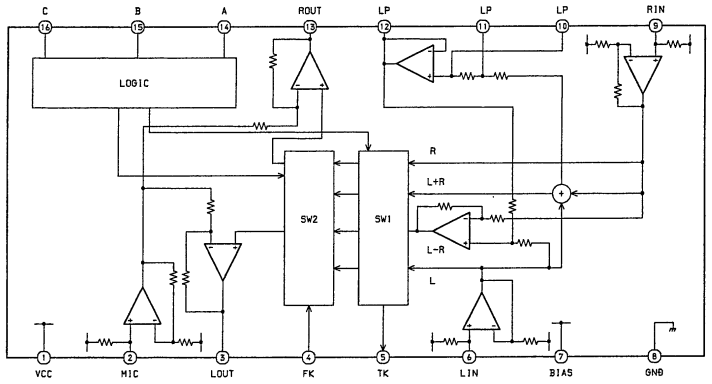
VOLT/DIV: 50 mV
TIME/DIV: 1mS

IC BLOCK DIAGRAM

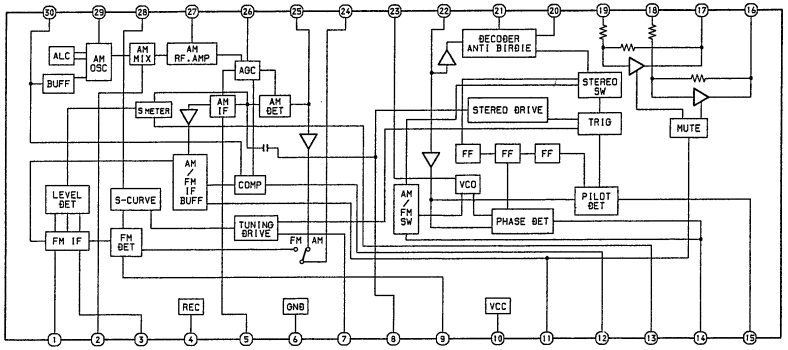
IC, HA12185NT



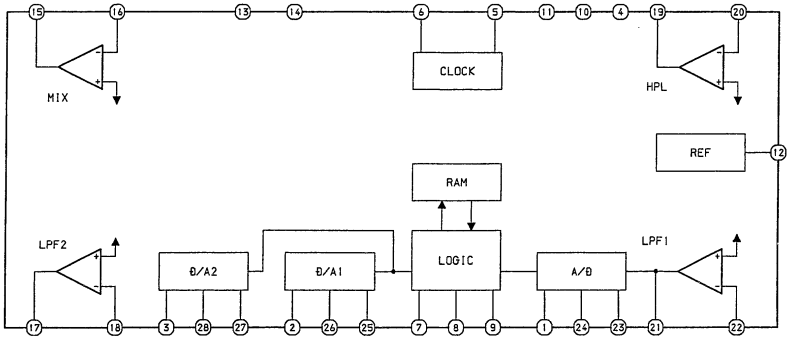
IC, BA3837



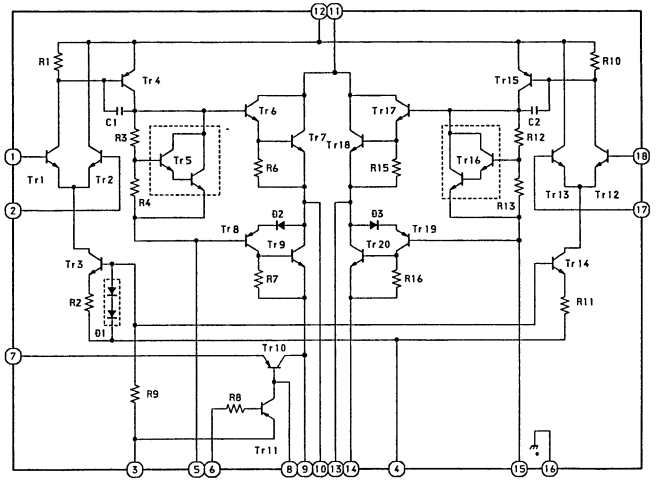
IC, LA1836



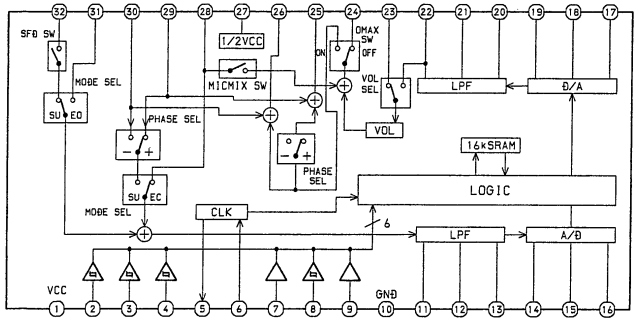
IC, M65840FP



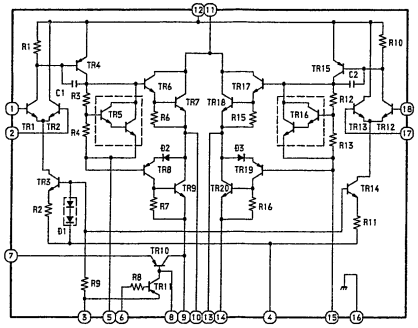
IC, STK4142-2



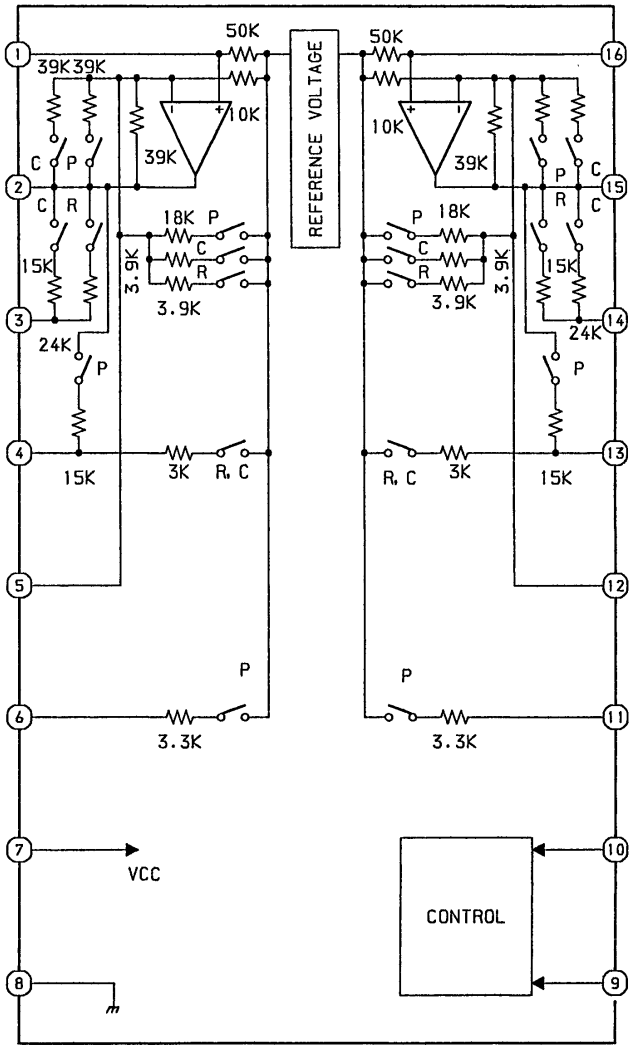
IC, M65846FP-600D



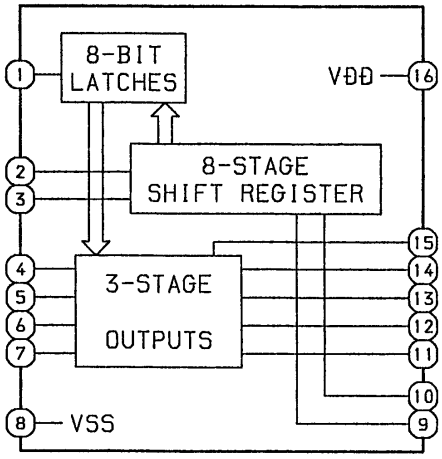
IC, STK4152-2



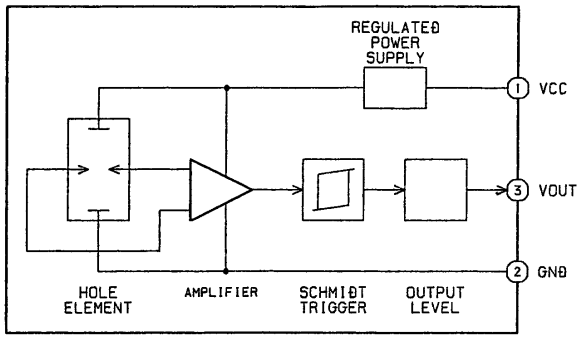
IC, M62412P



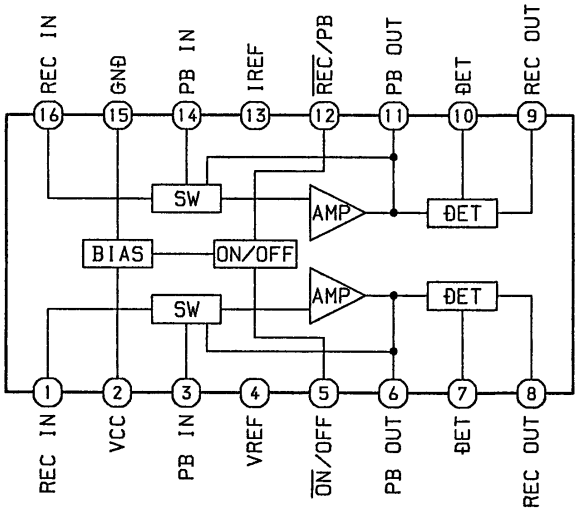
IC, TC4094BP / BF



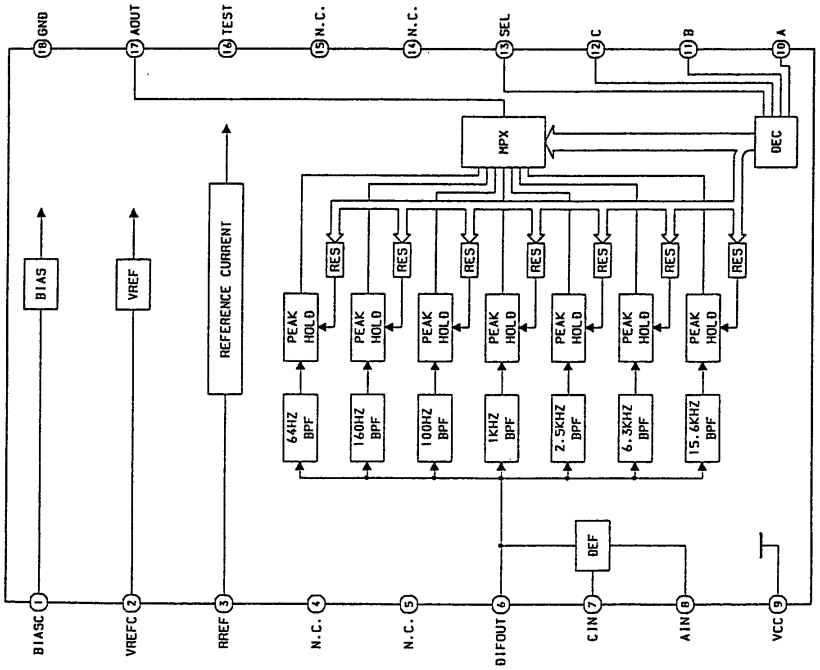
IC, DN6851



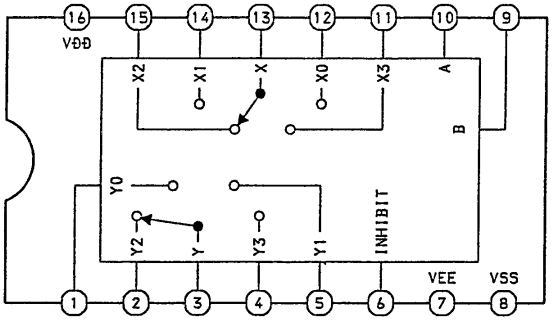
IC, HA12134A



IC, BA3834S



IC, BU4052BCP

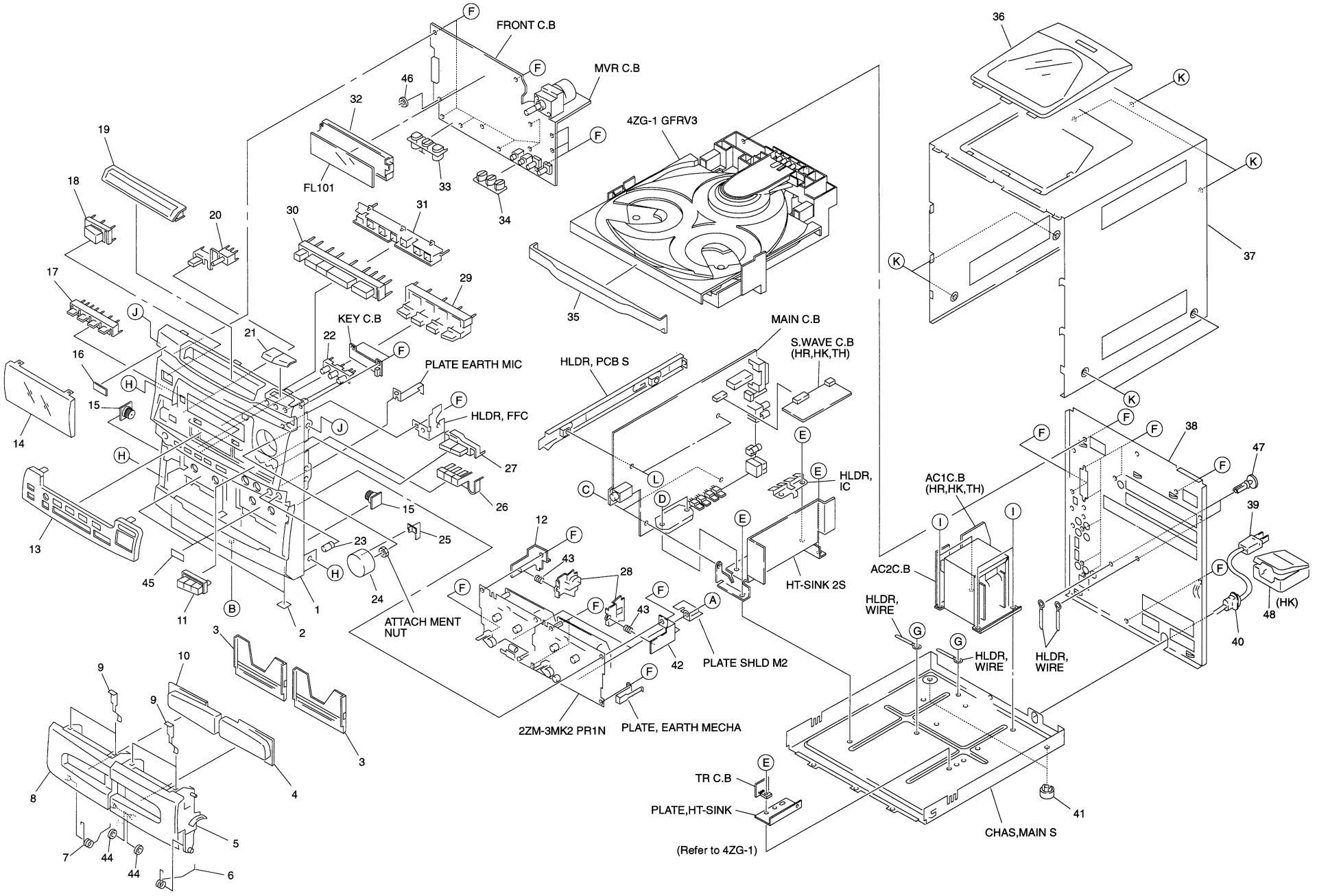


TRUTH TABLE

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

L:LOW LEVEL
H:HIGH LEVEL
H:IRRELEVANT

MECHANICAL EXPLODED VIEW 1 ／ 1



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".

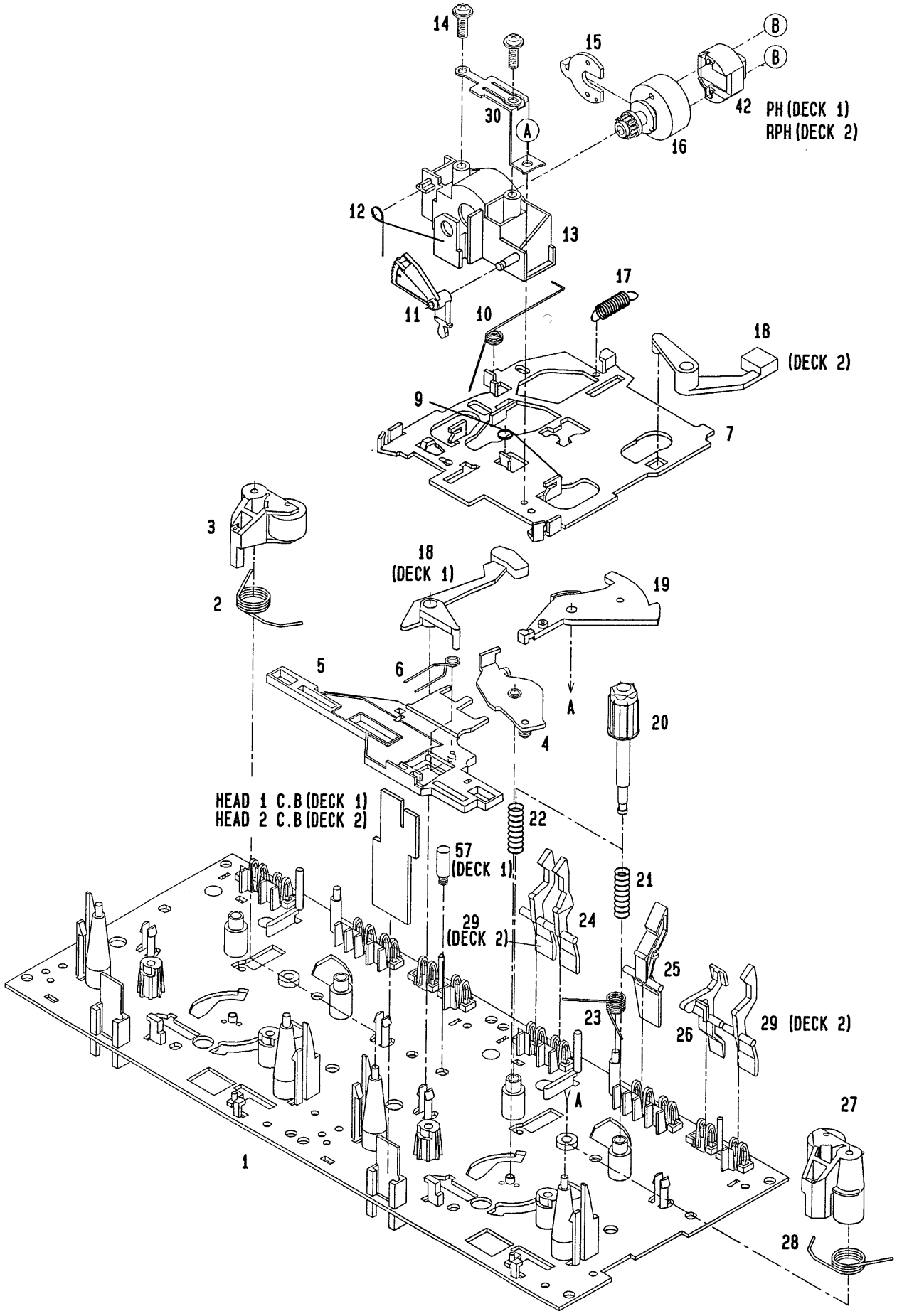
REF. NO	PART NO.	カンリ NO.	DESCRIPTION
1	85-NFT-010-010		CAB,FR E(ST)<K,EZ>
1	85-NFT-006-010		CAB,FR H(ST)<HR,HK,TH>
2	80-VT1-202-010		FELT,12.5-15.5-2
3	85-NF5-026-010		IND,CASS
4	85-NF5-034-010		WINDOW,BOX 2
5	85-NF5-110-010		BOX,CASS R1000(S)<HR,HK,TH>
5	85-NF5-094-010		BOX,CASS R1000<K,EZ>
6	82-NF5-219-010		SPR-T,EJECT 2 (SIN)
7	82-NF5-218-010		SPR-T,EJECT 1 (SIN)
8	85-NF5-109-010		BOX,CASS L1000(S)<HR,HK,TH>
8	85-NF5-093-010		BOX,CASS L1000<K,EZ>
9	80-CD3-218-110		SPR-P CASS
10	85-NF5-033-010		WINDOW,BOX 1
11	85-NF5-021-010		KEY,DSP
12	82-NF5-226-010		HLDR,LOCK 1N
13	85-NFT-033-110		PANEL,CONTROL EX
14	85-NF5-035-010		WINDOW,DISPLAY
15	87-063-165-010		OIL-DMPR 150
16	82-NE6-067-010		BADGE,AIWA 30N(*)
17	85-NFT-032-010		KEY,KARAOKE EX
18	85-NF5-099-010		KEY,POWER 1000
19	85-NF5-032-110		WINDOW,CD
20	85-NF5-027-010		KEY,DUBB
21	85-NF5-097-010		KEY,OPEN 1000
22	85-NF5-012-010		KEY,DISC
23	83-NF5-020-010		KNOB,MIC
24	85-NF5-106-010		KNOB,VOL 1000
25	83-NF5-010-010		IND,VOL
26	85-NF5-022-010		KEY,GEQ
27	85-NFT-004-010		KEY,BBE (V-CD)
28	82-NF5-229-010		PLATE,LOCK
29	85-NF5-014-110		KEY ASSY,FUN
30	85-NF5-019-010		KEY,OPE
31	85-NF5-202-010		GUIDE,OPE
32	82-NF5-212-010		GUIDE,FL
33	85-NF5-210-110		GUIDE,LED L
34	85-NF5-211-110		GUIDE,LED R
35	85-NFT-016-010		PANEL,TRAY E(ST)<K,EZ>
35	85-NFT-009-010		PANEL,TRAY H(ST)<HR,HK,TH>
36	85-NFT-039-010		WINDOW,TOP(V-CD)
37	85-NF5-007-110		CAB,STEEL
38	85-NFT-036-010		PANEL,REAR EZSTNM<EZ>
38	85-NFT-037-110		PANEL,REAR HKJSTNM<HK>
38	85-NFT-019-110		PANEL,REAR HRJSTNM<HR>
38	85-NFT-040-010		PANEL,REAR THSTNM<TH>
38	85-NFT-035-010		PANEL,REAR KSTNM<K>
⚠ 39	87-050-079-010		AC-CORD ASSY,E
40	87-085-185-010		BUSHING,AC CORD E
41	87-085-221-010		FOOT,H13.5
42	82-NF5-227-010		HLDR,LOCK 2N
43	82-NF5-228-010		SPR-C,LOCK
44	82-NE8-215-010		W 4.2-7-0.18
45	81-532-080-010		LBL,CASS-COMPT
46	85-NF7-599-010		PVCW,3.2-8-0.3
47	87-084-077-010		NYLON RIVET 3.5-4.5
48	87-099-811-010		PLUG,ADPTR CONV(K)<HK>
A	87-571-032-410		VIT+2-3
B	87-067-689-010		BVTT+3-8
C	87-067-633-010		BVT2+3-8 W CONVEX
D	87-067-698-010		BVT2+3-18(W/O,SLOT)
E	87-067-579-010		BVT2+3-8(W/O SLOT)
F	87-067-703-010		BVT2+3-10 (W/O SLOT)
G	87-571-092-410		VIT+3-4 GLD
H	87-591-094-410		QIT+3-6
I	87-067-975-010		S-SCREW,IT+4-8
J	87-721-097-410		QT2+3-12 GLD
K	87-078-165-010		UTT2+3-6(W/O SLOT)BL
L	87-078-084-010		BVTT+3-6 W,CONVEX

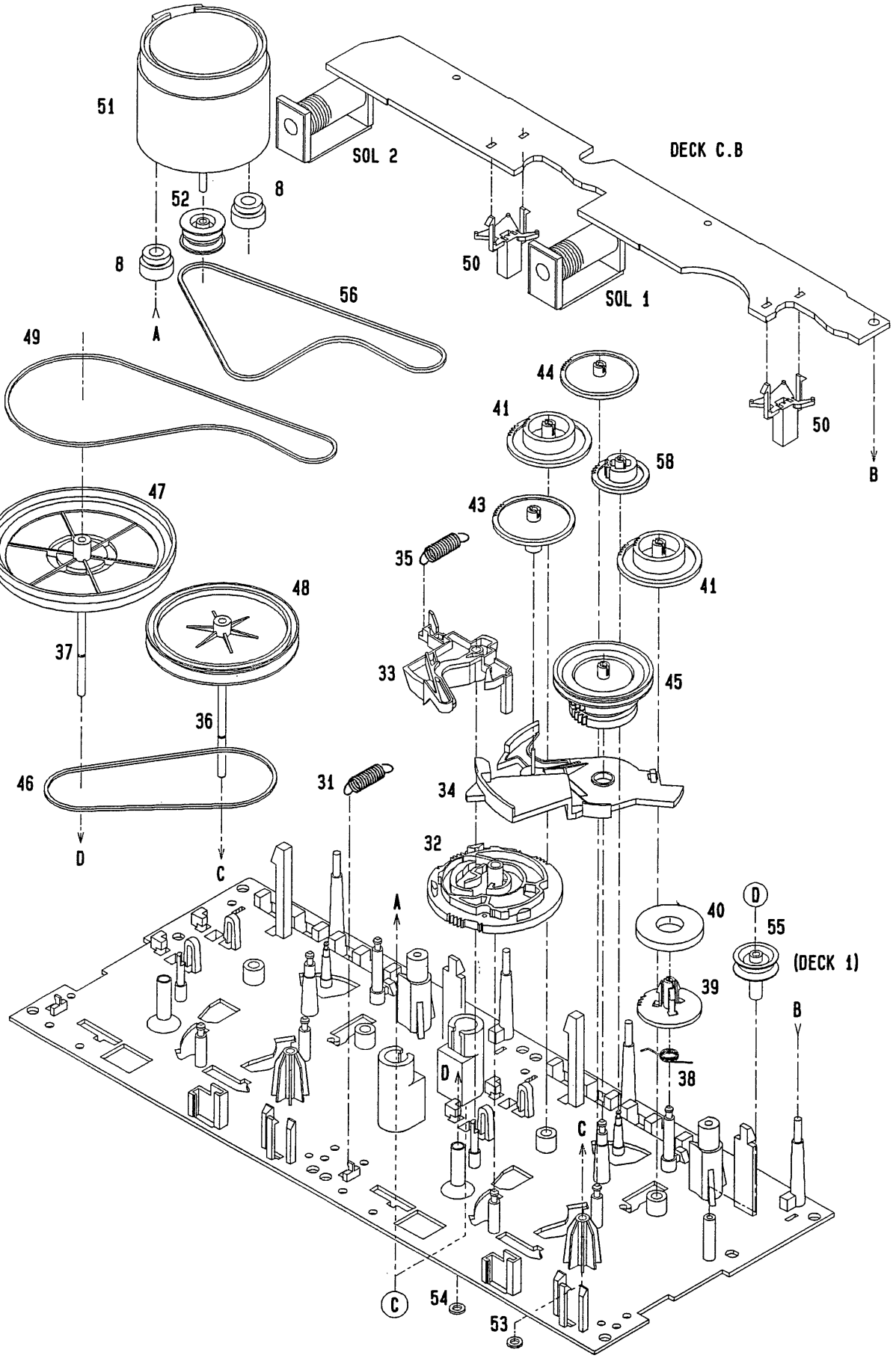
TAPE MECHANISM PARTS LIST 1 ／ 1

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".

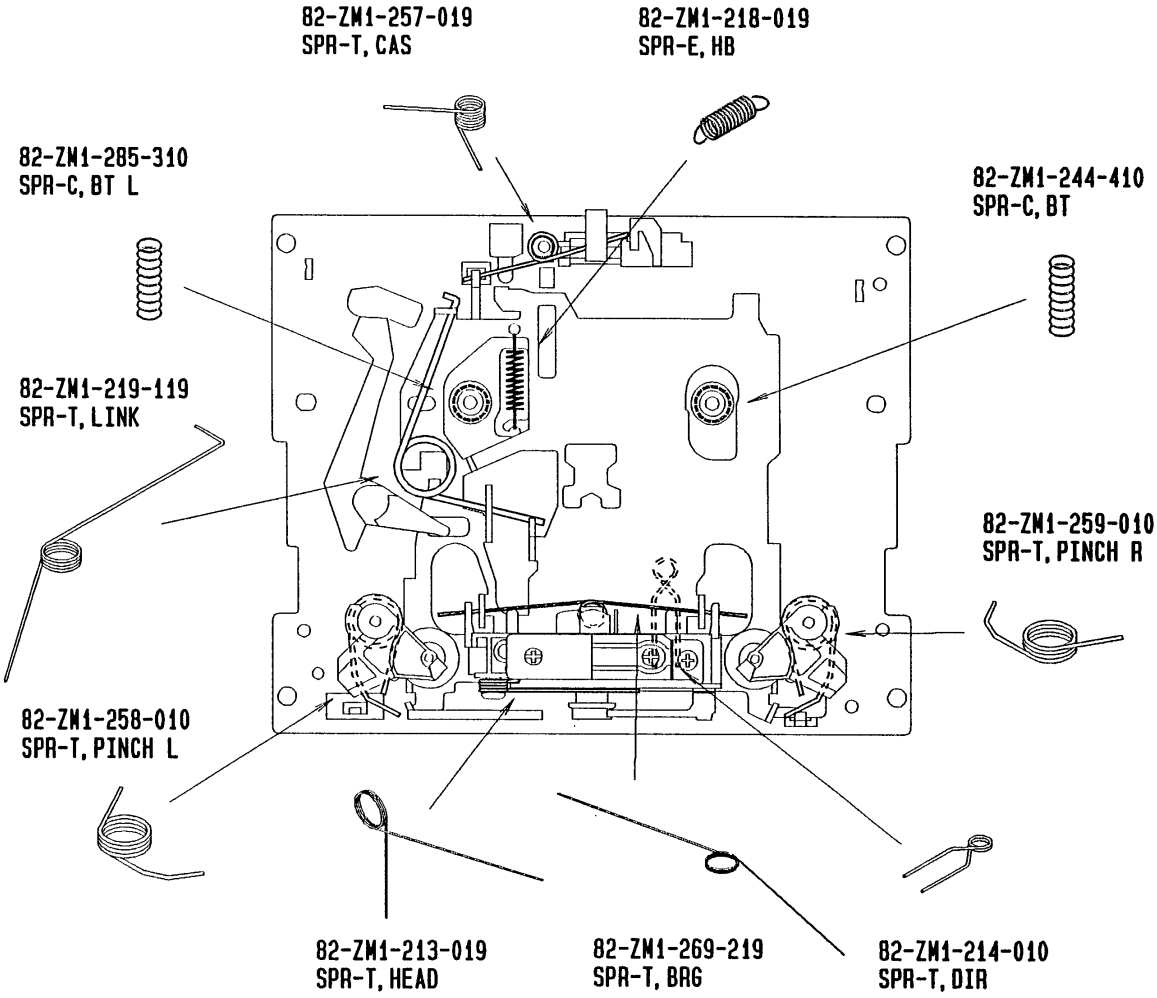
REF. NO	PART NO.	カンリ NO.	DESCRIPTION
1	82-ZM3-301-019		CHAS ASSY,M2
2	82-ZM1-258-010		SPR-T,PINCH L
3	82-ZM1-248-419		LVR ASSY,PINCH L
4	82-ZM1-295-31K		PLATE ASSY,LINK
5	82-ZM1-266-11K		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-61K		CHAS,HEAD
8	82-ZM3-307-019		CUSH-G,DIA3.7-8-3.2
9	82-ZM1-269-219		SPR-T,BRG
10	82-ZM1-219-119		SPR-T,LINK
11	82-ZM1-210-019		GEAR,H T
12	82-ZM1-213-019		SPR-T,HEAD
13	82-ZM1-207-519		GUIDE,TAPE
14	82-ZM1-283-310		S-SCREW,AZIMUTH
15	82-ZM1-314-119		PLATE,HEAD
16	82-ZM1-208-019		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-ZM1-222-11K		LVR,PLAY
20	82-ZM1-217-319		REEL TABLE
21	82-ZM1-244-410		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-ZM1-253-419		LVR ASSY,PINCH R
28	82-ZM1-259-010		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-ZM3-306-01K		LVR,FR M2
35	82-ZM1-265-119		SPR-E,TRIG
36	82-ZM1-313-019		CAPSTAN N 2-41.5
37	82-ZM1-312-019		CAPSTAN N 2.2-41.7
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-219		GEAR,IDLER
40	82-ZM1-316-010		RING MAGNET 3
41	82-ZM1-216-21K		GEAR,REEL
42	87-046-355-019		HEAD,PH HADKH2529B(PH)
42	87-046-356-019		HEAD,RPH HADKH5581B(RPH)
43	82-ZM1-225-11K		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM1-228-510		SLIP DISK ASSY
46	82-ZM1-328-010		BELT FR2(DECK 1)
46	82-ZM1-335-010		BELT FR2M(DECK 2)
47	82-ZM1-238-61K		FLY-WHL ASSY,R (DECK 2)
47	82-ZM3-210-51K		FLY-WHL ASSY,R2 (DECK 1)
48	82-ZM1-235-31K		FLY-WHL ASSY,L (DECK 2)
48	82-ZM3-208-41K		FLY-WHL ASSY,L2 (DECK 1)
49	82-ZM3-313-019		BELT R10
50	82-ZM1-245-210		HLDR,IC
51	87-045-347-019		MOT,SHU2L 70(M1)
52	82-ZM3-202-019		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-ZM3-304-010		PULLEY,COUPLER (DECK 1)
56	82-ZM3-312-019		BELT P10
57	82-ZM3-216-019		SHAFT,COUPLER N(DECK 1)
58	82-ZM1-223-019		GEAR,PLAY
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

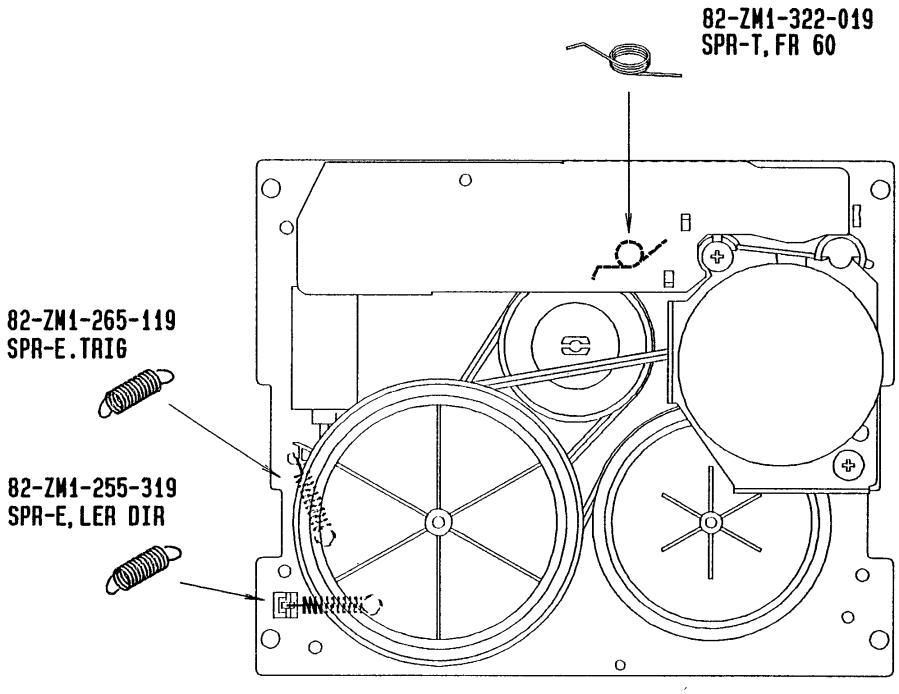
TAPE MECHANISM EXPLODED VIEW 1 ／ 1



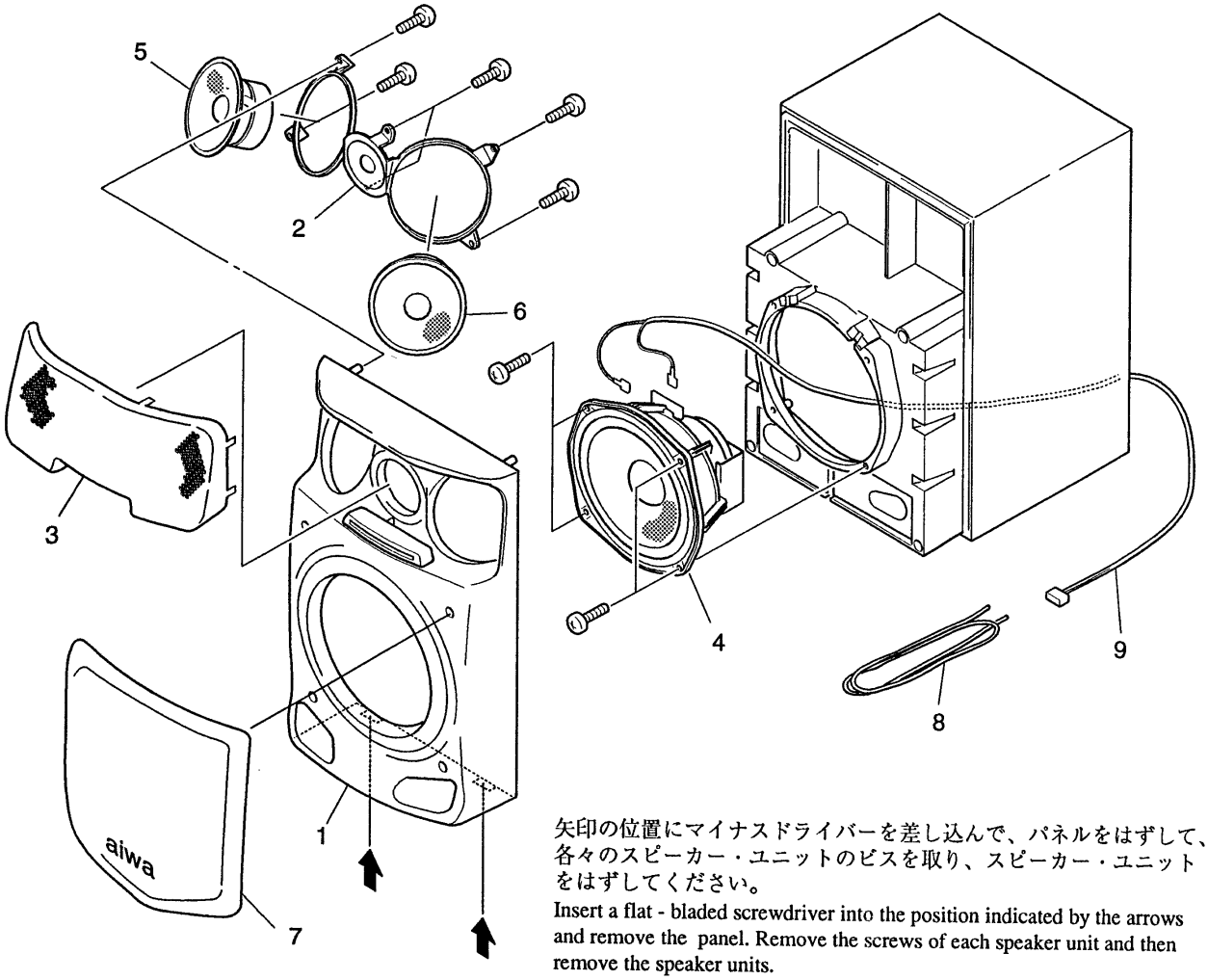

51
SOL 2
DECK C.B
52
8
8
A
56
50
SOL 1
49
44
41
50
58
B
47
43
35
41
48
37
33
45
36
46
31
34
D
C
32
A
40
D
55
(DECK 1)
39
B
38
D
C
C
54
53

SPRING APPLICATION POSITION





SPEAKER EXPLODED VIEW 1 ／ 1



矢印の位置にマイナスドライバーを差し込んで、パネルをはずして、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-NS6-047-010		PANEL FR,ST
2	85-NS5-011-010		ADAPTOR ASSY
3	85-NS6-010-010		SPEAKER GRILL
4	85-NS6-602-010		SPEAKER WOOFER
5	83-NS8-606-010		SPEAKER MID
6	83-NS8-608-010		SPEAKER
7	85-NS6-011-010		GRILL FRAME ASSY
8	83-NS5-613-010		SPEAKER CORD ASSY
9	85-NS5-614-010		CORD 4P<HR,HK,TH>

■ 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.	カンリ NO.	DESCRIPTION
1	85-NFT-903-010		IB,H(ESC)-M<HR,HK,TH>
1	85-NFT-904-010		IB,E(EGFSI)-M<EZ>
2	82-NF5-718-010		CORD,PIN
3	85-NFT-620-110		RC,RC-T520
4	87-006-225-010		AM LOOP ANT NC2<K,EZ>
4	87-006-240-010		AM LOOP ANT CON(KO)<HR,HK,TH>
5	87-043-095-010		ANTENNA WIRE<HR,HK,TH>
5	87-043-106-010		FM, WIRE ANT (Z)<K,EZ>
6	87-043-115-010		ANT,FEEDER FM<HR,HK,TH>
7	87-099-789-010		PLUG,ADPTR IR44<HR,TH>
8	87-B30-014-010		MIC,DM-MF3 YJ
9	87-B30-016-010		CD,V-CD(E) NTSC<TH>
9	87-B30-017-010		CD,V-CD(E) PAL<EXCEPT TH>

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－ －	

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