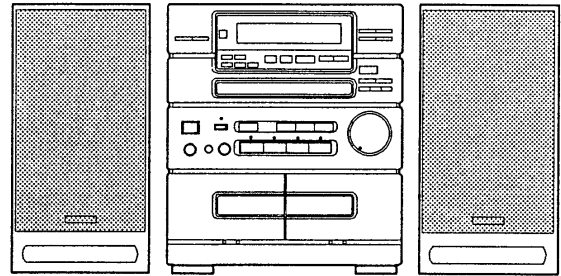


aiwa

NSX-330 NSX-A92

SERVICE MANUAL



COMPACT DISC STEREO SYSTEM

- BASIC TAPE MECHANISM : 1ZM - 7
- BASIC CD MECHANISM : KSL - 2101A

- TYPE. NSX - 330. LH, HE, H, U, C, E, K, Z
NSX - A92. HE

SYSTEM	CD - CASSEIVER	REMOTE CONTROLLER	SPEAKER
NSX - 330	CX - SN330	RC - TN330	SX - SN330
NSX - A92	CX - SA92	RC - TN330	SX - SA92

AIWA CO., LTD.

Tokyo Japan

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SPECIFICATION

<FM section>		<CD player section>	
Frequency range	H model: 76 MHz to 108 MHz Other models: 87.5 MHz to 108 MHz	Disc	Compact disc
Usable sensitivity (IHF)	1.3 μ V (75 ohms) 13.2 dBf	Scanning method	Non contact optical scanner (semiconductor laser application)
Alternate channel selectivity	50 dB ($\pm$ 400 kHz)	Laser	Semiconductor laser (λ = 780 nm)
Signal-to-noise ratio	70 dB (STEREO), 76 dB (MONO) Z : 70 dB (STEREO), 73 dB (MONO)	Rotation speed	Approx. 500 rpm – 200 rpm (CLV)
Harmonic distortion	0.3% (MONO), 1 kHz 0.5% (STEREO), 1 kHz	Error correction	Cross Interleave, Reed Solomon code
Frequency response	30 Hz to 15 kHz (+0.5 dB, – 3 dB)	No. of channels	2 channels
Stereo separation	33 dB at 1 kHz Z : 30 dB at 1 kHz	D-A conversion	16-bit linear
Antenna	75 ohms (unbalanced)	Wow/flutter	Unmeasurable
		Signal-to-noise ratio	90 dB (1 kHz, 0 dB)
		Harmonic distortion	0.05% (1 kHz, 0 dB)
<AM (MW) section>		<Speaker SX-N330>	
Frequency range	HE, H, E, K, and Z : AM531 (530) kHz to 1,602 (1,710) kHz LH, U and C: AM 530 (531) kHz to 1,710 (1,602) kHz	Cabinet type	3way, bass reflex (Magnetism sealed type)
Usable sensitivity	400 μ V/m	Speaker	130 mm (5 $\frac{1}{8}$ in.) cone type woofer 50 mm (2 in.) cone type tweeter 20 mm (1 $\frac{3}{16}$ in.) ceramic type super tweeter
Selectivity	22 dB (9 kHz)	Impedance	6 ohms
Signal-to-noise ratio	53 dB (100 dB input)	Music power	40 W
Antenna	Loop antenna	Output sound pressure level	87 dB/W/m
		Dimensions (W $\times$ H $\times$ D)	180 $\times$ 302.5 $\times$ 200 mm (7 $\frac{1}{8}$ $\times$ 12 $\times$ 7 $\frac{7}{8}$ in.)
<LW section> (E, K and Z models only)		Weight	2.6 kg (5.7 lbs.)
Frequency range	144 kHz to 290 kHz		
Sensitivity	1,400 μ V/m	<General>	
Antenna	Loop antenna	Power requirements	LH, HE, : AC 120 V/220 V/240 V, switchable 50/60Hz H : AC 100V – 120 V/ 200 V – 240 V, switchable 50/60Hz U : AC 120 V/220 V, switchable 50/60Hz E, Z : 230 V 50 Hz K : AC 240 V, 50 Hz
<Timer section>		Power consumption	LH, HE and H: 85 W U : 80 W E, K, Z, C: 210 W
Program timer	On-timer, capable of free setting	Dimensions (W $\times$ H $\times$ D)	Center unit: 260 $\times$ 302.5 $\times$ 329.5 mm (10 $\frac{1}{4}$ $\times$ 12 $\times$ 13 in.) System: 620 $\times$ 302.5 $\times$ 329.5 mm (24 $\frac{1}{2}$ $\times$ 12 $\times$ 13 in.) Center unit: 7.2 kg (15.8 lbs.) System: 12.4 kg (27.3 lbs.)
Sleep timer	Capable of setting in 10-minute increments, 120 minutes maximum	Weight	
<Amplifier section>			
Power output	LH, HE, H: 40W + 40W (6 ohms, T.H.D. 10% 1 kHz) Z, E : 30 W + 30 W (6 ohms, T.H.D. 10% 1 kHz) K: 40W + 40W (6 ohms, T.H.D. 10% 1kHz) FTC RULE (U, C models only) 30 watts per channel, Min. RMS at 6 ohms, from 65 Hz to 15 kHz, with no more than 1% Total Harmonic Distortion		
Harmonic distortion	0.05% (15 W, 1 kHz, 6 ohms)		
Input sensitivity	VIDEO/AUX: 150 mV (adjustable)		
<Cassette deck section>			
Track format	4 tracks, 2 channels		
Frequency response	CrO ₂ tape: 50 – 16,000 Hz Normal tape: 50 – 15,000 Hz		
Signal-to-noise ratio	60 dB (DOLBY NR ON, CrO ₂ tape peak level)		
Tape speed	4.8 cm/sec. (1 $\frac{7}{8}$ ips)		
Recording system	AC bias		
Erasure system	AC erase		
Motor	DC servomotor $\times$ 1		
Heads	Playback head $\times$ 1 (deck 1) Recording/playback/erasure head $\times$ 1 (deck 2)		

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc.
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■ ACCESSORIES/PACKAGE LIST

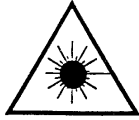
PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q,TY
	1	★81-MX4-905-019	INSTRUCTION BOOKLET H (HE, LH, C, U)	※	1
	2	★81-MX4-906-119	INSTRUCTION BOOKLET H (H)	※	1
	3	★81-MX4-910-019	INSTRUCTION BOOKLET (A92) (HEJN)	※	1
	4	★81-MX4-904-018	INSTRUCTION BOOKLET E (E, Z)	※	1
	5	★81-MX4-907-018	INSTRUCTION BOOKLET H (G) (E, K)	※	1
	6	★81-MX4-911-019	INSTRUCTION BOOKLET C (C)	※	1
	7	★81-MX4-659-010	AM - LOOP ANT NC2 (HE, LH, U, C, Z)	※	1
	8	★87-006-225-010	AM - LOOP ANT NC2 (H)		1
	9	★81-MX4-660-010	AM - LOOP ANT CON2 (E, K)	※	1
	10	★87-056-013-010	GUARAN TEE CARD C (C)		1
	11	★81-748-632-019	FEEDER ANT FMN (HE, LH, H, U, C)		1
	12	★81-748-632-018	FEEDER ANT FMN (E, K, Z)		1
	13	★87-043-106-010	FM, WIRE ANT (Z) (Z)		1
	14	△★87-032-845-010	PLUG, CONVERSION (LH, H)		1
	15	△★87-042-062-010	PLUG, ADAPTOR S - I6115 (HE)		1
	16	★81-MX4-664-010	REMOTE CONTROL RC - TN330 (HE, LH, H, U, C)	※	1
	17	★81-MX4-663-019	REMOTE CONTROL RC - TN330 (EX) (E, K, Z)	※	1
	19	★81-MX4-697-019	REMOTE CONTROL RC - TA92 (HEJN)	※	1

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

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig 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.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1
LASER PRODUCT

LUOKAN 1
LASERLAITE

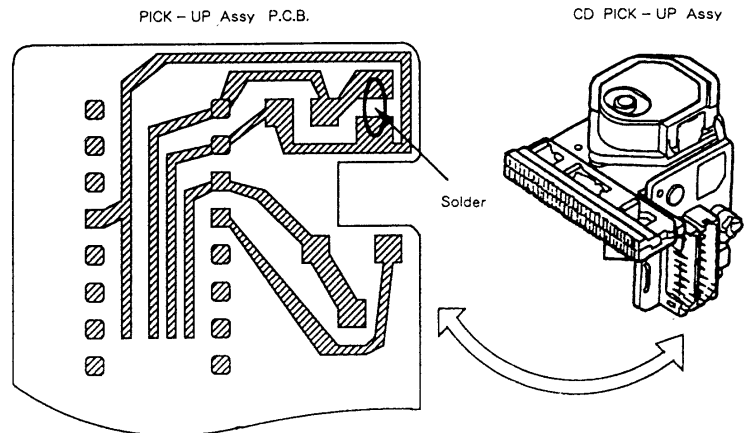
KLASS 1
LASER APPARAT

Precaution to replace Optical block

(KSS - 210A)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.



ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
----------	----------	-------------

===IC===

87-001-440-010	IC, BA15218N
87-002-639-010	IC, BA6296FP
87-002-637-010	IC, BU4051B
87-002-247-010	IC, BU4052B
87-002-282-010	IC, BU4066B
87-002-444-010	IC, BU4094B
87-020-793-010	IC, CXA1081M
87-020-794-110	IC, CXA1082BQ
87-001-944-010	IC, CXD1167Q
87-002-211-010	IC, GP1F32T
87-001-874-010	IC, HA12134A
87-001-942-010	IC, LA1265(S)
87-001-334-010	IC, LB9051A
87-002-394-010	IC, LB1641
81-MX4-633-110	IC, LC67216A-4892
87-002-607-010	IC, LM7001
87-027-735-010	IC, MN-3102
87-027-736-010	IC, MN-3207
87-027-895-010	IC, M5218AL
87-020-758-010	IC, NJM2068SD
87-001-790-010	IC, SBX1610-52 (REMOTE SENSOR)
87-020-966-010	IC, STK4142-MK2
87-020-446-010	IC, TA7343AP
87-027-827-010	IC, TC4069UBP
87-002-644-010	IC, TDA1311T
87-002-218-010	IC, XRC5451AP

===TRANSISTOR===

89-501-615-010	FET, 2SK161GR
89-502-415-010	FET, 2SK241GR
89-502-466-010	FET, 2SK246BL
89-502-464-010	FET, 2SK246Y
89-110-155-010	TRANSISTOR, 2SA1015GR
89-112-965-010	TRANSISTOR, 2SA1296GR
89-113-187-810	TRANSISTOR, 2SA1318TU
87-026-463-010	TRANSISTOR, 2SA933S
89-109-521-010	TRANSISTOR, 2SA952K
89-213-292-010	TRANSISTOR, 2SB1329Q
89-213-702-010	TRANSISTOR, 2SB1370E
87-026-462-010	TRANSISTOR, 2SC1740S
89-318-155-010	TRANSISTOR, 2SC1815GR
89-318-154-010	TRANSISTOR, 2SC1815Y
89-319-233-010	TRANSISTOR, 2SC1923
89-320-011-010	TRANSISTOR, 2SC2001K
89-327-124-010	TRANSISTOR, 2SC2712Y
89-332-665-010	TRANSISTOR, 2SC3266GR
89-333-317-810	TRANSISTOR, 2SC3331
89-406-555-010	TRANSISTOR, 2SD655E
87-026-269-010	TRANSISTOR, DTA114ES
87-026-233-010	TRANSISTOR, DTA114TK
87-026-214-010	TRANSISTOR, DTA114YS
87-026-219-010	TRANSISTOR, DTA144ES
87-026-292-010	TRANSISTOR, DTA144WS
87-026-245-010	TRANSISTOR, DTC114ES
87-026-215-010	TRANSISTOR, DTC114YS
87-026-237-010	TRANSISTOR, DTC124XK
87-026-289-010	TRANSISTOR, DTC143XS
87-026-218-010	TRANSISTOR, DTC144ES
87-026-293-010	TRANSISTOR, DTC144WS

===DIODE===

87-001-574-010	DIODE, 1SR139
87-001-559-010	DIODE, 1SS131
87-020-691-010	DIODE, 1SS132
87-002-225-010	DIODE, 40C-K10
87-020-027-010	DIODE, CHIP 1SS184
87-020-339-010	DIODE, CHIP 1SS226

REF. NO.	PART NO.	DESCRIPTION
----------	----------	-------------

87-002-608-010	DIODE, DSF10TC
87-002-654-010	DIODE, S5566B
87-027-301-010	DIODE, ZENER HZ3A1
87-027-416-010	DIODE, ZENER HZ3C2
87-002-646-010	DIODE, ZENER HZ5C1
87-002-645-010	DIODE, ZENER HZ9A1L
87-002-743-010	DIODE, ZENER MTZJ33B
87-001-916-010	DIODE, ZENER UTZJ10B
87-001-911-010	DIODE, ZENER UTZJ4.7A
87-001-913-010	DIODE, ZENER UTZJ5.6B
87-001-914-010	DIODE, ZENER UTZJ6.2B
87-001-915-010	DIODE, ZENER UTZJ6.8A
87-002-430-010	DIODE, ZENER UTZJ8.2C

===MAIN CIRCUIT BOARD SECTION===

BPF731	★82-794-697-010	FILTER, ANTI BIRDIE(Z)
BPF831	★87-030-105-010	FILTER, BPM86A(Z)
C101	★87-010-399-090	CAP, ELECT 3300-35 SME
C102	★87-010-399-090	CAP, ELECT 3300-35 SME
C103	★87-010-390-090	CAP, ELECT 3300-25 SME
C104	★87-010-980-010	CAP, ELECT 330-16 FS
C105	★87-010-101-010	CAP, ELECT 220-16 SME
C106	★87-010-764-010	CAP, ELECT 47-63
C107	★87-010-384-010	CAP, ELECT 100-25 SME
C108	★87-010-260-010	CAP, ELECT 47-25 (EXCEPT U)
C108	★87-010-384-010	CAP, ELECT 100-25 SME(U)
C109	★87-010-263-010	CAP, ELECT 100-10
C110	★87-010-263-010	CAP, ELECT 100-10
C111	★87-010-370-010	CAP, ELECT 330-6.3 SME
C112	★87-010-260-010	CAP, ELECT 47-25 SME
C113	★87-010-403-010	CAP, ELECT 3.3-50 SME
C114	★87-018-205-010	CAP, CERA-SOL 0.022-25 F
C115	★87-018-208-010	CAP, CERA-SOL 0.047-50 F(Z)
C116	★87-018-127-010	CAP, CERA-SOL 470P-50 B
C117	★87-010-405-010	CAP, ELECT 10-50 SME
C118	★87-018-208-010	CAP, CERA-SOL 0.047-50 F(Z)
C205	★87-016-073-010	CAP, ELECT 1-50 FX
C206	★87-016-073-010	CAP, ELECT 1-50 FX
C207	★87-016-073-010	CAP, ELECT 1-50 FX
C208	★87-016-073-010	CAP, ELECT 1-50 FX
C209	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C210	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C211	★87-010-401-010	CAP, ELECT 1-50 SME
C212	★87-010-401-010	CAP, ELECT 1-50 SME
C213	★87-010-402-010	CAP, ELECT 2.2-50 SME
C214	★87-010-402-010	CAP, ELECT 2.2-50 SME
C215	★87-018-131-010	CAP, CERA-SOL 1000P-50 B
C216	★87-018-131-010	CAP, CERA-SOL 1000P-50 B
C217	★87-010-401-010	CAP, ELECT 1-50 SME
C218	★87-010-401-010	CAP, ELECT 1-50 SME
C221	★87-010-400-010	CAP, ELECT 0.47-50 SME (EXCEPT U, C)
C222	★87-010-400-010	CAP, ELECT 0.47-50 SME (EXCEPT U, C)
C223	★87-010-260-010	CAP, ELECT 47-25 SME
C224	★87-010-260-010	CAP, ELECT 47-25 SME
C227	★87-018-214-010	CAP, CERA-SOL 0.1-50 F
C228	★87-018-214-010	CAP, CERA-SOL 0.1-50 F
C233	★87-010-546-010	CAP, ELECT 0.33-50 SME
C234	★87-010-263-010	CAP, ELECT 100-10
C235	★87-010-260-010	CAP, ELECT 47-25 SME
C236	★87-010-408-010	CAP, ELECT 47-50 SME
C237	★87-010-403-010	CAP, ELECT 3.3-50 SME
C238	★87-010-403-010	CAP, ELECT 3.3-50 SME
C241	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y(Z)
C242	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y(Z)
C243	★87-018-104-010	CAP, CERA-SOL 10P-50 SL
C244	★87-018-104-010	CAP, CERA-SOL 10P-50 SL
C245	★87-010-260-010	CAP, ELECT 47-25 SME

REF. NO.	PART NO.	DESCRIPTION
C246	★87-010-260-010	CAP, ELECT 47-25 SME
C247	★87-018-119-010	CAP, CERA-SOL 100P-50 B
C248	★87-018-119-010	CAP, CERA-SOL 100P-50 B
C303	★87-018-123-010	CAP, CERA-SOL 220P-50 B
C304	★87-018-123-010	CAP, CERA-SOL 220P-50 B
C309	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C310	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C313	★87-018-205-010	CAP, CERA-SOL 0.022-25 F
C314	★87-010-260-010	CAP, ELECT 47-25 SME
C351	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C352	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C353	★87-018-124-010	CAP, CERA-SOL 270P-50 B
C354	★87-018-124-010	CAP, CERA-SOL 270P-50 B
C355	★87-010-260-010	CAP, ELECT 47-25 SME
C361	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C362	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C365	★87-018-205-010	CAP, CERA-SOL 0.022-25 F
C401	★87-010-402-010	CAP, ELECT 2.2-50 SME
C402	★87-010-402-010	CAP, ELECT 2.2-50 SME
C403	★87-018-132-010	CAP, CERA-SOL 2200P-16 X
C404	★87-018-132-010	CAP, CERA-SOL 2200P-16 X
C407	★87-010-401-010	CAP, ELECT 1-50 SME
C408	★87-010-401-010	CAP, ELECT 1-50 SME
C415	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C416	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C451	★87-018-123-010	CAP, CERA-SOL 220P-50 B
C452	★87-018-123-010	CAP, CERA-SOL 220P-50 B
C453	★87-018-131-010	CAP, CERA-SOL 1000P-50 B
C455	★87-018-131-010	CAP, CERA-SOL 1000P-50 B
C456	★87-010-260-010	CAP, ELECT 47-25 SME
C459	★87-018-198-010	CAP, CERA-SOL 2700P-16 X
C501	★87-010-405-010	CAP, ELECT 10-50 SME
C502	★87-010-405-010	CAP, ELECT 10-50 SME
C503	★87-018-195-010	CAP, CERA-SOL 1200P-16 X
C504	★87-018-195-010	CAP, CERA-SOL 1200P-16 X
C505	★87-010-401-010	CAP, ELECT 1-50 SME
C506	★87-010-401-010	CAP, ELECT 1-50 SME
C507	★87-018-131-010	CAP, CERA-SOL 1000P-50 B
C508	★87-018-131-010	CAP, CERA-SOL 1000P-50 B
C509	★87-010-371-010	CAP, ELECT 470-6.3
C515	★87-010-545-010	CAP, ELECT 0.22-50 SME
C516	★87-010-545-010	CAP, ELECT 0.22-50 SME
C517	★87-010-400-010	CAP, ELECT 0.47-50 SME
C518	★87-010-400-010	CAP, ELECT 0.47-50 SME
C520	★87-018-133-010	CAP, CERA-SOL 4700P-16 X
C521	★87-018-100-010	CAP, CERA-SOL 4.7P-50 SL
C522	★87-018-100-010	CAP, CERA-SOL 4.7P-50 SL
C523	★87-018-133-010	CAP, CERA-SOL 4700P-16 X
C524	★87-018-133-010	CAP, CERA-SOL 4700P-16 X
C525	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C526	★87-010-260-010	CAP, ELECT 47-25 SME
C527	★87-010-401-010	CAP, ELECT 1-50 SME
C528	★87-018-100-010	CAP, CERA-SOL 4.7P-50 SL
C581	★87-010-405-010	CAP, ELECT 10-50 SME
C582	★87-010-405-010	CAP, ELECT 10-50 SME
C590	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C601	★87-010-401-010	CAP, ELECT 1-50 SME
C602	★87-010-401-010	CAP, ELECT 1-50 SME
C605	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C606	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C607	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C608	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C609	★87-010-401-010	CAP, ELECT 1-50 SME
C610	★87-010-401-010	CAP, ELECT 1-50 SME
C611	★87-010-404-010	CAP, ELECT 4.7-50 SME
C612	★87-010-404-010	CAP, ELECT 4.7-50 SME
C615	★87-018-198-010	CAP, CERA-SOL 2700P-16 X
C616	★87-018-198-010	CAP, CERA-SOL 2700P-16 X

REF. NO.	PART NO.	DESCRIPTION
C617	★87-018-122-010	CAP, CERA-SOL 180P-50 B
C618	★87-018-122-010	CAP, CERA-SOL 180P-50 B
C621	★87-010-400-010	CAP, ELECT 0.47-50 SME
C622	★87-010-400-010	CAP, ELECT 0.47-50 SME
C623	★87-010-404-010	CAP, ELECT 4.7-50 SME
C624	★87-010-404-010	CAP, ELECT 4.7-50 SME
C628	★87-010-404-010	CAP, ELECT 4.7-50 SME
C630	★87-010-405-010	CAP, ELECT 10-50 SME
C631	★87-010-401-010	CAP, ELECT 1-50 SME
C632	★87-010-401-010	CAP, ELECT 1-50 SME
C633	★87-010-101-010	CAP, ELECT 220-16 SME
C636	★87-010-404-010	CAP, ELECT 4.7-50 SME
C681	★87-010-405-010	CAP, ELECT 10-50 SME
C700	★87-010-221-010	CAP, ELECT 470-10
C701	★87-010-384-010	CAP, ELECT 100-25 SME
C702	★87-010-404-010	CAP, ELECT 4.7-50 SME
C703	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C705	★87-010-248-010	CAP, ELECT 220-10 SME
C706	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C707	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C708	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C710	★87-018-149-010	CAP, CERA-SOL 15P-50 CH
C713	★87-018-199-010	CAP, CERA-SOL 3300P-16 X (EXCEPT U, C)
C714	★87-018-199-010	CAP, CERA-SOL 3300P-16 X (EXCEPT U, C)
C715	★87-018-195-010	CAP, CERA-SOL 1200P-16 X
C716	★87-018-195-010	CAP, CERA-SOL 1200P-16 X
C720	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C721	★87-010-401-010	CAP, ELECT 1-50 SME
C722	★87-010-401-010	CAP, ELECT 1-50 SME
C723	★87-010-405-010	CAP, ELECT 10-50 SME
C724	★87-014-057-010	CAP, PP 1000P-100 J
C725	★87-010-401-010	CAP, ELECT 1-50 SME
C726	★87-010-403-010	CAP, ELECT 3.3-50 SME
C727	★87-010-248-010	CAP, ELECT 220-10 SME
C728	★87-010-402-010	CAP, ELECT 2.2-50 SME
C729	★87-010-402-010	CAP, ELECT 2.2-50 SME
C741	★87-010-402-010	CAP, ELECT 2.2-50 SME
C742	★87-018-125-010	CAP, CERA-SOL 330P-50 B
C743	★87-010-382-010	CAP, ELECT 22-25 SME
C744	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C745	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C746	★87-010-401-010	CAP, ELECT 1-50 SME
C748	★87-010-404-010	CAP, ELECT 4.7-50 SME
C749	★87-010-405-010	CAP, ELECT 10-50 SME
C750	★87-010-544-010	CAP, ELECT 0.1-50
C751	★87-010-403-010	CAP, ELECT 3.3-50 SME
C752	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C754	★87-010-260-010	CAP, ELECT 47-25 SME
C755	★87-010-401-010	CAP, ELECT 1-50 SME
C756	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C760	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y (EXCEPT Z)
C802	★87-018-102-010	CAP, CERA-SOL 6.8P-50 SL (HE, LH, E, K)
C802	★87-018-097-010	CAP, CERS-SOL 2.2P-50 SL (H)
C802	★87-018-105-010	CAP, CERA-SOL 12P-50 SL (U, C, Z)
C804	★87-018-102-010	CAP, CERA-SOL 6.8P-50 SL (EXCEPT Z)
C805	★87-018-098-010	CAP, CERA-SOL 3.3P-50 SL (EXCEPT Z)
C805	★87-018-097-010	CAP, CERA-SOL 2.2P-50 SL (Z)
C806	★87-018-096-010	CAP, CERA-SOL 1P-50 SL
C807	★87-018-100-010	CAP, CERA-SOL 4.7P-50 SL (EXCEPT Z)
C807	★87-018-106-010	CAP, CERA-SOL 30P-50 SL (Z)
C808	★87-018-119-010	CAP, CERA-SOL 100P-50 B
C809	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C810	★87-018-134-010	CAP, CERA-SOL 0.01-16 Y
C811	★87-018-116-010	CAP, CERA-SOL 56P-50 SL (EXCEPT H)
C811	★87-018-106-010	CAP, CERA-SOL 15P-50 SL (H)
C812	★87-018-107-010	CAP, CERA-SOL 18P-50 SL (EXCEPT H)

REF. NO.	PART NO.	DESCRIPTION
C812	★87-018-102-010	CAP, CERA-SOL 6. 8P-50 SL (H)
C813	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
C814	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
C815	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
C816	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y (Z)
C817	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
C818	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
C819	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
C820	★87-010-260-010	CAP, ELECT 47-25 SME
C821	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
C822	★87-018-103-010	CAP, CERA-SOL 8. 2P-50 SL
C823	★87-018-107-010	CAP, CERA-SOL 18P-50 SL
C826	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y (E, K, Z)
C830	★87-018-214-010	CAP, CERA-SOL 0. 1-50 F (E, K)
C830	★87-018-134-019	CAP, CERA-SOL 0. 01-16 Y (Z)
C831	★87-018-102-010	CAP, CERS-SOL 6. 8P-50 SL (HE, LH, E, K)
C831	★87-018-097-010	CAP, CERA-SOL 2. 2P-50 SL (H)
C831	★87-018-105-010	CAP, CERA-SOL 12P-50 SL (U, C, Z)
C832	★87-018-108-010	CAP, CERA-SOL 20P-50 SL (Z)
C833	★87-018-205-010	CAP, CERA-SOL 0. 022-25 F (Z)
C834	★87-018-103-010	CAP, CERA-SOL 8. 2P-50 SL (Z)
C839	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y (EXCEPT C)
C941	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y (E, K, Z)
C942	★87-018-105-010	CAP, CERA-SOL 12P-50 SL (E, K)
C942	★87-018-104-010	CAP, CERA-SOL 10P-50 SL (Z)
C944	★87-018-105-010	CAP, CERA-SOL 12P-50 SL (HE, LH, H, U, C)
C944	★87-018-104-010	CAP, CERA-SOL 10P-50 SL (E, K, Z)
C945	★87-014-050-010	CAP, CERA-SOL 510P-100 PP (E, K, Z)
C946	★87-010-401-010	CAP, ELECT 1-50 SME
C949	★87-018-214-010	CAP, CERA-SOL 0. 1-50 F (E, K, Z)
C983	★87-010-544-010	CAP, ELECT 0. 1-50
C990	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
CF741	★82-794-670-010	CF BFU450C4N
CF801	★87-008-261-010	FILTER, SFE10. 7MA5-A (EXCEPT Z)
CF801	★87-799-621-010	FILTER, SFE10. 7MS2-A (Z)
CF802	★87-008-261-010	FILTER, SFE10. 7MA5-A
CF803	★87-008-261-010	FILTER, SFE10. 7MA5-A (Z)
FT101	★81-MX4-645-110	FLAT CABLE, 7P-2. 0
J250	87-049-855-010	JACK, 6. 3 W/S
J253	★80-MT3-616-010	JACK, PIN 2P (SURROUND SPEAKERS)
J254	★87-033-215-010	TERMINAL SP 4P R (SPEAKERS)
J652	★80-MT3-616-010	JACK, PIN 2P (AUX)
J801	★87-033-214-010	ANT TERM 4P (HE, LH, H, U, C)
J801	★81-631-6460919	ANT TERM 2P PAL (E, K, Z)
J902	★81-754-629-010	CONNECTOR XH M 2P (UL) (E, K)
L201	★87-005-336-019	COIL, 1UH (Z)
L202	★87-005-336-019	COIL, 1UH (Z)
L401	★82-194-634-010	COIL, 10MMH
L402	★82-194-634-010	COIL, 10MMH
L403	★87-005-525-010	COIL, 22MMH-J
L404	★87-005-525-010	COIL, 22MMH-J
L451	★87-007-300-010	COIL, OSC BIAS 85K
L701	★81-631-643-010	COIL
L702	★81-631-643-010	COIL
L741	★81-631-611-010	COIL, QUAD
L742	★87-008-452-010	FILTER, CFAZ450
L801	★87-006-219-010	COIL, ANT FM 3/4T, S
L802	★87-006-198-010	COIL, ANT FM 2-3/4 TS, L5 (EXCEPT H)
L802	★87-006-218-010	COIL, ANT FM 3-3/4 TS (H)
L803	★87-006-200-010	COIL, RF FM 3-1/2T, L5
L804	★87-006-220-010	COIL, RF FM 3-1-2 TS, L5 (EXCEPT H)
L804	★87-006-217-010	COIL, RF FM 4-1/2 TS (H)
L805	★87-003-098-010	COIL, 2. 2UH
L806	★87-003-145-010	COIL, 8. 2UH LAL02
L807	★87-007-259-010	COIL, OSC FM (EXCEPT H)
L807	★87-006-215-010	COIL, OSC FM (7K) D (H)
L831	★87-006-202-010	COIL, RF FM46SR, L5 (Z)

R105	★87-022-050-019	RES, METAL 1W-0. 22J
R106	★87-022-050-019	RES, METAL 1W-0. 22J
L832	★87-003-098-010	COIL, 2. 2UH
L941	★87-006-206-010	COIL, ANT LW (E, K, Z)
L942	★87-007-305-010	COIL, OSC LW P (12017X) (E, K, Z)
R243	★87-022-050-010	RES, METAL 1W-0. 22J (EXCEPT U, C)
R244	★87-022-050-010	RES, METAL 1W-0. 22J (EXCEPT U, C)
R257	★87-022-391-010	RES, M/F 0. 47-1W (EXCEPT U, C)
R258	★87-022-391-010	RES, M/F 0. 47-1W (EXCEPT U, C)
RY101	★87-045-335-010	RELAY, G5Z-2A 12VDC
SFR301	★87-024-168-010	SFR, 1K DIA6V
SFR302	★87-024-168-010	SFR, 1K DIA6V
SFR351	★87-024-168-010	SFR, 1K DIA6V
SFR352	★87-024-168-010	SFR, 1K DIA6V
SFR401	★87-024-171-010	SFR, 4. 7K DIA6V
SFR402	★87-024-171-010	SFR, 4. 7K DIA6V
SFR451	★87-024-175-010	SFR, 47K DIA6V
SFR452	★87-024-175-010	SFR, 47K DIA6V
SFR571	★87-024-171-010	SFR, 4. 7K DIA6V
SFR721	★87-024-171-010	SFR, 4. 7K DIA6V
SFR722	★87-024-174-010	SFR, 33K DIA6V
TC701	★87-011-221-010	TRIMMER, 30P VCT 51
TC801	★87-011-219-010	CAP TRIMMER 10P
TC802	★87-011-219-010	CAP TRIMMER 10P
TC803	★87-011-219-010	CAP TRIMMER 10P (Z)
TC942	★87-011-221-010	CAP TRIMMER 30P VCT51 (E, K, Z)
TU101	★81-MX4-618-010	AM PACK 3 (EXCEPT H)
TU101	★81-MX4-619-010	AM PACK 4 (H)
VC801	★87-027-900-010	VARI-CAP, 1SV147 (EXCEPT H)
VC801	★87-002-730-010	VARI-CAP, SVC203 (H)
VC802	★87-027-900-010	VARI-CAP, 1SV147 (EXCEPT H)
VC802	★87-002-730-010	VARI-CAP, SVC203 (H)
VC803	★87-027-900-010	VARI-CAP, 1SV147 (EXCEPT H)
VC803	★87-002-730-010	VARI-CAP, SVC203 (H)
VC804	★87-002-730-010	VARI-CAP, SVC203 (Z)
VR651	★81-MX4-636-010	VR, 50KBX2 (AUX INPUT LEVEL)
X701	★87-030-163-010	RESONATOR, CRYSTAL 7. 2MHZ

===FRONT CIRCUIT BOARD SECTION===

C201	★87-010-264-010	CAP, ELECT 100-10 5L
C202	★87-016-088-040	CAP, ELECT 220-6. 3 SR
C203	★87-015-695-010	CAP, ELECT 1-50 7L
C204	★87-010-071-010	CAP, ELECT 1-50 5L
C205	★87-015-698-010	CAP, ELECT 4. 7-50 7L
C206	★87-015-698-010	CAP, ELECT 4. 7-50 7L
C207	★87-015-698-010	CAP, ELECT 4. 7-50 7L
C208	★87-018-214-010	CAP, CERA-SOL 0. 1-50 F
C209	★87-018-195-010	CAP, CERA-SOL 1200P-16 X
C210	★87-018-195-010	CAP, CERA-SOL 1200P-16 X
C401	★87-018-134-010	CAP, CERA-SOL 0. 01-16 Y
C402	★87-010-404-010	CAP, ELECT 4. 7-50 SME
C501	★87-010-060-010	CAP, ELECT 100-16
C601	★87-018-205-010	CAP, CERA-SOL 0. 022-25 F
C602	★87-018-202-010	CAP, CERA-SOL 6800P-16 X
C603	★87-018-202-010	CAP, CERA-SOL 6800P-16 X
C604	★87-018-202-010	CAP, CERA-SOL 6800P-16 X
C605	★87-018-202-010	CAP, CERA-SOL 6800P-16 X
C606	★87-018-198-010	CAP, CERA-SOL 2700P-16 X
C607	★87-018-198-010	CAP, CERA-SOL 2700P-16 X
C608	★87-018-129-010	CAP, CERA-SOL 680P-50 B
C609	★87-018-129-010	CAP, CERA-SOL 680P-50 B
C610	★87-018-124-010	CAP, CERA-SOL 270P-50 B
C611	★87-018-124-010	CAP, CERA-SOL 270P-50 B
C612	★87-010-068-010	CAP, ELECT 0. 22-50 5L
C613	★87-010-068-010	CAP, ELECT 0. 22-50 5L
C614	★87-010-068-010	CAP, ELECT 0. 22-50 5L
C615	★87-010-545-010	CAP, ELECT 0. 22-50 SME
C616	★87-010-068-010	CAP, ELECT 0. 22-50 5L
C617	★87-015-689-010	CAP, ELECT 10-35 7L
C618	★87-015-689-010	CAP, ELECT 10-35 7L

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
C701	★87-018-195-010	CAP, CERA-SOL 1200P-16 X	C7	★87-010-197-010	CAP, CHIP S 0.01-25 B
C702	★87-015-695-010	CAP, ELECT 1-50 7L	C8	★87-010-248-010	CAP, ELECT 220-10 SME
C703	★87-010-401-010	CAP, ELECT 1-50 SME	C9	★87-010-193-010	CAP, CHIP S 0.033-25 F
C704	★87-018-125-010	CAP, CERA-SOL 330P-50 B	C10	★87-010-188-010	CAP, CHIP S 6800P-50 B
C705	★87-010-545-010	CAP, ELECT 0.22-50 SME	C11	★87-010-198-010	CAP, CHIP S 0.022-25 B
C706	★87-018-128-010	CAP, CERA-SOL 560P-50 B	C12	★87-010-193-010	CAP, CHIP S 0.033-25 F
C707	★87-010-263-010	CAP, ELECT 100-10	C13	★87-010-193-010	CAP, CHIP S 0.033-25 F
C708	★87-010-544-010	CAP, ELECT 0.1-50	C14	★87-010-197-010	CAP, CHIP S 0.01-25 B
C710	★87-018-214-010	CAP, CERA-SOL 0.1-50 F	C15	★87-010-263-010	CAP, ELECT 100-10
FL101	★81-MX4-631-010	FL, BJO246K	C16	★87-010-197-010	CAP, CHIP S 0.01-25 B
FT103	★81-MX4-653-010	CABLE, FFC 1.25-13P	C17	★87-010-248-010	CAP, ELECT 220-10 SME
J701	81-MX4-630-010	JACK, 3.5(MIC)	C18	★87-010-400-010	CAP, ELECT 0.47-50 SME
LED101	87-002-738-010	LED, SEL2210R(VOCAL FADER)	C19	★87-010-197-010	CAP, CHIP S 0.01-25 B
LED401	87-002-738-010	LED, SEL2210R(TAPE/DECK1/2)	C20	★87-010-197-010	CAP, CHIP S 0.01-25 B
LED402	87-002-738-010	LED, SEL2210R(TUNER/BAND)	C21	★87-010-182-010	CAP, CHIP S 2200P-50 B
LED403	87-002-738-010	LED, SEL2210R(AUX)	C22	★87-010-197-010	CAP, CHIP S 0.01-25 B
LED404	87-002-738-010	LED, SEL2210R(CD)	C25	★87-010-405-010	CAP, ELECT 10-50 SME
LED405	89-VW5-606-010	LED, SLH38MC(STOP■)	C27	★87-010-382-010	CAP, ELECT 22-25 SME
LED406	89-VW5-606-010	LED, SLH38MC(DOWN▶▶)	C28	★87-010-382-010	CAP, ELECT 22-25 SME
LED407	89-VW5-606-010	LED, SLH38MC(PLAY/DIRECTION▶)	C29	★87-010-403-010	CAP, ELECT 3.3-50 SME
LED408	89-VW5-606-010	LED, SLH38MC(PLAY/DIRECTION◀)	C32	★87-010-197-010	CAP, CHIP S 0.01-25 B
LED409	89-VW5-606-010	LED, SLH38MC(UP◀◀)	C33	★87-010-400-010	CAP, ELECT 0.47-50 SME
LED410	89-VW5-606-010	LED, SLH38MC(PAUSE■)	C35	★87-010-178-010	CAP, CHIP S 1000P-50 B
R511	★87-025-470-010	RES, NF 3.3-1/4W J	C36	★87-010-260-010	CAP, ELECT 47-25 SME
S101	87-036-243-010	PUSH SW(VOCAL FADER)	C37	★87-010-401-010	CAP, ELECT 1-50 SME
S301	87-036-215-010	TACT SW(PAUSE, DECK2/CD)	C38	★87-010-186-010	CAP, CHIP S 4700P-50 B
S302	87-036-215-010	TACT SW(RECORD)(REC MUTE)	C39	★87-010-401-010	CAP, ELECT 1-50 SME
S303	87-036-215-010	TACT SW(HIGH)	C40	★87-015-819-010	CAP, CHIP 0.01 BK
S304	87-036-215-010	TACT SW(NORMAL)	C41	★87-010-318-010	CAP, CHIP S 47P-50 CH
S305	87-036-215-010	TACT SW(TUNING)	C42	★87-010-318-010	CAP, CHIP S 47P-50 CH
S306	87-036-215-010	TACT SW(PRESET)	C43	★87-010-318-010	CAP, CHIP S 47P-50 CH
S307	87-036-215-010	TACT SW(CLOCK)	C44	★87-010-314-010	CAP, CHIP S 22P-50 CH
S308	87-036-215-010	TACT SW(AM, FM MODE)	C45	★87-010-315-010	CAP, CHIP S 27P-50 CH
S309	87-036-215-010	TACT SW(UP◀◀)	C51	★87-010-197-010	CAP, CHIP S 0.01-25 B
S310	87-036-215-010	TACT SW(DOWN▶▶)	C52	★87-010-263-010	CAP, ELECT 100-10
S311	87-036-215-010	TACT SW(PLAY/DIRECTION◀▶)	C53	★87-010-318-010	CAP, CHIP S 47P-50 CH
S312	87-036-215-010	TACT SW(STOP■)(CLEAR)	C54	★87-010-318-010	CAP, CHIP S 47P-50 CH
S313	87-036-215-010	TACT SW(AUTO)	C55	★87-010-318-010	CAP, CHIP S 47P-50 CH
S314	87-036-215-010	TACT SW(DISPLAY)	C56	★87-010-196-010	CAP, CHIP S 0.1-25 F
S315	87-036-215-010	TACT SW(OPEN/CLOSE)	C57	★87-010-197-010	CAP, CHIP S 0.01-25 B
S316	87-036-215-010	TACT SW(RANDOM)	C61	★87-010-197-010	CAP, CHIP S 0.01-25 B
S317	87-036-215-010	TACT SW(CLASSIC)	C62	★87-010-248-010	CAP, ELECT 220-10 SME
S318	87-036-215-010	TACT SW(PRGM)	C65	★87-010-405-010	CAP, ELECT 10-50 SME
S320	87-036-215-010	TACT SW(REPEAT)	C66	★87-010-405-010	CAP, ELECT 10-50 SME
S321	87-036-215-010	TACT SW(POPS)	C67	88-700-820-810	CAP, MYLER 0.015-50 J
S322	87-036-215-010	TACT SW(T-BASS)	C68	88-700-820-810	CAP, MYLER 0.015-50 J
S323	87-036-215-010	TACT SW(BBE)	C69	★87-010-178-010	CAP, CHIP S 1000P-50 B
S324	87-036-215-010	TACT SW(ROCK)	C70	★87-010-178-010	CAP, CHIP S 1000P-50 B
S325	87-036-215-010	TACT SW(CD)	C80	★87-010-196-010	CAP, CHIP S 0.1-25 F
S326	87-036-215-010	TACT SW(TAPE/DECK1/2)	C81	★87-010-221-010	CAP, ELECT 470-10
S327	87-036-215-010	TACT SW(TUNER/BAND)	C82	★87-010-197-010	CAP, CHIP S 0.01-25 B
S328	87-036-215-010	TACT SW(AUX)	C83	★87-010-196-010	CAP, CHIP S 0.1-25 F
S329	87-036-215-010	TACT SW(REV MODE)	C84	★87-010-196-010	CAP, CHIP S 0.1-25 F
S330	87-036-215-010	TACT SW(DOLBY NR)	C85	★87-010-196-010	CAP, CHIP S 0.1-25 F
S331	87-036-215-010	TACT SW(SLEEP)	C86	★87-010-248-010	CAP, ELECT 220-10 SME
S332	87-036-215-010	TACT SW(STANDBY)	C87	★87-010-197-010	CAP, CHIP S 0.01-25 B
S333	87-036-215-010	TACT SW(POWER STANDBY/ON)	C88	★87-010-221-010	CAP, ELECT 470-10
VR701	81-MX4-637-010	VR, 10KA RK11K1130(MIXING)	C89	★87-010-197-010	CAP, CHIP S 0.01-25 B
VR702	81-MX4-638-010	VR, SL10KB(HE, H ONLY)(ECHO VOLUME)	C90	★87-010-404-010	CAP, ELECT 4.7-50 SME
X201	89-MX1-704-010	CERA LOCK(MU)3.9MHZ	C100	★87-010-260-010	CAP, ELECT 47-25 SME
===CD CIRCUIT BOARD SECTION===			C101	★87-010-196-010	CAP, CHIP S 0.1-25 F
C1	★88-700-660-810	CAP, MYLER 2200P-50 J	C102	★87-010-221-010	CAP, ELECT 470-10
C2	★87-010-146-010	CAP, CHIP S 2P-50 CH	C103	★87-010-197-010	CAP, CHIP S 0.01-25 B
C3	★87-010-154-010	CAP, CHIP S 10P-50 CH	C104	★87-010-197-010	CAP, CHIP S 0.01-25 B
C4	★87-010-263-010	CAP, ELECT 100-10	C105	★87-010-196-010	CAP, CHIP S 0.1-25 F
C5	★87-010-178-010	CAP, CHIP S 1000P-50 B	C106	★87-010-197-010	CAP, CHIP S 0.01-25 B
C6	★87-010-382-010	CAP, ELECT 22-25 SME	C107	★87-010-263-010	CAP, ELECT 100-10
			C108	★87-010-197-010	CAP, CHIP S 0.01-25 B

REF. NO.	PART NO.	DESCRIPTION
C109	★87-010-197-010	CAP, CHIP S 0.01-25 B
C110	★87-010-197-010	CAP, CHIP S 0.01-25 B
C111	★87-010-197-010	CAP, CHIP S 0.01-25 B
C112	★87-010-384-010	CAP, ELECT 100-25 SME
C113	★87-010-322-010	CAP, CHIP S 100P-50 CH
C114	★87-010-322-010	CAP, CHIP S 100P-50 CH
C115	★87-010-318-010	CAP, CHIP S 47P-50 CH
C116	★87-012-156-010	CAP, CHIP S 220P-50 CH
C215	★87-010-405-010	CAP, ELECT 10-50 SME
EM1	★87-008-474-010	FERRITE BEAD, EMI BL02RN1
L1	★87-003-295-010	COIL, 10UH
L2	★87-003-295-010	COIL, 10UH
L3	★87-003-295-010	COIL, 10UH
R28	★87-022-214-010	C-RES, S 100K-1/10WF
R29	★87-022-214-010	C-RES, S 100K-1/10WF
SFR1	★87-024-173-010	SFR, 22K DIA6V
SFR2	★87-024-173-010	SFR, 22K DIA6V
SFR3	★87-024-173-010	SFR, 22K DIA6V
SFR4	★87-024-168-010	SFR, 1K DIA6V
X1	★87-030-270-010	RESONATOR, CRYSTAL 16.9344MHZ MHZ

===MVR CIRCUIT BOARD SECTION===

C851	★87-010-401-010	CAP, ELECT 1-50 SME
C852	★87-010-401-010	CAP, ELECT 1-50 SME
C855	★87-018-199-010	CAP, CERA-SOL 3300P-16 X
C856	★87-018-199-010	CAP, CERA-SOL 3300P-16 X
C857	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C858	★87-018-121-010	CAP, CERA-SOL 150P-50 B
C863	★87-018-129-010	CAP, CERA-SOL 680P-50 B
C864	★87-018-129-010	CAP, CERA-SOL 680P-50 B
C865	★87-010-404-010	CAP, ELECT 4.7-50 SME
C866	★87-010-404-010	CAP, ELECT 4.7-50 SME
C867	★87-010-401-010	CAP, ELECT 1-50 SME
C868	★87-010-401-010	CAP, ELECT 1-50 SME
C869	★87-010-544-010	CAP, ELECT 0.1-50
C870	★87-010-263-010	CAP, ELECT 100-10
C871	★87-010-263-010	CAP, ELECT 100-10
C872	★87-018-205-010	CAP, CERA-SOL 0.022-25 F
C873	★87-018-123-010	CAP, CERA-SOL 220P-50 B
C874	★87-018-123-010	CAP, CERA-SOL 220P-50 B
C875	★87-018-119-010	CAP, CERA-SOL 100P-50 B(EXCEPT Z)
C876	★87-018-119-010	CAP, CERA-SOL 100P-50 B(EXCEPT Z)
C877	87-018-115-019	CAP, CERA-SOL 47P(EXCEPT Z)
C878	87-018-115-019	CAP, CERA-SOL 47P(EXCEPT Z)
MVR850	81-MX4-635-010	VR, 50KBX2 (VOLUME)

===AC CIRCUIT BOARD SECTION===

FT102	81-MX4-647-010	F-CABEL, 7P-2.5
R101	★87-022-394-010	RES, NF 0.47-1/4W
R102	★87-022-394-010	RES, NF 0.47-1/4W

===MOTOR-1 CIRCUIT BOARD SECTION===

M1	9X-262-513-210	SLED MOTOR ASSY(SLED)
M2	+	SLED MOTOR ASSY(SPINDLE)
SW1	91-572-085-110	LEAF SW(INSIDE LIMIT)

===MOTOR-2 CIRCUIT BOARD SECTION===

C91	★87-010-137-010	CAP, ELECT 22-16 BP
M3	9X-262-511-710	MOTOR ASSY(LOADING)
SW2	91-572-086-110	LEAF SW(OPEN/CLOSE)
SW3	91-572-086-110	LEAF SW(CLOSE)

===DECK-1 CIRCUIT BOARD SECTION===

S1	87-036-110-019	LEAF SW(PLAY)
S2	86-575-632-110	LEAF SW(FR)
S3	87-036-110-019	LEAF SW(CST)
S4	87-036-110-019	LEAF SW(Cr02)
SOL1	★86-575-622-010	SOLENOID(PLAY)
SOL2	★86-575-622-010	SOLENOID(FR)

REF. NO.	PART NO.	DESCRIPTION
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===DECK-2 CIRCUIT BOARD SECTION===

M1	87-045-319-019	MOTOR SHU2L
S1	87-036-110-019	LEAF SW(PLAY)
S2	86-575-632-110	LEAF SW(FR)
S3	87-036-110-019	LEAF SW(CST)
S4	87-036-110-019	LEAF SW(Cr02)
S5	87-036-109-019	LEAF SW(REA)
S6	87-036-110-019	LEAF SW(REB)
SFR2	★87-024-331-019	SFR 5K
SOL1	★86-575-622-010	SOLENOID(PLAY)
SOL2	★86-575-622-010	SOLENOID(FR)

===RELAY-1 CIRCUIT BOARD SECTION===

===RELAY-2 CIRCUIT BOARD SECTION===

===ECHO CIRCUIT BOARD SECTION===

C801	★87-018-119-019	CAP, SERA-SOL 100P-50B
C802	★87-019-544-019	CAP, ELECT 0.1-50
C803	★87-018-125-019	CAP, CERA-SOL 330P-50 B
C804	★87-018-128-019	CAP, CERA-SOL 560P-50 B
C805	★87-010-545-019	CAP, ELECT 0.22-50 SME
C806	★87-010-406-019	CAP, ELECT 22-50 SME
C807	★87-018-127-019	CAP, CERA-SOL 470P-50 B
C808	★87-018-196-019	CAP, CERA-SOL 1500P-16 X
C809	★87-018-196-019	CAP, CERA-SOL 1500P-16 X
C810	★87-018-197-019	CAP, CERA-SOL 1800P-16 X
C811	★87-018-128-019	CAP, CERA-SOL 560P-50 B
C812	★87-010-544-019	CAP, ELECT 0.1-50 SME
C813	★87-010-544-019	CAP, ELECT 0.1-50 SME
C814	★87-018-111-019	CAP, CERA-SOL 270P-50 B
C815	★87-018-403-019	CAP, ELECT 3.3-50 SME
C816	★87-010-263-019	CAP, ELECT 100-10
C817	★87-018-125-019	CAP, CERA-SOL 330P-50 B
C818	★87-010-400-019	CAP, ELECT 0.47-50 SME
C819	★87-018-134-019	CAP, CERA-SOL 0.01-16 Y

===AC VOLTAGE CIRCUIT BOARD SECTION===

SW101	87-036-229-019	SLIDE SW(AC VOLTAGE) (LH, HE)
SW101	87-036-235-019	SLIDE SW(AC VOLTAGE) (H, U, C)
△F101	87-035-414-019	FUSE, T2A 250V UL(H, LH, HE, U)

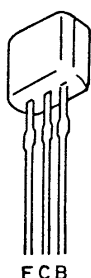
===MISCELLANEOUS===

△	98-848-127-110	OPTICAL PICK UP KSS-210A
△	★87-034-749-019	AC CORD(H) W/PLUG(H, LH)
△	★82-187-797-019	AC CORD(E) (HE)
△	★87-034-584-019	AC CORD, U SPT2(U)
△	★87-034-781-019	AC CORD(E) (E, Z)
△	★87-034-592-018	AC CORD(K) (K)
△	★87-085-185-010	BUSHING, AC CORD E(H, HE, E, K, Z)
△	★87-085-184-010	BUSHING, AC CORD D(LH)
△	★87-085-189-010	BUSHING, AC CORD U(U)
CON301	★80-MK2-623-019	CONNECTOR ASSY HEAD[PBJ] (D1)
CON351	★89-MK1-657-019	CONNECTOR ASSY HEAD 2(D2)
PH	★87-046-355-010	P HEAD (D1)
RPH	★87-046-356-010	R. P. E HEAD (D2)
△PT101	★81-MX4-627-019	POWER TRANSFORMER, IMX4 H(LH, HE)
△PT101	★81-MX4-727-019	POWER TRANSFORMER, IMX H(H)
△PT101	★81-MX4-623-019	POWER TRANSFORMER, IMX4 U(U, C)
△PT101	★81-MX4-624-018	POWER TRANSFORMER, IMX4 E(E, Z)
△PT101	★81-MX4-625-018	POWER TRANSFORMER, IMX4 K(K)

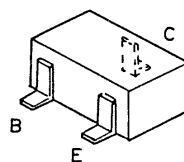
TRANSISTOR ILLUSTRATION



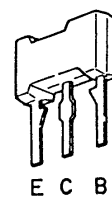
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2SA1318
2SA952
2SC1815
2SC1923
2SC2001
2SC3266
2SC3331
2SD655



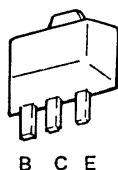
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2SC1740
DTA114ES
DTA114YS
DTA144
DTC114
DTC143
DTC144



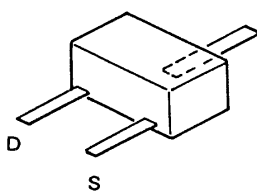
2SC2712
DTA114TK
DTC124



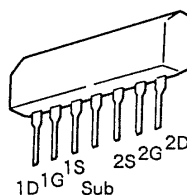
2SB1329



2SB1370



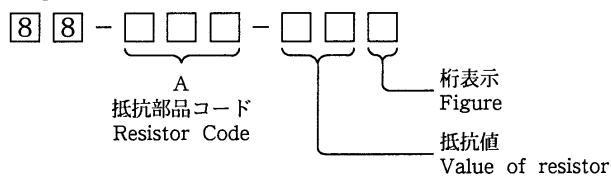
2SK161



2SK241
2SK246

○ 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

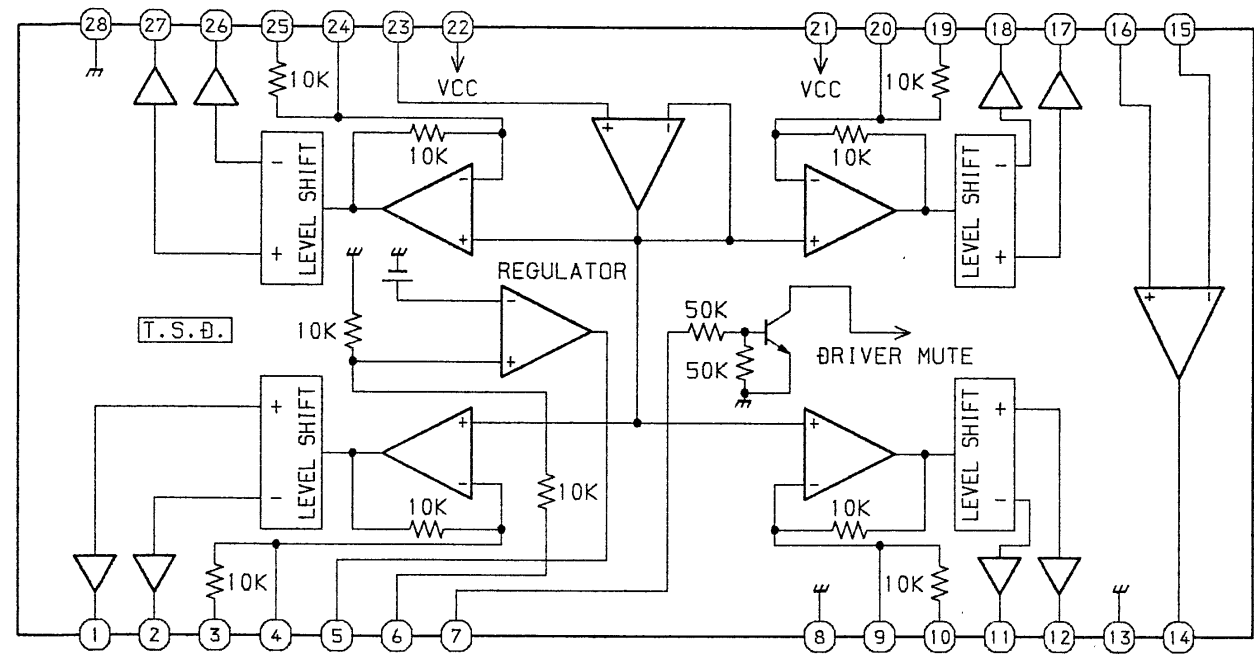


チップ抵抗
Chip resistor

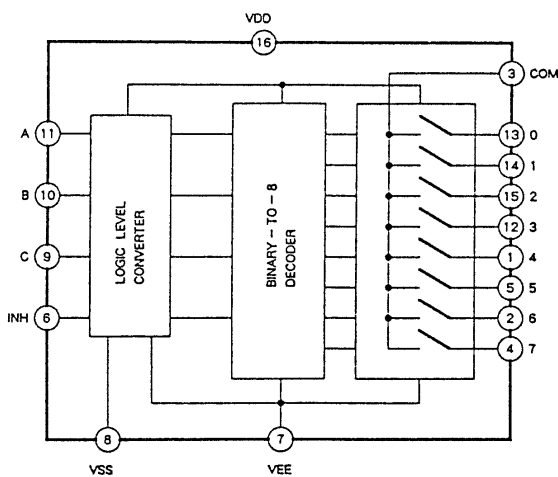
Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions／寸法 (mm)				Resistor Code : A 抵抗コード : A
				Form/外形	L	W	t	
1/32W	1608	± 5 %	CJ		1.6	0.8	0.35	108
1/10W	2125	± 5 %	CJ		2	1.25	1.45	118
1/8W	3126	± 5 %	CJ		3.2	1.6	0.5 ~0.7	128

IC BLOCK DIAGRAM

IC, BA6296FP



IC, BU4051B

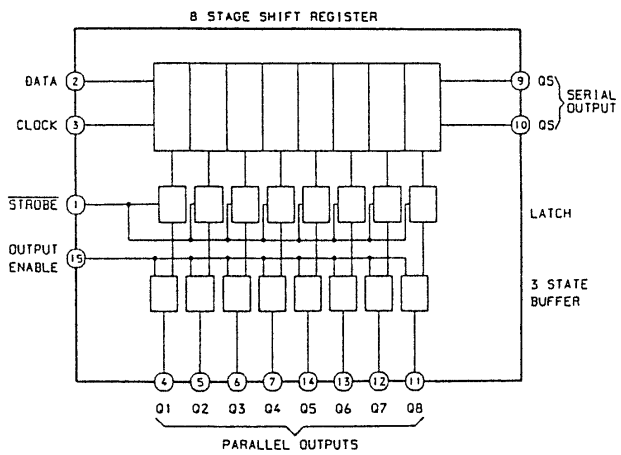


TRUTH TABLE

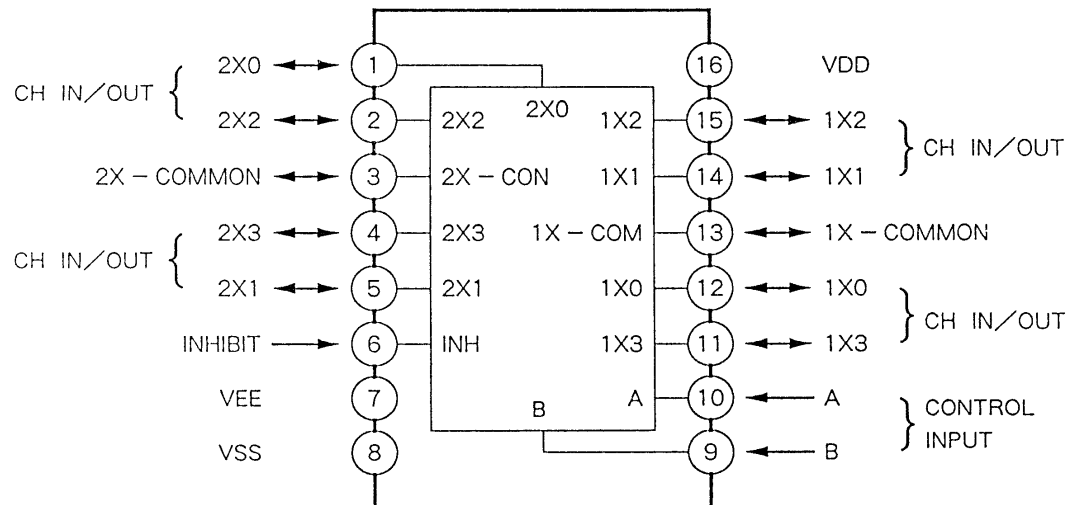
CONTROL INPUTS				"ON"
INHIBIT	C	B	A	CHANNEL
L	L	L	L	0
L	L	L	H	1
L	L	H	L	2
L	L	H	H	3
L	H	L	L	4
L	H	L	H	5
L	H	H	L	6
L	H	H	H	7
H	*	*	*	NOTE

* Don't Care

IC, BU4094B



IC, BU4052B

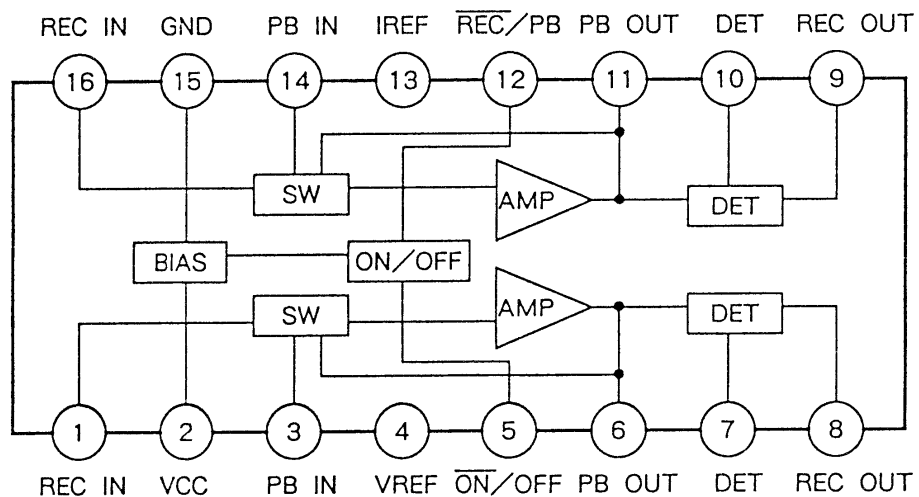


The arrow at each pin shows signal in/out.

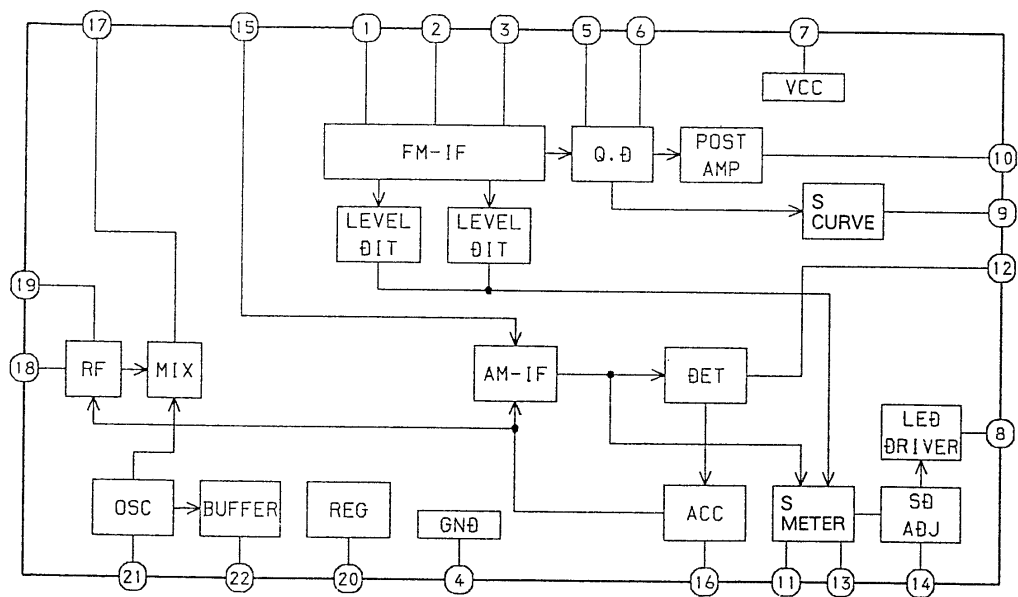
TRUTH TABLE

INHIBIT INPUT	CONTROL INPUT		SWITCHES BETWEEN CHANNEL INPUT/OUTPUT COMMON PINS			
	B	A	X0	X1	X2	X3
L	L	L	ON	OFF	OFF	OFF
L	L	H	OFF	ON	OFF	OFF
L	H	L	OFF	OFF	ON	OFF
L	H	H	OFF	OFF	OFF	ON
H	X	X	OFF	OFF	OFF	OFF

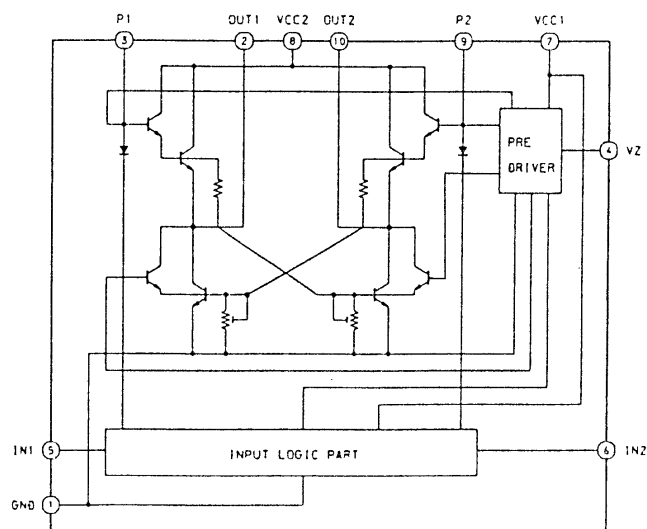
IC, HA12134A



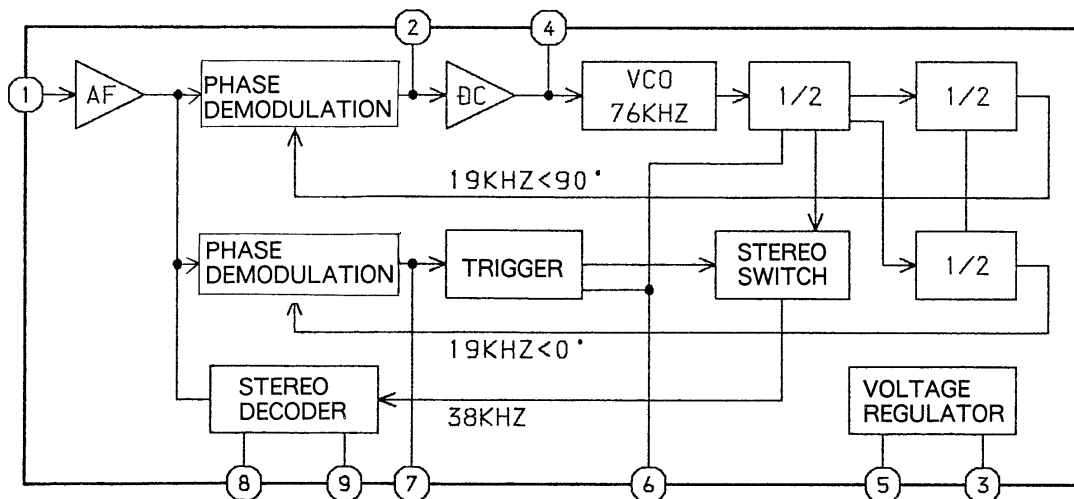
IC, LA1265



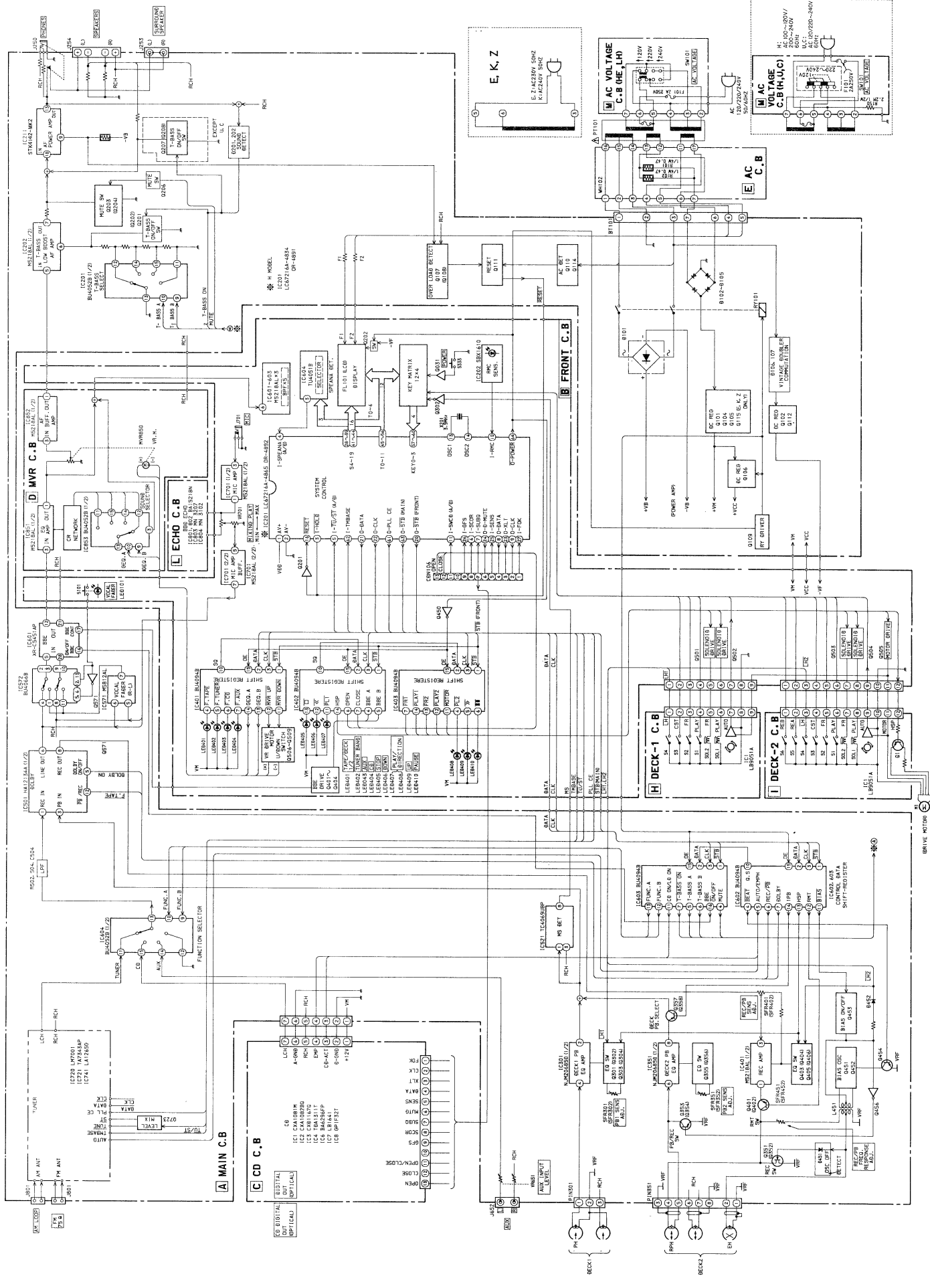
IC, LB1641



IC, TA7343AP



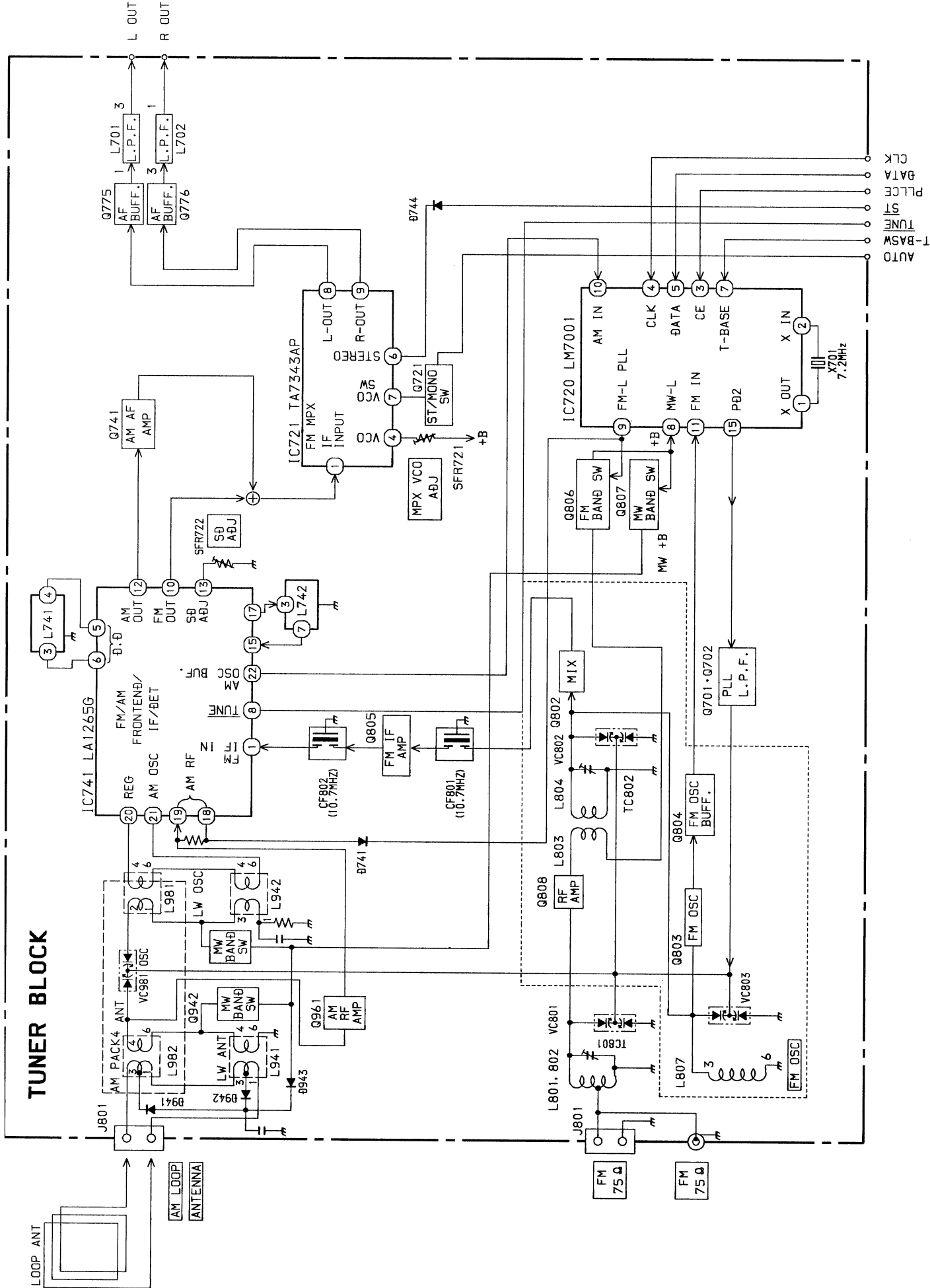
BLOCK DIAGRAM - 1



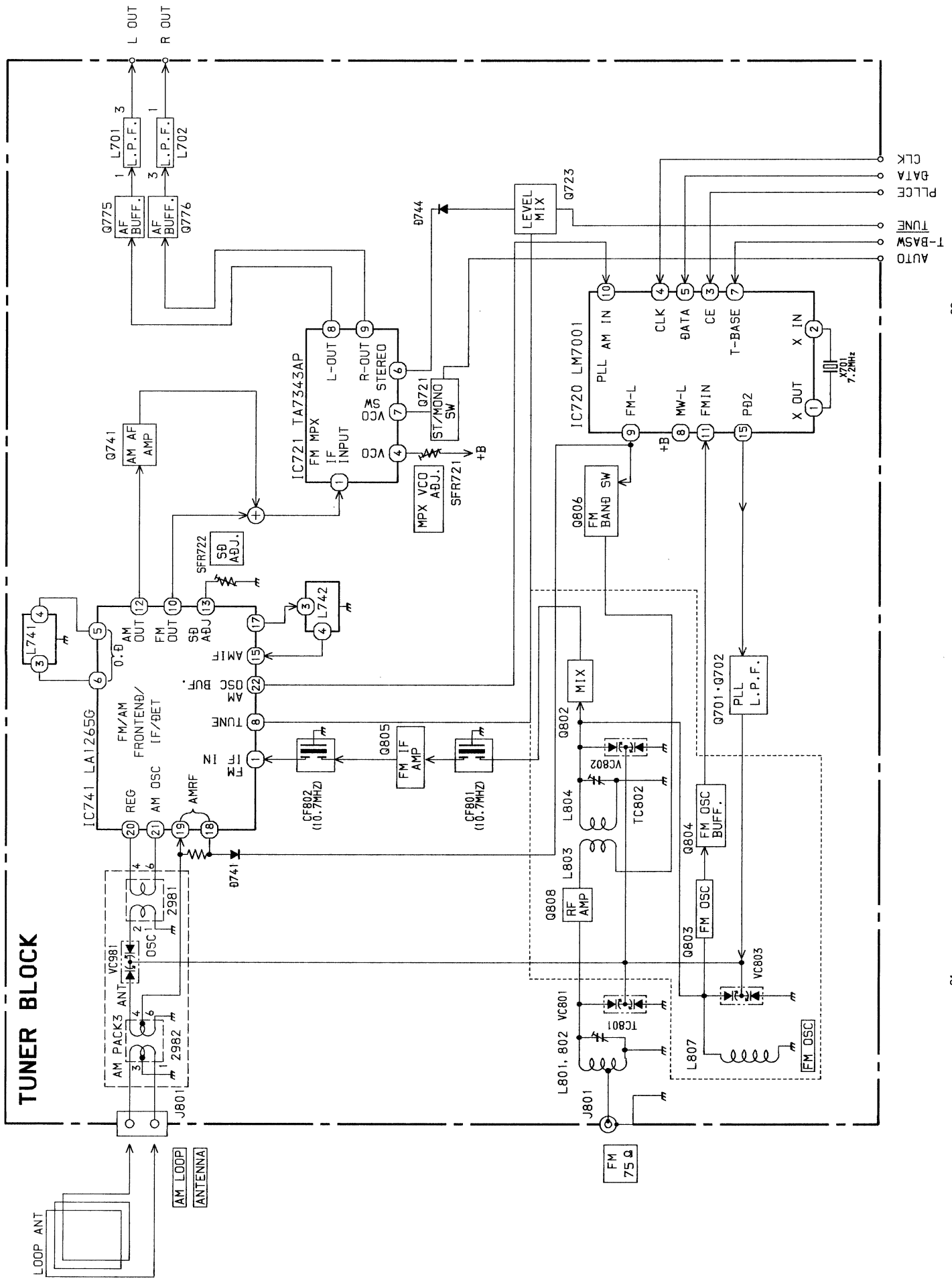
TUNER BLOCK



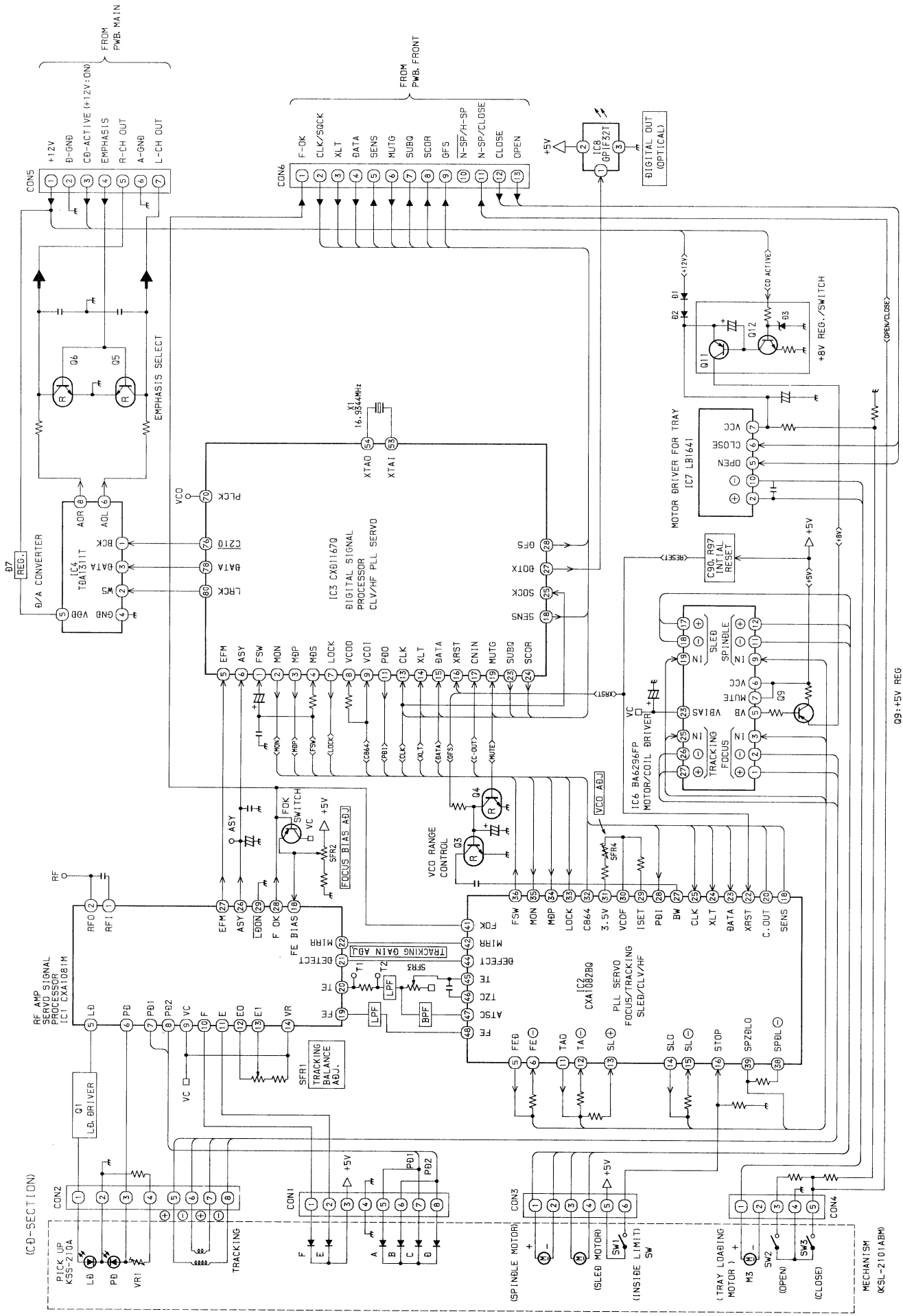
BLOCK DIAGRAM - 3 (E, K Models)



BLOCK DIAGRAM - 4 (HE, LH, H, U, C Models)

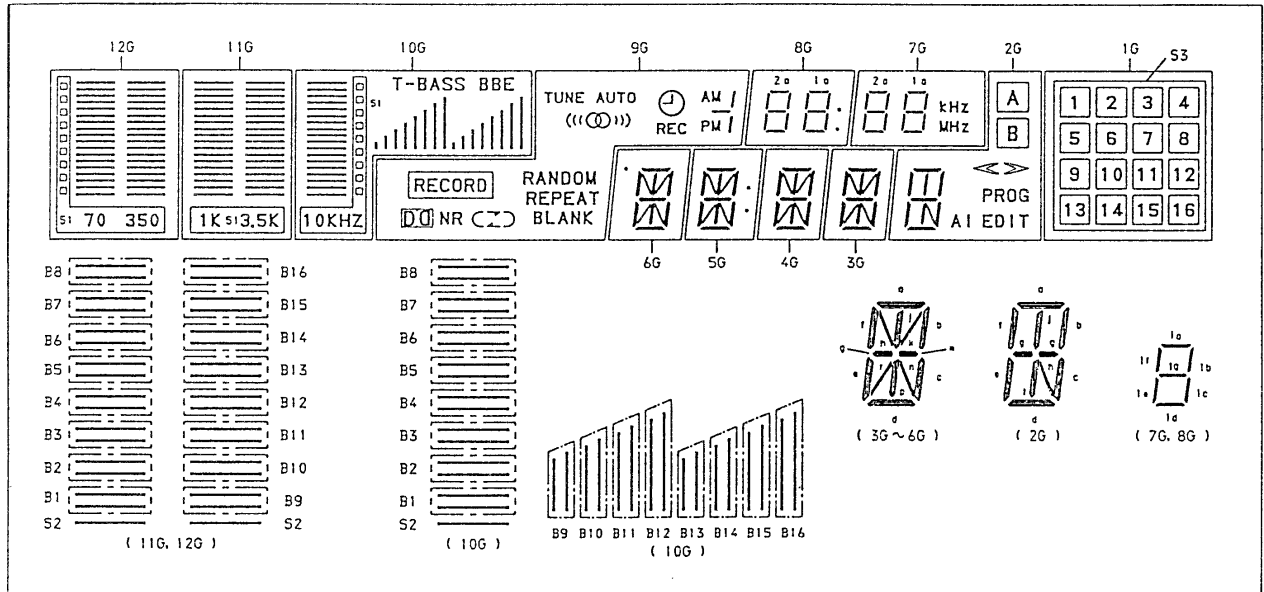


BLOCK DIAGRAM - 5



SEGMENT

FL101



ANODE CONNECTION

	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	B1	B1	B1	RECORD	2a	2a	a	a	a	a	a	1
P2	B2	B2	B2	NR	2b	2b	b	b	b	b	b	2
P3	B3	B3	B3	C	2c	2c	c	c	c	c	c	3
P4	B4	B4	B4	)	2d	2d	d	d	d	d	d	4
P5	B5	B5	B5	RANDOM	2e	2e	e	e	e	e	e	5
P6	B6	B6	B6	REPEAT	2f	2f	f	f	f	f	f	6
P7	B7	B7	B7	BLANK	2g	2g	g	g	g	g	g	7
P8	B8	B8	B8	TUNE	O (UP)	KHz	h	h	h	h	h	8
P9	B9	B9	B9	AUTO	1a	1a	j	j	j	j	j	9
P10	B10	B10	B10	((((O)))	1b	1b	k	k	k	k	>	10
P11	B11	B11	B11	⌚	1c	1c	m	m	m	m	<	11
P12	B12	B12	B12	REC	1d	1d	n	n	n	n	AI	12
P13	B13	B13	B13	AM	1e	1e	p	p	p	p	PRGM	13
P14	B14	B14	B14	PM	1f	1f	r	r	r	r	EDIT	14
P15	B15	B15	B15	/	1g	1g	O	O (UP)	-	-	A	15
P16	B16	B16	B16	-	O (DOWN)	MHz	-	O (DOWN)	-	-	B	16
P17	S1	S1	S1	-	-	-	-	-	-	-	-	-
P18	S2	S2	S2	-	-	-	-	-	-	-	-	-
P19	-	-	-	⌚	-	-	-	-	-	-	-	-
P20	-	-	T-BASS	-	-	-	-	-	-	-	-	-
P21	-	-	BBE	-	-	-	-	-	-	-	-	-
P22	-	-	-	-	-	-	-	-	-	-	-	S3

IC DESCRIPTION

IC, LC67216A – 4834

Pin No.	Pin Name	I/O	Description
1	AV+	I	A/D converter reference voltage (positive).
2	AV-	I	A/D converter reference voltage (negative).
3	I-HOLD	I	When the AC power is not supplied and the input is "L", the controller is held. (clock stop and memory maintain)
4	I-SPEANA (A/D)	I	Analog input for the spectrum analyzer.
5	I-TUNE/ST (A/D)	I	Signal input while the tuner is receiving signals and the stereo system signal.
6	I-SCOR	I	CD control.
7	I-SUBQ	I	CD control.
8	O-DATA (CD)	O	CD control (serial data).
9	O-CLK (CD)	O	CD control (serial data clock signal).
10	I-RMC	I	Remote control signal.
11	I-SWCD (A/D)	I	CD tray OPEN/CLOSE switch signal.
12	VSS	—	GND
13	OSC 1	—	3.9 MHz oscillation circuit.
14	OSC 2	—	
15	VDD	—	Power supply.
16	RESET	I	Reset input.
17	X1	—	Sub clock terminal (Not used).
18	X2	—	
19	TEST	—	It is connected to GND.
20	O-STB (FRONT)	O	Shift register (4094) strobe signal (PWB and FRONT).
21	O-DATA	O	Serial data for the shift register PLL IC.
22	O-CLK	O	Serial data clock signal for the shift register PLL IC.
23	O-XLT	O	CD control.
24	O-D-MUTE	O	CD control.
25	I-SENS	I	CD control.
26	I-GFS	I	CD control.
27	I-FOK	I	CD control.
28 } 39	S4 ~ S15	O	FL display segment output.
40	-VP	I	40. FL display power (negative).
41 } 44	S16 ~ S19	O	FL display segment output.
45 } 56	T11 ~ T0	O	FL display digit output.
57 } 60	KEY 0 ~ KEY 3	I	Key matrix data input.

P i n N o .	P i n N a m e	I / O	D e s c r i p t i o n
6 1	O - P L L C E	O	PLL IC chip enable output for the tuner.
6 2	I - T M B A S E	I	Time base (8 Hz) input for the clock.
6 3	O - $\overline{S T B}$ (M A I N)	O	Shift register (4094) strobe signal (PWB and MAIN).
6 4	O - $\overline{P O W E R}$	O	Power ON/OFF control.

IC, LM7001

P i n N o .	P i n N a m e	I / O	D e s c r i p t i o n
1 2	X - O U T X - I N	—	Connected to the crystal logic oscillator.
3 4 5	C E C L K D A T A	I	Signal is transmitted from the CPU (microcomputer) by operating the key. Active "H".
6	S Y C	—	OPEN
7	T - B A S E	O	8 Hz output terminal for the clock.
8	M W - L	O	"L" level is output when receiving MW.
9	F M - L	O	"L" level is output when receiving FM.
1 0	A M I N	I	AM station oscillation signal input terminal.
1 1	F M I N	I	FM station oscillation signal input terminal.
1 2 1 3	V D D 1 V D D 2	—	Power terminal. 5.6 V
1 4	P D 1	—	OPEN
1 5	P D 2	O	PLL charge pump output terminal.
1 6	V S S	—	GND terminal.

IC, CXD1167Q

Pin No.	Pin Name	I/O	Description
1	FSW	O	Time constant switching output for the spindle motor output filter.
2	MON	O	ON/OFF control output for the spindle motor.
3	MDP	O	Spindle motor drive output, the coarse control in the CLV-S mode and the phase control in the CLV-P mode.
4	MDS	O	Spindle motor drive output, speed control in the CLV-S mode.
5	EFM	I	EFM signal input form the RF amplifier.
6	ASY	O	Output to control the slice level of the EFM signal.
7	LOCK	O	When the GFS signal is sampled by WFCK/16 and it is "H", "H" is output. When "L" is serially output eight times, "L" is output.
8	VCOO	O	VCO output. $f = 8.6436$ MHz when it is locked to the EFM signal.
9	VCOI	I	VCO input.
10	TEST	—	Connected to GND (0 V).
11	PDO	O	Phase comparison output between the EFM and VCO/2 signals.
12	VSS	—	GND (0 V).
13	CLK	I	Serial data transmission clock input from the CPU. Data is latched at the starting edge of the clock.
14	XLT	I	Serial data input from the CPU. Data (serial data from the CPU) of the 8-bit.
15	DATA	I	Shift register is latched.
16	XRST	I	System reset input. It is reset when "L".
17	CNIN	I	Tracking pulse input.
18	SENS	O	Internal state is output corresponding to the address.
19	MUTG	I	Muting input. When the ATTM of the internal register is "L", the MUTG is "L" and is normal. When "H", there is no sound signal.
20	CRCF	O	Result of the CRC check of sub code Q is output.
21	EXCK	I	Clock input for sub code serial output.
22	SBSO	O	Sub code serial output.
23	SUBQ	O	Sub code Q output.
24	SCOR	O	Sub code sync S0 + S1 output.
25	SQCK	I/O	Sub code Q read clock.
26	SQEX	I	SQCK selection input.
27	DOTX	O	Digital audio interface output. (WFCK is output when OFF.)
28	GFS	O	Display output of the lock state of the frame sync. "H" when it is locked.
29	TEST	I/O	External RAM data terminal, DATA 8 (MSB), (Connected to GND).
30	TEST	I/O	External RAM data terminal, DATA 7, (Connected to GND).
31	TEST	I/O	External RAM data terminal, DATA 6, (Connected to GND).
32	TEST	I/O	External RAM data terminal, DATA 5, (Connected to GND).
33	VDD	—	Power supply (+5 V).
34	TEST	I/O	External RAM data terminal, DATA 4, (Connected to GND).
35	TEST	I/O	External RAM data terminal, DATA 3, (Connected to GND).

Pin No.	Pin Name	I/O	Description
36	TEST	I/O	External RAM data terminal, DATA 2, (Connected to GND).
37	TEST	I/O	External RAM data terminal, DATA 1, (Connected to GND).
38	TEST	O	External RAM address output, ADDR 01 (LSB), (Connected to GND).
39	TEST	O	External RAM address output, ADDR 02, (Connected to GND).
40	TEST	O	External RAM address output, ADDR 03, (Connected to GND).
41	TEST	O	External RAM address output, ADDR 04, (Connected to GND).
42	TEST	O	External RAM address output, ADDR 05, (Connected to GND).
43	TEST	O	External RAM address output, ADDR 06, (Connected to GND).
44	TEST	O	External RAM address output, ADDR 07, (Connected to GND).
45	TEST	O	External RAM address output, ADDR 08, (Connected to GND).
46	TEST	O	External RAM address output, ADDR 09, (Connected to GND).
47	TEST	O	External RAM address output, ADDR 10, (Connected to GND).
48	TEST	O	External RAM address output, ADDR 11, (MSB), (Connected to GND).
49	TEST	O	Write Enable signal output to the external RAM, (Active when "L"), (Connected to GND).
50	TEST	O	Chip Select signal output to the external RAM, (Active when "L"), (Connected to GND).
51	C4M	O	1/2 frequency division output to the X'tal. f = 4.2336 MHz
52	VSS	—	GND (0 V)
53	XTAI	I	X'tal oscillation circuit input. f = 8.4672 MHz
54	XTAO	O	X'tal oscillation circuit output. f = 8.4672 MHz (Not used)
55	MD1	I	Mode selection input 1. It is used when "H" Mode selection input 2. It is used when "L" Mode selection input 3. It is used when "L" Clock frequency 8.4672 MHz, digital out OFF, digital filter ON. It is used in the following modes.
56	MD2		
57	MD3		
58	SLOB	I	Code switching input of the audio output. 2's complement output when "L", offset binary output when "H". (Connected to GND).
59	PSSL	I	Mode switching input of the audio data output. Serial output when "L", parallel output when "H". (Connected to GND)
60	APTR	O	Aperture compensation control output. 88.2 kHz when filter ON, 44.1 kHz when filter OFF. (Not used)
61	APTL	O	Aperture compensation control output. 88.2 kHz when filter ON, 44.1 kHz when filter OFF. (Not used)
62	C1F1	O	DA01 (LSB of the parallel audio data) output when PSSL = "H". C1F1 output when PSSL = "L". (Not used)
63	C1F2	O	DA02 output when PSSL = "H". C1F2 output when PSSL = "L". (Not used)
64	C2F1	O	DA03 output when PSSL = "H". C2F1 output when PSSL = "L". (Not used)
65	C2F2	O	DA04 output when PSSL = "H". C2F2 output when PSSL = "L". (Not used)
66	C2FL	O	DA05 output when PSSL = "H". C2FL output when PSSL = "L". (Not used)
67	C2P0	O	DA06 output when PSSL = "H". C2P0 output when PSSL = "L". (Not used)
68	RFCK	O	DA07 output when PSSL = "H". RFCK output when PSSL = "L". (Not used)
69	WFCK	O	DA08 output when PSSL = "H". WFCK output when PSSL = "L". (Not used)
70	PLCK	O	DA09 output when PSSL = "H". PLCK output when PSSL = "L". (Note 1) (Not used)

Pin no.	Pin Name	I/O	Description
7 1	UGFS	O	DA10 output when PSSL = "H". UGFS output when PSSL = "L". (Not used)
7 2	GTOP	O	DA11 output when PSSL = "H". GTOP output when PSSL = "L". (Not used)
7 3	VDD	—	Power supply (+5 V)
7 4	$\overline{RA0V}$	O	DA12 output when PSSL = "H". RA0V output when PSSL = "L". (Not used)
7 5	C4LR	O	DA13 output when PSSL = "H". C4LR output when PSSL = "L". (Not used)
7 6	$\overline{C210}$	O	DA14 output when PSSL = "H". C210 output when PSSL = "L".
7 7	C210	O	DA15 output when PSSL = "H". C210 output when PSSL = "L". (Note 2) (Not used)
7 8	DATA	O	DA16 (MSB of the parallel audio data) output when PSSL = "H". DATA output when PSSL = "L". (Note 3)
7 9	WDCK	O	Strobe signal output. 176.4 kHz when filter ON, 88.2 kHz when filter OFF.
8 0	LRCK	O	Strobe signal output. 88.2 kHz when filter ON, 44.1 kHz when filter OFF.

Note 1: PLCK: VCO/2 output. $f = 4.3218$ MHz when the EFM signal is locked.

Note 2: C210: Bit clock output. $f = 2.1168$ MHz

Note 3: DATA: Serial data output of the audio signal.

IC,CXA1082BQ

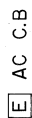
Pin No.	Pin Name	I/O	Description
1	VC	—	Connected to GND.
2	FGD	O	When the high-frequency gain of the focus servo is lowered, a capacitor is connected between this terminal and pin 3.
3	FS3	I	The high-frequency gain of the focus servo is switched with ON/OFF of FS3.
4	FLB	O	Time constant external terminal for raising the low-frequency range of the focus servo.
5	FEO	O	Focus error signal output terminal.
6	FE $\ominus$	I	Focus amplifier inversion input terminal.
7	SRCH	O	Time constant exterminator terminal to generate the focus search waveform.
8	TG0	O	Time constant external terminal for switching the tracking high-frequency gain.
9	TG2	O	Time constant external terminal for switching the tracking high-frequency gain.
10	AVCC	—	Power supply terminal.
11	TAO	O	Tracking error signal output terminal.
12	TA $\ominus$	I	Tracking amplifier inversion input terminal.
13	SL $\oplus$	I	Positive input terminal of the sled amplifier.
14	SLO	O	Output terminal of the sled amplifier.
15	SL $\ominus$	I	Inversion input terminal of the sled amplifier.
16	SSTOP	I	ON/OFF detection signal terminal of the disk inner-most detection switch. It is fixed to "L" for this set.
17	FSET	I	Setting terminal of the phase compensation peak of the focus tracking and of CLV LPF.
18	SENS	O	IC internal state output corresponding to data address (It is changed depending on the address of the internal register)
19	AVEE	—	Power supply terminal
20	C OUT	O	Count signal output of the tracking in the high-speed access mode

Pin No.	Pin Name	I/O	Description
21	DIRCT	O	It is used when the one-track jump. It is normally set to "H". A direction of the tracking jump pulse is inverted when "L". When setting to "H", it is set to the normal tracking mode. It is set in a time to "L" at the start and fall of TZC. (Not used)
22	XRST	I	All the internal register are cleared when "L".
23	DATA	I	Serial data transmission from the CPU. Input from LSB.
24	XLT	I	Data of the internal serial shift register is transmitted to each latch memory which the address is decoded when "L".
25	CLK	I	Data transmission clock. Data is read at the falling edge.
26	DGND	—	GND terminal.
27	BW	—	Time constant external terminal of the loop filter.
28	PD1	I	Input terminal of data PD0 output from phase comparator CXD1167Q.
29	ISSET	I	The current which set the height of the focus search, tracking jump and sled kick is supplied.
30 31	VCOF 3.5V	I	The free-running frequency of VCO corresponds to the resist value between pins 30 and 31.
32	C8.64	O	8.64 MHz VCO output terminal.
33	LOCK	I	Connected to the LOCK terminal of CXD1167Q.
34	MDP	I	Terminal to connect the MDP terminal of CXD1167Q.
35	MON	I	Terminal to connect the MON terminal of CXD1167Q.
36	FSW	I	LPF time constant external terminal of the CLV servo difference signal.
37	DVCC	—	Power supply terminal.
38	SPDL $\ominus$	I	Inversion terminal of the spindle drive amplifier.
39	SPDLO	O	Spindle motor drive terminal.
40	WDCK	I	Word clock signal input terminal.
41	FOK	I	Focus OK signal input terminal.
42	MIRR	I	Mirror signal input terminal.
43	DVEE	—	GND terminal.
44	DFCT	I	Focus servo and tracking servo are OFF while "H" is being inputting.
45	TE	I	Tracking error signal input terminal.
46	TZC	I	Input terminal of the tracking zero-cross comparator.
47	ATSC	I	ATSC detection window comparator input terminal. Data input terminal to indicate that a mechanical shock is occurred.
48	FE	I	Focus error signal input terminal.

IC,CXA1081M

Pin No.	Pin Name	I/O	Description
1	RFI	I	RF summing amplifier output is input combined with C.
2	RFO	O	RF summing amplifier output, EYE pattern test point
3	RF $\ominus$	I	RF summing amplifier inversion input. Feedback resistor is connected to pins ② and ③.
4	P/N	I	Input is switched with the polarity of the laser diode. (Not used)
5	LD	O	Control output of the laser diode output
6	PD	I	Photo detector for detecting the laser diode output is connected.
7	PD1	I	RF I-V amplifier (1) inversion input. It is connected to PIN diode A + C and the power is input.
8	PD2	I	RF I-V amplifier (2) inversion input. It is connected to PIN diode B + D and the power supply is input.
9	VC	I	Reference voltage input of the internal IC. It is connected to pin ⑭ in the single power mode. It is connected to GND in the ± 2 power mode.
10	F	I	F I-V amplifier inversion input. It is connected to PIN diode F and the power is input.
11	E	I	E I-V amplifier inversion input. It is connected to PIN diode E and the power is input.
12	EO	O	E I-V amplifier output. It is connected to the feedback resistor.
13	EI	I	E I-V amplifier gain adjustment terminal
14	VR	O	Intermediate potential is output. It is connected to pin ⑨ in the single power mode. It is OPEN in the ± 2 power mode. (Not used)
15	CC2	O	Defect bottom hold (1) output. Capacitor is connected to pins ⑮ and ⑯.
16	CC1	I	Defect bottom hold (1) output is connected to the capacitor and input.
17	VEE	—	GND in the single power mode. Negative power in the ± 2 power mode.
18	FE BIAS	I	Positive phase bias input of the focus error amplifier
19	FE	O	Focus error amplifier output
20	TE	O	Tracking error amplifier output
21	DEFECT	O	Defect detection output. Mirror defect detection signal is output.
22	MIRR	O	Mirror comparator output
23	CP	O	Mirror hold capacitor connection terminal
24	CB	O	Defect bottom hold (2) capacitor connection terminal
25	DGND	—	Digital GND
26	ASY	I	Auto symmetry control input
27	EFM	O	EFM output comparator output
28	FOK	O	Focus OK output
29	LD ON	I	Laser diode ON/OFF control input
30	VCC	—	Positive power supply

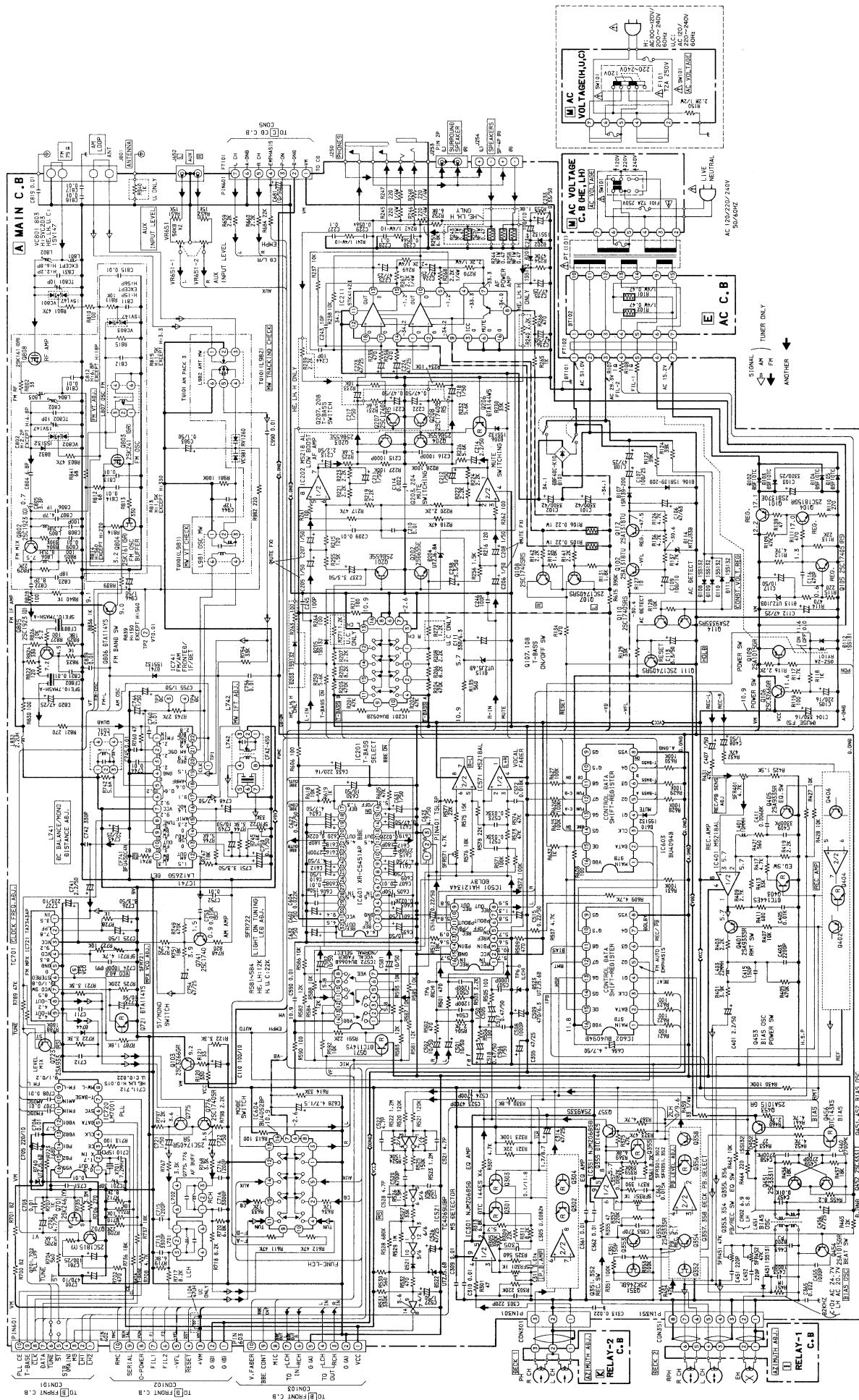
A MAIN C.B (H, HE, LH, U, C MODELS)



M AC VOLTAGE C.B(HE.LH)

E AC C.B

SCHEMATIC DIAGRAM - 1 (HE, LH, H, U, C Models)

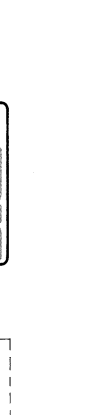
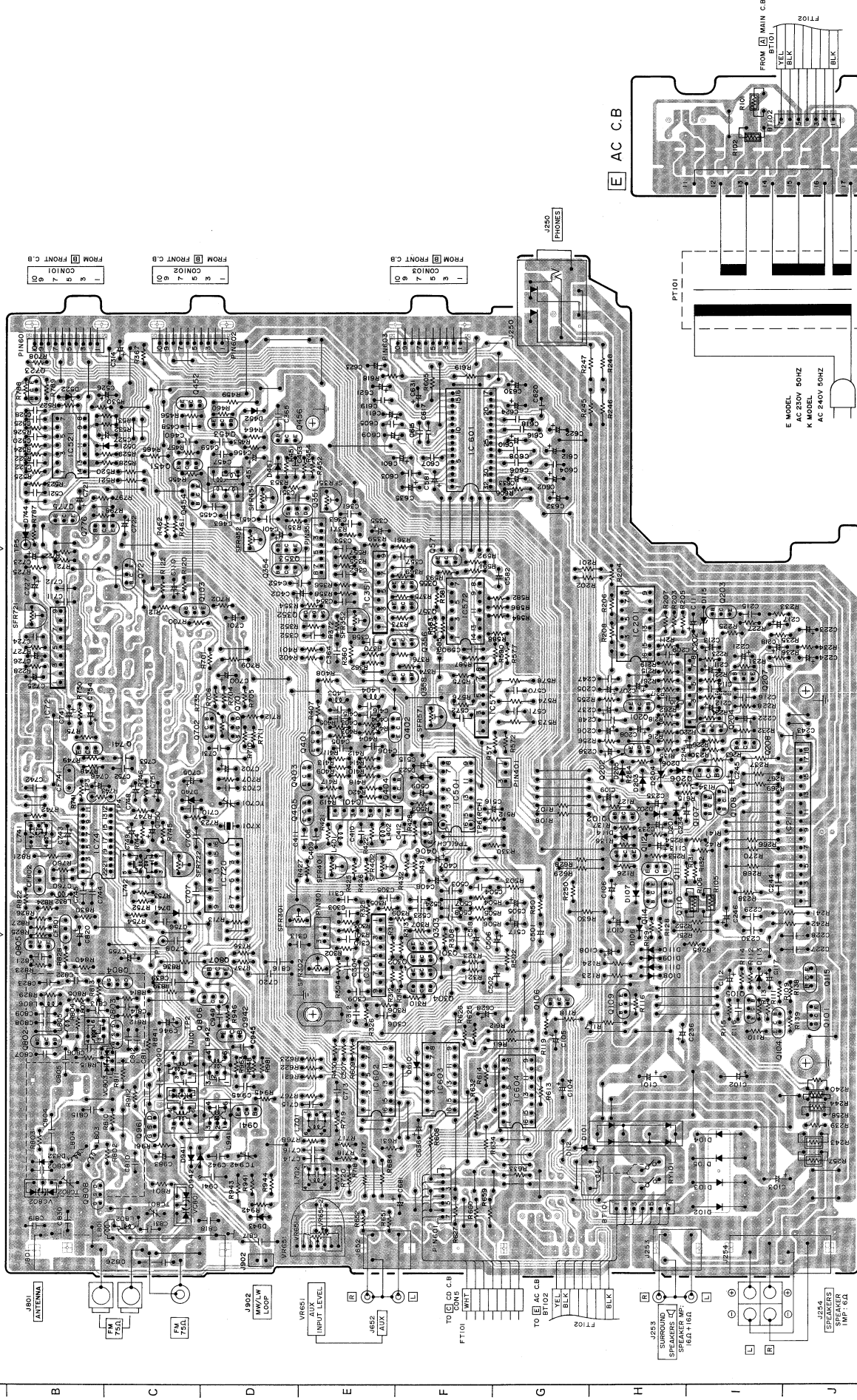


GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF
ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.
(プリント基板内のケミコンの極性表示は○表示です。)

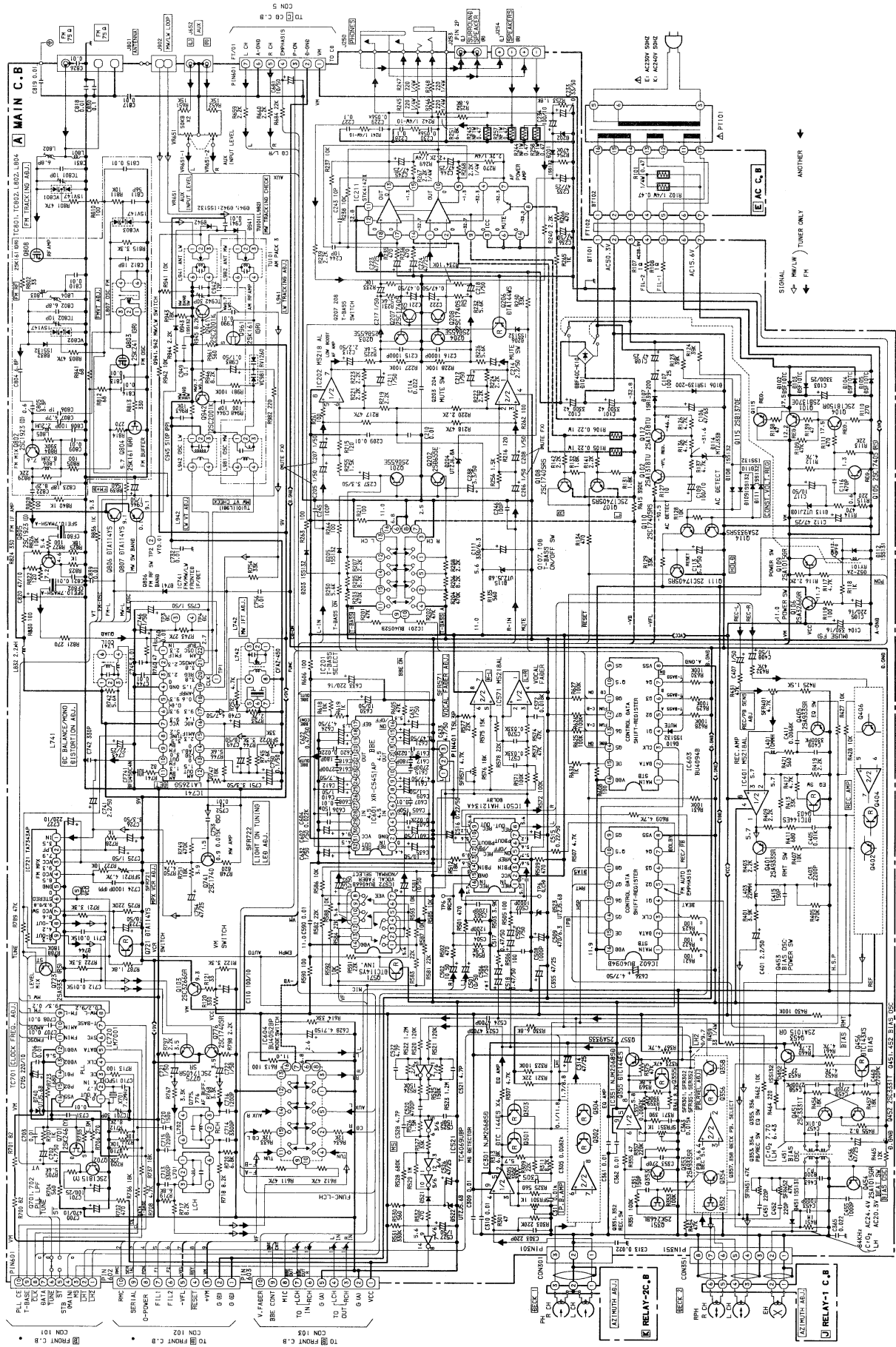
FROM [] RELAY-2 C.B.
CONVSI
8 7 6 5 4 3 2 1
↓ TO PIN51

FROM [] RELAY-1 C.B.
CONVSI
3
↓ TO PIN301

A MAIN C.B (E, K MODELS)



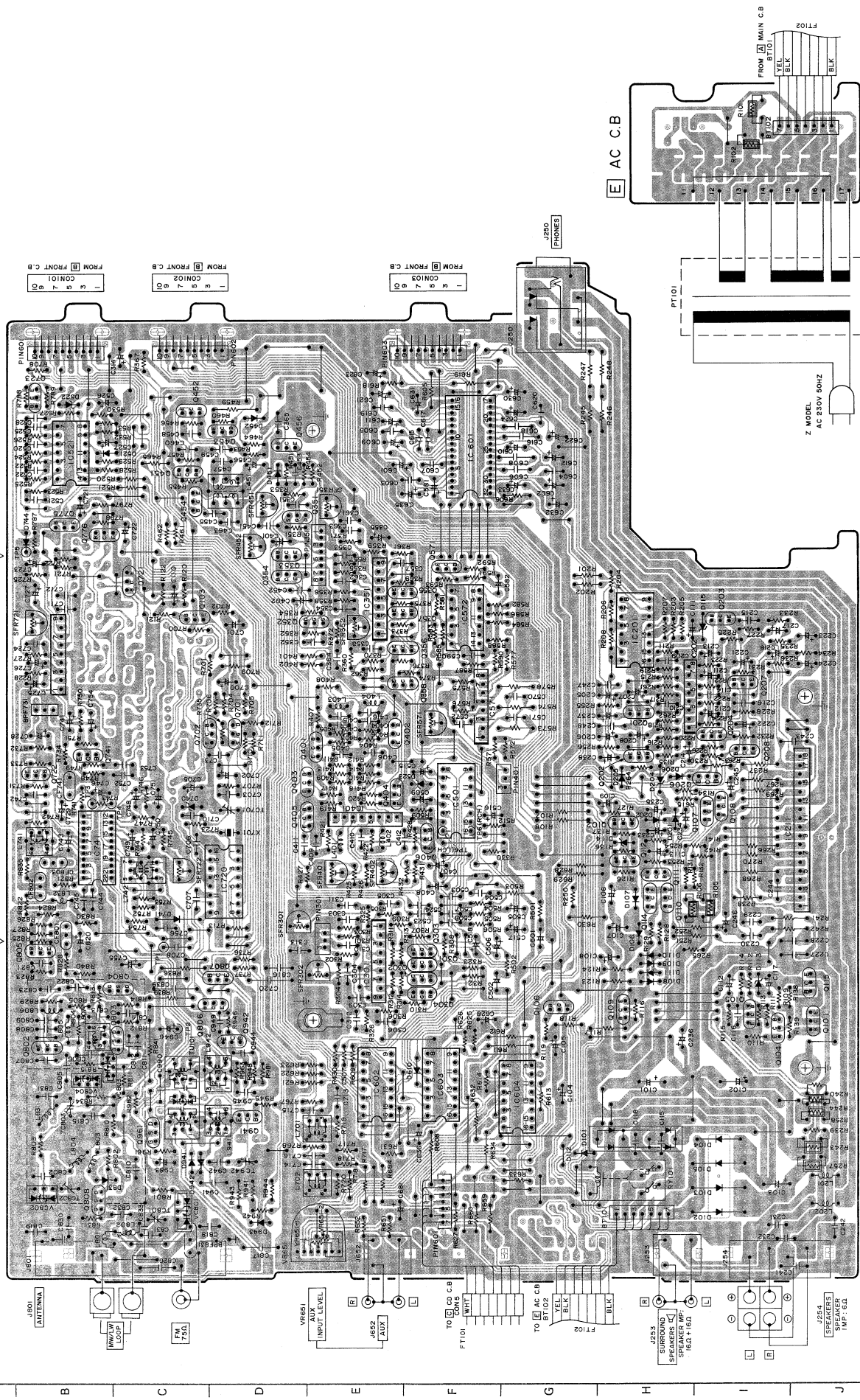
SCHEMATIC DIAGRAM - 2 (E, K Models)



A MAIN C.B (Z MODEL)

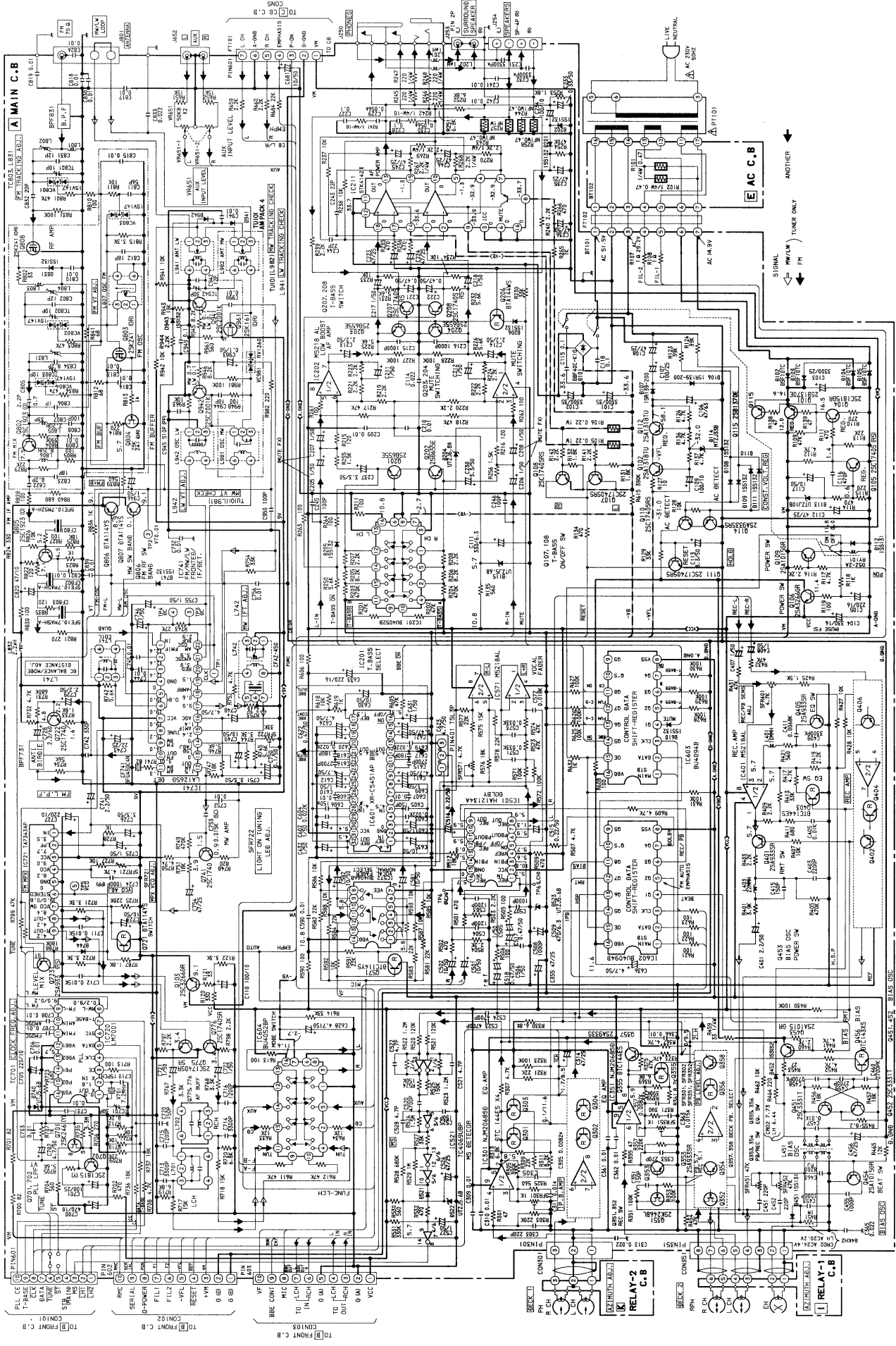
FROM RELAY-1 C.B.
CONV301
3 1
TO PIN301

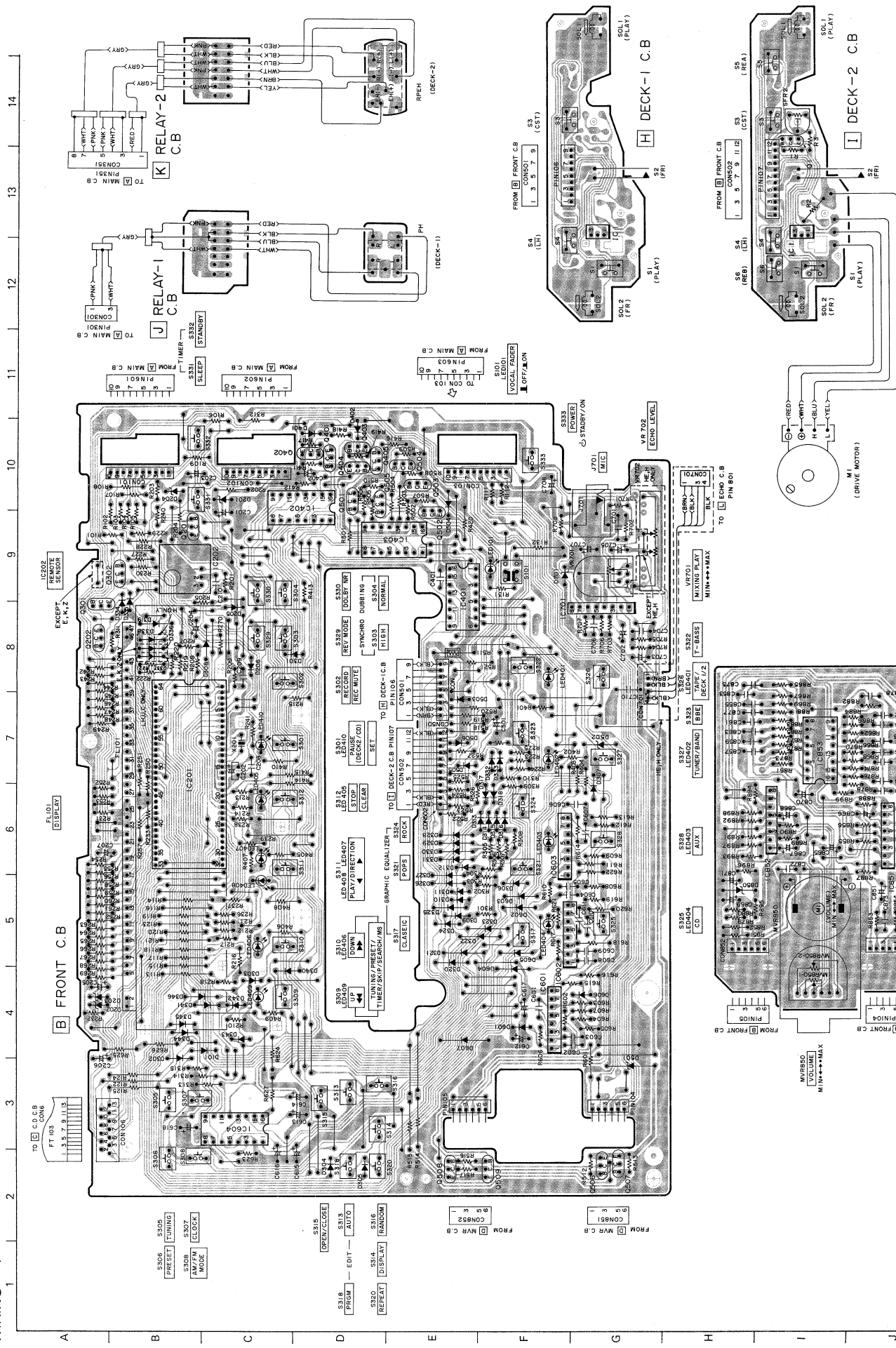
FROM RELAY-2 C.B.
CONV301
8 7 5 3 1
TO PIN301



GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.
(プリント基板内のケミコンの極性表示は0表示です。)

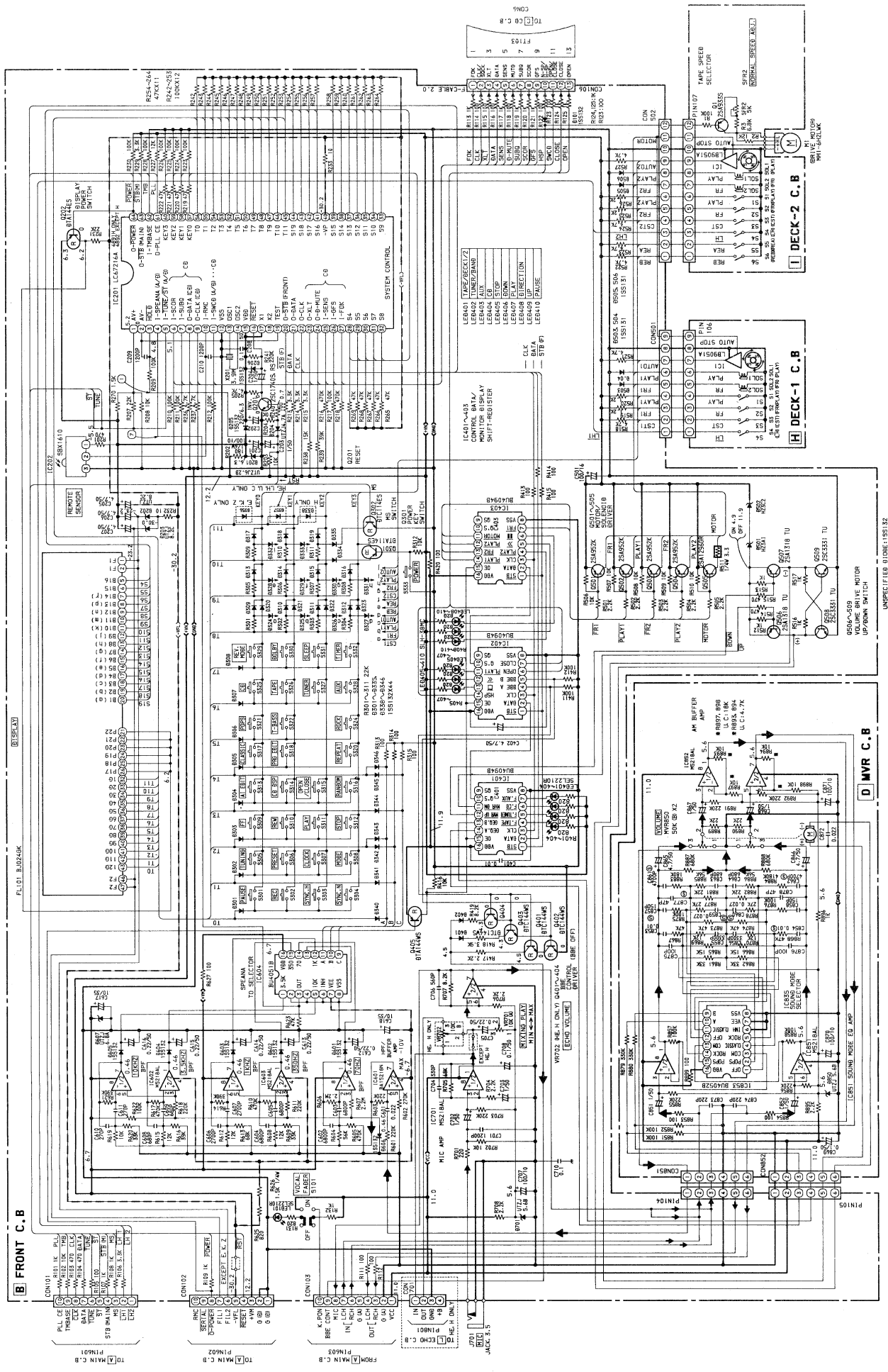
SCHEMATIC DIAGRAM - 3 (Z Model)





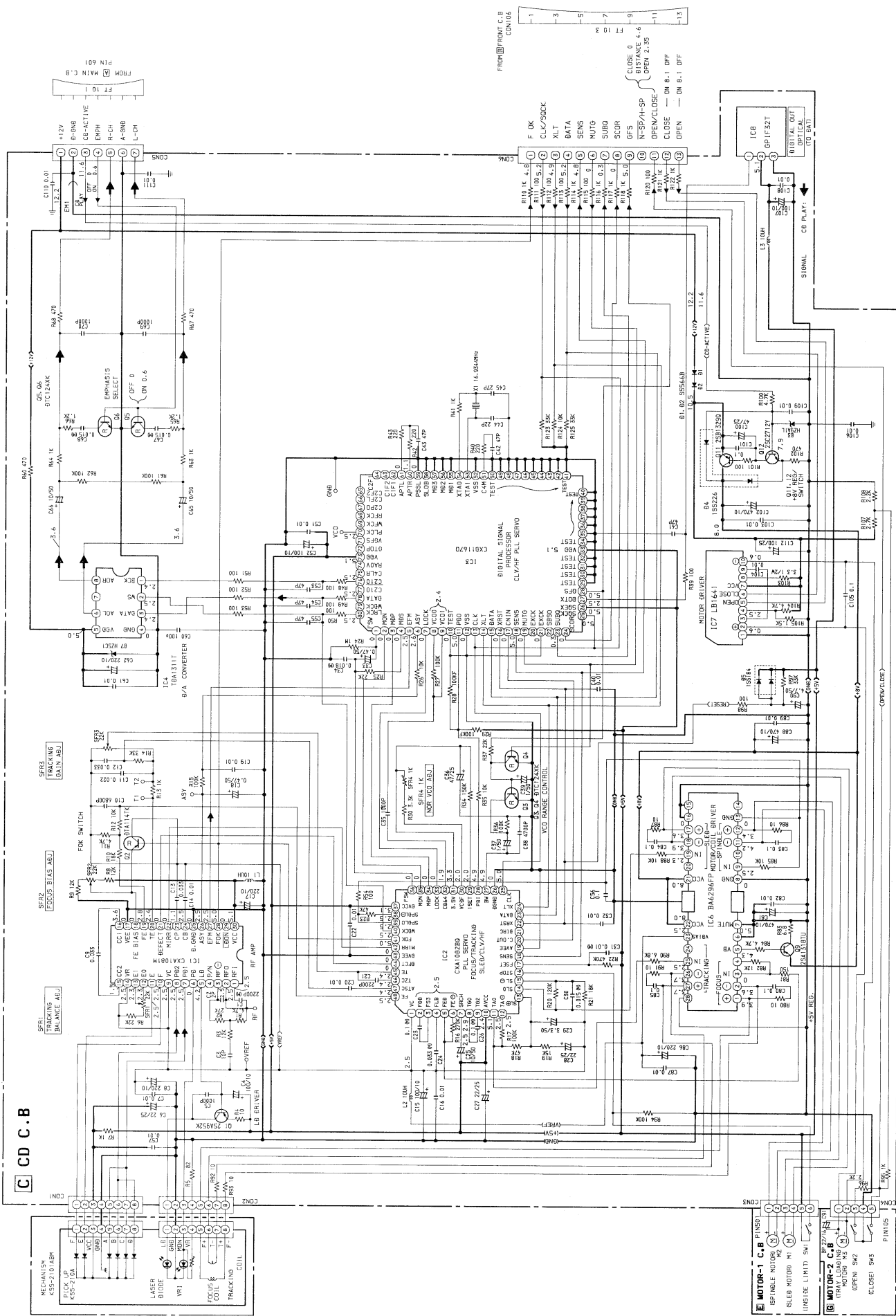
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF
ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.
(プリント基板内のケミコンの極性表示は $\ominus$ 表示です。)

SCHEMATIC DIAGRAM - 4





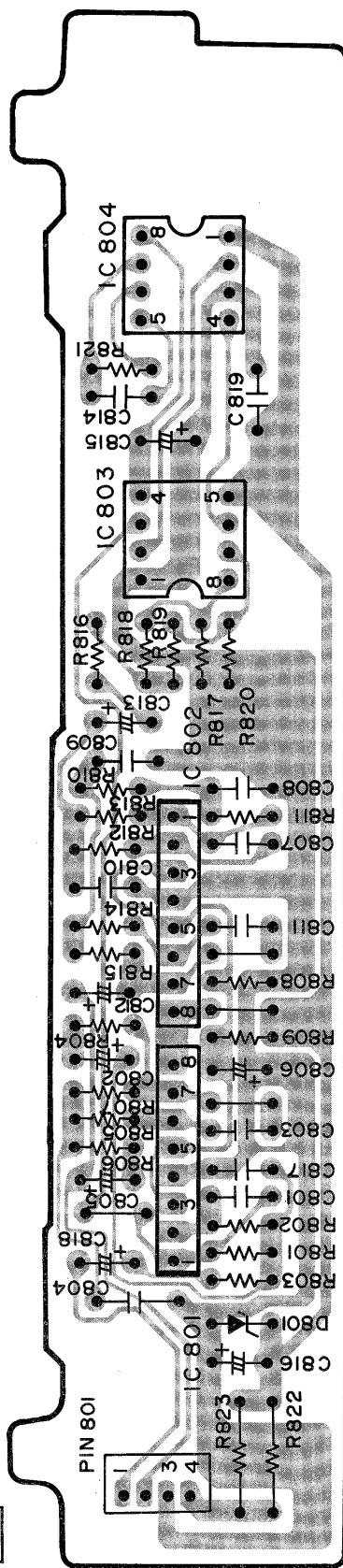
SCHEMATIC DIAGRAM - 5



1 2 3 4 5 6 7

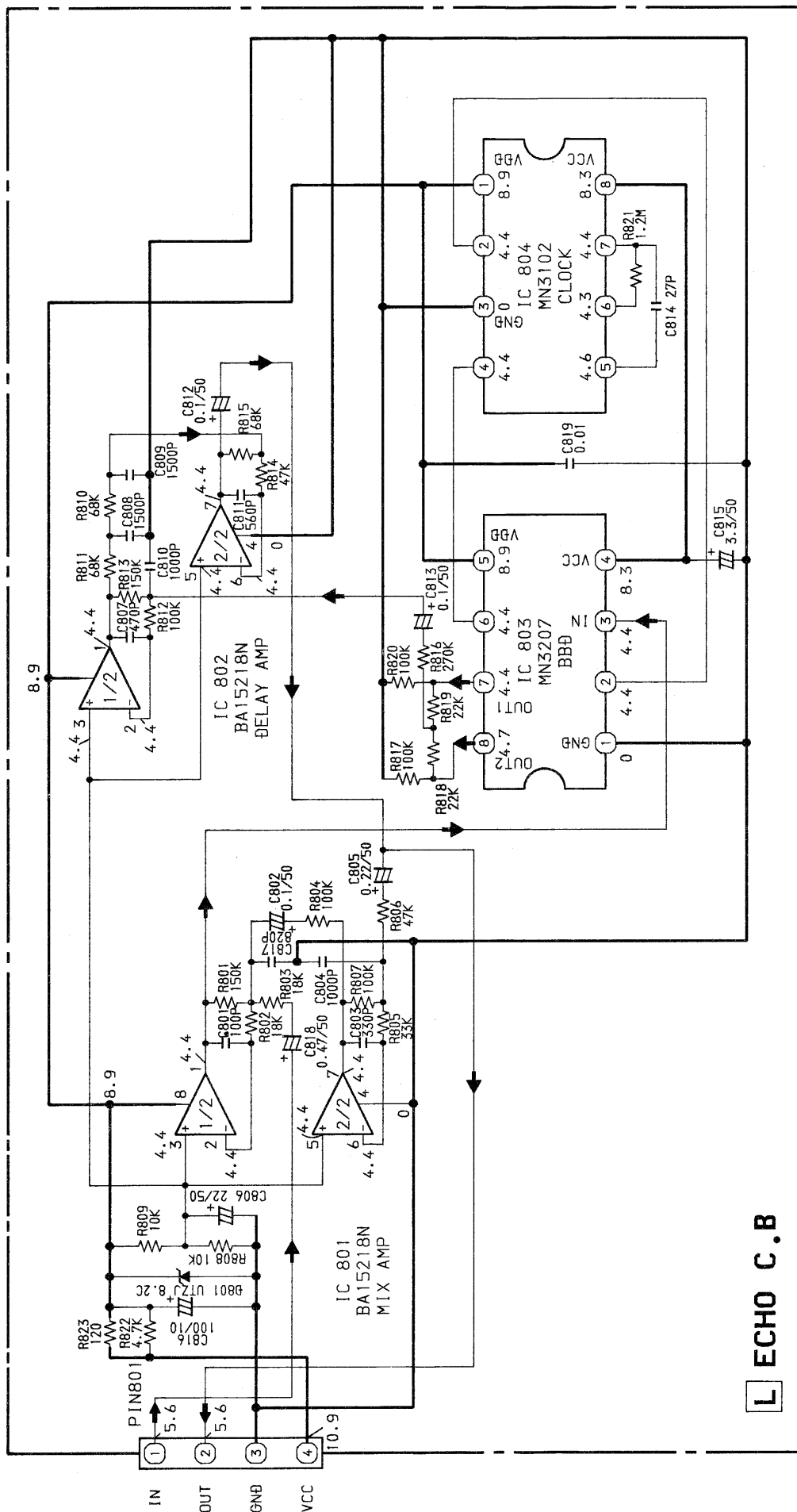
A B C D E F G H I J K

L ECHO C.B (H, HE MODELS)



FROM FRONT C.B
CON 701
4
3
2
1

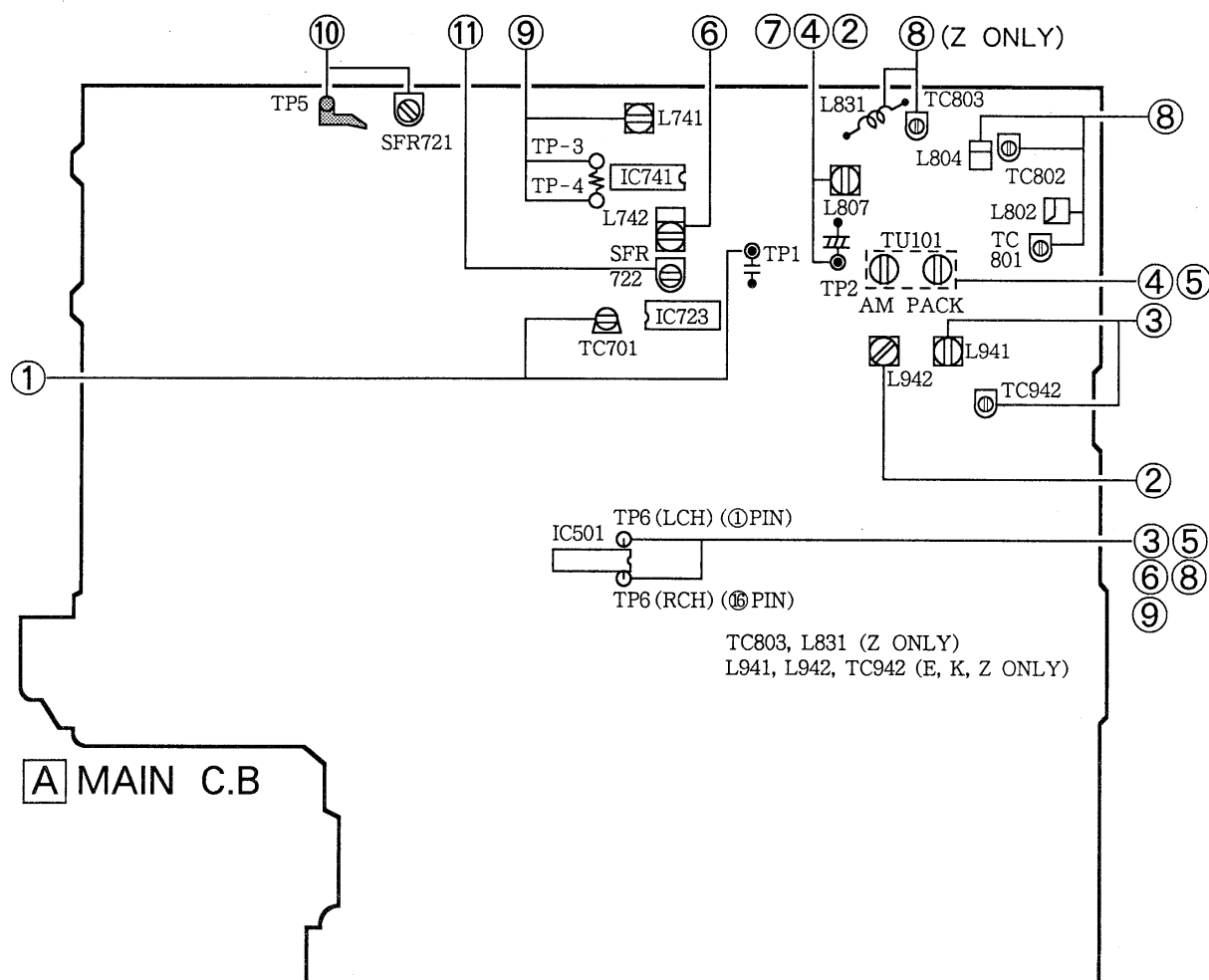
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF
ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.
(プリント基板内のケミコンの極性表示は⊖表示です。)



L ECHO C.B.

ADJUSTMENT – 1 < TUNER >

TUNER



Initialized Condition

GEQ VR : Center
BBE SW : OFF
MIC VR : Minimum
BALANCE VR : Center
VR : Minimum
DOLBY NR SW : OFF
T-BASS : OFF
Standard Input Level : 1V, 0dB (AMP)
-14.3dB, 0VU (AUX IN, DECK)

(TUNER SECTION)

1. Clock Frequency Adjustment

Settings : • Test point : TP1 (CLK)
• Adjustment location : TC701
Method : Set to AM 1602kHz (HE, H, E, K, Z), 1710kHz (LH, U, C) and adjust so that the test point becomes 2052kHz $\pm$ 0.01kHz (HE, H, E, K, Z), 21601kHz $\pm$ 0.01kHz (LH, U, C).

2. LW VT Adjustment (E, K, Z)

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

3. LW Tracking Adjustment (E, K, Z)

Settings : • Test point : TP6 (IC501, PIN ①/PIN ⑥)
L941144kHz
TC942290kHz

4. AM (MW) VT Check

Settings : • Test point : TP2 (VT)
• Adjustment location : TU101
Method : Set to AM 1602kHz (HE, H, E, K, Z), 1710kHz (LH, U, C) and adjust so that the test point becomes 6.0V $\pm$ 1.0V (HE, H, E, KZ), 7.0 $\pm$ 1.0V (LH, U, C).

5. AM (MW) Tracking Check

Settings : • Test point : TP6 (IC501, PIN ①/PIN ⑥)
Adjustment location : TU101
Method : Set to AM 999kHz and adjust to so that point become 53 $\pm$ 6dB.

6. AM IF Adjustment

Settings : • Test point : TP6 (IC501, PIN ①/PIN ⑥)
L742450kHz

7. FM VT Adjustment

Settings : • Test point : TP2 (VT)
• Adjustment location : L807
Method : Set to FM 87.5MHz and adjust L807 so that the test point becomes 2.9V $\pm$ 0.05V.

8. FM Tracking Adjustment

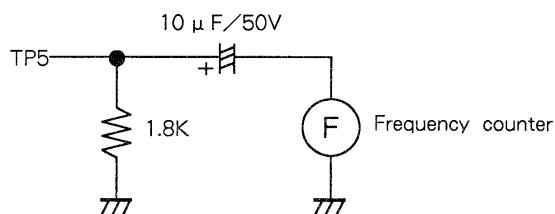
Settings : • Test point : TP6 ((IC501, PIN①/PIN⑩)
 TC801, TC802.....108MHz (Except Z)
 TC801, TC802, TC803108MHz (Z)
 L802, L804..... 87.5MHz (Except Z)
 L802, L804, L831..... 87.5MHz (Z)

9. DC Balance/MONO Distortion Adjustment

Settings : • Test point : TP3, TP4 (DC balance)
 TP6 ((IC501, PIN①/PIN⑩)
 (Distortion)
 • Adjustment location : L741
 • Input level : 54dB
 Method : Set to FM 98.0MHz and adjust L741 so that
 TP3 and TP4 output becomes $0V \pm 0.02V$.
 Next, adjust L741 so that the distortion
 becomes minimum (less than 0.9%).

10. MPX VCO Adjustment

Settings : • Test point : TP5
 • MODE SW : STEREO
 • Adjustment location : SFR721
 • Input level : 54dB
 Method : Connect a capacitor and a resistor as below.
 Set to FM 98.0MHz and adjust so that the
 frequency at test point becomes $38kHz \pm 0.05kHz$.



11. Light on tuning LED Adjustment

Settings : • Adjustment location : SFR722
 • Input level : 16dB
 Method : Set to FM 98.0MHz and adjust TUNING LED
 to light on by SFR722. After that, LED goes
 out by $16 \pm 2dB$ down.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity: $2 \pm 6dB$ (Except Z)
 (THD 3%) (at 87.5, 98.0, 108.0MHz)
 $7 \pm 6dB$ (Z)
 (at 87.5, 98.0, 108.0MHz)

S/N 50dB Quieting Sensitivity:

(Except Z) $32 \pm 5dB$
 (at 87.5, 98.0, 108.0MHz)

S/N 46dB Quieting Sensitivity:

(Z) $32 \pm 6dB$
 (at 87.5, 98.0, 108.0MHz)

Signal to Noise Ratio:

More than 64dB (Except Z)
 (at 98.0MHz)
 More than 60dB(Z)
 (at 98.0MHz)

Distortion:

Less than 1.2 %
 (at 98.0MHz)

Stereo Separation:

More than 25dB (at 98.0MHz)

Intermediate Frequency:

10.7MHz

<AM (MW) SECTION>

Sensitivity:

$54 \pm 1dB$
 [at 603kHz (HE, H, E, K, Z)]
 [at 600kHz (LH, U, C)]
 $53 \pm 6dB$
 [at 999/1404kHz (HE,H,E,K,Z)]
 [at 1000/1400kHz (LH, U, C)]

Distortion:

Less than 1.5 %
 [at 999kHz (HE, H, E, K, Z)]
 [at 1000kHz (LH, U, C)]

Intermediate Frequency:

450kHz

<LW SECTION> (E, K, Z)

Sensitivity:

$66 \pm 5dB$ (at 144kHz)
 $63 \pm 5dB$ (at 198Hz)
 $62 \pm 5dB$ (at 290kHz)

Signal to Noise Ratio:

More than 32dB (at 198kHz)

Distortion:

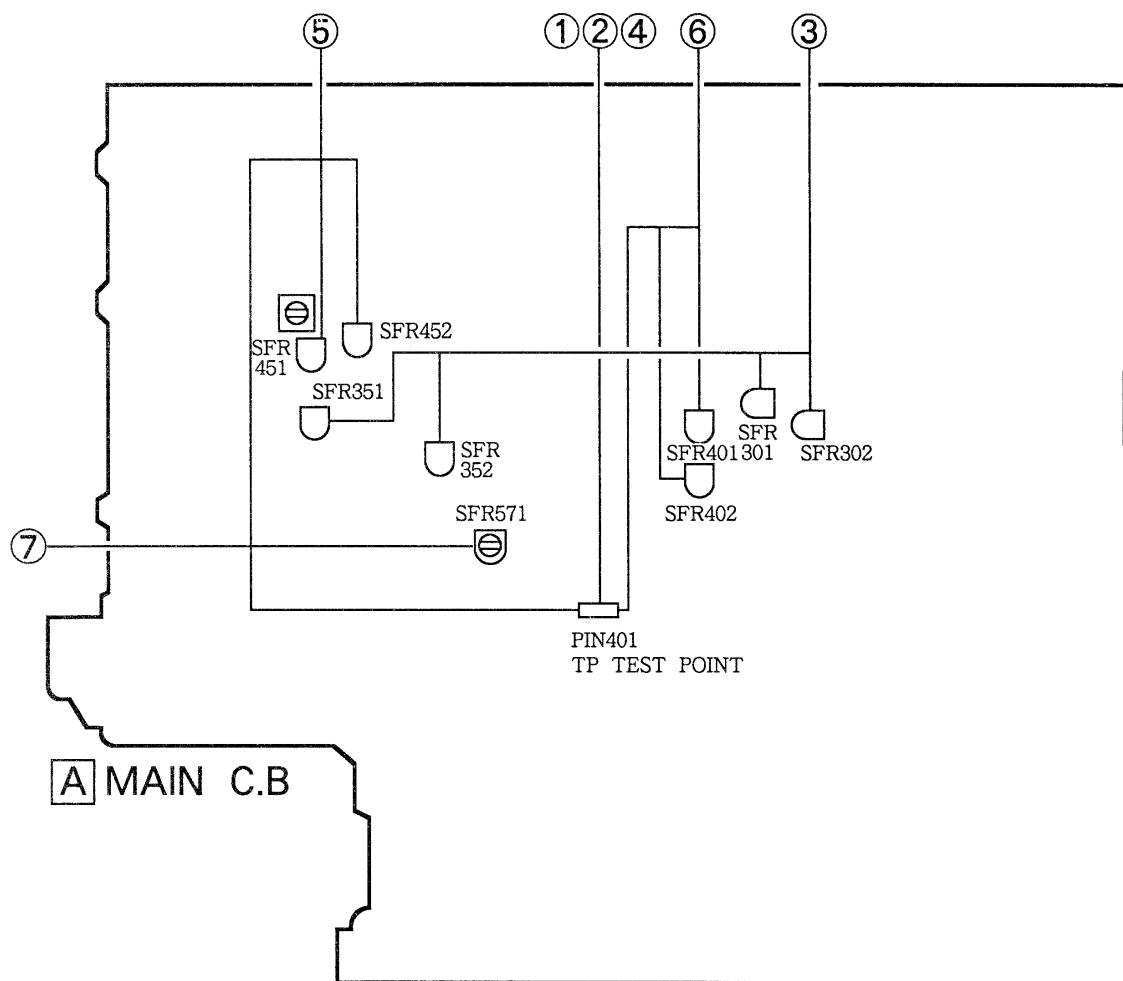
Less than 1.5 % (at 198kHz)

Intermediate Frequency:

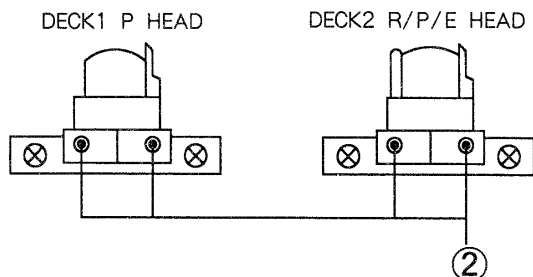
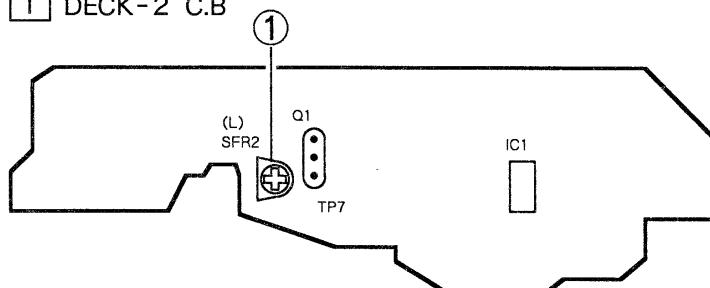
450kHz

ADJUSTMENT – 2 < DECK >

DECK



I DECK-2 C.B



1. Normal Speed Adjustment (DECK-2)
Settings : • Test tape : TTA-100 (TTA-111S)
 • Test point : TP-OUT (PIN401)
 • Adjustment location : SFR2 (DECK-2)
Method : Play back the test tape, on FWD PLAY SFR2 (DECK-2) adjust for 2990Hz $\pm$ 5Hz.
2. Head Azimuth Adjustment (DECK-1, DECK-2)
Settings : • Test tape : TTA-310 (TTA-317E, SCC-1429)
 • Test point : TP-OUT (PIN401)
 • Adjustment location : Head azimuth adjustment screw
Method : Play back the 10kHz signal of the test tape and adjust so that the output becomes maximum. Next, perform on each FWD PLAY and REV PLAY mode.
3. PB Sensitivity Adjustment (DECK-1, DECK-2)
Settings : • Test tape : TTA-200 (TCC-130, TTA-161)
 • Test point : TP-OUT (PIN401)
 • Adjustment location :
 SFR301 (DECK-1, Lch)
 SFR302 (DECK-1, Rch)
 SFR351 (DECK-2, Lch)
 SFR352 (DECK-2, Rch)
Method : Play back the test tape and adjust so that the output becomes 300mV.
4. PB Frequency Response Check (DECK-1, DECK-2)
Settings : • Test tape : TTA-310 (TTA-317E, SCC-1429)
 • Test point : TP-OUT (PIN401)
Method : Play back the 315Hz and 10kHz signals of the test tape and check the output of the 10kHz signal is 0dB $\pm$ 2dB with respect to that of the 315Hz signal.
5. REC/PB Frequency Response Adjustment (DECK-2)
Settings : • Test tape : TTA-601
 • Test point : TP-OUT (PIN401)
 • Input signal : 1kHz/10kHz (VCR/AUX IN)
 • Adjustment location : SFR451 (Lch)
 SFR452 (Rch)
Method : Apply a 1kHz signal and adjust attenuator so that the level at the TP-OUT is 210mV. Record and play back the 1kHz and 10kHz signals and adjust so that the output level of 10kHz signal is 0dB $\pm$ 0.5dB for 1kHz signal.
6. REC/PB Sensitivity Adjustment (DECK-2)
Settings : • Test tape : TTA-601
 • Test point : TP-OUT (PIN401)
 • Input signal : 1kHz (VCR/AUX IN)
 • Adjustment location : SFR401 (Lch)
 SFR402 (Rch)
Method : Apply a 1kHz signal and adjust attenuator so that the level at the TP-OUT is 210mV. Record and play back the 1kHz signal and 10kHz signals and adjust so that the output level is 0dB $\pm$ 0.5dB.

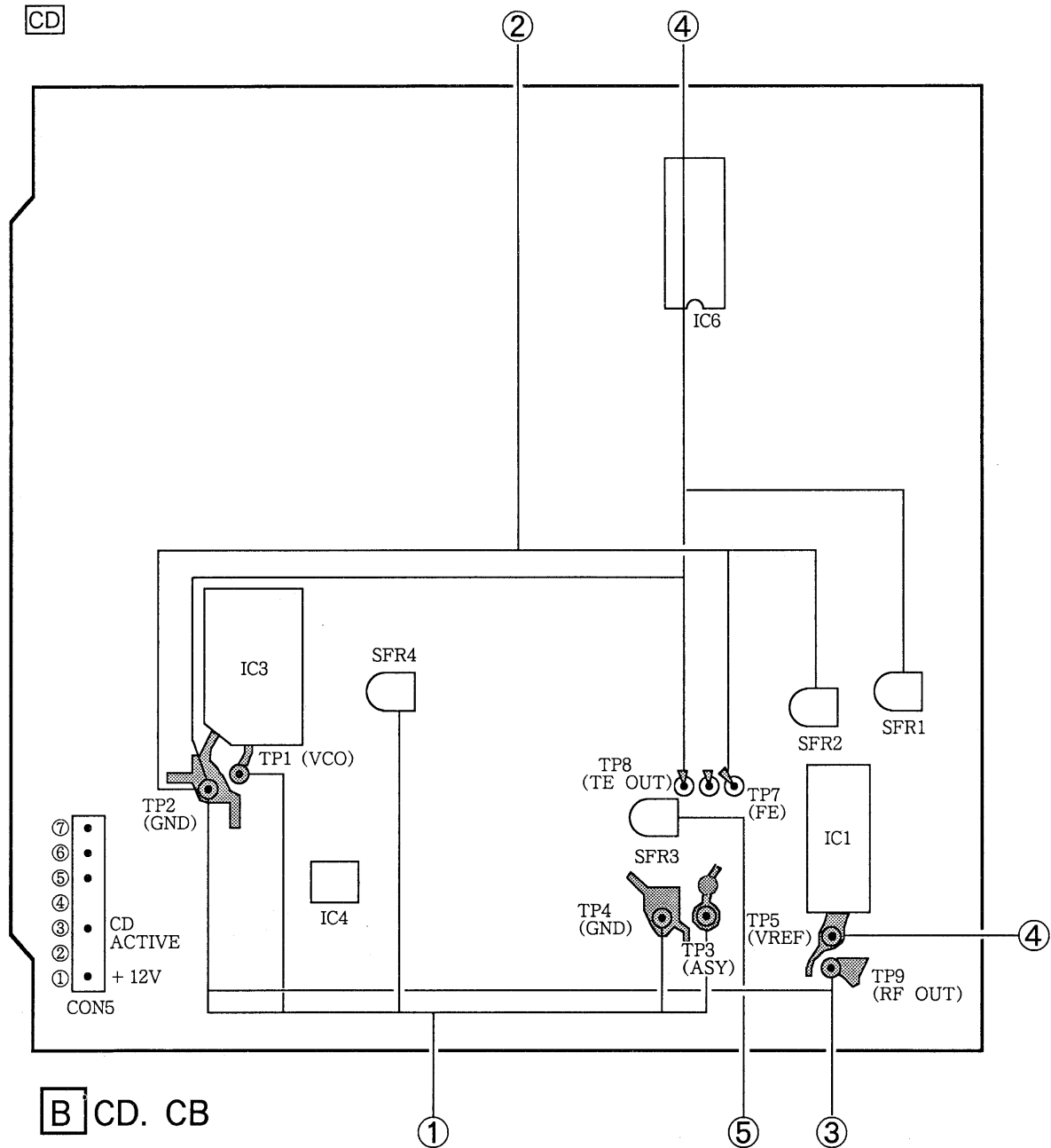
Settings : • Test point : SP OUT
 : SFR571
 • adjustment location : SFR571

Method : Add a 2kHz, -16.5dB signal from AUX.
Adjust SFR571 so that the voltage at test
point becomes minimum.

PB Output Level:	300mV $\pm$ 20mV (TTA-119H) TTA-200 (TTA-161, TCC-130) - 210mV $\pm$ 2dB TTA-601, TTA-610
REC/PB Output Level:	
Distortion(REC/PB):	Less than 1.5% (NORM, CrO ₂)
Noise(PB):	Less than 100mV/150mV (DOLBY NR ON/OFF CrO ₂ , VR MAX.) Less than 130mV/200mV (DOLBY NR ON/OFF NORM, VR MAX.)
Erasing Ratio:	More than 60dB (TTA-601) (at 125Hz)
Channel Separation:	More than 50dB
Recording Bias Frequency:	85kHz
Wow & Flutter:	Less than 0.25% (DECK-1/2) TTA-100 (TTA-111S)
Tape Speed:	3kHz $\pm$ 1.5%
Take-up Torque:	NORM : 25~60g-cm (DECK-1/2)
F.F & REW Torque:	70~150g-cm (DECK-1/2)
Back Tension:	4~6g-cm (DECK-1/2)
Test Tape:	NORMAL : TTA-601 CrO ₂ : TTA-610 (TTA-119H) METAL : TTA-630

ADJUSTMENT – 3 < CD >

CD



B CD. CB

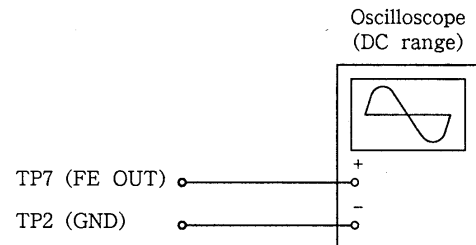
Note : Connect a probe (10 : 1) of the frequency counter or the oscilloscope to a test point.

① VCO Frequency Adjustment

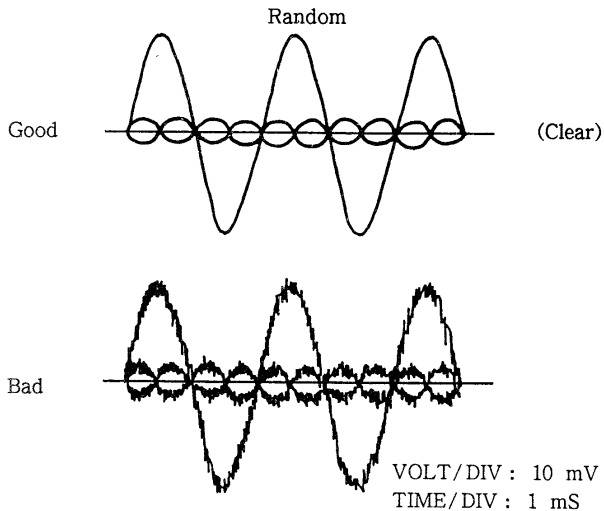
1. Short pin ① and ③ of CON5 with wire.
2. Connect and short between TP3 (ASY) and TP4 (GND).
3. Connect the frequency counter to test points TP1 (VCO) and TP2 (GND).
4. Adjust SFR4 (VCO) so that the frequency counter reading is 4.38 ± 0.01 MHz.
5. After the adjustment is completed, remove the short lead wires from TP2 (GND), TP3 (ASY) and TP4 (Base of Q4).

② Focus Bias Adjustment

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



1. Connect an oscilloscope to test points TP7 (FE OUT) and TP2 (GND).
2. Turn on the power switch.
3. Insert test disc TCD-782 and play back the second composition.
4. Adjust SFR2 so that the noise (high frequency) of test point TP7 (FE OUT) is minimized.

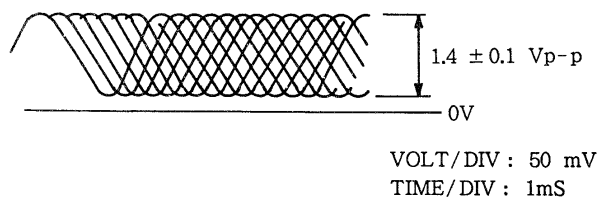


③ RF Waveform Check

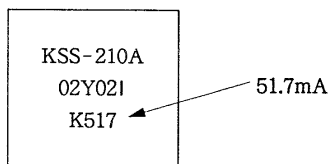
This check should be performed whenever the optical system block is replaced in repair.

1. Connect an oscilloscope to test points TP9 (RF OUT) and TP2 (GND).
2. Turn on the power switch.
3. Insert test disc TCD-782 (YDS-1) and play back the second composition.
4. Check that the waveform appears as shown in the figure below.

RF signal waveform

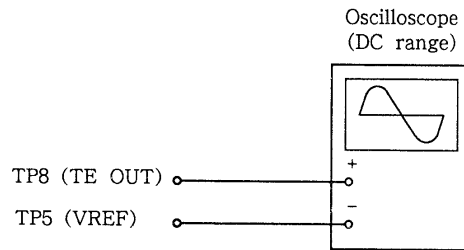


Note : The current of the laser signal can be checked with the voltages on both sides of R203 (10 Ω). The difference for the specified value shown on the label must be within ±6.0 mA.

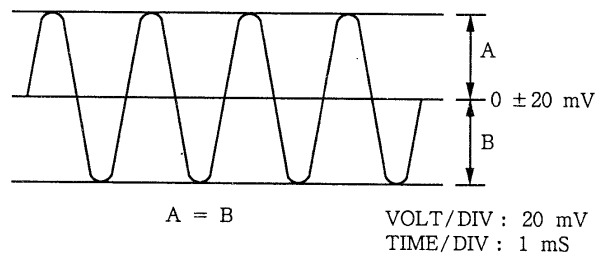


$$\text{Laser current } I_{op} = \frac{\text{Voltage across R203}}{10 \Omega}$$

④ Tracking Balance Adjustment



1. Connect an oscilloscope to test points TP8 (TE OUT) and TP5 (VREF).
2. Connected the intermediate point to GND.
3. Turn on the power switch.
4. Insert test disc TCD-782 (YDS-1) 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 ground lead wires from the terminals.



⑤ 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. Therefore, 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 gains are reciprocated, the adjustment is performed so that both gains 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 not satisfied, the symptoms below appear.

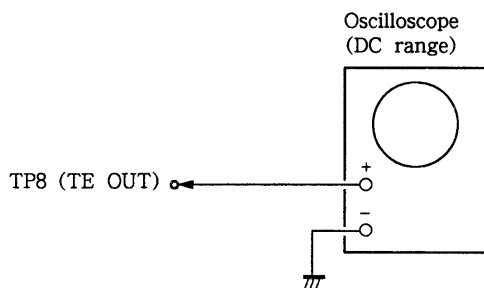
Symptoms \ Gain	(Focus)	Tracking
● The time until music starts becomes longer for STOP→▶PLAY or automatic selection (◀▶ buttons pressed.) (Normally takes about 2 seconds.)	Low	Low or High
● Music does not start and disc continues to rotate for STOP→▶PLAY or automatic selection (◀▶ buttons pressed.)	—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

The following is simple adjustment method.

— Simple adjustment —

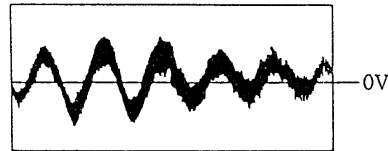
Note : Since the adjustment cannot be performed exactly, remember the positions of the controls before the adjustment and compare the adjusted position and the original position.
If the difference is a little, return the control to the original position.

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 (YDS-1) and play back the second composition.
3. Connect an oscilloscope to TP8 (TE OUT) of the main board.

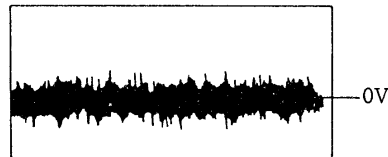
4. Adjust SFR3 so that the waveform appears as shown in the figure below. (tracking gain adjustment)



VOLT/DIV : 5 mV
TIME/DIV : 1 mS

● Incorrect example (The fundamental wave appears as compared with the waveform adjusted.)

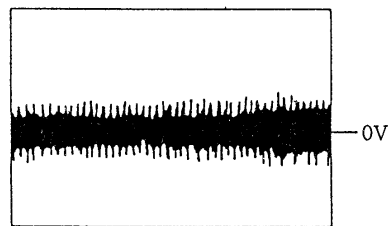
Low tracking gain



VOLT/DIV : 5 mV
TIME/DIV : 1 mS

High tracking gain

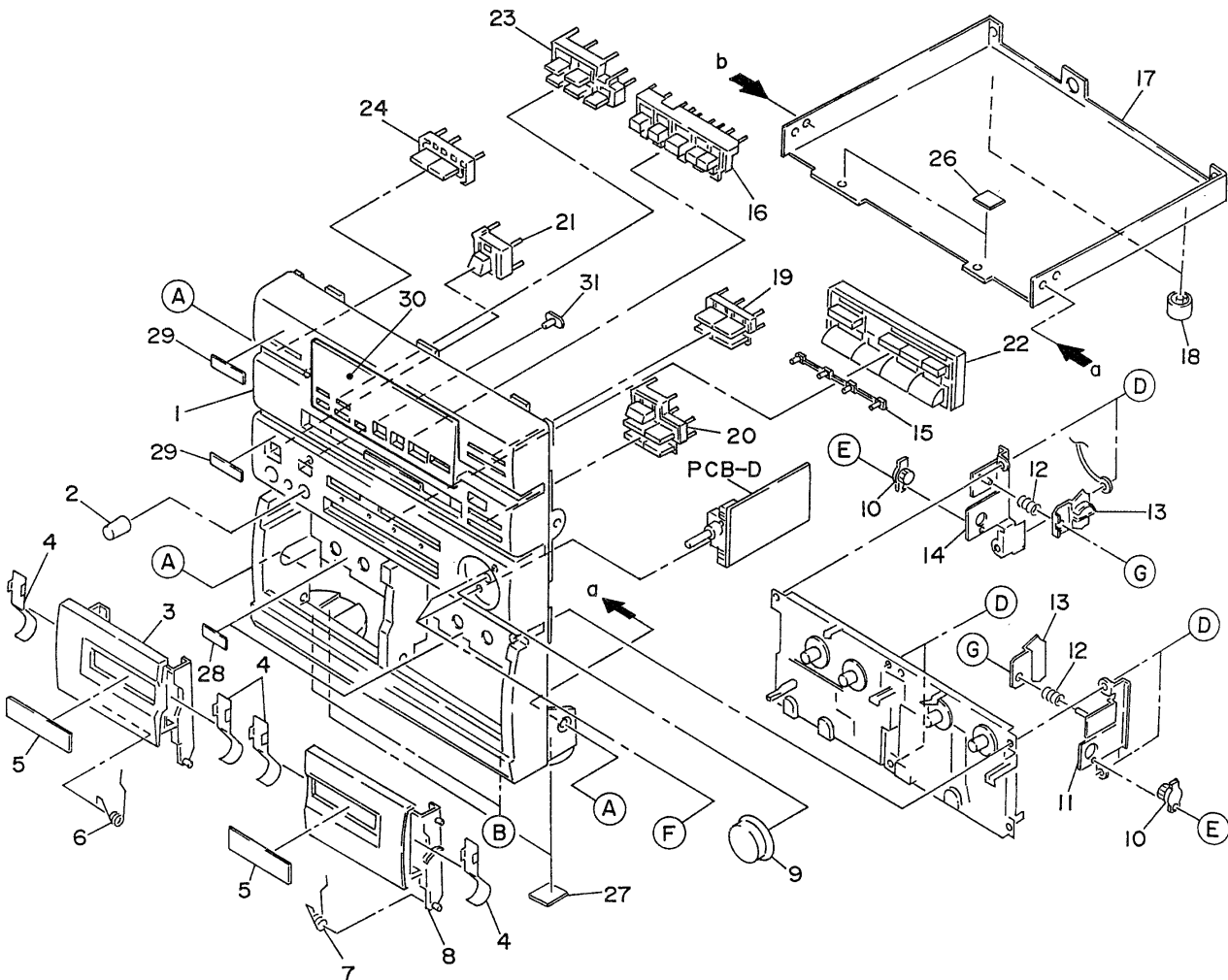
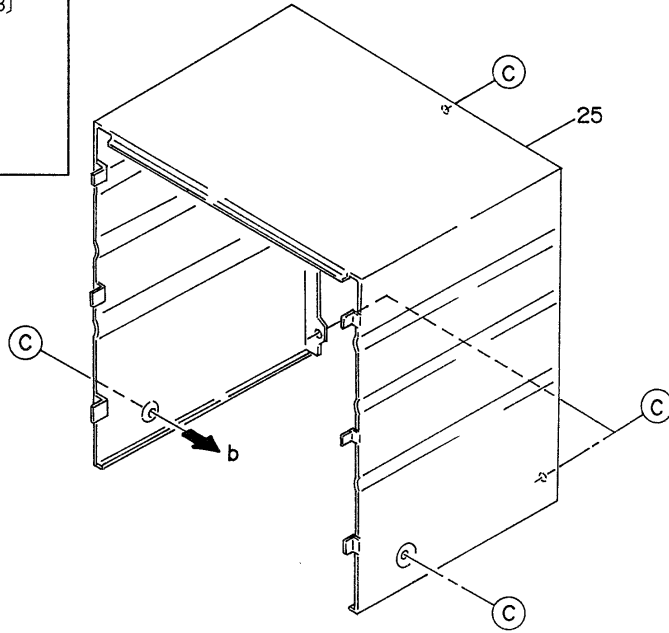
The frequency of the fundamental wave is higher than that in low gain.



VOLT/DIV : 5 mV
TIME/DIV : 1 mS

EXPLODED VIEW - 1

REF. NO.	PART NO.	DESCRIPTION
A	87-591-094-419	QIT + 3 - 6
B	87-067-716-019	BVTT + 3 - 6 (B)
C	87-067-641-019	UTT2 + 3 - 8 W/O SLOT (B)
D	87-067-761-019	BVT2 + 3 - 10 (B)
E	87-263-033-219	V + 2 - 4
F	87-067-579-019	BVT2 + 3 - 8 W/O SLOT
G	87-081-808-019	PW, 1.7 - 3.5 - 0.25

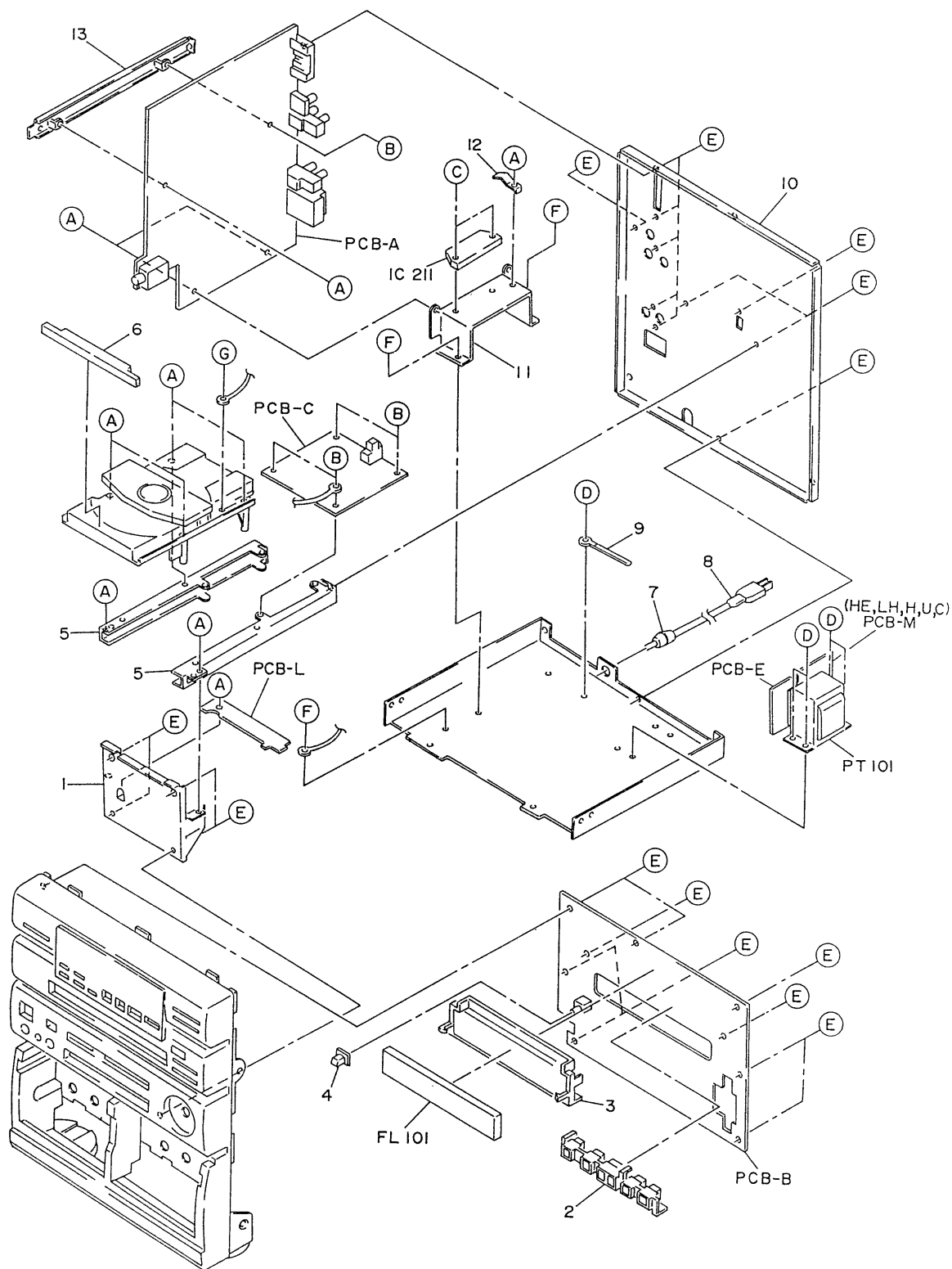


MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1-1	★09-047-704-010	FRONT CABINET ASSY (H, HE, LH)	※	1
	1-1	★09-047-710-010	FRONT CABINET ASSY (C)	※	1
	1-1	★09-047-711-010	FRONT CABINET ASSY (LHJNN)	※	1
	1-1	★09-047-707-010	FRONT CABINET ASSY (LHJB)	※	1
	1-1	★09-047-708-010	FRONT CABINET ASSY (U)	※	1
	1-1	★09-047-709-010	FRONT CABINET ASSY (A92)		
	1-1	★81-MX4-043-010	FRONT CABINET (E, K)	※	1
	1-2	★81-MX4-019-019	KNOB, MIC (EXCEPT A92)	※	1
	1-2	★81-MX4-071-019	KNOB, MIC (A92)	※	1
	1-3	81-MX4-047-019	BOX, CASSETTE 1 (H, HE, LH, U, C)	※	1
	1-3	81-MX4-059-019	BOX, CASSETTE 1 (A92)	※	1
	1-3	81-MX4-090-018	BOX, CASSETTE 2 (E, K, Z)	※	2
	1-4	★82-202-217-110	P - SPRING, CASSETTE HOLDER		4
	1-5	★81-MX4-014-019	WINDOW, BOX 1	※	2
	1-6	★81-MX4-213-019	T - SPRING, EJECT 1	※	1
	1-7	★81-MX4-214-019	T - SPRING, EJECT 2	※	1
	1-8	81-MX4-048-019	BOX, CASSETTE 2 (H, HE, LH, U, C)	※	1
	1-8	81-MX4-060-019	BOX, CASSETTE 2 (A92)	※	1
	1-8	81-MX4-091-018	BOX, CASSETTE 2 (E, K, Z)	※	1
	1-9	★81-MX4-030-019	VOLUME KNOB ASSY (EXCEPT A92)	※	1
	1-9	★81-MX4-066-019	VOLUME KNOB ASSY (A92)	※	1
	1-10	★87-063-151-010	DAMPER, OIL 37		2
	1-11	★80-MV3-204-019	LOCK HOLDER ASSY 2		1
	1-12	★80-MV3-218-019	C - SPRING, LOCK		2
	1-13	★80-CD3-233-010	PLATE, LOCK		2
	1-14	★80-MV3-201-019	LOCK HOLDER ASSY 1		1
	1-15	★81-MX4-020-019	INDICATION, FUNCTION	※	1
	1-16	★81-MX4-010-010	KEY, PLAY	※	1
	1-17	----	CHASSIS, MAIN		1
	1-18	★87-085-221-010	FOOT		2
	1-19	★81-MX4-005-019	KEY, TUNER (EXCEPT A92)	※	1
	1-19	★81-MX4-061-019	KEY, TUNER (A92)	※	1
	1-20	★81-MX4-006-019	KEY, CD (EXCEPT A92)	※	1
	1-20	★81-MX4-062-019	KEY, CD (A92)	※	1
	1-21	★81-MX4-007-019	KEY, POWER (EXCEPT A92)	※	1
	1-21	★81-MX4-063-019	KEY, POWER (A92)	※	1
	1-22	★81-MX4-051-019	KEY, FUNCTION (EXCEPT A92)	※	1
	1-22	★81-MX4-064-019	KEY, FUNCTION (A92)	※	1
	1-23	★81-MX4-011-019	KEY, DUBBING	※	1
	1-24	★81-MX4-009-019	KEY, SLEEP (EXCEPT A92)	※	1
	1-24	★81-MX4-065-019	KEY, SLEEP (A92)	※	1
	1-25	★81-MX4-017-019	CABINET, STEEL (H, HE, LH, U, C)	※	1
	1-25	★81-MX4-069-019	CABINET, STEEL (A92)	※	1
	1-25	★81-MX4-042-018	CABINET, STEEL (E, K, Z)	※	1
	1-26	★81-MX4-220-019	SHEET, 27.5 - 20 - 0.1	※	2
	1-27	★80-VT1-202-010	FELT 12.5 - 15.5 - 2 (E, K)		2
	1-28	----	LABEL, CASSETTE - COMPT (E, K)		2
	1-29	★81-MX4-032-010	BADGE, AIWA (E, K)	※	2
	1-30	★81-MX4-013-010	WINDOW, DISPLAY (E, K)	※	1
	1-31	★81-MX4-034-010	INDICATOR VOCAL FADER (E, K)	※	1

EXPLODED VIEW - 2

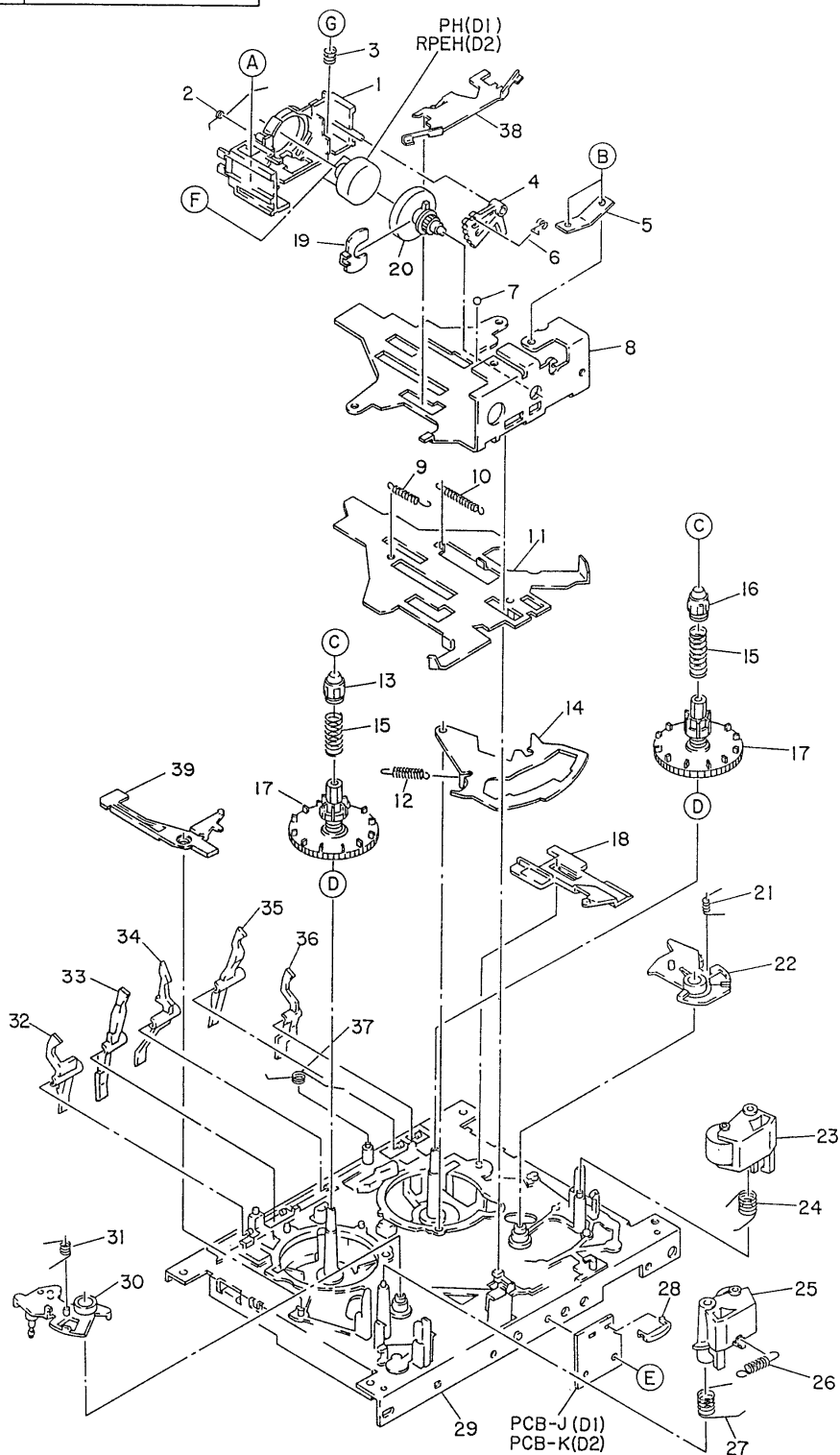
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
A	87-067-579-019	BVT2 + 3 - 8 W/O SLOT	D	87-067-585-019	BVTT + 4 - 6	G	87-067-688-019	BVTT + 3 - 6
B	87-067-633-019	BVT2 + 3 - 8 W CONVEX	E	87-067-761-019	BVT2 + 3 - 10 (B)			
C	87-067-581-019	BVT2 + 3 - 15 W/O SLOT	F	87-067-584-019	BVT2 + 3 - 6 W/O SLOT			



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	2-1	★81-MX4-201-019	HOLDER, CD 1 (H, HE, LH, U, C, A92)	※	1
	2-1	★81-MX4-215-018	HOLDER, CD 1 (E, K, Z)	※	1
	2-2	★81-MX4-210-019	GUIDE, PLAY	※	1
	2-3	★81-DS2-204-019	GUIDE, FL		1
	2-4	★81-MX4-033-019	BUTTON, KARAOKE (EXCEPT A92)	※	1
	2-4	★81-MX4-072-019	BUTTON, KARAOKE (A92)	※	1
	2-5	★81-MX4-203-019	HOLDER, CD3 (H, HE, LH, U, C, A92)	※	2
	2-5	★81-MX4-216-018	HOLDER, CD3 (E, K, Z)	※	2
	2-6	★81-MX4-018-019	PANEL, TRAY (EXCEPT A92)	※	1
	2-6	★81-MX4-070-019	PANEL, TRAY (A92)	※	1
	2-7	★87-085-185-010	BUSHING, AC CORD (HE, E, K, Z, A92)		1
	2-7	★87-085-184-010	BUSHING, AC CORD (H, LH)		1
	2-7	★87-085-189-010	BUSHING, AC CORD (U, C)		1
	2-8	★82-187-797-019	CORD, AC (H, HE, A92)		1
	2-8	★87-034-749-019	CORD, AC (LH)		1
	2-8	★87-034-584-019	CORD, AC (U, C)		1
	2-8	★87-034-781-018	CORD, AC (E, Z)		1
	2-8	★87-034-592-018	CORD, AC (K)		1
	2-9	---	BINDER, WIRE		1
	2-10	★81-MX4-050-119	PANEL, REAR (H)	※	1
	2-10	★81-MX4-035-019	PANEL, REAR (HE)	※	1
	2-10	★81-MX4-073-019	PANEL, REAR (A92)	※	1
	2-10	★81-MX4-036-019	PANEL, REAR (LH)	※	1
	2-10	★81-MX4-025-019	PANEL, REAR (U)	※	1
	2-10	★81-MX4-075-019	PANEL, REAR (C)	※	1
	2-10	★81-MX4-026-019	PANEL, REAR (E)	※	1
	2-10	★81-MX4-027-019	PANEL, REAR (K)	※	1
	2-10	★81-MX4-028-019	PANEL, REAR (Z)	※	1
	2-10	★81-MX4-077-019	PANEL, REAR (E1N, ENE)	※	1
	2-10	★81-MX4-078-019	PANEL, REAR (KNNE)	※	1
	2-10	★81-MX4-079-019	PANEL, REAR (ZNNE)	※	1
	2-10	★81-MX4-086-019	PANEL, REAR (LHJN)	※	1
	2-11	---	HEAT SINK		1
	2-12	---	HOLDER, IC		1
	2-13	★81-653-202-119	HOLDER, P. C. B		1

EXPLODED VIEW – 3

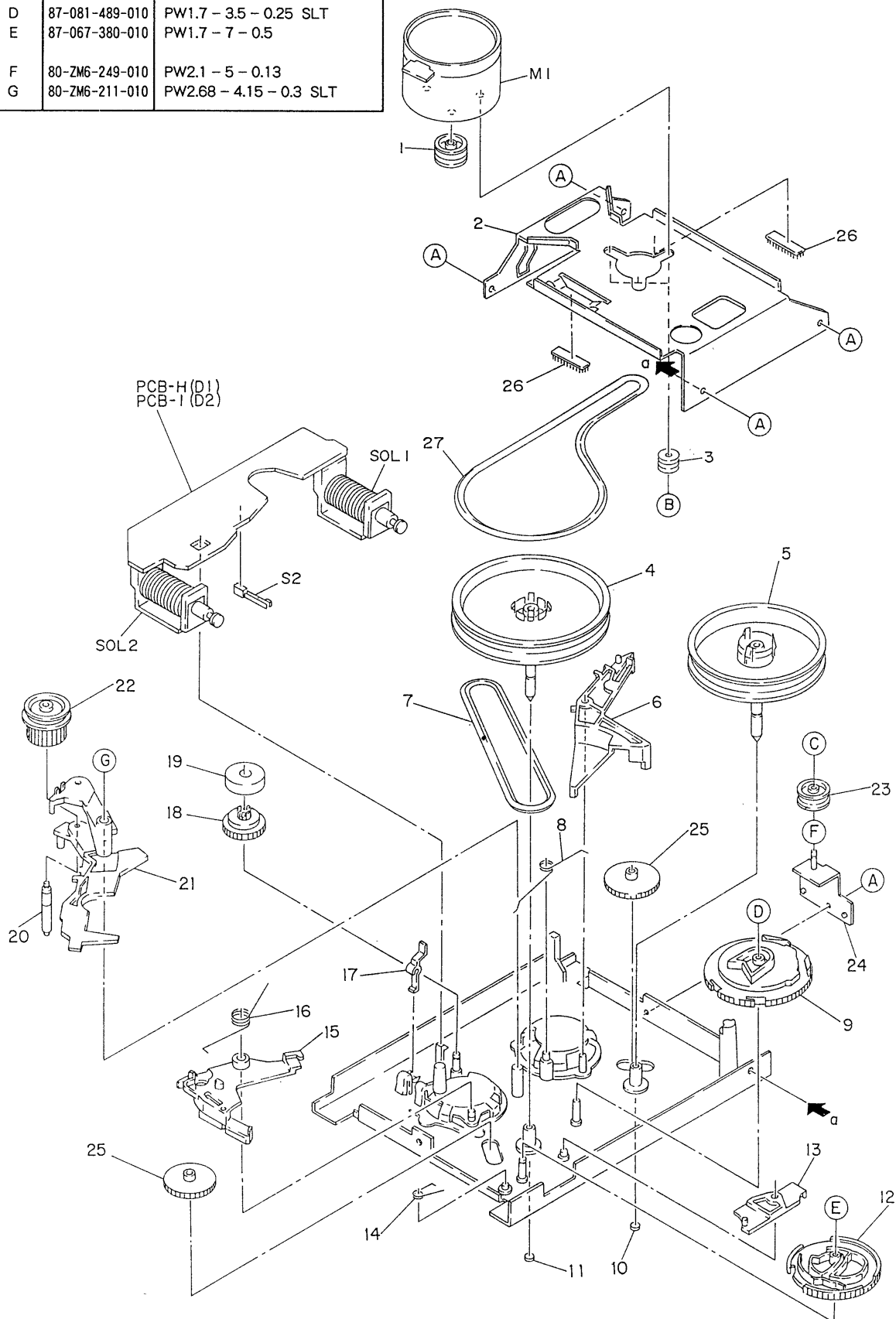
REF. NO.	PART NO.	DESCRIPTION
A	87-263-033-110	V + 2 - 4
B	80-ZM6-251-010	SCREW S AZIMUTH 2
C	86-524-418-010	VFT2 + 1.4 - 5
D	87-067-825-010	PW4.1 - 6.9 - 0.25
E	87-067-174-010	VTT + 2 - 4
F	80-ZM6-207-010	V + 1.6 - 7
G	87-251-036-210	U + 2 - 8



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	3-1	★86-575-288-510	GUIDE, TAPE		1
	3-2	★86-575-310-210	T – SPRING, HEAD		1
	3-3	★86-541-318-119	C – SPRING, AZIMUTH		1
	3-4	★86-575-290-310	GEAR, SEGMENT		1
	3-5	★86-575-343-110	P – SPRING, AZIMUTH 2		1
	3-6	★80-ZM6-229-110	T – SPRING, GEAR SEG 2		1
	3-7	★87-073-018-019	BALL, STEEL 1.588		1
	3-8	★86-575-311-410	CHASSIS, HEAD		1
	3-9	★80-ZM6-268-019	E – SPRING, SLIDE 3		1
	3-10	★86-575-226-019	E – SPRING, CHASSIS HEAD		1
	3-11	★86-535-215-310	SLIDE PLATE ASSY		1
	3-12	★86-535-284-110	E – SPRING, DIRECTION LEVER		1
	3-13	★86-524-218-219	STOPPER, REEL TABLE S		1
	3-14	★86-535-218-310	LEVER, DIRECTION ASSY		1
	3-15	★86-535-293-019	C – SPRING, REEL TABLE		2
	3-16	★86-524-233-219	STOPPER, REEL TABLE T		1
	3-17	★80-ZM6-254-110	REEL GEAR ASSY L		2
	3-18	★86-575-345-210	LEVER, SWITCH 2		1
	3-19	★86-575-305-010	PLATE, HOUSING		1
	3-20	★86-575-306-910	HOLDER, HOUSING		1
	3-21	★86-535-282-019	T – SPRING, PLAY GEAR F		1
	3-22	★86-535-238-310	LEVER, PLAY F		1
	3-23	86-535-226-310	PINCH LEVER ASSY F		1
	3-24	★86-575-222-110	T – SPRING, PINCH F		1
	3-25	86-535-228-410	PINCH LEVER ASSY R		1
	3-26	★86-575-339-019	E – SPRING, PINCH 22		1
	3-27	★86-575-341-110	T – SPRING, PINCH L		1
	3-28	---	HOLDER, WIRE 2		1
	3-29	★80-ZM6-201-810	MECHANISM CHASSIS ASSY		1
	3-30	★86-535-239-110	LEVER, PLAY R		1
	3-31	★86-535-283-019	T – SPRING, PLAY GEAR R		1
	3-32	★86-575-322-110	LEVER, REC A (D2)		1
	3-33	★86-575-325-210	LEVER, METAL (D2)		1
	3-34	★86-575-324-310	LEVER, CASSETTE		1
	3-35	★86-575-327-210	LEVER, CrO ₂		1
	3-36	★86-575-323-010	LEVER, REC B (D2)		1
	3-37	★80-ZM6-206-019	T – SPRING, CASSETTE		1
	3-38	★86-575-347-110	P – SPRING, HEAD 2		1
	3-39	★86-535-242-210	LEVER, EJECT SAFETY		1

EXPLODED VIEW - 4

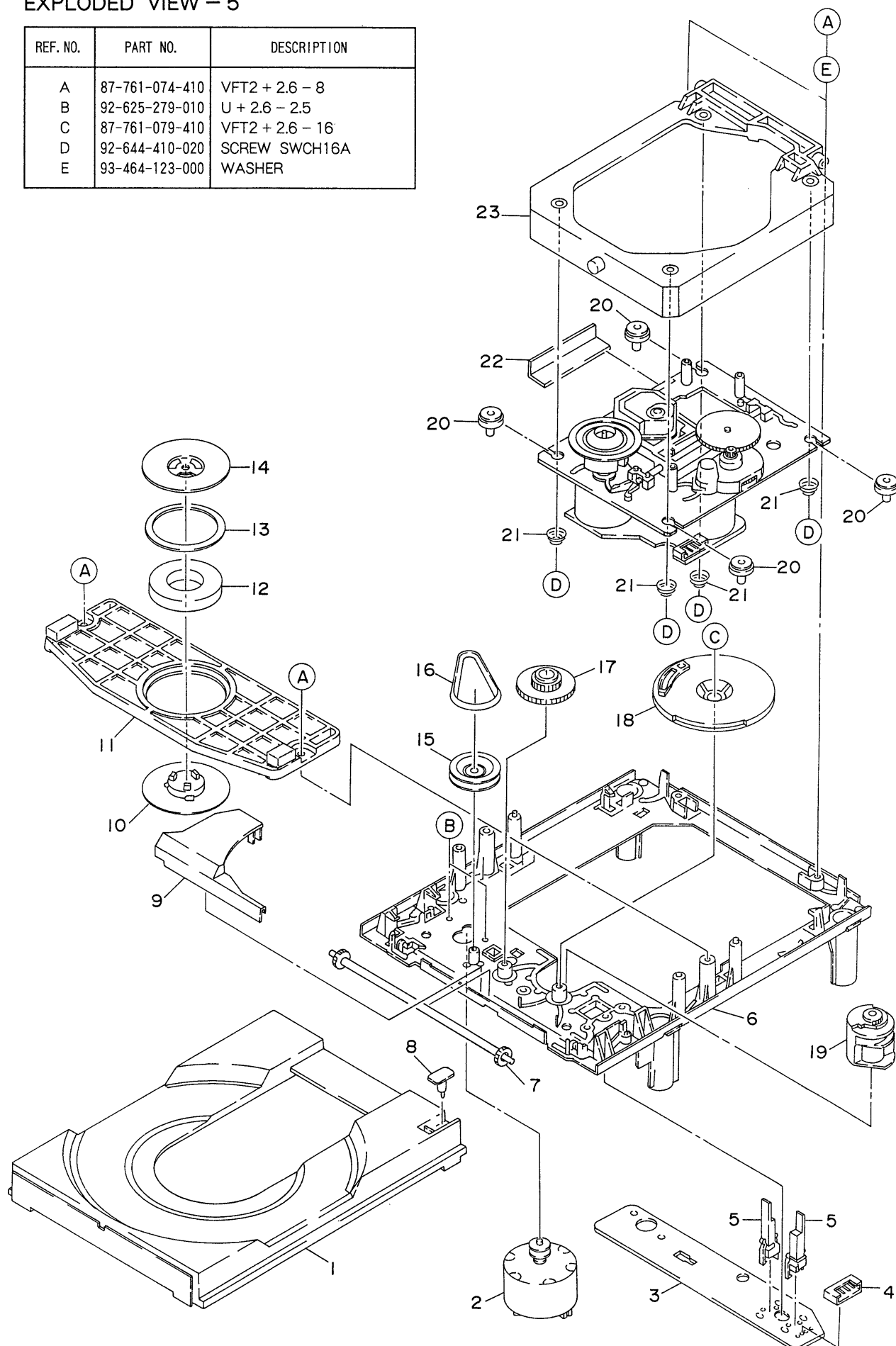
REF. NO.	PART NO.	DESCRIPTION
A	87-067-178-010	VTT + 2.6 - 3
B	86-524-457-010	U + 2.6 - 5.5
C	80-ZM6-216-010	PW1.57 - 4 - 0.25 SLT
D	87-081-489-010	PW1.7 - 3.5 - 0.25 SLT
E	87-067-380-010	PW1.7 - 7 - 0.5
F	80-ZM6-249-010	PW2.1 - 5 - 0.13
G	80-ZM6-211-010	PW2.68 - 4.15 - 0.3 SLT



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	4-1	★80-ZM6-228-510	PULLEY, MOTOR 2		1
	4-2	★81-ZM7-201-110	HOLDER, MOTOR 3	※	1
	4-3	★86-513-441-210	COLLAR, MOTOR		3
	4-4	★80-ZM6-203-210	FLYWHEEL ASSY R1 (D1)		1
	4-4	★80-ZM6-262-010	FLYWHEEL ASSY R2 (D2)		1
	4-5	★80-ZM6-208-310	FLYWHEEL ASSY L1 (D2)		1
	4-5	★80-ZM6-257-010	FLYWHEEL ASSY L2 (D1)		1
	4-6	★86-535-231-510	LEVER, TRIGGER PLAY		1
	4-7	80-ZM6-227-110	BELT, SQ 1.2 - 140		1
	4-8	★80-ZM6-205-110	T - SPRING, MAIN		1
	4-9	★86-575-312-110	CAM, MAIN		1
	4-10	★80-ZM6-243-019	SHEET 1.75 - 3.6 - 0.5 SLT		1
	4-11	★80-ZM6-242-019	SHEET 1.95 - 3.6 - 0.5 SLT		1
	4-12	★80-ZM6-219-210	CAM, FR MK 2 2M		1
	4-13	★86-575-229-210	LEVER, PAUSE B		1
	4-14	★86-535-291-210	T - SPRING, FR CAM		1
	4-15	★86-535-230-510	LEVER, TRIGGER FR		1
	4-16	★80-ZM6-220-019	T - SPRING, FR 2		1
	4-17	★86-575-326-210	LEVER, LINK		1
	4-18	★86-575-328-110	GEAR, IDLER		1
	4-19	★80-ZM6-217-010	MAGNET, RING 2		1
	4-20	★80-ZM6-222-110	SHAFT, FR PULLEY		1
	4-21	★80-ZM6-218-110	LEVER, FR 2		1
	4-22	★80-ZM6-221-110	GEAR, FR 2		1
	4-23	★80-ZM6-224-410	PULLEY, COUPLER		1
	4-24	★80-ZM6-213-110	HOLDER ASSY P (D1)		1
	4-25	★86-575-221-310	GEAR, PLAY		2
	4-26	★80-ZM6-230-019	SHEET, BELT		2
	4-27	★81-ZM7-202-110	BELT, SQ 1.3 - 262 (D2)	※	1
	4-27	★81-ZM7-203-110	BELT, SQ 1.3 - 274 (D1)	※	1

EXPLODED VIEW – 5

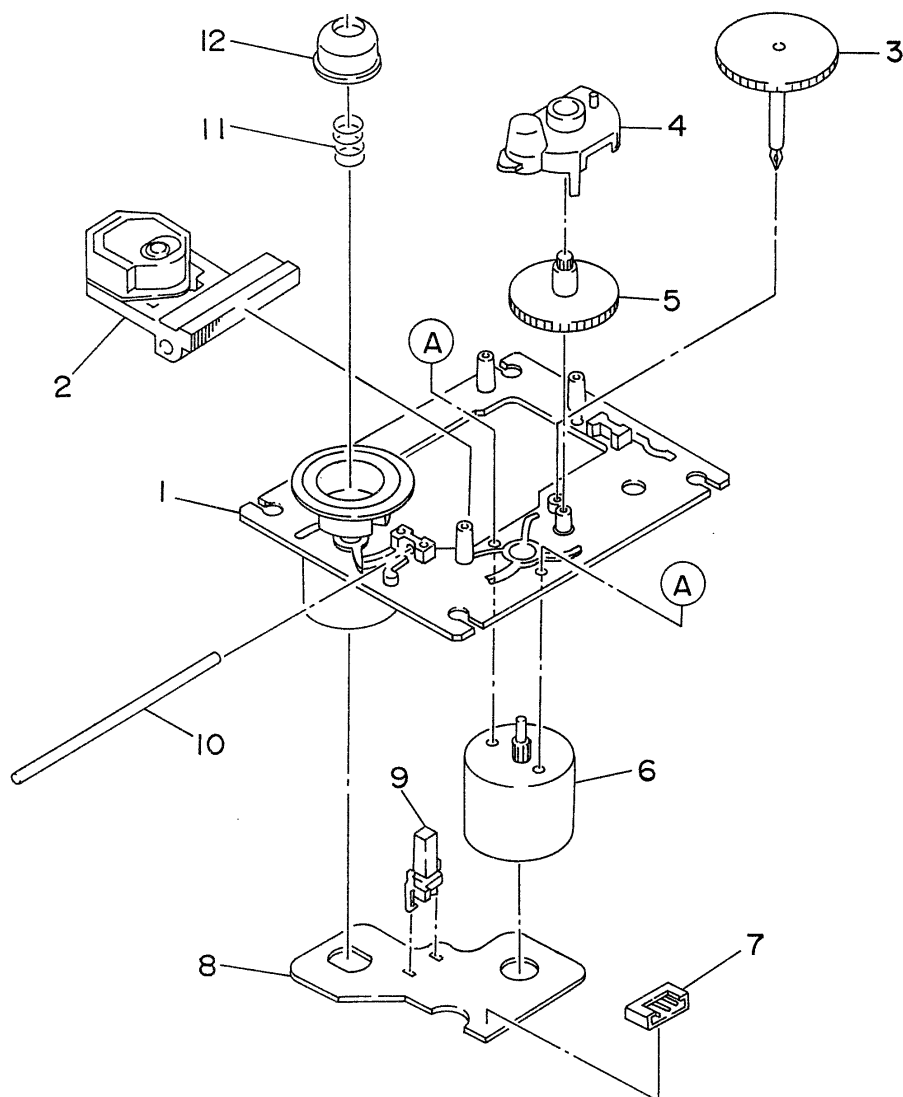
REF. NO.	PART NO.	DESCRIPTION
A	87-761-074-410	VFT2 + 2.6 – 8
B	92-625-279-010	U + 2.6 – 2.5
C	87-761-079-410	VFT2 + 2.6 – 16
D	92-644-410-020	SCREW SWCH16A
E	93-464-123-000	WASHER



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	5-1	★92-625-288-040	TRAY		1
	5-2	★9X-262-511-710	LOADING MOTOR ASSY		1
	5-3	---	PWB, LOADING		1
	5-4	★91-564-721-110	CONNECTOR 5P		1
	5-5	91-572-086-110	SWITCH, LEAF		2
	5-6	---	CHASSIS, MAIN		1
	5-7	★92-625-275-030	GEAR, TRAY		1
	5-8	---	SW PIN		1
	5-9	★92-625-282-020	COVER, GEAR		1
	5-10	★92-625-286-030	PULLEY, CHUCKING		1
	5-11	★92-625-284-040	PLATE, CHUCKING		1
	5-12	★91-452-493-210	MAGNET		1
	5-13	★92-625-541-010	DAMPER		1
	5-14	★92-625-277-010	YOKE, CHUCK		1
	5-15	★92-625-276-010	PULLEY, LOADING		1
	5-16	★93-853-387-000	BELT, LM		1
	5-17	★92-625-274-020	GEAR, MEDDLE		1
	5-18	★92-625-285-030	GEAR, DRIVE		1
	5-19	★92-625-283-020	CAM, CONTROL		1
	5-20	★92-625-278-010	INSULATOR		4
	5-21	★92-625-280-010	SPRING		4
	5-22	---	PLATE, PUSH		1
	5-23	---	SUB CHASSIS ASSY W/INSU SHAFT		1

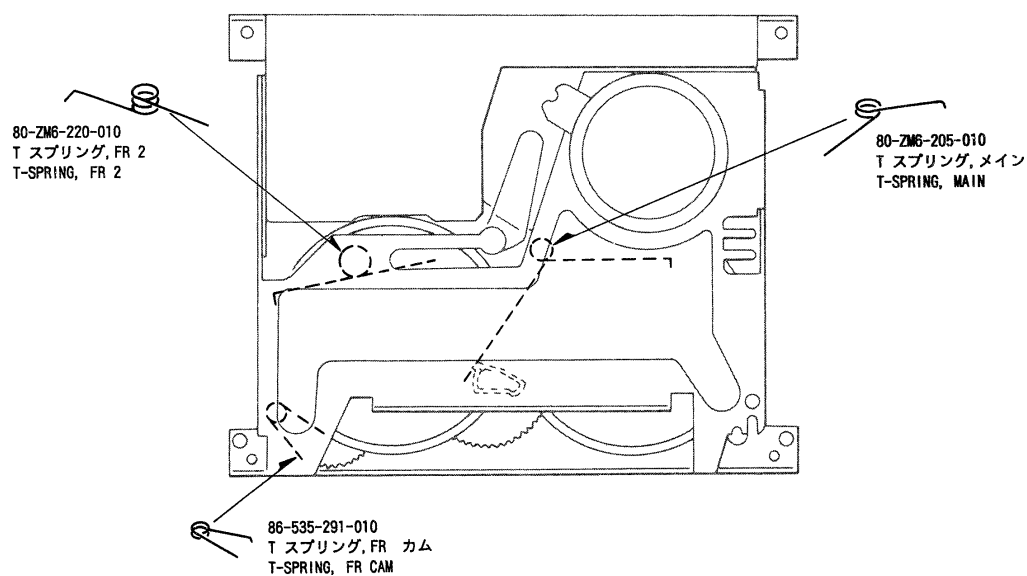
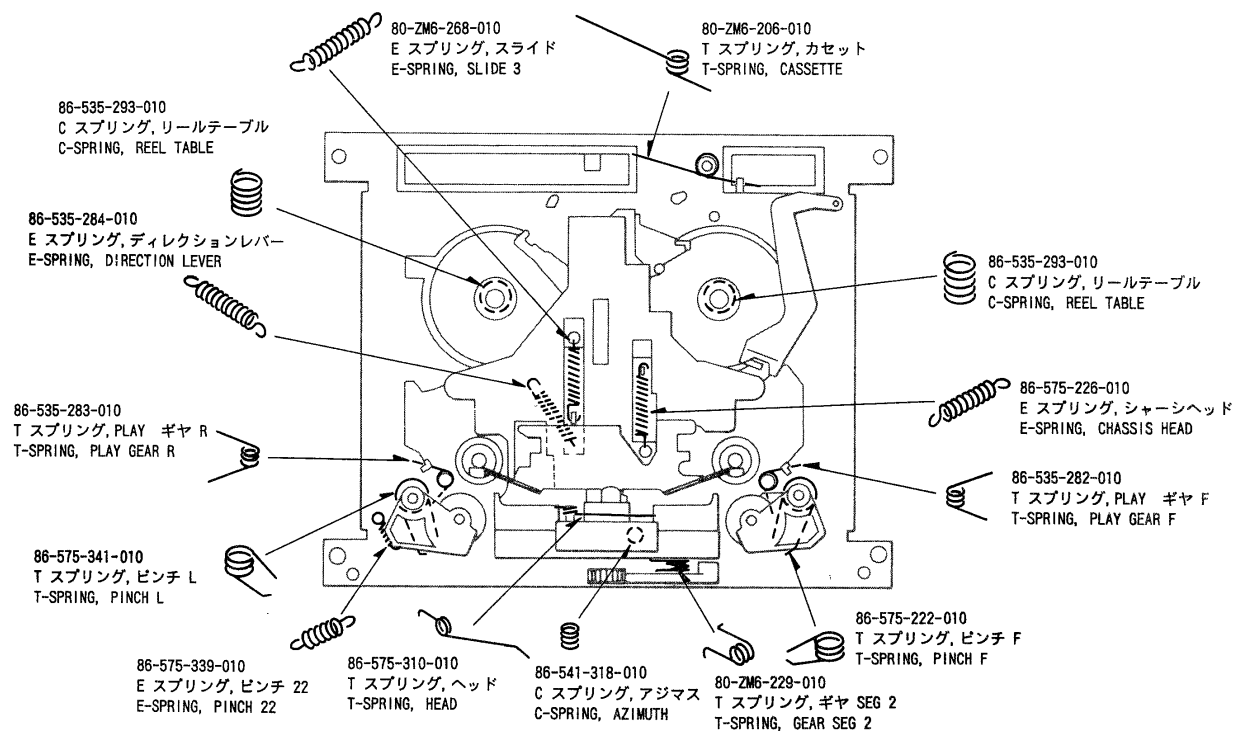
EXPLODED VIEW - 6

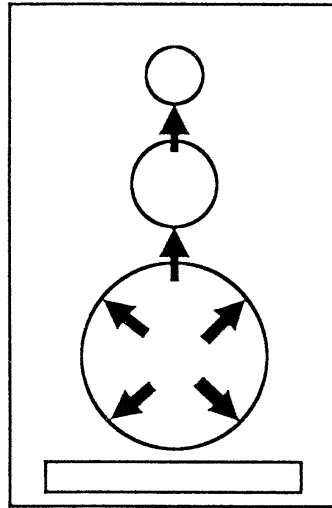
REF. NO.	PART NO.	DESCRIPTION
A	87-261-032-210	V + 2 - 3



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	6-1	★9X-262-513-310	T.T CHASSIS ASSY W/MOTOR		1
	6-2	98-848-127-110	PICK UP KSS - 210A		1
	6-3	★92-625-188-020	GEAR, A		1
	6-4	★92-625-544-010	COVER		1
	6-5	---	GEAR, B		1
	6-6	★9X-262-513-210	SLED MOTOR ASSY		1
	6-7	★91-564-722-110	CONNECTOR 6P		1
	6-8	---	PWB, MOTOR		1
	6-9	91-572-085-110	SWITCH, LEAF LIMIT		1
	6-10	★94-917-565-010	SHAFT, SLED		1
	6-11	★92-625-191-010	SPRING, COMPRESSION		1
	6-12	★92-625-187-010	RING, CENTER		1

SPRING APPLICATION POSITION

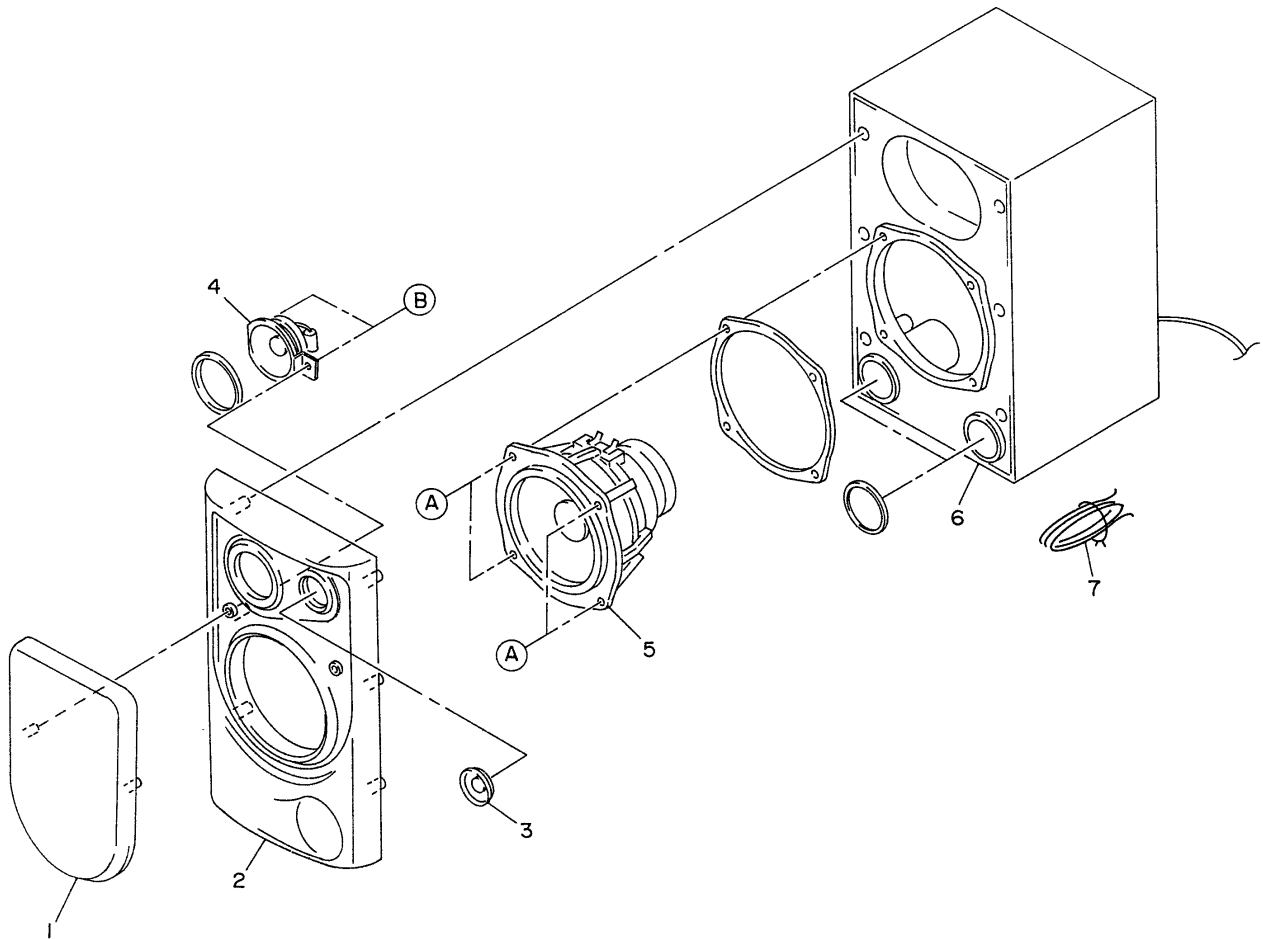




- Insert a flat-bladed screwdriver into the positions indicated by the arrows (shown in the above figure) and remove the grill assemblies of the woofer, mid-range speaker and tweeter. Remove the screws of each speaker unit and then remove the speaker units.

EXPLODED VIEW (SX – SN330, SX – SA92)

REF. NO.	PART NO.	DESCRIPTION
A	---	UT + 4 – 12
B	---	UT + 3 – 12



■ SPEAKER LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	1	★81-MSE-007-010	GRILL FRAME ASSY		2
	2	★81-MSE-004-010	PANEL, FRONT L		1
	2	★81-MSE-005-010	PANEL, FRONT R		1
	3	81-MSE-610-010	CERAMIC		2
	4	81-MSE-603-010	SPEAKER, TWEETER		2
	5	81-MSE-601-010	SPEAKER, WOOFER		2
	6	---	CABINET ASSY		2
	7	★83-096-614-010	CORD, SPEAKER		2

861377, 912162

Including CORRECTION.