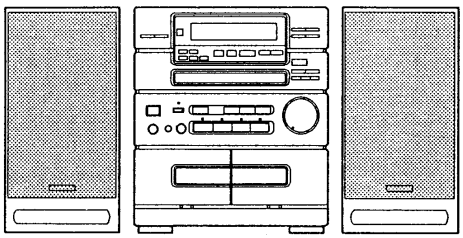
aiwa

NSX-N333

SERVICE MANUAL



COMPACT DISC STEREO SYSTEM

- BASIC TAPE MECHANISM : 2ZM – 3 PR3
- BASIC CD MECHANISM : KSL – 2101ABM
- TYPE. HD,HM

SYSTEM	CD – CASSEIVER	REMOTE CONTROLLER	SPEAKER
NSX – 333	CX – N333	RC – TN320	SX – N320

S/M Code No. 09 – 93A – 034 – 40K

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SPECIFICATIONS

<FM section>

Frequency range	HD: 76.0 MHz to 108 MHz HM: 87.5 MHz to 108 MHz
Usable sensitivity (IHF)	1.3 µV (75 ohms) 13.2 dBf
Alternate channel selectivity	50 dB (±400 kHz)
Signal-to-noise ratio	70 dB (STEREO), 76 dB (MONO)
Harmonic distortion	0.3 % (MONO), 1 kHz 0.5 % (STEREO, L-R), 1 kHz
Frequency response	30 Hz to 15 kHz (+0.5 dB, – 3 dB)
Stereo separation	33 dB at 1 kHz
Antenna	75 ohms (unbalanced)

<MW section>

Frequency range	9/(10) kHz steps: 531 (530) kHz to 1,602 (1,710) kHz
Usable sensitivity	350 µV/m
Selectivity	22 dB (9 kHz)
Signal-to-noise ratio	53 dB (100 dB input)
Antenna	Loop antenna

<SW section>

Frequency range	SW 1: 3.200 MHz to 7.300 MHz SW 2: 9.500 MHz to 21.850 MHz
Sensitivity	30 µV (IEC)
Antenna	Wire antenna

<Timer section>

Program timer	On-timer, capable of free setting
Sleep timer	Capable of setting in 10-minute increments, 240 minutes max.

<Amplifier section>

Power output	40 W + 40 W (6 ohms, T.H.D. 10 % 1 kHz) EIAJ
Harmonic distortion	0.05 % (20 W, 1 kHz, 6 ohms)
Input sensitivity	VIDEO/AUX: 400 mV

<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 (NR ON, CrO_2 tape peak level)
Tape speed	4.8 cm/sec. ($1^7/_8$ ips)
Recording system	AC bias
Erasure system	AC erase
Motor	DC servomotor × 1
Heads	Playback head × 1 (deck 1) Recording/playback/erasure head × 1 (deck 2)

<CD player section>

Disc	Compact disc
Scanning method	Non-contact optical scanner (semi-conductor laser application)
Laser	Semiconductor laser (λ = 780 nm)
Rotation speed	Approx. 500 rpm – 200 rpm (CLV)
Error correction	Cross Interleave, Reed Solomon code
No. of channels	2
D-A converter	HD: 1-bit linear HM: 16-bit linear
Wow/flutter	Unmeasurable
Signal-to-noise ratio	90 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)

<Speaker SX-N320>

Cabinet type	3-way, bass reflex (Magnetism sealed type)
Speaker	130 mm ($5^1/_8$ in.) cone type woofer 50 mm (2 in.) cone type tweeter 20 mm ($^{13}/_{16}$ in.) ceramic type super tweeter
Impedance	6 ohms
Music power	40 W
Output sound pressure level	87 dB/W/m
Dimensions (W × H × D)	180 × 302.5 × 200 mm ($7^1/_8$ × 12 × $7^7/_8$ in.)
Weight	2.6 kg (5.7 lb.)

<General>

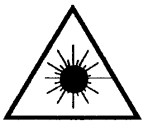
Power requirements	HD: AC 100–120 V/200–240 V, switchable 50/60 Hz HM: AC 120 V/220 V/240 V, switchable 50/60 Hz
Power consumption	HD: 77 W HM: 82 W
Dimensions (W × H × D)	Main unit: 260 × 302.5 × 329.5 mm ($10^1/_4$ × 12 × 13 in.) System: 620 × 302.5 × 329.5 mm ($24^1/_2$ × 12 × 13 in.)
Weight	Center unit: 6.8 kg (14.96 lb.) System: 12 kg (26.4 lb.)

- Design and specifications are subject to change without notice.
- The word "BBE" and the "BBE" symbol" are trademarks of BBE Sound, Inc.
- Under license from BBE Sound, Inc.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling 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.

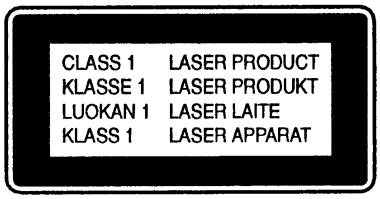
VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

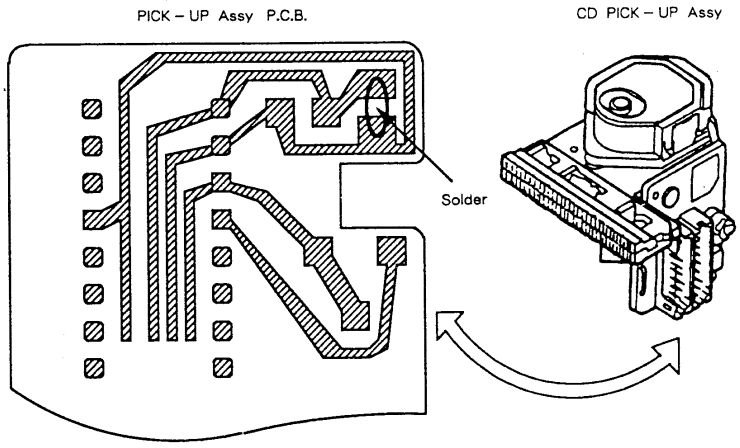


Precaution to replace Optical block

(KSS – 210A)

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

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



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			
	87-017-474-010		IC, CXA1782AQ
	87-017-586-010		IC, CXD 2518Q
	87-017-486-080		IC, BA6397FP
	87-017-585-080		IC, NJM4580E
	87-001-982-010		IC, TA7291S
	87-017-360-080		IC, SC7S04F
	83-NE2-695-110		IC, UPD78043GF-050
	82-NE6-617-010		IC GP1U581X
	87-002-727-010		IC, NJM4558L
	87-020-966-019		IC, STK4142-2
	87-020-758-010		IC, NJM2068SD
	87-017-375-080		IC, TC4094BF
	87-001-874-019		IC, HA12134A
	87-017-465-019		IC, GD4066B
	87-002-218-010		IC, XRC5451AP
	87-017-374-019		IC, TC4094BP
	87-017-448-019		IC, GD4052B
	87-001-607-080		IC, NJM4558M
	87-017-487-010		IC, BU2611
	87-017-434-019		IC, KIA6043S
	87-001-942-010		IC, LA1265G
	87-002-272-080		IC, TC4052BF
	87-002-563-080		IC, BU4066BF
	87-017-541-080		IC, M65830AFP
TRANSISTOR			
	87-026-463-089		TR, 2SA933 S(RS)
	87-026-463-080		TR, 2SA933S(RS)
	89-109-521-080		TR, 2SA952K
	87-026-233-080		C-TR, DTA114TK
	87-026-609-089		TR, KTA1266GR
	89-327-124-080		C-TR, 2SC2712Y
	87-026-239-080		C-TR, DTC114TK
	87-026-297-080		C-TR, DTA144TK
	89-213-702-010		TR, 2SB1370E
	89-332-665-080		TR, 2SC3266GR
	87-026-610-089		TR, KTC3198GR
	87-026-462-080		TR, 2SC1740S(RS)
	89-327-125-089		C-TR, 2SC2712GR
	89-406-555-080		TR, 2SD655E
	87-026-292-080		TR, DTA144WS
	87-026-226-080		C-TR, DTA143EK
	87-026-218-080		TR, DTC144ES
	89-503-655-680		FET, 2SK365GR/BL
	87-026-238-080		C-TR, DTC144WK
	89-333-317-080		TR, 2SC3331 T
	87-026-289-080		TR, DTC 143 XS(TP)
	87-026-230-080		C-TR, DTA114YK
	87-026-269-080		TR, DTA114ES
	89-502-464-080		FET, 2SK246Y
	89-318-154-080		TR, 2SC1815Y
	87-026-214-080		TR, DTA114YS
	87-026-215-080		TR, DTC114YS
	89-319-233-089		TR, 2SC1923(O)
	89-502-415-080		FET, 2SK241GR
	89-501-615-080		FET, 2SK161GR
	87-026-318-080		C-TR, DTC363EK
	89-320-011-089		TR, 2SC2001K
	89-505-445-080		FET, 2SK544E
	89-318-155-080		TR, 2SC1815GR
DIODE			
	87-020-465-080		DIODE, 1SS133
	87-002-225-010		DIODE DBF 40C-K10
	87-002-608-080		DIODE, DSF10TC
	87-001-574-080		DIODE, 1SR139-200
	87-020-691-080		DIODE, 1SS132
	87-001-559-080		DIODE, 1SS131
	87-001-916-080		ZENER UTZJ10B
	87-002-743-080		ZENER, MTZJ 33B
	87-001-913-080		ZENER, UTZJ5.6B
	87-001-914-080		ZENER, UTZJ6.2B
	87-001-911-080		ZENER, UTZJ 4.7A
	87-020-027-080		C-DIODE, 1SS184
	87-017-437-089		DIODE, IN4148M
	87-020-125-080		C-DIODE, 1SS181
	87-002-843-080		DIODE, 1SS108
	87-001-912-080		ZENER UTZJ 5.1B
MAIN C.B			
	81-653-638-119		ANT TERMINAL EARTH
C101	87-010-399-099		CAP, E 3300-35 SME(HD)
C101	87-016-055-099		CAP, E 3300-42 HI-R(HM)
C102	87-010-399-099		CAP, E 3300-35 SME(HD)
C102	87-016-055-099		CAP, E 3300-42 HI-R(HM)
C103	87-010-390-099		CAP, E 3300-25 SME
C104	87-010-237-080		CAP, E 1000-16
C105	87-010-381-080		CAP, E 330-16 SME
C106	87-010-764-080		CAP, E 47-63
C107	87-010-384-080		CAP, E 100-25 SME
C108	87-010-392-080		CAP, E 33-35 SME
C109	87-010-263-080		CAP, E 100-10
C110	87-010-263-080		CAP, E 100-10
C111	87-010-370-080		CAP, E 330-6.3 SME
C112	87-010-237-080		CAP, E 1000-16
C113	87-010-403-080		CAP, E 3.3-50 SME
C114	87-018-205-080		CAP, TC-U 0.022-25 F
C116	87-018-127-080		CAP, TC-U 470P-50 B
C205	87-010-401-080		CAP, E 1-50 SME
C206	87-010-401-080		CAP, E 1-50 SME
C209	87-018-134-080		CAP, TC-U 0.01-16 Y
C210	87-018-134-080		CAP, TC-U 0.01-16 Y
C211	87-018-119-080		CAP, TC-U 100P-50 B
C212	87-018-119-080		CAP, TC-U 100P-50 B
C213	87-010-404-080		CAP, E 4.7-50 SME
C214	87-010-404-080		CAP, E 4.7-50 SME
C215	87-018-131-080		CAP, TC-U 1000P-50 B
C216	87-018-131-080		CAP, TC-U 1000P-50 B
C217	87-010-401-080		CAP, E 1-50 SME
C218	87-010-401-080		CAP, E 1-50 SME
C221	87-010-401-080		CAP, E 1-50 SME
C222	87-010-401-080		CAP, E 1-50 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	87-018-214-080		CAP TC U 0.1-50 F
C228	87-018-214-080		CAP TC U 0.1-50 F
C236	87-010-408-080		CAP, E 47-50 SME
C243	87-018-104-080		CAP, TC-U 10P-50 SL
C244	87-018-104-080		CAP, TC-U 10P-50 SL
C303	87-018-122-080		CAP, TC-U 180P-50 B
C304	87-018-122-080		CAP, TC-U 180P-50 B
C309	87-018-134-080		CAP, TC-U 0.01-16 Y
C310	87-018-134-080		CAP, TC-U 0.01-16 Y
C313	87-018-205-080		CAP, TC-U 0.022-25 F
C314	87-010-260-080		CAP, E 47-25 SME
C351	87-018-121-080		CAP, TC-U 150P-50 B
C352	87-018-121-080		CAP, TC-U 150P-50 B
C353	87-018-124-080		CAP, TC-U 270P-50 B
C354	87-018-124-080		CAP, TC-U 270P-50 B
C355	87-010-260-080		CAP, E 47-25 SME
C361	87-018-134-080		CAP, TC-U 0.01-16 Y
C362	87-018-134-080		CAP, TC-U 0.01-16 Y
C365	87-018-205-080		CAP, TC-U 0.022-25 F

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
C401	87-010-402-080		CAP, E 2.2-50 SME
C402	87-010-402-080		CAP, E 2.2-50 SME
C407	87-010-401-080		CAP, E 1-50 SME
C408	87-010-401-080		CAP, E 1-50 SME
C415	87-018-121-080		CAP, TC-U 150P-50 B
C416	87-018-121-080		CAP, TC-U 150P-50 B
C451	87-018-123-080		CAP, TC-U 220P-50 B
C452	87-018-123-080		CAP, TC-U 220P-50 B
C453	87-018-131-080		CAP, TC-U 1000P-50 B
C455	87-018-131-080		CAP, TC-U 1000P-50 B
C456	87-010-260-080		CAP, E 47-25 SME
C459	87-018-198-080		CAP, TC-U 2700P-16 X
C501	87-010-404-080		CAP, E 4.7-50 SME
C502	87-010-404-080		CAP, E 4.7-50 SME
C503	87-018-131-080		CAP, TC-U 1000P-50 B
C504	87-018-131-080		CAP, TC-U 1000P-50 B
C505	87-010-401-080		CAP, E 1-50 SME
C506	87-010-401-080		CAP, E 1-50 SME
C507	87-018-131-080		CAP, TC-U 1000P-50 B
C508	87-018-131-080		CAP, TC-U 1000P-50 B
C509	87-010-371-080		CAP, E 470-6.3
C515	87-010-545-080		CAP, E 0.22-50 SME
C516	87-010-545-080		CAP, E 0.22-50 SME
C517	87-010-400-080		CAP, E 0.47-50 SME
C518	87-010-400-080		CAP, E 0.47-50 SME
C521	87-018-134-080		CAP, TC-U 0.01-16 Y
C522	87-018-115-080		CAP, TC-U 47P-50 SL
C523	87-018-134-080		CAP, TC-U 0.01-16 Y
C524	87-010-546-080		CAP, E 0.33-50 SME
C525	87-010-405-080		CAP, E 10-50 SME
C573	87-010-404-080		CAP, E 4.7-50 SME
C574	87-010-405-080		CAP, E 10-50 SME
C581	87-010-405-080		CAP, E 10-50 SME
C582	87-010-405-080		CAP, E 10-50 SME
C590	87-018-214-080		CAP TC U 0.1-50 F
C601	87-010-401-080		CAP, E 1-50 SME
C602	87-010-401-080		CAP, E 1-50 SME
C605	87-018-121-080		CAP, TC-U 150P-50 B
C606	87-018-121-080		CAP, TC-U 150P-50 B
C607	87-018-134-080		CAP, TC-U 0.01-16 Y
C608	87-018-134-080		CAP, TC-U 0.01-16 Y
C609	87-010-401-080		CAP, E 1-50 SME
C610	87-010-401-080		CAP, E 1-50 SME
C611	87-010-404-080		CAP, E 4.7-50 SME
C612	87-010-404-080		CAP, E 4.7-50 SME
C615	87-018-198-080		CAP, TC-U 2700P-16 X
C616	87-018-198-080		CAP, TC-U 2700P-16 X
C617	87-018-122-080		CAP, TC-U 180P-50 B
C618	87-018-122-080		CAP, TC-U 180P-50 B
C621	87-010-400-080		CAP, E 0.47-50 SME
C622	87-010-400-080		CAP, E 0.47-50 SME
C623	87-010-404-080		CAP, E 4.7-50 SME
C624	87-010-404-080		CAP, E 4.7-50 SME
C628	87-010-404-080		CAP, E 4.7-50 SME
C630	87-010-405-080		CAP, E 10-50 SME
C631	87-010-401-080		CAP, E 1-50 SME
C632	87-010-401-080		CAP, E 1-50 SME
C633	87-010-101-080		CAP, E 220-16 SME
C635	87-010-405-080		CAP, E 10-50 SME
C636	87-010-404-080		CAP, E 4.7-50 SME
C700	87-010-221-080		CAP, E 470-10
C701	87-010-384-080		CAP, E 100-25 SME
C702	87-010-404-080		CAP, E 4.7-50 SME
C703	87-018-134-080		CAP, TC-U 0.01-16 Y
C705	87-010-248-080		CAP, E 220-10 SME
C706	87-018-134-080		CAP, TC-U 0.01-16 Y
C708	87-018-134-080		CAP, TC-U 0.01-16 Y
C710	87-018-103-080		CAP, TC-U 8.2P-50 SL
C713	87-018-199-080		CAP, TC-U 3300P-16 X
C714	87-018-199-080		CAP, TC-U 3300P-16 X
C715	87-018-195-080		CAP, TC-U 1200P-16 X
C716	87-018-195-080		CAP, TC-U 1200P-16 X
C721	87-010-401-080		CAP, E 1-50 SME
C722	87-010-401-080		CAP, E 1-50 SME
C723	87-010-405-080		CAP, E 10-50 SME
C724	87-014-057-080		CAP, PP 1000P-100 J
C725	87-010-401-080		CAP, E 1-50 SME
C726	87-010-403-080		CAP, E 3.3-50 SME
C727	87-010-248-080		CAP, E 220-10 SME
C731	87-018-134-080		CAP, TC-U 0.01-16 Y
C741	87-010-402-080		CAP, E 2.2-50 SME
C742	87-018-125-080		CAP, TC-U 330P-50 B
C743	87-010-382-080		CAP, E 22-25 SME
C744	87-018-134-080		CAP, TC-U 0.01-16 Y
C745	87-018-134-080		CAP, TC-U 0.01-16 Y
C746	87-010-401-080		CAP, E 1-50 SME
C748	87-010-404-080		CAP, E 4.7-50 SME
C749	87-010-405-080		CAP, E 10-50 SME
C750	87-010-544-080		CAP, E 0.1-50
C751	87-010-403-080		CAP, E 3.3-50 SME
C752	87-018-134-080		CAP, TC-U 0.01-16 Y
C754	87-010-260-080		CAP, E 47-25 SME
C755	87-010-401-080		CAP, E 1-50 SME
C756	87-018-134-080		CAP, TC-U 0.01-16 Y
C760	87-018-134-080		CAP, TC-U 0.01-16 Y
C762	87-018-134-080		CAP, TC-U 0.01-16 Y
C763	87-018-134-080		CAP, TC-U 0.01-16 Y
C764	87-018-134-080		CAP, TC-U 0.01-16 Y
C798	87-018-214-080		CAP TC U 0.1-50 F
C802	87-018-097-080		CAP, TC-U 2.2P-50 SL〈HD〉
C802	87-018-103-080		CAP, TC-U 8.2P-50 SL〈HM〉
C804	87-018-102-080		CAP, TC-U 6.8P-50 SL
C805	87-018-098-080		CAP, TC-U 3.3P-50 SL
C806	87-018-096-080		CAP, TC-U 1P-50 SL
C807	87-018-100-080		CAP, TC-U 4.7P-50 SL
C808	87-018-119-080		CAP, TC-U 100P-50 B
C809	87-018-134-080		CAP, TC-U 0.01-16 Y
C810	87-018-134-080		CAP, TC-U 0.01-16 Y
C811	87-018-149-080		CAP, TC-U 15P-50 CH〈HD〉
C811	87-018-116-080		CAP, TC-U 56P-50 SL〈HM〉
C812	87-018-109-080		CAP, TC-U 22P-50 SL〈HM〉
C812	87-018-102-080		CAP, TC-U 6.8P-50 SL〈HD〉
C813	87-018-134-080		CAP, TC-U 0.01-16 Y
C814	87-018-134-080		CAP, TC-U 0.01-16 Y
C815	87-018-134-080		CAP, TC-U 0.01-16 Y
C816	87-018-134-080		CAP, TC-U 0.01-16 Y
C817	87-018-134-080		CAP, TC-U 0.01-16 Y
C818	87-018-214-080		CAP TC U 0.1-50 F
C819	87-018-214-080		CAP TC U 0.1-50 F
C820	87-010-374-080		CAP, E 47-10
C821	87-018-134-080		CAP, TC-U 0.01-16 Y
C822	87-018-103-080		CAP, TC-U 8.2P-50 SL
C823	87-018-107-080		CAP, TC-U 18P-50 SL
C831	87-018-097-080		CAP, TC-U 2.2P-50 SL〈HD〉
C831	87-018-103-080		CAP, TC-U 8.2P-50 SL〈HM〉
C839	87-018-134-080		CAP, TC-U 0.01-16 Y
C901	87-018-134-080		CAP, TC-U 0.01-16 Y
C902	87-018-134-080		CAP, TC-U 0.01-16 Y
C903	87-018-134-080		CAP, TC-U 0.01-16 Y
C904	87-010-263-080		CAP, E 100-10
C905	87-018-111-080		CAP, TC-U 27P-50 SL
C906	87-018-134-080		CAP, TC-U 0.01-16 Y
C907	87-018-134-080		CAP, TC-U 0.01-16 Y
C908	87-018-134-080		CAP, TC-U 0.01-16 Y
C909	87-010-544-080		CAP, E 0.1-50
C911	87-014-051-080		CAP, PP 560P-100 J
C912	87-014-073-080		CAP, PP 4700P-100 J
C913	87-018-149-080		CAP, TC-U 15P-50 CH
C914	87-018-108-080		CAP, TC-U 20P-50 SL
C915	87-018-133-080		CAP, TC-U 4700P-16 X

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
C916	87-010-263-080		CAP, E 100-10
C917	87-018-134-080		CAP, TC-U 0.01-16 Y
C920	87-018-134-080		CAP, TC-U 0.01-16 Y
C921	87-018-134-080		CAP, TC-U 0.01-16 Y
C922	87-018-134-080		CAP, TC-U 0.01-16 Y
C923	87-018-101-080		CAP, TC-U 5.6P-50 SL
C925	87-018-134-080		CAP, TC-U 0.01-16 Y
C926	87-010-400-080		CAP, E 0.47-50 SME
C946	87-010-401-080		CAP, E 1-50 SME
CF741	82-794-670-010		CF BFU450C4N
CF801	87-008-261-010		FLTR, SFE10.7MA5-A
CF802	87-008-261-010		FLTR, SFE10.7MA5-A
J250	87-049-855-010		JACK, 6.3 W/S
J253	80-MT3-616-010		JACK, PIN 2P
J254	87-033-226-019		TERMINAL, SP 4P JT
J652	80-MT3-616-010		JACK, PIN 2P
J801	81-760-694-010		PUSH TERMINAL 4P
L401	87-005-580-080		COIL, 10MHJ
L402	87-005-580-080		COIL, 10MHJ
L403	87-005-525-080		COIL, 22MH-J
L404	87-005-525-080		COIL, 22MH-J
L451	82-NV3-610-019		COIL, OSC BIAS 85K
L701	81-631-643-010		COIL 1 POLE MPX
L702	81-631-643-010		COIL 1 POLE MPX
L741	81-631-611-010		COIL, QUAD(SINGLE)
L742	81-631-612-010		CF MT
L801	87-006-219-010		COIL, ANT FM 3/4T, S
L802	87-006-218-010		COIL, ANT FM 3-3/4 TS〈HD〉
L802	87-006-210-010		COIL, ANT FM2-3/4TSL5〈HM〉
L803	87-006-200-010		COIL, RF FM 3-1/2T, L5
L804	87-006-217-010		COIL, RF FM 4-1/2TS〈HD〉
L804	87-006-201-010		COIL, RF FM3-1/2TS, L5〈HM〉
L805	87-003-098-080		COIL, 2.2UH
L806	87-003-145-080		COIL, 8.2UH LAL02
L807	87-007-259-010		COIL FM OSC(7K)N〈HM〉
L807	87-006-222-010		COIL, OSC FM(7K)D, 2〈HD〉
L832	87-003-098-080		COIL, 2.2UH
L901	87-006-236-010		COIL, ANT MW (SG)
L902	87-006-237-010		COIL, ANT SW1 (SG)
L903	87-006-238-010		COIL, ANT SW2 (SG)
L904	87-005-372-080		COIL, S 1MH
L905	87-005-372-080		COIL, S 1MH
L906	87-007-326-010		COIL, OSC MW (SG)
L907	87-007-327-010		COIL, OSC SW1 (SG)
L908	87-007-328-010		COIL, OSC SW2 (SG)
R105	87-022-050-089		RESIS METAL 1W-0.22J
R106	87-022-050-089		RESIS METAL 1W-0.22J
R243	87-022-391-080		RES, M/F 0.47-1W J
R244	87-022-391-080		RES, M/F 0.47-1W J
R257	87-022-391-080		RES, M/F 0.47-1W J
R258	87-022-391-080		RES, M/F 0.47-1W J
RY101	87-045-335-010		RELAY, G5Z-2A 12VDC
SFR301	87-024-349-080		SFR, 1K DIA6 H
SFR302	87-024-349-080		SFR, 1K DIA6 H
SFR351	87-024-349-080		SFR, 1K DIA6 H
SFR352	87-024-349-080		SFR, 1K DIA6 H
SFR401	87-024-352-080		SFR, 4.7K DIA6 H
SFR402	87-024-352-080		SFR, 4.7K DIA6 H
SFR451	87-024-356-080		SFR, 47K DIA6 H
SFR452	87-024-356-080		SFR, 47K DIA6 H
SFR721	87-024-352-080		SFR, 4.7K DIA6 H
SFR721	87-024-352-080		SFR, 4.7K DIA6 H
SFR722	87-024-355-080		SFR, 33K DIA6 H
SFR723	87-024-354-080		SFR, 22K DIA6 H
TC701	87-011-220-080		CAP TRIMMER 20P VCT
TC801	87-011-219-080		CAP TRIMMER 10P
TC802	87-011-219-080		CAP TRIMMER 10P
TC901	87-011-220-080		CAP TRIMMER 20P VCT
TC902	87-011-221-080		TRIMER, 30P VCT 51
TC903	87-011-221-080		TRIMER, 30P VCT 51

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
VC801	87-002-730-010		VARI-CAP, SVC203 SPA
VC802	87-002-730-010		VARI-CAP, SVC203 SPA
VC803	87-002-730-010		VARI-CAP, SVC203 SPA
VC908	87-017-567-080		VARI-CAP, SVC 342 M
W101	81-MX4-647-010		F-CABEL, 7P-2.5
W601	83-NE2-691-010		F-CABLE 6P-2.0
X701	87-030-318-080		VIB, XTAL 7.2MHZ(RI)

FRONT C.B

C201	87-010-392-040		CAP, E 33-35 SME
C202	87-010-545-040		CAP, E 0.22-50 SME
C203	87-010-545-040		CAP, E 0.22-50 SME
C204	87-010-263-040		CAP, E 100-10
C205	87-010-401-040		CAP, E 1-50 SME
C206	87-015-695-040		CAP, E 1-50 7L
C207	87-010-248-040		CAP, E 220-10 SME
C208	87-010-405-040		CAP, E 10-50 SME
C209	87-010-197-080		C-CAP, S 0.01-25 B
C210	87-010-196-080		C-CAP, S 0.1-25 F
C211	87-010-180-080		C-CAP, S 1500P-50 B
C401	87-010-196-080		C-CAP, S 0.1-25 F
C501	87-010-384-040		CAP, E 100-25 SME
C701	87-010-196-080		C-CAP, S 0.1-25 F
C702	87-010-179-080		C-CAP, S 1200P-50 B
C703	87-010-401-040		CAP, E 1-50 SME
C704	87-015-696-040		CAP, E 2.2-50 SRA
C705	87-010-172-080		C-CAP, S 330P-50 SL
C706	87-012-141-080		C-CAP, S 0.22-16 F
C707	87-010-544-040		CAP, E 0.1-50 SME
C708	87-010-172-080		C-CAP, S 330P-50 SL
C709	87-010-248-040		CAP, E 220-10 SME
C710	87-010-401-040		CAP, E 1-50 SME
C711	87-010-401-040		CAP, E 1-50 SME
C801	87-010-384-040		CAP, E 100-25 SME
C825	87-010-402-040		CAP, E 2.2-50 SME
C826	87-010-402-040		CAP, E 2.2-50 SME
C901	87-015-696-040		CAP, E 2.2-50 SRA
FL201	83-NE2-602-010		FL, 10BT-128GK
J701	81-MX4-630-010		JACK, 3.5
L202	87-003-098-080		COIL, 2.2UH
L203	87-003-098-080		COIL, 2.2UH
LED401	87-002-816-080		LED, SEL 2415E GRN
LED402	87-002-816-080		LED, SEL 2415E GRN
LED403	87-002-816-080		LED, SEL 2415E GRN
LED404	87-002-816-080		LED, SEL 2415E GRN
LED405	87-002-816-080		LED, SEL 2415E GRN
LED406	87-002-816-080		LED, SEL 2415E GRN
LED407	87-002-738-080		LED, SEL2210R TP6
LED408	87-002-738-080		LED, SEL2210R TP6
LED409	87-002-738-080		LED, SEL2210R TP6
LED410	87-002-738-080		LED, SEL2210R TP6
VR701	81-MX4-637-010		VR 10KA RK11K1130
VR702	81-MX4-638-010		VR, SL 10KB

CD C.B

C1	87-010-178-080		C-CAP, S 1000P-50 B
C2	87-010-263-080		CAP, E 100-10
C3	87-010-265-080		CAP, E 33-16 SME
C6	87-010-198-080		C-CAP, S 0.022-25 B
C7	87-010-196-080		C-CAP, S 0.1-25 F
C10	87-010-182-080		C-CAP, S 2200P-50 B
C11	87-010-196-080		C-CAP, S 0.1-25 F
C14	87-010-404-080		CAP, E 4.7-50 SME
C16	87-010-197-080		C-CAP, S 0.01-25 B
C17	87-010-263-080		CAP, E 100-10
C18	87-010-197-080		C-CAP, S 0.01-25 B
C19	87-010-403-080		CAP, E 3.3-50 SME
C20	87-010-382-080		CAP, E 22-25 SME

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
C21	87-010-263-080		CAP, E 100-10
C22	87-010-197-080		C-CAP, S 0.01-25 B
C23	87-010-193-080		C-CAP, S 0.033-25 F
C24	87-010-197-080		C-CAP, S 0.01-25 B
C25	87-010-193-080		C-CAP, S 0.033-25 F
C28	87-010-196-080		C-CAP, S 0.1-25 F
C29	87-010-263-080		CAP, E 100-10
C30	87-010-194-080		C-CAP, S 0.047-25 F
C31	87-010-180-080		C-CAP, S 1500P-50 B
C32	87-010-263-080		CAP, E 100-10
C33	87-010-197-080		C-CAP, S 0.01-25 B
C34	87-012-156-080		C-CAP, S 220P-50 CH
C35	87-010-197-080		C-CAP, S 0.01-25 B
C36	87-010-404-080		CAP, E 4.7-50 SME
C37	87-010-197-080		C-CAP, S 0.01-25 B
C38	87-010-154-080		C-CAP, S 10P-50 CH
C39	87-010-318-080		C-CAP, S 47-50 CH
C43	87-010-318-080		C-CAP, S 47P-50 CH
C44	87-010-318-080		C-CAP, S 47P-50 CH
C45	87-010-318-080		C-CAP, S 47P-50 CH
C57	87-010-404-080		CAP, E 4.7-50 SME
C58	87-010-196-080		C-CAP, S 0.1-25 F
C59	87-010-221-080		CAP, E 470-10
C60	87-010-197-080		C-CAP, S 0.01-25 B
C61	87-010-196-080		C-CAP, S 0.1-25 F
C62	87-010-180-080		C-CAP, S 1500P-50 B
C63	87-010-805-080		C-CAP, S 1-16 F
C64	87-010-196-080		C-CAP, S 0.1-25 F
C65	87-010-197-080		C-CAP, S 0.01-25 B
C66	87-010-221-080		CAP, E 470-10
C67	87-010-196-080		C-CAP, S 0.1-25 F
C68	87-010-196-080		C-CAP, S 0.1-25 F
C69	87-010-197-080		C-CAP, S 0.01-25 B
C70	87-010-384-080		CAP, E 100-25 SME
C71	87-010-197-080		C-CAP, S 0.01-25 B
C72	87-010-221-080		CAP, E 470-10
C75	87-010-196-080		C-CAP, S 0.1-25 F
C76	87-010-248-080		CAP, E 220-10 SME
C77	87-010-197-080		C-CAP, S 0.01-25 B
C78	87-010-197-080		C-CAP, S 0.01-25 B
C79	87-010-197-080		C-CAP, S 0.01-25 B
C80	87-010-263-080		CAP, E 100-10
C81	87-010-405-080		CAP, E 10-50 SME
C101	87-012-153-080		C-CAP, S 120P-50 CH
C102	87-010-316-080		C-CAP, S 33P-50 CH
C103	87-010-316-080		C-CAP, S 33P-50 CH
C104	87-012-153-080		C-CAP, S 120P-50 CH
C105	87-012-153-080		C-CAP, S 120P-50 CH
C106	87-010-402-080		CAP, E 2.2-50 SME
C107	87-010-263-080		CAP, E 100-10
C108	87-010-186-080		C-CAP, S 4700P-50 B
C109	87-010-221-080		CAP, E 470-10
C110	87-012-153-080		C-CAP, S 120P-50 CH
C111	87-010-316-080		C-CAP, S 33P-50 CH
C112	87-010-316-080		C-CAP, S 33P-50 CH
C113	87-012-153-080		C-CAP, S 120P-50 CH
C114	87-012-153-080		C-CAP, S 120P-50 CH
C115	87-010-402-080		CAP, E 2.2-50 SME
C116	87-010-186-080		C-CAP, S 4700P-50 B
C117	87-010-213-080		C-CAP, S 0.015-25 B
EM1	87-008-474-080		F-BEAD, EMI BL02RN1
L1	87-003-295-080		COIL, 10UH
SFR1	87-024-176-080		SFR, 100K DIA6 V
SFR2	87-024-175-080		SFR, 47K DIA6 V
SFR3	87-024-354-080		SFR, 22K DIA6 H
X1	87-030-227-010		VIB, X'TAL 33.8688MHZ
X1	87-030-270-080		VIB, XTAL 16.9344MHZ

VOLUME C.B

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
C802	87-010-248-040		CAP, E 220-10 SME
C804	87-010-192-080		C-CAP, S 0.022-50 F
C807	87-010-149-080		C-CAP, S 5P-50 CH
C808	87-010-149-080		C-CAP, S 5P-50 CH
C809	87-010-183-080		C-CAP, S 2700P-50 B
C810	87-010-183-080		C-CAP, S 2700P-50 B
C813	87-010-186-080		C-CAP, S 4700P-50 B
C814	87-010-186-080		C-CAP, S 4700P-50 B
C815	87-010-316-080		C-CAP, S 33P-50 CH
C816	87-010-316-080		C-CAP, S 33P-50 CH
C817	87-010-194-080		C-CAP, S 0.047-25 F
C818	87-010-194-080		C-CAP, S 0.047-25 F
C819	87-010-178-080		C-CAP, S 1000P-50 B
C820	87-010-178-080		C-CAP, S 1000P-50 B
C823	87-010-176-080		C-CAP, S 680P-50 SL
C824	87-010-176-080		C-CAP, S 680P-50 SL
C827	87-010-401-040		CAP, E 1-50 SME
C828	87-010-401-040		CAP, E 1-50 SME
C841	87-010-197-080		C-CAP, S 0.01-25 B
C842	87-010-197-080		C-CAP, S 0.01-25 B
C850	87-010-197-080		C-CAP, S 0.01-25 B
C851	87-010-197-080		C-CAP, S 0.01-25 B
MVR801	83-NE2-605-010		VR, 50KBX2 RK16812 MG
S301	87-036-215-080		SW, TACT EVQ-21404M
S302	87-036-215-080		SW, TACT EVQ-21404M
S303	87-036-215-080		SW, TACT EVQ-21404M
S304	87-036-215-080		SW, TACT EVQ-21404M
S305	87-036-215-080		SW, TACT EVQ-21404M
S306	87-036-215-080		SW, TACT EVQ-21404M
S307	87-036-215-080		SW, TACT EVQ-21404M
S308	87-036-215-080		SW, TACT EVQ-21404M
S309	87-036-215-080		SW, TACT EVQ-21404M
S310	87-036-215-080		SW, TACT EVQ-21404M
S311	87-036-215-080		SW, TACT EVQ-21404M
S312	87-036-215-080		SW, TACT EVQ-21404M
S313	87-036-215-080		SW, TACT EVQ-21404M
S314	87-036-215-080		SW, TACT EVQ-21404M
S315	87-036-215-080		SW, TACT EVQ-21404M
S316	87-036-215-080		SW, TACT EVQ-21404M
S317	87-036-215-080		SW, TACT EVQ-21404M
S318	87-036-215-080		SW, TACT EVQ-21404M
S319	87-036-215-080		SW, TACT EVQ-21404M
S320	87-036-215-080		SW, TACT EVQ-21404M
S321	87-036-215-080		SW, TACT EVQ-21404M
S322	87-036-215-080		SW, TACT EVQ-21404M
S323	87-036-215-080		SW, TACT EVQ-21404M
X201	87-008-394-080		CF CST 4.19MGW

ECHO C.B

C951	87-010-172-080		C-CAP, S 330P-50 SL
C952	87-010-196-080		C-CAP, S 0.1-25 F
C953	87-010-172-080		C-CAP, S 330P-50 SL
C955	87-010-195-080		C-CAP, S 0.068-25 F
C956	87-010-187-080		C-CAP, S 5600P-50 B
C957	87-010-401-040		CAP, E 1-50 SME
C958	87-010-186-080		C-CAP, S 4700P-50 B
C961	87-010-196-080		C-CAP, S 0.1-25 F
C962	87-010-187-080		C-CAP, S 5600P-50 B
C963	87-010-178-080		C-CAP, S 1000P-50 B
C964	87-010-196-080		C-CAP, S 0.1-25 F
C965	87-010-178-080		C-CAP, S 1000P-50 B
C966	87-010-260-040		CAP, E 47-25 SME
C967	87-010-263-040		CAP, E 100-10
L950	87-005-495-080		COIL, 680 HJ FLR 50

AC VOLTAGE C.B

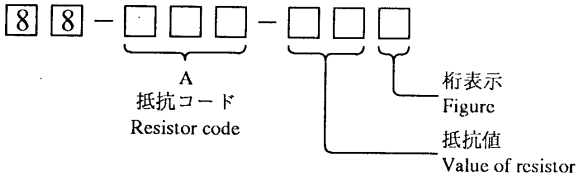
⚠	87-033-147-010		CLAMP, FUSE
	82-304-743-010		TERMINAL, 1P

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
⚠F101	87-035-414-019		FUSE, T2A 250V UL
⚠SW101	87-036-235-010		SW SLIDE ESD269〈HD〉
⚠SW101	87-036-229-010		SW, SL DP3C RA〈HM〉
AC C. B			
R100	87-022-537-080		RES, NF 0. 68-1/2W J
R101	87-022-537-080		RES, NF 0. 68-1/2W J
MOTOR-1 C. B			
M1	9X-262-513-210		SLED MOTOR (SLED)
M2	+ + +		SLED MOTOR (SPINDLE)
S1	91-572-085-110		LEAF SW (INSIDE LIMIT)
MOTOR-2 C. B			
C91	87-010-137-010		CAP, E 22-16 BP
M3	9X-262-511-710		MOTOR ASSY (LOADING)
S2	91-572-086-110		LEAF SW (OPEN/CLOSE)
S3	91-572-086-110		LEAF SW (CLOSE)
RELAY-2 C. B			
RELAY-1 C. B			
DECK-1 C. B			

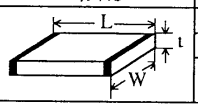
REF. NO	PART NO.	カンリ NO.	DESCRIPTION
CON351	82-NE8-633-010		CONN, 7P PH H
SOL1	82-ZM1-618-010		SOL ASSY, 27
SW4	87-036-110-010		SW, PUSH SPPB 62
SW5	87-036-110-010		SW, PUSH SPPB 62
SW6	87-036-110-010		SW, PUSH SPPB 62
DECK-2 C. B			
CON352	82-NE8-634-010		CONN, 10P PH H WHT
M2	87-045-348-010		MOT, SHW 2L 70
SFR1	87-024-170-080		SFR, 3. 3K DIA 6V
SOL2	82-ZM1-618-010		SOL ASSY, 27
SW2	87-036-110-010		SW, PUSH SPPB 62
SW3	87-036-110-010		SW, PUSH SPPB 62
SW4	87-036-110-010		SW, PUSH SPPB 62
SW5	87-036-110-010		SW, PUSH SPPB 62
SW6	87-036-110-010		SW, PUSH SPPB 62
MISCELLANEOUS			
⚠	87-034-749-019		AC CORD (H) W/PLUG〈HD〉
⚠	87-050-034-019		AC CORD ASSY, E〈HM〉
⚠	87-085-184-010		BUSHING, AC CORD D〈HD〉
⚠	87-085-185-010		BUSHING, AC CORD E〈HM〉
	98-848-127-110		OPTICAL PICK UP KSS-210A
PH	87-046-398-010		HEAD, PH YK50P-BS409(D7)
⚠PT101	82-NF5-624-219		PT, 2NF5 HE〈HM〉
⚠PT101	82-NF5-627-219		PT, 2NF5 U〈HD〉
RPH	87-046-399-010		HEAD, RPH YK56R-BS409(D2)

○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

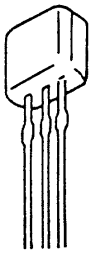


チップ抵抗
Chip resistor

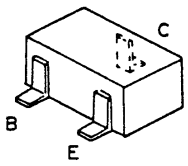
Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions／寸法 (mm) Form/外形	L	W	t	Resistor code : A 抵抗コード : A
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.5 ~0.7	128

TRANSISTOR ILLUSTRATION

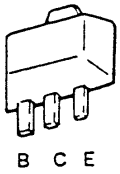
2SA952
2SC1815
2SC1923
2SC2001
2SC3266
2SC3331
2SD655



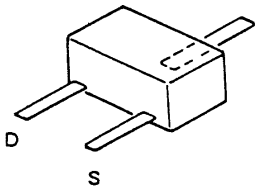
2SA933
2SC1740
DTA114YS
DTA114ES
DTA144WS
DTC114YS
DTC143XS
DTC144ES



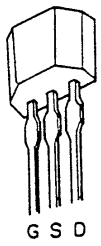
2SC2712
DTA114TK
DTA143EK
DTA144TK
DTA114YK
DTC114TK
DTC144WK
DTC363EK



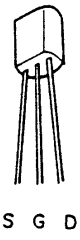
2SB1370



2SK161



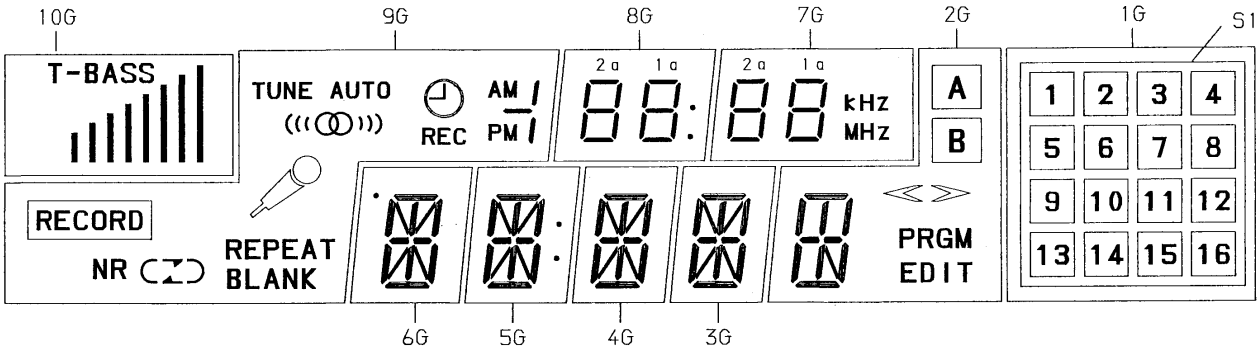
2SK241

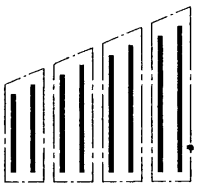


2SK246

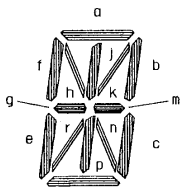
FL DIAGRAM

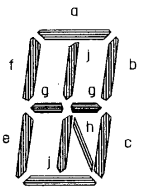
GRID ASSIGNMENT

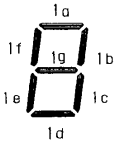




(10G)


(3G ~ 6G)


(2G)


(7G, 8G)

ANODE CONNECTION

	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	-	RECORD	2a	2a	a	a	a	a	a	**1**
P2	-	-	2b	2b	b	b	b	b	b	**2**
P3	-	☾	2c	2c	c	c	c	c	c	**3**
P4	-	☽	2d	2d	d	d	d	d	d	**4**
P5	-	**RANDOM**	2e	2e	e	e	e	e	e	**5**
P6	-	**REPEAT**	2f	2f	f	f	f	f	f	**6**
P7	-		2g	2g	g	g	g	g	g	**7**
P8	-	**TUNE**	○ [上]	**KHz**	h	h	h	h	h	**8**
P9	B1	**AUTO**	1a	1a	j	j	j	j	j	**9**
P10	B2	((( )))	1b	1b	k	k	k	k	>	**10**
P11	B3		1c	1c	m	m	m	m	<	**11**
P12	B4	**REC**	1d	1d	n	n	n	n	-	**12**
P13	-	**AM**	1e	1e	p	p	p	p	**PRGM**	**13**
P14	-	**PM**	1f	1f	r	r	r	r	**EDIT**	**14**
P15	-	/	1g	1g	○	○ [上]	-	-	A	**15**
P16	-	—	○ [下]	**MHz**	-	○ [下]	-	-	B	**16**
P17	**T-BASS**		-	-	-	-	-	-		S3

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	87-006-240-019		AM LOOP ANT CON(KO)
2	87-043-115-019		ANT, FEEDER FM
3	83-NE2-912-010		IB, HD(J)〈HD〉
3	83-NE2-910-010		IB, HM(J)-A, P〈HM〉
3	83-NE2-909-010		IB, HM(J)-E, R〈HM〉
4	87-009-724-010		PLUG, ADPTR, IR39〈HD〉
4	87-042-062-010		PLUG, ADPTR S-16115〈HM〉
5	83-NE2-650-010		RC, RC-TN320(EX)
6	87-043-095-019		5M(SW)WIRE-ANT(S)
7	87-042-167-010		ADPTR, P/J 3.5/3.5
8	87-041-072-010		MIC, DM-SH18YJN

IC DESCRIPTION

IC,CXD2518Q

Pin No.	Pin Name	I/O	Description
1	SCOR	O	When sub code sync S0 or S1 is detected, "H" is output. (Not used)
2	SBSO	O	Serial output for SUBP-W. (Not used)
3	EXCK	I	Clock input for SBSO read out. (Connected to VDD)
4	SQSO	O	Serial output for 80 bits of SUBQ.
5	SQCK	I	Clock input for SQSO read out.
6	MUTE	I	Mute when "H". Normal when "L".
7	SENS	O	SENS output to CPU (μPD78043GF).
8	XRST	I	System reset. It is reset when "L".
9	DATA	I	Serial data input from CPU (μPD78043GF).
10	XLAT	I	Latch clock input from CPU (μPD78043GF). Data is latched at the falling edge.
11	CLOK	I	Serial data transmission clock input from CPU (μPD78043GF).
12	GND	–	GND.
13	SEIN	I	SENS input from SSP (CXA1782AQ).
14	CNIN	I	Input for counting jumped track.
15	DATO	O	Serial data output to SSP (CXA1782AQ).
16	XLTO	O	Latch clock output to SSP (CXA1782AQ). Data is latched at the falling edge.
17	CLKO	O	Serial data transmission clock output to SSP (CXA1782AQ).
18	TEST2	I	Test terminal. Normal when "H". (Connected to VDD)
19	SPOB	I	In side limit SW signal input.
20	SPOC	I	Microcomputer extension interface. (C input) (Connected to VDD)
21	SPOD	I	Microcomputer extension interface. (D input) (Connected to VDD)
22	XLON	O	Microcomputer extension interface. (Output) (Not used)
23	FOK	I	Focus ok input for SENS output and servo auto sequencer.
24	MON	O	ON/OFF control output for the spindle motor.
25	MDP	O	Servo control for the spindle motor.
26	MDS	O	Not used
27	LOCK	O	When the GFS signal is sampled by 460 Hz and it is "H", "H" is output. When "L" is serially output eight times, "L" is output. (Not used)
28	TEST1	I	Test terminal. (Connected to GND)
29	FILO	O	Filter output for master PLL. (Slave is digital PLL.)
30	FILI	I	Filter input for master PLL.
31	PCO	O	Charge pump output for master PLL.
32	VDD	–	Digital power supply terminal for DSP.
33	AVSS1	–	Analog ground terminal for DSP.
34	CLTV	I	VCO control voltage input for master PLL.
35	AVDD1	–	Analog power supply terminal for DSP.
36	RF	I	EFM signal input.
37	BIAS	I	Constant current input for assymmetry compensation circuit.
38	ASYI	I	Comparator voltage input for assymmetry compensation circuit.
39	ASYO	O	EFM full swing output. (VSS when "L", VDD when "H".)
40	ASYE	I	Assymmetry compensation OFF when "L", Assymmetry compensation ON when "H". (Connected to VDD)
41	WDCK	O	D/A interface for 48 bit slot. Word clock. (2Fs) (Not used)
42	LRCK	O	D/A interface for 48 bit slot. LR clock. (Fs)
43	LRCKI	I	LR clock input from DAC. (48 bit slot)
44	PCMD	O	D/A interface. Serial data. (2's compliment. MSB first.)

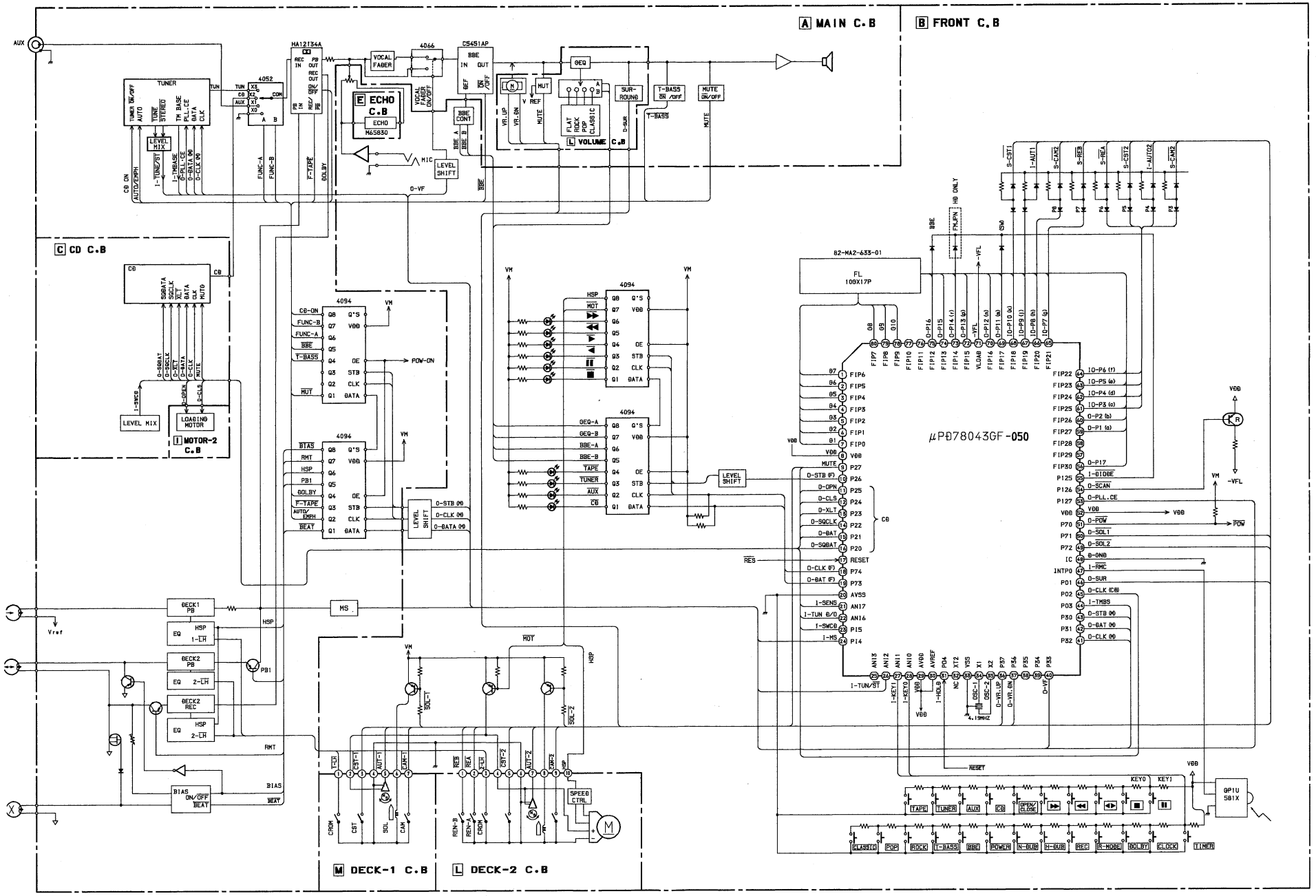
Pin No.	Pin Name	I/O	Description
45	PCMDI	I	Audio data input from DAC. (48 bit slot)
46	BCK	O	D/A interface. Bit clock.
47	BCKI	I	Bit clock input from DAC. (48 bit slot)
48	GTOP	O	GTOP output. (Not used)
49	XUGF	O	XUGF output. (Not used)
50	XPCK	O	XPCK output. (Not used)
51	GFS	O	GFS output. (Not used)
52	RFCK	O	RFCK output. (Not used)
53	VSS	—	GND output.
54	C2PO	O	C2PO output. (Not used)
55	XROF	O	XRAOF output. (Not used)
56	MNT3	O	MINT3 output. (Not used)
57	MNT1	O	MINT1 output. (Not used)
58	MNT0	O	MINT0 output. (Not used)
59	FSTT	O	2/3 division output of terminal 73 and 74. (Not used)
60	C4M	O	4.2336 MHz output. (Not used)
61	DOUT	O	Digital output. (Not used)
62	EMPH	O	"H" when playback disc is emphasised, "L" when not emphasised.
63	EMPHI	I	DAC emphasis is on when "H", off when "L".
64	WFCK	O	Write frame clock output. (Not used)
65	ZEROL	O	No sound detection output. "H" when no sound is detected. (L ch) (Not used)
66	ZEROR	O	No sound detection output. "H" when no sound is detected. (R ch) (Not used)
67	DTSI	I	Test terminall1 for DAC, "L" when normal. (Connected to GND)
68	VDD	—	Digital power supply terminal for DAC.
69	LPWM	O	PWM normal output for Lch.
70	NLPWM	O	PWM negative output for Lch.
71	AVDD2	—	Power supply for Lch PWM driver.
72	AVDD3	—	Power supply for Xtal.
73	XTAI	I	33.8688 MHz Xtal oscillation circuit input.
74	XTAO	O	33.8688 MHz Xtal oscillation circuit output.
75	AVSS3	—	Power supply for Xtal.
76	AVSS2	—	Power supply for PWM driver.
77	NRPWM	O	PWM negative output for Rch.
78	RPWM	O	PWM normal output for Rch.
79	DTS2	I	Test terminal 2 for DAC. "L" when normal. (Connected to GND)
80	DTS3	I	Test terminal 3 for DAC. "L" when normal. (Connected to GND)

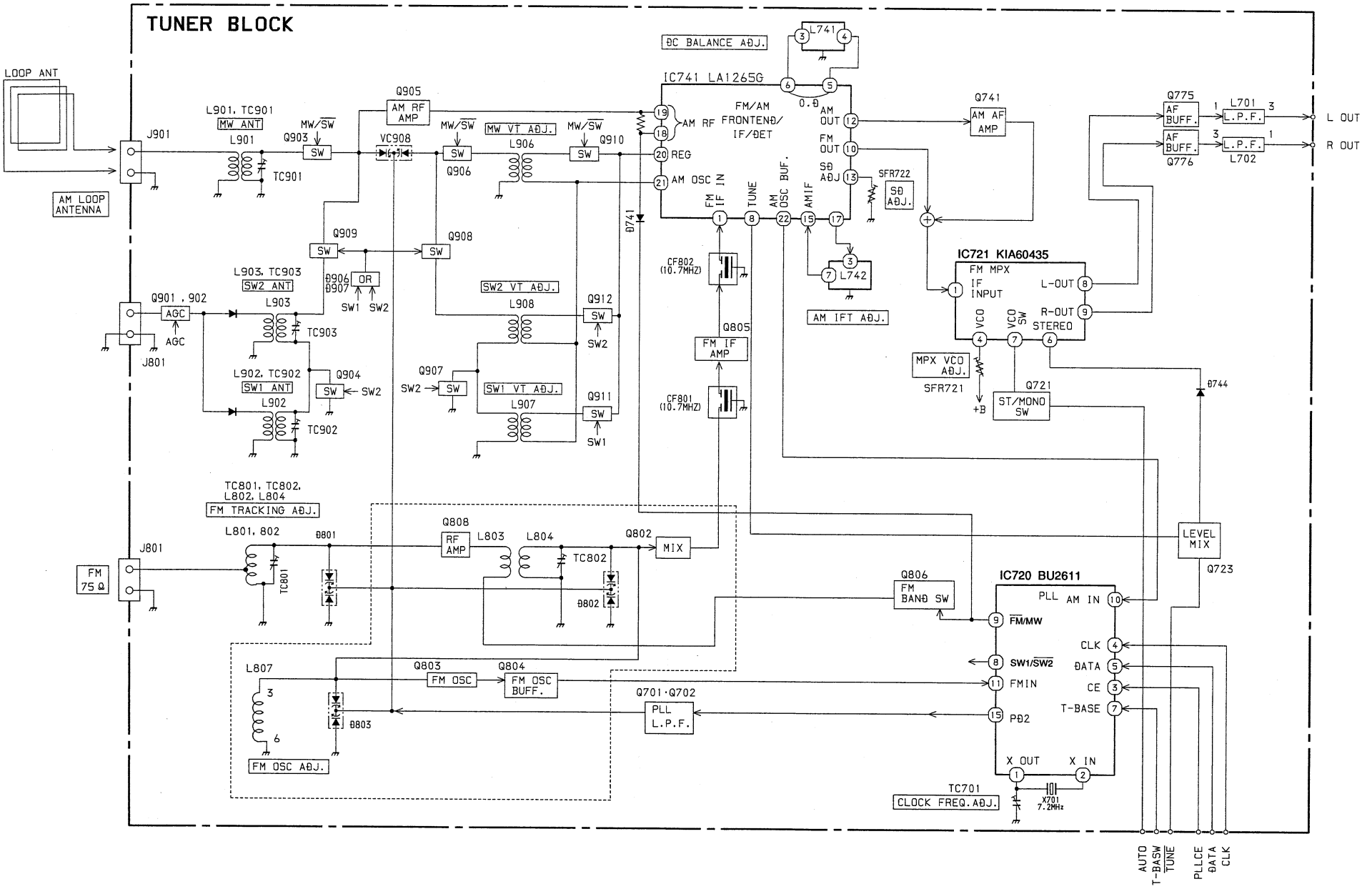
IC, μPD78043GF-050

Pin No.	Pin Name	I/O	Description
1 ↓ 7	G7 ↓ G1	O	FL Display digit output.
8	VDD	–	Power supply.
9	O-PMT	O	Mute output.
10	O-STB (F)	O	Shift register (4094) strobe signal (FRONT).
11	O-OPEN	O	CD tray OPEN output.
12	O-CLOSE	O	CD tray CLOSE output.
13	O-XLT	O	CD control.
14	O-SQCLK	O	CD control.
15	O-DATA	O	CD control (serial data).
16	O-SQDATA	O	CD control.
17	$\overline{\text{RESET}}$	I	Reset input.
18	O-CLK (F)	O	Serial data clock signal for the shift register, PLL IC (FRONT).
19	O-DAT (F)	O	Serial data for the shift register, PLL IC (FRONT).
20	AVSS	–	A/D converter ground.
21	I-SENS	I	CD control.
22	I-TUNER	I	Not used.
23	I-SW	I	CD tray OPEN/CLOSE, mechanism UP/DOWN signal.
24	I-MS	I	Music sensor signal.
25	I-SPA	I	Not used (not connected).
26	I-TUN/ST	I	Signal input while the tuner is receiving signals and the stereo system signal.
27	I-KEY1	I	Key data input (1).
28	I-KEY0	I	Key data input (0).
29	AVDD	–	A/D converter analog power supply.
30	AVREF	–	A/D converter reference voltage.
31	I-$\overline{\text{HOLD}}$	I	When the AC power is not supplied and the input "L", the controller is held.
32	XT2	–	Sub clock terminal (Not used).
33	VSS	–	GND.
34 35	OSC1 OSC2	–	4.19MHz oscillation circuit.
36 37	O-VRUP O-VRDN	O	Control signal for the motor-volume.
38 39	– –	–	Not used (not connected).
40	O-VF	O	Vocal fader output.
41	O-CLK (M)	O	Shift register clock signal for the shift register, PLL IC (MAIN).
42	O-DAT (M)	O	Serial data for the shift register PLL IC (MAIN).
43	O-STB (M)	I	Shift register (4094) strobe signal (MAIN).
44	I-TMBS	I	Time base signal from the PLL IC (BU2611).
45	O-CLK (CD)	O	CD control.
46	O-SURROUND	O	Surround output.
47	I-RMC	I	Remote control signal.
48	GND	–	GND (connected internal).

Pin No.	Pin Name	I/O	Description
49	O-$\overline{\text{SOL2}}$	O	Solenoid (DECK) 2 output.
50	O-$\overline{\text{SOL1}}$	O	Solenoid (DECK) 1 output.
51	O-$\overline{\text{POW}}$	O	Power ON/OFF control.
52	VDD	—	Power supply.
53	O-PLL・CE	O	PLL IC (BU2611) chip enable output for the tuner.
54	O-$\overline{\text{SCAN}}$	O	Switch scan timing output.
55	I-$\overline{\text{DIODE}}$	I	Input from initializing diodes.
56	O-P17	O	FL display segment output.
57	O-P18		
58	—	—	Not used (not connected).
59	P1	I/O	FL display segment output and switch scan.
∫	∫		
70	P12		
71	V-LOAD	—	FL display power (−33.5V).
72	P13	I/O	FL display segment output and switch scan.
73	P14	O	FL display segment output.
∫	∫		
75	P16		
76	G12	O	FL dispay digit output.
∫	∫		
80	G8		

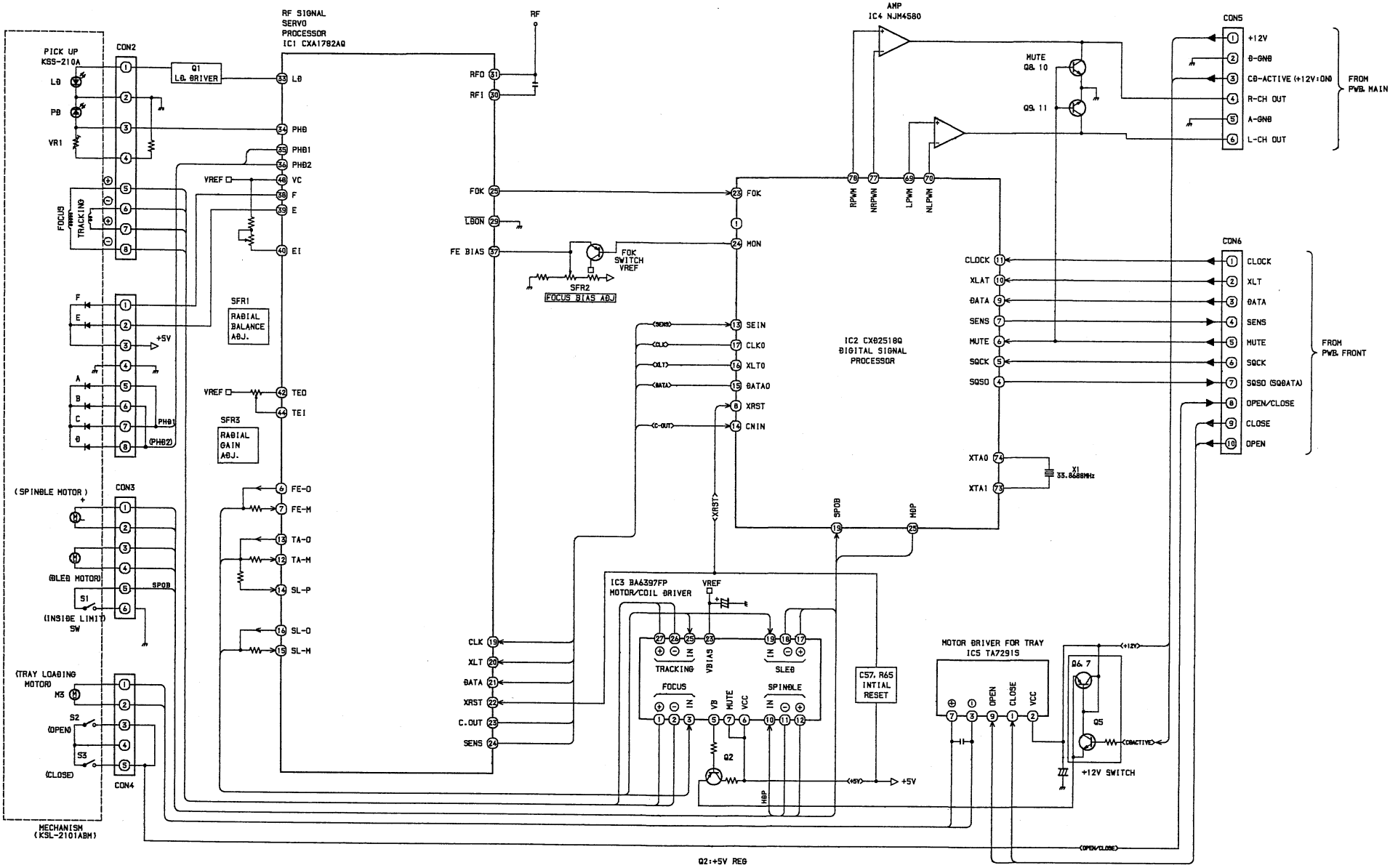
BLOCK DIAGRAM—1



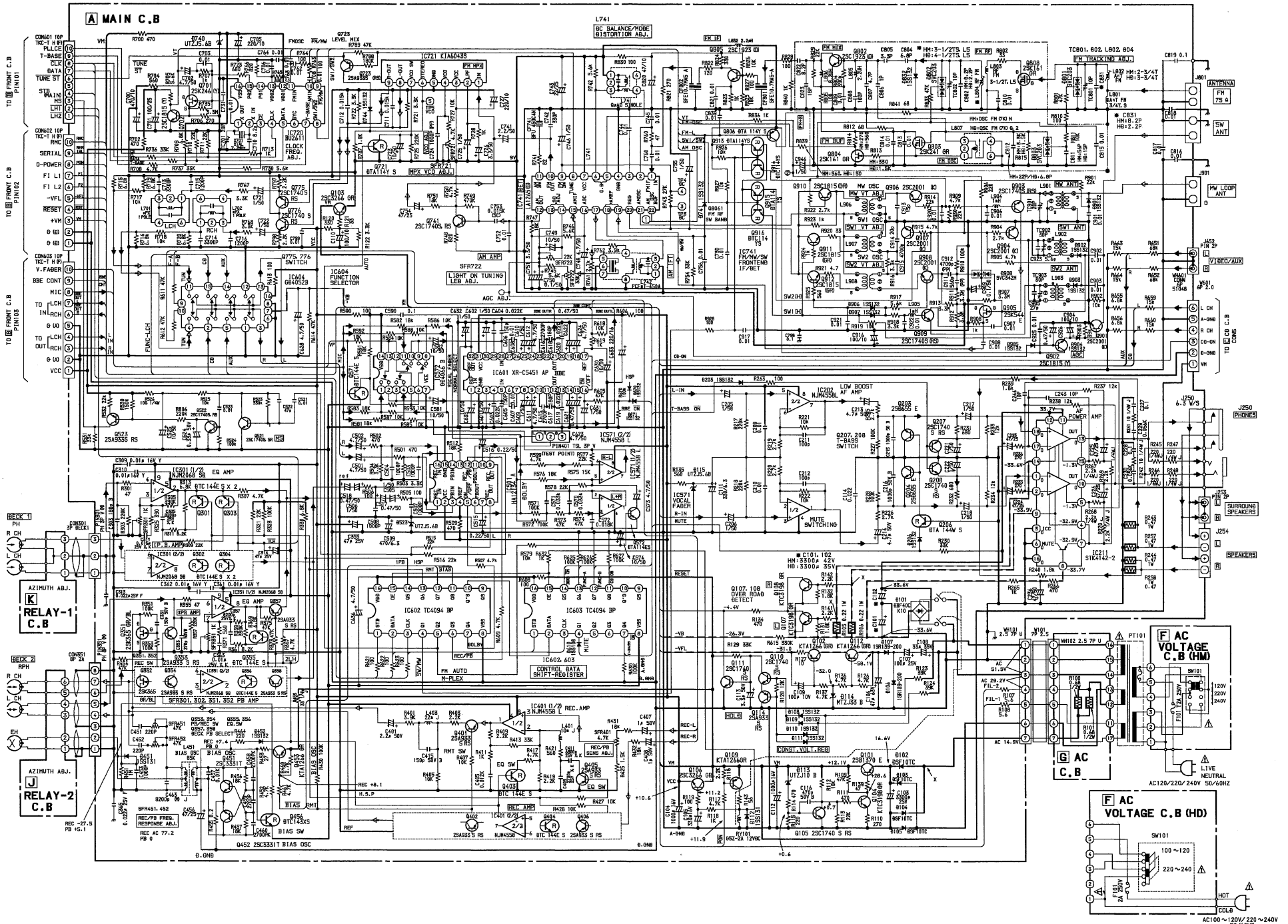

TUNER BLOCK
LOOP ANT
AM LOOP ANTENNA
J901
L901, TC901
MW ANT
L901
TC901
MW/SW
Q903
SW
Q905
AM RF AMP
VC908
MW VT ADJ.
L906
Q910
Q906
REG
AM OSC IN
FM/AM FRONTEND/ IF/DET
AM RF
IC741 LA1265G
DC BALANCE ADJ.
L741
0.0
AM OUT
FM OUT
SD ADJ
SFR722
SD ADJ.
Q741
AM AF AMP
Q775
AF BUFF.
Q776
L701
L702
L.P.F.
L OUT
R OUT
FM IF
TUNE
AM OSC BUF.
AMIF
D741
Q909
Q908
L903, TC903
SW2 ANT
D906
D907
OR
SW1
SW2
SW2 VT ADJ.
L908
Q912
Q901 , 902
AGC
L903
TC903
J801
L902, TC902
SW1 ANT
L902
TC902
Q904
Q907
SW1 VT ADJ.
L907
Q911
CF802 (10.7MHZ)
CF801 (10.7MHZ)
Q805
FM IF AMP
L742
AM IFT ADJ.
IC721 KIA60435
FM MPX
IF INPUT
L-OUT
R-OUT
STEREO
VCO
VCO SW
MPX VCO ADJ.
SFR721
+B
Q721
ST/MONO SW
D744
TC801, TC802, L802, L804
FM TRACKING ADJ.
L801, 802
D801
Q808
RF AMP
L803
L804
TC802
Q802
MIX
J801
FM 75 Ω
TC801
D802
Q806
FM BAND SW
IC720 BU2611
PLL
AM IN
FM/MW
SW1/SW2
FMIN
PD2
CLK
DATA
CE
T-BASE
X OUT
X IN
TC701
CLOCK FREQ.ADJ.
X701 7.2MHz
LEVEL MIX
Q723
L807
Q803
FM OSC
Q804
FM OSC BUFF.
D803
FM OSC ADJ.
Q701·Q702
PLL L.P.F.
AUTO T-BASW
TUNE
PLLCE
DATA
CLK

BLOCK DIAGRAM—3

(CD SECTION)



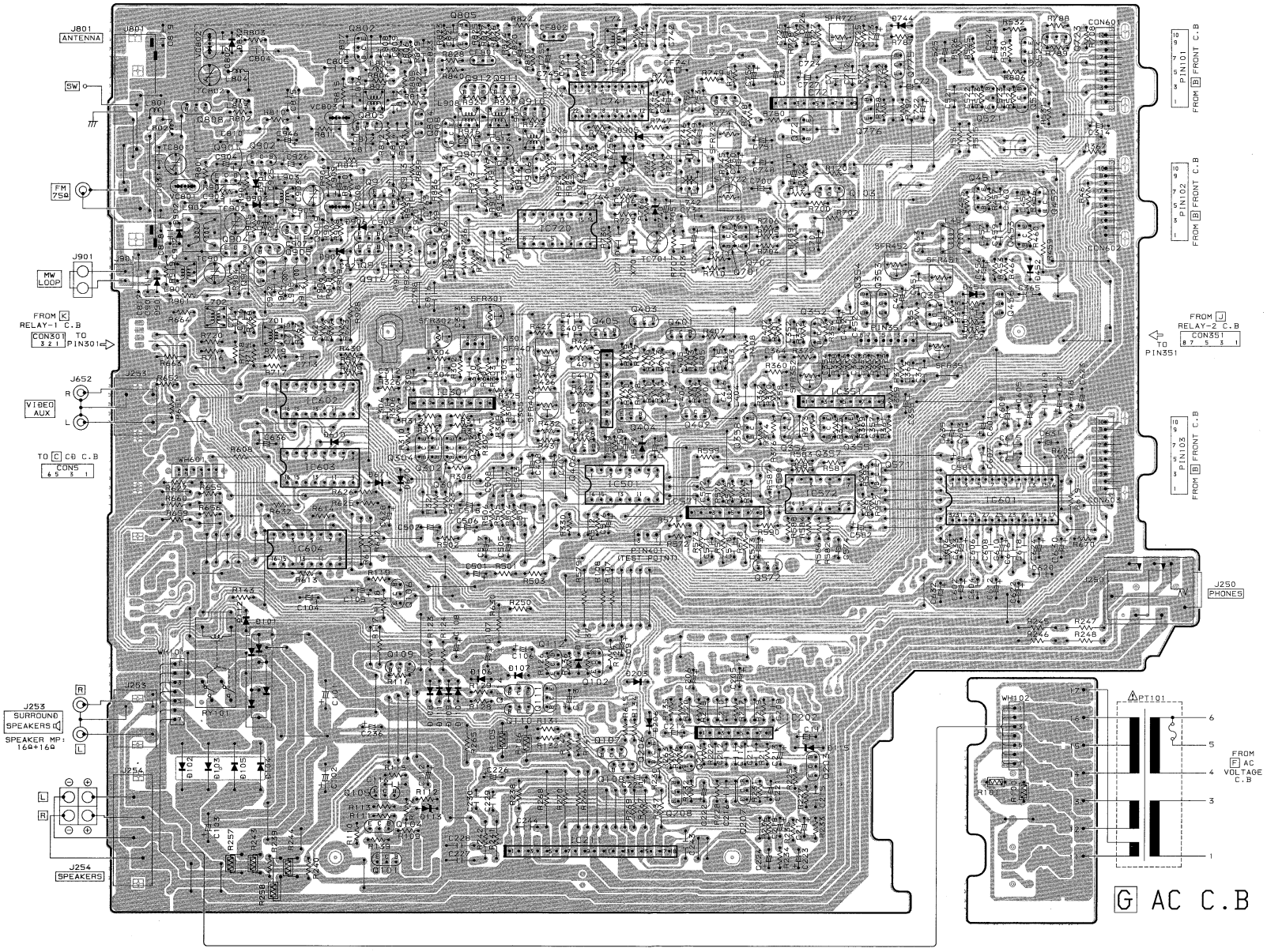
SCHEMATIC DIAGRAM—1



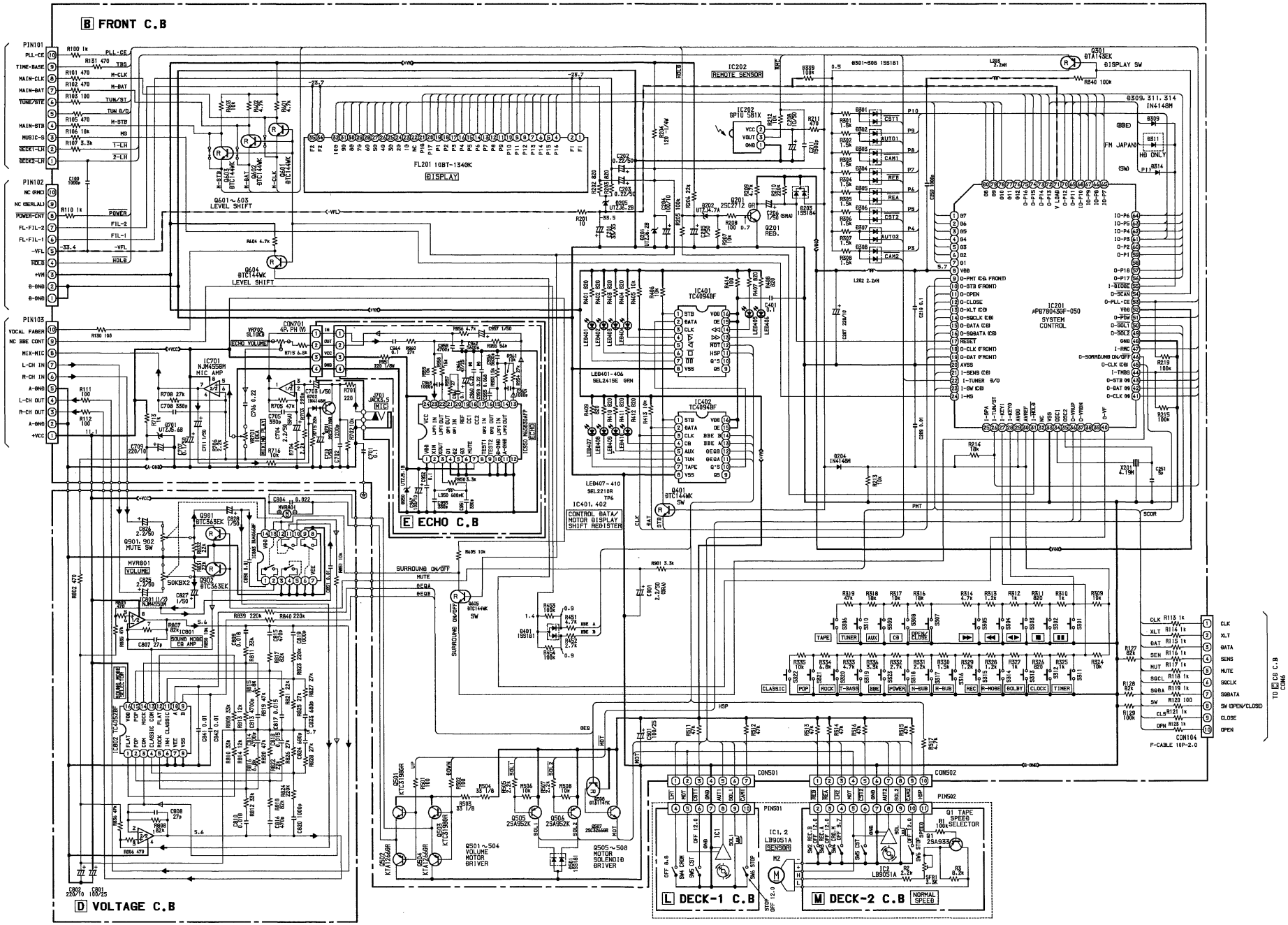
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

(プリント基板内のケミコンの極性表示はθ表示です。)

A MAIN C.B



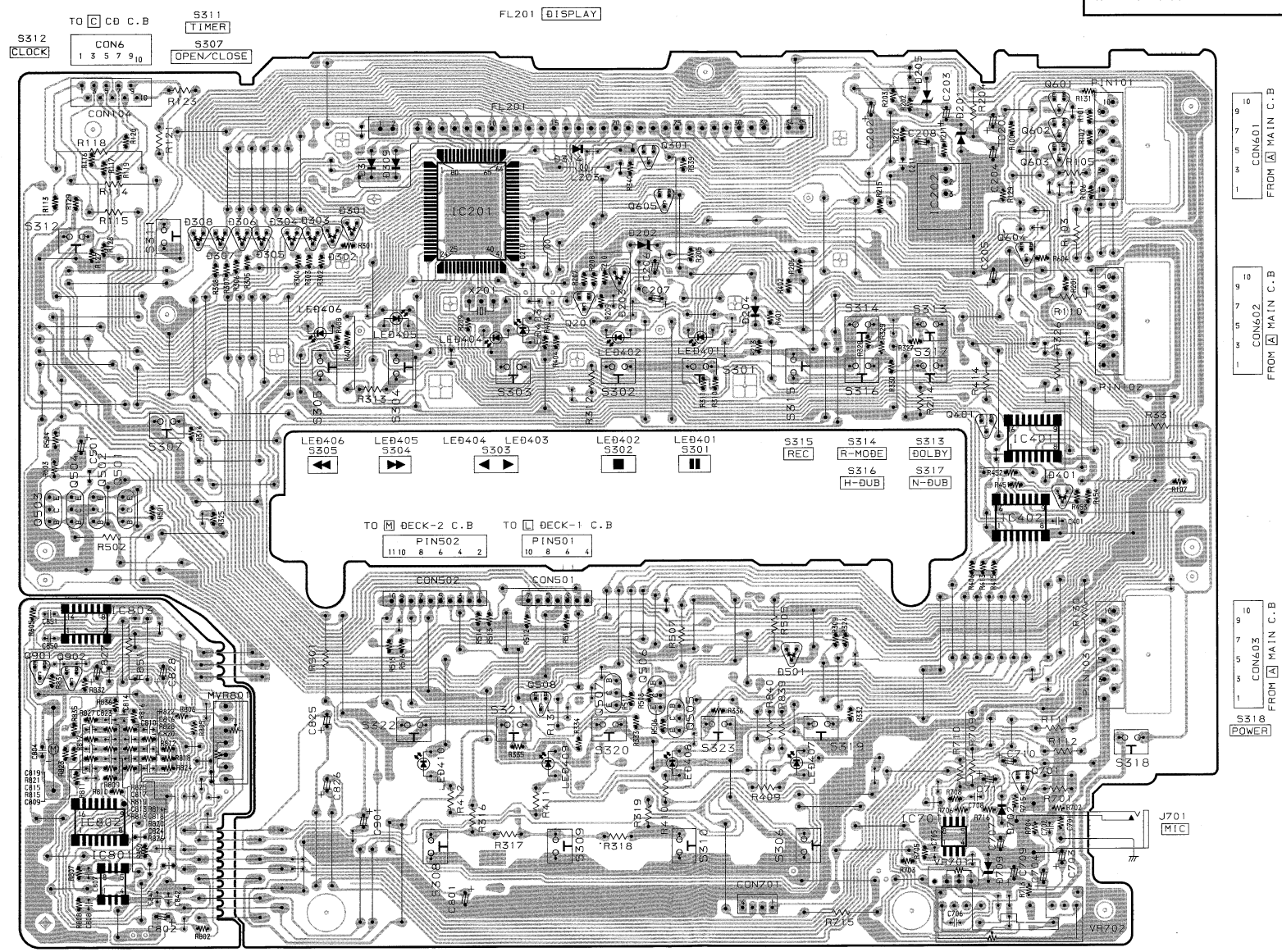
SCHEMATIC DIAGRAM—2



B FRONT C.B

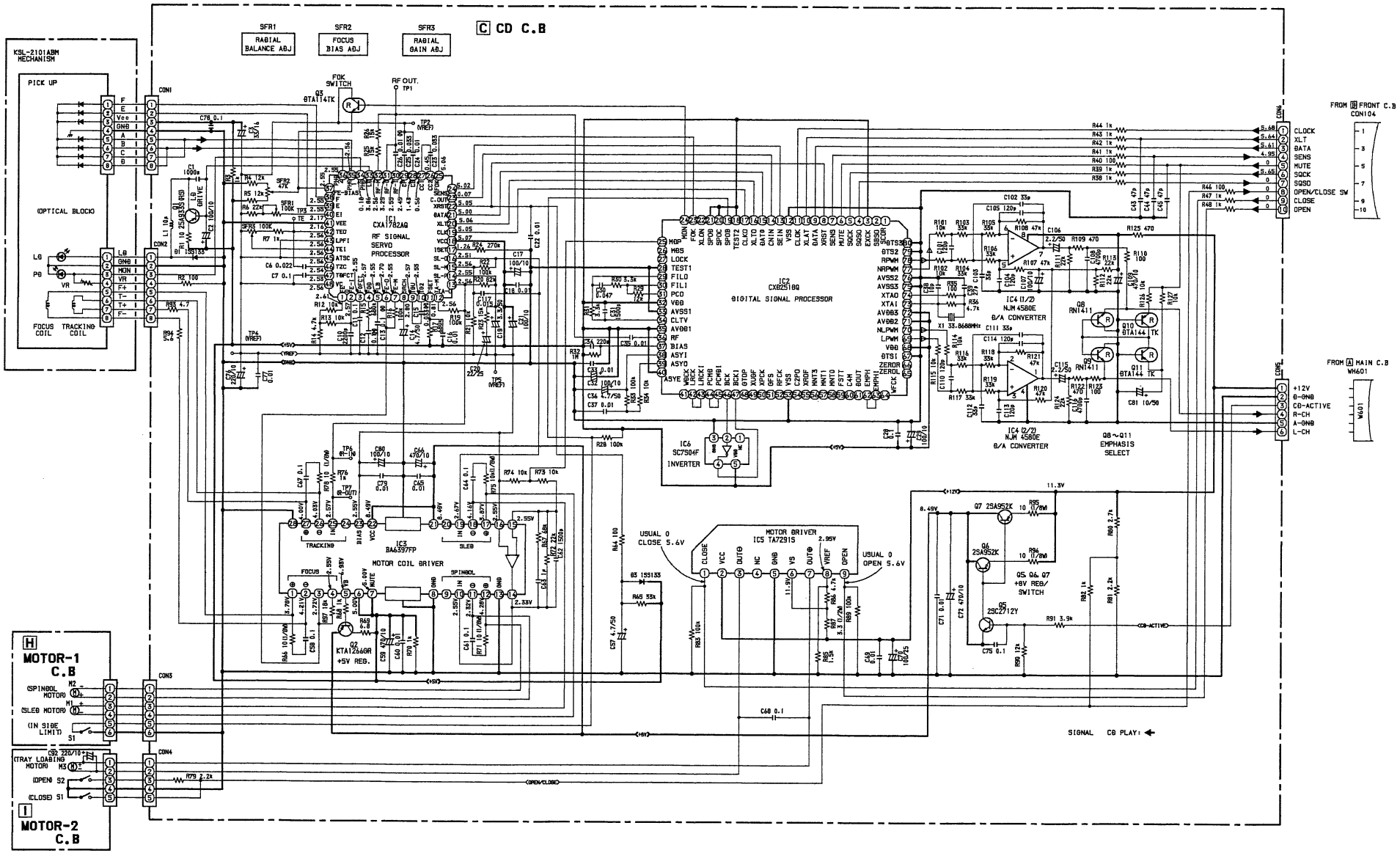
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

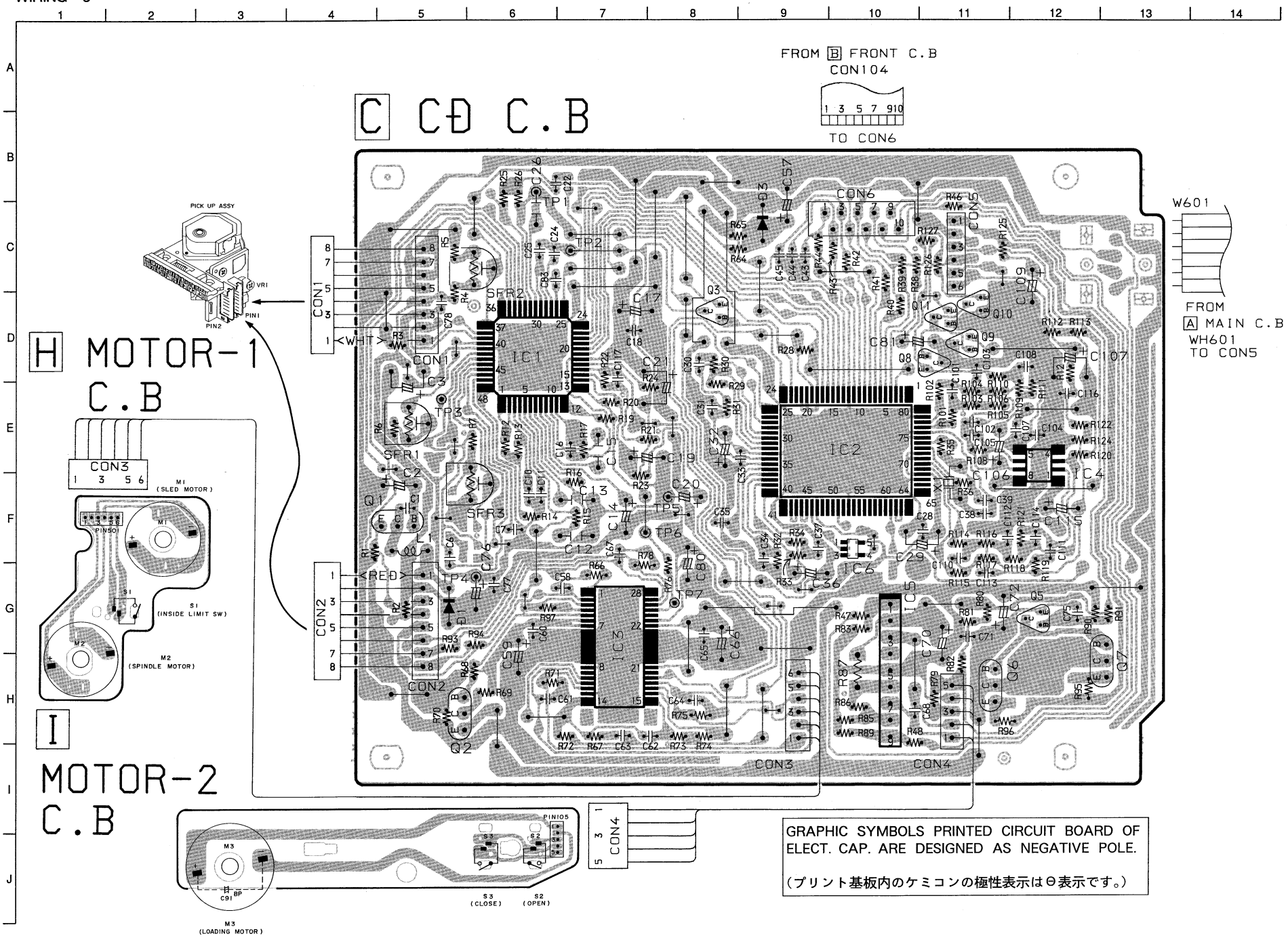
(プリント基板内のケミコンの極性表示はθ表示です。)



D VOLUME C.B

SCHEMATIC DIAGRAM—3

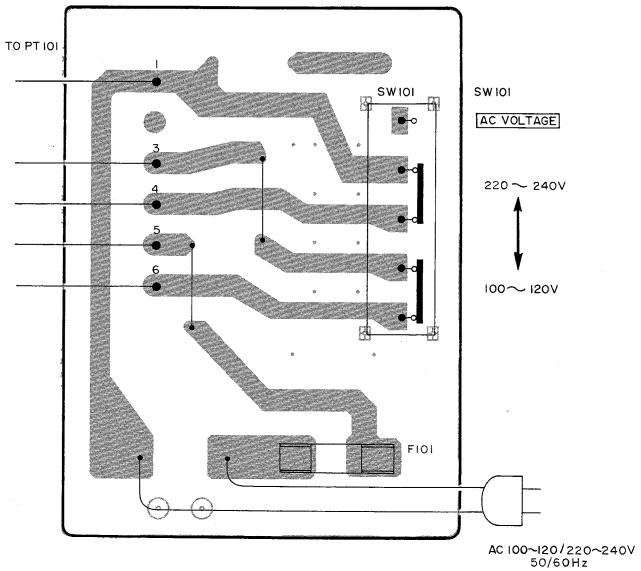




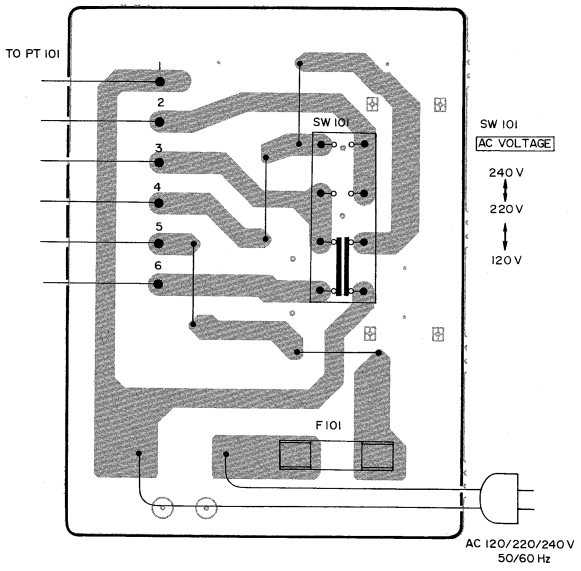
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

(プリント基板内のケミコンの極性表示はΘ表示です。)

F AC VOLTAGE C.B (HD)



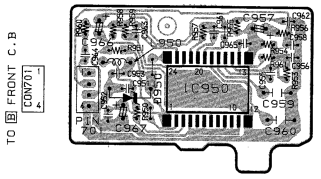
F AC VOLTAGE C.B (HM)



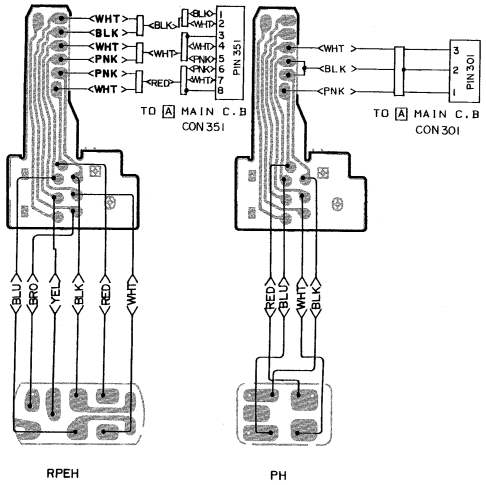
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

(プリント基板内のケミコンの極性表示はθ表示です。)

E ECHO C.B

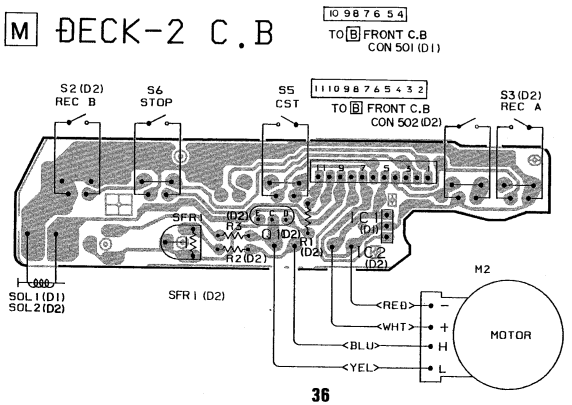


J RELAY-2 C.B K RELAY-1 C.B



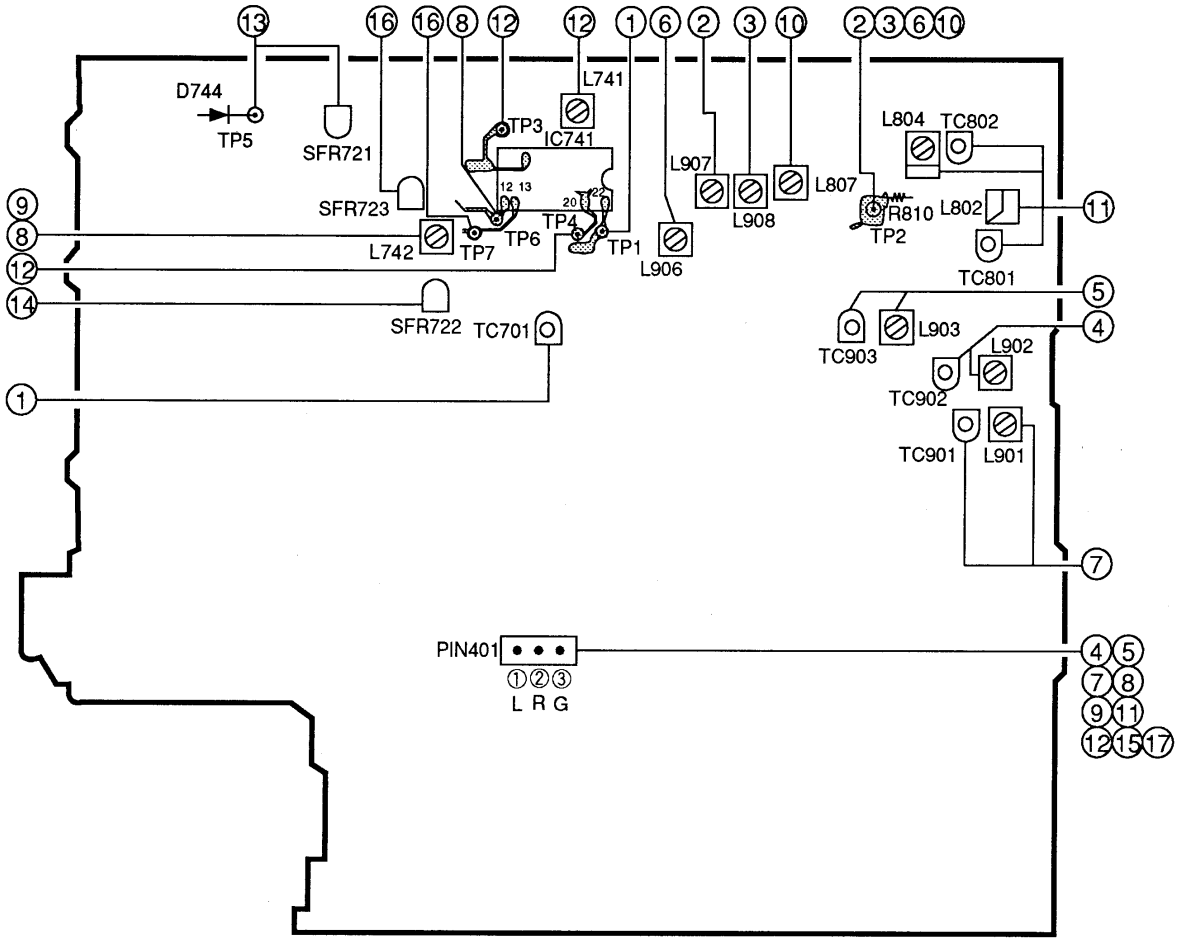
L DECK-1 C.B

M DECK-2 C.B



ADJUSTMENT—1 <TUNER>

A MAIN C.B



(TUNER SECTION)

1. Clock Frequency Adjustment

Settings: · Test point : TP1 (CLK)
· Adjustment location : TC701

Method: Set to AM 1710kHz and adjust TC701 so that the test point becomes 2160kHz±0.01kHz.

2. SW-1 VT Adjustment

Settings: · Test point : TP2 (VT)
· Adjustment location : L907

Method: Set to SW 7.3MHz and adjust L907 so that the test point becomes 8.0V±0.05V.

3. SW-2 VT Adjustment

Settings: · Test point : TP2 (VT)
· Adjustment location : L908

Method: Set to SW 21.85MHz and adjust L908 so that the test point becomes 7.5±0.05V.

4. SW-1 Tracking Adjustment

Settings: · Test point : PIN401
L902 · 3.2MHz
TC902 · 7.3MHz

Method: Set up TC902 to center before adjustment.
3.2MHz adjusted MAX by L902.
7.3MHz is done by TC902.
(DUMMY ANT.)

5. SW-2 Tracking Adjustment

Settings: · Test point : PIN401
L903 · 9.5MHz
TC903 · 21.85MHz

Method: Set up TC903 to center before adjustment.
9.5MHz is adjusted MAX by L903.
21.85MHz is done by TC903.
(DUMMY ANT.)

6. AM (MW) VT Adjustment

Settings: · Test point : TP2 (VT)
· Adjustment location : L906

Method: Set to AM 1710kHz and adjust L906 so that the test point becomes 9.0V±0.05V.

Note: Only-HD

Change step frequency from 9kHz to 10kHz with push button (function tuner and power).

7. AM (MW) Tracking Adjustment

Settings: · Test point : PIN401
L901 · 600kHz
TC901 · 1400kHz

Method: Set up TC901 to center before adjustment.
600kHz is adjusted MAX by L901.
1400kHz is done by TC901.
(LOOP ANT.)

8. AM (MW) IF Adjustment

Settings: · Test point : TP6 (IF MW BAND)
L742 (at 610kHz) · · · · · · · · · · · · · · · · · 450kHz

Note: Make level to MAX by L742.

9. SW IF Adjustment

Settings: · Test point : PIN401
· Input level : 25dB
L742 (at 21.85MHz) · · · · · · · · · · · · · · · · 450kHz

Note: Make level to MAX by L742.

10. FM VT Adjustment

Settings: · Test point : TP2 (VT)
· Adjustment location : L807

Method: Set to FM 76.0MHz (HD), 87.5MHz (HM) and adjust L807 so that the test point becomes 0.8V±0.05V (HD), 1.7V±0.05V (HM).

11. FM Tracking Adjustment

Settings: · Test point : PIN401
L802, L804 · · · · · 87.5MHz (HM), 76.0MHz (HD)
TC801, TC802 · · · · · · · · · · · · · · · · · 108MHz

Method: 87.5MHz (HM), 76.0MHz (HD) is adjusted by L802, L804 then 108.0MHz is done by TC801, TC802. In this time adjust it as make distortion to min (less than 3%). Repeat above 2~3 times.

12. DC Balance/MONO Distortion Adjustment

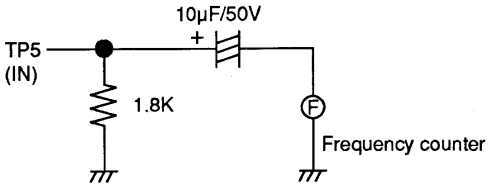
Settings: · Test point : TP3, TP4 (DC balance)
PIN401 (Distortion)
· Adjustment location : L741 (DC balance)
· Input level : 54dB

Method: Set to FM 98.0MHz (HM), 83.0MHz (HD) and adjust L741 so that the voltage between TP3 and TP4 becomes 0V±0.02V.
Next, check that the distortion is less than 0.9%.

13. MPX VCO Adjustment

Settings: · Test point : TP5
· Adjustment location : SFR721
· Input level : 54dB SSG Modlation : OFF

Method: Connect a capacitor and a resistor as below. Set to FM 98.0MHz (HM), 83.0MHz (HD) and adjust SFR721 so that the frequency at the test point becomes 38kHz± 0.05kHz.



14. Light on tuning LED Adjustment

Settings: · Adjustment location : SFR722
· Input level : 16dB

Method: Set to FM 98.0MHz (HM), 83.0MHz (HD) and adjust TUNING LED to light on by SFR722. After that, LED goes out by 2dB down.

15. Output Check

Settings: · Test point : PIN401
· Input level : 54dB

Method: Set to FM 98.0MHz (HM), 83.0MHz (HD) and check that the test point is 420mV±3dB.

16. AGC Adjustment

Settings: · Test point : TP7
· Adjustment location : SFR723
· Input level : 60dB

Method: Set to SW 21.85MHz and adjust SFR723 so that the voltage of TP7 becomes 1.6V±0.05V.

17. Output level check

Settings: · Test point : PIN401
· Input level : 74dB

Method: Set to AM 1000kHz and check that the test point is 100mV ±3dB.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity:	2±6dB (Except Z)
(THD 3%)	(at 87.5, 98.0, 108.0MHz)
	7±6dB (Z)
	(at 87.5, 98.0, 108.0MHz)
S/N 50dB Quieting Sensitivity:	
	32±5dB
	[at 87.5, 98.0, 108.0MHz (HM)]
	[at 76.0, 83.0, 108.0MHz (HD)]
Signal to Noise Ratio:	More than 64dB
	[at 98.0MHz (HM)]
	[at 83.0MHz (HD)]
Dstortion:	Less than 1.2%
	[at 98.0MHz (HM)]
	[at 83.0MHz (HD)]
Stereo Separation:	More than 25dB
	[at 98.0MHz (HM)]
	[at 83.0MHz (HD)]
Intermediate Frequency:	10.7MHz

<AM (MW) SECTION>

Sensitivity:	$54 \pm {}^{8}_{6}$dB (at 600kHz)
	53±6dB (at 1000/1400kHz)
Distortion:	Less than 1.5% (at 1000kHz)
Intermediate Frequency:	450kHz

<SW-1 SECTION>

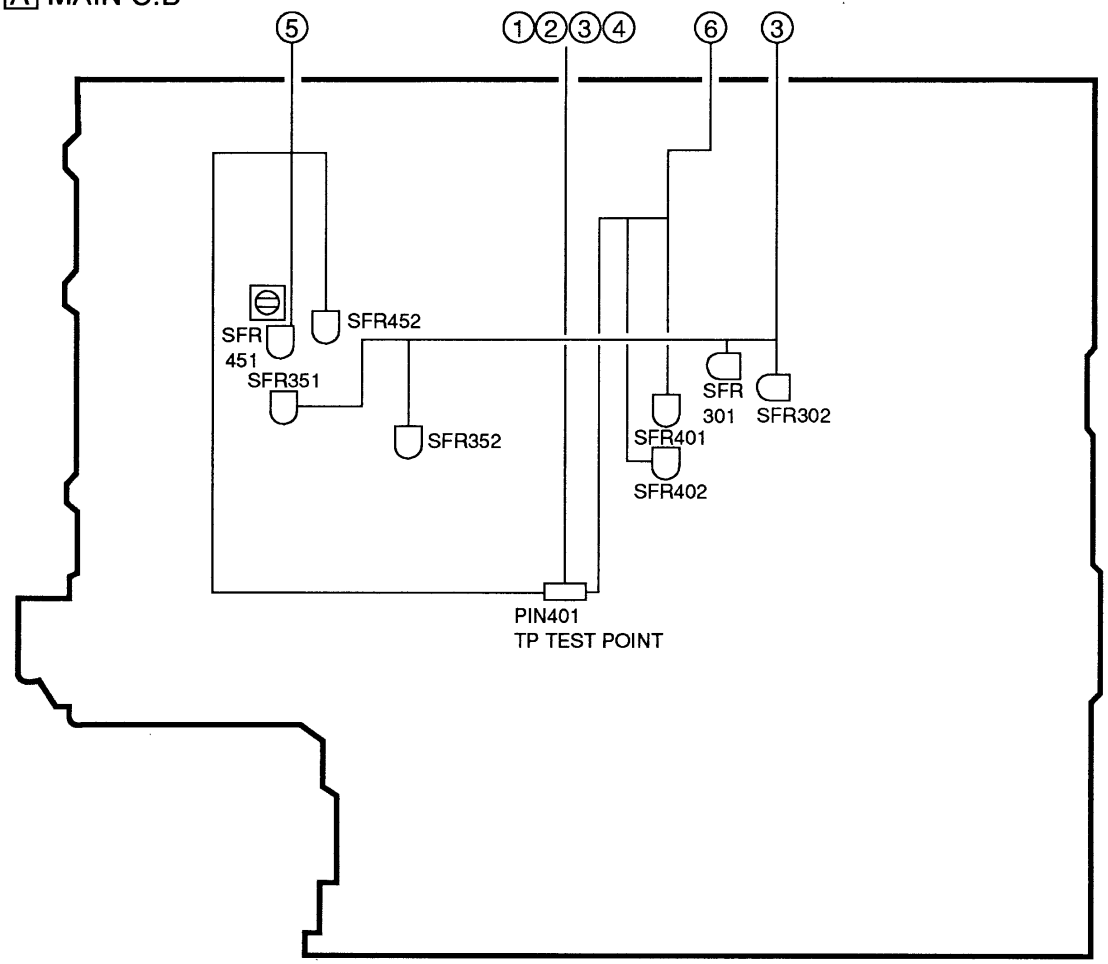
Sensitivity:	$32 \pm {}^{5}_{3}$dB (at 3.2MHz)
(S/N 20dB)	$29 \pm {}^{5}_{3}$dB (at 5.0MHz)
	$27 \pm {}^{5}_{3}$dB (at 7.3MHz)
Signal to Noise Ratio:	More than 40dB (at 5.0MHz)
Distortion:	Less than 1.5% (at 5.0MHz)
Intermediate Frequency:	450kHz

<SW-2 SECTION>

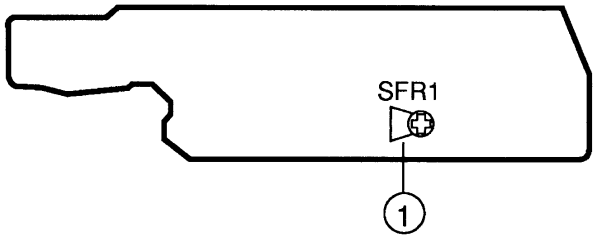
Sensitivity:	45±5dB (at 9.5MHz)
(S/N 20dB)	40±5dB (at 15MHz)
	31±5dB (at 21.85MHz)
Signal to Noise Ratio:	More than 36dB (at 15MHz)
Distortion:	Less than 1.5% (at 15MHz)
Intermediate Frequency:	450kHz

ADJUSTMENT—2<DECK>

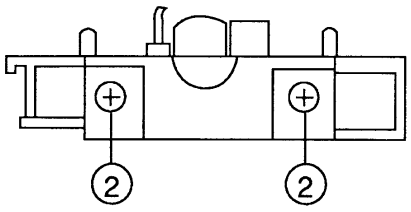
Ⓐ MAIN C.B



Ⓜ DECK—2 C.B



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



1. Normal Speed Adjustment (DECK-2)

Settings: · Test tape : TTA-100
· Test point : TP-OUT (PIN401)
· Adjustment location : SFR1 (DECK-2)

Method: Play back the test tape, on FWD PLAY (DECK-2) adjust SFR1 for 3000Hz±5Hz.
And to±45Hz of the FWD value during the REV mode.

2. Head Azimuth Adjustment (DECK-1, DECK-2)

Settings: · Test tape : TTA-310
· 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 0.5dB lower level from maximum. Next, perform on each FWD PLAY and REV PLAY mode.

3. PB Sensitivity Adjustment (DECK-1, DECK-2)

Settings: · Test tape : TTA-200
· 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 SFRs so that the output becomes 300mV.

4. PB Frequency Response Check (DECK-1, DECK-2)

Settings: · Test tape : TTA-310
· 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±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)
· Adjustment location : SFR451 (Lch)
SFR452 (R ch)

Method: Make set to REC mode and make the TP-OUT level becomes 210mV then reduce output −20dB attenuator. Adjust SFRs output difference between record and playback to within 0dB±0.5dB at 1kHz and 10kHz.

6. REC /PB Sensitivity Adjustment (DECK-2)

Settings: · Test tape : TTA-601
· Test point : TP-OUT (PIN401)
· Adjustment location :
SFR401 (Lch)
SFR402 (R ch)

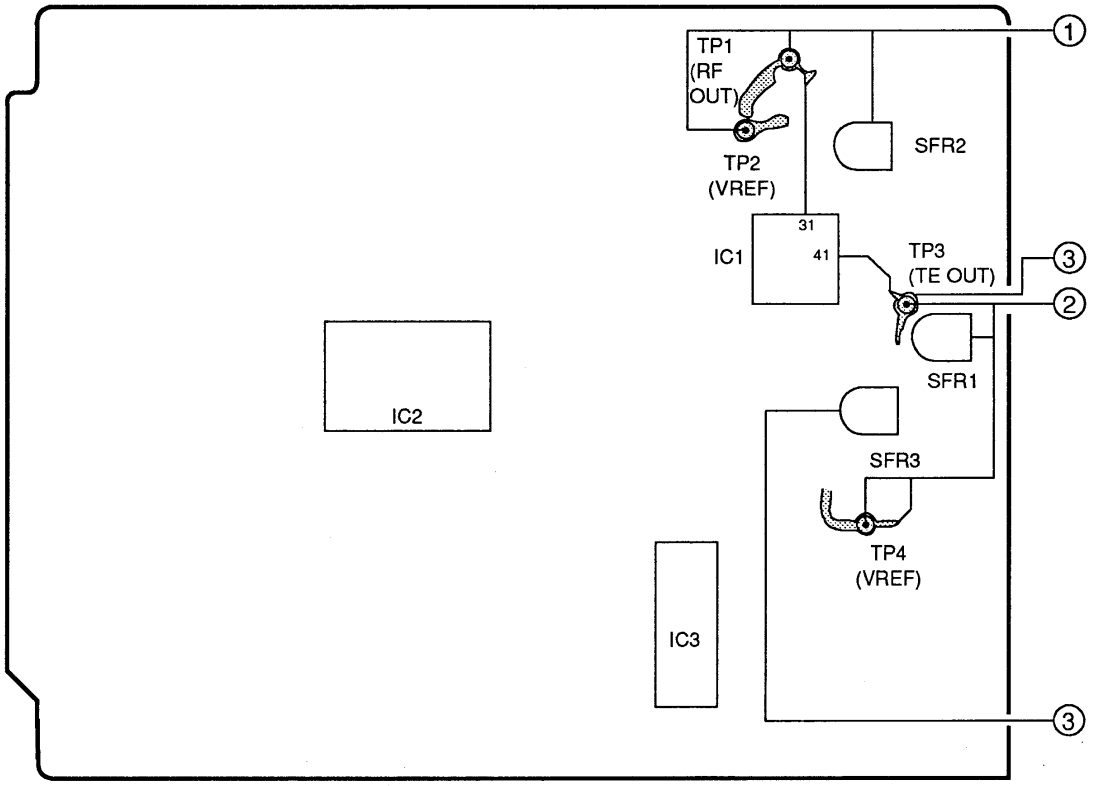
Method: Make set to REC mode and make the TP-OUT level becomes 210mV then reduce output −20dB attenuator. Record and play back the 1kHz signal and adjust SFRs so that the output level becomes 21.0mV±0.5dB.

PRACTICAL SERVICE FIGURE

<DECK SECTION>

PB Output Level:	300mV±1dB (LINE OUT)
REC/PB Output Level:	210mV±2dB (LINE OUT)
Distortion (REC/PB):	Less than 2.0% (NORM, CrO_2)
Erasing Ratio:	More than 60dB
	(TTA-601) (at 125Hz)
Cross talk:	More than 60dB
Channel Separation:	More than 47dB
Noise (PB):	Less than 3.2mV/2.5mV
	(DOLBY NR OFF/ON NORM)
	Less than 2.2mV/1.5mV
	(DOLBY NR OFF/ON CrO_2)
Noise (REC/PB):	Less than 2.2mV/1.5mV
	(DOLBY OFF/ON NORM)
	Less than 1.5mV/1.0mV
	(DOLBY OFF/ON CrO_2)
Recording Bias Frequency:	
	85kHz
Tape speed:	3kHz±45Hz
Wow & Flutter:	Less than 0.4% (DECK-1/2)
	TTA-100
Take-up Torque:	35~60g-cm (DECK-1/2)
F.F & REW Torque:	75~180g-cm (DECK-1/2)
Back Tension:	2~7g-cm (DECK-1/2)
Test Tape:	NORMAL :TTA-601
	CrO_2 :TTA-610

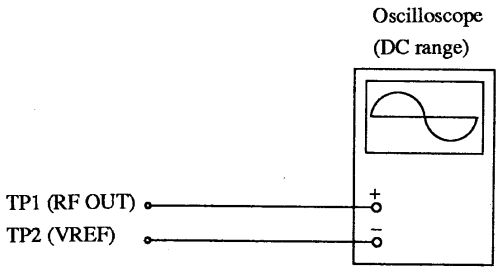
ADJUSTMENT—3<CD>



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

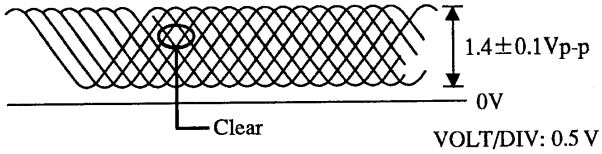
1. Focus Bias Adjustment

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



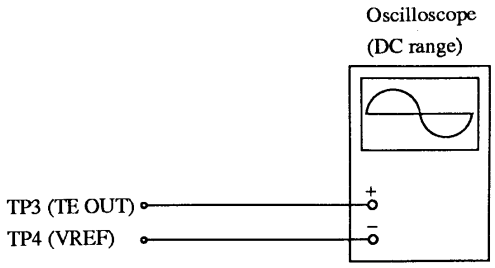
1. Connect an oscilloscope to test points TP1 (RF OUT) and TP2 (VREF).
2. Turn on the power switch.
3. Insert test disc TCD-782 and play back the second composition.
4. Adjust SFR2 so that the level of RF wave to be maximum and clear.

RF signal waveform

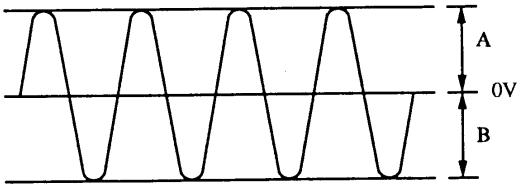


VOLT/DIV: 0.5 V
TIME/DIV: 0.5μS

2. Tracking Balance Adjustment



1. Connect an oscilloscope to test points TP3 (TE OUT) and TP4 (VREF).
2. Turn on the power switch.
3. Insert test disc TCD-782 and play back the second composition.
4. Connect the intermediate point of SFR3 to TP4 (VREF).
5. Adjust SFR1 so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
6. Remove the connected wire.



A = B

VOLT/DIV: 200mV
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 gains are reciprocate, the adjustment is performed so that both gains are satisfied.

- When gain is raised, the noise increases when the 2-axis device opearates.
- 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.

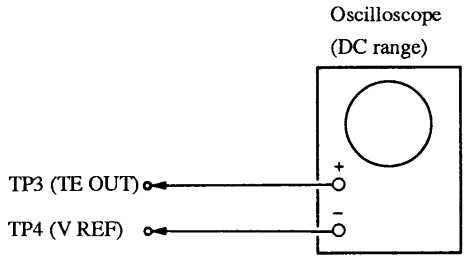
Gain / Symptoms	(Focus)	Tracking
●The time until music starts becomes longer for STOP→ ▶ PLAY or automatic selection (|◀◀, ▶▶| buttons pressed.) (Normally takes about 2 seconds.)	Low	Low or High
●Music dose not start and disc continues to rotate for STOP→ ▶ PLAY or automatic selection (|◀◀, ▶▶| buttons 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 noise during the 2-axis device operation.	High	High

The following is simple adjustment method.

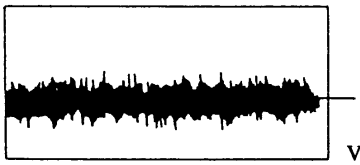
- Simple adjustment -

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 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 and play back the second composition.
3. Connect an oscilloscope to TP3 (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: 5mV
TIME/DIV: 1mS

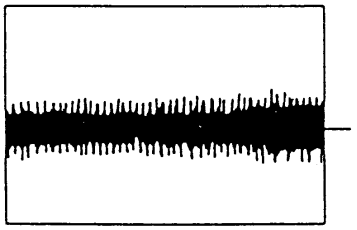
● Incorrect example

Low tracking gain (The fundamental wave appears as compared with the waveform adjusted.).

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

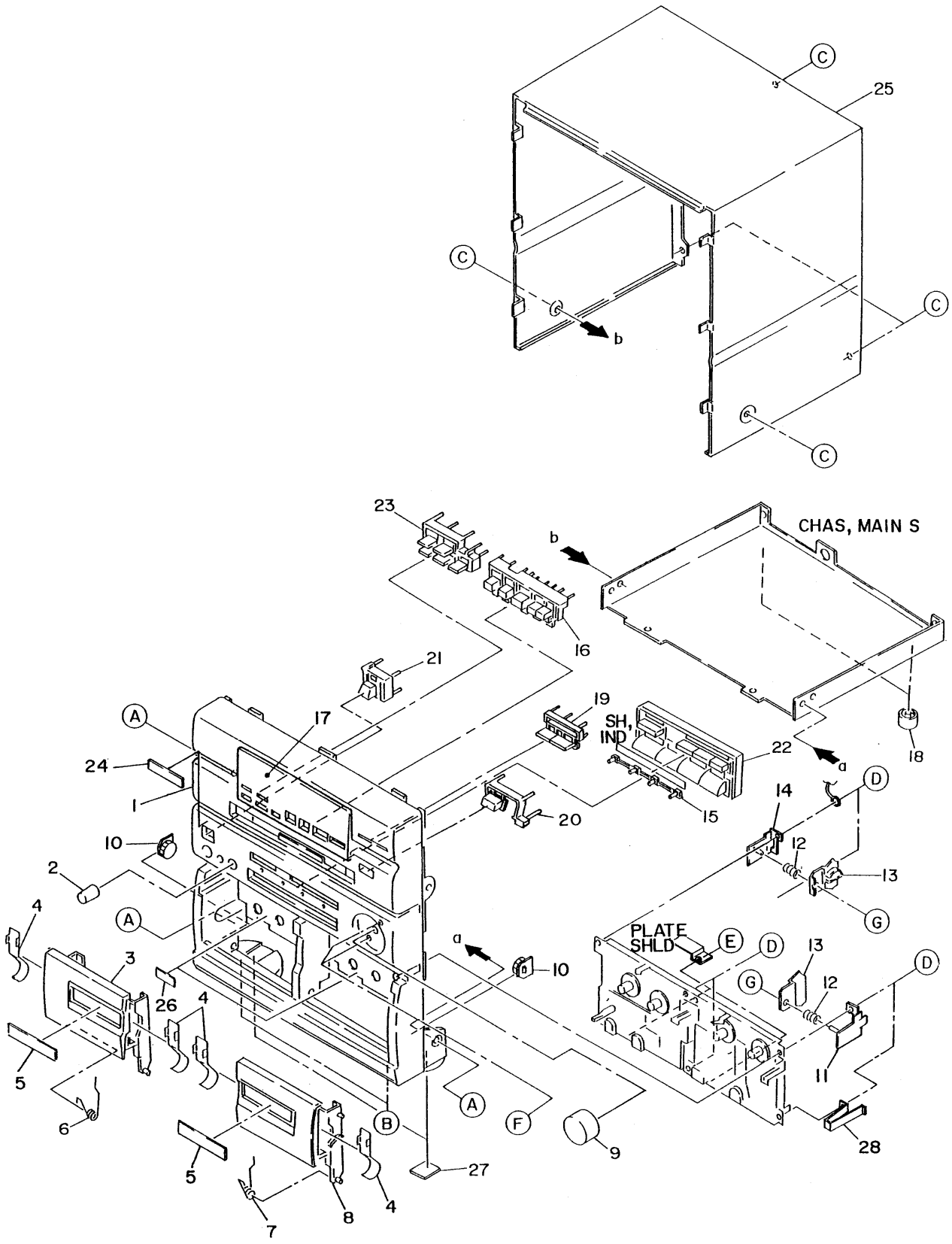
High tracking gain

(The frecuency of the fundamental wave is higher than that in low gain.)



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

MECHANICAL EXPLODED VIEW 1/2

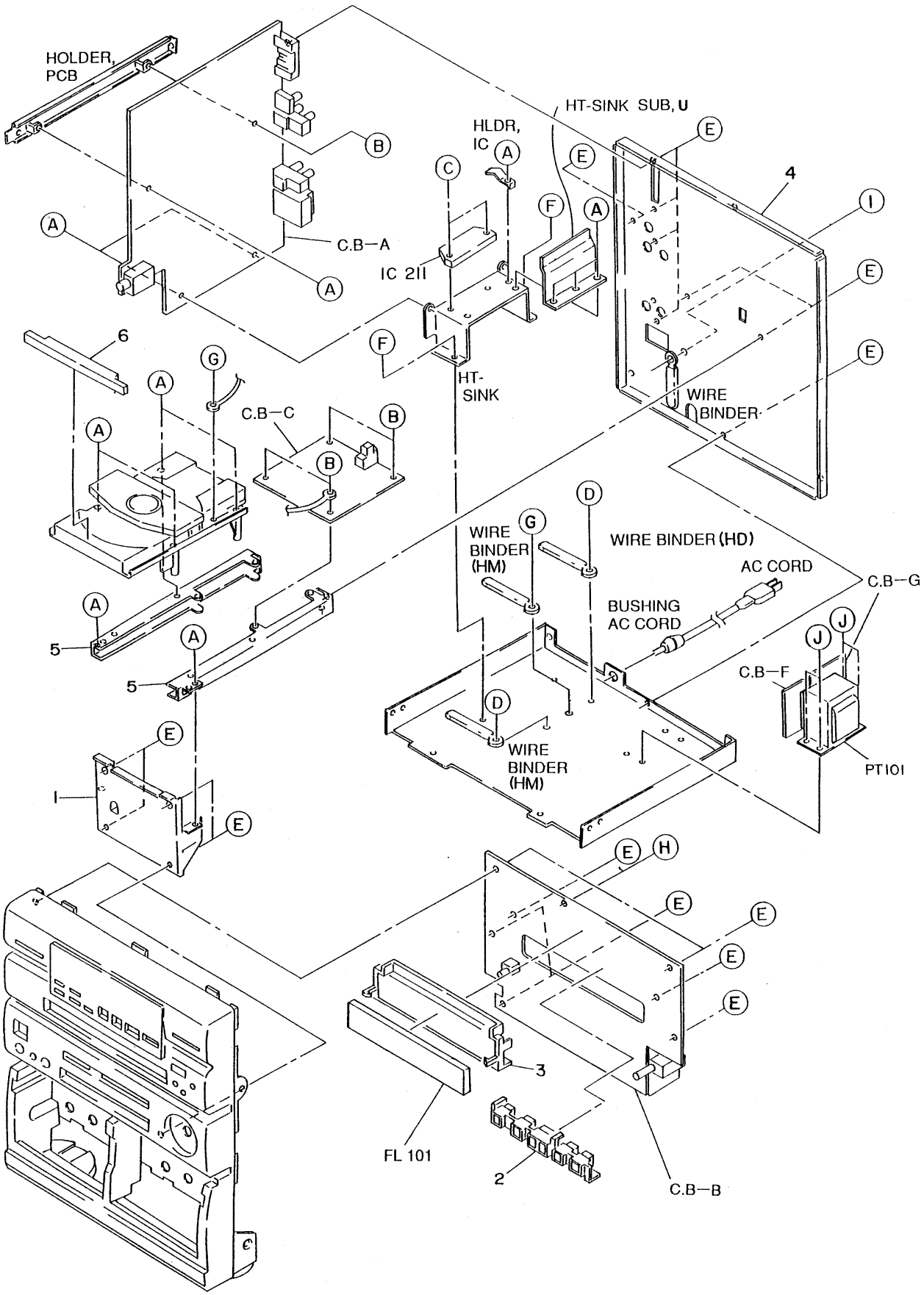


MECHANICAL PARTS LIST 1/2

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	83-NE2-063-119		CAB, FR HM
2	81-MX4-019-019		KNOB, MIC
3	83-NE2-053-219		BOX, CASS 1EX
4	81-MX4-223-019		SPR-P, CASS
5	81-MX4-014-119		WINDOW, BOX, 1
6	83-NE2-201-019		SPR-T EJECT 1
7	83-NE2-202-019		SPR-T EJECT 2
8	83-NE2-054-219		BOX, CASS 2EX
9	83-NE2-023-019		KNOB ASSY, VOL
10	87-063-165-019		OIL-DMPR 150
11	82-NF5-205-019		HLDR ASSY, LOCK 2
12	80-MV3-210-110		SPR-C, LOCK
13	80-CD3-233-010		PLATE, LOCK
14	82-NF5-204-019		HLDR, ASSY LOCK 1
15	81-MX4-020-019		IND, FUN
16	81-MX4-010-010		KEY, PLAY
17	83-NE2-076-019		WINDOW, DISPLAY HM
18	87-085-221-010		FOOT, H13.5
19	83-NE2-002-019		KEY, YU
20	83-NE2-003-019		KEY, CD
21	81-MX4-007-019		KEY, POWER
22	83-NE2-022-019		KEY, FUN
23	81-MX4-011-019		KEY, DUBB
24	81-MX4-032-019		BADGE, AIWA N
25	83-NE2-046-019		CAB, STEEL
26	81-532-080-019		LBL, CASS COMPT
27	80-VT1-202-019		FELT, 12.5-15.5-2
28	82-NF5-216-019		PLATE EARTH MECHA
A	87-591-094-419		QIT+3-6 GOLD
B	87-067-716-019		BVTT+3-6 BLK
C	87-067-641-019		UTT2+3-8 W/O SLOT BLK
D	87-067-761-019		BVT2+3-10 BLK
E	87-571-032-419		VIT+2-3
F	87-067-579-019		BVT2+3-8 W/O SLOT
G	87-081-808-019		PW, 1.7-3.5-0.25

MECHANICAL EXPLODED VIEW 2/2

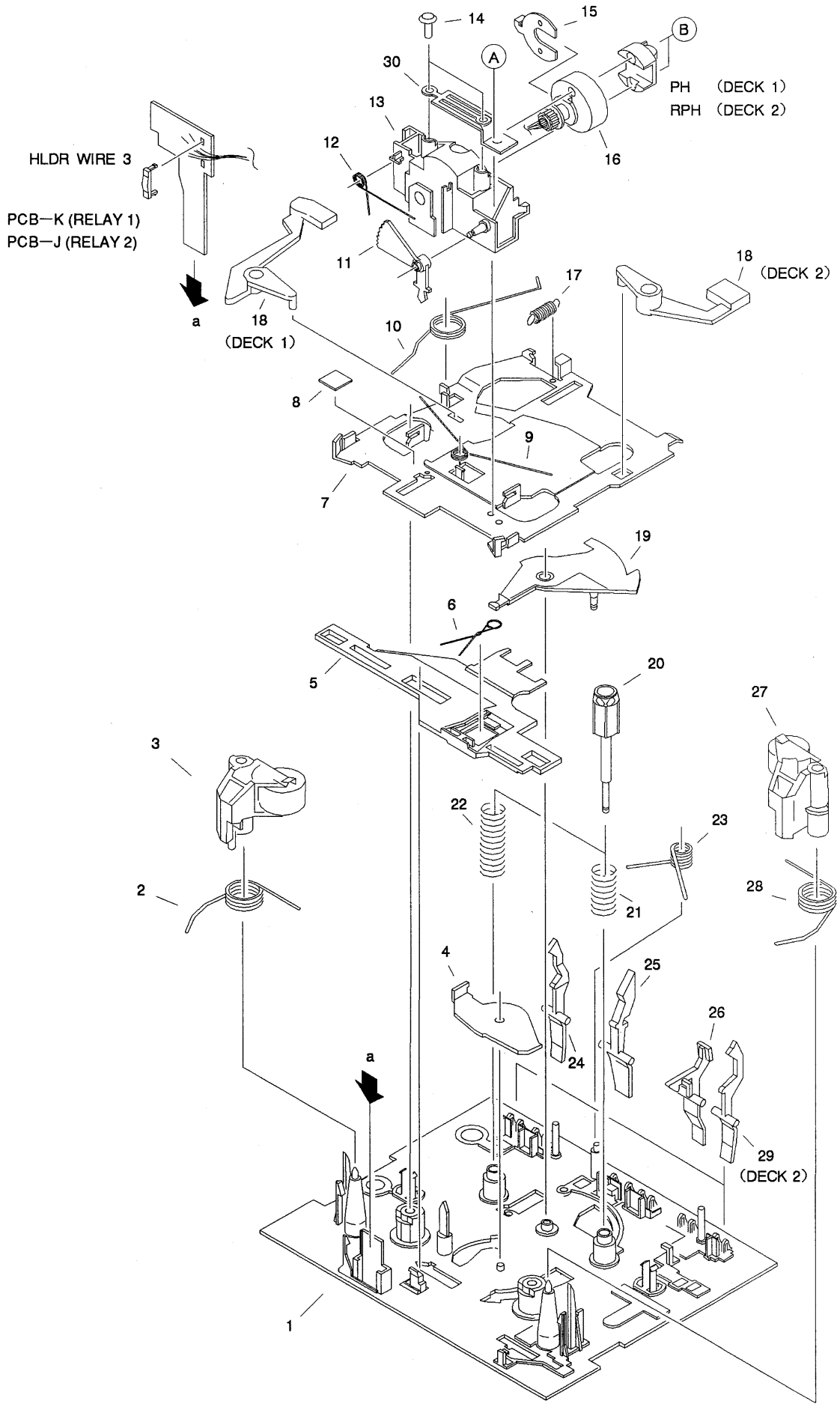


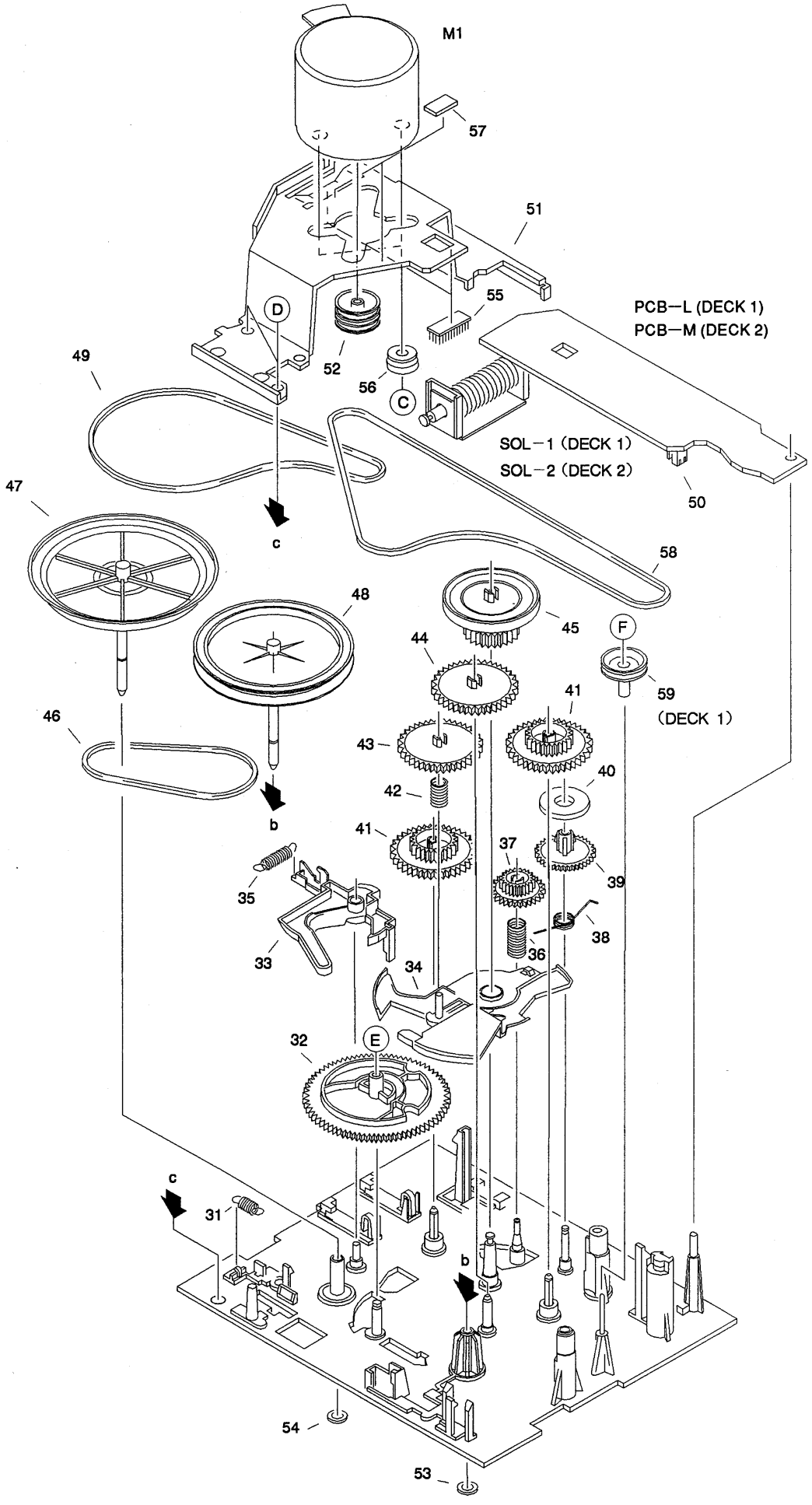
MECHANICAL PARTS LIST 2/2

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-NE8-206-019		HLDR, CD 0.8
2	81-MX4-210-019		GUIDE, PLAY
3	82-MA2-203-019		GUIDE, FL 2
4	83-NE2-064-119		PANEL, REAR HMB〈HM〉
4	83-NE2-065-019		PANEL, REAR HDB〈HD〉
5	81-MX4-203-119		HLDR, CD3
6	83-NE2-075-019		PANEL, TRAY HM
A	87-067-579-019		BVT2+3-8 W/O SLOT
B	87-067-633-019		UTT2+3-8 W/CONVET
C	87-067-581-019		BVT2+3-15 W/O SLOT
D	87-067-585-019		BVTT+4-6
E	87-067-761-019		BVT2+3-10 BLK
F	87-067-584-019		BVT2+3-6 W/O SLOT
G	87-067-688-019		BVTT+3-6
H	87-067-058-019		FW, 3.2-8-0.5
I	87-084-077-019		NYLON RIVET DIA 3.5-4.5
J	87-078-019-019		S-SCREW, IT+4.6

TAPE MECHANISM EXPLODED VIEW 1/1




M1
57
51
55
PCB—L (DECK 1)
PCB—M (DECK 2)
D
52
56
C
49
SOL—1 (DECK 1)
SOL—2 (DECK 2)
50
47
c
58
48
45
F
44
59
(DECK 1)
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42
b
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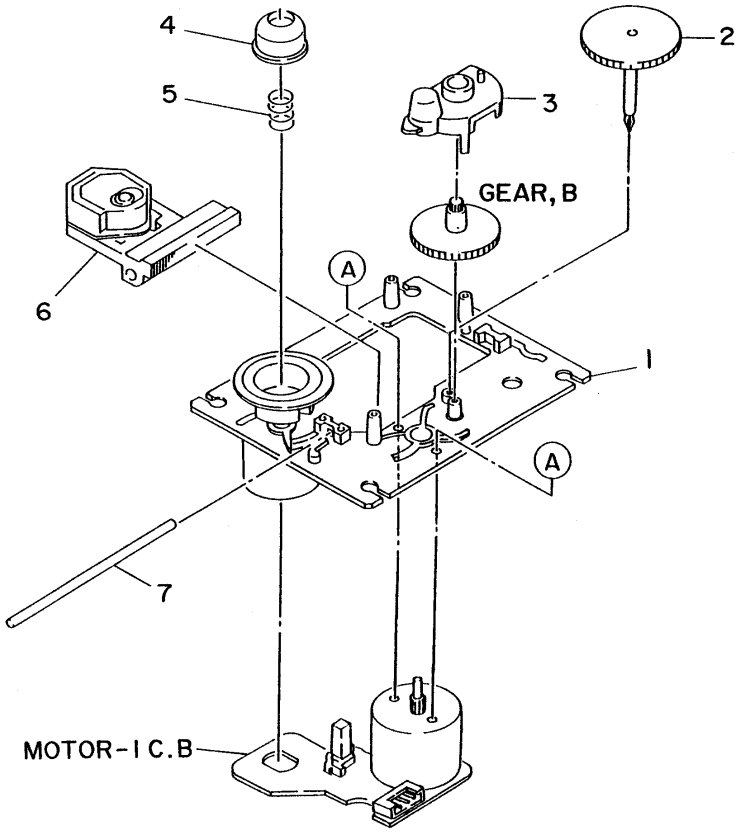
E
32
c
31
b
54
53

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-ZM3-214-110		CHAS ASSY, P (DECK 1)
1	82-ZM1-299-010		CHAS ASSY, R (DECK 2)
2	82-ZM1-258-010		SPR-T, PINCH L
3	82-ZM1-248-110		LVR ASSY, PINCH L
4	82-ZM1-295-210		PLATE ASSY, LINK
5	82-ZM1-266-010		LVR, DIR
6	82-ZM1-214-010		SPR-T, DIR
7	82-ZM1-206-210		CHAS, HEAD
8	87-078-014-010		SH, 5-5-0.05
9	82-ZM1-269-010		SPR-T, BRG
10	82-ZM1-219-010		SPR-T, LINK
11	82-ZM1-210-010		GEAR, H T
12	82-ZM1-213-010		SPR-T, HEAD
13	82-ZM1-207-010		GUIDE, TAPE
14	82-ZM1-283-210		S-SCREW, AZIMUTH
15	82-ZM1-209-010		PLATE, HEAD
16	82-ZM1-208-010		HLDR, HEAD
17	82-ZM1-218-010		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-ZM1-222-010		LVR, PLAY
20	82-ZM1-217-110		REEL TABLE
21	82-ZM1-244-110		SPR-C, BT
22	82-ZM1-285-110		SPR-C, BT L
23	82-ZM1-257-010		SPR-T, CAS
24	82-ZM1-241-110		LVR, MC
25	82-ZM1-242-010		LVR, CAS
26	82-ZM1-243-010		LVR, STOP
27	82-ZM1-253-110		LVR ASSY, PINCH R
28	82-ZM1-259-010		SPR-T, PINCH R
29	82-ZM1-240-110		LVR, REC (DECK 2)
30	82-ZM1-298-010		SPR-P, EARTH
31	82-ZM1-255-110		SPR-E, LVR DIR
32	82-ZM1-221-110		GEAR, CAM
33	82-ZM1-227-110		LVR, TRIG
34	82-ZM1-224-110		LVR, FR
35	82-ZM1-305-010		SPR-E, TRIG 2
36	82-ZM1-277-010		SPR-C, PLAY
37	82-ZM1-223-010		GEAR, PLAY
38	82-ZM1-256-110		SPR-T, FR
39	82-ZM1-220-210		GEAR, IDLER
40	80-ZM6-217-010		RING MAGNET 2
41	82-ZM1-216-210		GEAR, REEL
42	82-ZM1-276-010		SPR-C, FR
43	82-ZM1-225-010		GEAR, FR
44	82-ZM1-226-010		GEAR, REW
45	82-ZM1-228-210		SLIP DISK ASSY
46	82-ZM1-261-110		BELT, FR
47	82-ZM1-237-210		FLY-WHL ASSY, R (DECK 2)
47	82-ZM3-209-110		FLY-WHL ASSY, R2 (DECK 1)
48	82-ZM1-234-110		FLY-WHL ASSY, L (DECK 2)
48	82-ZM3-207-210		FLY-WHL ASSY, L2 (DECK 1)
49	82-ZM3-206-010		BELT, R
50	82-ZM1-245-210		HLDR, IC
51	82-ZM3-201-010		HLDR, MC
52	82-ZM3-202-010		PULLEY, MOT 2M
53	82-ZM1-288-010		SH, 1.63-3.2-0.5 SLT
54	80-ZM6-243-010		SH, 1.75-3.6-0.5 SLT
55	80-ZM6-230-010		SH, BELT
56	86-575-242-010		CUSH-G, DIA3.7-9-3.2
57	86-575-361-010		CUSH-G, 6-8-0.8
58	82-ZM3-205-010		BELT, L
59	82-ZM3-204-010		PULLEY, COUPLER (DECK 1)
A	87-585-036-410		UIT+2-8
B	80-ZM6-207-010		V+1.6-7
C	82-ZM1-309-010		S-SCRW, MOTOR
D	87-067-178-010		VTT+2.6-3
E	87-067-932-010		PW, 2.15-6.8-0.5 SLT
F	87-067-972-010		PW, 1.05-3-0.25 SLT

CD MECHANISM EXPLODED VIEW 1/1



CD MECHANISM PARTS LIST 1/1

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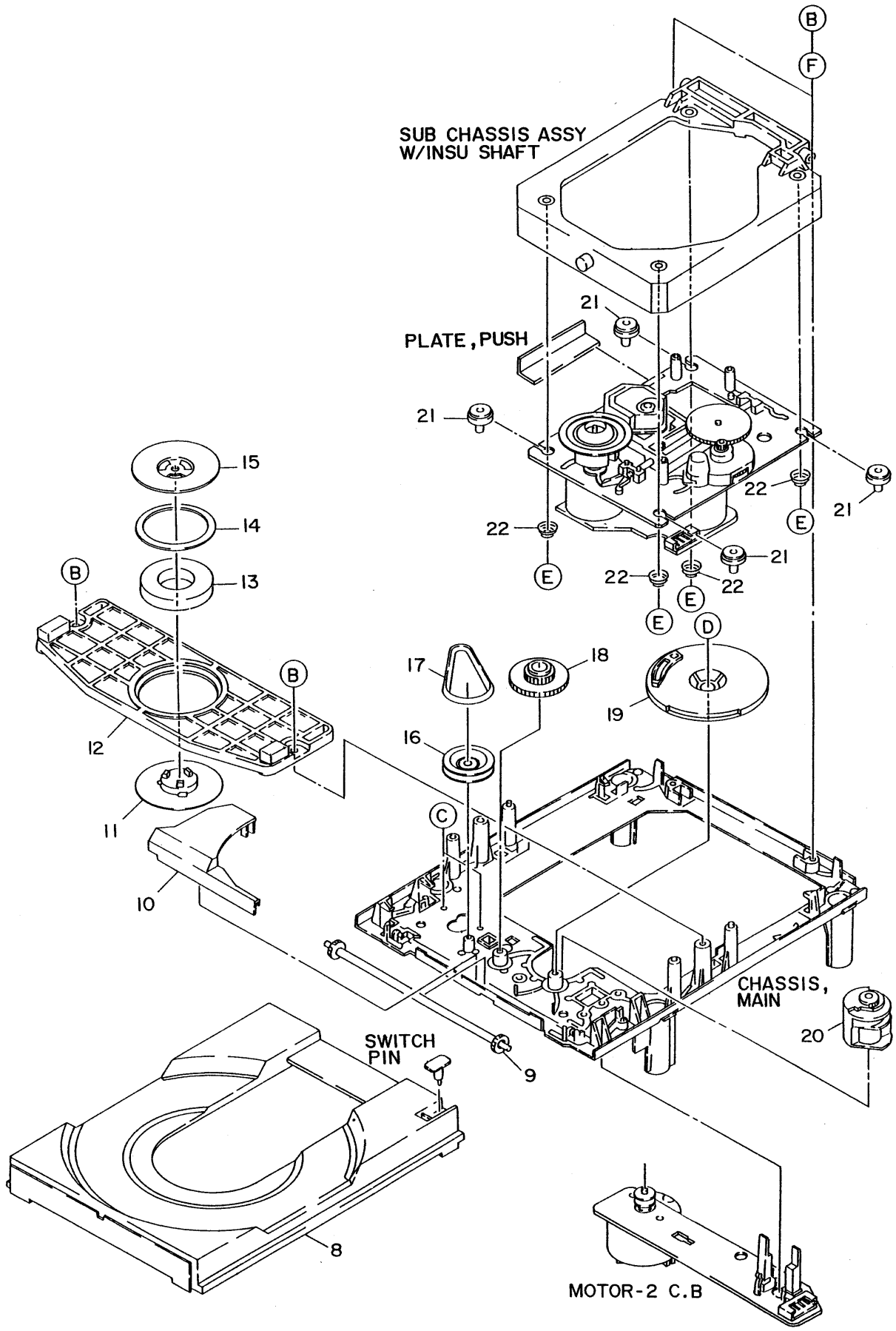
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	ｶﾝﾘ NO.	DESCRIPTION
1	9X-262-513-310		T. T CHASS ASSY W/MOTOR
2	92-625-188-020		GEAR(A)
3	92-625-544-010		COVER
4	92-625-187-010		RING CENTER
5	92-625-191-010		SPRING COMPRESSION
6	98-848-127-110		OPTICAL PICK UP KSS-210A
7	94-917-565-010		SHAFT SLED
8	92-625-288-010		TRAY
9	92-625-275-030		GEAR TRAY
10	92-625-282-020		GEAR COVER
11	92-625-286-030		CHACKING PULLY
12	92-625-284-010		CHACKING PLATE
13	91-452-493-210		MAGNET
14	92-625-541-010		DAMPER
15	92-625-277-010		YOKE CHUCK
16	92-625-276-010		PULLY LOUDING
17	93-653-387-000		LM BELT
18	92-625-274-010		GEAR MEDDLE
19	92-625-285-030		DRIVE GEAR
20	92-625-283-020		CONTROL CAM
21	92-625-278-010		INSULATOR
22	92-625-280-010		SPRING
A	87-261-032-210		V+2-3
B	87-761-074-410		VFT2 2.6-8
C	92-625-279-010		U+2.6-2.5
D	87-761-079-410		VFT2 2.6-16
E	92-644-410-020		SCREW SWCH16A
F	93-464-123-000		WASHER


SUB CHASSIS ASSY
W/INSU SHAFT
PLATE, PUSH
CHASSIS,
MAIN
SWITCH
PIN
MOTOR-2 C.B
B
F
21
22
E
D
C
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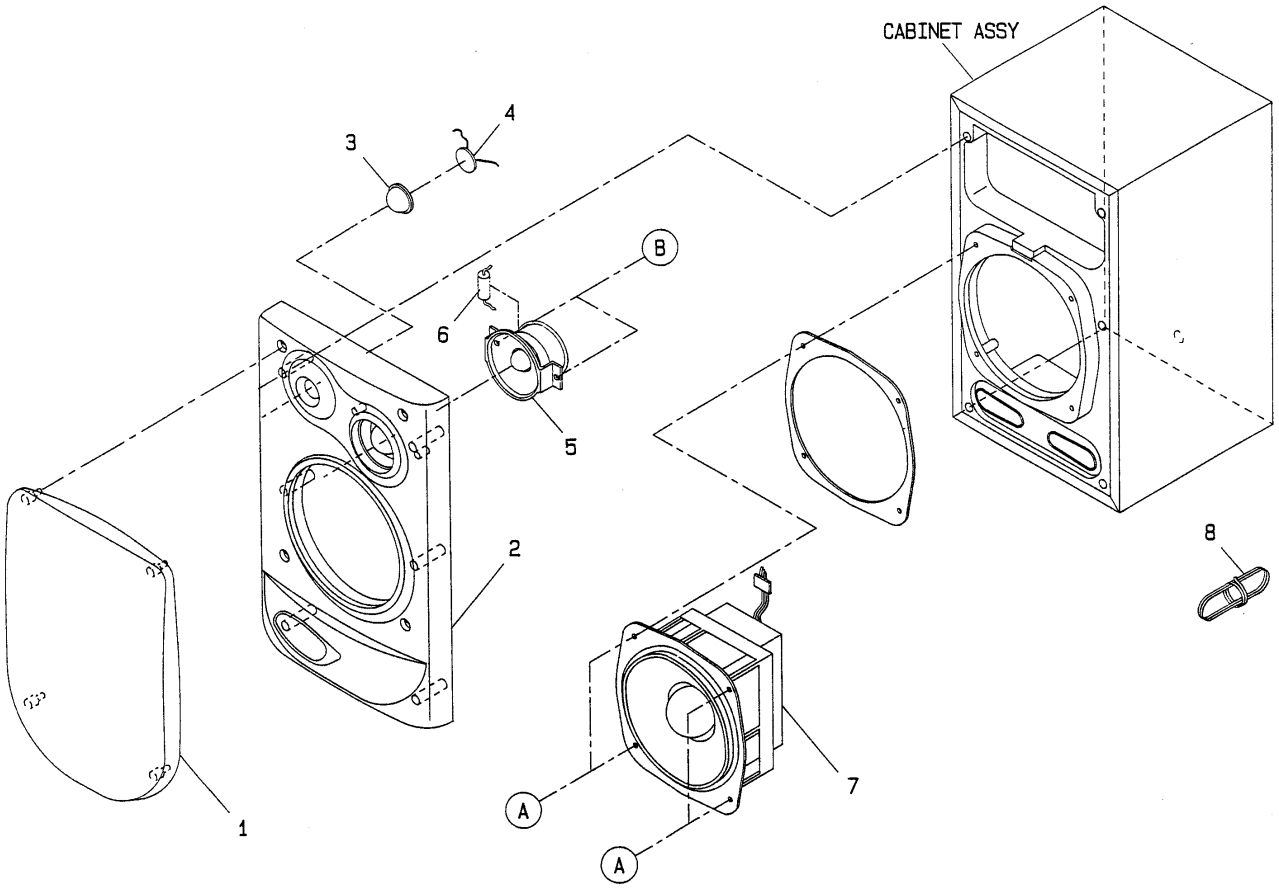
SPEAKER EXPLODED VIEW



SPEAKER PARTS LIST

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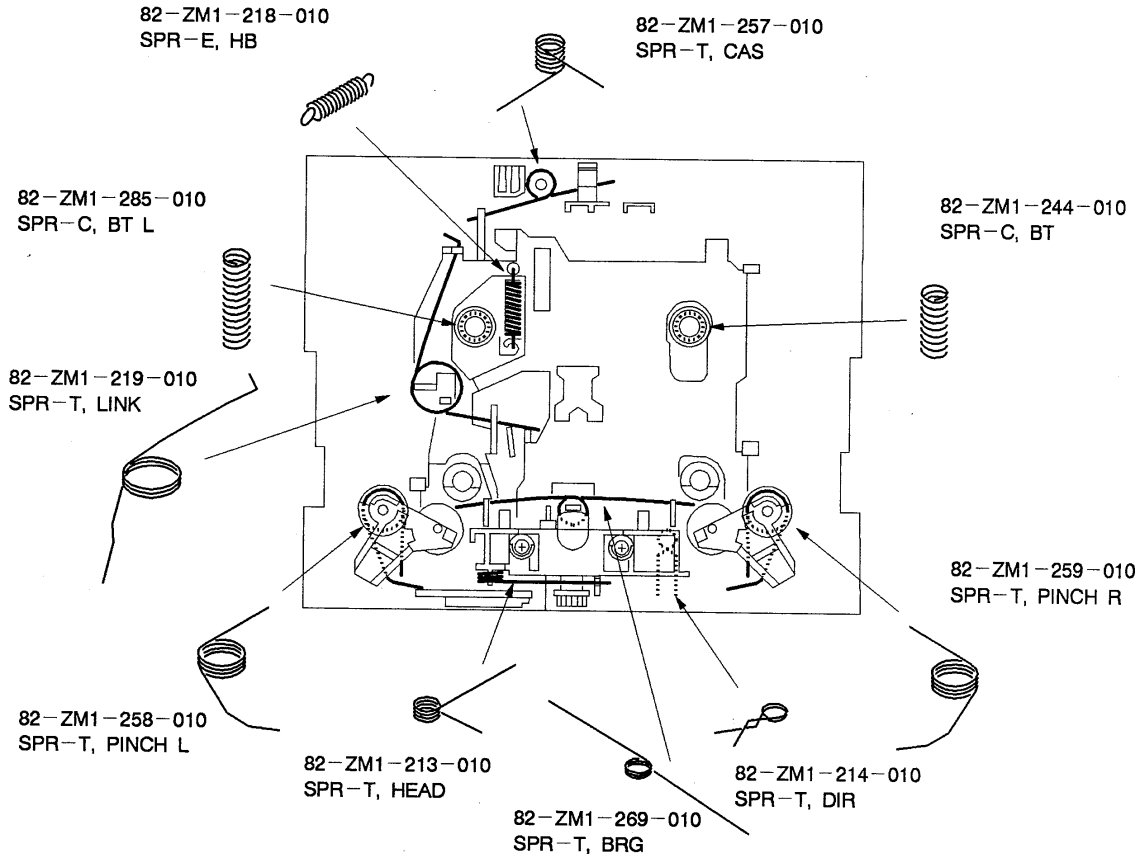
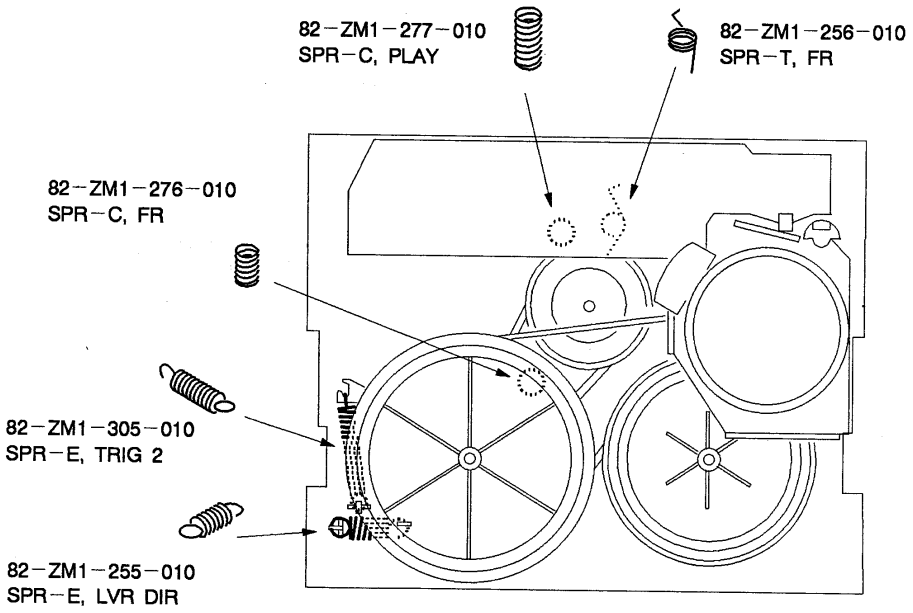
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	カンリ NO.	DESCRIPTION
1	81-MSE-007-010		GRILL FRAME ASSY
2	82-NS2-004-010		PANEL, FRONT RY
2	82-NS2-005-010		PANEL, FRONT LY
3	82-MSE-610-010		CERAMIC
4	82-NS2-604-010		SPEAKER, TWEETER
5	82-NS2-602-010		SPEAKER, WOOFER
6	83-096-614-010		CORD, SPEAKER
A	87-343-172-010		UT, +4-12
B	87-342-097-010		UT, +3-12

SPRING APPLICATION POSITION





REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER
ｻｰｼﾞｻﾌﾟﾚｯｻ	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, CONTORL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOADING 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
ｼｸｱｰﾑ	ARM, SHAFT
ｼｸｶﾞｲﾄﾞ	GUIDE, SHAFT
ｽﾄﾗｯﾌﾟ	STRAP
ﾄｸﾅﾍﾞ	S-SCRW
ﾋﾝｼﾞ	HINGE
ﾋﾝｼﾞﾋﾞｽ	S-SCRW
ﾋﾞｽｾﾚｰﾄ	SCRW, SERRART

サービス技術ニュース	
番号	連絡内容
G－　－	
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アイワ株式会社
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