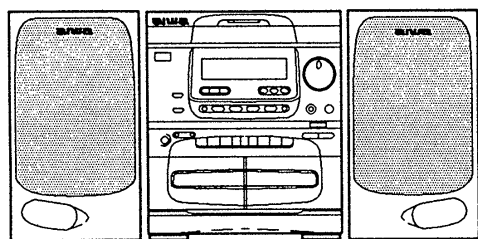


aiwa

NSX - 510G CX - N510G



COMPACT DISC STEREO SYSTEM

- BASIC TAPE MECHANISM : 2ZM - 3 PR1N
- BASIC CD MECHANISM : KSM - 2101ABM
- TYPE. HE,HD,HR,E,K,Z,U

[REVISION PUBLISHING]

SYSTEM	CD - CASSEIVER	REMOTE CONTROLLER	SPEAKER
NSX - 510G	CX - N510G	RC - TN500	SX - N510G SX - N3500

- This Service Manual has information about difference between NSX - 510G and XG - 500/NSX - 500/CX - 500.
If requiring the other information, see Service Manual of XG - 500/NSX - 500/CX - 500.(S/M Code No.0221/1993)
- There are four types of CD block, so refer to applicable one.

TABLE OF CONTENTS

SPECIFICATIONS	3
PROTECTION OF EYES FROM LASER BEAM DURING SERVICING	4
PRECAUTION TO REPLACE OPTICAL BLOCK	4
ELECTRICAL MAIN PARTS LIST	5~7
IC BLOCK DIAGRAM	8
BLOCK DIAGRAM – 1, – 2	9~12
SCHEMATIC DIAGRAM – 1 ~ – 4	13~20
WIRING – 1	21~22
SCHEMATIC DIAGRAM – 5	23~24
WIRING – 2	25~26
SCHEMATIC DIAGRAM – 6	27~28
WIRING – 3	29~30
SCHEMATIC DIAGRAM – 7	31~32
WIRING – 4	33~34
SCHEMATIC DIAGRAM – 8	35~36
WIRING – 5	37~38
ELECTRICAL ADJUSTMENT	39~49
PRACTICAL SERVICE FIGURE	39~49
IC DESCRIPTION	50~53
EXPLODED VIEW – 1/3, MECHANICAL PARTS LIST 1/3	54~55
EXPLODED VIEW – 2/3, MECHANICAL PARTS LIST 2/3	56~57
EXPLODED VIEW – 3/3, MECHANICAL PARTS LIST 3/3	58~59
SPEAKER LIST	60
ACCESSORIES/PACKAGE LIST	60
REFERENCE NAME LIST	61

SPECIFICATIONS

<FM section>

Frequency range	HD: 76.0 MHz to 108 MHz HE, HR, E, K, Z: 87.5 MHz a 108 MHz HE, HR, E, K: 1.3 μ V (75 ohms) 13.2 dBf Z: 1.9 μ V (75 ohms) 16.8 dBf HD: 1.8 μ V (75 ohms) 16.2 dBf
Usable sensitivity (IHF)	50 dB ($\pm$ 400 kHz)
Alternate channel selectivity	STEREO: 70 dB (HE, HR, HD, E, K) 65 dB (Z)
Signal-to-noise ratio	MONO: 76 dB (HE, HR, E, K) 78 dB (HD) 73 dB (Z)
Harmonic distortion	0.3% (MONO), 1 kHz 0.5% (STEREO, L-R), 1 kHz (HE, HR, E, K, Z) 0.8% (STEREO L-R), 1 kHz (HD)
Frequency response	30 Hz to 15 kHz (+0.5 dB, -3 dB)
Stereo separation	HE, HR, E, K: 33 dB at 1 kHz Z: 30 dB at 1 kHz HD: 35dB at 1 kHz
Antenna	75 ohms (unbalanced)

<AM (MW) section>

Frequency range	NSX-510G HE, HR, HD, E, K, Z: AM 531 (530) kHz to 1,602 (1,710) kHz NSX-510G U: AM 530 (531) kHz to 1,710 (1,602) kHz
Usable sensitivity	350 μ V/m
Selectivity	22 dB (9 kHz)
Signal-to-noise ratio	53 dB (100 dB input)
Antenna	Loop antenna

<LW section > (E, K, Z models only)

Frequency range	144 kHz to 290 kHz
Sensitivity	1,400 μ V/m
Antenna	Loop antenna

<Timer section>

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

<Amplifier section>

Power output	NSX-510G HE, HR, HD: 40 W + 40 W (6 ohms, T.H.D. 10% 1 kHz) NSX-510G E, Z: 30 W + 30 W (6 ohms, T.H.D. 1% 1 kHz) NSX-510G K: 40 W + 40 W (6 ohms, T.H.D. 10% 1 kHz) 30 W + 30 W (6 ohms, T.H.D. 1% 1 kHz) FTC RULE (NSX-510G U) 30 watts per channel, Min. RMS at 6 ohms, from 65 Hz to 15 kHz, with no more than 1% Total Harmonic Distortion 0.05% (15 W, 1 kHz, 6 ohms) VIDEO/AUX: 150 mV (adjustable)
Harmonic distortion	
Input sensitivity	

<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) 4.8 cm/sec. (1 7/8 ips)
Tape speed	AC bias
Recording system	AC erase
Erase system	DC servomotor $\times$ 1
Motor	Playback head $\times$ 1 (deck 1)
Heads	Recording/playback/erase head $\times$ 1 (deck 2)

<CD player section>

Disc	Compact disc
Scanning method	Non contact optical scanner (semiconductor 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 channels
D-A conversion	16-bit linear
Wow/flutter	Unmeasurable
Signal-to-noise ratio	90 dB (1 kHz, 0 dB)
Harmonic distortion	0.05% (1 kHz, 0 dB)
Video signal	NTSC/PAL
Video output	Phono jack 1 Vp-p, 75 Ω unbalanced

<Speaker SX-N510G>

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 $\times$ H $\times$ D)	180 $\times$ 302.5 $\times$ 220 mm (7 1/8 $\times$ 12 $\times$ 8 3/4 in.)
Weight	2.8 kg (6.2 lbs.)

<General>

Power requirements	NSX-510G HE, HR: AC 120 V/220 V/240 V, switchable 50/60 Hz NSX-510G HD: AC 100-120 V/200-240 V, switchable 50/60 Hz NSX-510G U: AC 120 V, 50/60 Hz NSX-510G E, Z: AC 230 V, 50 Hz NSX-510G K: AC 240 V, 50 Hz NSX-510G HE: 90 W NSX-510G HR: 120 W NSX-510G HD: 85 W NSX-510G U: 80 W NSX-510G E, K, Z: 210 W
Power consumption	Center unit: 260 $\times$ 302.5 $\times$ 335.5 mm (10 1/4 $\times$ 12 $\times$ 13 1/4 in.) System: 620 $\times$ 302.5 $\times$ 335.5 mm (24 1/2 $\times$ 12 $\times$ 13 1/4 in.) Center unit: 7.4 kg (16.3 lbs.) System: 13.0 kg (28.6 lbs.)
Dimensions (W $\times$ H $\times$ D)	
Weight	

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

WARNING!

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

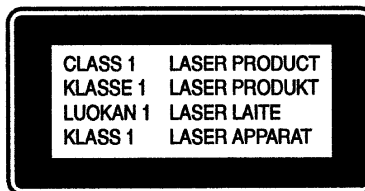
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er 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.

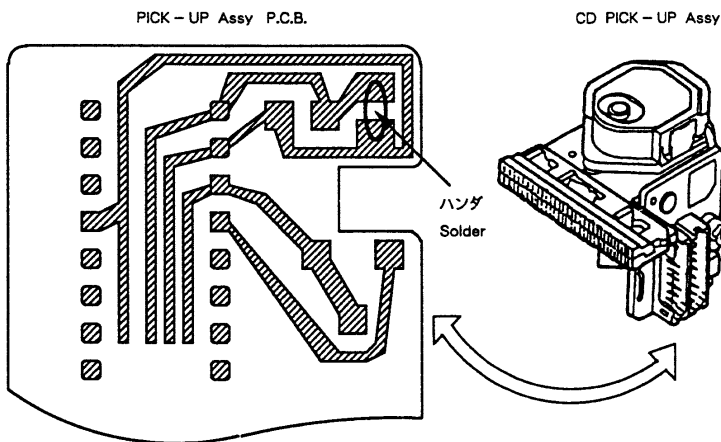


Precaution to replace Optical block

(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	REF. NO	PART NO.	カンリ NO.	DESCRIPTION
IC				C53	87-010-318-080		C-CAP, S 47P-50 CH
	87-017-429-080		IC, TDA 1311 A (T)	C54	87-010-318-080		C-CAP, S 47P-50 CH
	87-017-492-110		IC, LC7870E	C55	87-010-318-080		C-CAP, S 47P-50 CH
	87-002-412-080		IC, SN74HC00NS	C56	87-010-196-080		C-CAP, S 0.1-25 F
	87-017-198-080		IC, CXA1145M	C57	87-010-197-080		C-CAP, S 0.01-25 B
	87-017-199-010		IC, MN41464AZ	C61	87-010-197-080		C-CAP, S 0.01-25 B
	87-001-668-080		IC, TC74HC4053AF	C62	87-010-248-080		CAP, E 220-10 SME
	87-017-008-080		IC, TC74HC123AF	C65	87-010-402-080		CAP, E 2.2-50 SME
	87-017-197-010		IC, YVZ152	C66	87-010-402-080		CAP, E 2.2-50 SME
	87-020-881-080		IC, NJM78L05A	C69	87-010-178-080		C-CAP, S 1000P-50 B
	87-017-561-080		IC, TC74HC193AF	C70	87-010-178-080		C-CAP, S 1000P-50 B
	87-017-560-080		IC, TC74HC393AF	C80	87-010-196-080		C-CAP, S 0.1-25 F
	87-017-559-080		IC, TC74HC30AF	C81	87-010-221-080		CAP, E 470-10
	87-017-562-080		IC, TC74HC4040AF	C82	87-010-197-080		C-CAP, S 0.01-25 B
	87-001-795-080		IC, TC74HC74AF	C83	87-010-196-080		C-CAP, S 0.1-25 F
	87-001-550-080		IC, TC7S04F	C84	87-010-196-080		C-CAP, S 0.1-25 F
	82-NF5-710-010		IC, UPD78044GF-026	C85	87-010-196-080		C-CAP, S 0.1-25 F
DIODE				C86	87-010-248-080		CAP, E 220-10 SME
	87-017-464-080		DIODE, 1A3-F AX	C87	87-010-197-080		C-CAP, S 0.01-25 B
	87-020-465-080		DIODE, 1SS133 T-72	C88	87-010-221-080		CAP, E 470-10
FRONT C. B				C89	87-010-197-080		C-CAP, S 0.01-25 B
C607	87-010-178-080		C-CAP, S 1000P-50 B	C90	87-010-404-080		CAP, E 4.7-50 SME
C610	87-012-145-080		C-CAP, S 270P-50 CH	C100	87-010-260-080		CAP, E 47-25 SME
CD C. B (G1 VERSION)				C101	87-010-196-080		C-CAP, S 0.1-25 F
	82-NF5-652-010		CABLE FFC, 7P-1.25	C104	87-010-197-080		C-CAP, S 0.01-25 B
C2	87-010-146-080		C-CAP, S 2P-50 CH	C105	87-010-196-080		C-CAP, S 0.1-25 F
C3	87-010-150-080		C-CAP, S 6P-50 CH	C109	87-010-197-080		C-CAP, S 0.01-25 B
C4	87-010-263-080		CAP, E 100-10	C110	87-010-197-080		C-CAP, S 0.01-25 B
C5	87-010-178-080		C-CAP, S 1000P-50 B	C111	87-010-197-080		C-CAP, S 0.01-25 B
C6	87-010-382-080		CAP, E 22-25 SME	C112	87-010-384-080		CAP, E 100-25 SME
C7	87-010-197-080		C-CAP, S 0.01-25 B	C113	87-010-322-080		C-CAP, S 100P-50 CH
C8	87-010-248-080		CAP, E 220-10 SME	C114	87-010-322-080		C-CAP, S 100P-50 CH
C9	87-015-834-080		C-CAP, S 0.033-25 B K	C115	87-010-318-080		C-CAP, S 47P-50 CH
C10	87-010-188-080		C-CAP, S 6800P-50 B	C116	87-012-156-080		C-CAP, S 220P-50 CH
C11	87-010-188-080		C-CAP, S 6800P-50 B	C121	87-010-196-080		C-CAP, S 0.1-25 F
C12	87-010-193-080		C-CAP, S 0.033-25 F	C131	87-010-404-080		CAP, E 4.7-50 SME
C13	87-010-193-080		C-CAP, S 0.033-25 F	C132	87-010-197-080		C-CAP, S 0.01-25 B
C14	87-010-197-080		C-CAP, S 0.01-25 B	C151	87-010-318-080		C-CAP, S 47P-50 CH
C15	87-010-263-080		CAP, E 100-10	C152	87-010-314-080		C-CAP, S 22P-50 CH
C16	87-010-197-080		C-CAP, S 0.01-25 B	C153	87-010-091-080		C-CAP, 22P-50 CH
C17	87-010-248-080		CAP, E 220-10 SME	C154	87-010-318-080		C-CAP, S 47P-50 CH
C18	87-010-400-080		CAP, E 0.47-50 SME	C155	87-010-197-080		C-CAP, S 0.01-25 B
C19	87-010-197-080		C-CAP, S 0.01-25 B	C156	87-010-197-080		C-CAP, S 0.01-25 B
C20	87-010-197-080		C-CAP, S 0.01-25 B	C157	87-010-322-080		C-CAP, S 100P-50 CH
C21	87-010-182-080		C-CAP, S 2200P-50 B	C158	87-010-318-080		C-CAP, S 47P-50 CH
C22	87-010-197-080		C-CAP, S 0.01-25 B	C159	87-010-314-080		C-CAP, S 22P-50 CH
C25	87-010-404-080		CAP, E 4.7-50 SME	C160	87-010-154-080		C-CAP, S 10P-50 CH
C27	87-010-382-080		CAP, E 22-25 SME	C161	87-010-150-080		C-CAP, S 6P-50 CH
C28	87-010-265-080		CAP, E 33-16 SME	C162	87-010-314-080		C-CAP, S 22P-50 CH
C29	87-010-404-080		CAP, E 4.7-50 SME	C163	87-010-313-080		C-CAP, S 18P-50 CH
C33	87-010-400-080		CAP, E 0.47-50 SME	C164	87-010-196-080		C-CAP, S 0.1-25 F
C35	87-010-178-080		C-CAP, S 1000P-50 B	C165	87-010-248-080		CAP, E 220-10 SME
C36	87-010-260-080		CAP, E 47-25 SME	C166	87-010-405-080		CAP, E 10-50 SME
C37	87-010-401-080		CAP, E 1-50 SME	C167	87-010-197-080		C-CAP, S 0.01-25 B
C38	87-010-186-080		C-CAP, S 4700P-50 B	C168	87-010-196-080		C-CAP, S 0.1-25 F
C39	87-010-401-080		CAP, E 1-50 SME	C169	87-010-196-080		C-CAP, S 0.1-25 F
C40	87-010-197-080		C-CAP, S 0.01-25 B	C169	87-010-405-080		CAP, E 10-50 SME
C42	87-010-318-080		C-CAP, S 47P-50 CH	C170	87-015-819-080		C-CAP, S 0.01-50 B K
C43	87-010-318-080		C-CAP, S 47P-50 CH	C171	87-015-819-080		C-CAP, S 0.01-50 B K
C44	87-010-314-080		C-CAP, S 22P-50 CH	C172	87-010-263-080		CAP, E 100-10
C45	87-010-315-080		C-CAP, S 27P-50 CH	C173	87-010-405-080		CAP, E 10-50 SME
C51	87-010-197-080		C-CAP, S 0.01-25 B	C174	87-010-405-080		CAP, E 10-50 SME
C52	87-010-263-080		CAP, E 100-10	C175	87-010-260-080		CAP, E 47-25 SME
				C176	87-010-197-080		C-CAP, S 0.01-25 B (EXCEPT Z)
				C176	87-018-214-080		CAP, TC-U 0.1-50F (Z)
				C177	87-010-197-080		C-CAP, S 0.01-25 B
				C179	87-015-785-080		C-CAP, S 0.1-25 F
				C180	87-010-196-080		C-CAP, S 0.1-25 F
				C181	87-010-196-080		C-CAP, S 0.1-25 F
				C182	87-012-156-080		C-CAP, S 220P-50 CH

REF. NO	PART NO.	カンリ NO.	DESCRIPTION	REF. NO	PART NO.	カンリ NO.	DESCRIPTION
C183	87-010-197-080		C-CAP, S 0.01-25 B	C29	87-010-404-080		CAP, E 4.7-50 SME
C184	87-012-155-080		C-CAP, S 180P-50 CH	C33	87-010-400-080		CAP, E 0.47-50 SME
C185	87-010-405-080		CAP, E 10-50 SME	C35	87-010-178-080		C-CAP, S 1000P-50 B
C186	87-010-196-080		C-CAP, S 0.1-25 F	C36	87-010-260-080		CAP, E 47-25 SME
C187	87-010-197-080		C-CAP, S 0.01-25 B	C37	87-010-401-080		CAP, E 1-50 SME
C188	87-010-405-080		CAP, E 10-50 SME	C38	87-010-186-080		C-CAP, S 4700P-50 B
C189	87-015-785-080		C-CAP, 0.1-25 F	C39	87-010-401-080		CAP, E 1-50 SME
C190	87-010-196-080		C-CAP, S 0.1-25 F (EXCEPT Z)	C40	87-010-197-080		C-CAP, S 0.01-25 B
C190	87-018-214-080		CAP, TC-U 0.1-50F (Z)	C42	87-010-318-080		C-CAP, S 47P-50 CH
C191	87-010-197-080		C-CAP, S 0.01-25 B	C43	87-010-318-080		C-CAP, S 47P-50 CH
C998	87-018-125-080		CAP, TC-U 330P-50 (Z)	C44	87-010-314-080		C-CAP, S 22P-50 CH
C999	87-018-214-080		CAP, TC-U 0.1-50F (Z)	C45	87-010-315-080		C-CAP, S 27P-50 CH
EM1	87-008-474-080		F-BEAD, EMI BL02RN1	C51	87-010-197-080		C-CAP, S 0.01-25 B
EM2	87-008-474-080		F-BEAD, EMI BL02RN1	C52	87-010-263-080		CAP, E 100-10
EM3	87-003-223-080		FERRITE BEAD BL02RN2	C53	87-010-318-080		C-CAP, S 47P-50 CH
EM4	87-003-223-080		FERRITE BEAD BL02RN2	C54	87-010-318-080		C-CAP, S 47P-50 CH
EM91	87-008-372-080		FLTR, EMI BL 01RN1 (Z)	C55	87-010-318-080		C-CAP, S 47P-50 CH
EM92	87-008-372-080		FLTR, EMI BL 01RN1 (Z)	C56	87-010-196-080		C-CAP, S 0.1-25 F
F1	81-VM2-603-010		FILTER, LPF2.00M	C57	87-010-197-080		C-CAP, S 0.01-25 B
F2	81-VM2-602-010		FILTER, BPF3.58M	C61	87-010-197-080		C-CAP, S 0.01-25 B
F3	81-VM2-601-010		FILTER, BPF4.43M	C62	87-010-248-080		CAP, E 220-10 SME
J150	87-009-502-010		JACK, PIN 1P YEL	C65	87-010-402-080		CAP, E 2.2-50 SME
L1	87-003-149-080		COIL, 47UH	C66	87-010-402-080		CAP, E 2.2-50 SME
L2	87-003-149-080		COIL, 47UH	C69	87-010-178-080		C-CAP, S 1000P-50 B
L4	87-003-149-080		COIL, 47UH	C70	87-010-178-080		C-CAP, S 1000P-50 B
L5	87-003-149-080		COIL, 47UH	C80	87-010-196-080		C-CAP, S 0.1-25 F
L6	87-003-149-080		COIL, 47UH	C81	87-010-221-080		CAP, E 470-10
L7	87-003-149-080		COIL, 47UH	C82	87-010-197-080		C-CAP, S 0.01-25 B
L91	87-003-149-080		COIL, 47UH (Z)	C83	87-010-196-080		C-CAP, S 0.1-25 F
PH1	87-026-573-010		P-SNSR GP1S53V (*)	C84	87-010-196-080		C-CAP, S 0.1-25 F
R28	87-022-359-080		C-RES, S 22K-1/10W F	C85	87-010-196-080		C-CAP, S 0.1-25 F
R29	87-022-359-080		C-RES, S 22K-1/10W F	C86	87-010-248-080		CAP, E 220-10 SME
SFR1	87-024-354-080		SFR, 22K DIA6 H	C87	87-010-197-080		C-CAP, S 0.01-25 B
SFR2	87-024-354-080		SFR, 22K DIA6 H	C88	87-010-221-080		CAP, E 470-10
SFR3	87-024-354-080		SFR, 22K DIA6 H	C89	87-010-197-080		C-CAP, S 0.01-25 B
SFR4	87-024-349-080		SFR, 1K DIA6 H	C90	87-010-404-080		CAP, E 4.7-50 SME
SFR5	87-024-570-080		SFR, 100K RH0683H	C100	87-010-260-080		CAP, E 47-25 SME
SW1	87-036-271-010		SW, LVR 1-2-2 (*)	C101	87-010-196-080		C-CAP, S 0.1-25 F
SW2	87-036-271-010		SW, LVR 1-2-2 (*)	C104	87-010-197-080		C-CAP, S 0.01-25 B
SW3	87-036-109-010		SW, PUSH SPPB 61	C105	87-010-196-080		C-CAP, S 0.1-25 F
X1	87-030-270-080		VIB, XTAL 16.9344MHZ	C109	87-010-197-080		C-CAP, S 0.01-25 B
X2	81-VM2-623-080		VIB, XTAL 4.433619M	C110	87-010-197-080		C-CAP, S 0.01-25 B
X3	80-JUC-603-080		VIB, XTAL 14.31818MHZ	C111	87-010-197-080		C-CAP, S 0.01-25 B
X4	81-VM2-622-080		VIB, XTAL 14.21875M	C112	87-010-384-080		CAP, E 100-25 SME
				C113	87-010-322-080		C-CAP, S 100P-50 CH
CD C. B (G2 VERSION)				C114	87-010-322-080		C-CAP, S 100P-50 CH
C2	87-010-146-080		C-CAP, S 2P-50 CH	C115	87-010-318-080		C-CAP, S 47P-50 CH
C3	87-010-150-080		C-CAP, S 6P-50 CH	C116	87-012-156-080		C-CAP, S 220P-50 CH
C4	87-010-263-080		CAP, E 100-10	C12	87-018-209-080		CAP, TC-U 0.1-50 F
C5	87-010-178-080		C-CAP, S 1000P-50 B	C121	87-010-196-080		C-CAP, S 0.1-25 F
C6	87-010-382-080		CAP, E 22-25 SME	C131	87-010-404-080		CAP, E 4.7-50 SME
C7	87-010-197-080		C-CAP, S 0.01-25 B	C132	87-010-197-080		C-CAP, S 0.01-25 B
C8	87-010-248-080		CAP, E 220-10 SME	C151	87-010-318-080		C-CAP, S 47P-50 CH
C9	87-015-834-080		C-CAP, 0.033-25 B K	C160	87-010-314-080		C-CAP, S 22P-50 CH
C10	87-010-188-080		C-CAP, S 6800P-50 B	C161	87-010-311-080		C-CAP, S 12P-50 CH
C11	87-010-188-080		C-CAP, S 6800P-50 B	C162	87-010-314-080		C-CAP, S 22P-50 CH
C13	87-010-193-080		C-CAP, S 0.033-25 F	C163	87-010-313-080		C-CAP, S 18P-50 CH
C14	87-010-197-080		C-CAP, S 0.01-25 B	C164	87-010-260-080		CAP, E 47-25 SME
C15	87-010-263-080		CAP, E 100-10	C165	87-010-197-080		C-CAP, S 0.01-25 B
C16	87-010-197-080		C-CAP, S 0.01-25 B	C166	87-010-260-080		CAP, E 47-25 SME
C17	87-010-248-080		CAP, E 220-10 SME	C167	87-010-405-080		CAP, E 10-50 SME
C18	87-010-400-080		CAP, E 0.47-50 SME	C169	87-010-405-080		CAP, E 10-50 SME
C19	87-010-197-080		C-CAP, S 0.01-25 B	C171	87-010-260-080		CAP, E 47-25 SME
C20	87-010-197-080		C-CAP, S 0.01-25 B	C172	87-010-197-080		C-CAP, S 0.01-25 B
C21	87-010-182-080		C-CAP, S 2200P-50 B	C173	87-010-401-080		CAP, E 1-50 SME
C22	87-010-197-080		C-CAP, S 0.01-25 B	C174	87-010-197-080		C-CAP, S 0.01-25 B
C25	87-010-404-080		CAP, E 4.7-50 SME	C175	87-010-260-080		CAP, E 47-25 SME
C27	87-010-382-080		CAP, E 22-25 SME	C176	87-010-371-080		CAP, E 470-6.3
C28	87-010-265-080		CAP, E 33-16 SME	C178	87-010-260-080		CAP, E 47-25 SME
				C183	87-010-315-080		C-CAP, S 27P-50 CH

REF. NO	PART NO.	カソリ NO.	DESCRIPTION	REF. NO	PART NO.	カソリ NO.	DESCRIPTION
C185	87-010-197-080		C-CAP, S 0.01-25 B	SFR4	87-024-349-080		SFR, 1K DIA6 H
C189	87-010-196-080		C-CAP, S 0.1-25 F	X1	87-030-270-080		VIB, XTAL 16.9344MHZ
C190	87-010-196-080		C-CAP, S 0.1-25 F	X2	80-JUC-604-080		VIB, XTAL 17.734475MHZ
EM1	87-008-474-080		F-BEAD, EM1 BL02RN1	X3	80-JUC-603-080		VIB, XTAL 14.31818MHZ
EM2	87-008-474-080		F-BEAD, EM1 BL02RN1				
EM3	87-003-223-080		F-BEAD BL02RN2				
EM4	87-003-223-080		F-BEAD BL02RN2				
J150	87-009-502-010		JACK, PIN 1P Y EARTH				
L1	87-003-149-080		COIL, 47UH				
L2	87-003-149-080		COIL, 47UH				
L4	87-003-149-080		COIL, 47UH				
L5	87-003-149-080		COIL, 47UH				
M2	87-045-305-010		MOTOR, RF-500TB				
R29	87-025-426-080		RES, M/F 22K-1/6W F				
SFR1	87-024-354-080		SFR, 22K DIA6 H				
SFR2	87-024-354-080		SFR, 22K DIA6 H				
SFR3	87-024-354-080		SFR, 22K DIA6 H				

ECHO C. B(USED FOR ALL MODELS)

L301 87-005-495-080 COIL, 680UH

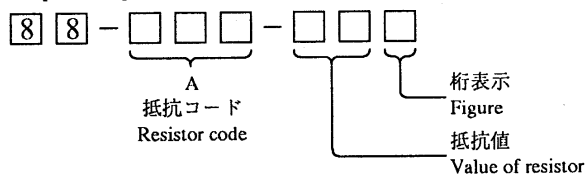
MISCELLANEOUS

△	87-050-053-010	AC CORD ASSY, U-2(U)
△PT101	82-NF5-624-210	PT, 2NF5 HE(HE)
△PT101	82-NF5-628-010	PT, 2NF5 HR(HR)
△PT101	82-NF5-627-210	PT, 2NF5 U(U, HD)

○チップ抵抗部品コード/CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip resistor part coding

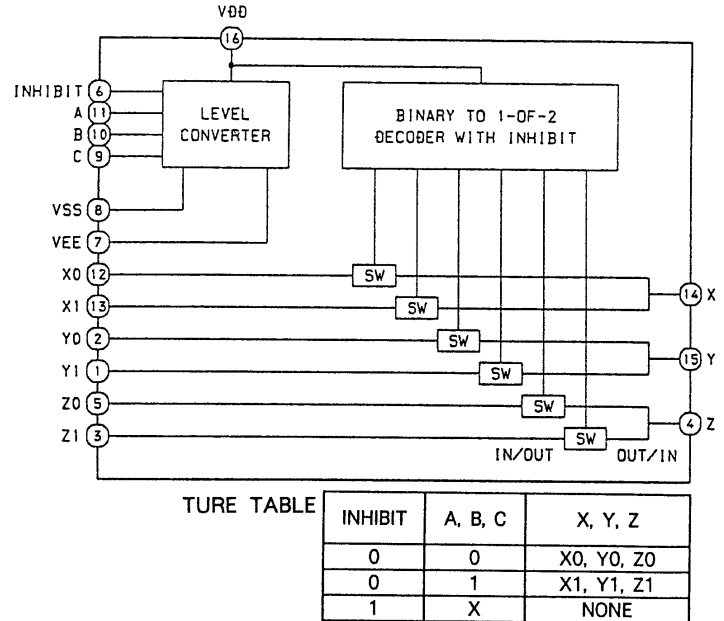


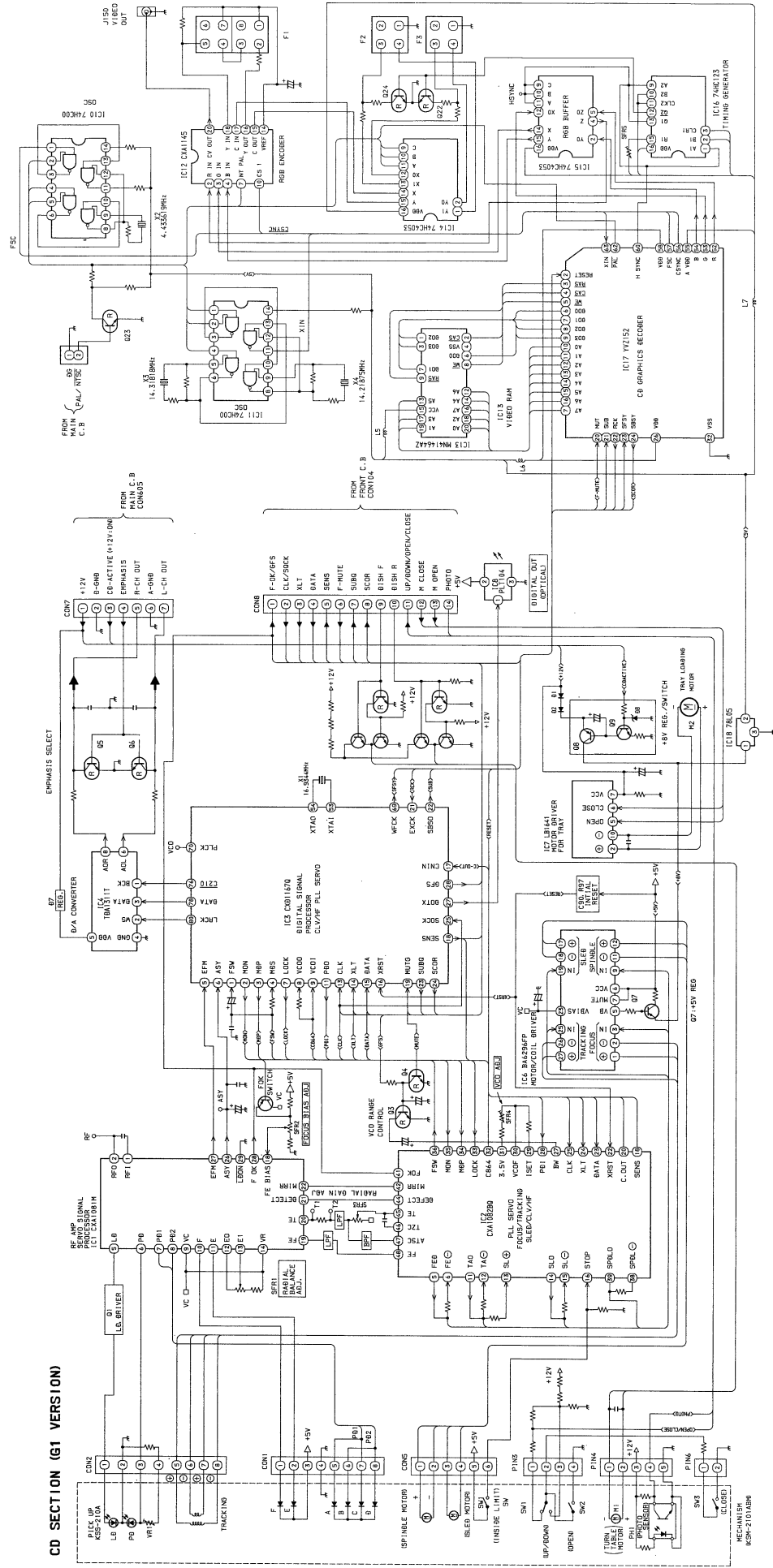
チップ抵抗

Chip resistor

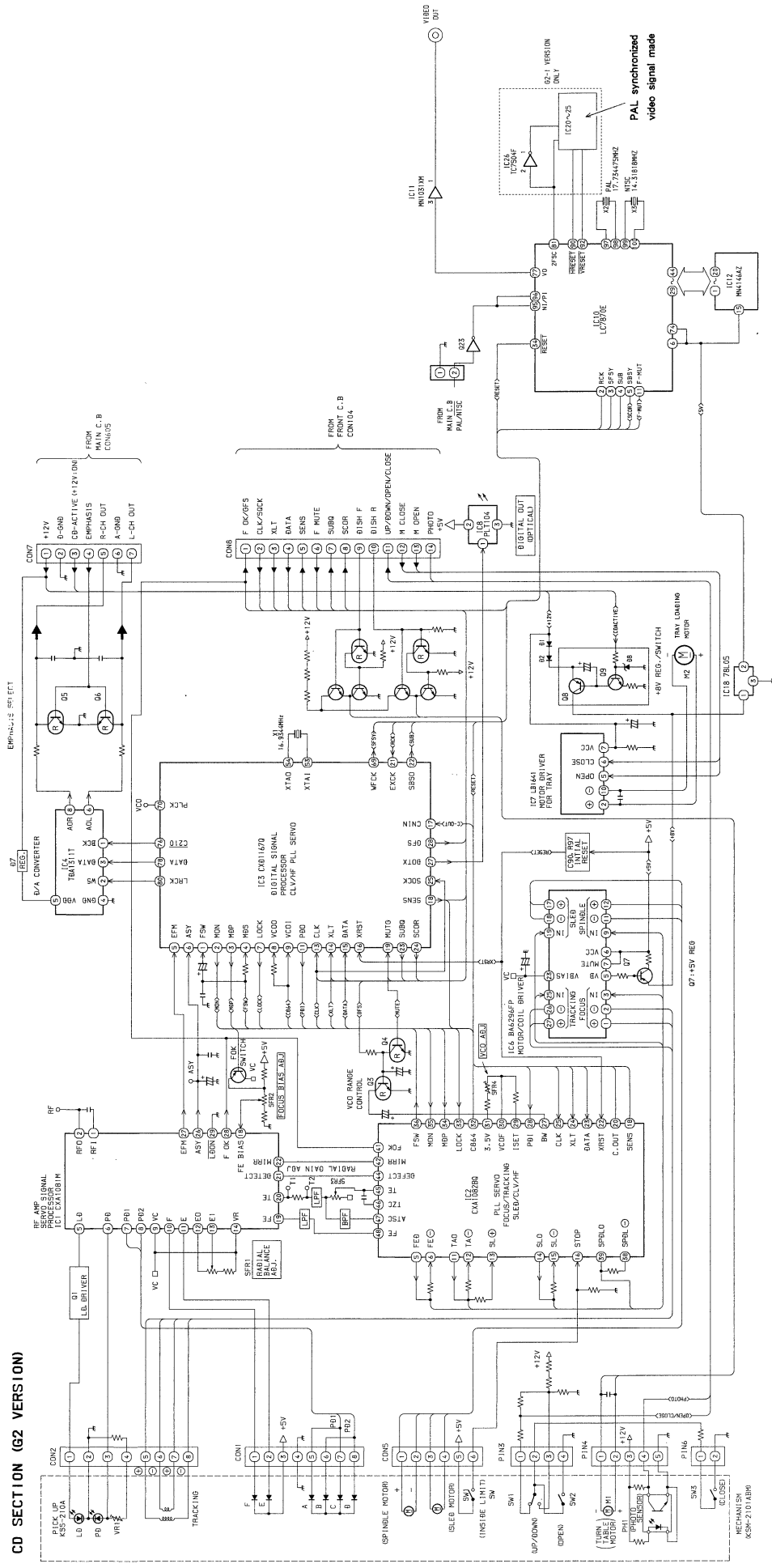
Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions/寸法 (mm)				Resistor code : A 抵抗コード : A
				Form/外形	L	W	t	
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.5 ~0.7	128

MC74HC4053N

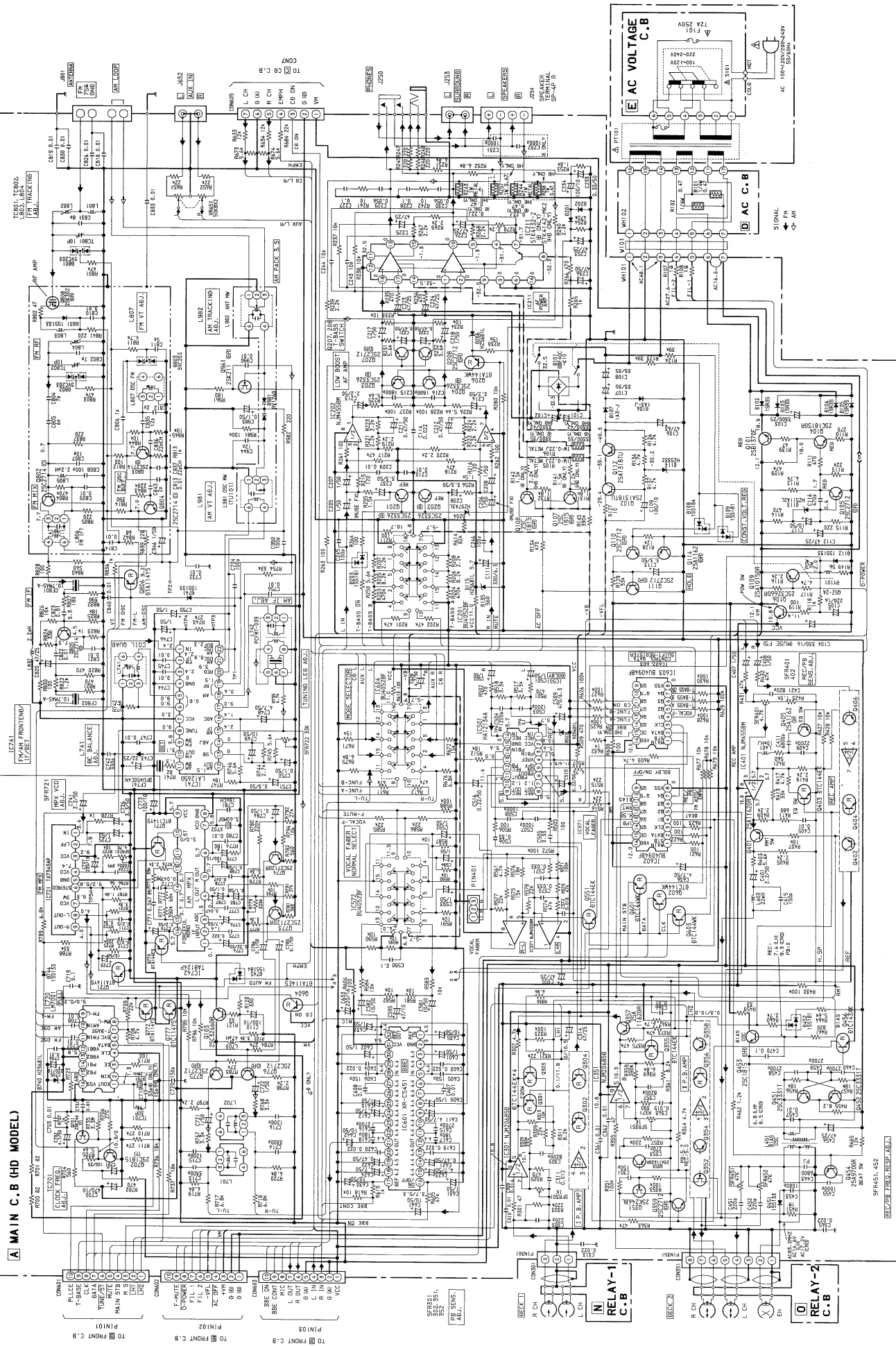
[illegible]

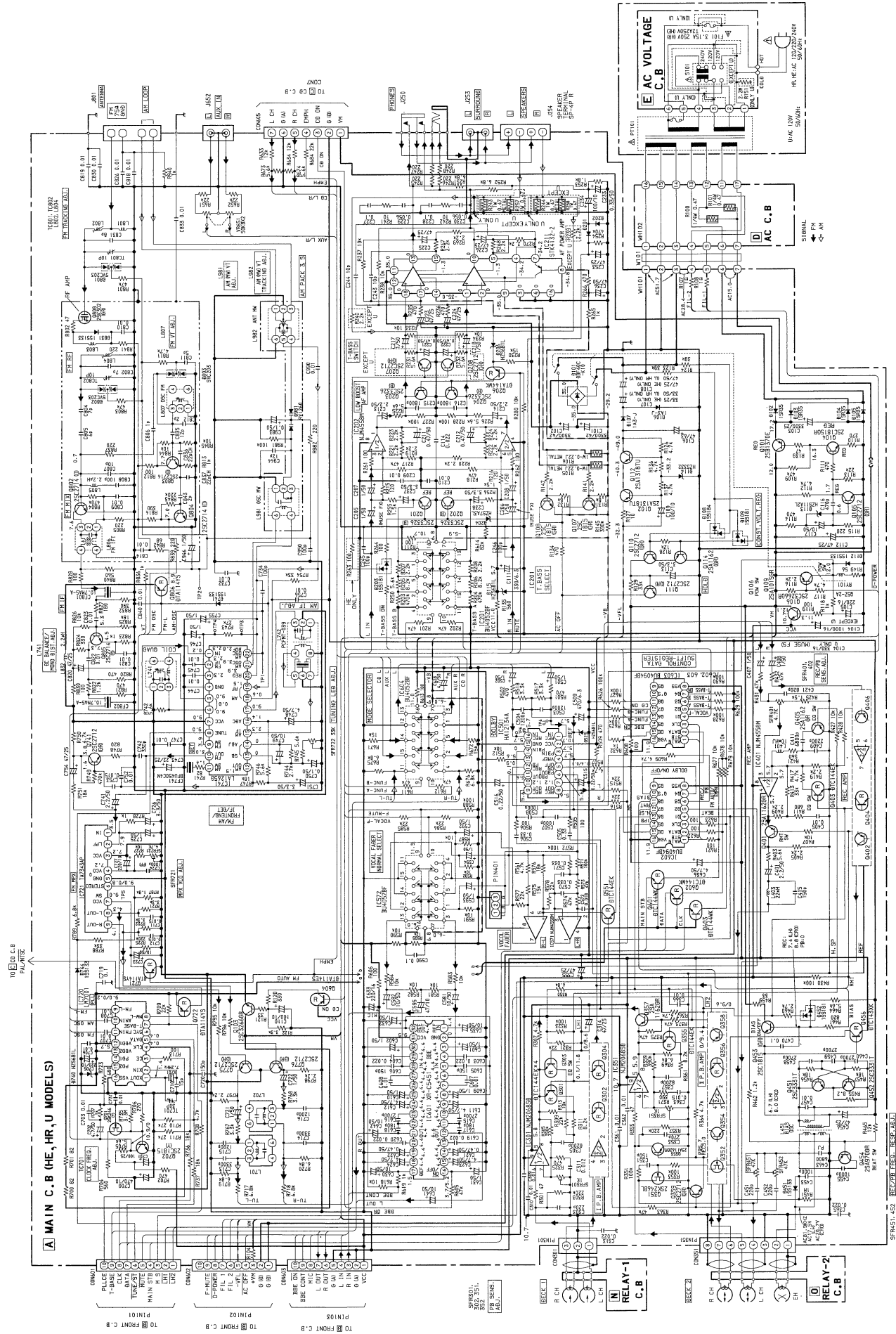


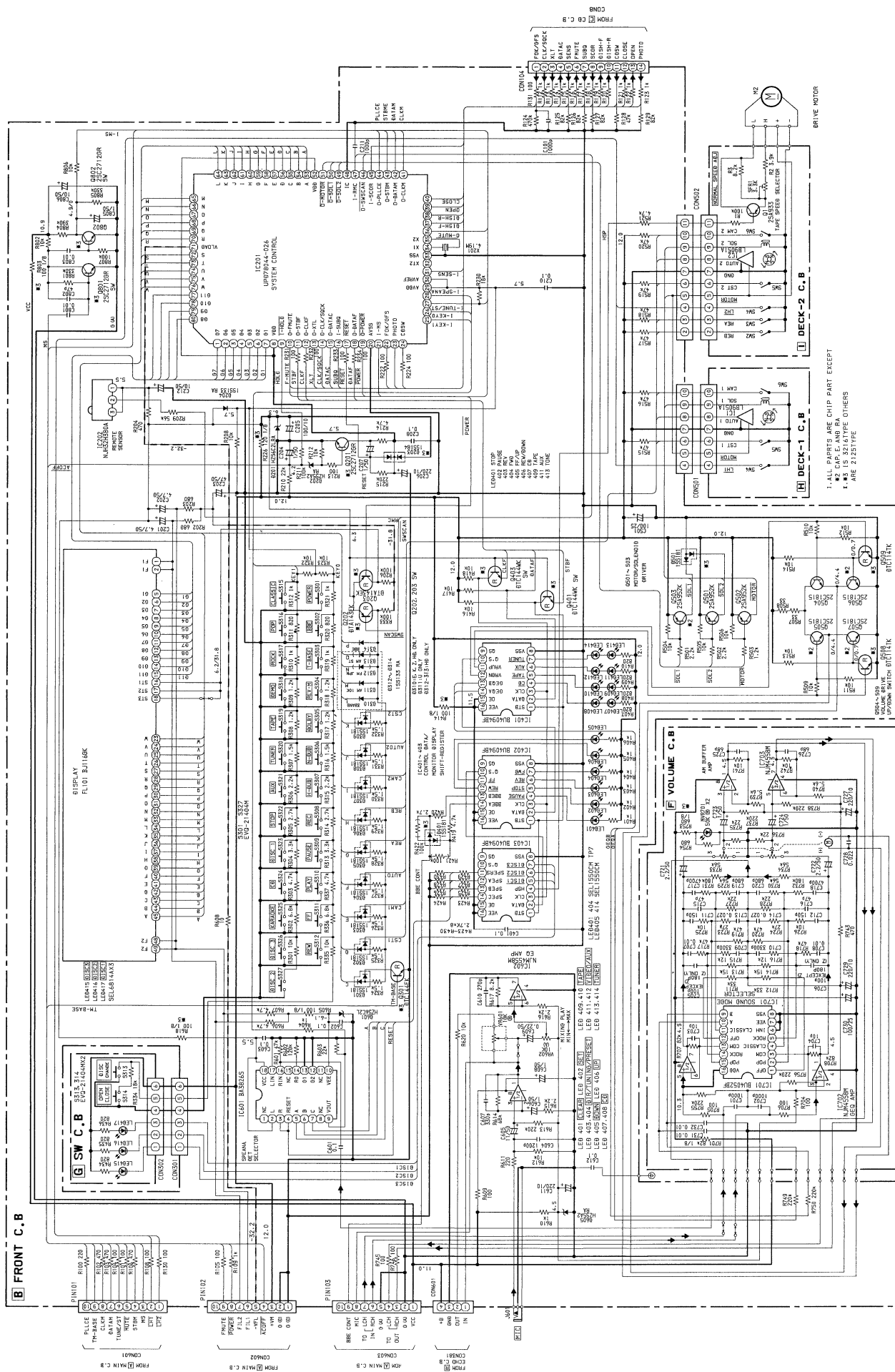
CD SECTION (G2 VERSION)



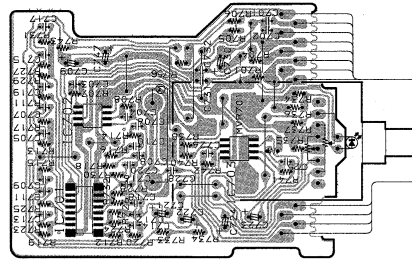
SCHEMATIC DIAGRAM - 1



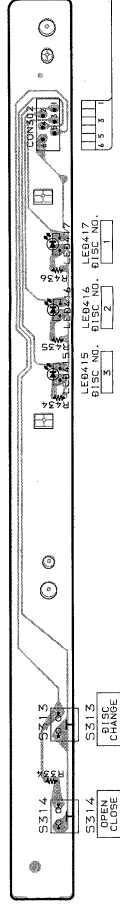




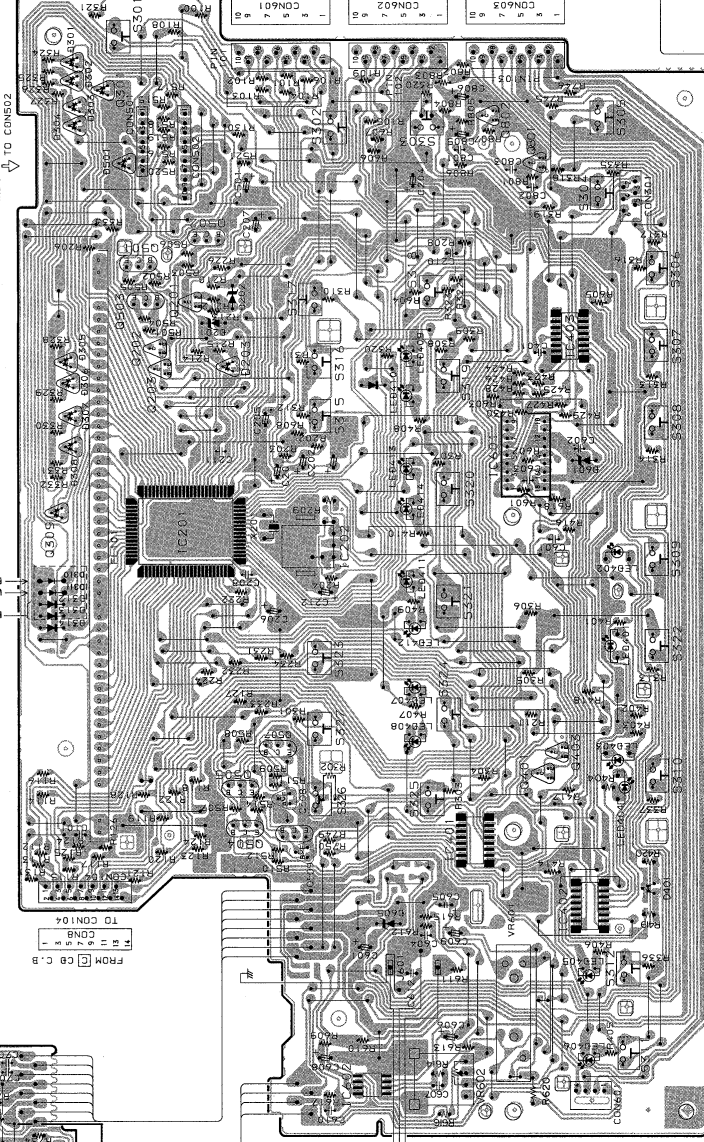
F VOLUME C.B



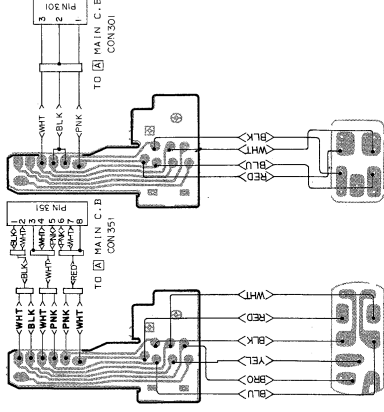
G SW C.B



B FRONT C.B

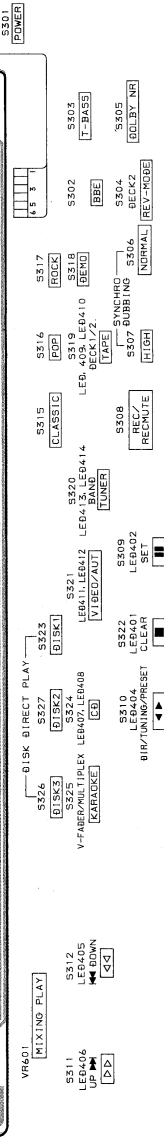
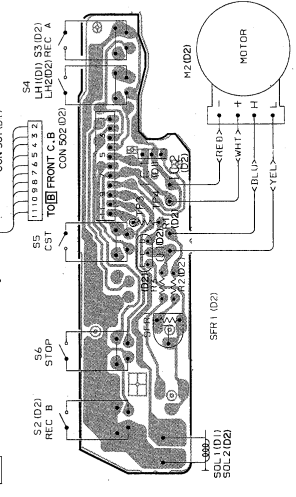


O RELAY-2 C.B N RELAY-1 C.B

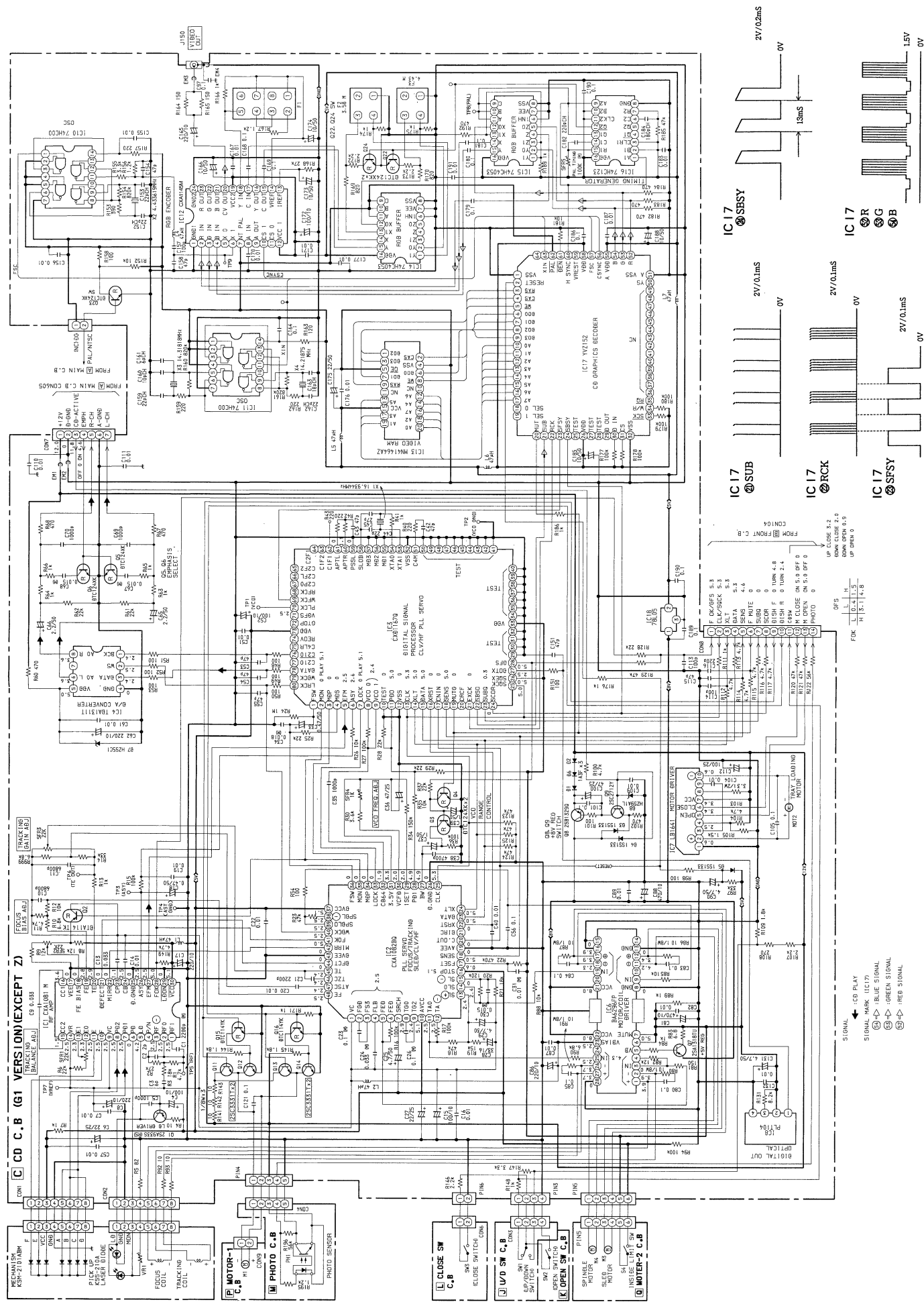


H DECK-1 C.B

I DECK-2 C.B



SCHEMATIC DIAGRAM – 5



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

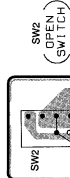
C CD C.B (G1 VERSION) (EXCEPT Z)

FROM PHOTO C.B.
CON4
PINS 1-11

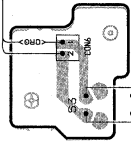
J U/D SW C.B



K OPEN SW C.B

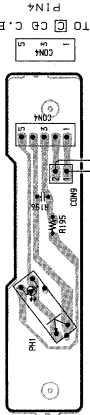


L CLOSE SW C.B



S3
(CLOSE SWITCH)

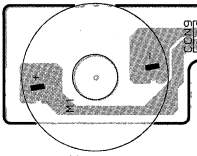
M PHOTO C.B



TO CD C.B
CON4
PINS 1-11

P MOTOR-1 C.B

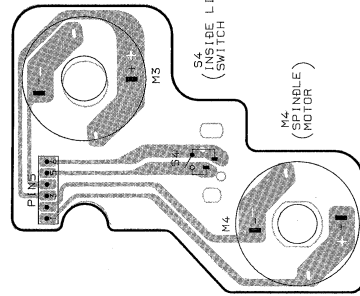
FROM CD C.B
PINS 1-11



M1
(TURN TABLE MOTOR)

Q MOTOR-2 C.B

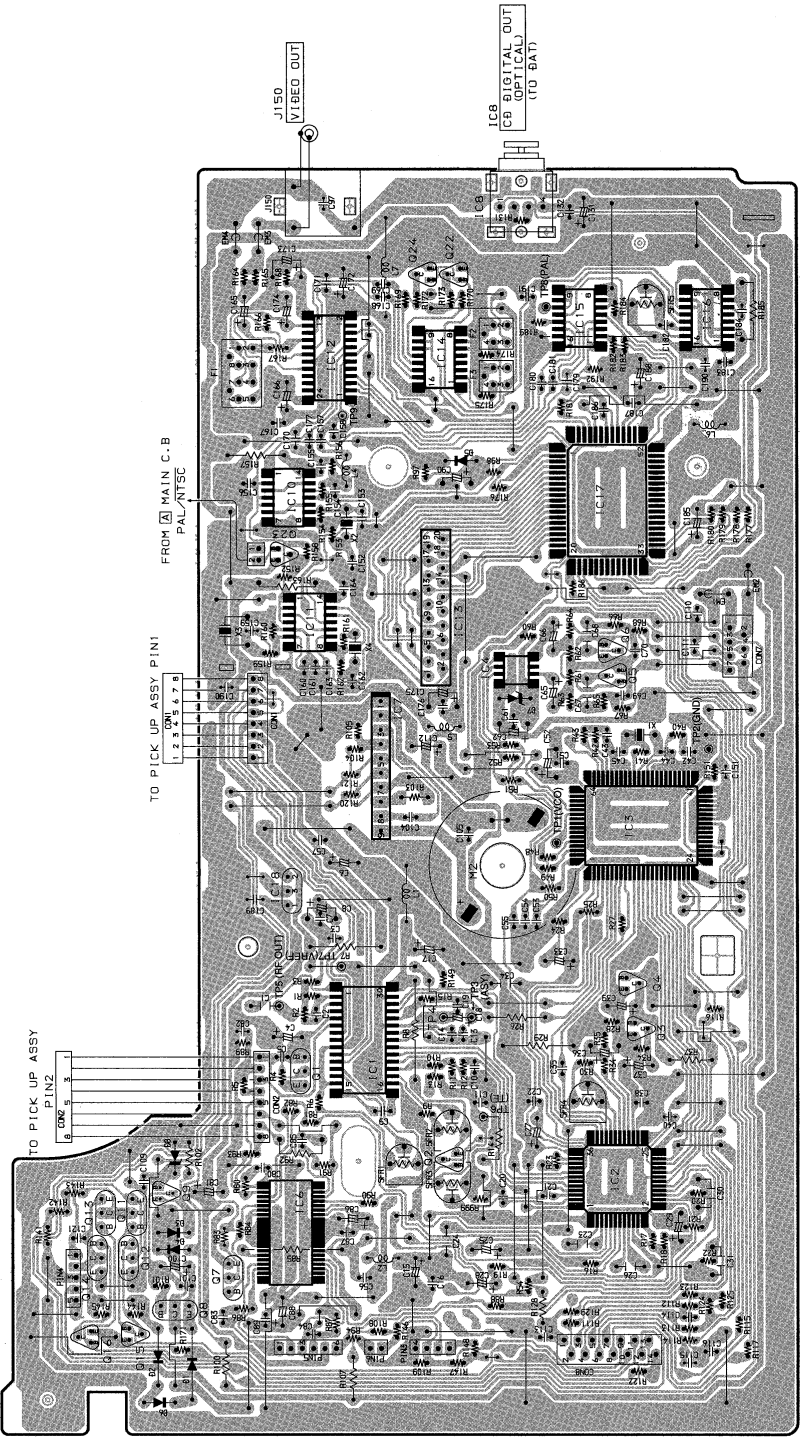
FROM MAIN C.B
CON605

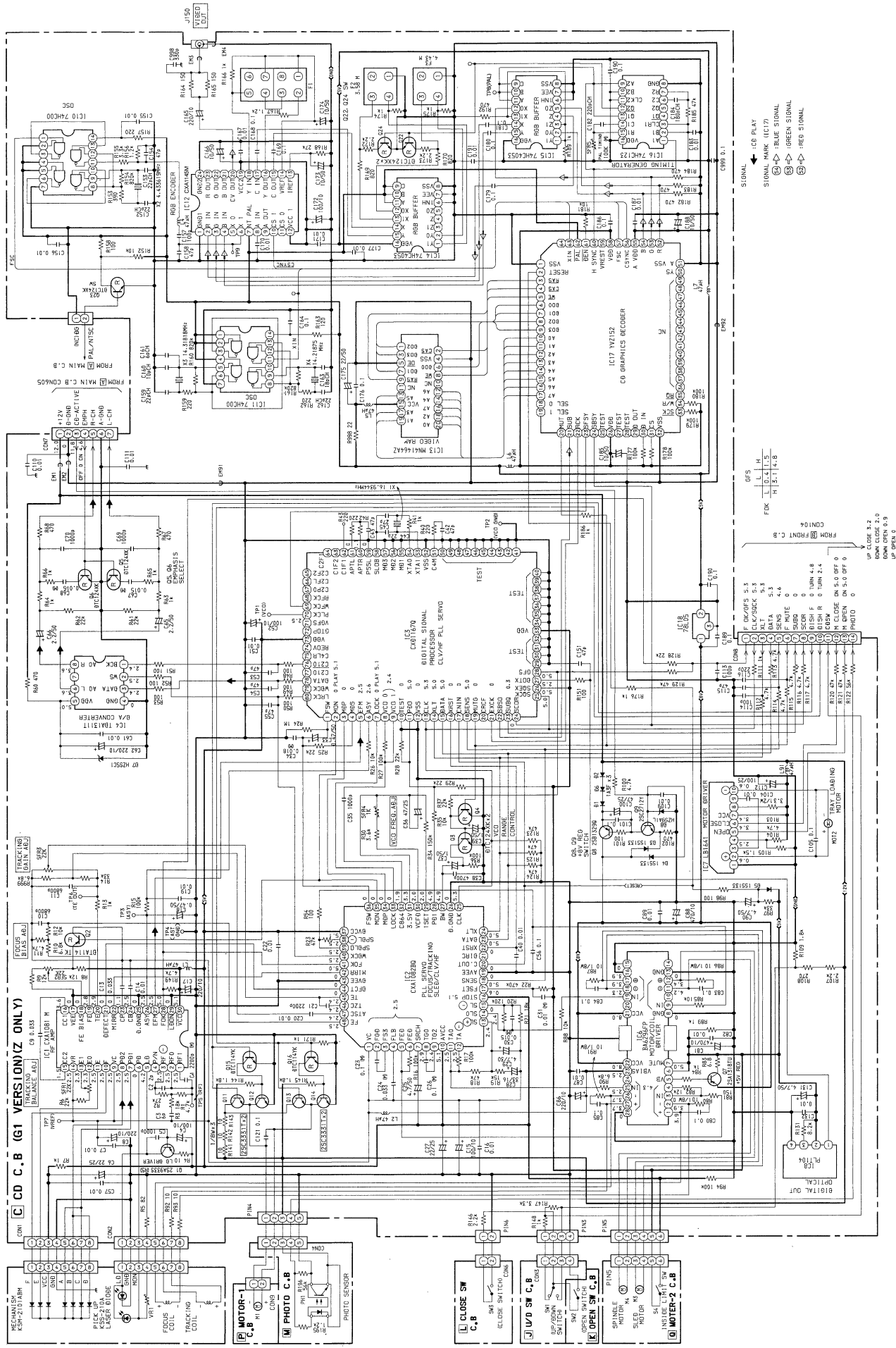


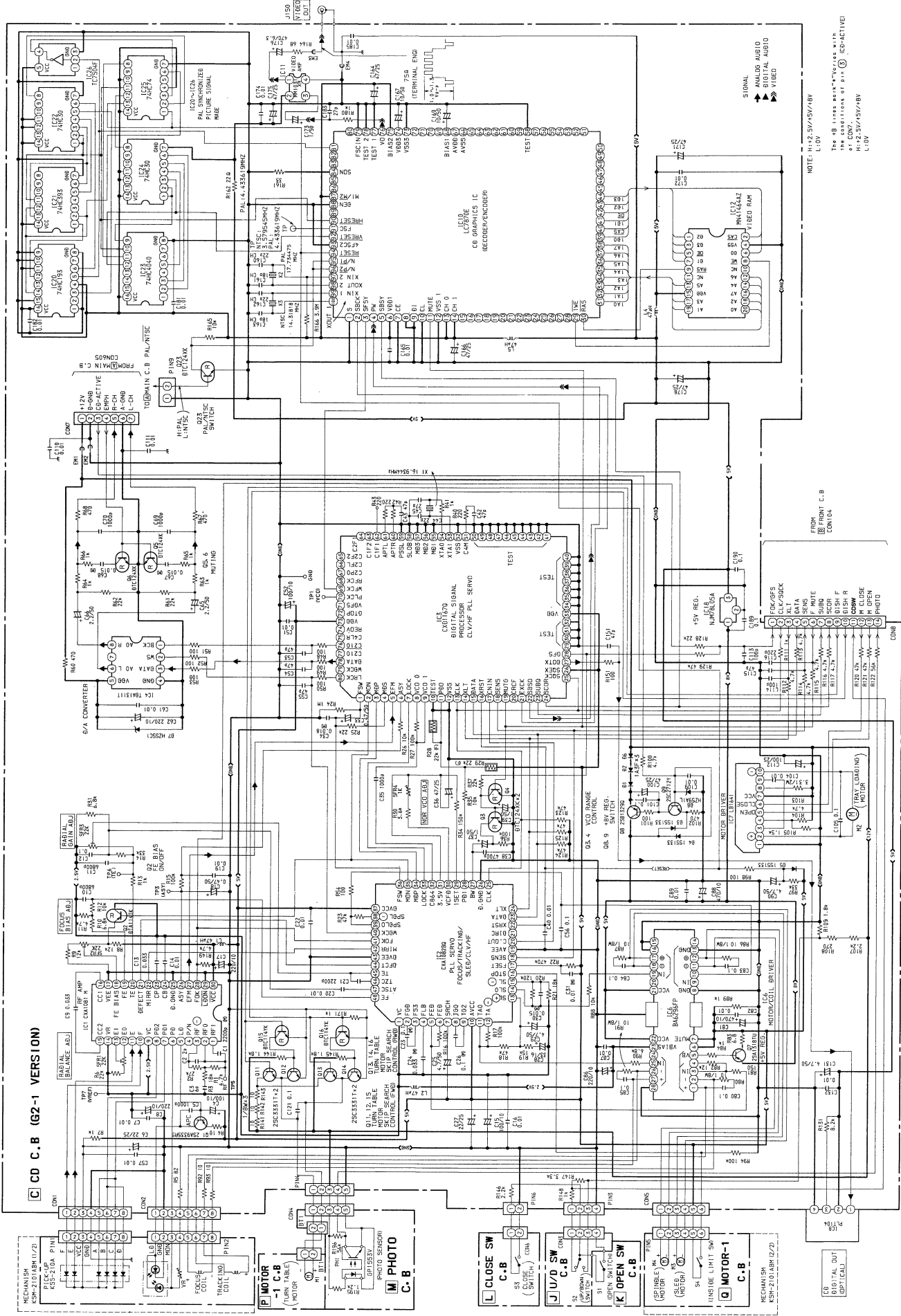
M3
(SLEB MOTOR)

S4
(INSIDE LIMIT SWITCH)

M4
(SPINDLE MOTOR)

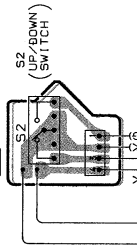




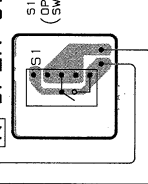


FROM [M] PHOTO C.B.
CON 4-1

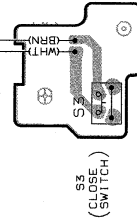
[J] U/B SW C.B.



[K] OPEN SW C.B.

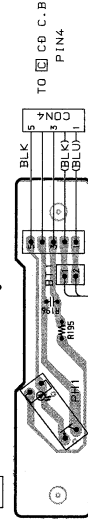


FC1
CON 10-4
TO CON 8

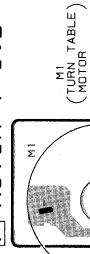


[L] CLOSE SW C.B.

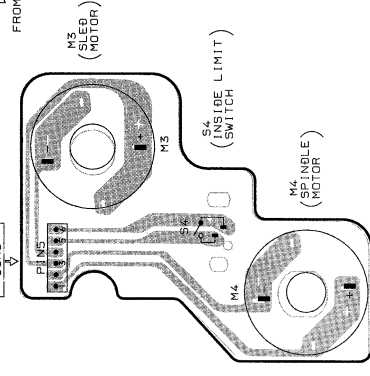
[M] PHOTO C.B.



[P] MOTOR-1 C.B.



M2
(TRAY LOADING)
(MOTOR)



[Q] MOTOR-2 C.B.

TO PICK UP ASSY
PIN 1

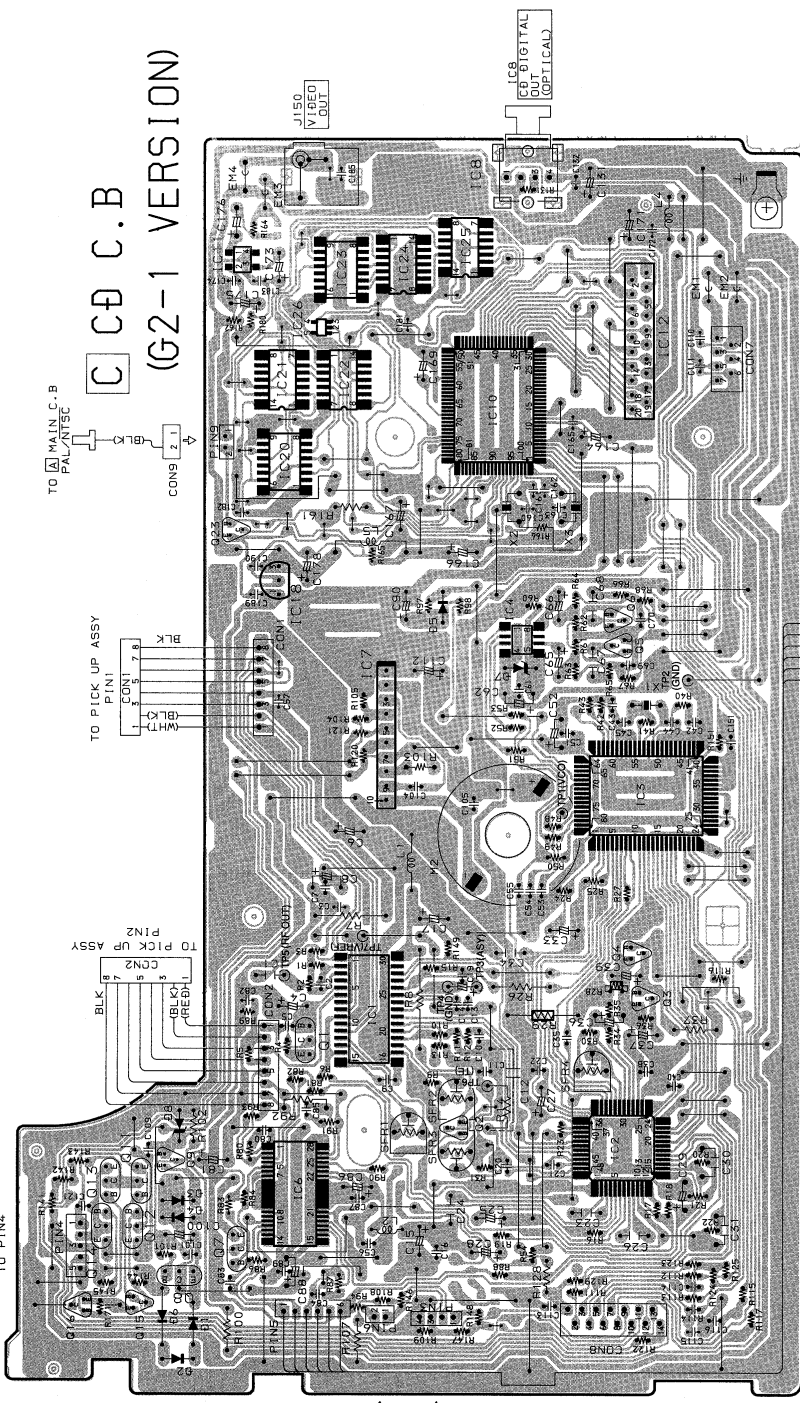
TO PICK UP ASSY
PIN 2

TO PICK UP ASSY
PIN 1

TO MAIN C.B.
PAL/NTSC

C C.D. C.B.

(G2-1 VERSION)



TO CON 7

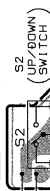
FROM [A] MAIN C.B.
CON 605



FROM PHOTO C.B.



U/D SW C.B.



S2 (UP/DOWN SWITCH)

TO PICK UP ASSY



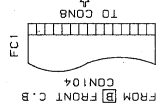
TO PICK UP ASSY



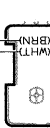
K OPEN SW C.B.



S1 (OPEN SWITCH)



FROM FRONT C.B.



TO CON8



TO CON8

L CLOSE SW C.B.

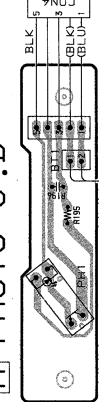


TO CON8



TO CON8

M PHOTO C.B.



S2 (UP/DOWN SWITCH)

TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.



TO PHOTO C.B.

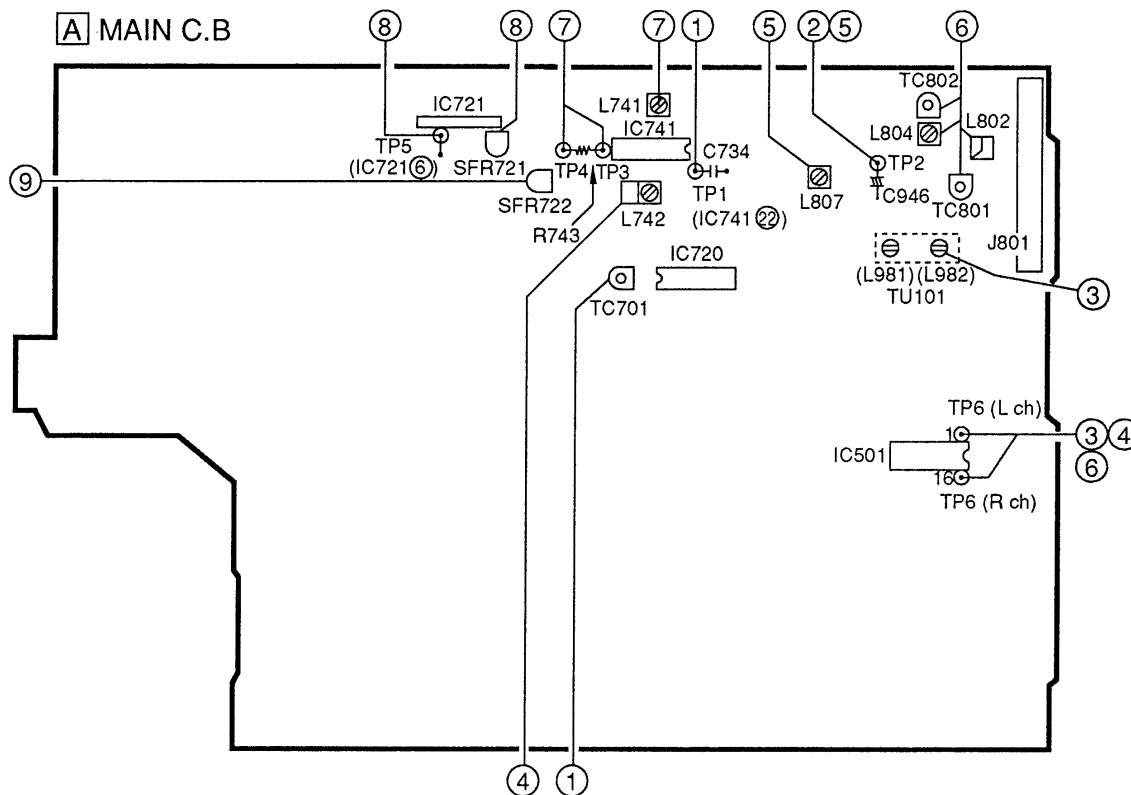


TO PHOTO C.B.



ELECTRICAL ADJUSTMENT—1 <TUNER>

(HD, U Models)



1. Clock Frequency Adjustment

Settings: · Test point : TP1 (CLK)

· Adjustment location : TC701

Method: Set to AM 1602kHz (HD), 1710kHz (U) and adjust TC701 so that the test point becomes $2052.00\text{kHz} \pm 0.01\text{kHz}$ (HD), $2160.00\text{kHz} \pm 0.01\text{kHz}$ (U).

2. AM VT Check

Settings: · Test point : TP2 (VT)

Method: Set to AM 1602kHz (HD), 1710kHz (U) and check the test point is $7.0\text{V} \pm 1.0\text{V}$.

3. AM Tracking Adjustment

Settings: · Test point : TP6

· Adjustment location : TU101 (L982)

Method: Set to AM 999kHz (HD), 1000KHz (U) and adjust L982 so that the test point becomes $53 \pm 6\text{dB}$.

4. AM IF Adjustment

Settings: · Test point : TP6

L742 ······ 450kHz

5. FM VT Adjustment

Settings: · Test point : TP2 (VT)

· Adjustment location : L807

Method: Set to FM 76.0MHz (HD), 87.5MHz (U) and adjust L807 so that the test point becomes $1.0\text{V} \pm 0.05\text{V}$ (HD), $2.90\text{V} \pm 0.05\text{V}$ (U).

6. FM Tracking Adjustment

Settings: · Test point : TP6

TC801, TC802 ······ 108MHz

L802, L804 ······ 87.5MHz (HD), 76.0MHz (U)

7. DC Balance/MONO Distortion Adjustment

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

TP6 (Distortion)

- Adjustment location : L741
- SSG : 83.0MHz, 54dB (HD)
98.0MHz, 54dB (U)

Method: Set to FM83.0MHz (HD), FM98.0MHz (U) and adjust L741 so that the voltage between TP3 and TP4 becomes $0V \pm 0.02V$.

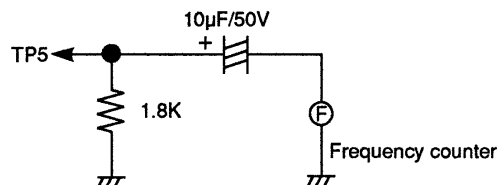
After adjustment, check the distortion is minimum (less than 0.9%).

8. MPX VCO Adjustment

Settings: · Test point : TP5

- MODE SW : STEREO
- Adjustment location : SFR721
- SSG : 83.0MHz (Unmodulation) (HD)
98.0MHz (Unmodulation) (U)

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



9. Light on Tuning LED Adjustment

Settings: · Adjustment location : SFR722

- Input level : 18dB (HD), 16dB (U)
- SSG : 83.0MHz, 18dB (HD)
98.0MHz, 16dB (U)

Method: Set to FM 83.0MHz (HD), 98.0MHz (U) and adjust TUNING LED to light on by SFR722. After that, check the LED goes out when decreasing 2dB from input level.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity: $2 \pm 6dB$ (U)
(THD 3%) (at 87.5, 98.0, 108.0MHz)
 $4 \pm 4dB$ (HD)
(at 83/90/108MHz)

S/N 50dB Quieting Sensitivity:
 $32 \pm 5dB$
(U: at 87.5, 98.0, 108.0MHz)
(HD: at 76/83/108MHz)

Signal to Noise Ratio: More than 64dB
(U: at 98.0MHz)
(HD: at 83MHz)

Distortion: Less than 1.2%
(at 98.0MHz)

Stereo Separation: More than 25dB
(U: at 98.0MHz)
(HD: at 83MHz)

Intermediate Frequency: 10.7MHz

<AM SECTION>

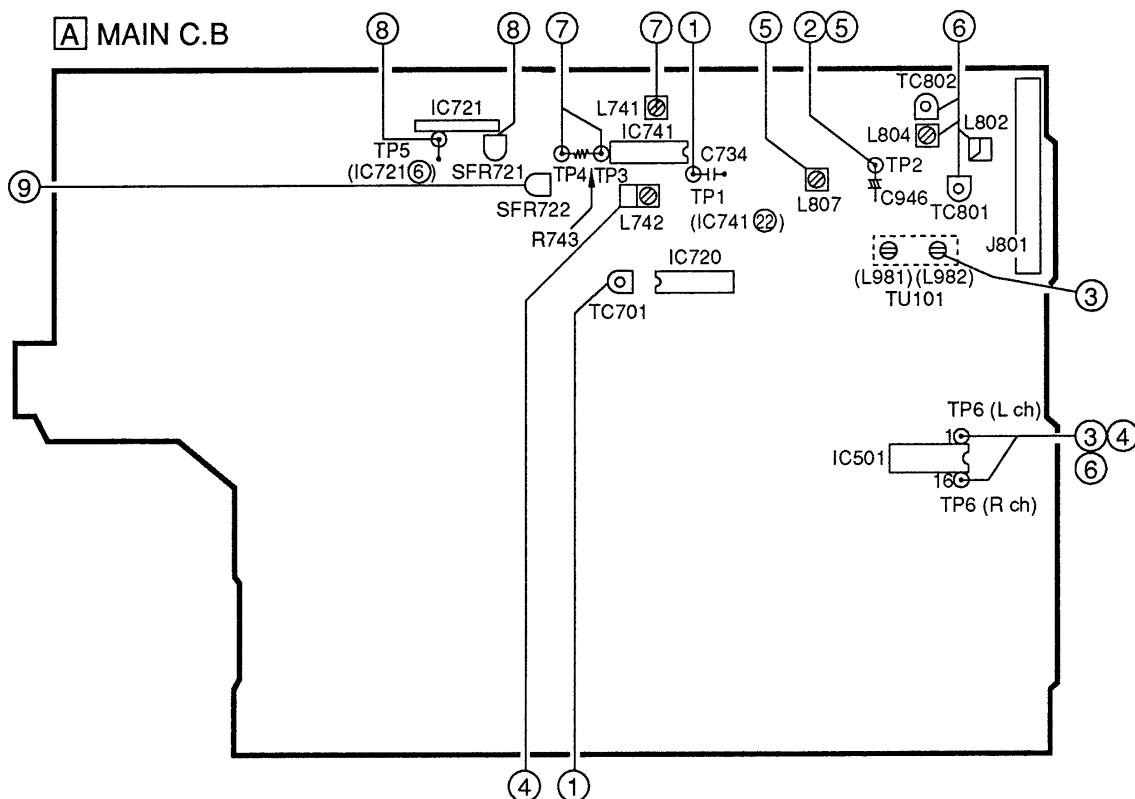
Sensitivity: $54 \pm 8dB$
[at 603kHz (HD)]
[at 600kHz (U)]
 $53 \pm 6dB$
[at 999/1404kHz (HD)]
[at 1000/1400kHz (U)]

Distortion: Less than 1.5%
[at 999kHz (HD)]
[at 1000kHz (U)]

Intermediate Frequency: 450kHz

ADJUSTMENT—1 <TUNER>

(HE, HR Models)



1. Clock Frequency Adjustment

Settings: · Test point : TP1 (CLK)

· Adjustment location : TC701

Method: Set to AM 1602kHz and adjust TC701 so that the test point becomes $2052.00\text{kHz} \pm 0.01\text{kHz}$.

2. AM VT Check

Settings: · Test point : TP2 (VT)

Method: Set to AM 1602kHz and check the test point is $6.0\text{V} \pm 1.0\text{V}$.

3. AM Tracking Check

Settings: · Test point : TP6

· Adjustment location : TU101 (L982)

Method: Set to AM 999kHz and adjust L982 so that the test point becomes $53 \pm 6\text{dB}$.

4. AM IF Adjustment

Settings: · Test point : TP6

L742 450kHz

5. 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 $2.90\text{V} \pm 0.05\text{V}$.

6. FM Tracking Adjustment

Settings: · Test point : TP6

TC801, TC802 108MHz

L802, L804 87.5MHz

7. DC Balance/MONO Distortion Adjustment

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

TP6 (Distortion)

· Adjustment location : L741

· SSG : 98.0MHz, 54dB

Method: Set to FM 98.0MHz and adjust L741 so that the voltage between TP3 and TP4 becomes $0V \pm 0.02V$.

After adjustment, check the distortion is minimum (less than 0.9%).

8. MPX VCO Adjustment

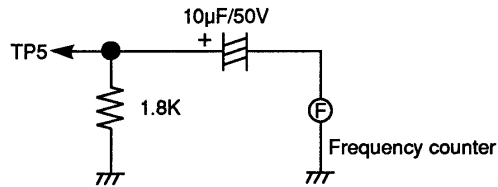
Settings: · Test point : TP5

· MODE SW : STEREO

· Adjustment location : SFR721

· SSG : 98.0MHz (Unmodulation)

Method: Connect a capacitor and a resistor as below. Set to FM 98.0MHz and adjust SFR721 so that the frequency at the test point becomes $38kHz \pm 0.05kHz$.



9. Light on Tuning LED Adjustment

Settings: · Adjustment location : SFR722

· Input level : 16dB

· SSG : 98.0MHz, 16dB

Method: Set to FM 98.0MHz and adjust TUNING LED to light on by SFR722. After that, check the LED goes out when decreasing 2dB from input level.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

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

S/N 50dB Quieting Sensitivity:
 $32 \pm 5dB$
(at 87.5, 98.0, 108.0MHz)

Signal to Noise Ratio: More than 64dB
(at 98.0MHz)

Distortion: Less than 1.2%
(at 98.0MHz)

Stereo Separation: More than 25dB (at 98.0MHz)

Intermediate Frequency: 10.7MHz

<AM SECTION>

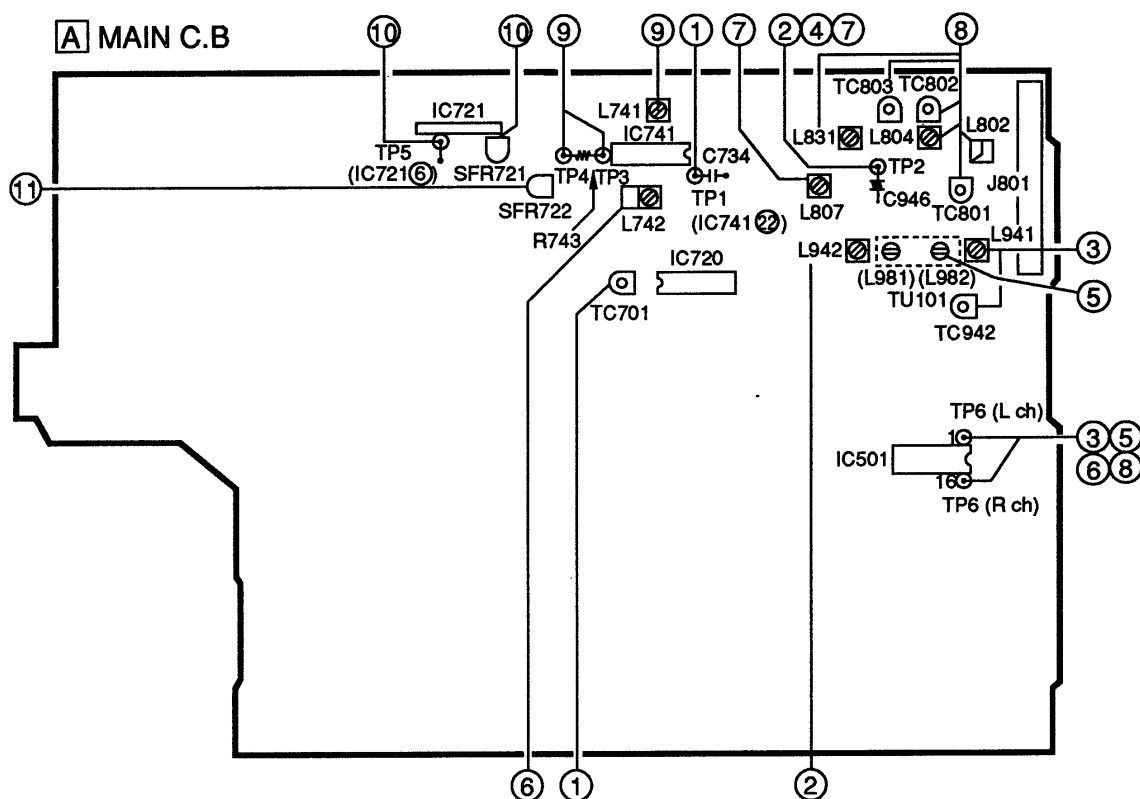
Sensitivity: $54 \pm \frac{8}{dB}$
[at 603kHz]
 $53 \pm 6dB$
[at 999/1404kHz]

Distortion: Less than 1.5%
[at 999kHz]

Intermediate Frequency: 450kHz

ADJUSTMENT—1 <TUNER>

(E, K, Z Models)



1. Clock Frequency Adjustment
Settings: · Test point : TP1 (CLK)
· Adjustment location : TC701
Method: Set to MW 1602kHz and adjust TC701 so that the test point becomes $2052.00\text{kHz} \pm 0.01\text{kHz}$.
2. LW VT Adjustment
Settings: · Test point : TP2 (VT)
· Adjustment location : L942
Method: Set to LW 144kHz and adjust L942 so that the test point becomes $1.50\text{V} \pm 0.05\text{V}$.
3. LW Tracking Adjustment
Setting: · Test point : TP6
L941 144kHz
TC942 290kHz
4. MW VT Check
Settings: · Test point : TP2 (VT)
Method: Set to MW 1602kHz and check the test point is $6.0\text{V} \pm 1.0\text{V}$.
5. MW Tracking Check
Settings: · Test point : TP6
· Adjustment location : TU101 (L982)
Method: Set to MW 999kHz and adjust L982 so that the test point becomes $53 \pm 6\text{dB}$.
6. MW IF Adjustment
Settings: · Test point : TP6
L742 450kHz
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 $2.90\text{V} \pm 0.05\text{V}$.
8. FM Tracking Adjustment
Settings: · Test point : TP6
TC801, TC802 108MHz (Except Z)
TC801, TC802, TC803 108MHz (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 (Distortion)

- Adjustment location : L741
- SSG : 98.0MHz, 54dB

Method: Set to FM 98.0MHz and adjust L741 so that the voltage between TP3 and TP4 becomes $0V \pm 0.02V$.

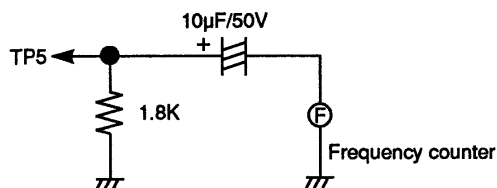
After adjustment, check the distortion is minimum (less than 0.9%).

10. MPX VCO Adjustment

Settings: • Test point : TP5

- MODE SW : STEREO
- Adjustment location : SFR721
- SSG : 98.0MHz (Unmodulation)

Method: Connect a capacitor and a resistor as below. Set to FM 98.0MHz and adjust SFR721 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
- SSG : 98.0MHz, 16dB

Method: Set to FM 98.0MHz and adjust TUNING LED to light on by SFR722. After that, check the LED goes out when decreasing 2dB from input level.

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) $37 \pm 6dB$
(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: $54 \pm 8dB$
[at 603kHz]
 $53 \pm 6dB$
[at 999/1404kHz (E, K, Z)]

Distortion: Less than 1.5%
[at 999kHz (E, K, Z)]

Intermediate Frequency: 450kHz

<LW SECTION>

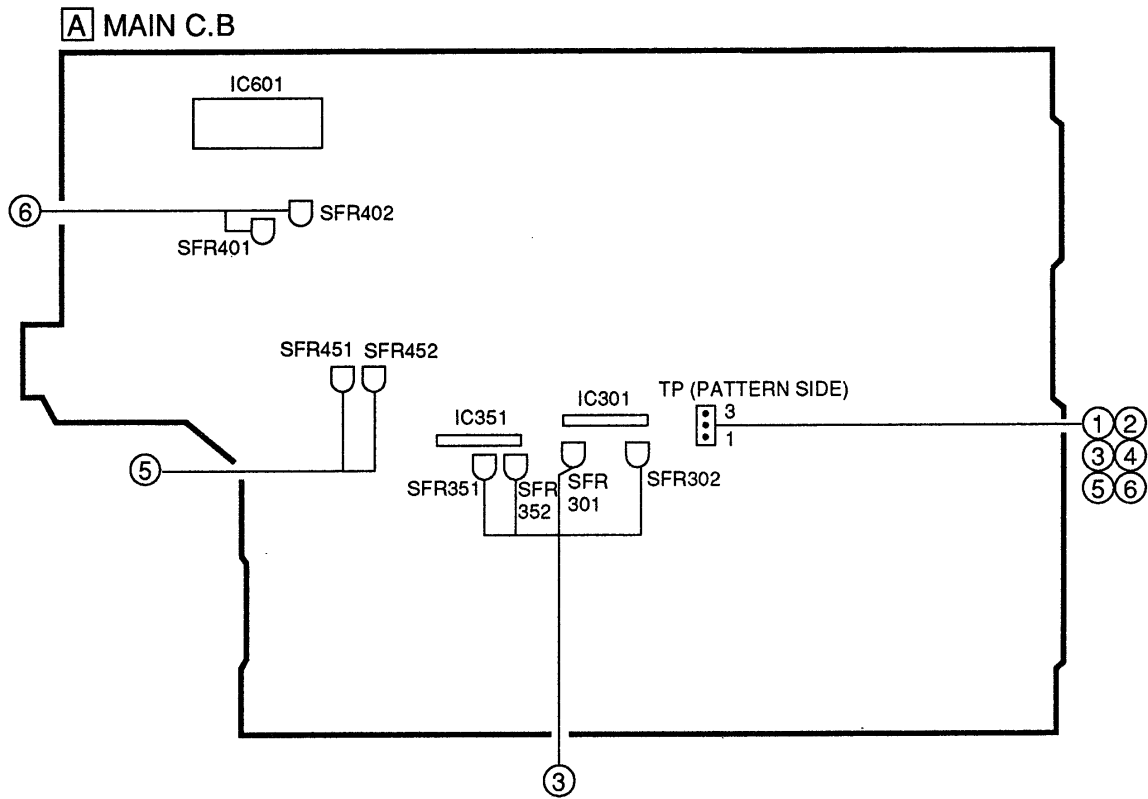
Sensitivity: $66 \pm 5dB$ (at 144kHz)
(S/N 20dB) $63 \pm 5dB$ (at 198kHz)
 $62 \pm 5dB$ (at 290kHz)

Signal to Noise Ratio: More than 32dB (at 198kHz)

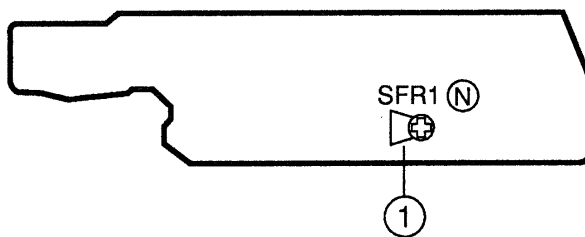
Distortion: Less than 1.5% (at 198kHz)

Intermediate Frequency: 450kHz

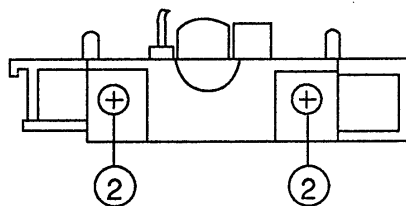
ADJUSTMENT—2<DECK>



I DECK—2 C.B



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



1. Normal Speed Adjustment (DECK-2)
 Settings: · Test tape : TTA-100
 · Test point : TP-OUT
 · Adjustment location : (DECK-2)
 Method: Play back the test tape, on FWD PLAY, adjust SFR1 (N) so that the frequency counter reads $3000\text{Hz} \pm 5\text{Hz}$. Check the frequency is to $\pm 45\text{Hz}$ 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
 · Adjustment location : Head azimuth adjustment screw
 Method: Play back the 10kHz signal of the test tape and adjust the screw to clockwise 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
 · 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 the 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
 Method: Play back the 315Hz and 10kHz signals of the test tape and check the output of the 10kHz signal is $0\text{dB} \pm 2\text{dB}$ with respect to that of the 315Hz signal.

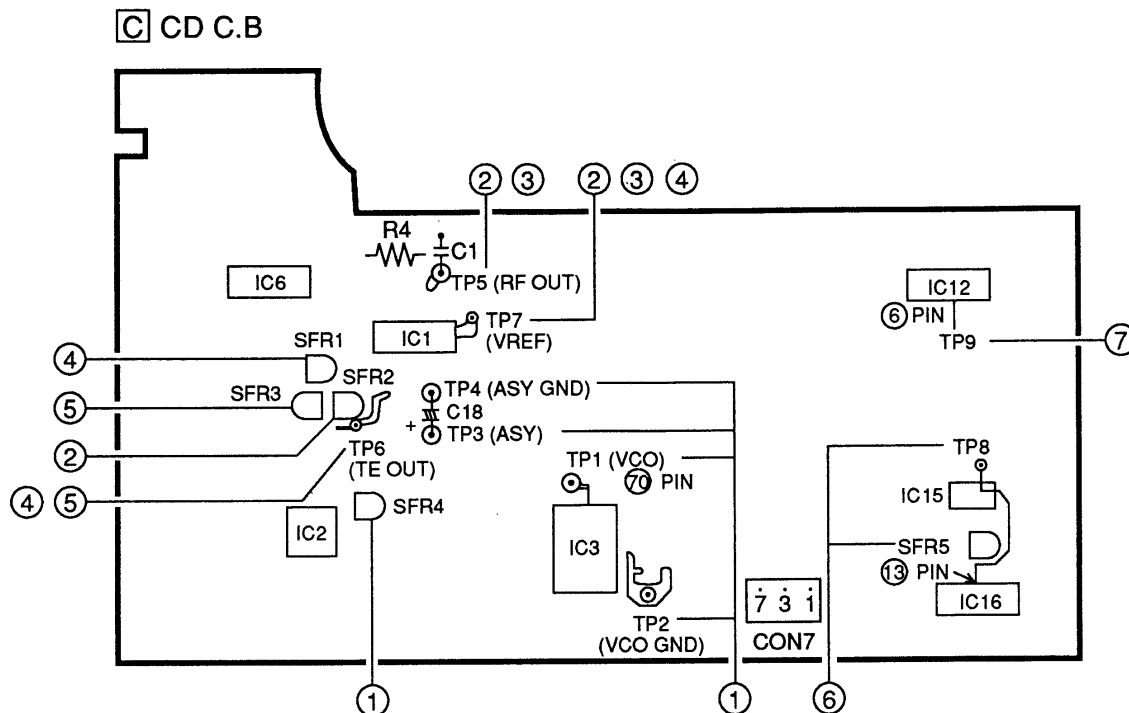
5. REC /PB Frequency Response Adjustment (DECK-2)
 Settings: · Test tape : TTA-601
 · Test point : TP-OUT
 · Adjustment location : SFR451 (Lch)
 SFR452 (R ch)
 Method: Apply a 1kHz signal and adjust attenuator so that the level at the TP-OUT is 21.0mV.
 Record and play back the 1kHz and 10kHz signals and adjust the SFR so that the output level of 10kHz signal is $0\text{dB} \pm 0.5\text{dB}$ for 1kHz signal.

6. REC /PB Sensitivity Adjustment (DECK-2)
 Settings: · Test tape : TTA-601
 · Test point : TP-OUT
 · Adjustment location : SFR401 (Lch)
 SFR402 (R ch)
 Method: Apply a 1kHz signal and adjust attenuator so that the level at the TP-OUT is 21.0mV.
 Record and play back the 1kHz signal and 10kHz signals and adjust the SFRs so that the output level is $21.0\text{mV} \pm 0.5\text{dB}$.

PRACTICAL SERVICE FIGURE

<DECK SECTION>

PB Output Level:	$2.8\text{V} \pm 1.5\text{dB}$ (SP OUT)
REC/PB Output Level:	$2\text{V} \pm 2\text{dB}$ (SP OUT)
Distortion (REC/PB):	Less than 2.0% (NORM, CrO ₂)
Noise (PB):	Less than 100mV/150mV (DOLBY OFF/ON CrO ₂ , VR MAX.) Less than 130mV/200mV (DOLBY OFF/ON NORM, VR MAX.)
Noise (REC/PB):	Less than 35mV/16mV (DOLBY OFF/ON NORM, SP OUT) Less than 23mV/13mV (DOLBY OFF/ON CrO ₂ , SP OUT)
Erasing Ratio:	More than 60dB (TTA-601) (at 125Hz)
Cross talk:	More than 60dB
Channel Separation:	More than 50dB
Recording Bias Frequency:	85kHz
Tape speed:	$3\text{kHz} \pm 1.5\%$
Wow & Flutter:	Less than 0.25% (DECK-1/2) TTA-100 (TTA-111S)
Take-up Torque:	30~55g-cm (DECK-1/2)
F.F & REW Torque:	75~140g-cm (DECK-1/2)
Back Tension:	2~6g-cm (DECK-1/2)
Test Tape:	NORMAL :TTA-601 CrO ₂ :TTA-610



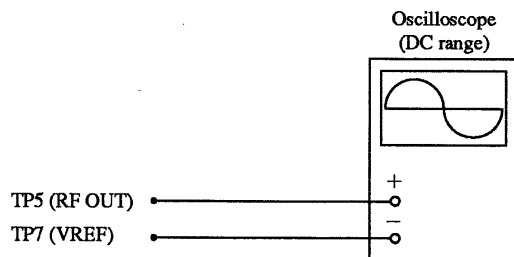
Note: Connect a probe (10:1) of the oscilloscope or the frequency counter to a test point.

1. VCO Frequency Adjustment

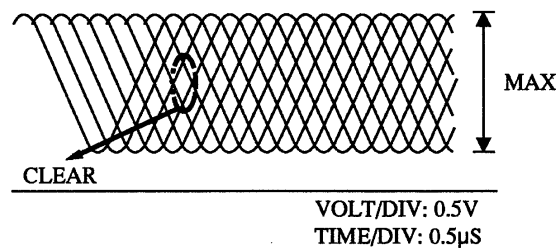
1. Short pin ① and ③ of CON7 with wire.
2. Connect and short between TP3 (ASY) and TP4 (GND).
3. Connect the frequency counter to test points TP1 (VCO) and TP2 (GND).
4. Adjust SFR4 (VCO) so that the frequency counter reading is $4.27 \pm 0.02\text{MHz}$.
5. After the adjustment is completed, remove the short lead wires from TP2 (GND), TP3 (ASY) and TP4.

2. Focus Bias Adjustment

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



1. Connect an oscilloscope to test points TP5 (RF OUT) and TP7 (VREF).
2. Turn on the power switch.
3. Insert the test disc TCD-782 (YEDS-18) and play back the second composition.
4. Adjust SFR2 so that the RF waveform must be maximum and clear.

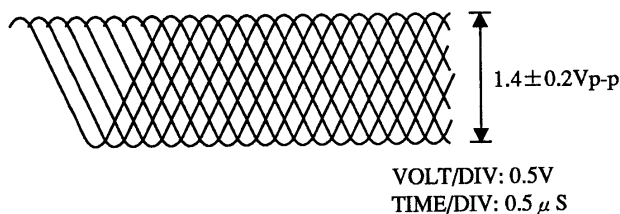


3. RF Waveform Check

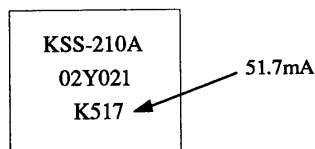
This check should be performed whenever the optical system block is replaced in repair.

1. Connect an oscilloscope to test points TP5 (RF OUT) and TP7 (VREF).
2. Turn on the power switch.
3. Insert test disc TCD-782 (YEDS-18) and play back the second composition.
4. Check that the waveform appears as shown in the figure below.

RF signal waveform

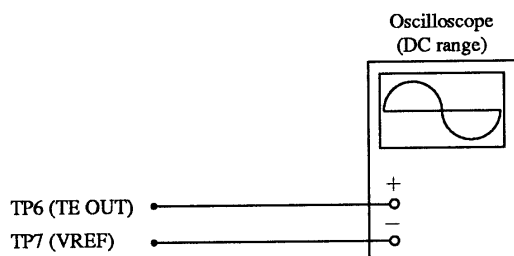


Note: The current of the laser signal can be checked with the voltages on both sides of R4 (10 Ω). The difference for the specified value shown on the label must be within ± 6.0 mA.

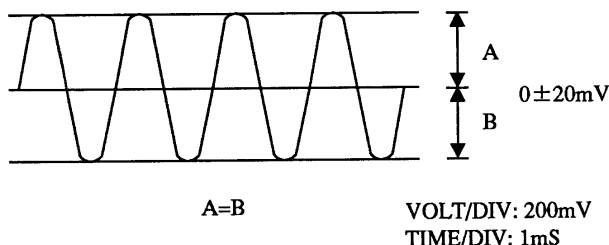


$$\text{Laser current Iop} = \frac{\text{Voltage across R4}}{10 \Omega}$$

4. Tracking Balance Adjustment



1. Connect an oscilloscope to test points TP6 (TE OUT) and TP7 (VREF).
2. Turn on the power switch.
3. Insert test disc TCD-782 (YEDS-18) and press the PLAY (▶) button.
4. Connected the wire from intermediate point of SFR3 to TP7 (VREF).
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 wire from SFR3.



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 reciprocal, 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.

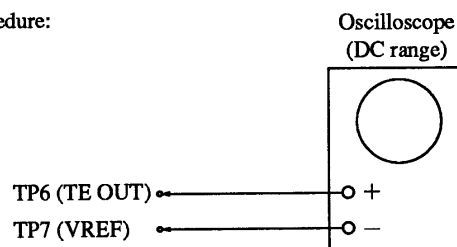
Symptoms	Gain	(Focus)	Tracking
● The time until music starts becomes longer for STOP→▶ PLAY or automatic selection (◀, ▶ buttons pressed.) (Normally takes about 2 seconds.)		Low	Low or High
● Music dose not start and disc continues to rotate for STOP→▶ PLAY or automatic selection (◀, ▶ buttons pressed.)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

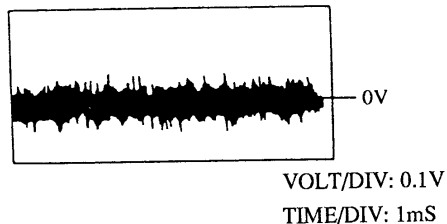
- Simple adjustment -

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:



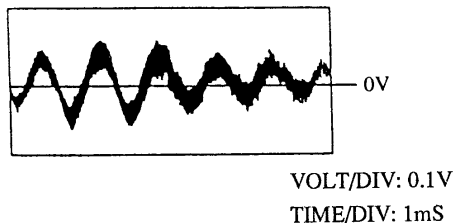
1. Keep the set horizontal. (If the set is not kept horizontally, this adjustment cannot be performed due to the gravity against the 2-axis device.)
2. Insert test disc TCD-782 (YEDS-18) and play back the second composition.
3. Connect an oscilloscope to TP6 (TE OUT).
4. Adjust SFR3 so that the waveform appears as shown in the figure below. (tracking gain adjustment)



● Incorrect example

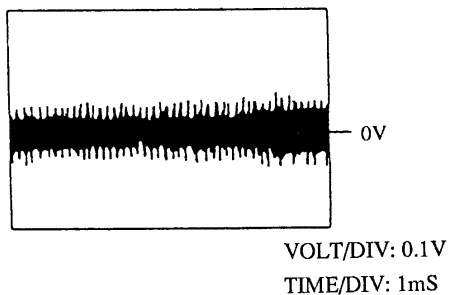
Low tracking gain

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



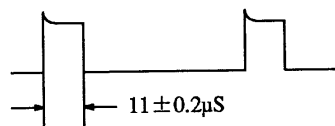
High tracking gain

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



6. PAL Timing Adjustment (G1 version only)

1. Turn on the power switch and set the PAL mode.
2. Insert the test disc TCD-782 (YEDS-18) and press the PLAY (▶) button.



3. Connect an oscilloscope (10:1 input impedance) to test point TP8 (IC16 ⑬ PIN)
4. Adjust SFR5 so that the pulse duration becomes $11 \pm 0.2 \mu\text{S}$.

7. NTSC, PAL Clock Frequency Check

1. Set the NTSC mode pressing the DEMO/NTSC/PAL button.
2. Connect an oscilloscope to test point TP9 (IC12 ⑥ PIN) and check that the frequency is shown $3.579545\text{MHz} \pm 100\text{Hz}$.
3. Set the PAL mode pressing the DEMO/NTSC/PAL button.
4. Check the frequency is shown $4.433619\text{MHz} \pm 100\text{Hz}$.

IC DESCRIPTION

IC, YVZ152

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	V S S	—	GND (digital system)
2	R E S E T	I	Reset input (Low active)
3	$\overline{R A S}$	O	DRAM interface: RAS
4	$\overline{C A S}$	O	DRAM interface: CAS
5	$\overline{W E}$	O	DRAM interface: WE
6	D O 0	I / O	DRAM interface: data (LSB)
7	D O 1	I / O	DRAM interface: data
8	D O 2	I / O	DRAM interface: data
9	D O 3	I / O	DRAM interface: data (MSB)
1 0	A 0	I	DRAM interface: address (LSB)
1 1	A 1	I	DRAM interface: address
1 2	A 2	I	DRAM interface: address
1 3	A 3	I	DRAM interface: address
1 4	A 4	I	DRAM interface: address
1 5	A 5	I	DRAM interface: address
1 6	A 6	I	DRAM interface: address
1 7	A 7	I	DRAM interface: address (MSB)
1 8	S E L 0	I +	Subcode interface: interface select (Not used)
1 9	S E L 1	I +	Subcode interface: interface select (Not used)
2 0	M U T	I	Subcode interface: subcode data mute
2 1	S U B	I	Subcode interface: subcode data
2 2	R C K	I / O	Subcode interface: clock
2 3	S F S Y	I	Subcode interface: frame sync.
2 4	S B S Y	I	Subcode interface: system sync.
2 5	T E S T	I +	LSI test terminal (normally not connected)
2 6	V D D	—	+5 V power supply (digital system)
2 7	T E S T	I +	LSI test terminal (normally not connected)
2 8	T E S T	I +	LSI test terminal (normally not connected)
2 9	D O U T	O	Microprocessor interface: serial data output (Not used)
3 0	D I N	I	Microprocessor interface: serial data input
3 1	C S	I	Microprocessor interface: chip select
3 2	V S S	—	GND (digital system)
3 3	$\overline{S C K}$	I	Microprocessor interface: serial clock input
3 4	W / R	I	Microprocessor interface: read/write select
3 5	$\overline{R Q}$	O	Microprocessor interface: subcode readout request
3 6 { 4 9	(N C)		No connection
5 0	Y S	O	Superimpose timing output (Not used)

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
5 1	A V S S	—	GND (analog system)
5 2	R	O	RGB output (R)
5 3	G	O	RGB output (G)
5 4	B	O	RGB output (B)
5 5	A V D D	—	+5 V power supply (analog system)
5 6	C S Y N C	O	Compound sync. signal output
5 7	F S C	O	NTSC subcarrier clock output (3.579545MHz)
5 8	V D D	—	+5 V power supply (digital system)
5 9	V R S E T	I +	Vertical timing reset input
6 0	H S Y N C	O	Horizontal sync. output
6 1	$\overline{\text{DEN}}$	I +	Display enable ('L'; data display ON)
6 2	$\overline{\text{PAL}}$	I +	NTSC/PAL select ('H'; NTSC mode/'L'; PAL mode)
6 3	X I N	I	Crystal oscillator connecting terminal or external clock input (14.31818MHz)
6 4	X O U T	O	Crystal oscillator connecting terminal (Not used)

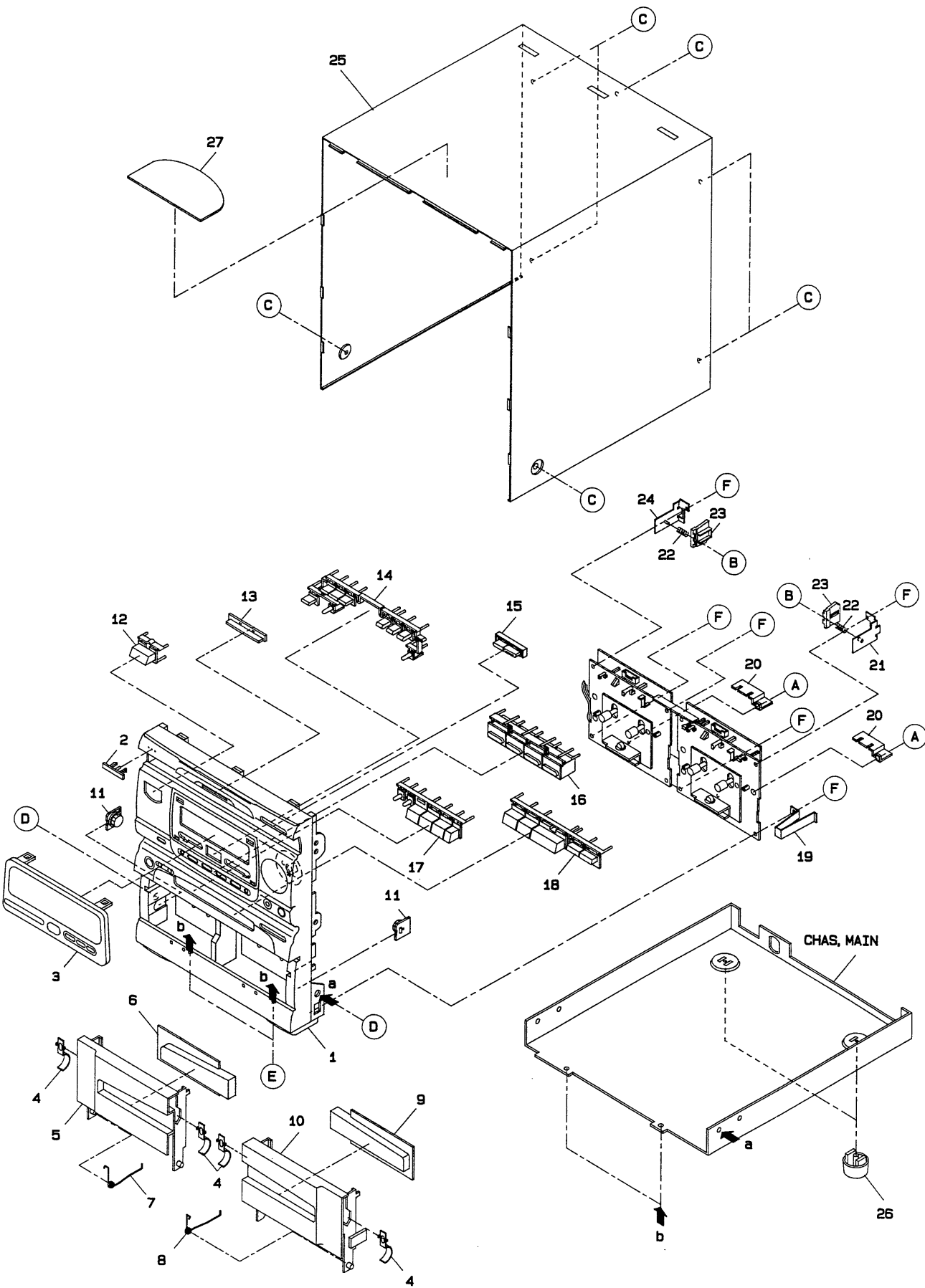
Note) I + ; input terminal with pull-up resistor
OT ; Tri-state output terminal

IC,LC7870E

Pin No.	Pin Name	I/O	Description
1	S	I	Connected to GND
2	SBCK	O	Subcode read/write clock
3	SFSY	I	Subcode frame sync signal
4	PW	I	Subcode read/write data
5	SBSY	I	Subcode block sync signal
6	VDD1	—	Digital block power supply
7	CE	I	Connected to GND
8	—	—	Not used (Connected to GND)
9	DI	I	Not used (Connected to GND)
10	CL	I	Not used (Connected to GND)
11	MUTE	I	Muting input
12	VSS1	—	GND (Digital)
13	CH0	I	Channel selection. Enabled at "H" (Pull-down resistor is built in.)
14	CH1	I	Connected to +5V
15~28	—	—	Not used (No connection)
29	$\overline{IWE}$	O	DRAM No.1 control
30	$\overline{RAS}$	O	DRAM No.1 and 2 common control
31~38	1A0~1A7	O	DRAM No.1 address
39	1D0	I/O	DRAM No.1 data
40	$\overline{CAS}$	O	DRAM No.1 and 2 common control
41	1D1	I/O	DRAM No.1 data
42	$\overline{OE}$	O	DRAM No.1 control
43	1D2	I/O	DRAM No.1 data
44	1D3	I/O	DRAM No.1 data
45~57	—	—	Not used (No connection)
58	TEST	I	Test pin (connected to GND)
59~67	—	—	Not used (No connection)
68	BIAS1	O	Connected to capacitor for eliminating ripples
69~72	—	—	Not used (No connection)
73	VSS3	—	GND (Analog)
74	VDD3	—	Analog block power supply
75	BIAS2	O	Connected to capacitor for eliminating ripples
76	VD	O	Composite video output (8-bit DAC output)
77~78	TEST1~2	I	Test (Connected to GND)
79	FSCIN	I	Subcarrier clock input (Feedback resistor built in)
80~83	—	—	Not used (No connection)
84	SON	I	Superimpose ON/OFF (Connected to GND)
85~86	—	—	Not used (No connection)
87	M1/M2	I	Switching between 256 DRAM1 and 2 H: 1 L: 1 and 2 (Connected to VDD)
88	DEN	I	Disk information display enable H: BGC L: Enable (Pull-down resistor is built in, connected to GND.)

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
89	—	—	Not used (No connection)
90	HRESET	I	Horizontal timing external control
91	FSC	O	Subcarrier clock output NTSC mode: 3.57954 MHz PAL mode: 4.433619 MHz
92	VRESET	I	Vertical timing external control terminal
93	4FSC2	I	External clock input during superimposing (Feedback resister built in) (Connected to GND)
94	RESET	I	Reset input
95	N/P1	I	NTSC/PAL selection (RGB encoder) "H": NTSC "L": PAL
96	N/P2	I	NTSC/PAL selection (CD-EG decoder) "H": NTSC "L": PAL
97	XIN2	I	Crystal oscillator 17.734476 MHz (for PAL)
98	XOUT2	O	Crystal oscillator 17.734476 MHz (for PAL)
99	XIN1	I	Crystal oscillator connection 14.31818 MHz (for NTSC)
100	XOUT1	O	Crystal oscillator connection 14.31818 MHz (for NTSC)

MECHANICAL EXPLODED VIEW 1/3

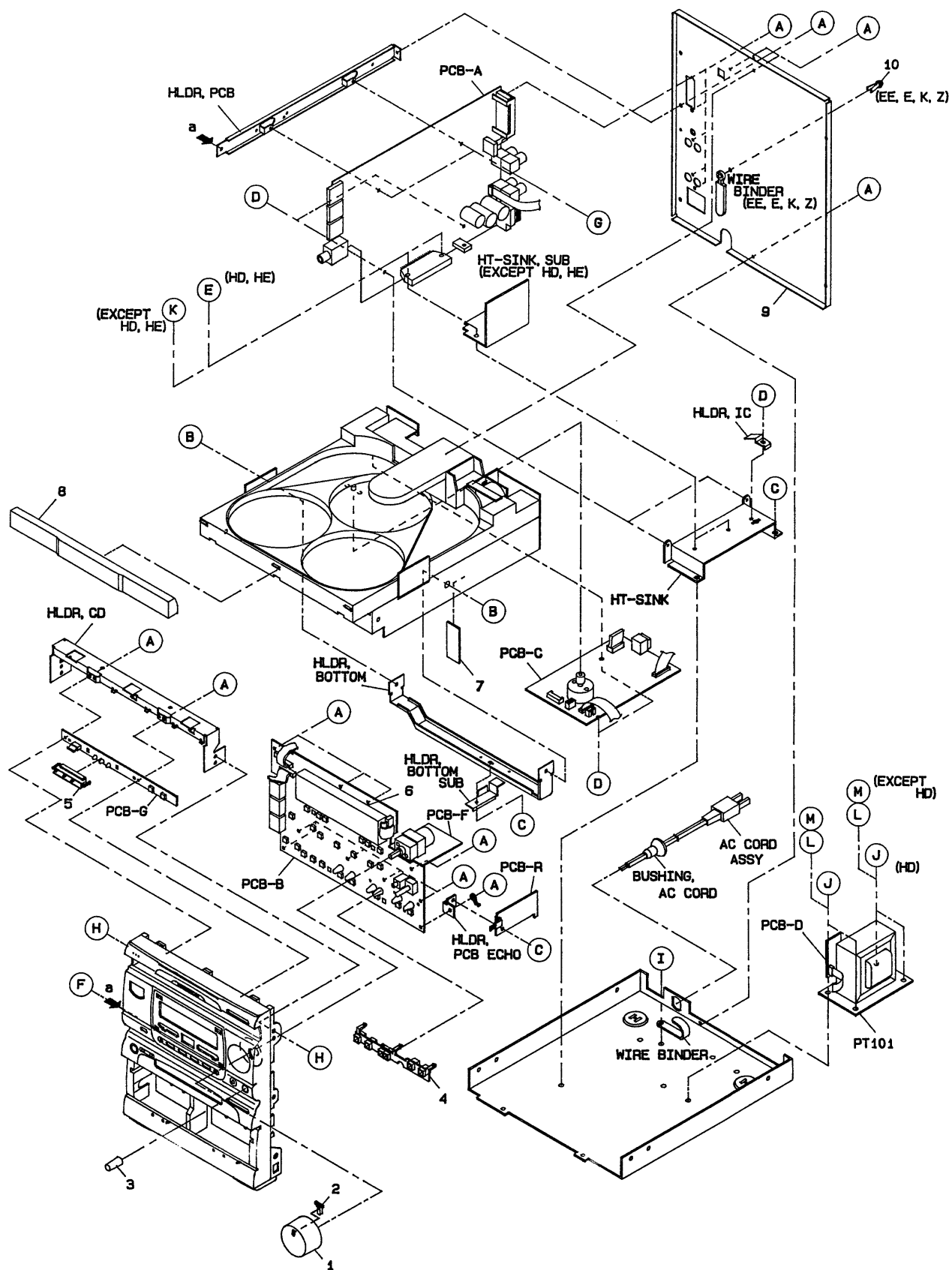


MECHANICAL PARTS LIST 1/3

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

REF. NO	PART NO.	カンリ NO.	DESCRIPTION	REF. NO	PART NO.	カンリ	DESCRIPTION
1	82-NF5-048-119		CAB ASSY, FR[B] (HD, HE, HR)	19	82-NF5-216-019		PLATE, EARTH MECHA
1	82-NF5-049-019		CAB ASSY, FR[N] (HE)	20	82-ZM3-213-010		PLATE, SHLD
1	82-NF5-090-019		CAB ASSY, FR[N] (Z, EE, E)	21	82-NF5-205-010		HLDR ASSY, LOCK 2
1	82-NF5-092-019		CAB ASSY, FR[B] (K)	22	80-MV3-210-110		SPR-C, LOCK[B] (HD)
1	82-NF5-093-019		CAB ASSY, FR[B] (U)	22	80-MV3-218-019		SPR-C, LOCK[B] (EXCEPT HD)
2	82-NE8-032-019		BADGE, AIWA 27.5	23	80-CD3-233-010		PLATE, LOCK
3	82-NF5-013-010		WINDOW, DISPLAY	24	82-NF5-204-010		HLDR ASSY, LOCK 1
4	81-MX4-223-019		SPR-P, CASS	25	82-NF5-046-119		CAB, STEEL[B] (HD, HE, HR, U)
5	82-NF5-034-119		BOX, CASS 1[B] (HD, HE, HR, K, U)	25	82-NF5-096-019		CAB, STEEL[N] (HE)
5	82-NF5-074-019		BOX, CASS 1[N] (HE, Z, EE, E)	25	82-NF5-106-018		CAB, STEEL[N] (Z, EE, E)
6	82-NF5-014-010		WINDOW CASS 1	25	82-NF5-072-118		CAB, STEEL[B] (K)
7	82-NF5-218-019		SPR-T, EJECT 1	26	87-085-221-010		FOOT, H 13.5
8	82-NF5-219-019		SPR-T, EJECT 2	27	82-NF5-061-019		WINDOW, TOP
9	82-NF5-015-010		WINDOW, CASS 2	A	87-571-032-410		VIT+2-3
10	82-NF5-035-119		BOX, CASS 2[B] (HD, HE, HR, K, U)	B	87-081-808-010		PW, 1.7-3.5-0.25
10	82-NF5-075-019		BOX, CASS 2[N] (HE, Z, EE, E)	C	87-067-641-010		UTT2+3-8 BLK
11	87-063-165-019		OIL-DMPR 150	D	87-591-094-410		QIT+3-6
12	82-NF5-005-019		KEY, POWER[B] (HD, HE, HR, K, U)	E	87-067-716-010		BVTT+3-6 BLK
12	82-NF5-076-019		KEY, POWER[N] (HE, Z, EE, E)	F	87-067-761-010		BVT2+3-10 BLK
13	82-NF5-020-010		IND, DISC				
14	82-NF5-007-01S		KEY, GEO				
15	82-NF5-006-010		KEY, CD				
16	82-NF5-008-010		KEY ASSY, FUN				
17	82-NF5-011-010		KEY, REC				
18	82-NF5-010-010		KEY, PLAY				

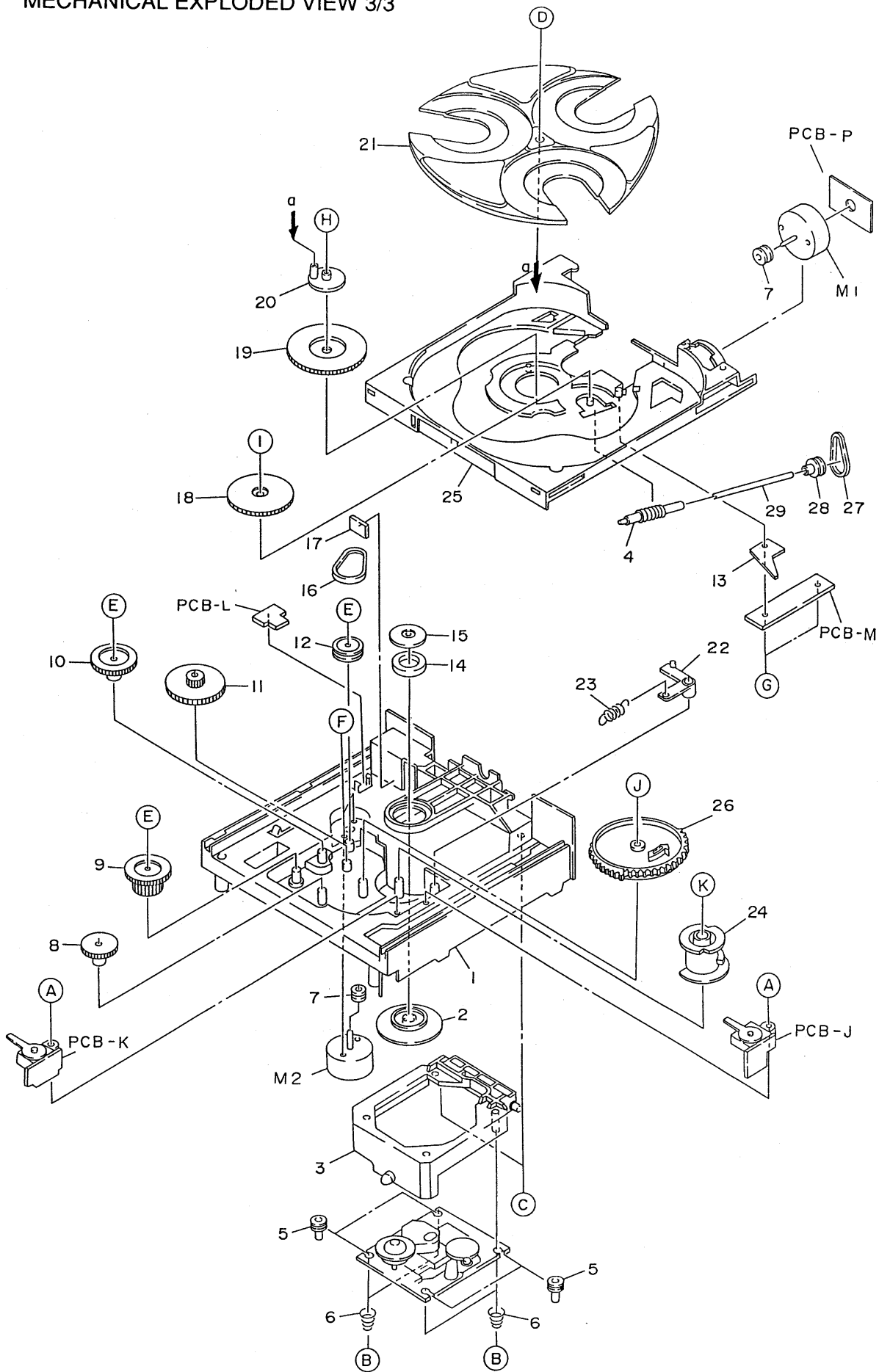
MECHANICAL EXPLODED VIEW 2/3



MECHANICAL PARTS LIST 2/3

REF. NO	PART NO.	カンリ NO.	DESCRIPTION	REF. NO	PART NO.	カンリ	DESCRIPTION
1	82-NF5-012-119		KNOB, VOL[B] (HD, HE, HR, K, U)	A	87-067-761-010		BVT2+3-10 BLK
1	82-NE8-084-019		KNOB, VOL[N] HE, Z, EE, E)	B	87-067-641-010		UTT2+3-8 W/O SLOT BLK
2	82-NE6-016-019		IND, MAIN	C	87-067-716-010		BVTT+3-6 BLK
3	81-MX4-019-019		KNOB, MIC	D	87-067-579-010		BVT2+3-8 W/O SLOT
4	82-NF5-213-019		GUIDE LED	E	87-067-581-019		BVT2+3-15 W/O[B, N] (HD, HE)
5	82-NF5-214-010		GUIDE DISC	F	87-591-094-410		QIT+3-6
6	82-NF5-212-010		GUIDE, FL	G	87-067-633-010		BVT2+3-8 W CONVEX
7	87-085-227-010		SH, 12. 5-5-0. 5	H	87-721-097-410		QT2+3-12 GOLD
8	82-NF5-067-119		PANEL, TRAY[B] (HD, HE, HR)	I	87-067-585-010		BVTT+4-6
8	82-NF5-078-019		PANEL, TRAY[N] (HE)	J	87-078-019-019		S-SCREW, 1T+4-6
8	82-NF5-109-019		PANEL, TRAY[N] (Z, EE, E)	K	87-067-698-019		BVT2+3-18[B, N] (EXCEPT HD, HE)
8	82-NF5-108-019		PANEL, TRAY[B] (K, U)	L	87-422-308-019		SW 4[B] (EXCEPT HD)
9	82-NF5-117-11S		PANEL, REAR[B] (HD)	M	87-067-586-010		BVTT+4-8[B] (EXCEPT HD)
9	82-NF5-066-119		PANEL, REAR[B, N] (HE)				
9	82-NF5-069-119		PANEL, REAR[B] (HR)				
9	82-NF5-110-119		PANEL, REAR[N] (Z)				
9	82-NF5-104-119		PANEL, REAR[N] (EE, E)				
9	82-NF5-105-119		PANEL, REAR[B] (K)				
9	82-NF5-111-019		PANEL, REAR[B] (U)				
10	87-084-077-019		NYLON RIVET[B, N] (Z, EE, K, E)				

MECHANICAL EXPLODED VIEW 3/3



MECHANICAL PARTS LIST 3/3

REF. NO	PART NO.	カリ NO.	DESCRIPTION	REF. NO	PART NO.	カリ NO.	DESCRIPTION
1	81-ZG1-268-010		CHAS MECH M[B] (HD)	23	81-ZG1-262-019		SPR-E, CAM S
1	81-ZG1-246-119		CHAS MECH M[B] (EXCEPT HD)	24	81-ZG1-016-010		GEAR, MECH CAM BGE
2	81-ZG1-228-110		HLD, MAGNET	25	81-ZG1-009-010		TRAY[B] (HD)
3	81-ZG1-253-01S		HLD, MECH MK2	25	81-ZG1-011-119		TRAY MK2[B] (EXCEPT HD)
4	81-ZG1-221-010		WORM GEAR, TT	26	81-ZG1-015-010		GEAR, TRAY CAM BLU
5	81-ZG1-230-010		G-CUSH MECH	27	81-ZG1-233-110		BELT, TT
6	81-ZG1-231-010		SPR-C, MECH	28	81-ZG1-236-010		PULLEY, TT MO
7	81-ZG1-212-010		PULLY, LOAD MO	29	81-ZG1-260-019		SHAFT, WORM S
8	81-ZG1-250-019		GEAR, TRAY RELAY MK2	A	81-653-215-010		SPECIAL SCREW VT2
9	81-ZG1-019-019		GEAR, TRAY B YEL	B	81-ZG1-254-01S		S-SCREW, MECH HLD
10	81-ZG1-018-019		GEAR, TRAY A YEL	C	87-561-096-210		VFT1+3-10
11	81-ZG1-017-019		GEAR, RELAY RED	D	81-ZG1-239-010		S-SCREW, TT
12	81-ZG1-014-010		PULLEY, RELAY YEL	E	87-067-945-110		VFT1+3-12
13	81-ZG1-240-010		SPR-P, WORM	F	87-251-071-410		U+2. 6-4
14	87-036-326-010		MAGNET, CLAMPER 93	G	87-067-579-010		BVT2+3-8 W/O SLOT
15	81-ZG1-229-110		PLATE, MAGNET[B] (HD)	H	87-078-029-010		VFT2+3-13
15	81-ZG1-255-119		PLATE, MAGNET MK2[B] (EXCEPT HD)	I	87-761-095-410		VFT2+3-8
16	81-ZG1-232-010		BELT, TRAY	J	81-ZG1-264-010		S-SCREW CAM
17	81-ZG1-238-110		CUSH, TRAY IN	K	87-067-828-010		VFT2+3-15 DIA 10
18	81-ZG1-222-010		WORM WHEEL, TT				
19	81-ZG1-202-010		GEAR, MAIN				
20	81-ZG1-252-010		LEVER, TT MK2				
21	81-ZG1-010-110		TURNTABLE[B] (HD)				
21	81-ZG1-008-219		TURNTABLE[B] (EXCEPT HD)				
22	81-ZG1-020-010		PLATE, CAM BGE				

SPEAKER 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
2	82-NS5-013-010		PANEL, FRONT R[B] (U, K)
2	82-NS5-014-010		PANEL, FRONT L[B] (U, K)
2	82-NS5-023-010		PANEL, FRONT RN[N] (HE, E, Z)
2	82-NS5-024-010		PANEL, FRONT LN[N] (HE, E, Z)

■ 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	82-NF5-913-110		IB, NSX-510G (HE, HR, U)
2	82-NF5-919-010		IB, NSX-510G HD (HD)
3	82-NF5-915-110		IB, NSX-510G-G (Z, K, E)
4	82-NF5-916-010		IB, NSX-510G (GFI) (Z, E)
5	87-043-115-010		ANT, FEEDER FM (EXCEPT Z)
6	87-043-106-010		FM, WIRE ANT (Z) (Z)
7	87-006-225-010		AM LOOP ANT NC2 (EXCEPT K, E)
8	87-006-226-010		AM LOOP ANT CON2 (K, E)
9	82-NF5-638-010		RC, RC-TN500 (EX) (HE, HR, K, U, HD)
10	82-NF5-635-010		RC, RC-TN500 (EX) GLD (HE, Z, E)
11	87-042-062-010		PLUG, ADPTR S-16115 (HE, HR)
12	87-009-724-010		PLUG, ADPTR IR39 (HD)
13	82-NF5-718-010		CORD, PIN
14	87-041-072-010		MIC, DM-SH18YJN (Z)

REFERENCE NAME LIST

ELECTRICAL SECTION

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

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BAT, CONTACT ASSY	BATTERY CONTACT ASSY
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
KNOB, VOL REV	KNOB, VOLUME REV
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
SW	SWITCH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL
ジクアーム	ARM, SHAFT
ジクガイド	GUIDE, SHAFT
ストラップ	STRAP
ヒンジ	HINGE

サービス技術ニュース	
番号	連絡内容
G - -	
G - -	
G - -	

アイワ株式会社
AIWA CO.,LTD.

912204, 750038

Tokyo Japan