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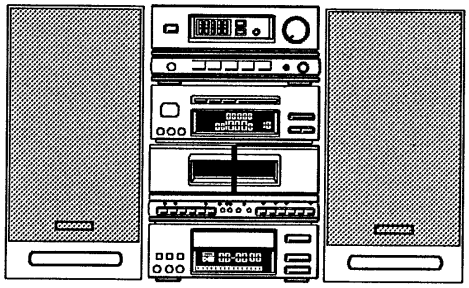
aiwa

NSX-D6

SERVICE MANUAL



COMPACT DISC STEREO SYSTEM

- BASIC TAPE MECHANISM : α – 14MK II
- BASIC CD MECHANISM : KSL – 210AFM
- TYPE. Z

SYSTEM	AMPLIFIER TUNER	CASSETTE DECK CD PLAYER	REMOTE CONTROLLER	SPEAKER
Z TYPE	RX – N6	FD – N6	RC – TN6L	SX – N6

AIWA CO.,LTD.

Tokyo Japan

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SX – N6

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SPECIFICATIONS

STEREO RECEIVER RX－N6

< FM section >

Frequency range	87.5MHz to 108MHz
Usable sensitivity (IHF)	2.2 μV(75 ohms) 18.2dBf
Alternate channel selectivity	60dB(± 300kHz)
Signal to noise ratio	70dB(STEREO) 78dB(MONO)
Harmonic distortion	0.3％(MONO),1kHz 0.8％(STEREO),1kHz
Frequency response	20Hz to 15kHz (+0.5dB,－3dB)
Stereo separation	40dB at 1kHz
Antenna	75ohms(unbalanced)

< MW section >

Frequency range	522kHz to 1,611kHz
Usable sensitivity	400 μ V／m
Selectivity	22dB (9kHz)
Signal to noise ratio	53dB (100dB input)
Antenna	Loop antenna

< LW section >

Frequency range	144kHz to 290kHz
Usable sensitivity	1000 μ V／m
Antenna	Loop antenna

< Timer section >

Program timer	"Once"and／or "every"
Sleep timer	capable of setting in 10－minute decrements, 99minutes maximum

< Amplifier section >

Power output	50W＋50W (6 ohms,T.H.D.10％. RMS) 40W＋40W (6 ohms,T.H.D.1％. DIN)
Harmonic distortion	0.05％ (30W, 1kHz, 6 ohms)
Input sensitivity (load impedance)	
	DAT／VIDEO1 : 300mV (47k ohms) VIDEO2 : 500mV (47k ohms)
Signal to noise ratio	84dB

< General >

Power requirements	220V AC, 50Hz
Power consumption	220W (System total 240W)
Dimensions (W × H × D)	260 × 190 × 323 mm
Weight	5.6kg

COMPACT DISC STEREO CASSETTE DECK FD－N6

< Cassette deck section >

Track format	4 tracks, 2 channels
Frequency response	METAL tape : 20－17000Hz CrO2 tape : 20－16000Hz Normal tape : 20－15000Hz
Signal to noise ratio	65dB (DOLBY NR ON, METAL tape peak level above 5kHz)
Wow and flutter	0.12％(WRMS)±0.19 (WPEAK)
Tape speed	4.8cm／sec. 9.5cm／sec.(double speed)
Rewind time	120sec. (C－60)
Fast forward time	120sec. (C－60)
Recording system	AC bias
Erase system	AC erase
Motor	DC servomotor × 2
Heads	Playback head × 1 (deck1) Record／playback／ erase head × 1 (deck2)

< CD player section >

Disc	Compact disc
Scanning method	Non contact optical scanner (semiconductor laser application)
Laser	Semiconductor laser (λ＝780nm)
Rotation speed	Approx.500rpm－200rpm (CLV) Approx.1000rpm－400rpm (CLV,double speed,Eand Z modelonly)
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	90dB (1kHz, 0dB)
Harmonic distortion	0.05％ (1kHz, 0dB)
Low pass filter	8 times digital filter ＋active filter
Dimensions (W × H × D)	260 × 190 × 309.5 mm
Weight	4.5kg

SPEAKER SX－N6

Cabinet type	3 way, bass reflex
Speaker	130 mm cone type woofer 60 mm cone type tweeter 30 mm ceramic type super tweeter
Impedance	6 ohms
Music power	70W
Output sound pressure level	87dB／W／m
Dimensions (W × H × D)	190 × 380 × 235mm
Weight	4.5kg

COMMON SECTION

Power requirements	E,Z : 220V AC, 50Hz K : 240V AC, 50Hz
Dimensions (W × H × D)	640 × 380 × 323 mm (vertical placement) 1280 × 190 × 323mm (horizontal placement)
Weight	19.1kg

- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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- Under license from BBE Sound, Inc.

MODEL NO.

RX – N6

ELECTRICAL MAIN PARTS LIST (RX – N6)

REF. NO.	PART NO.	DESCRIPTION
=== IC ===		
	87-001-632-019	IC, BA10393N
	87-001-440-019	IC, BA15218N
	87-001-347-010	IC, HD14051BP
	87-001-942-019	IC, LA1265G
	80-MT3-633-010	IC, LC6538D-4597
	87-001-376-019	IC, LC7218
	80-MT3-684-010	IC, LM3364K-15
	87-002-241-010	IC, M5019P
	87-027-895-010	IC, M5218AL
	87-001-790-010	IC, SBX1610-52 (REMOTE SENSOR)
	87-001-582-019	IC, STK4152-MK2
	87-020-446-019	IC, TA7343AP
	87-027-938-019	IC, TC4053BP
	87-001-883-010	IC, XR-C5424BP
=== TRANSISTOR ===		
	89-502-094-019	FET, 2SK209Y (XY)
	89-502-115-010	FET, 2SK211GR (KG)
	89-502-465-019	FET, 2SK246GR
	89-503-025-010	FET, 2SK302GR (TG)
	87-026-463-019	TRANSISTOR, 2SA933S RS
	89-113-187-819	TRANSISTOR, 2SA1318TU
	87-213-302-019	TRANSISTOR, 2SB1330Q
	89-213-702-019	TRANSISTOR, 2SB1370E
	87-026-462-019	TRANSISTOR, 2SC1740S RS
	89-318-155-019	TRANSISTOR, 2SC1815GR
	89-327-125-019	TRANSISTOR, 2SC2712GR (LG)
	89-327-143-019	TRANSISTOR, 2SC2714 (O) (QO)
	89-332-665-019	TRANSISTOR, 2SC3266GR
	89-333-266-019	TRANSISTOR, 2SC3326B (CCB)
	89-333-317-819	TRANSISTOR, 2SC3331TU
	89-406-555-019	TRANSISTOR, 2SD655E
	87-026-230-019	TRANSISTOR, DTA114YK (54)
	87-026-214-019	TRANSISTOR, DTA114YS
	87-026-219-019	TRANSISTOR, DTA144ES
	87-026-484-019	TRANSISTOR, DTC123JS
=== DIODE ===		
	87-001-783-019	DIODE, 1N4002-T
	87-001-574-010	DIODE, 1SR139-200
	87-020-691-019	DIODE, 1SS132
	87-020-465-019	DIODE, 1SS133
	87-020-125-019	DIODE, CHIP 1SS181 (A3)
	87-020-027-019	DIODE, CHIP 1SS184 (B3)
	87-002-225-010	DIODE, DBF40C-K10
	87-027-301-019	DIODE, ZENER HZ3A1
	87-027-416-019	DIODE, ZENER HZ3C2
	87-027-555-019	DIODE, ZENER HZ5C2
	87-027-332-019	DIODE, ZENER HZ6B1L
	87-001-916-019	DIODE, ZENER UTZJ10B
	87-001-909-019	DIODE, ZENER UTZJ24B
	87-001-915-019	DIODE, ZENER UTZJ6.8A
=== TUNER CIRCUIT BOARD SECTION ===		
C1	★87-010-312-019	CAP, CHIP S 15P-50 CH
C2	★87-015-819-019	CAP, CHIP 0.01
C3	★87-010-197-019	CAP, CHIP S 0.01-25 B
C4	★87-010-197-019	CAP, CHIP S 0.01-25 B
C5	★87-010-197-019	CAP, CHIP S 0.01-25 B
C6	★87-010-197-019	CAP, CHIP S 0.01-25 B
C7	★87-010-147-019	CAP, CHIP S 3P-50 CH
C9	★87-010-158-019	CAP, CHIP S 22P-50 SL
C10	★87-010-154-019	CAP, CHIP S 10P-50 CH
C11	★87-010-312-019	CAP, CHIP S 15P-50 CH
C12	★87-010-312-019	CAP, CHIP S 15P-50 CH
C13	★87-010-197-019	CAP, CHIP S 0.01-25 B
C14	★87-010-146-019	CAP, CHIP S 2P-50 CH
C15	★87-010-148-019	CAP, CHIP S 4P-50 CH
C16	★87-010-149-010	CAP, CHIP S 5P-50 CH
C17	★87-010-197-019	CAP, CHIP S 0.01-25 B
C18	★87-010-170-019	CAP, CHIP S 220P-50 SL
C19	★87-010-197-019	CAP, CHIP S 0.01-25 B
C20	★87-010-197-019	CAP, CHIP S 0.01-25 B
C21	★87-010-197-019	CAP, CHIP S 0.01-25 B
C22	★87-010-400-019	CAP, ELECT 0.47-50 SME
C23	★87-010-197-019	CAP, CHIP S 0.01-25 B
C24	★87-010-149-019	CAP, CHIP S 5P-50 CH
C26	★87-010-312-019	CAP, CHIP S 15P-50 CH
C27	★87-010-197-019	CAP, CHIP S 0.01-25 B
C30	★87-010-401-019	CAP, ELECT 1-50 SME
C31	★87-010-197-019	CAP, CHIP S 0.01-25 B
C32	★87-010-197-019	CAP, CHIP S 0.01-25 B
C33	★87-010-405-019	CAP, ELECT 10-50 SME
C34	★87-010-166-019	CAP, CHIP S 100P-50 SL
C35	★87-010-197-019	CAP, CHIP S 0.01-25 B
C36	★87-010-401-019	CAP, ELECT 1-50 SME
C37	★87-010-404-019	CAP, ELECT 4.7-50 SME
C38	★87-010-405-019	CAP, ELECT 10-50 SME
C39	★87-010-544-019	CAP, ELECT 0.1-50
C40	★87-010-403-019	CAP, ELECT 3.3-50 SME
C41	★87-010-404-019	CAP, ELECT 4.7-50 SME
C42	★87-010-404-019	CAP, ELECT 4.7-50 SME
C43	★87-010-197-019	CAP, CHIP S 0.01-25 B
C45	★87-010-404-019	CAP, ELECT 4.7-50 SME
C46	★87-010-197-019	CAP, CHIP S 0.01-25 B
C47	★87-010-197-019	CAP, CHIP S 0.01-25 B
C48	★87-010-197-019	CAP, CHIP S 0.01-25 B
C49	★87-010-197-019	CAP, CHIP S 0.01-25 B
C50	★87-010-197-019	CAP, CHIP S 0.01-25 B
C51	★87-010-197-019	CAP, CHIP S 0.01-25 B
C52	★87-010-197-019	CAP, CHIP S 0.01-25 B
C53	★87-010-196-019	CAP, CHIP S 0.1-25 F
C54	★87-010-197-019	CAP, CHIP S 0.01-25 B
C55	★87-014-049-019	CAP, PP 470P-100J
C56	★87-010-158-019	CAP, CHIP S 22P-50 SL
C57	★87-010-169-019	CAP, CHIP S 180P-50 SL
C58	★87-014-050-019	CAP, PP 510P-100J
C60	★87-010-404-010	CAP, ELECT 4.7-50 SME
C61	★87-010-401-019	CAP, ELECT 1-50 SME
C62	★87-010-403-019	CAP, ELECT 3.3-50 SME
C63	★87-014-057-019	CAP, PP 1000P-100 J
C64	★87-010-405-019	CAP, ELECT 10-50 SME
C67	★87-010-179-019	CAP, CHIP S 1200P-50 B
C68	★87-010-179-019	CAP, CHIP S 1200P-50 B
C69	★87-010-400-019	CAP, ELECT 0.47-50 SME
C70	★87-010-400-019	CAP, ELECT 0.47-50 SME
C71	★87-010-184-019	CAP, CHIP S 3300P-50 B
C72	★87-010-184-019	CAP, CHIP S 3300P-50 B
C73	★87-010-401-019	CAP, ELECT 1-50 SME
C74	★87-010-401-019	CAP, ELECT 1-50 SME
C75	★87-010-248-019	CAP, ELECT 220-10 SME
C76	★87-010-312-019	CAP, CHIP S 15P-50 CH
C77	★87-010-197-019	CAP, CHIP S 0.01-25 B
C78	★87-010-197-019	CAP, CHIP S 0.01-25 B
C79	★87-010-197-019	CAP, CHIP S 0.01-25 B
C80	★87-010-384-019	CAP, ELECT 100-25 SME

REF. NO.	PART NO.	DESCRIPTION
C81	★87-010-186-019	CAP, CHIP S 4700P-50 B
C82	★87-010-400-019	CAP, ELECT 0.47-50 SME
C83	★87-015-762-019	CAP, CHIP 68P SL
C84	★87-010-164-019	CAP, CHIP S 68P-50 SL
C85	★87-010-164-019	CAP, CHIP S 68P-50 SL
C86	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C87	★87-010-263-019	CAP, ELECT 100-10
C88	★87-010-263-019	CAP, ELECT 100-10
C89	★87-010-263-019	CAP, ELECT 100-10
C90	★87-018-131-019	CAP, CERA-SOL U 1000P-50 B
C91	87-018-131-019	CAP, CERA-SOL U 1000P-50 B
C100	★87-010-197-019	CAP, CHIP S 0.01-25 B
C101	★87-010-197-019	CAP, CHIP S 0.01-25 B
C102	★87-010-311-019	CAP, CHIP S 12P-50 CH
C103	★87-010-311-019	CAP, CHIP S 12P-50 CH
C105	★87-010-146-019	CAP, CHIP S 2P-50 CH
C106	★87-010-145-019	CAP, CHIP S 1P-50 CH
CF1	★87-030-105-010	FILTER, BPM B6A
CF2	★82-799-621-010	FILTER, CERAMIC MS2-A
CF3	★87-008-261-019	FILTER, SFE10.7MA5-A
CF4	★87-008-261-019	FILTER, SFE10.7MA5-A
CF5	★82-794-670-019	FILTER, BFU 450C4N
D1	★87-026-360-010	VARICAP, CHIP KV1430(F3)
D2	★87-026-360-010	VARICAP, CHIP KV1430(F3)
D3	★87-026-360-010	VARICAP, CHIP KV1430(F3)
D6	★81-754-634-010	VARICAP, KV1260
D7	★87-026-360-010	VARICAP, CHIP KV1430(F3)
J1	★81-631-646-010	ANT TERM 2P (FM75Ω, MW/LW LOOP)
L1	★87-006-209-019	COIL, ANT FM 3/4 T
L2	★87-006-210-019	COIL, ANT FM 2-3/4T
L3	★87-006-200-019	COIL, RF FM 3-1/2T, L5
L4	★87-006-201-019	COIL, RF FM 3-1/2TS, L5
L5	★87-006-201-019	COIL, RF FM 3-1/2TS, L5
L6	★87-006-205-019	COIL, OSC FM (7K)
L7	★87-003-231-019	COIL, CHIP S1UH
L8	★87-008-427-019	COIL, FM IFT(4T)
L9	★81-631-611-010	COIL, QUAD (SINGLE)
L11	★87-008-452-019	FILTER, CFAZ-450
L12	★87-006-207-019	COIL, ANT MW(3B)
L13	★87-006-208-019	COIL, ANT LW
L14	★82-794-687-019	COIL, OSC MW
L15	★81-631-643-010	COIL, 1 POLE MPX
L16	★81-631-643-010	COIL, 1 POLE MPX
L17	★82-794-688-019	COIL, OSC LW
L18	★87-008-421-019	COIL, FILTER ANTI-BIRDIE
L19	★87-003-098-019	COIL, 2.2UH
SFR1	★87-024-174-019	SFR, 33K DIA6 V
SFR2	★87-024-171-019	SFR, 4.7K DIA6 V
TC1	★87-011-219-019	CAP, TRIMMER 10PF VCT
TC2	★87-011-219-019	CAP, TRIMMER 10PF VCT
TC3	★87-011-219-019	CAP, TRIMMER 10PF VCT
TC4	★87-011-220-019	CAP, TRIMMER 20PF VCT
TC5	★87-011-221-019	TRIMMER 30PF VCT51
TC6	★87-011-221-019	TRIMMER 30PF VCT51
X1	★87-030-163-019	RESONATOR, CRYSTAL 7.2MHZ(NDK)

=== FRONT CIRCUIT BOARD SECTION ===

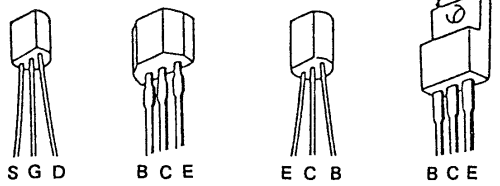
C101	★87-010-370-019	CAP, ELECT 330-6.3 SME
C102	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C103	★87-010-251-019	CAP, ELECT 10-35 SRE
C104	★87-010-496-019	CAP, ELECT 3.3-50 5L
C105	★87-015-688-019	CAP, ELECT 4.7-35 7L
C107	★87-018-195-019	CAP, CERA-SOL U 1200P-16 X
C108	★87-018-195-019	CAP, CERA-SOL U 1200P-16 X
C109	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C110	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C111	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C113	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C201	★87-018-127-019	CAP, CERA-SOL U 470P-50 B
C202	★87-018-127-019	CAP, CERA-SOL U 470P-50 B
C203	★87-018-195-019	CAP, CERA-SOL U 1200P-16 X
C204	★87-018-195-019	CAP, CERA-SOL U 1200P-16 X
C205	★87-018-133-019	CAP, CERA-SOL U 4700P-16 X
C206	★87-018-133-019	CAP, CERA-SOL U 4700P-16 X
C207	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C208	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C209	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C210	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C211	★87-010-068-019	CAP, ELECT 0.22-50 5L
C212	★87-010-068-019	CAP, ELECT 0.22-50 5L
C213	★87-010-068-019	CAP, ELECT 0.22-50 5L
C214	★87-010-068-019	CAP, ELECT 0.22-50 5L
C215	★87-010-068-019	CAP, ELECT 0.22-50 5L
C216	★87-010-251-019	CAP, ELECT 10-35 SRE
C217	★87-010-251-019	CAP, ELECT 10-35 SRE
C218	★87-018-205-019	CAP, CERA-SOL U 0.022-25 F
C219	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C220	★87-010-251-019	CAP, ELECT 10-35 SRE
C401	★87-015-688-019	CAP, ELECT 4.7-35 7L
C402	★87-015-688-019	CAP, ELECT 4.7-35 7L
C411	★87-018-133-019	CAP, CERA-SOL U 4700P-16 X
C412	★87-018-133-019	CAP, CERA-SOL U 4700P-16 X
C421	★87-018-127-019	CAP, CERA-SOL U 470P-50 B
C422	★87-018-127-019	CAP, CERA-SOL U 470P-50 B
C451	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C452	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C501	★87-010-497-019	CAP, ELECT 4.7-35 5L
C502	★87-010-497-019	CAP, ELECT 4.7-35 5L
C505	★87-015-695-019	CAP, ELECT 1-50 7L
C506	★87-015-695-019	CAP, ELECT 1-50 7L
C507	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C508	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C601	★87-018-195-019	CAP, CERA-SOL U 1200P-16 X
C602	★87-015-688-019	CAP, ELECT 4.7-35 7L
C603	★87-018-128-019	CAP, CERA-SOL U 560P-50 B
C604	★87-010-251-019	CAP, ELECT 10-35 SRE
C605	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C606	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C607	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
FL101	80-MT3-620-010	FL, CF1046G(DISPLAY)
J601	80-MT3-614-019	JACK, 3.5(MIX MIC)
L102	★87-003-152-019	COIL 100UH
L103	★87-003-152-019	COIL, 100UH
LED101	87-001-291-010	LED, SEL2413ETP45(BBE)
LED102	87-001-291-010	LED, SEL2413ETP45(BBE)
LED103	87-001-291-010	LED, SEL2413ETP45(T-BASS)
LED104	87-001-291-010	LED, SEL2413ETP45(T-BASS)
S101	87-036-142-019	TACT SW(BAND)
S102	87-036-142-019	TACT SW(UP)
S103	87-036-142-019	TACT SW(DOWN)
S104	87-036-142-019	TACT SW(TUNING MODE)
S105	87-036-142-019	TACT SW(SET)
S106	87-036-142-019	TACT SW(T-STANDBY)
S107	87-036-142-019	TACT SW(DISPLAY)
S108	87-036-142-019	TACT SW(FM MODE)
S109	87-036-142-019	TACT SW(SLEEP)
S110	87-036-142-019	TACT SW(CD)
S111	87-036-142-019	TACT SW(VIDEO 2)

REF. NO.	PART NO.	DESCRIPTION
S112	87-036-142-019	TACT SW(DAT/VIDEO 1)
S113	87-036-142-019	TACT SW(TUNER)
S114	87-036-142-019	TACT SW(TAPE)
S115	87-036-142-019	TACT SW(BBE)
S116	87-036-142-019	TACT SW(POWER)
VR301	★89-MK1-634-019	VR, 10KA(BBE)
VR401	★80-MT3-612-019	VR, SLIDE 20KB(70HZ)
VR402	★80-MT3-612-019	VR, SLIDE 20KB(350HZ)
VR403	★80-MT3-612-019	VR, SLIDE 20KB(1KHZ)
VR404	★80-MT3-612-019	VR, SLIDE 20KB(3.5KHZ)
VR405	★80-MT3-612-019	VR, SLIDE 20KB(10KHZ)
VR601	★89-MK1-634-019	VR, 10KA(MIC MIXING)
VR602	★89-MK1-633-019	VR, 10KB(ECHO)
X101	★89-MX1-704-019	CERA LOCK(MU)3.9MHZ
=== AMP CIRCUIT BOARD SECTION ===		
C101	★87-010-804-019	CAP, ELECT 4700-42V
C102	★87-010-804-019	CAP, ELECT 4700-42V
C103	★87-010-390-019	CAP, ELECT 3300-25 SME
C104	★87-010-381-019	CAP, ELECT 330-16 SME
C105	★87-010-101-019	CAP, ELECT 220-16 SME
C106	★87-010-409-019	CAP, ELECT 220-50 SME
C107	★87-010-384-019	CAP, ELECT 100-25 SME
C108	★87-010-408-019	CAP, ELECT 47-50 SME
C109	★87-010-263-019	CAP, ELECT 100-10
C111	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C112	★87-010-260-019	CAP, ELECT 47-25 SME
C113	★87-010-403-019	CAP, ELECT 3.3-50 SME
C114	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C115	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C116	★87-018-127-019	CAP, CERA-SOL U 470P-50 B
C117	★87-010-405-019	CAP, ELECT 10-50 SME
C118	★87-010-374-019	CAP, ELECT 47-10
C119	★87-010-405-019	CAP, ELECT 10-50 SME
C120	★87-010-381-019	CAP, ELECT 330-16 SME
C151	★87-018-131-019	CAP, CERA-SOL U 1000P-50 B
C152	★87-018-131-019	CAP, CERA-SOL U 1000P-50 B
C153	★87-010-405-019	CAP, ELECT 10-50 SME
C154	★87-010-405-019	CAP, ELECT 10-50 SME
C155	★87-010-260-019	CAP, ELECT 47-25 SME
C156	★87-010-260-019	CAP, ELECT 47-25 SME
C157	★87-010-374-019	CAP, ELECT 47-10
C158	★87-010-374-019	CAP, ELECT 47-10
C159	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C160	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C163	★87-018-114-019	CAP, CERA-SOL U 39P-50 SL
C164	★87-018-114-019	CAP, CERA-SOL U 39P-50 SL
C169	★87-018-205-019	CAP, CERA-SOL U 0.022-25F
C170	★87-018-205-019	CAP, CERA-SOL U 0.022-25F
C181	★87-010-408-019	CAP, ELECT 47-50 SME
C201	★87-010-221-019	CAP, ELECT 470-10
C202	★87-010-374-019	CAP, ELECT 47-10
C203	★87-010-263-019	CAP, ELECT 100-10
C204	★87-010-382-019	CAP, ELECT 22-25 SME
C205	★87-010-404-019	CAP, ELECT 4.7-50 SME
C206	★87-010-404-019	CAP, ELECT 4.7-50 SME
C207	★87-010-405-019	CAP, ELECT 10-50 SME
C208	★87-010-382-019	CAP, ELECT 22-25 SME
C301	★87-010-401-019	CAP, ELECT 1-50 SME
C302	★87-010-401-019	CAP, ELECT 1-50 SME
C305	★87-018-127-019	CAP, CERA-SOL U 470P-50 B
C306	★87-018-127-019	CAP, CERA-SOL U 470P-50 B
C309	★87-010-546-019	CAP, ELECT 0.33-50 SME
C310	★87-010-546-019	CAP, ELECT 0.33-50 SME
C311	★87-010-400-019	CAP, ELECT 0.47-50 SME
C312	★87-010-400-019	CAP, ELECT 0.47-50 SME
C313	★87-010-404-019	CAP, ELECT 4.7-50 SME
C314	★87-010-404-019	CAP, ELECT 4.7-50 SME
C317	★87-018-109-019	CAP, CERA-SOL U 22P-50 SL
C318	★87-018-109-019	CAP, CERA-SOL U 22P-50 SL
C321	★87-010-400-019	CAP, ELECT 0.47-50 SME
C322	★87-010-400-019	CAP, ELECT 0.47-50 SME
C323	★87-010-404-019	CAP, ELECT 4.7-50 SME
C324	★87-010-404-019	CAP, ELECT 4.7-50 SME
C325	★87-010-401-019	CAP, ELECT 1-50 SME
C326	★87-010-401-019	CAP, ELECT 1-50 SME
C331	★87-010-405-019	CAP, ELECT 10-50 SME
C332	★87-010-371-019	CAP, ELECT 470-6.3
C333	★87-010-101-019	CAP, ELECT 220-16 SME
C335	★87-010-404-019	CAP, ELECT 4.7-50 SME
C501	★87-010-544-019	CAP, ELECT 0.1-50
C502	★87-010-544-019	CAP, ELECT 0.1-50
C507	★87-010-546-019	CAP, ELECT 0.33-50 SME
C508	★87-010-546-019	CAP, ELECT 0.33-50 SME
C509	★87-010-401-019	CAP, ELECT 1-50 SME
C510	★87-010-401-019	CAP, ELECT 1-50 SME
C511	★87-010-402-019	CAP, ELECT 2.2-50 SME
C512	★87-010-402-019	CAP, ELECT 2.2-50 SME
C513	★87-018-202-019	CAP, CERA-SOL U 6800P-16 X
C514	★87-018-202-019	CAP, CERA-SOL U 6800P-16 X
C515	★87-010-546-019	CAP, ELECT 0.33-50 SME
C516	★87-010-401-019	CAP, ELECT 1-50 SME
C517	★87-010-400-019	CAP, ELECT 0.47-50 SME
C519	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C520	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C521	★87-018-134-019	CAP, CERA-SOL U 0.01-16Y
C522	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
J201	★80-MT3-617-019	JACK, PIN 3P (VIDEO MONITOR OUT)
J202	★80-MT3-618-019	JACK, PIN 3P EARTH(VIDEO 1 IN)
J203	★80-MT3-617-019	JACK, PIN 3P(VIDEO 2 IN)
J204	87-009-065-019	CONNECTOR, 15P FG(CD DECK)
J205	80-MT3-615-019	JACK, 6.3(PHONES)
J206	★80-MT3-631-019	JACK PIN 2P EARTH(SURROUND SP)
J207	★87-033-215-019	TERMINAL, SP 4PR(SPEAKERS)
L101	★87-005-366-019	COIL 1UH
L102	★87-005-366-019	COIL 1UH
R105	★87-022-050-019	RES, MF 0.22-1W J
R106	★87-022-050-019	RES, MF 0.22-1W J
R525	★87-022-050-019	RES, MF 0.22-1W J
R526	★87-022-050-019	RES, MF 0.22-1W J
R527	★87-022-050-019	RES, MF 0.22-1W J
R528	★87-022-050-019	RES, MF 0.22-1W J
RY101	87-045-285-010	RELAY, VB12MB
S501	80-MT3-653-019	SW, SLIDE(T-BASS)
VR201	★80-MT3-619-019	VR, 50KBX2(DAT/VIDEO1 IN LEVEL)
=== RELAY CIRCUIT BOARD SECTION ===		
=== POWER CIRCUIT BOARD SECTION ===		
R101	★87-025-491-018	RES, NF 0.47-3/4W
R102	★87-025-491-018	RES, NF 0.47-3/4W
R103	★87-025-491-018	RES, NF 0.47-3/4W
=== VOL. & ECHO CIRCUIT BOARD SECTION ===		
C32	★87-018-202-019	CAP, CERA-SOL U 6800P-16 X
C54	★87-010-401-019	CAP, ELECT 1-50 SME
C55	★87-010-404-019	CAP, ELECT 4.7-50 SME

REF. NO.	PART NO.	DESCRIPTION
C56	★87-018-134-019	CAP, CERA-SOL U 0.01-16 Y
C57	★87-010-405-019	CAP, ELECT 10-50 SME
C59	★87-018-129-019	CAP, CERA-SOL U 680P-50 B
C60	★87-018-214-019	CAP, CERA-SOL U 0.1-50E
C61	★87-010-404-019	CAP, ELECT 4.7-50 SME
C63	★87-010-260-019	CAP, ELECT 47-25 SME
C76	★87-018-208-019	CAP, CERA-SOL U 0.047-50 F
C77	★87-010-260-019	CAP, ELECT 47-25 SME
C80	★87-018-129-019	CAP, CERA-SOL U 680P-50 B
C82	★87-018-119-019	CAP, CERA-SOL U 100P-50 B
C83	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C84	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C85	★87-010-247-019	CAP, ELECT 100-50 SME
C87	★87-018-214-019	CAP, CERA-SOL U 0.1-50 F
C89	★87-010-101-019	CAP, ELECT 220-16 SME
MVR501	★89-MK1-632-119	VR, 50KAX2 (VOLUME)
X51	★87-030-225-019	CERA LOCK CST3.58
=== MISCELLANEOUS ===		
⚠	★87-034-781-018	AC CORD E
⚠	★87-085-185-010	BUSHING, AC CORD E
⚠T101	80-MT3-626-018	POWER TRANSFORMER OMT3E

TRANSISTOR ILLUSTRATION

(RX − N6,FD − N6)

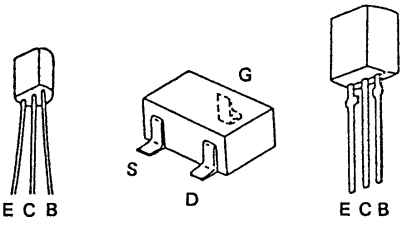


2SK246
2SK373

DTA114
DTA123
DTA144
DTC123
DTC144
2SD2144

2SD655

2SB1370



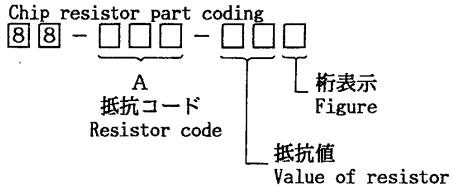
2SA933
2SA952
2SA1296
2SA1318
2SC1740
2SC1815
2SC2001
2SC2500
2SC2712
2SC2714
2SC3266
2SC3331

2SK209
2SK211
2SK302

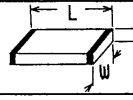
2SB1330

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

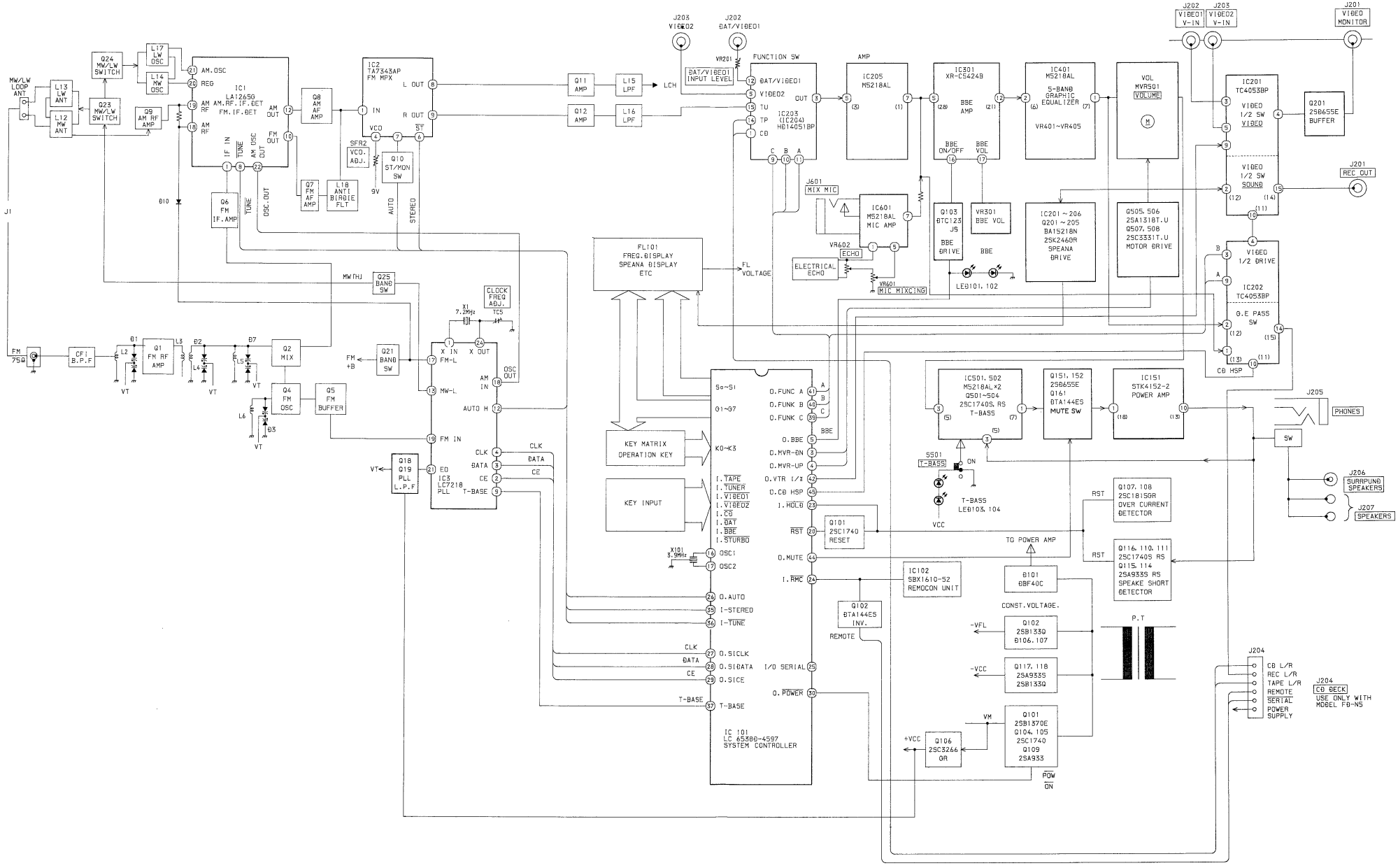
チップ抵抗部品コードの成り立ち
Chip resistor part coding



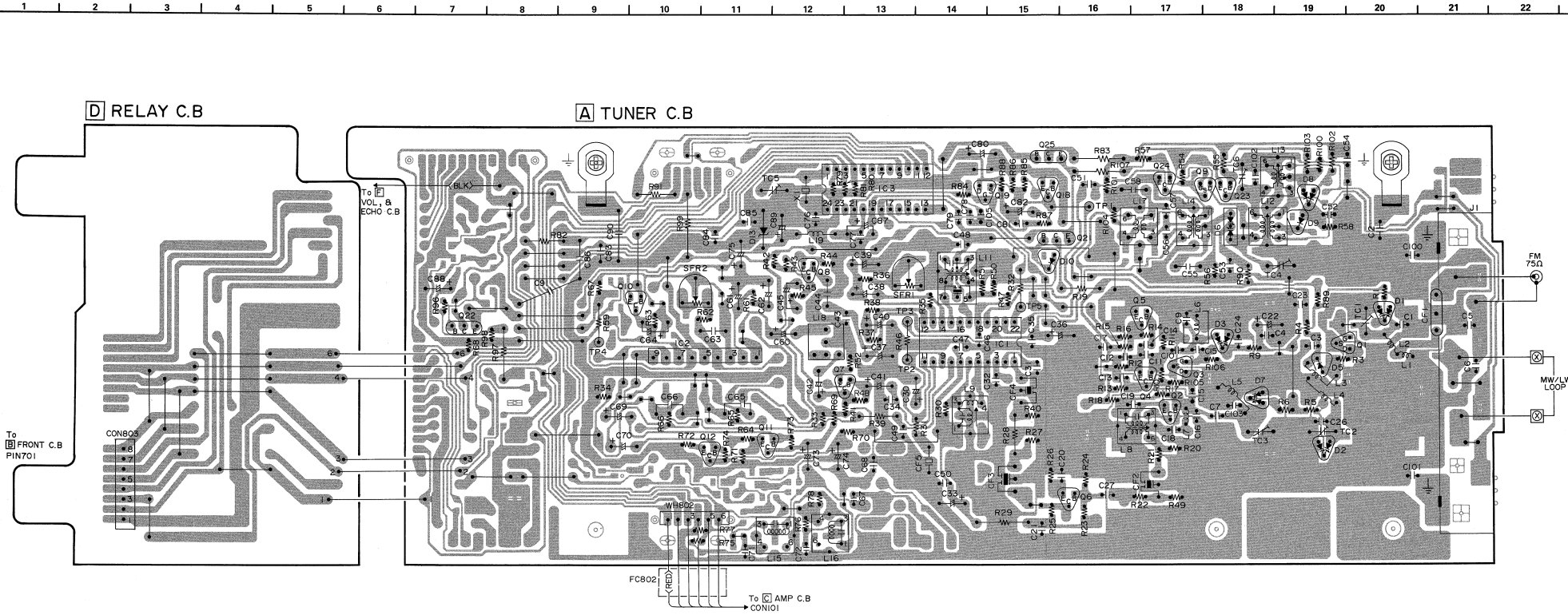
チップ抵抗
Chip resistor

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

BLOCK DIAGRAM (RX – N6)



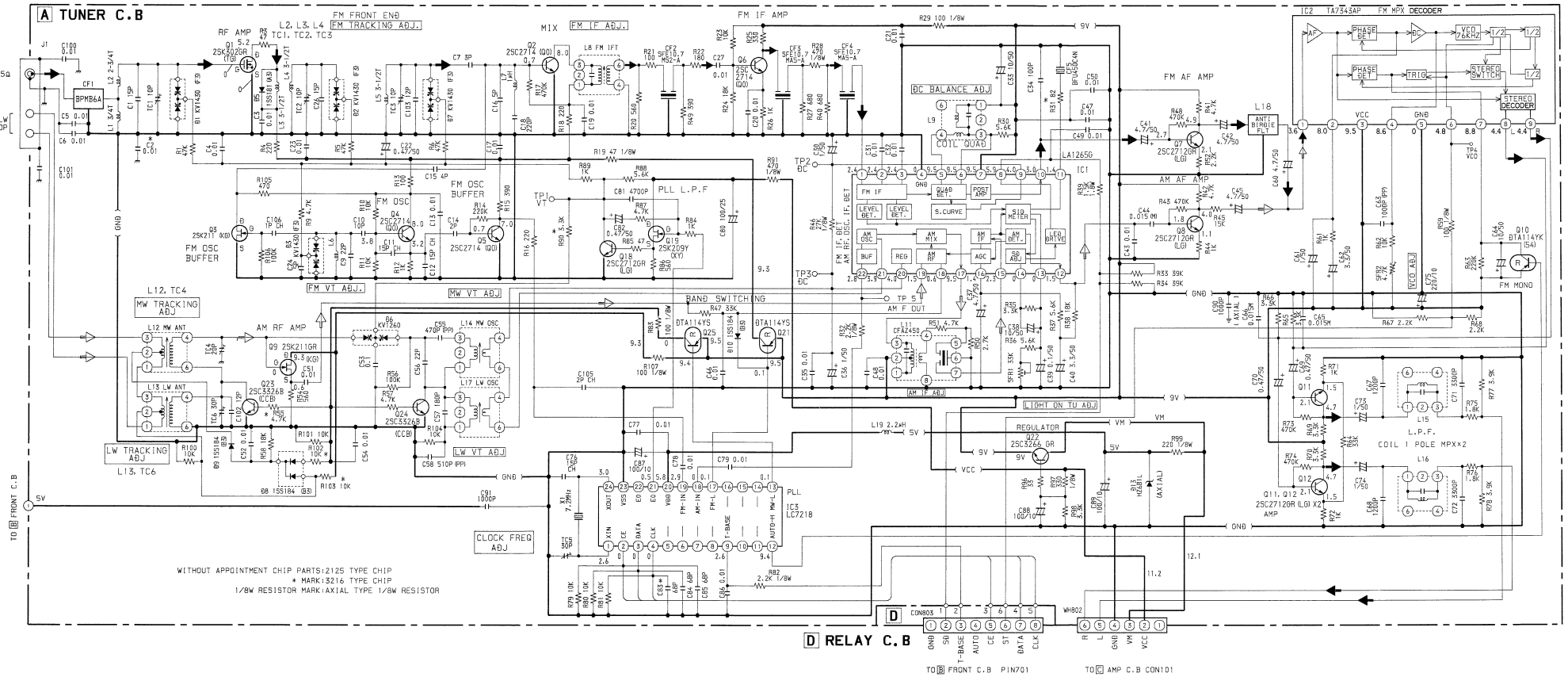
WIRING – 1 (RX – N6)

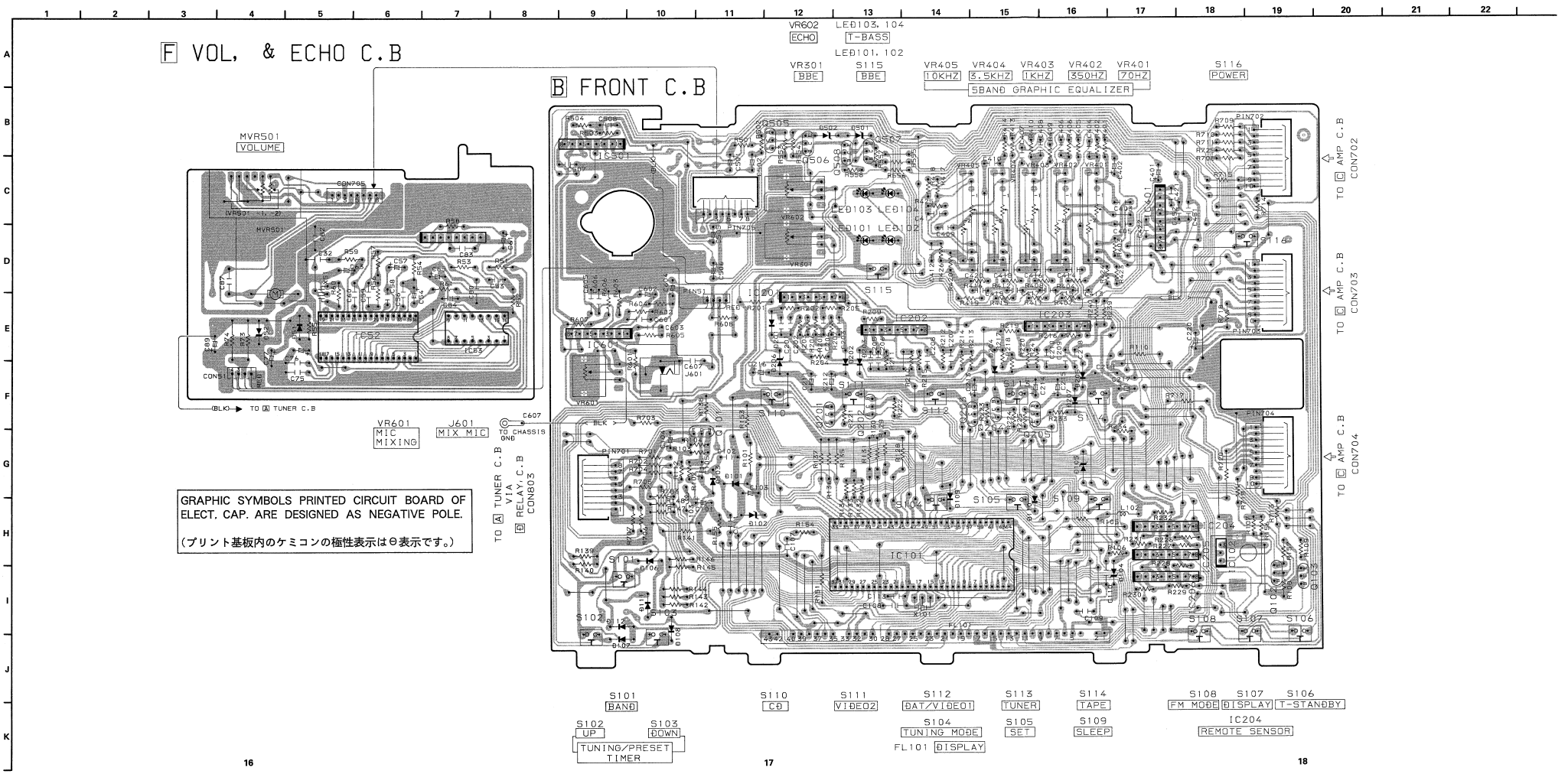


GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.

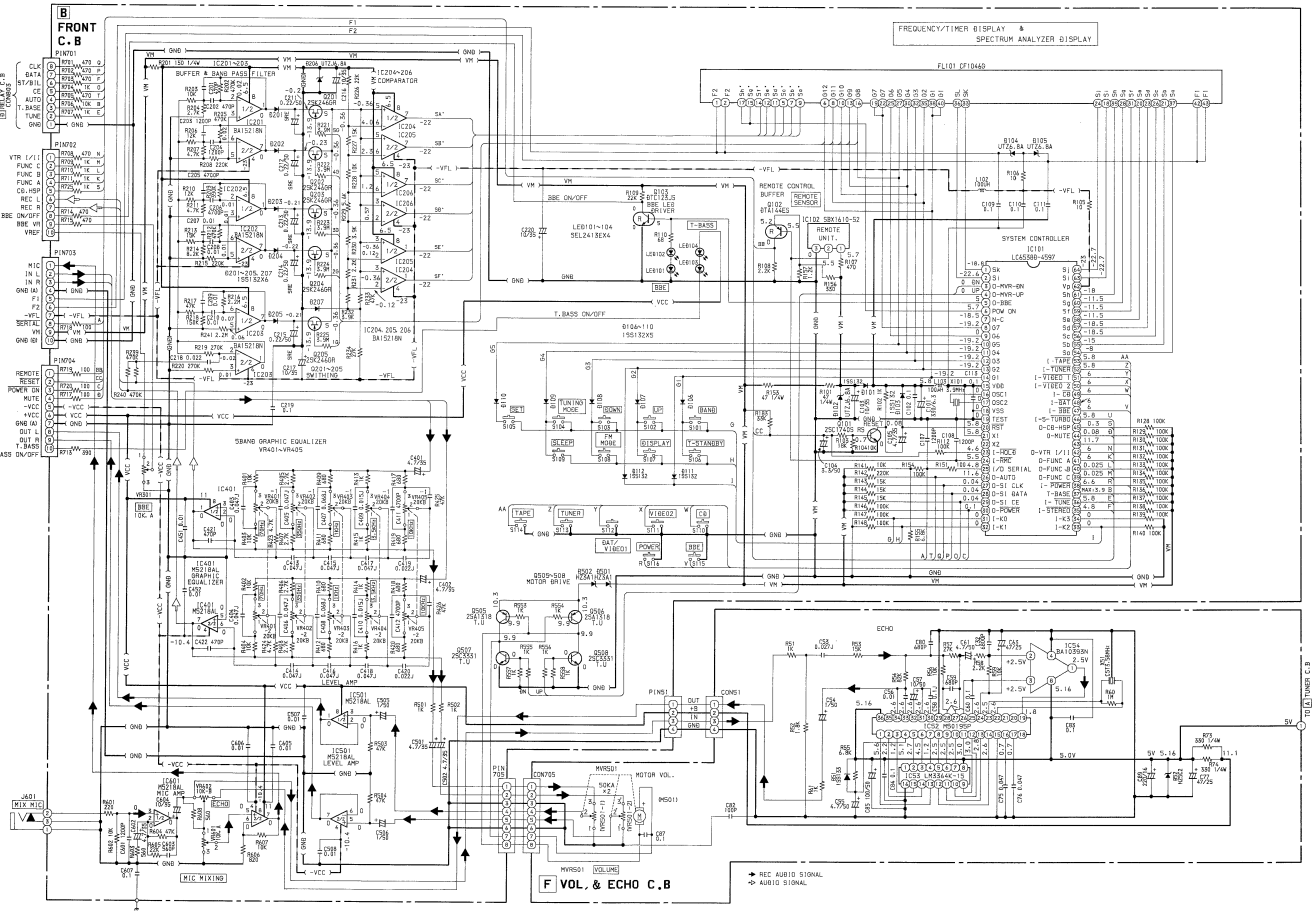
(プリント基板内のケミコンの極性表示はⓇ表示です。)

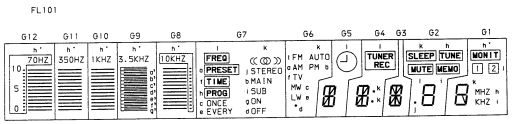
SCHEMATIC DIAGRAM – 1 (RX – N6)




F VOL, & ECHO C.B
B FRONT C.B
MVR501
VOLUME
VR602
ECHO
T-BASS
LED103, 104
LED101, 102
VR301
BBE
S115
BBE
VR405
10KHZ
VR404
3.5KHZ
VR403
1KHZ
VR402
350HZ
VR401
70HZ
5BAND GRAPHIC EQUALIZER
S116
POWER
TO A TUNER C.B
VR601
MIC
MIXING
J601
MIX MIC
C607
TO CHASSIS GND
TO A TUNER C.B VIA E RELAY C.B CON803
TO C AMP C.B CON702
TO C AMP C.B CON703
TO C AMP C.B CON704
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。)
S101
BAND
S102
UP
S103
DOWN
TUNING/PRESET TIMER
S110
CD
S111
VIDEO2
S112
SAT/VIDEO1
S113
TUNER
S114
TAPE
S104
TUNING MODE
S105
SET
S109
SLEEP
FL101
DISPLAY
S108
FM MODE
S107
DISPLAY
S106
T-STANDBY
IC204
REMOTE SENSOR
16
17
18

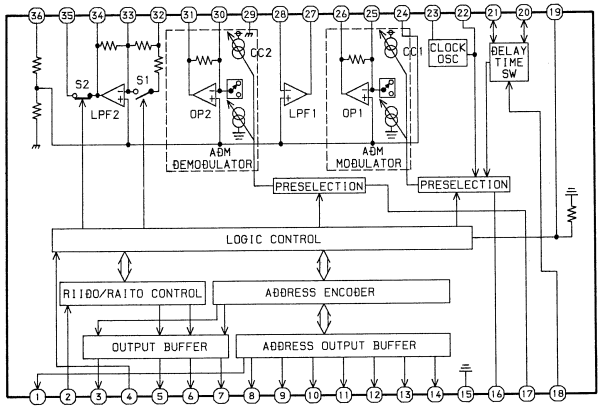
SCHEMATIC DIAGRAM – 2 (RX – N6)



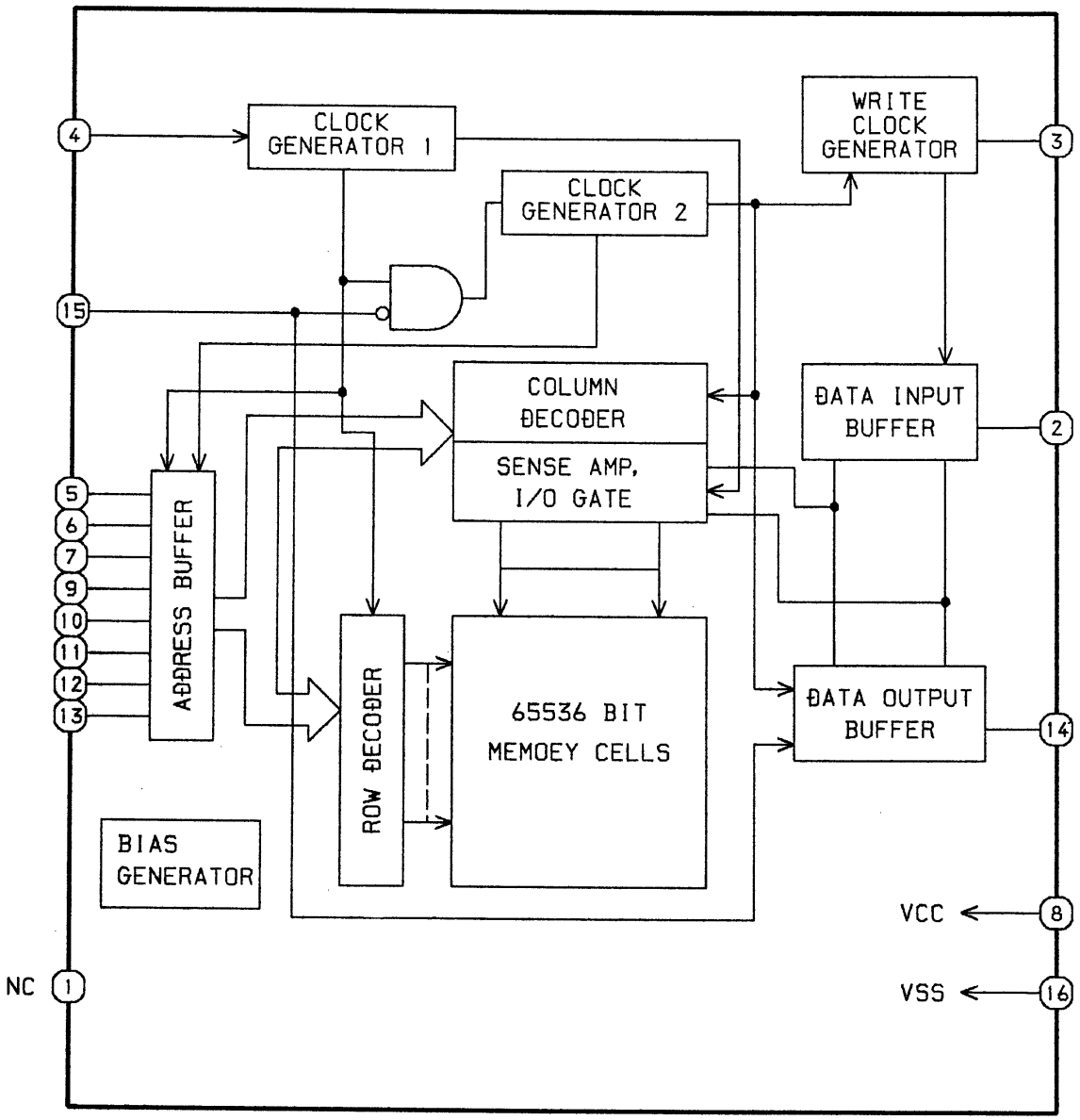


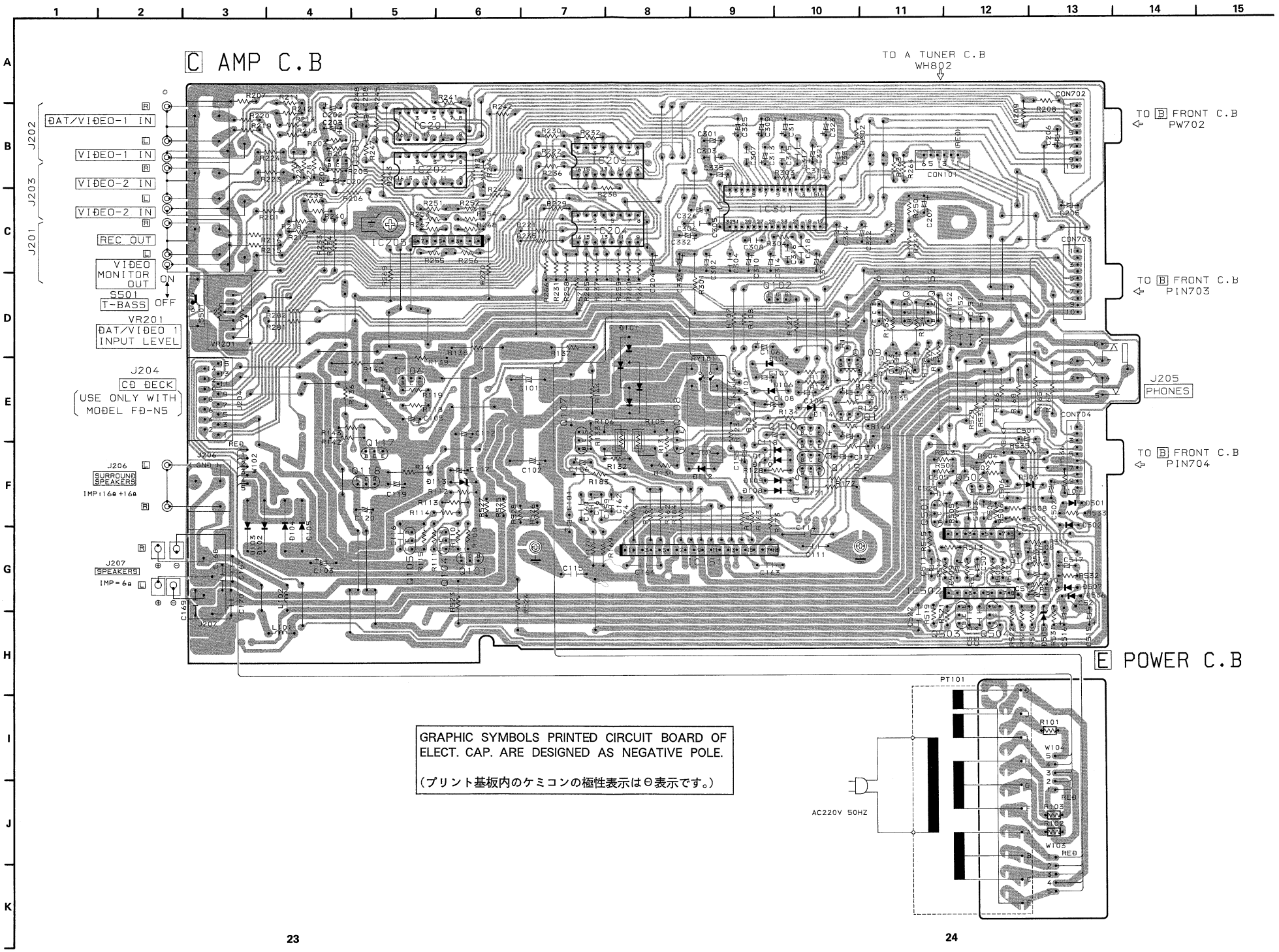
IC BLOCK DIAGRAM (RX – N6)

IC, M50195P

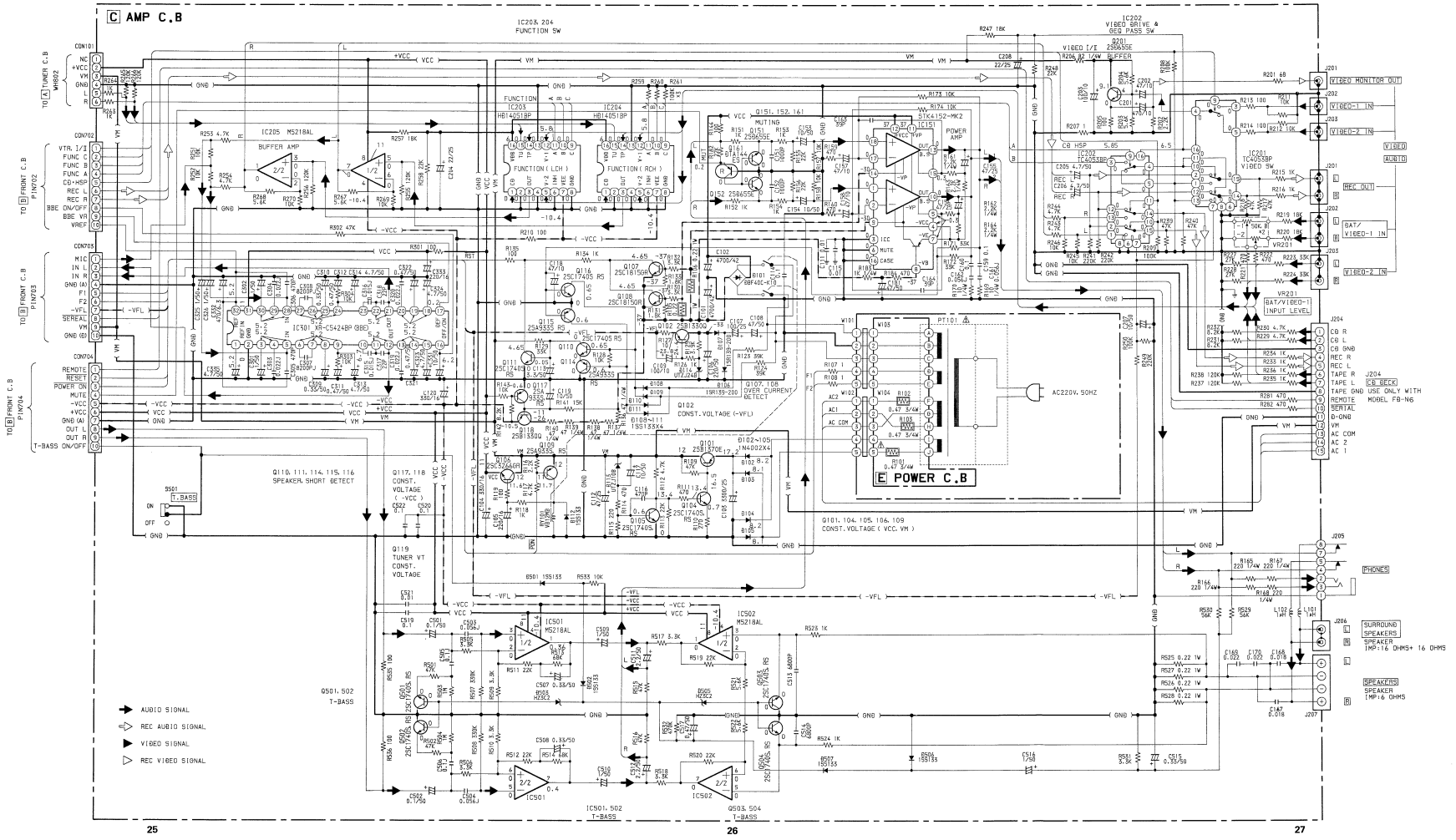


IC,LM3364K

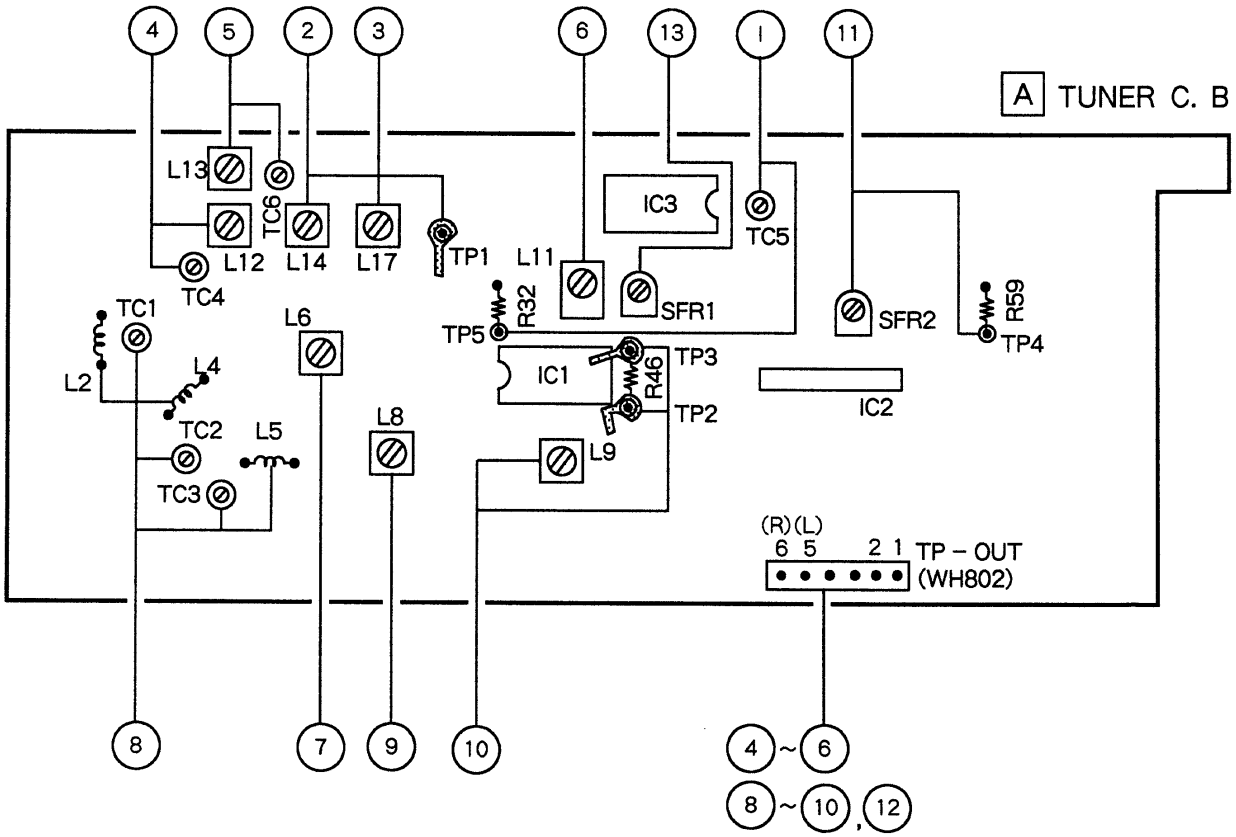

CLOCK GENERATOR 1
CLOCK GENERATOR 2
WRITE CLOCK GENERATOR
COLUMN DECODER
SENSE AMP, I/O GATE
DATA INPUT BUFFER
DATA OUTPUT BUFFER
ADDRESS BUFFER
ROW DECODER
65536 BIT MEMOEY CELLS
BIAS GENERATOR
4
3
15
5
6
7
9
10
11
12
13
2
14
8
16
1
NC
VCC
VSS


C AMP C.B
TO A TUNER C.B
WH802
TO B FRONT C.B
PW702
TO B FRONT C.B
PIN703
TO B FRONT C.B
PIN704
J205
PHONES
E POWER C.B
J202
J203
J201
DAT/VIDEO-1 IN
VIDEO-1 IN
VIDEO-2 IN
VIDEO-2 IN
REC OUT
VIDEO MONITOR OUT
S501
T-BASS
ON
OFF
VR201
DAT/VIDEO 1 INPUT LEVEL
J204
CD DECK
USE ONLY WITH MODEL FD-N5
J206
SURROUND SPEAKERS
IMP:16Ω+16Ω
J207
SPEAKERS
IMP=6Ω
PT101
AC220V 50HZ
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。)

SCHEMATIC DIAGRAM – 3 (RX – N6)



ADJUSTMENT (RX – N6)



1. Clock Frequency Adjustment
   Settings : • Test point : TP5
   • Adjustment location : TC5
   Method : Set to MW 1611kHz and adjust so that the test point becomes 2061kHz ± 0.01kHz

2. MW VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L14
   Method : Set to MW 522kHz and adjust L14 so that the test point becomes 1.0V ± 0.05V

3. LW VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L17
   Method : Set to LW 144kHz and adjust L17 so that the test point becomes 1.5V ± 0.05V.

4. MW Tracking Adjustment
   Settings : • Test point : TP – OUT (WH802)
   L12 ····· 603kHz
   TC4 ····· 1,404kHz

5. LW Tracking Adjustment
   Settings : • Test point : TP – OUT (WH802)
   L13 ····· 144kHz
   TC6 ····· 290kHz

6. AM IF Adjustment
   Settings : • Test point : TP – OUT (WH802)
   L11 ····· 450kHz

7. FM VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L6
   Method : Set to FM 108.0MHz and adjust L6 so that the test point becomes 9.0V ± 0.05V.

8. FM Tracking Adjustment
   Settings : • Test point : TP – OUT (WH802)
   L2,4,5 ····· 87.5MHz
   TC1,2,3 ····· 108.0MHz

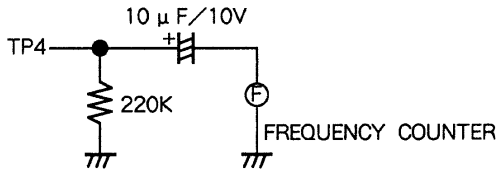
9. FM IF Adjustment
   Settings : • Test point : TP – OUT (WH802)
   L8 ····· 10.7MHz

10. DC Balance Adjustment
    Settings : • Test point : TP2,3
    TP – OUT (WH802) (Distortion)
    • Adjustment location : L9
    Method : Set to FM 98.0MHz and adjust L9 so that TP2 and TP3 output becomes 0V ± 0.02V.
    Next, check so that the distortion becomes less than 0.6 %

11. MPX VCO Adjustment

Settings : • Test point : TP4
• MODE SW : STEREO
• Adjustment location : SFR2

Method : Connect a capacitor and resitor as below. Set to FM 98.0MHz non modulation and adjust so that the frequency at test point becomes 38kHz ± 0.05kHz.



12. Separation Check

Settings : • Test point : TP – OUT (WH802)

Method : Set to FM 98.0MHz and check the separation at TP – OUT becomes more than 27dB.

13. Light on tuning LED Adjustment

Settings : • Adjustment location : SFR1
• Input level : 18dB

Method : Set to FM 98.0MHz and adjust TUNING LED to light on by SFR1. After that, LED goes out by 2dB down.

<FM SECTION>

Usable Sensitivity:	8 ± 4dB (at 87.5MHz)
(THD 3%)	6 ± 4dB (at 98.0/108.0MHz)
S/N 50dB Quienting Sensitivity:	
	Less than 38dB
	(at 87.5/98.0/108.0MHz)
Signal to Noise Ratio:	(MONO.)
	More than 68dB (at 98.0MHz)
	(STEREO)
	More than 60dB (at 98.0MHz)
Total Harmonic Distortion:	(MONO.)
	Less than 0.8% (at 98.0MHz)
	(STEREO)
	Less than 1.5% (at 98.0MHz)
Stereo Separation:	More than 27dB
Intermediate Frequency:	10.7MHz

<MW SECTION>

Sensitivity:	56 ± 4dB (at 603kHz)
(S/N 20dB)	52 ± 4dB (at 999/1404kHz)
Total Harmonic Distortion:	Less than 1.6% (at 999kHz)
Intermediate Frequency:	450kHz

<LW SECTION>

Sensitivity:	63 ± 5dB (at 153kHz)
(S/N 20dB)	60 ± 5dB (at 198/290kHz)
Total Harmonic Distortion:	Less than 1.2%
Intermediate Frequency:	450kHz

IC DESCRIPTION (RX – N6)

IC, LC6538D – 4597

Pin No.	Pin Name	I/O	Description
1	Sk	O	FL display segment output. Active "H".
2	SI	O	FL display segment output. Active "H".
3	O – MVR – DN	O	Motor volume up/down outputs.
4	O – MVR – UP	O	
5	O – BBE	O	BBE on/off output. "H" turns BBE on.
6	POW ON	O	Power on/off output. "H" turn the power on.
7	N. C	–	–
8 ≀ 14	G7 ≀ G1	O	Outputs for the FL display. Active "H" key scan outputs.
15	VDD	–	Power terminal
16	OCS1	–	Pins to generate a clock signal (3.9MHz).
17	OCS2	–	
18	TEST	–	Connected to ground
19	VSS	–	Connected to ground
20	$\overline{RST}$	I	Reset input. "L" when AC power is supplied.
21	X1	–	Crystal oscillator pin. Connected to VDD.
22	X2	–	Crystal oscillator pin. Unused. Open.
23	I – $\overline{HOLD}$	I	Power failure detection input "L" input turns off all output ports and shifts the unit to the HOLD mode (the clock stop and memory hold state). "L" is input when overcurrent is detected in the power amplifier block.
24	I – $\overline{RMC}$	I	Remote control signal input
25	I/O – SERIAL	I/O	DECK/CD sync input/output and auto function input.
26	O – AUTO	O	Outputs "H" when FM stereo is switched to AUTO.
27	O – SI CLK	O	Tuner PLL IC clock output.
28	O – SI DATA	O	Tuner PLL IC data output.
29	O – SI CE	O	Tuner PLL IC chip enable output.
30	O – $\overline{POWER}$	O	Power on/off output. "L" is output when the power is turned on.
31 ≀ 34	I – K0 ≀ I – K3	I	Key return inputs.
35	I – $\overline{STEREO}$	I	"L" is input when the tuner receives a stereo or bilingual program.
36	I – $\overline{TUNE}$	I	Tuning detection input of the tuner. "L" is input during tuning. "L" is input during auto scanning and performs auto stop and tuning display.
37	T – BASE	I	Clock signal (8kHz) input of the clock. Uses the frequency of the clock signal used in the Tuner PLL (LC7218).
38	I – $\overline{POWER}$	I	Input to turn the power on/off. Active "L".
39	O – FUNC C	O	Amplifier input switching (function) control outputs
40	O – FUNC B	O	
41	O – FUNC A	O	
42	O – VTR I / II	O	VIDEO I / II switching output. Outputs "H" for VIDEO I Outputs "L" for VIDEO II Outputs VIDEO I or II even when the power is turned off.

No	A	B	C	FUNCTION
1	H	L	L	TAPE
2	L	H	L	TUNER
3	H	H	L	VIDEO 1
4	L	L	H	CD
5	H	L	H	VIDEO 2
6	L	H	H	DAT
7	H	H	H	MUTE

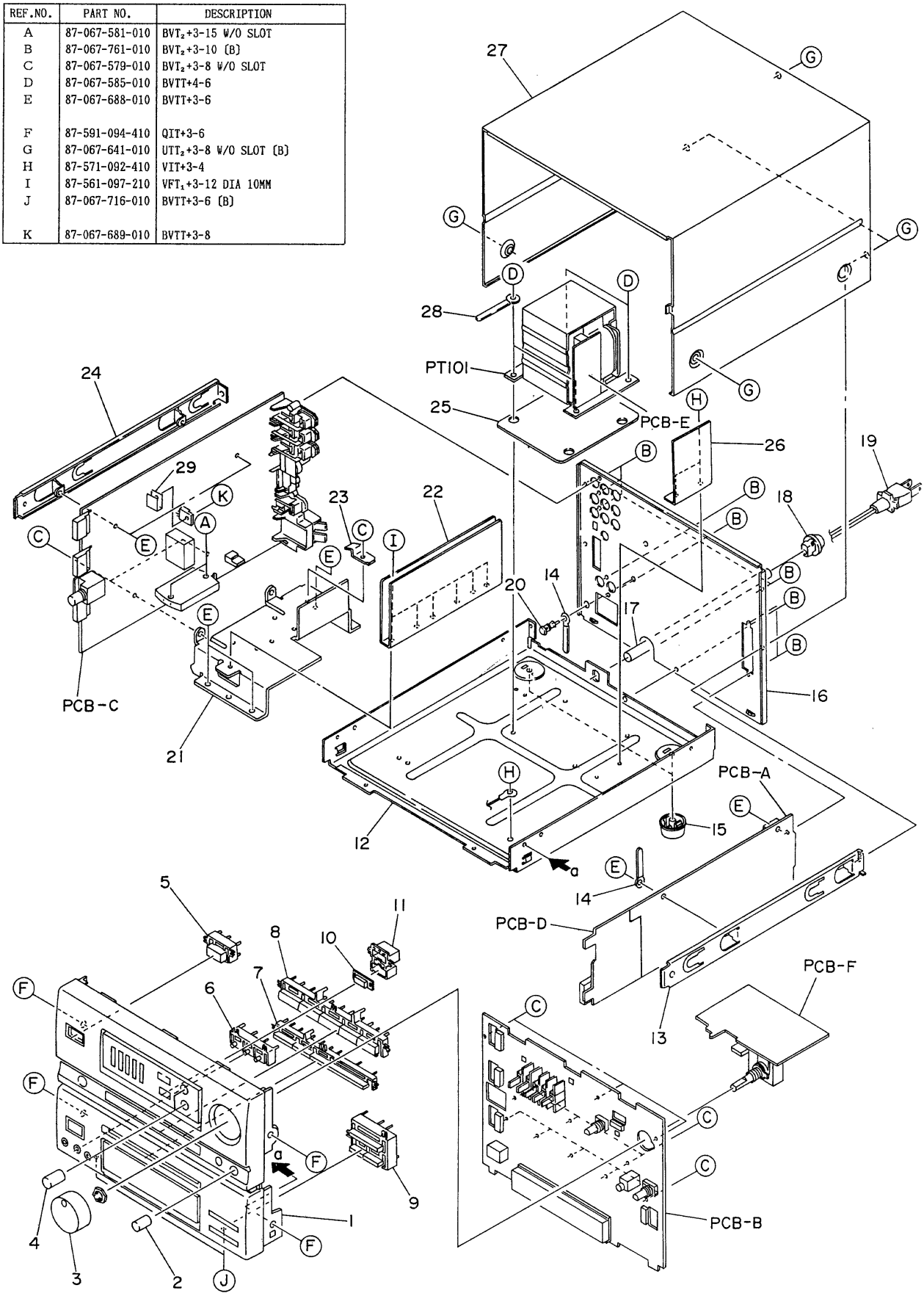
Pin No.	Pin Name	I/O	Description
43	N. C	–	Unused.
44	O – MUTE	O	Muting output. Active "H".
45	O – CD. HSP	O	Outputs "H" for CD double-speed play. Normally set to "L".
46	I – $\overline{\text{S. TURBO}}$	I	Input to turn T – BASS on or off. Active "L"
47	I – $\overline{\text{BBE}}$	I	Input to turn BBE on or off. Active "L".
48	I – $\overline{\text{DAT}}$	–	Unused.
49	I – $\overline{\text{CD}}$	I	Input to specify the CD function. Active "L".
50	I – $\overline{\text{VIDEO 2}}$	I	Input to specify the VIDOE I function. Active "L".
51	I – $\overline{\text{VIDEO 1}}$	I	Input to specify the VIDOE II function. Active "L".
52	I – $\overline{\text{TUNER}}$	I	Input to specify the tuner function. Active "L".
53	I – $\overline{\text{TAPE}}$	I	Input to specify the tape function. Active "L".
54 ≀ 61	Sa ≀ Sh	O	FL display segment outputs. Active "H".
62	Vp	–	FL driver negative power pin
63	Si	O	FL display segment outputs. Active "H".
64	Sj		

IC, LC7218

Pin No.	Pin Name	I/O	Description
1 24	X – IN X – OUT	–	A crystal oscillator (7.2MHz) is connected between these pins.
2 3 4	CE DATA CLK	I	When a key is operated, a signal is transmitted from the CPU (microprocessor). Active "H".
5 ≀ 8	– ≀ –	–	Open.
9	T – BASE	O	Outputs a reference clock signal (8Hz) for the clock.
10 11	–	–	Open.
12	FM AUTO – H	O	Outputs "H" when FM stereo switching is set to AUTO.
13	AM (MW) – L	O	Outputs "H" when an AM (MW) broadcast is received.
14 ≀ 16	– ≀ –	–	Open.
17	FM – L	O	Outputs "L" when an FM broadcast is received.
18	AM IN	I	Receives the AM local oscillator frequency signal.
19	FM IN	I	Receives the FM local oscillator frequency signal.
20	VDD	–	5V power supply pin.
21	E. O.	O	PLL charge pump output.
22	–	–	Open.
23	VSS	–	Connected to GND.

EXPLODED VIEW (RX – N6)

REF.NO.	PART NO.	DESCRIPTION
A	87-067-581-010	BVT_2+3-15 W/O SLOT
B	87-067-761-010	BVT_2+3-10 (B)
C	87-067-579-010	BVT_2+3-8 W/O SLOT
D	87-067-585-010	BVTT+4-6
E	87-067-688-010	BVTT+3-6
F	87-591-094-410	QIT+3-6
G	87-067-641-010	UTT_2+3-8 W/O SLOT (B)
H	87-571-092-410	VIT+3-4
I	87-561-097-210	VFT_1+3-12 DIA 10MM
J	87-067-716-010	BVTT+3-6 (B)
K	87-067-689-010	BVTT+3-8



MECHANICAL PARTS LIST (RX – N6)

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	1-1	★09-047-706-010	FRONT CABINET ASSY	*	1
	1-2	★80-MT3-014-019	KNOB, MIC	*	1
	1-3	★80-MT3-046-019	KNOB, VOLUME 6	*	1
	1-4	★80-MT3-013-019	KNOB, BBE	*	2
	1-5	★80-MT3-011-019	KEY, POWER	*	1
	1-6	★80-MT3-010-019	KEY, MODE	*	1
	1-7	★80-MT3-009-019	KEY, SLEEP	*	1
	1-8	★80-MT3-007-019	KEY, FUN	*	1
	1-9	★80-MT3-008-019	KEY, BAND	*	1
	1-10	★80-MT3-017-019	INDICATOR, BBE	*	1
	1-11	★80-MT3-204-019	GUIDE, LED	*	1
	1-12	---	CHASSIS, MAIN		1
	1-13	★80-MT3-202-019	HOLDER, PCB	*	1
	1-14	---	BINDER, WIRE		2
	1-15	★81-675-010-010	FOOT, H10		2
	1-16	★80-MT3-043-019	PANEL, REAR	*	1
	1-17	---	TUBE, UL8-200		1
⚠	1-18	★87-085-185-010	BUSHING, AC CORD		1
⚠	1-19	★87-034-781-010	AC CORD E		1
	1-20	★87-084-077-019	NYLON RIVET, DIA 3.5-4.5		1
	1-21	---	HEAT SHINK, EX		1
	1-22	---	HEAT SHINK, SUB		1
	1-23	★89-VP5-206-019	HOLDER, IC		1
	1-24	★80-MT3-206-019	HOLDER, PCB L	*	1
	1-25	★80-MT3-207-019	PLATE, SHIELD	*	1
	1-26	---	PLATE, SHIELD E6		1
	1-27	★80-MT3-029-018	CABINET, STEEL G	*	1
	1-28	---	BINDER, WIRE		1
	1-29	---	HEAT SHINK DBF40C-L		1

MODEL NO.

FD – N6

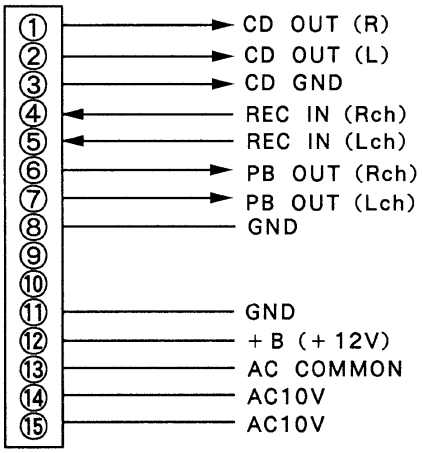
CAUTIONS WHEN SERVICING (FD – N6)

Model FD – N6 does not have a power supply circuit.
Power is supplied to it through a 15 – pin flat cable and the signal inputs/outputs are also performed through this cable.
When servicing the FD – N6 connect it to the RX – N6 so power is supplied to the FD – N6.
If the RX – N6 is not available, follow the procedure below.

[When servicing the unassembled FD – N6]

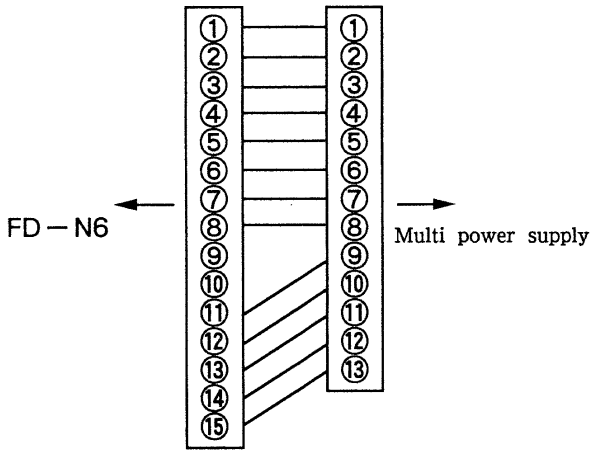
① Supply the following voltages to each terminal from an external power supply.

CON951



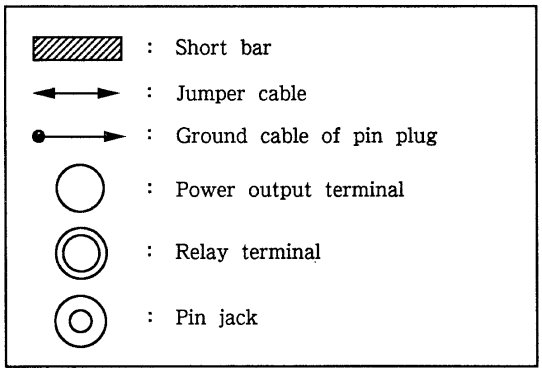
② Connection diagram when using multi power supply (LPS – 9088)

- Connect a multi – conversion harness for the Model FD – N6 to J1.

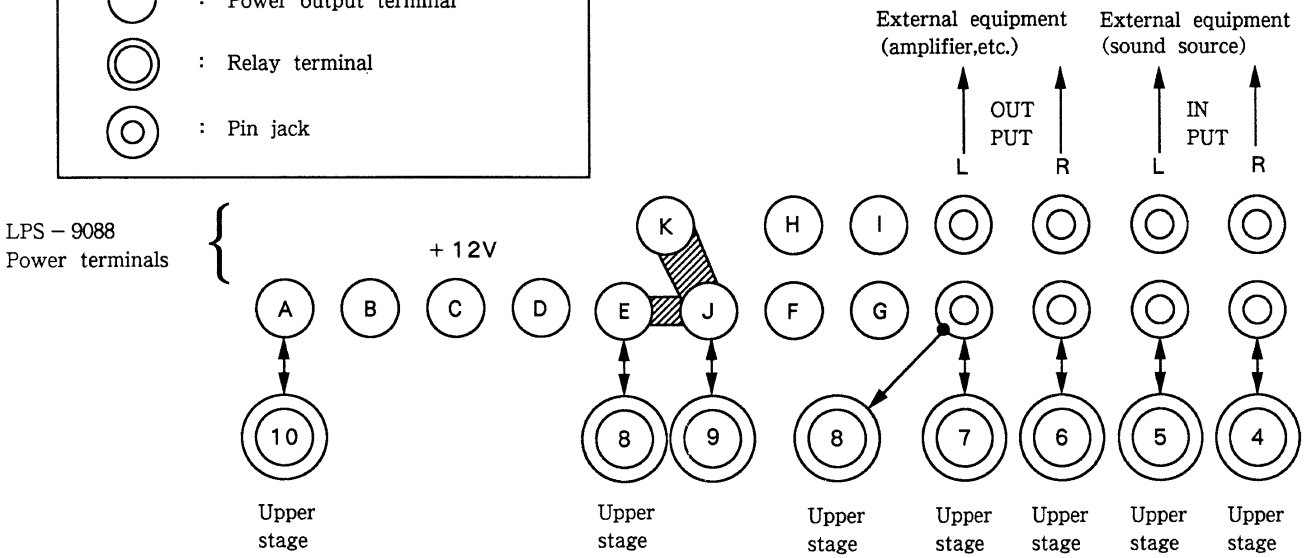


Connect a multi – conversion harness

◎DECK BLOCK REPAIRING

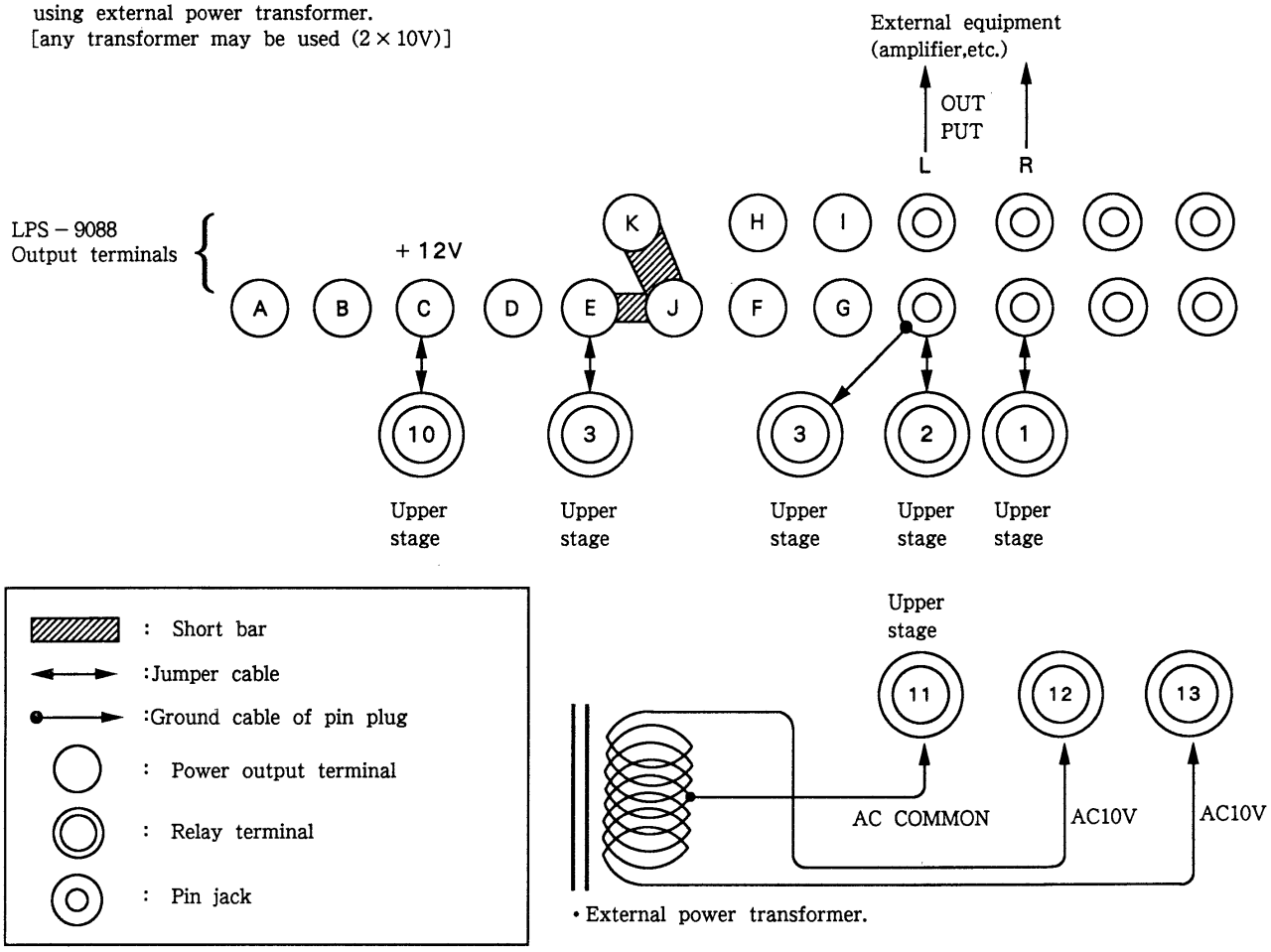


- After connecting the multi – conversion harness, short the anode of diode D809 to ground and then turn the multi power supply on.
(See illustlation on P56)



◎CD BLOCK REPAIRING

Supply AC 10volt to pin 12 and pin 13
using external power transformer.
[any transformer may be used (2 × 10V)]

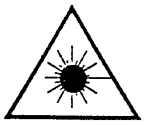


To turn on the CD PLAYER, short the TP10 (POWER ON) and TP4 (GND) for a moment (See illustlation on P48).

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.

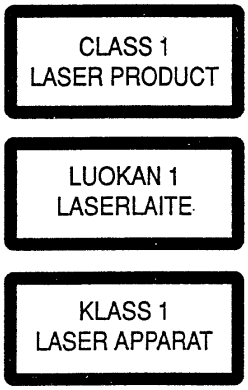
VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

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

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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

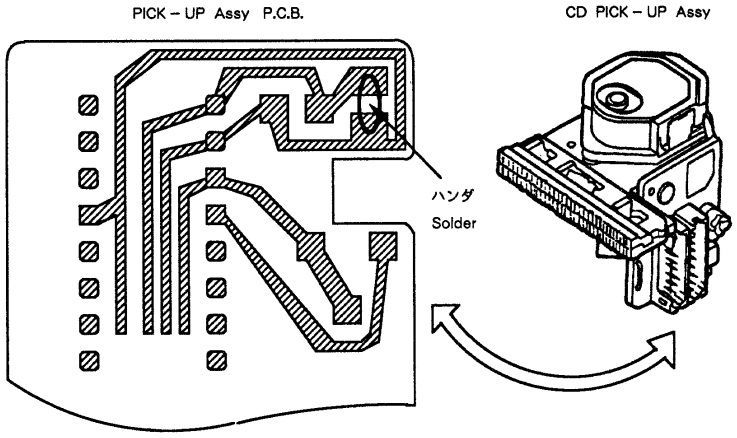
This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.



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 figure below.



ELECTRICAL MAIN PARTS LIST (FD – N6)

REF. NO.	PART NO.	DESCRIPTION
=== IC ===		
	87-001-440-010	IC, BA15218N
	87-002-247-010	IC, BU4052B
	87-002-282-010	IC, BU4066B
	87-001-184-010	IC, CXA1081S
	87-001-400-010	IC, CXA1082S
	87-001-944-010	IC, CXD1167Q
	80-MV3-618-110	IC, CXP50112-364Q
	87-002-211-010	IC, GP1F32T(OPTICAL)
	87-001-874-010	IC, HA12134A
⚠	87-001-132-019	IC, ICP-N38
⚠	87-020-840-010	IC, ICPN20
	87-002-215-010	IC, L780S05
	87-002-321-010	IC, L78LR05F
	87-001-173-010	IC, LA6510
	87-001-567-010	IC, LA6520
	87-001-334-010	IC, LB9051A
	80-MV3-617-010	IC, LC6568H-4591
	87-002-306-010	IC, LC7883
	87-027-895-010	IC, M5218AL
	87-020-758-010	IC, NJM2068SD
	87-027-827-010	IC, TC4069UBP
=== TRANSISTOR ===		
	89-503-735-010	FET, 2SK373GR
	87-026-463-010	TRANSISTOR, 2SA933S, SR
	89-109-521-010	TRANSISTOR, 2SA952K
	89-112-964-010	TRANSISTOR, 2SA1296Y
	89-112-965-010	TRANSISTOR, 2SA1296GR
	89-213-702-010	TRANSISTOR, 2SB1370E
	87-026-462-010	TRANSISTOR, 2SC1740S(RS)
	89-318-155-010	TRANSISTOR, 2SC1815GR
	89-320-011-010	TRANSISTOR, 2SC2001K
	89-325-002-319	TRANSISTOR, 2SC2500
	89-406-555-010	TRANSISTOR, 2SD655E
	87-026-500-010	TRANSISTOR, 2SD2144S UV
	87-026-483-010	TRANSISTOR, DTA123JS
	87-026-219-010	TRANSISTOR, DTA144ES
	87-026-218-010	TRANSISTOR, DTC144ES
=== DIODE ===		
	87-027-376-010	DIODE, 1B4B41
	87-001-559-010	DIODE, 1SS131
	87-020-465-010	DIODE, 1SS133
	87-020-110-010	DIODE, 1SS177
	87-020-123-080	DIODE, DS446
	87-027-662-010	DIODE, ZENER HZ22-1L
	87-027-286-010	DIODE, ZENER HZ5C1
	87-027-475-010	DIODE, ZENER HZ6B1
	87-027-332-010	DIODE, ZENER HZ6B1L
	87-001-913-010	DIODE, ZENER UTZJ5.6B
=== MAIN CIRCUIT BOARD SECTION ===		
C101	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C102	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C103	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C104	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C109	★87-018-121-010	CAP, CERA-SOL SS 150P-50 B
C110	★87-018-121-010	CAP, CERA-SOL SS 150P-50 B
C111	★87-010-404-010	CAP, ELECT 4.7-50 SME
C112	★87-010-404-010	CAP, ELECT 4.7-50 SME
C113	★87-010-404-010	CAP, ELECT 4.7-50 SME
C114	★87-010-404-010	CAP, ELECT 4.7-50 SME
C115	★87-010-101-010	CAP, ELECT 220-16 SME
C116	★87-018-214-019	CAP, CERA-SOL SS 0.1-50F
C117	★87-018-214-019	CAP, CERA-SOL SS 0.1-50F
C201	★87-018-125-010	CAP, CERA-SOL SS 330P-50 B
C202	★87-018-125-010	CAP, CERA-SOL SS 330P-50 B
C203	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C204	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C207	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C208	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C211	★87-010-404-010	CAP, ELECT 4.7-50 SME
C212	★87-010-404-010	CAP, ELECT 4.7-50 SME
C213	★87-010-101-010	CAP, ELECT 220-16 SME
C251	★87-018-133-010	CAP, CERA-SOL SS 4700P-16 X
C252	★87-018-100-010	CAP, CERA-SOL SS 4.7P-50 SL
C253	★87-018-132-010	CAP, CERA-SOL SS 2200P-16 X
C255	★87-018-121-010	CAP, CERA-SOL SS 150P-50 B
C256	★87-010-374-010	CAP, ELECT 47-10
C257	★87-010-401-010	CAP, ELECT 1-50 SME
C258	★87-018-100-010	CAP, CERA-SOL SS 4.7P-50 SL
C259	★87-018-131-010	CAP, CERA-SOL SS 1000P-50 B
C301	★87-018-119-010	CAP, CERA-SOL SS 100P-50 B
C302	★87-018-119-010	CAP, CERA-SOL SS 100P-50 B
C303	★87-018-198-010	CAP, CERA-SOL SS 2700P-16 X
C304	★87-018-198-010	CAP, CERA-SOL SS 2700P-16 X
C305	★87-010-404-010	CAP, ELECT 4.7-50 SME
C306	★87-010-404-010	CAP, ELECT 4.7-50 SME
C323	★87-018-128-010	CAP, CERA-SOL SS 560P-50 B
C324	★87-018-128-010	CAP, CERA-SOL SS 560P-50 B
C401	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C402	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C403	★87-014-068-010	CAP, PP 3000P
C409	★87-010-402-010	CAP, ELECT 2.2-50 SME
C410	★87-010-381-010	CAP, ELECT 330-16 SME
C411	★87-010-221-010	CAP, ELECT 470-10
C451	★87-018-131-010	CAP, CERA-SOL SS 1000P-50 B
C453	★87-018-119-010	CAP, CERA-SOL SS 100P-50 B
C454	★87-018-119-010	CAP, CERA-SOL SS 100P-50 B
C501	★87-018-130-010	CAP, CERA-SOL SS 820P-50 B
C502	★87-018-130-010	CAP, CERA-SOL SS 820P-50 B
C503	★87-018-132-010	CAP, CERA-SOL SS 2200P-16 X
C504	★87-018-132-010	CAP, CERA-SOL SS 2200P-16 X
C505	★87-010-404-010	CAP, ELECT 4.7-50 SME
C506	★87-010-404-010	CAP, ELECT 4.7-50 SME
C511	★87-010-545-010	CAP, ELECT 0.22-50 SME
C512	★87-010-545-010	CAP, ELECT 0.22-50 SME
C513	★87-018-214-019	CAP, CERA-SOL SS 0.1-50F
C514	★87-010-404-010	CAP, ELECT 4.7-50 SME
C515	★87-010-404-010	CAP, ELECT 4.7-50 SME
C516	★87-018-214-019	CAP, CERA-SOL SS 0.1-50F
C517	★87-010-371-010	CAP, ELECT 470-6.3
C519	★87-015-688-010	CAP, ELECT 4.7-35 7L
C520	★87-015-688-010	CAP, ELECT 4.7-35 7L
C601	★87-010-404-010	CAP, ELECT 4.7-50 SME
C602	★87-010-381-010	CAP, ELECT 330-16 SME
C603	★87-010-101-010	CAP, ELECT 220-16 SME
C604	★87-010-237-010	CAP, ELECT 1000-16
C801	★87-010-371-010	CAP, ELECT 470-6.3
C851	★87-010-404-010	CAP, ELECT 4.7-50 SME
C951	★87-018-127-010	CAP, CERA-SOL SS 470P-50 B
C952	★87-018-133-010	CAP, CERA-SOL SS 4700P-16 X
C953	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
CF801	★89-MX1-704-010	CERALOCK(MU)3.9MHZ
CON951	★80-MV3-606-010	CORD, FG15P R(TUNER)
⚠FR701	87-029-019-010	RES, FUSIBLE 2.2-1/2W

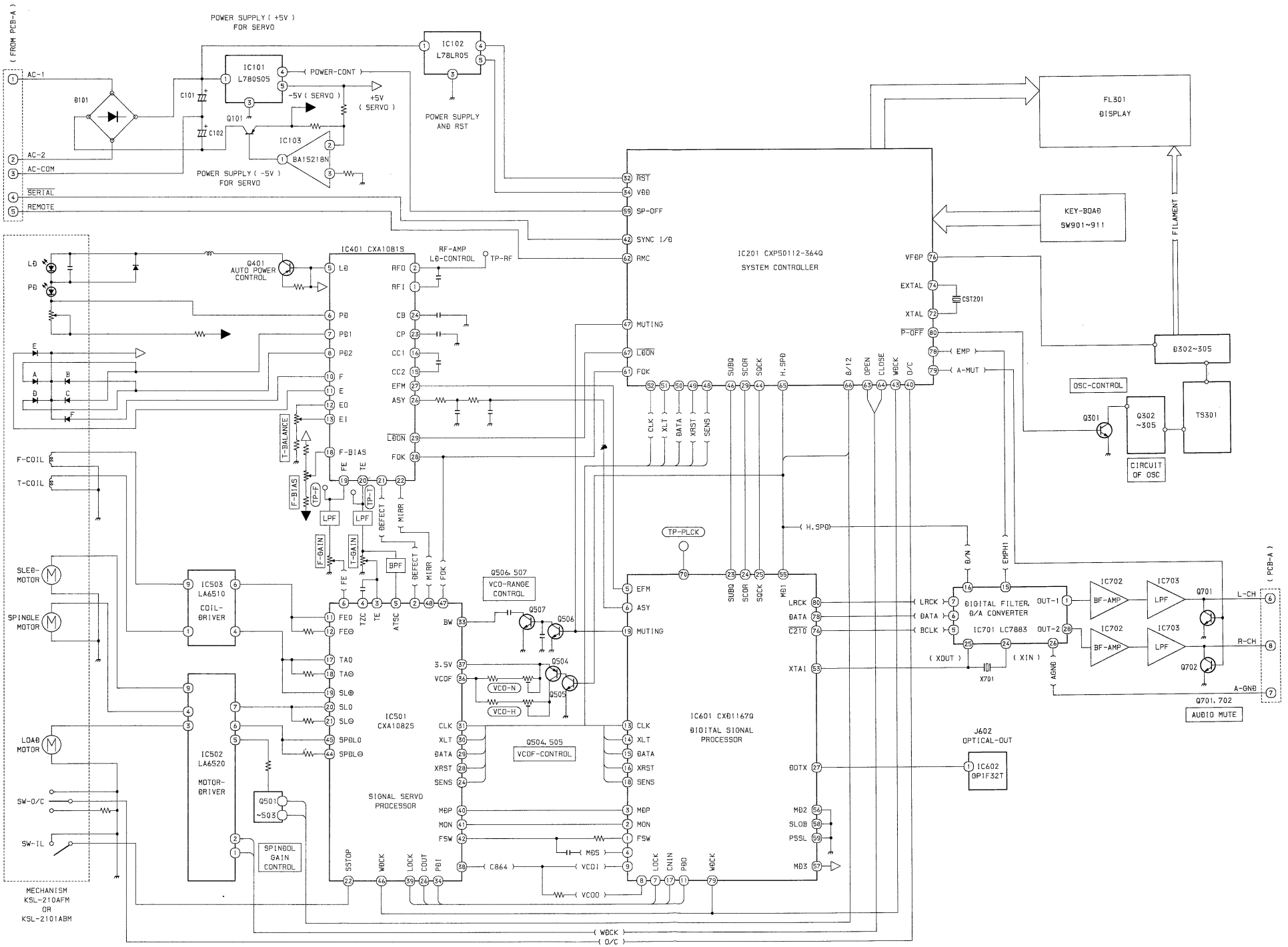
REF. NO.	PART NO.	DESCRIPTION
L301	★87-005-525-010	COIL, 22MMH-J
L302	★87-005-525-010	COIL, 22MMH-J
L303	★87-003-131-010	COIL, 10MMH J
L304	★87-003-131-010	COIL, 10MMH J
L305	★87-003-123-010	COIL, 2.2MMH J
L306	★87-003-123-010	COIL, 2.2MMH J
L401	★80-VW1-605-010	COIL, OSC BIAS 108K
L601	★87-003-060-010	COIL, 12UH
R405	★87-025-471-010	RES, NF 4.7-1/4W J
SFR101	★87-024-349-010	SFR, 1K DIA6 H
SFR102	★87-024-349-010	SFR, 1K DIA6 H
SFR201	★87-024-349-010	SFR, 1K DIA6 H
SFR202	★87-024-349-010	SFR, 1K DIA6 H
SFR301	★87-024-353-010	SFR, 10K DIA6 H
SFR302	★87-024-353-010	SFR, 10K DIA6 H
SFR401	★87-024-356-010	SFR, 47K DIA6 H
SFR402	★87-024-356-010	SFR, 47K DIA6 H
::: FRONT CIRCUIT BOARD SECTION :::		
LED911	87-002-353-010	LED, SLR-33MC(REV PLAY)(DECK2)
LED912	87-002-353-010	LED, SLR-33MC(FWD PLAY)(DECK2)
LED913	87-002-354-010	LED, SLR-33DC(PAUSE)(DECK2)
LED914	87-002-355-010	LED, SLR-33VC(REC)(DECK2)
LED915	87-002-353-010	LED, SLR-33MC(FWD PLAY)(DECK1)
LED916	87-002-353-010	LED, SLR-33MC(REV PLAY)(DECK1)
LED917	87-002-353-010	LED, SLR-33MC(DOLBY NR)
LED918	87-002-353-010	LED, SLR-33MC(REV MODE ⮌)
LED919	87-002-353-010	LED, SLR-33MC(REV MODE ⇄)
LED920	87-002-355-010	LED, SLR-33VC(SYNC DUBBING)
LED921	87-002-355-010	LED, SLR-33VC(CD SYNC REC)
SW901	87-036-142-010	TACT SW(OPEN/CLOSE)
SW902	87-036-142-010	TACT SW(F.REW/B.SKIP)
SW903	87-036-142-010	TACT SW(F.FWD/B.SKIP)
SW904	87-036-142-010	TACT SW(REPEAT/BLANK)
SW905	87-036-142-010	TACT SW(RANDOM)
SW906	87-036-142-010	TACT SW(STOP/CLEAR)
SW907	87-036-142-010	TACT SW(PLAY/PAUSE)
SW908	87-036-142-010	TACT SW(PRGM/CHECK)
SW909	87-036-142-010	TACT SW(DISPLAY)
SW910	87-036-142-010	TACT SW(ACTIV EDIT, AUTO/AI)
SW911	87-036-142-010	TACT SW(ACTIV EDIT, PRGM/CONT)
SW921	87-036-142-010	TACT SW(STOP)(DECK2)
SW922	87-036-142-010	TACT SW(CD SYNC REC, NORM)
SW923	87-036-142-010	TACT SW(REW)(DECK2)
SW924	87-036-142-010	TACT SW(CD SYNC REC HIGH(H, E, Z)
SW925	87-036-142-010	TACT SW(PLAY)(DECK2)
SW926	87-036-142-010	TACT SW(PAUSE)(DECK2)
SW927	87-036-142-010	TACT SW(FF)(DECK2)
SW928	87-036-142-010	TACT SW(REC)(DECK2)
SW929	87-036-142-010	TACT SW(REVERSE MODE)
SW930	87-036-142-010	TACT SW(STOP)(DECK1)
SW931	87-036-142-010	TACT SW(SYNC DUBBING, NORM)
SW932	87-036-142-010	TACT SW(REW)(DECK1)
SW933	87-036-142-010	TACT SW(SYNC DUBBING, HIGH)
SW934	87-036-142-010	TACT SW(PLAY)(DECK1)
SW935	87-036-142-010	TACT SW(FF)(DECK1)
SW936	87-036-142-010	TACT SW(DOLBY NR)
::: DECK-1 CIRCUIT BOARD SECTION :::		
M1	87-045-320-010	MOTOR SHW2L
SFR1	★87-024-331-010	SFR, 5K
SFR2	★87-024-331-010	SFR, 5K
SOL1	★86-575-622-010	SOLENOID(FR)

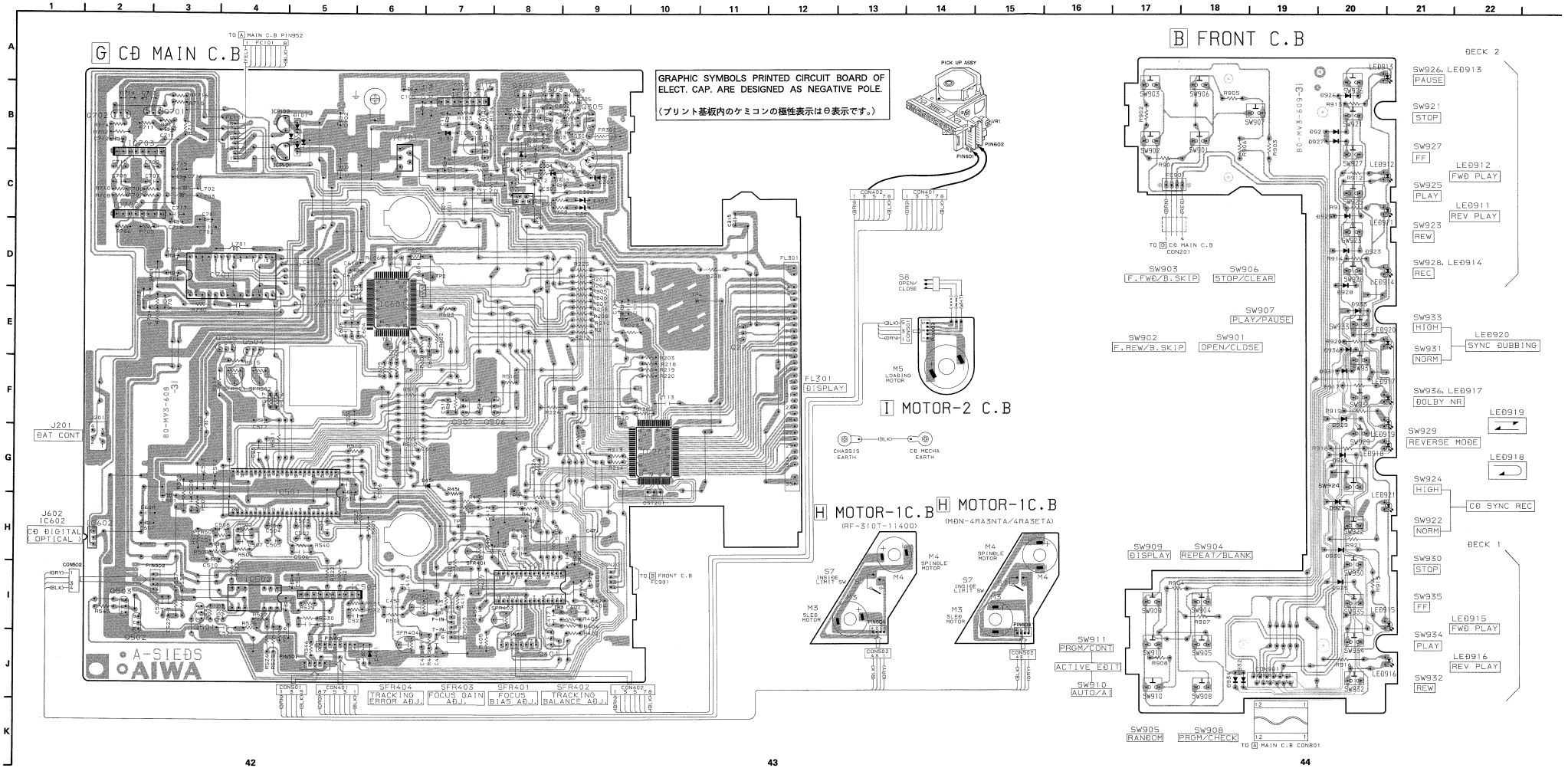
REF. NO.	PART NO.	DESCRIPTION
SOL2	★86-575-622-010	SOLENOID(PLAY)
SW1	87-036-110-010	PUSH SW(CRO2)
SW2	87-036-110-010	PUSH SW(CST)
SW3	86-575-632-010	LEAF SW(FR)
SW4	87-036-110-010	PUSH SW(PLAY)
::: DECK-2 CIRCUIT BOARD SECTION :::		
M11	87-045-320-010	MOTOR SHW2L
SFR11	★87-024-331-010	SFR, 5K
SFR12	★87-024-331-010	SFR, 5K
SOL11	★86-575-622-010	SOLENOID(FR)
SOL12	★86-575-622-010	SOLENOID(PLAY)
SW11	87-036-110-010	PUSH SW(MT)
SW12	87-036-110-010	PUSH SW(REB)
SW13	87-036-109-010	PUSH SW(REA)
SW14	87-036-110-010	PUSH SW(CRO2)
SW15	87-036-110-010	PUSH SW(CST)
SW16	86-575-632-010	LEAF SW(FR)
SW17	87-036-110-010	PUSH SW(PLAY)
::: RELAY-1 CIRCUIT BOARD SECTION :::		
::: RELAY-2 CIRCUIT BOARD SECTION :::		
::: CD MAIN CIRCUIT BOARD SECTION :::		
C101	★87-010-124-010	CAP, ELECT 4700-16
C102	★87-010-262-010	CAP, ELECT 3300-16 SME
C103	★87-010-374-010	CAP, ELECT 47-10
C104	★87-010-265-010	CAP, ELECT 33-16 SME
C105	★87-010-265-010	CAP, ELECT 33-16 SME
C106	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C107	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C108	★87-010-374-010	CAP, ELECT 47-10
C109	★87-010-544-010	CAP, ELECT 0.1-50
C110	★87-015-676-010	CAP, ELECT 47-6.3 7L
C111	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C112	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C113	★87-018-214-010	CAP, CERA-SOL SS 0.1-50 F
C201	★87-018-214-010	CAP, CERA-SOL SS 0.1-50 F
C202	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C305	★87-010-384-010	CAP, ELECT 100-25 SME
C306	★87-010-384-010	CAP, ELECT 100-25 SME
C308	★87-010-237-010	CAP, ELECT 1000-16 SME
C401	★87-010-374-010	CAP, ELECT 47-10
C402	★87-018-132-010	CAP, CERA-SOL SS 2200P-16 X
C404	★87-010-374-010	CAP, ELECT 47-10
C405	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C406	★87-010-374-010	CAP, ELECT 47-10
C407	★87-010-374-010	CAP, ELECT 47-10
C408	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C411	★87-010-400-010	CAP, ELECT 0.47-50 SME
C414	★87-018-203-010	CAP, CERA-SOL SS 8200P-16 Y
C417	★87-018-140-010	CAP, CERA-SOL SS 2.2P-50 CH
C450	★87-018-134-010	CAP, CERA-SOL SS0.01-16Y
C451	★87-018-131-010	CAP, CERA-SOL SS1000P-50B
C471	★87-018-214-019	CAP, CERA-SOL SS 0.1-50 F
C504	★87-010-404-010	CAP, ELECT 4.7-50 SME
C506	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C507	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C509	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C510	★87-010-404-010	CAP, ELECT 4.7-50 SME

REF. NO.	PART NO.	DESCRIPTION
C511	★87-010-545-010	CAP, ELECT 0.22-50 SME
C512	★87-010-374-010	CAP, ELECT 47-10
C513	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C514	★87-010-374-010	CAP, ELECT 47-10
C515	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C516	★87-018-123-010	CAP, CERA-SOL SS 220P-50 B
C517	★87-010-374-010	CAP, ELECT 47-10
C518	★87-015-695-010	CAP, ELECT 1-50 7L
C519	★87-015-696-010	CAP, ELECT 2.2-50 7L
C521	★87-018-214-010	CAP, CERA-SOL SS 0.1-50 F
C522	★87-018-214-010	CAP, CERA-SOL SS 0.1-50 F
C523	★87-018-214-010	CAP, CERA-SOL SS 0.1-50 F
C524	★87-010-265-010	CAP, ELECT 33-16 SME
C525	★87-010-265-010	CAP, ELECT 33-16 SME
C526	★87-018-214-010	CAP, CERA-SOL SS 0.1-50 F
C527	★87-018-214-010	CAP, CERA-SOL SS 0.1-50 F
C602	★87-018-131-010	CAP, CERA-SOL SS 1000P-50 B
C604	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C605	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C606	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C607	★87-010-374-010	CAP, ELECT 47-10
C608	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C609	★87-015-694-010	CAP, ELECT 0.47-50
C610	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C611	★87-010-374-010	CAP, ELECT 47-10
C620	★87-018-104-010	CAP, CERA-SOL SS 10P-50 SL
C701	★87-010-374-010	CAP, ELECT 47-10
C702	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C703	★87-018-150-010	CAP, CERA-SOL SS 18P-50 CH
C704	★87-018-150-010	CAP, CERA-SOL SS 18P-50 CH
C705	★87-010-404-010	CAP, ELECT 4.7-50 SME
C706	★87-010-404-010	CAP, ELECT 4.7-50 SME
C711	★87-010-403-010	CAP, ELECT 3.3-50 SME
C712	★87-010-403-010	CAP, ELECT 3.3-50 SME
C713	★87-018-131-010	CAP, CERA-SOL SS 1000P-50 B
C714	★87-018-131-010	CAP, CERA-SOL SS 1000P-50 B
C715	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C716	★87-010-374-010	CAP, ELECT 47-10
C717	★87-018-134-010	CAP, CERA-SOL SS 0.01-16 Y
C718	★87-010-374-010	CAP, ELECT 47-10
C730	★87-018-118-010	CAP, CERA-SOL SS 47P-50SL
CST201	★87-008-394-010	FILTER, CERAMIC CST 4.19MGW
EMI1	★87-008-372-019	FILTER, EMI BL OIRNI
FL301	80-VX1-621-010	FL, 5-BT-125G(DISPLAY)
⚠FR301	87-029-066-010	RES, FUSIBLE 1.5 1/2W
⚠FR302	87-029-066-010	RES, FUSIBLE 1.5 1/2W
J201	87-009-413-010	CONN, 4P FG(DAT CONT)
J602	87-002-211-010	IC, GP1F 32T (OPTICAL)(IC602)
L301	★87-003-136-010	COIL, 100UH
L401	★87-003-147-010	COIL, 22UH
L501	★87-003-147-010	COIL, 22UH
L502	★87-003-147-010	COIL, 22UH
L601	★87-003-136-010	COIL, 100UH
L701	★87-005-135-010	COIL, LA04NA 220UH
L702	★87-003-102-019	COIL, 10UH
L703	★87-003-102-019	COIL, 10UH
R516	★87-025-422-010	RES, MF 3.3K-1/6W F
R517	★87-025-371-010	RES, MF 2.7K-1/6W F
R604	★87-025-425-010	RES, MF 12K-1/6W F
R605	★87-025-425-010	RES, MF 12K-1/6W F
SFR401	★87-024-173-010	SFR, 22K DIA6 V
SFR402	★87-024-173-010	SFR, 22K DIA6 V
SFR403	★87-024-173-010	SFR, 22K DIA6 V
SFR404	★87-024-173-010	SFR, 22K DIA6 V
SFR501	★87-024-360-010	SFR, 2.2K
SFR502	★87-024-360-010	SFR, 2.2K
TS301	★84-733-626-010	TRANSFORMER, OSC FL
X701	★84-733-617-010	RESONATER, CRYSTAL 16.9344MHZ
=== MOTOR-1 CIRCUIT BOARD SECTION ===		
※PCB-H	91-625-848-110	MOTOR-1 C.B(RF-310T-11400)
※PCB-H	91-628-263-110	MOTOR-1 C.B(MDN-4RA3NTAS/4RA3EA)
※M3	9X-264-077-010	MOTOR GEAR ASSY(SLED)
※M3	9X-264-134-410	MOTOR GEAR ASSY(SLED)
※M4	9X-264-133-710	MOTOR ASSY(SPINDLE)
※M4	9X-264-135-810	MOTOR ASSY(SPINDLE)
S7	91-572-053-110	LEAF SW(INSIDE LIMIT)
=== MOTOR-2 CIRCUIT BOARD SECTION ===		
M5	9X-246-133-610	MOTOR ASSY(LOADING)
===MISCELLANEOUS===		
	98-848-127-11Z	OPTICAL PICK UP KSS-210A
PH1	87-046-355-010	P HEAD(DECK1)
RPEH	87-046-356-010	R.P.E HEAD(DECK2)
S8	91-572-052-110	LEAF SW(OPEN/CLOSE)

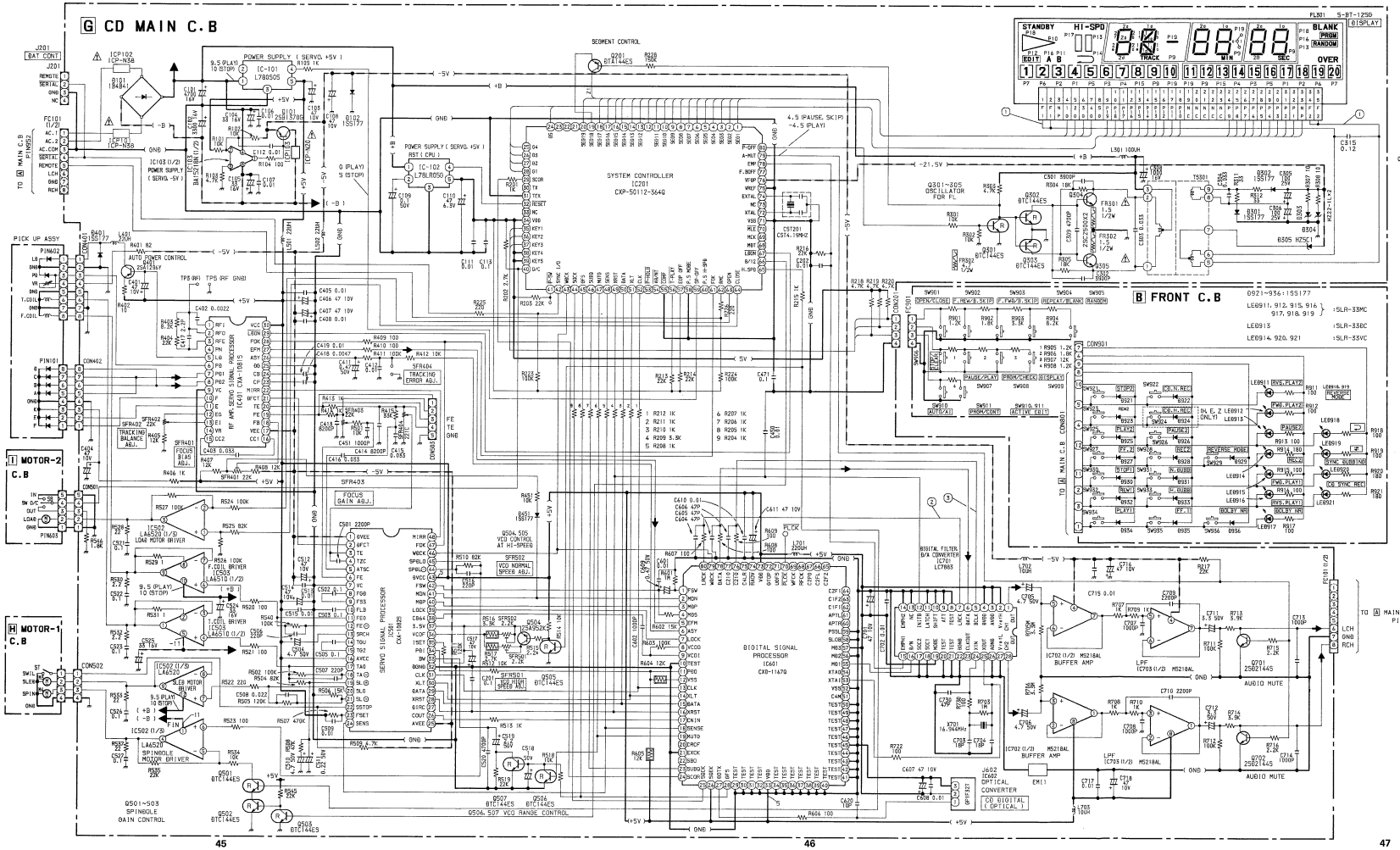
※ Caution
Two types of the spindle (DISC) motor and sled motor are used, but they are not compatible.
Check the part numbers (MDN…, RF…) on the labels of motors and replace motors with the same one.

BLOCK DIAGRAM – 1 (FD – N6)




G CD MAIN 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⊖表示です。)
B FRONT C.B
I MOTOR-2 C.B
H MOTOR-1C.B
H MOTOR-1C.B
(RF-310T-11400)
(MDN-4RA3NTA/4RA3ETA)
J201 BAT CONT
J602 IC602 CD DIGITAL (OPTICAL)
FL301 DISPLAY
PICK UP ASSY
S8 OPEN/CLOSE
M5 LOADING MOTOR
CHASSIS EARTH
CD MECHA EARTH
M4 SPINDLE MOTOR
S7 INSIDE LIMIT SW
M3 SLED MOTOR
SW911 PRGM/CONT
ACTIVE EDIT
SW910 AUTO/A
SW903 F.FWD/B.SKIP
SW906 STOP/CLEAR
SW907 PLAY/PAUSE
SW902 F.REW/B.SKIP
SW901 OPEN/CLOSE
SW905 RANDOM
SW908 PRGM/CHECK
SW909 DISPLAY
SW904 REPEAT/BLANK
DECK 2
SW926, LED913 PAUSE
SW921 STOP
SW927 FF
LED912 FWD PLAY
SW925 PLAY
LED911 REV PLAY
SW923 REW
SW928, LED914 REC
SW933 HIGH
SW931 NORM
LED920 SYNC DUBBING
SW936, LED917 DOLBY NR
LED919
SW929 REVERSE MODE
LED918
SW924 HIGH
SW922 NORM
CD SYNC REC
DECK 1
SW930 STOP
SW935 FF
LED915 FWD PLAY
SW934 PLAY
LED916 REV PLAY
SW932 REW
SFR404 TRACKING ERROR ADJ.
SFR403 FOCUS GAIN ADJ.
SFR401 FOCUS BIAS ADJ.
SFR402 TRACKING BALANCE ADJ.
A-SIEDS
AIWA
80-MV3-609-E1
80-MV3-609-E1

SCHEMATIC DIAGRAM – 1 (FD – N6)

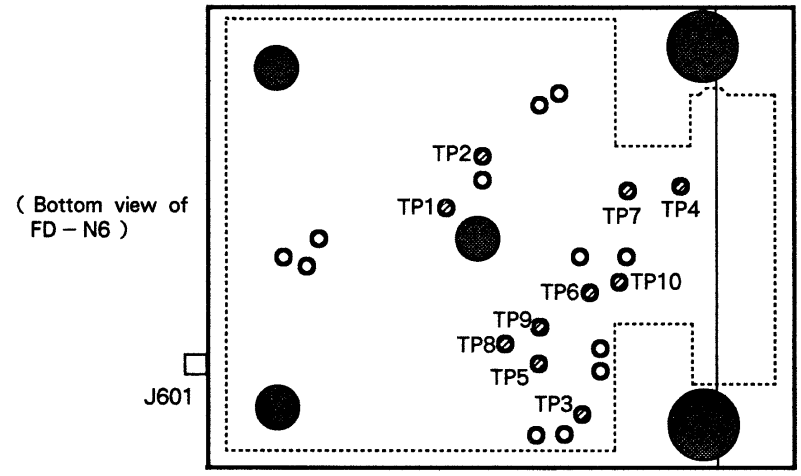


ADJUSTMENT – 1 (FD – N6)

< CD SECTION >

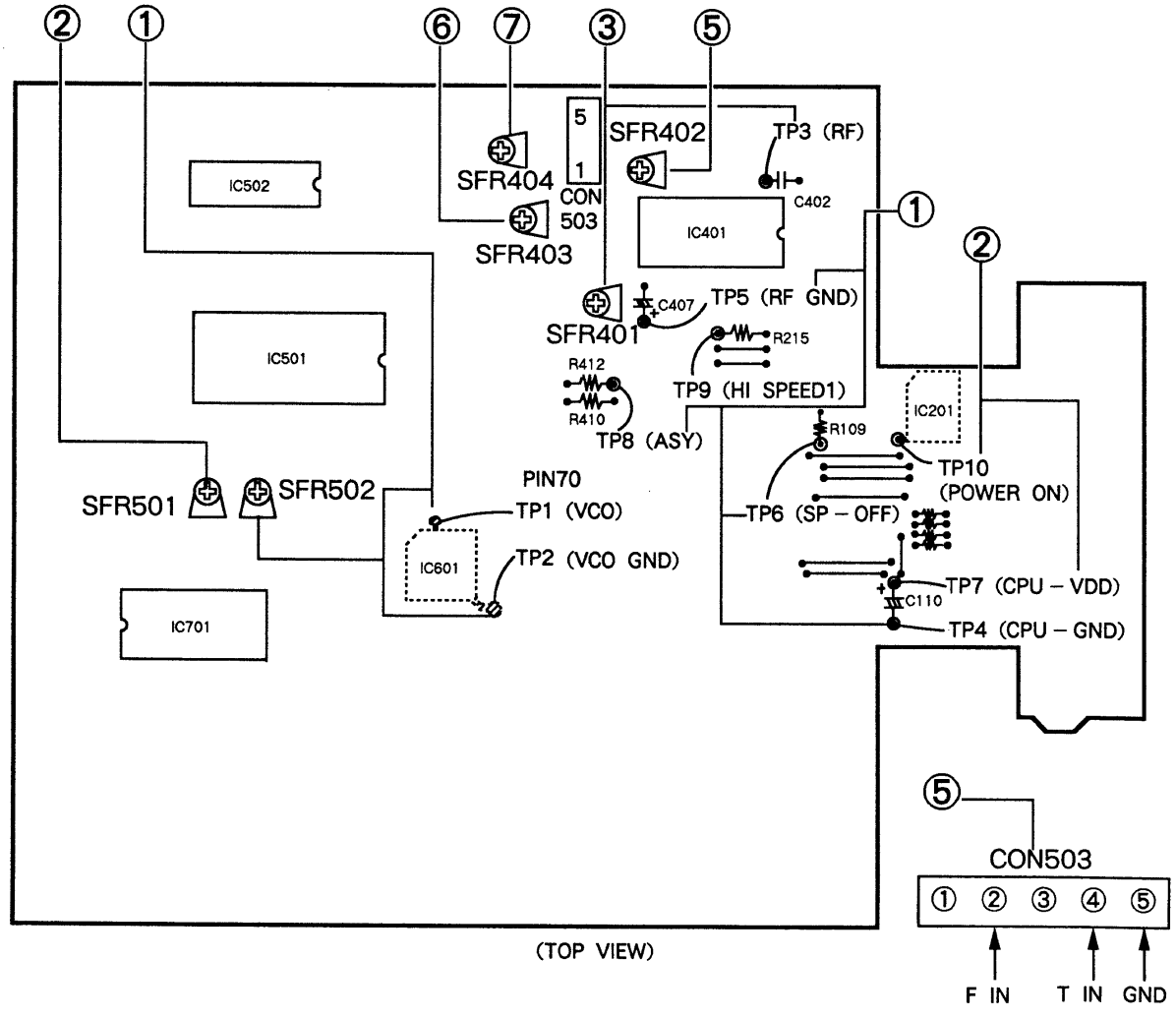
Before performing adjustments in the CD section, disconnect connectors CON101 and CON201 from the head and stand the MAIN C.B on the recess (at a point where 1/3 of the back of the left/right supports of MAIN C.B) of the C.B holder.

The bottom of FD – N6 has holes corresponding to the test points of the CD MAIN C.B.



(Fig – 1)

G CD MAIN C.B

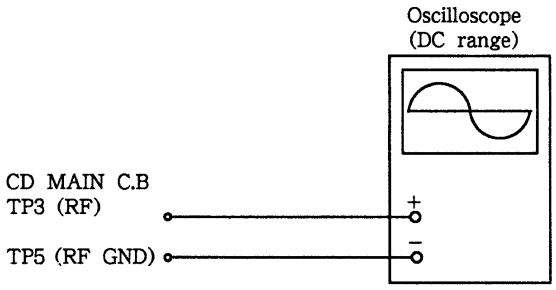


Note : Connect a probe (10 : 1) of the frequency counter or the osilloscope to a test point.

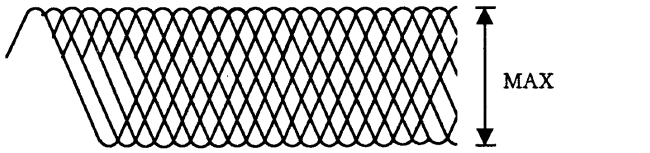
1. Normal Speed VCO Frequency Adjustment
   (1) Press the OPEN/CLOSE button of the unit to open the tray.
   (2) Connect a frequency counter to test points TP1 (VCO) and TP2 (VCO GND).
   (3) Connect TP6 (SP – OFF) to TP4 (CPU – GND).
   (4) Connect TP9 (HI SPEED1) to TP4 (CPU – GND).
   (5) Connect TP5 (RF GND) to TP8 (ASY).
   (6) Adjust SFR502 so that the frequency counter reading is 4.40 ± 0.01 MHz.
   (7) After the adjustment is completed, disconnect the ground lead wire.

2. High Speed VCO Frequency Adjustment (H,E,Z ONLY)
   (1) Press the OPEN/CLOSE button of the unit to open the tray.
   (2) Connect a frequency counter to test points TP1 (VCO) and TP2 (VCO GND).
   (3) Connect TP6 (SP – OFF) to TP4 (CPU – GND).
   (4) Connect TP9 (HI SPEED1) to TP7 (CPU – VDD).
   (5) Connect TP5 (RF GND) to TP8 (ASY).
   (6) Adjust SFR501 so that the frequency counte reading is 9.60 ± 0.01 MHz.
   (7) After the adjustment is completed, disconnect the ground lead wire.

3. Focus Bias Adjustment
   Make the focus bias adjustment when replacing and repairing the optical block.



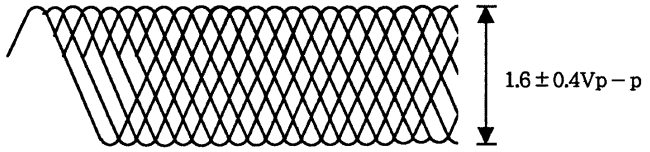
   (1) Connect an oscilloscope to test points TP3 (RF) and TP5 (RF GND).
   (2) Connect TP6 (SP – OFF) to TP4 (CPU – GND).
   (3) Insert test disc YEDS-18 (YEDS-1) and play back the second composition.
   (4) Adjust SFR401 (F.B) so that the amplitude of waveform on the oscilloscope is maximized.
   (5) After adjustment is completed, disconnect the ground lead wire.



VOLT/DIV : 50mV
TIME/DIV : 0.5 μ S

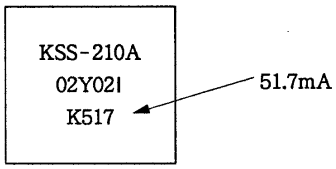
4. RF Waveform Check
   Make the RF waveform check when replacing and repairing the optical block.

   (1) Connect an oscilloscope to test points TP3 (RF) and TP5 (RF GND).
   (2) Connect TP6 (SP – OFF) to TP4 (CPU – GND).
   (3) Insert test disc YEDS-18 (YEDS-1) and play back the second composition.
   (4) Check that the waveform on the oscilloscope is as shown in the figure below.
   (5) After checking is completed,disconnect the ground lead wire.



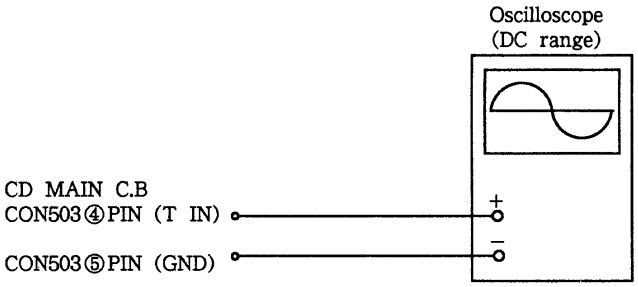
VOLT/DIV : 50mV
TIME/DIV : 0.5 μ S

Note : The current of the laser signal can be checked with the voltages on both sides of R402 (10 Ω). The difference for the specified value shown on the label must be within ± 6.0 mA.

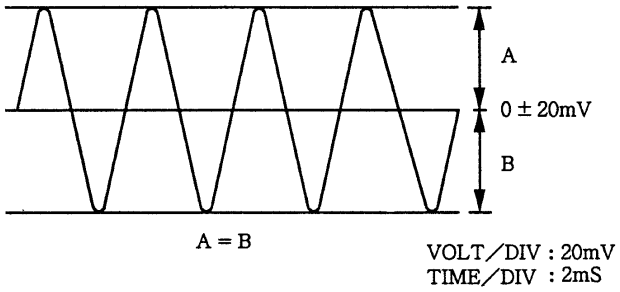


$$\text{Laser current } Iop = \frac{\text{Voltage across R402}}{10\ \Omega}$$

5. Tracking Balance Adjustment



(1) Connect an oscilloscope to test points CON503④PIN (T IN) and CON503⑤PIN (GND).
(2) Connect a center of SFR404 (TG) on the main board to GND.
(3) Connect TP6 (SP − OFF) to TP4 (CPU − GND).
(4) Insert test disc YEDS-18 (YEDS-1) and press the PLAY button.
(5) Adjust SFR402 (TB) so that the waveform on the oscilloscope is vertically symmetrical as shown in the figure below.
(6) After the adjustment is completed, disconnect the ground lead wire.



6,7.Focus/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 mechinical shock when 2-axis device operates. However, as these gains are reciprocated, the adjustment is performed so that both gains are satisfied.

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

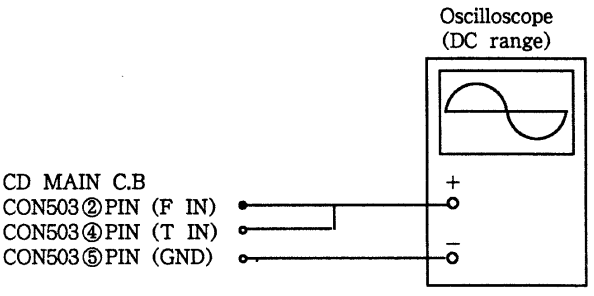
Symptoms \ Gain	(Focus)	Tracking
● The time until music starts becomes longer for STOP→▶ PLAY or automatic selection (⏮, ⏭ buttons pressed.) (Normally takes about 2 seconds.)	low	low or high
● Music does not start and disc continues to rotate for STOP →▶PLAY or automatic selection (⏮, ⏭ buttons pressed.)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

The following is simple adjustment method.

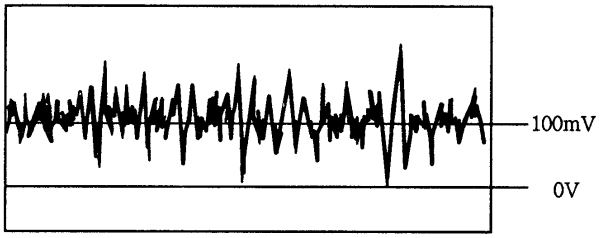
− Simple adjustment −

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

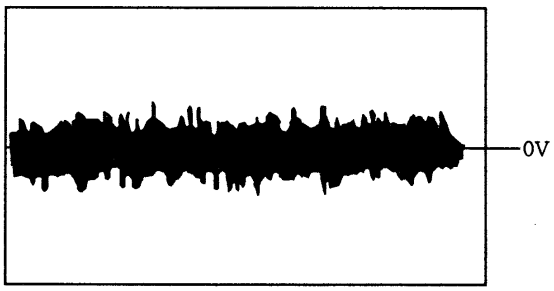
Procedure :



(1) Keep the set horizontal. (If the set is not kept horizontally, this adjustment cannot be performed due to the gravity against the 2-axis device.)
(2) Insert test disc YEDS-18 (YEDS-1) and play back the second composition.
(3) Connect an oscilloscope to CON503②PIN (F IN) and pin⑤ (GND).
(4) Adjust SFR403 (FG) so that the waveform appears as shown in the figure below.(focus gain adjustment)

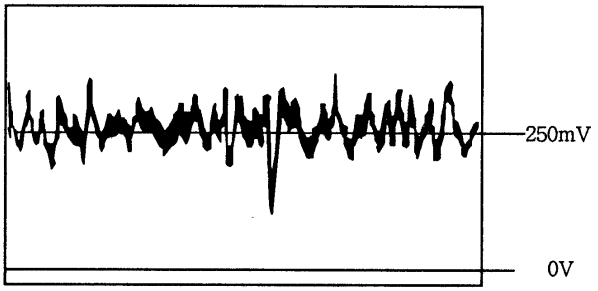


VOLT/DIV : 10mV
TIME/DIV : 2mS



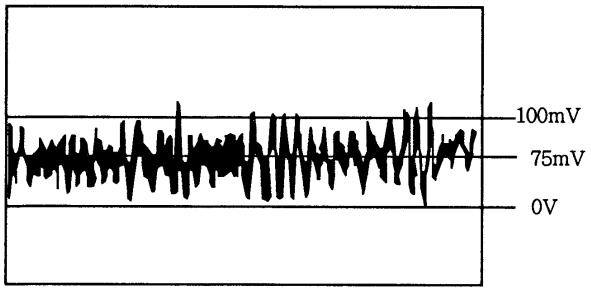
VOLT/DIV : 50mV
TIME/DIV : 2mS

● Incorrect example (DC level changes more than on adjusted waveform)



VOLT/DIV : 10mV
TIME/DIV : 2mS

Low focus gain

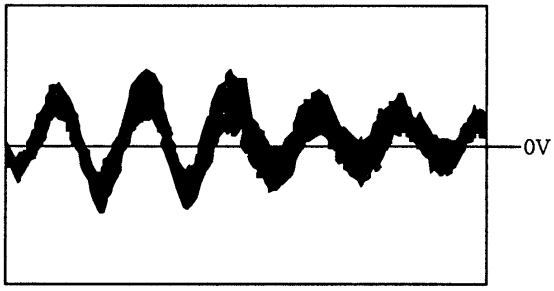


VOLT/DIV : 10mV
TIME/DIV : 2mS

High focus gain

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

Low tracking gain



VOLT/DIV : 50mV
TIME/DIV : 2mS

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

VOLT/DIV : 50mV
TIME/DIV : 2mS

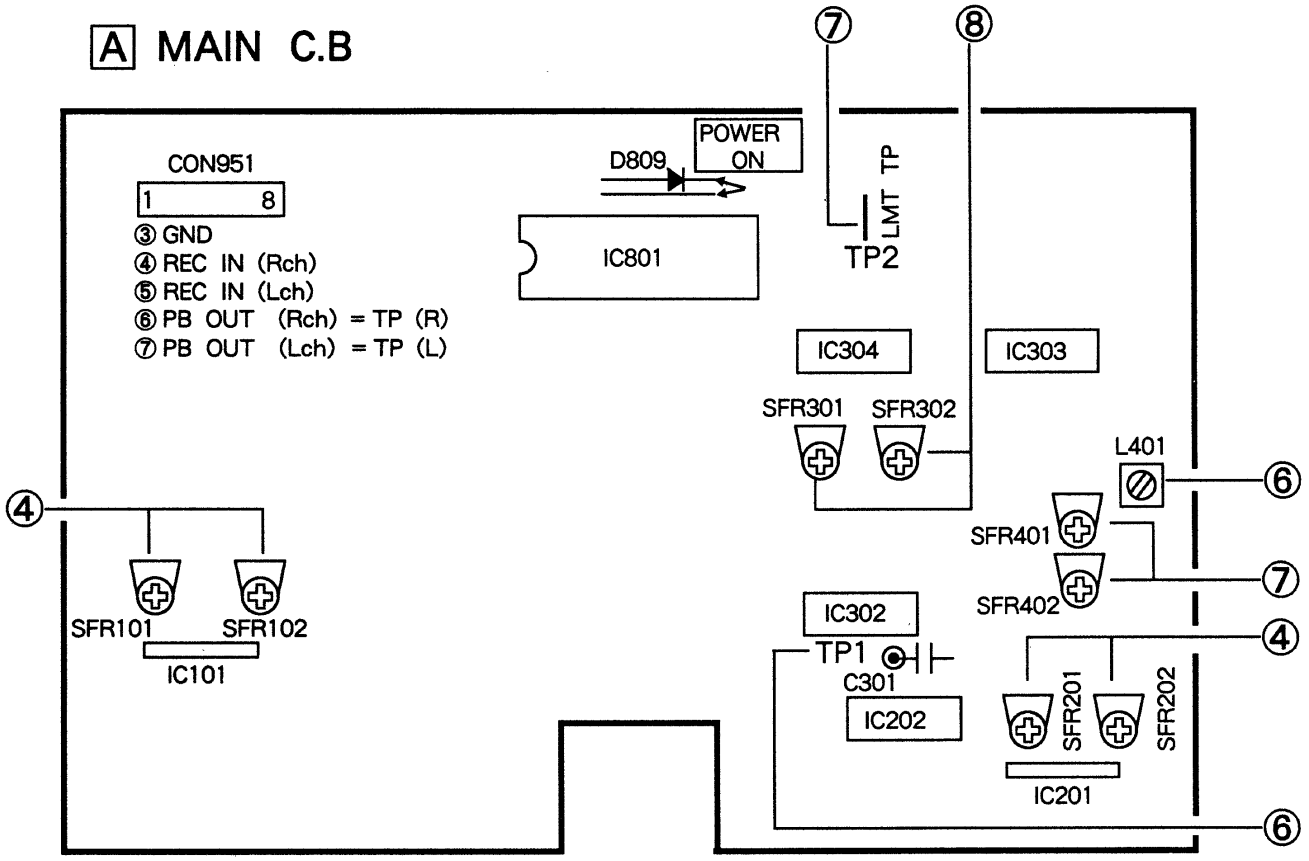
(5) Connect an oscilloscope to CON503④PIN (T IN) of the main board.

(6) Adjust SFR404 (TG) so that the waveform appears as shown in the figure below.
(tracking gain adjustment)

ADJUSTMENT – 2 (FD – N6)

< DECK SECTION >

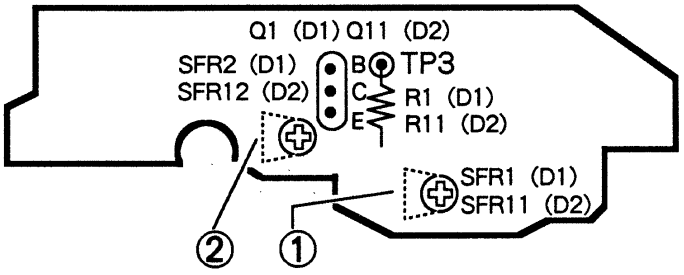
A MAIN C.B

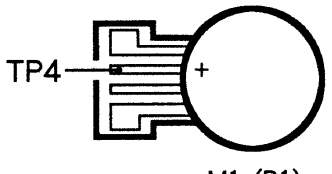


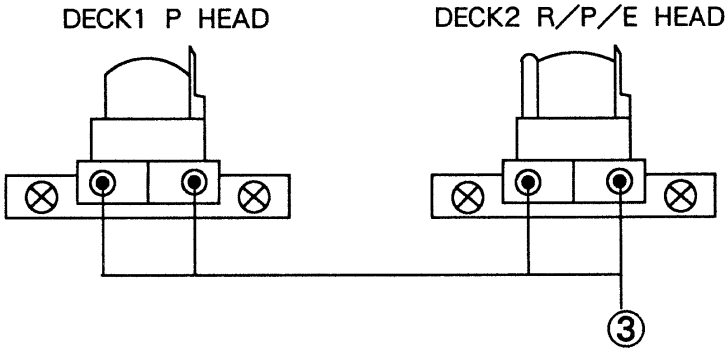
(TOP VIEW)

C DECK – 1 C.B

D DECK – 2 C.B





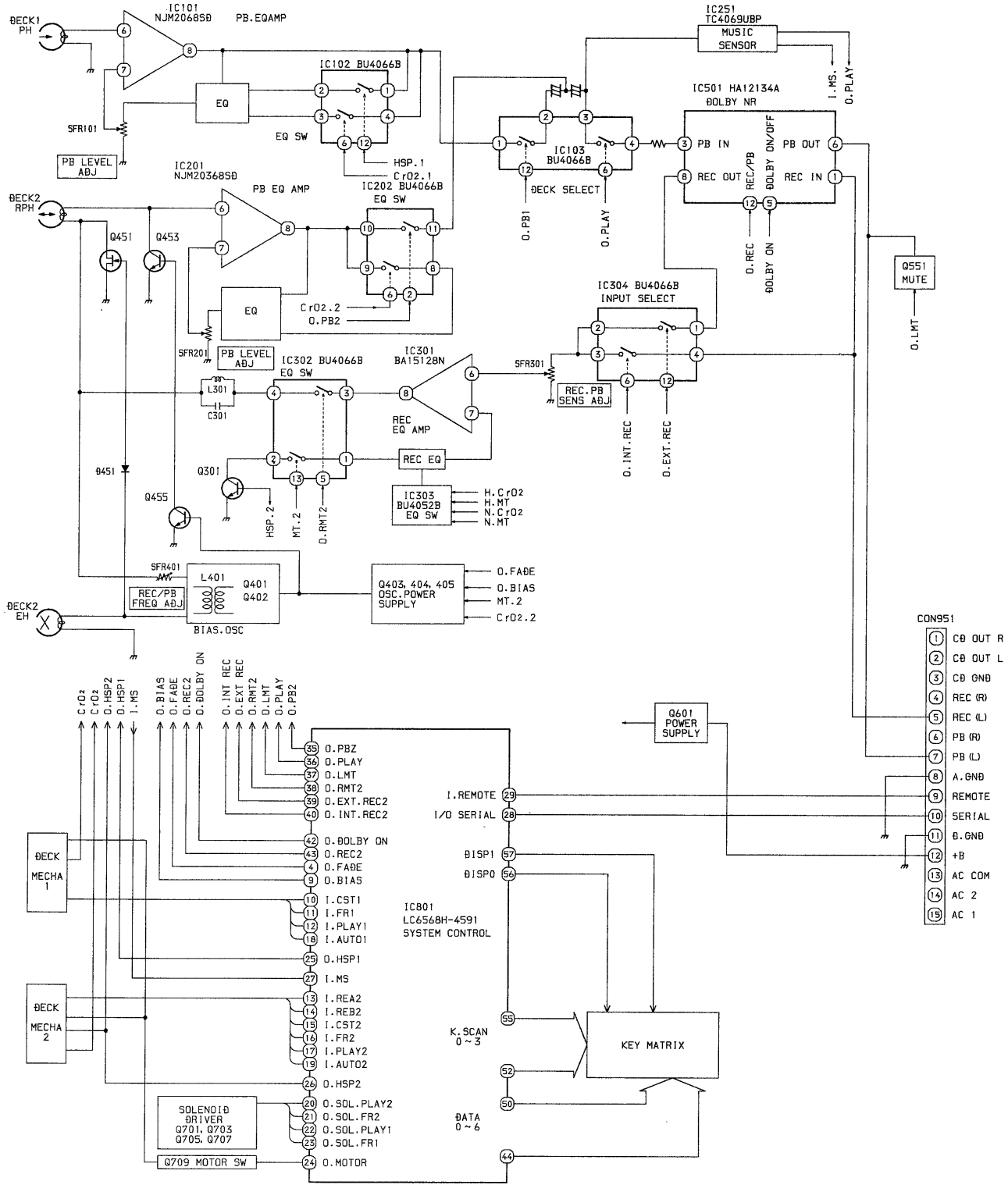


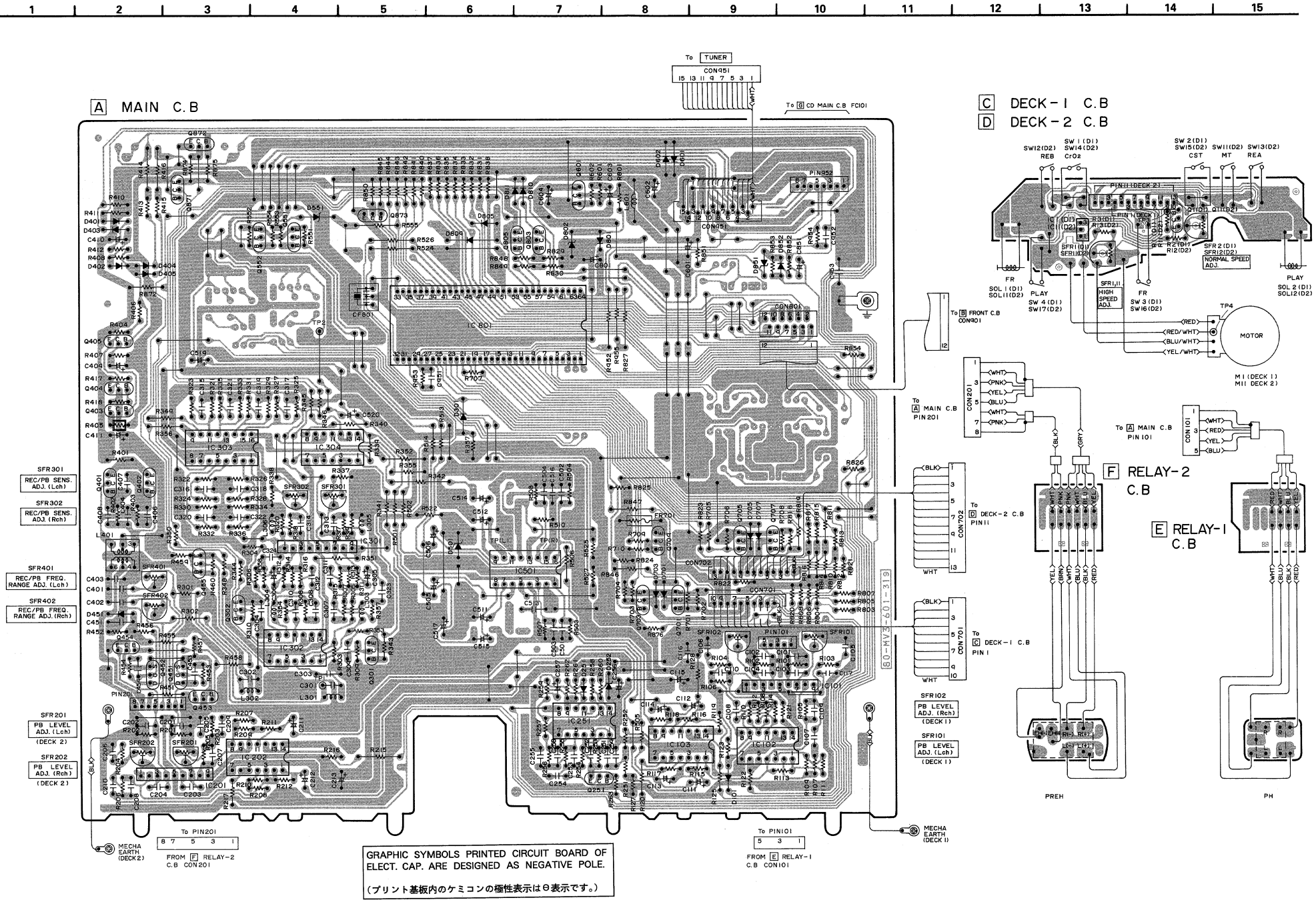
1. High Speed Adjustment (DECK1, DECK2)
   Settings : • Test tape : TTA – 100 (TTA – 111S)
   • Test point : PB – OUT (CON951)
   • Adjustment Location : SFR1 (DECK1)
   SFR11 (DECK2)
   Method : Play back the test tape, and make the high speed condition to be shorted between TP3 and TP4. Adjust for 6000Hz. After adjustment, remove the grounding lead wire.
2. Normal Speed Adjustment (DECK1, DECK2)
   Settings : • Test tape : TTA – 100 (TTA – 111S)
   • Test point : PB – OUT (CON951)
   • Adjustment Location : SFR2 (DECK1)
   SFR12 (DECK2)
   Method : Play back the test tape, adjust for 3000Hz.
3. Head Azimuth Adjustment (DECK1, DECK2)
   Settings : • Test tape : TTS – 310
   (TTA – 317E, SCC – 1429)
   • Test point : PB – OUT (CON951)
   • Adjustment Location : Head azimuth adjustment screw
   Method : Play back the 10kHz signal of the test tape and adjust so that the output becomes maximum.
   Next, perform on each FWD PLAY and REV PLAY mode.
4. PB Level Adjustment (DECK1, DECK2)
   Settings : • Test tape : TTS – 200 (TTA – 161, TCC – 130)
   • Test point : PB – OUT (CON951)
   • Adjustment Location : SFR101 (DECK1, Lch)
   SFR102 (DECK1, Rch)
   SFR201 (DECK2, Lch)
   SFR202 (DECK2, Rch)
   Method : Play back the test tape and adjust so that the output becomes 305mV ± 0.3dB.
5. PB Frequency Response Check (DECK1, DECK2)
   Settings : • Test tape : TTS – 310
   (TTA – 317E, SCC – 1429)
   • Test point : PB – OUT (CON951)
   Method : Play the 315Hz and 10kHz signals of the test tape and check the output of the 10kHz signal is 0dB ± 2.5dB with respect to that of the 315Hz signal.
6. Bias Frequency Adjustment (DECK2)
   Settings : • Test tape : TTA – 601 (TTA – 600/119K)
   • Test point : TP1
   • Adjustment Location : L401
   Method : Set DECK2 to the record mode and adjust L401 so that the frequency at TP1 is 108kHz ± 2kHz.
7. REC/PB Frequency Response Adjustment (DECK2)
   Settings : • Test tape : TTA – 601 (TTA – 600/119K)
   • Test point : PB – OUT (CON951)
   • Adjustment Location : SFR401 (Lch)
   SFR402 (Rch)
   Method : Connect TP2 (LMT TP) to ground (chassis), apply a 1kHz signal and adjust attenuator so that the level at the PB OUT is 20mV. Record and play back the 1kHz and 10kHz signals and adjust so that the output level of 10kHz signal is 0dB ± 0.5dB for 1kHz signal. After adjustment, remove the grounding lead wire.
8. REC/PB Sensitivity Adjustment (DECK2)
   Settings : • Test tape : TTA – 601 (TTA – 600/119K)
   • Test point : PB – OUT (CON951)
   • Adjustment Location : SFR301 (Lch)
   SFR302 (Rch)
   Method : Connect TP2 (LMT TP) to ground (chassis), apply a 1kHz signal and adjust attenuator so that the level at the PB OUT is 20mV. Record and play back the 1kHz signal and adjust SFR301 and SFR302 so that the output level is 20mV ± 0.3dB. After adjustment, remove the grounding lead wire.

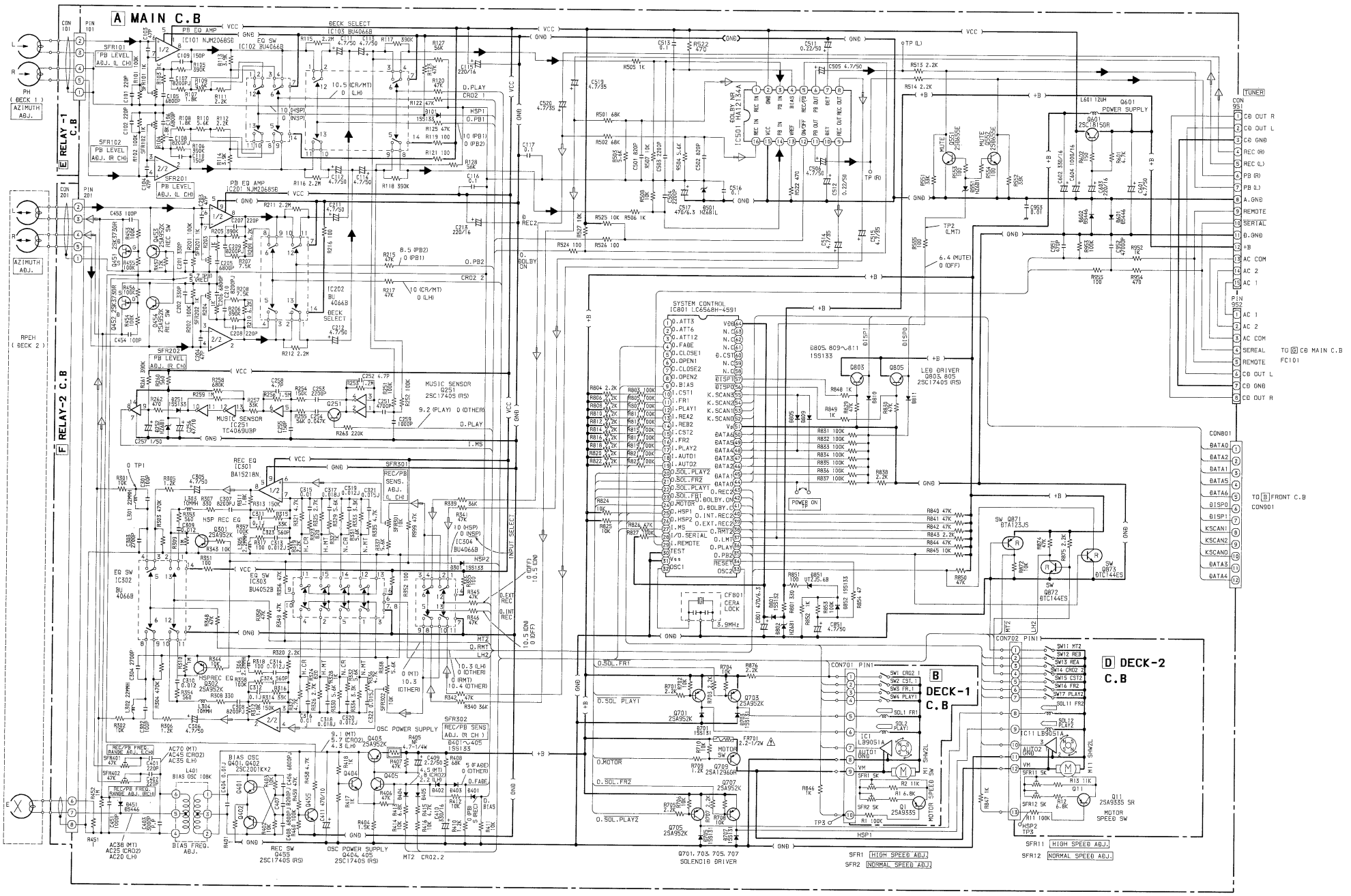
PRACTICAL SERVICE FIGURE (FD – N6)

PB output level :	200mV ± 1dB TTS – 200 (TTA – 161, TCC – 130)
REC/PB output level :	200mV ± 1dB(PB OUT, 1kHz)
Distortion (REC/PB) :	Less than 2.0 % (NORM., CrO2)
Erasing ratio :	More than 60dB
Crosstalk :	More than 60dB
Channel separation :	More than 30dB
Noise (REC/PB) :	Less than 2.2mV (DOLBY OFF NORM.)
	Less than 1.1mV/1.0mV (DOLBY ON CrO2)
Noise (PB) :	Less than 2.0mV (DOLBY OFF NORM.)
	Less than 1.0mV/0.9mV (DOLBY B/C CrO2)
Recording bias frequency :	108kHz
Tape speed :	3000Hz ± 1.5 %
Wow & flutter (W.RMS) :	Less than 0.18 % (DECK1, 2)
Take – up torque :	25~60g-cm (DECK1, 2)
F.F & REW torque :	70~150g-cm (DECK1, 2)
Back tension :	2~6g-cm (DECK1, 2)
Test tape :	NORMAL : TTA – 601 (TTA – 600/119K)
	CrO2 : TTA – 610 (TTA – 119H)

BLOCK DIAGRAM – 2 (FD – N6)




A MAIN C.B
To TUNER
CON951
To G CD MAIN C.B FC101
C DECK – 1 C.B
D DECK – 2 C.B
SW1(D1) SW14(D2) CrO2
SW2(D1) SW15(D2) CST
SW11(D2) MT
SW3(D2) REA
SW12(D2) REB
PIN11 (DECK 2)
PIN1 (DECK 1)
SFR1(D1) SFR1(D2)
SFR2(D1) SFR2(D2)
NORMAL SPEED ADJ.
HIGH SPEED ADJ.
FR SOL1(D1) SOL11(D2)
PLAY SW4(D1) SW17(D2)
FR SW3(D1) SW16(D2)
PLAY SOL2(D1) SOL12(D2)
TP4
MOTOR
M1 (DECK 1) M11 DECK 2)
To B FRONT C.B CON401
To A MAIN C.B PIN201
To A MAIN C.B PIN101
F RELAY-2 C.B
E RELAY-1 C.B
To D DECK-2 C.B PIN11
To C DECK-1 C.B PIN1
SFR301 REC/PB SENS. ADJ. (Lch)
SFR302 REC/PB SENS. ADJ. (Rch)
SFR401 REC/PB FREQ. RANGE ADJ. (Lch)
SFR402 REC/PB FREQ. RANGE ADJ. (Rch)
SFR201 PB LEVEL ADJ. (Lch) (DECK 2)
SFR202 PB LEVEL ADJ. (Rch) (DECK 2)
SFR102 PB LEVEL ADJ. (Rch) (DECK 1)
SFR101 PB LEVEL ADJ. (Lch) (DECK 1)
80-MV3-601-319
PREH
PH
To PIN201
FROM F RELAY-2 C.B CON201
To PIN101
FROM E RELAY-1 C.B CON101
MECHA EARTH (DECK 2)
MECHA EARTH (DECK 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
E RELAY-1 C.B
F RELAY-2 C.B
B DECK-1 C.B
D DECK-2 C.B
SYSTEM CONTROL IC801 LC65681-4591
TUNER
POWER SUPPLY
LED DRIVER
MUSIC SENSOR
DECK SELECT
REC EQ
HSP REC EQ
EQ SW
OSC POWER SUPPLY
BIAS OSC
SOLENOID DRIVER
MOTOR SPEED SW
HIGH SPEED ADJ.
NORMAL SPEED ADJ.
TO C CB MAIN C.B FC101
TO B FRONT C.B CON901

IC DESCRIPTION (FD – N6)

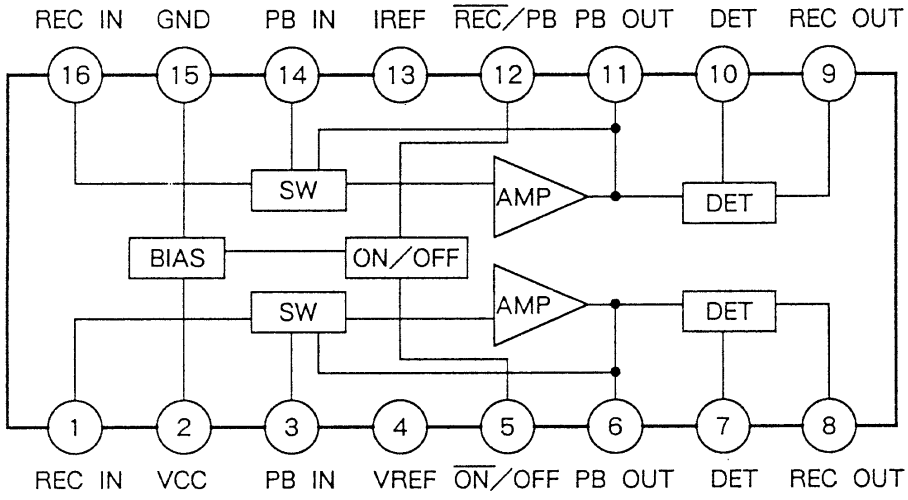
IC, LC6568H – 4591

Pin No.	Pin Name	I/O	Description
1	O·ATT3	O	Input signal level control output from the cross fade. Active "H" (Not used)
2	O·ATT6	O	
3	O·ATT12	O	
4	O·FADE	O	DECK 2 Recording bias oscillation output at the CBRS and cross fade. Active "H".
5	O·CLOSE1	O	DECK 1 Cassette box motor drive control output. Active "H" (Not used)
6	O·OPEN1	O	
7	O·CLOSE2	O	DECK 2 Cassette box motor drive control output. Active "H" (Not used)
8	O·OPEN2	O	
9	O·BIAS	O	DECK 2 Recording bias oscillation output. Goes "H" in the record and dubbing modes.
10	I·CST1	I	DECK 1 Cassette tape detection switching input. Goes "L" switch on.
11	I·FR1	I	DECK 1 FF and FWD detection switching input. Goes "L" FF or RWD switch on.
12	I·PLAY1	I	DECK 1 PLAY ddetection switching input. Goes "L" PLAY switch on.
13	I·REA2	I	DECK 2 Side A's accidental erasure prevention switch input. Goes "L" when recording is possible.
14	I·REB2	I	DECK 2 Side B's accidental erasure prevention switch input. Goes "L" when recording is possible.
15	I·CST2	I	DECK 2 Cassette tape detection switching input. Goes "L" switch on.
16	I·FR2	I	DECK 2 FF and RWD detection switching input. Goes "L" FF or RWD switch on.
17	I·PLAY2	I	DECK 2 PLAY detection switching input. Goes "L" PLAY switch on.
18	I·AUTO1	I	DECK 1 Reel disk pulse input.
19	I·AUTO2	I	DECK 2 Reel disk pulse input.
20	O·$\overline{\text{SOL}}$·$\overline{\text{PLAY2}}$	O	DECK 2 PLAY solenoid drive output. Active "L".
21	O·$\overline{\text{SOL}}$·$\overline{\text{FR2}}$	O	DECK 2 FF and RWD solenoid drive output. Active "L".
22	O·$\overline{\text{SOL}}$·$\overline{\text{PLAY1}}$	O	DECK 1 PLAY solenoid drive output. Active "L".
23	O·$\overline{\text{SOL}}$·$\overline{\text{FR1}}$	O	DECK 1 FF and RWD solenoid drive output. Active "L".
24	O·$\overline{\text{MOTOR}}$	O	DECK 1/2 Main motor contorl output. Goes "L" in the STOP mode.
25	O·HSP1	O	DECK 1 High speed control output. Goes "H" in the high speed dubbing mode.
26	O·HSP2	O	DECK 2 High speed control output. Goes "H" in the high speed dubbing mode.(Tape deck and CD)
27	I·MS	I	MS signal input. Active "L".
28	I/O $\overline{\text{SERIAL}}$	I/O	CD and amplifier serial data input and output.
29	I·REMOTE	I	Remote control serial data input.
30	TEST	–	MPU test pin to be connected to VSS.
31	VSS	–	MPU I/O and powe supply common pin.
32	OSC1	–	Pins to generate a 4MHz clock signal.
33	OSC2	–	
34	$\overline{\text{RESET}}$	I	MPU reset input. Goes "L" input resets the MPU.
35	O·PB2	O	DECK 1/2 PB output level control pin. Goes "H" in the DECK 2 PB.
36	O·PLAY	O	CUE/REVIEW muting and MS sensitivity switching output. Goes "H" PB.
37	O·LMT	O	Record and playback muting output. Active "H".
38	O·$\overline{\text{RMT2}}$	O	Record muting output. Goes "H" in the REC mute, rercording I/O aand REC pause.
39	O·EXT·REC2	O	DECK 2 Recording switching output. Goes "H" DECK 1 PB and DECK 2 REC.
40	O·INT·REC2	O	DECK 2 Recording switching output. Goes "H" in the record and dubbing modes. Goes "L" in the O·EXT·REC "H".
41	O·$\overline{\text{DOLBY C}}$	O	Dolby NR B/C switching output. Goes "H" Dolby C. (Not used)
42	O·$\overline{\text{DOLBY ON2}}$	O	Dolby NR ON/OFF switching output. Goes "H" Dolby on.
43	O·$\overline{\text{REC2}}$	O	Dolby encode/decode switching output. Goes "H" REC, "L" dubbing.

Pin No.	Pin Name	I/O	Description				
			KEY DATA IN				
			K SCAN 0 is "H"	K SCAN 1 is "H"	K SCAN 2 is "H"	DISP 0 lights at "H"	DISP 1 lights at "H"
44	DATA 0	I	PLAY 1 KEY ligths	FF 1 KEY ligths	DOLBY KEY IN	DOLBY lights	
45	DATA 1	I	RWD 1 KEY IN	H·DUBB KEY IN		R·PLAY 1 lights	CD REC lights
46	DATA 2	I	STOP 1 KEY IN	N·DUBB KEY IN		F·PLAY 1 lights	SYNC DUBB lights
47	DATA 3	I	FF 2 KEY IN	REC 2 KEY IN	REV MODE KEY IN	REC 2 lights	
48	DATA 4	I	PLAY 2 KEY IN	PAUSE 2 KEY IN		PAUSE 2 lights	
49	DATA 5	I	RWD 2 KEY IN	CD.H.REC KEY IN		F·PLAY 2 lights	
50	DATA 6	I	STOP 2 KEY IN	CD.N.REC KEY IN		R·PLAY 2 lights	
51	VP	—	GND				
52	K·SCAN 0	O	KEY SCAN outputs for DATA 0~DATA6.				
53	K·SCAN 1	O					
54	K·SCAN 2	O					
55	K·SCAN 3	O					
56	$\overline{\text{DISP 0}}$	O	DISP 0 and DISP 1 INDI. output pin.				
57	$\overline{\text{DISP 1}}$	O					
58 59 61 62 63	NC	—	Not used.				
60	D·CST	—	Cassette box LED display drive output. Power ON → "H", Power OFF → "L"				
64	VDD	—	Power Supply pin.(+5V)				

IC BLOCK DIAGRAM (FD – N6)

IC,HA12134A



IC, CXP50112 – 364Q

Pin No.	Pin Name	I/O	Description
1 ~ 20	SEG1 ~ SEG20	O	Display segment output terminal (Pin 12 is not used.)
21	——	—	Not used.
22	——	—	
23	——	—	
24 ~ 28	G1 ~ G5	O	Display grid scan output terminal.
29	SCOR	I	Interrupts at rising edge of subcodes S0 + S1 input
30	TX	—	Not used.
31	TEX	—	Peak search (AD converter) reference clock input
32	$\overline{\text{REST}}$	I	Reset input terminal
33	——	—	Not used.
34	VDD	I	Power supply input terminal
35 ~ 39	KEY1 ~ KEY5	I	KEY input terminal
40	O/C	I	Tray open/close input terminal
41	$\overline{\text{P-SW}}$	I	Power switch input terminal: ON/OFF (STAND BY) selection
42	SYNC I/O	I/O	Synchronizing signal input/output terminal with external equipment (8-bit serial)
43	WDCK	I	Word clock signal input terminal(Not used)
44	SQCK	I	Subcode Q reading clock input terminal
45	GFS		Signal input terminal to indicate the lock state of frame-synchronizing
46	SUBQ		Subcode Q input terminal
47	MUTG	O	Muting output terminal to DSP
48	SENS	I	Connects to SENSE terminal of DSP
49	XRST	O	System reset output terminal
50	DATA		Serial data output terminal to DSP
51	XLT	O	Data latch output terminal
52	CLK		Data transmission clock
53	$\overline{\text{P. HOLD}}$		Indicates peak search operation. H output during peak searching. (Not used)
54	$\overline{\text{ADINT}}$		Output terminal of A/D conversion circuit initial and AD START pulse(Not used
55	$\overline{\text{COMP}}$	I	A/D conversion timing signal input terminal
56	$\overline{\text{T-PLAY}}$		Timer play mode switch input terminal. Timer play in L.
57	E OP.OFF		Easy operation. OFF in "H" (Note 1)
58	P.S MODE		Peak search mode select input terminal H: P.S 1 mode L: P.S 2 mode
59	SP-OFF	O	H output when DSP, SSP, or RF amplifier is off.
60	P.S H-SPD		H output in peak searching

Pin No.	Pin Name	I/O	Description
61	FOK	I	H input when focus to indicate a state of focus is correct
62	RMC	I	42-bit serial remote input
63	OPEN	O	H output in tray open output open mode.
64	CLOSE		H output in tray close output close mode.
65	H. SPD		H output in the high speed mode.
66	8/$\overline{12}$		H output when a disc's operation time is 23 minutes or less is used.
67	$\overline{\text{LDON}}$	O	L output when ON/OFF output terminal of laser diode is ON.
68	MDT		Mode data output terminal(Not used)
69	MCK		Mode clock output terminal(Not used)
70	$\overline{\text{MLE}}$		Mode latch output terminal(Not used)
71	GND	—	GND
72	XTAL	O	Ceramic oscillator connection 4.19 MHz
73	-	—	Not used.
74	EXTAL	I	Ceramic oscillation connection 4.19 MHz
75	VREF	—	GND
76	VFDP	—	Power supply input termianal for FL tube display
77	F. B OFF	O	H output when fucus bias is off. (Not used)
78	EMP		H output when emphasis is ON, indepenf of Normal/High speed mode.
79	A-MUTE		H output when analog mute output is ON.
80	$\overline{\text{P-OFF}}$		H output when system ON/OFF output is OFF.

Note 1: EOP means that a tray is opened when NO DISC is received during CD play input (from all the mode) in "EASY OPERATION". Also, it means that the tray is opened when NO DISC is received during Timer set CD input.

("All the mode" means that CD is played with a command of PLAY key input, ten key input, or PLAY with SYNC REC or FUNCTION CD input.)

IC, CXA1082S

Pin No.	Pin Name	I/O	Description
1	DVEE	–	-5V terminal.
2	DFCT	I	Interface input terminal for microcomputer.
3	TE	I	Tracking error signal input terminal.
4	TZC	I	Tracking zero-cross comparator input terminal.
5	ATSC	I	ATSC detection window comparator input terminal.
6	FE	I	Focus error signal input terminal.
7	VC	–	Connected to GND
8	FGD	O	Capacitor is inserted between this pin and pin 3 to decrease the focus servo's high-frequency gain.
9	FS3	I	Focus servo's high-frequency gain is selected by FS3 on/off operation.
10	FLB	O	Time-constant external terminal for raising the focus servo's low-frequency range.
11	FEO	O	Power transistor drive's operational amplifier output terminal.
12	FE	I	Focus amplifier inversion input terminal.
13	SRCH	O	Time-constant external terminal for forming a focus search wave.
14	TG0	O	Time-constant external terminal for tracking high-frequency gain selection.
15	TG2	O	Time-constant external terminal for tracking high-frequency gain selection.
16	AVCC	–	+5V terminal.
17	TAO	O	Tracking error signal output terminal.
18	TA	I	Tracking amplifier's inversion input terminal.
19	SL	I	Threading amplifier's noninversion input terminal.
20	SLO	O	Threading amplifier output terminal.
21	SL	I	Threading amplifier's inversion input terminal.
22	SSTOP	I	Inputs the ON/OFF detection signal of the limit switch which detects the innermost circumference. Fixed at"L" in this unit.
23	FSET	I	Terminal for setting the focus tracking's phase compensation peak and CLV LPF (f0).
24	SENS	O	Outputs IC's internal state corresponding to data address (It is changed according to address of internal serial register.)
25	AVEE		-5V
26	C. OUT	O	Outputs signal for counting number of tracks in high-speed mode.
27	$\overline{\text{DIRCT}}$	I	Used in one-track jump. Normally "H". "L" when track jump pulse is inversed. Consequently "H" when normal tracking mode is set. "L" in a period when the rising and falling edges of TZC are detected.
28	$\overline{\text{XRST}}$	I	"L" when all the internal register are cleared.
29	DATA	I	Serial data transmission from CPU. Input started from LSB.
30	$\overline{\text{XLT}}$	I	"L" when data of internal serial shift register is transmitted to the latch address-decoded.
31	CLK	I	DATA transmission clock. Data is taken in at the falling edge.
32	D GND	–	GND terminal.
33	BW	I	Loop filter's time-constant external terminal. (Not used)
34	PDI	I	CXD1167Q phase comparator output PDO input terminal.
35	ISET	I	Passes a current to determine the focus search, tracking jump, and threading kick height.

Pin No.	Pin Name	I/O	Description
36	VCOF	I	VCO's free-running frequency is proportional to the resistance value between this pin and pin 31.
37	3.5V		
38	C864	O	8.64MHz VCO output terminal.
39	LOCK	I	Connected to the LOCK terminal of CXD1167Q.
40	MDP	I	CXD1125 MDP connection terminal.
41	MON	I	CXD1125 MON connection terminal.
42	FSW	I	LPF time-constant external terminal of CLV servo's error signal.
43	DVCC	—	+5V terminal
44	SPDL	I	Spindle drive amplifier's inversion input terminal.
45	SPDLO	O	Spindle motor drive terminal.
46	WDCK	I	Word clock signal input terminal.
47	FOK	I	Focus OK signal input terminal.
48	MIRR	I	Mirror signal input terminal

IC, CXA1081S

Pin No.	Pin Name	I/O	Description
1	RF1	I	The RF summing amplifier output is C-connected and input.
2	RF0	O	RF summing amplifier output. Eye pattern test point.
3	RFI	I	Inverting input of the RF summing amplifier. A feedback resistor is connected between pins 2 and 3.
4	P/N	I	Switches the input according to the polarity of the laser diode.
5	LD	O	Output to control the laser diode output.
6	PD	I	Connects the photo-detector which detects the laser diode output.
7	PD1	I	RF1-V amplifier (1) inverting input. Connected to PIN diode A + C for the current intput.
8	PD2	I	RF1-1 amplifier (2) inverting input. Connected to PIN diode B + D for the current input.
9	VC	I	Reference voltage input within the IC. Connected to pin 14 with single power supply. Connected to the ground with the positive and negative power supply.
10	F	I	F1-V amplifier inverting input. Connected to PIN diode F for the current input.
11	E	I	E1-V amplifier inverting input. Connected to PIN diode E for the current input.
12	EO	O	E1-V amplifier output. A feedback resistor is connected.
13	E1	I	Adjusts the E1-V amplifier gain.
14	VR	O	Outputs the neutral voltage. Connected to pin 9 with the single powersupply. OPEN with positive and negative power supply.
15	CC2	O	Defect bottom hold (1) output. A capacitor is connected between pins 15 and 16.
16	CC1	I	The defect bottom (1) output is C-connected and input.
17	VEE	–	Grounded with the single power supply. Becomes a negative power supply with the positive and negative power supply.
18	FE BIAS	I	Inputs a bias voltage for the positive-phase input of the focus error amplifier.
19	FE	O	Focus error amplifier output.
20	TE	O	Tracking error amplifier output.
21	DEFECT	O	Defect detection output. Outputs the H" signal that detects a defect on the mirror surface.
22	MIRR	O	Mirror comparator output.
23	CP	O	A mirror hold capacitor is connected to this pin.
24	CB	O	The defect bottom hold (2) capacitor is connected to this pin.
25	DGND	–	Ground in the digital circuit.
26	ASY	I	Auto-symmetry control input.
27	EFM	O	EFM output comparator output.
28	FOK	O	Focus OK output.
29	$\overline{\text{LD ON}}$	I	Laser diode ON/OFF control input.
30	VCC	–	Positive power supply

IC, LC7883

Pin no	Pin name	I/O	Discription
1	CH1OUT	I	DAC CH−1 output.
2	VREF H	I	Reference voltage"H" input.(+5V)
3	AVDD	—	Power supply pin of analog circuits.(+5V)
4	DVDD	—	Power supply pin of digital circuits.(+5V)
5	BLCK	I	Bit clock input.
6	DATA	I	Digital audio data input. The data is input bit−seriaiil from the MSB.
7	LRCK	I	LR clock input.
8	TEST	I	Test pin (normally, "L") (Connected to GND)
9	$\overline{\text{ATT}}$	I	Attenuator data input. The data is input bit−serial form the LSB. (Connected to GND)
10	SHIFT	I	Attenuator data transfer clock input. (Connected to GND)
11	LATCH	I	Attenuator data latch clock input. (Connected to GND)
12	INITB	I	Initializing signal input (normally, "H")
13	TEST	—	Unused (Connected to GND)
14	EMPH2	I	Deemphasis setting pins (Connected to GND)
15	EMPH1	I	Deemphasis setting pins
16	D/N	I	Hi−speed/standard speed switching
17	SOC2	I	Input source select pins (PULL DOWN) (Connected to GND)
18	SOC1	I	Input source select pins (PULL DOWN) (Connected to GND)
19	MODE	I	Operation mode setting pins setting pins (PULL DOWN) Test pins (normally, "H") (PULL DOWN)
20	TEST	I	Operation mode setting pins setting pins (PULL DOWN) Test pins (normally, "H") (PULL DOWN) (Connected to GND)
21	TEST	I	Operation mode setting pins setting pins (PULL DOWN) Test pins (normally, "H") (PULL DOWN) (Connected to GND)
22	DGND	—	Ground pin of digital circuits
23	CLKOUT	O	Clock output (Not used)
24	XIN	I	Crystal oscillator input
25	XOUT	O	Crystal oscillator output
26	AGND	—	Ground pin of analog circuits
27	VREF L	I	Reference voltage "L" input (Connected to GND)
28	CH2OUT	O	DAC CH−2 output

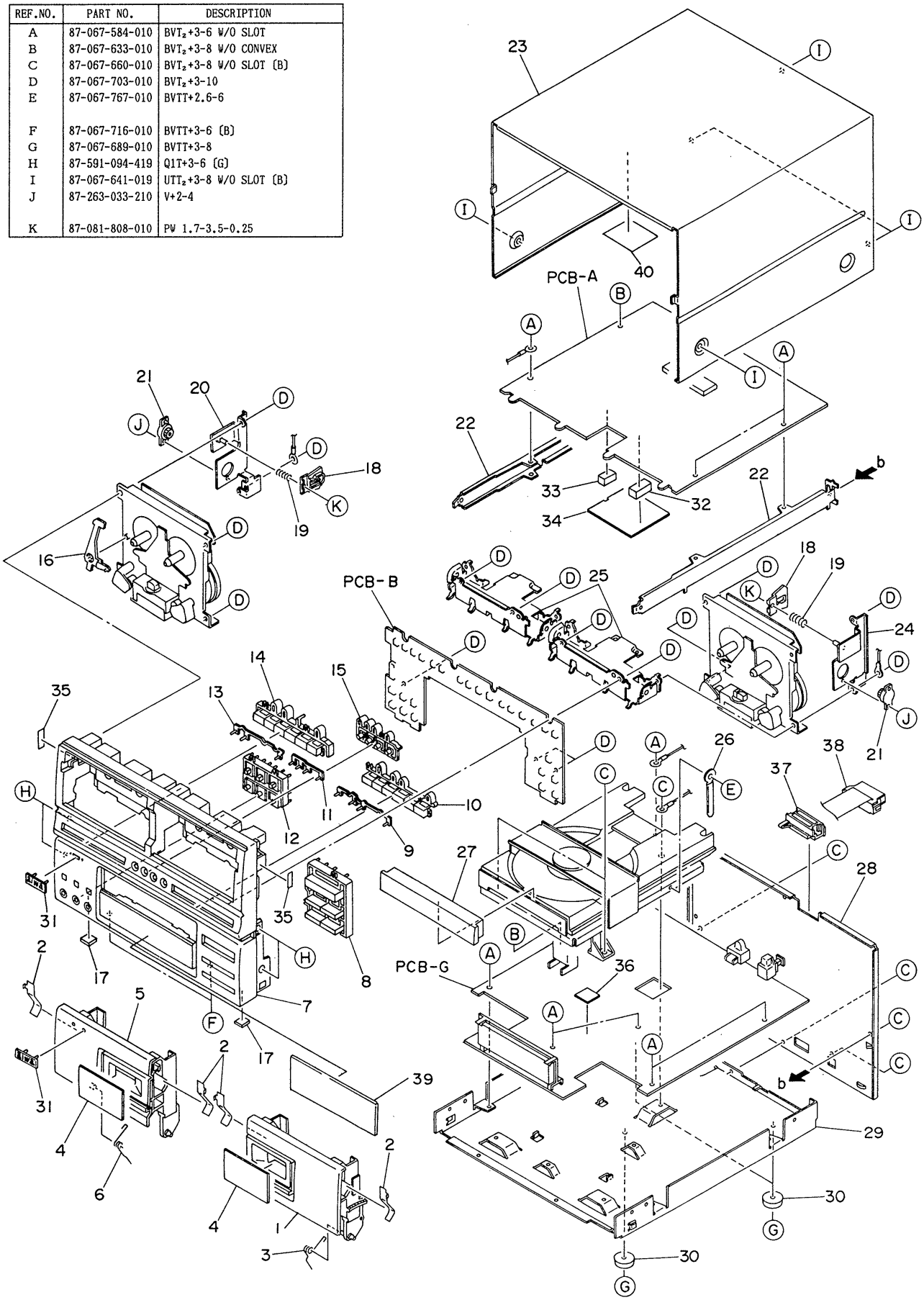
IC, CXD1167Q

Pin No.	Pin Name	I/O	Description
1	FSW	O	Output to switch the time constant of the spindle motor output filter.
2	MON	O	Spindle motor on/off control output.
3	MDP	O	Spindle motor drive output. Coarse control in the CLV.S mode and phase control in the CLV.P mode.
4	MDS	O	Spindle motor drive output. Speed control in the CLV.S mode.
5	EFM	I	Inputs an EFM signal from the RF amplifier.
6	ASY	O	Output to control the slice level of the EFM signal.
7	LOCK	O	The GFS signal is sampled by the WFCK/16. When the GFS signal is "H", this pin outputs "H", and when the signal is "L" 8 times continuously, it outputs "L".
8	VCOO	O	VCO output. When this is locked to the EFM signal. f = 8.6436MHz
9	VCOI	I	VCO input.
10	TEST	—	Connected to GND. (0V)
11	PDO	O	Phase comparison output between the EFM signal and VCO/2.
12	VSS	—	Connected to GND. (0V)
13	CLK	I	Inputs a clock signal for the serial data transfer from CPU. Latches data at the rise of the clock signal.
14	XLT	I	Latch input from CPU. Latches 8-bit shift register data (serial data from CUP) to each register.
15	DATA	I	Inputs serial data from CPU.
16	$\overline{\text{XRST}}$	I	System reset input. The system is reset at "L" input.
17	CNIN	I	Tracking pulse input.
18	SENSE	O	Outputs the internal state according to the address.
19	MUTG	I	Muting input. When the ATTM in the internal register is "L", the system is in the normal state if the MUTG is "L" and the sound is muted if the MUTG is "H".
20	CRCF	O	Outputs the CRC checking result of sub-code Q. (Reserved)
21	EXCK	I	Clock input for the sub-code serial output. (Connected to GND)
22	SBSO	O	Sub-code serial output. (Reserved)
23	SUBQ	O	Sub-code Q output.
24	SCOR	O	Sub-code sync S0 + S1 output.
25	SQCK	I/O	Clock signal for reading of sub-code Q.
26	SQEX	I	SQCK select input. (Connected to +5V)
27	WFCK	O	Digital audio interface output. (Reserved)
28	GFS	O	Display output of the frame sync locking state. Goes "H" when locked.
29 ~ 32	TEST (DB08) ~ TEST (DB05)	—	Connected to GND. (Do not open.) Data terminal of external RAM.
33	VDD	—	Power supply (+5V)
34 ~ 37	TEST (DB04) ~ TEST (DB01)	—	Connected to GND. (Do not open.) Data terminal of the external RAM.

Pin No.	Pin Name	I/O	Description
38	TEST (RA01)	—	Connected to GND. (Do not open.) Address output of the external RAM.
∫	∫		
48	RAWE	—	Connected to GND (Do not open) Write Enable output of the external RAM
50	$\overline{\text{RACS}}$	—	Connected to GND (Do not open) Chip Select output of the external RAM
51	C4M	O	1/2 division output of the crystal oscillator. f = 4.2336MHz
52	VSS	—	Connected to GND. (0V)
53	XTAI	I	Crystal oscillator input. f = 8.4672MHz
54	XTAO	O	Crystal oscillator output. f = 8.4672MHz
55	MD1	I	Mode select input 1 used at "H" Mode select input 2 used at "L" Mode select input 3 used at "L" Used in the mode with the clock frequency 8.4672MHz, the digital output OFF. the digital filter ON.
56	MD2	I	
57	MD3	I	
58	SLOB	I	Input to switch the code of the audio data output. "L" causes the 2 second complement output and "H" causes the offset binary output. (Connected to GND.)
59	PSSL	I	Input to switch the mode of the audio data output. "L" causes serial output and "H" causes parallel output. (Connected to GND.)
60	APTR	O	Aperture correction control output. 44.1kHz with the filter OFF. (Reserved)
61	APTL	O	Aperture correction control output. 44.1kHz with the filter OFF. (Reserved)
62	DA01 (C1F1)	O	DA01(LSB of parallel audio data) output with PSSL = "H". C1F1 output with PSSL = "L". (Reserved)
63	DA02 (C1F2)	O	DA02 output with PSSL = "H". C1F2 output with PSSL = "L". (Reserved)
64	DA03 (C2F1)	O	DA03 output with PSSL = "H". C2F1 output with PSSL = "L". (Reserved)
65	DA04 (C2F2)	O	DA04 output with PSSL = "H". C2F2 output with PSSL = "L". (Reserved)
66	DA05 (C2FL)	O	DA05 output with PSSL = "H". C2FL output with PSSL = "L". (Reserved)
67	DA06 (C2PO)	O	DA06 output with PSSL = "H". C2PO output with PSSL = "L". (Reserved)
68	DA07 (RFCK)	O	DA07 output with PSSL = "H". RFCK output with PSSL = "L". (Reserved)
69	DA08 (WFCK)	O	DA08 output with PSSL = "H". WFCK output with PSSL = "L". (Reserved)
70	DA09 ($\overline{\text{PLCK}}$)	O	DA09 output with PSSL = "H". PLCK output with PSSL = "L". (Note 1)(Reserved)
71	DA10 (VGFS)	O	DA10 output with PSSL = "H". VGFS output with PSSL = "L". (Reserved)
72	DA11 (GTOP)	O	DA11 output with PSSL = "H". GTOP output with PSSL = "L". (Reserved)
73	VDD	—	Power supply (+5V)
74	DA12 ($\overline{\text{RA0V}}$)	O	DA12 output with PSSL = "H". RA0V output with PSSL = "L". (Reserved)
75	DA13 (C4LR)	O	DA13 output with PSSL = "H". C4LR output with PSSL = "L". (Reserved)
76	DA14 (C210)	O	DA14 output with PSSL = "H". C210 output with PSSL = "L".
77	DA15 (C210)	O	DA15 output with PSSL = "H". C210 output with PSSL = "L". (Note 2)(Reserved)
78	DA16 (DATA)	O	DA16(MSB of parallel audio data) output with PSSL = "H". DATA output with PSSL = "L". (Note 3)
79	WDCK	O	Strobe signal output. 88.2kHz with the filter OFF. (Reserved)
80	LRCK	O	Strobe signal output. 44.1kHz with the filter OFF.

EXPLODED VIEW – 1 (FD – N6)

REF.NO.	PART NO.	DESCRIPTION
A	87-067-584-010	BVT$_2$+3-6 W/O SLOT
B	87-067-633-010	BVT$_2$+3-8 W/O CONVEX
C	87-067-660-010	BVT$_2$+3-8 W/O SLOT (B)
D	87-067-703-010	BVT$_2$+3-10
E	87-067-767-010	BVTT+2.6-6
F	87-067-716-010	BVTT+3-6 (B)
G	87-067-689-010	BVTT+3-8
H	87-591-094-419	Q1T+3-6 (G)
I	87-067-641-019	UTT$_2$+3-8 W/O SLOT (B)
J	87-263-033-210	V+2-4
K	87-081-808-010	PW 1.7-3.5-0.25

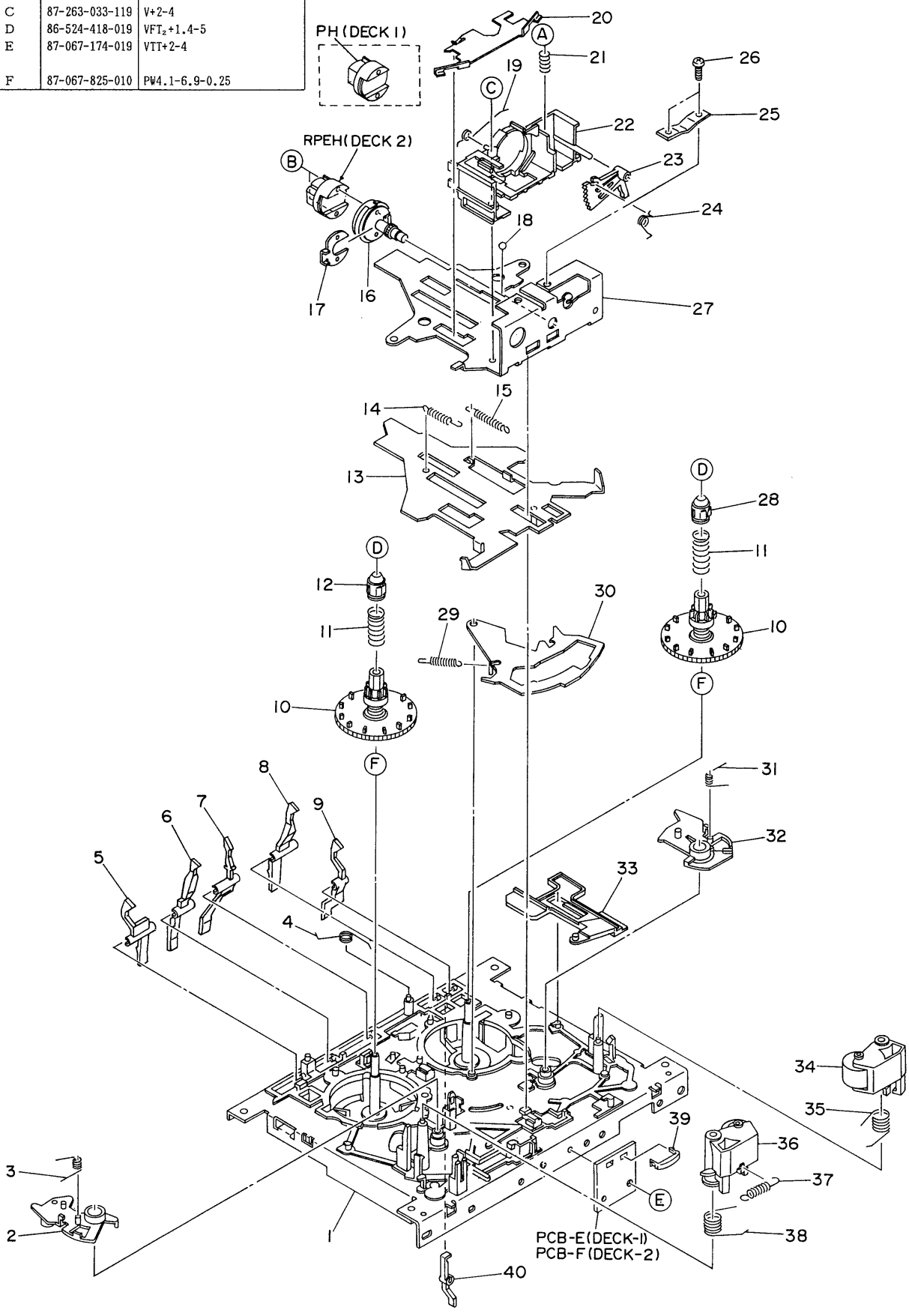


MECHANICAL PARTS LIST (FD – N6)

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	1-1	★80-MV3-044-019	BOX, CASSETTE R6	*	1
	1-2	★82-202-217-110	P-SPRING, CASSETTE HOLDER		4
	1-3	★80-MV3-207-019	T-SPRING, EJECT 1	*	1
	1-4	★80-MV3-012-019	WINDOW, DECK 1	*	2
	1-5	★80-MV3-045-019	BOX, CASSETTE L6	*	1
	1-6	★80-MV3-208-019	T-SPRING, EJECT 2	*	1
	1-7	★80-MV3-043-019	CABINET, FRONT 6	*	1
	1-8	★80-MV3-006-019	KEY, CD PLAY	*	1
	1-9	★80-MV3-015-019	INDICATOR, DECK 2	*	1
	1-10	★80-MV3-008-019	KEY, DECK 2	*	1
	1-11	★80-MV3-016-019	INDICATOR, DOLBY	*	1
	1-12	★80-MV3-005-019	KEY, CD EDIT	*	1
	1-13	★80-MV3-014-019	INDICATOR, DECK 1	*	1
	1-14	★80-MV3-007-019	KEY, DECK 1	*	1
	1-15	★80-MV3-009-019	KEY, DOLBY	*	1
	1-16	★86-535-242-210	LEVER, EJECT L		1
	1-17	★80-VT1-202-010	FELT, 12.5-15.5-2		2
	1-18	★80-CD3-233-010	PLATE, LOCK		2
	1-19	★80-MV3-218-019	C-SPRING, LOCK	*	2
	1-20	★80-MV3-201-019	HOLDER ASSY LOCK 1	*	1
	1-21	★87-063-151-010	OIL DUMPER, 37		2
	1-22	---	HOLDER, PCB		2
	1-23	★80-MV3-038-018	CABINET, STEEL	*	1
	1-24	★80-MV3-204-019	HOLDER ASSY LOCK 2	*	1
	1-25	---	HOLDER, MECHANISM		2
	1-26	---	WIRE, BINDER		1
	1-27	★80-MV3-047-019	PANEL, TRAY 6	*	1
	1-28	★80-MV3-046-019	PANEL, REAR	*	1
	1-29	---	CHASSIS, MAIN		1
	1-30	★87-085-218-010	FOOT, H5		3
	1-31	★80-MT3-045-010	BADGE, AIWA N6		2
	1-32	★87-063-156-010	S-CUSHION, 15-35-10		1
	1-33	★87-063-157-010	S-CUSHION, 14-20-10		1
	1-34	★80-MV3-215-010	PLATE, SHIELD	*	1
	1-35	★80-MV3-217-019	SHEET, 24-10-0.2	*	2
	1-36	★80-HJ4-620-019	SHEET, CONTROL A		1
	1-37	★80-MV3-606-010	CORD, FG 15PR	*	1
	1-38	★89-VT5-202-010	BUSHING, CORD		1
	1-39	★80-MV3-011-019	WINDOW DISPLAY	*	1
	1-40	★82-226-274-010	DMPR, 80-60-3		1

EXPLODED VIEW – 2 (FD – N6)

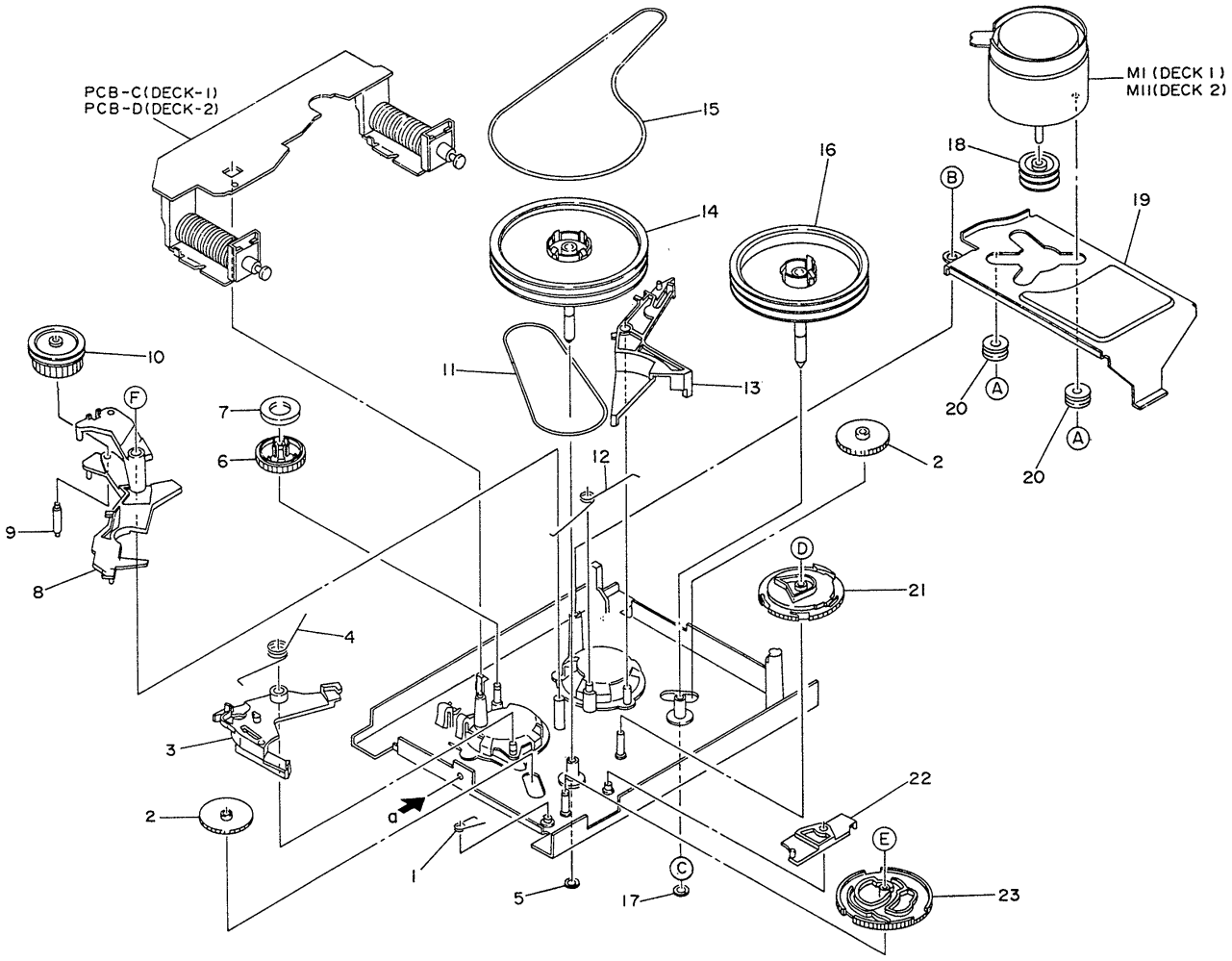
REF.NO.	PART NO.	DESCRIPTION
A	86-575-363-210	S-SCREW V+2-8
B	80-ZM6-207-019	V+1.6-7
C	87-263-033-119	V+2-4
D	86-524-418-019	VFT_2+1.4-5
E	87-067-174-019	VTT+2-4
F	87-067-825-010	PW4.1-6.9-0.25



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	2-1	★80-ZM6-201-810	CHASSIS ASSY B		1
	2-2	★86-535-239-110	LEVER, PLAY R		1
	2-3	★86-535-283-010	T-SPRING, PLAY GEAR R		1
	2-4	★80-ZM6-206-010	T-SPRING, CASSETTE		1
	2-5	★86-575-322-110	LEVER, REC A (D2)	*	1
	2-6	★86-575-325-210	LEVER, METAL (D2)	*	1
	2-7	★86-575-324-310	LEVER, CASSETTE	*	1
	2-8	★86-575-327-210	LEVER, CLOME	*	1
	2-9	★86-575-323-010	LEVER, REC B (D2)	*	1
	2-10	★80-ZM6-254-110	GEAR REEL ASSY L		2
	2-11	★86-535-293-010	C-SPRING, REEL TABLE		2
	2-12	★86-524-218-219	STOPPER, S REEL TABLE		1
	2-13	★86-535-215-410	SLIDE PLATE ASSY		1
	2-14	★80-ZM6-268-019	E-SPRING, SLIDE 3		1
	2-15	★86-575-226-010	E-SPRING, HEAD CHASSIS	*	1
	2-16	★86-575-306-910	HOLDER, HOUSING	*	1
	2-17	★86-575-305-010	PLATE, HOUSING	*	1
	2-18	★87-073-018-010	BOARD, STEEL 1.588		1
	2-19	★86-575-310-210	T-SPRING, HEAD	*	1
	2-20	★86-575-347-110	P-SPRING, HEAD 2	*	1
	2-21	★86-541-318-110	C-SPRING, AZIMUTH		1
	2-22	★86-575-288-510	GUIDE, TAPE	*	1
	2-23	★86-575-290-310	GEAR, SEGMENT	*	1
	2-24	★80-ZM6-229-110	T-SPRING, SEGMENT GEAR 2		1
	2-25	★86-575-343-110	P-SPRING, AZIMUTH 2	*	1
	2-26	★80-ZM6-251-019	SCREW, AZIMUTH 3H		2
	2-27	★86-575-311-410	CHASSIS, HEAD	*	1
	2-28	★86-524-233-219	STOPPER, T REEL PLATE		1
	2-29	★86-535-284-110	E-SPRING, DIRECTION LEVER		1
	2-30	★86-535-218-310	DIRECTION LEVER ASSY		1
	2-31	★86-535-282-010	T-SPRING, PLAY GEAR F		1
	2-32	★86-535-238-310	LEVER, PLAY F		1
	2-33	★86-575-345-210	LEVER, SW2	*	1
	2-34	★86-535-226-310	PINCH LEVER ASSY F		1
	2-35	★86-575-222-110	T-SPRING, PINCH ROLLER F	*	1
	2-36	★86-535-228-410	PINCH LEVER ASSY R		1
	2-37	★86-575-339-010	E-SPRING, PINCH 22	*	1
	2-38	★86-575-341-110	T-SPRING, PINCH L	*	1
	2-39	★86-575-342-010	HOLDER, WIRE 2	*	1
	2-40	★86-575-326-210	LEVER, RINK	*	1

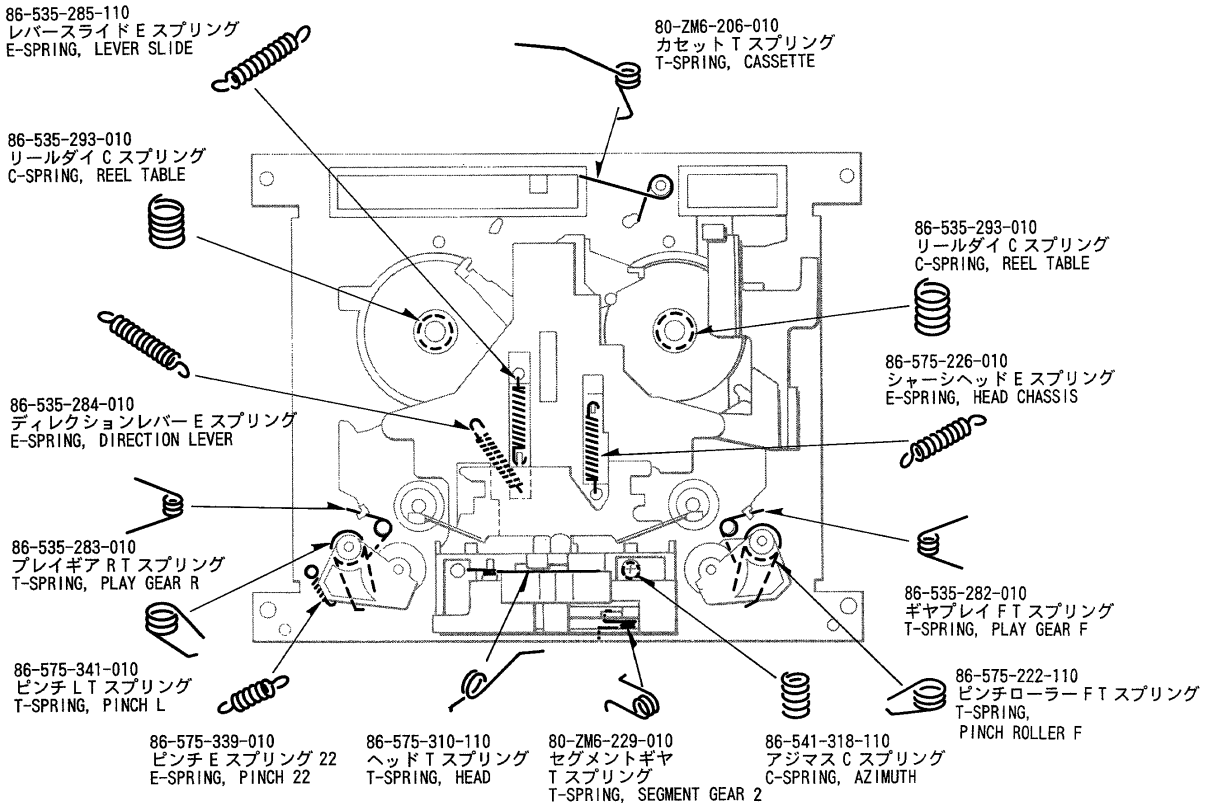
EXPLODED VIEW – 3 (FD – N6)

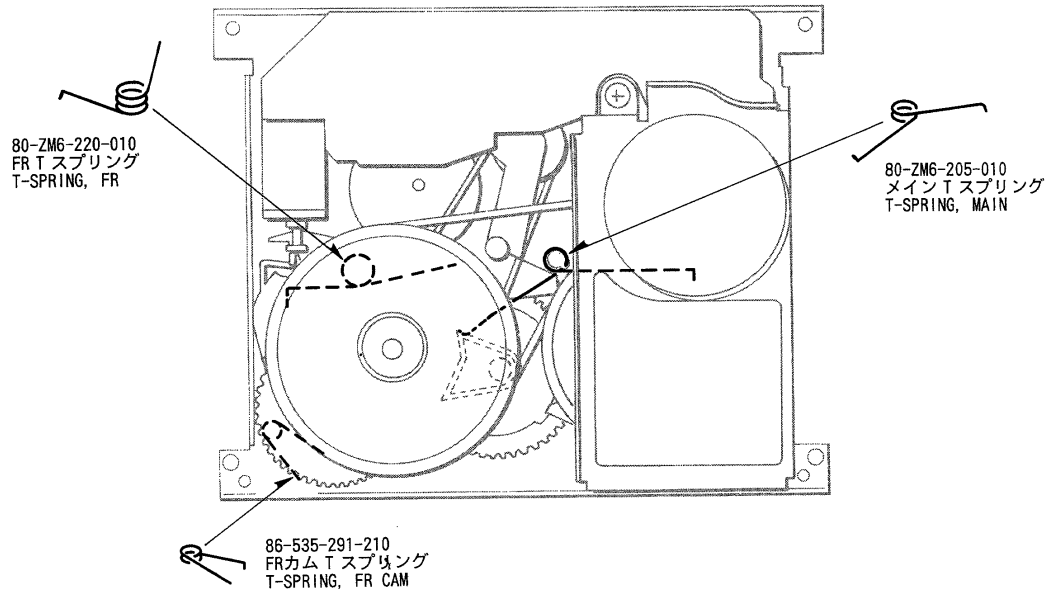
REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
A	86-524-457-010	U+2.6-5.5	C	86-575-355-010	PW3.2-2.3-0.1	E	87-067-380-019	PW1.7-7-0.5
B	87-741-073-410	UT_2+2.6-6	D	87-081-489-019	PW1.7-3.5-0.25 SLOT	F	80-ZM6-211-010	PW2.68-4.15-0.3 SLOT



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q'TY
	3-1	★86-535-291-210	T-SPRING, FR CAM		1
	3-2	★86-575-221-310	GEAR, PLAY	*	2
	3-3	★86-535-230-510	LEVER, FR TRIGGER		1
	3-4	★80-ZM6-220-010	T-SPRING, FR		1
	3-5	★80-ZM6-242-010	SHEET, 1.95-3.6-0.5 SLT		2
	3-6	★86-575-328-110	GEAR, IDLER	*	1
	3-7	★80-ZM6-217-010	RING, MAGNET		1
	3-8	★80-ZM6-218-110	LEVER, FR 2		1
	3-9	★80-ZM6-222-110	SHAFT, PULLEY FR		1
	3-10	★80-ZM6-272-010	GEAR, FR 2		1
	3-11	80-ZM6-227-110	BELT, SQ 1.2-140		1
	3-12	★80-ZM6-205-110	T-SPRING, MAIN		1
	3-13	★86-535-231-510	LEVER, PLAY TRIGGER		1
	3-14	★80-ZM6-208-310	FLYWHEEL ASSY L1		1
	3-15	★86-575-302-110	BELT, SQ 1.3-213	*	1
	3-16	★80-ZM6-203-310	FLYWHEEL ASSY R1		1
	3-17	★80-ZM6-243-010	SHEET, 1.75-3.6-0.5		1
	3-18	★86-575-303-110	PULLEY, MOTOR 2	*	1
	3-19	★86-575-301-410	HOLDER, MOTOR	*	1
	3-20	★86-513-441-210	COLLAR, MOTOR		2
	3-21	★86-575-312-210	CAM, MAIN	*	1
	3-22	★86-575-229-210	LEVER, PAUSE B	*	1
	3-23	★80-ZM6-219-210	CAM, FR MK2 2M		1

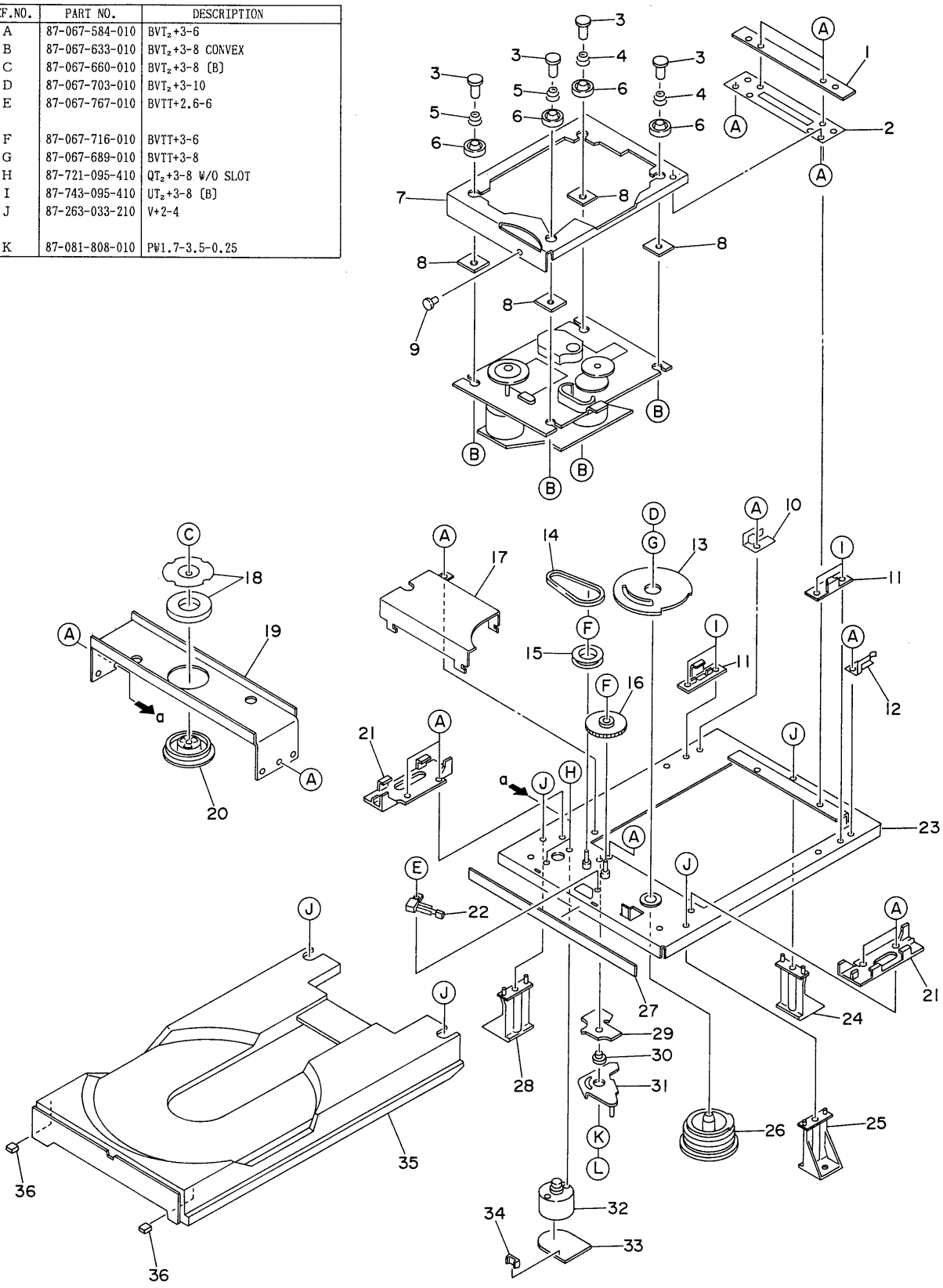
SPRING APPRICATION POSION (FD – N6)





EXPLODED VIEW – 4 (FD – N6)

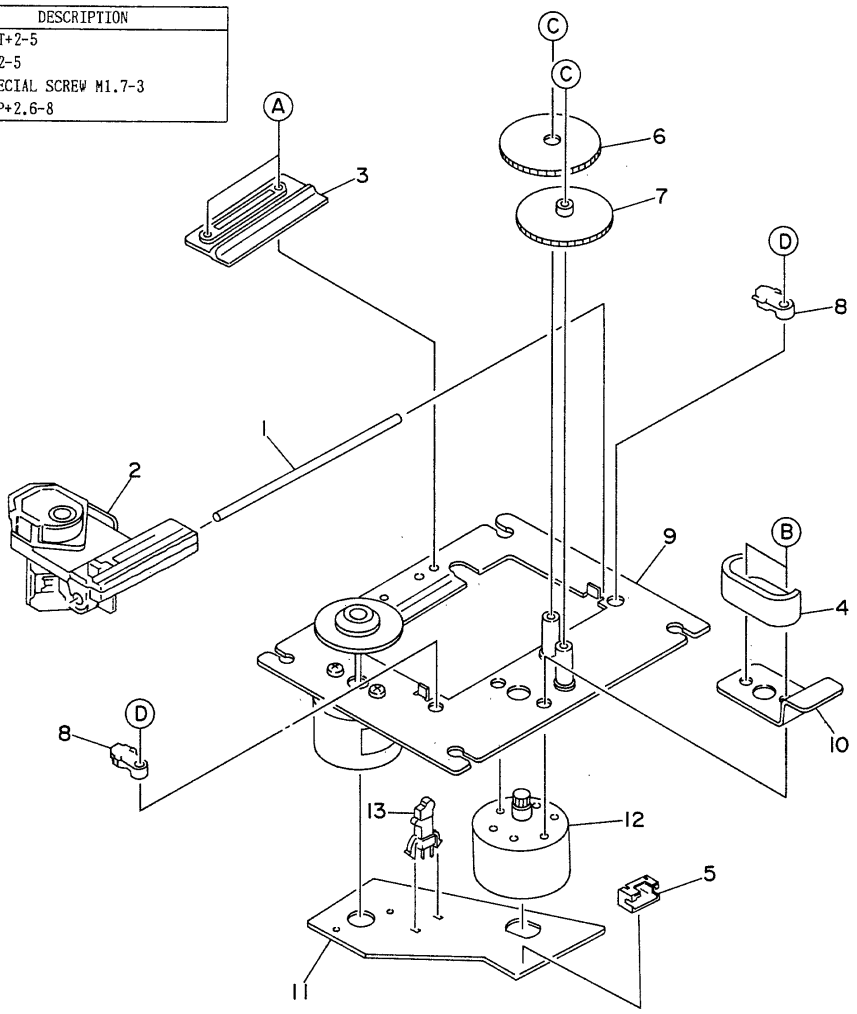
REF.NO.	PART NO.	DESCRIPTION
A	87-067-584-010	BVT_2+3-6
B	87-067-633-010	BVT_2+3-8 CONVEX
C	87-067-660-010	BVT_2+3-8 (B)
D	87-067-703-010	BVT_2+3-10
E	87-067-767-010	BVTT+2.6-6
F	87-067-716-010	BVTT+3-6
G	87-067-689-010	BVTT+3-8
H	87-721-095-410	QT_2+3-8 W/O SLOT
I	87-743-095-410	UT_2+3-8 (B)
J	87-263-033-210	V+2-4
K	87-081-808-010	PW1.7-3.5-0.25



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	4-1	★92-642-170-010	HOLDER, HINGE		1
	4-2	★92-642-164-010	SPRING, HINGE		1
	4-3	★92-642-160-010	SHAFT, SPRING T		4
	4-4	★92-642-137-010	SPRING, COIL B		2
	4-5	★92-642-139-010	SPRING, COIL A		2
	4-6	★92-642-158-010	FOOT, C		4
	4-7	★9X-264-210-510	SPRING SUB CHASSIS ASSY		1
	4-8	★92-642-159-010	PLATE, SPRING T		4
	4-9	★92-642-169-010	ROLLER		1
	4-10	★92-642-147-010	GUIDE, TRAY L		1
	4-11	★92-642-162-020	HOLDER, TRAY L		2
	4-12	★92-642-146-010	GUIDE, TRAY R		1
	4-13	★92-642-154-020	GEAR, SPRING DRIVE		1
	4-14	93-653-387-000	BELT, LM		1
	4-15	★94-913-731-010	PULLEY, LOADING		1
	4-16	★92-642-148-010	GEAR, SPRING RELAY		1
	4-17	★92-642-149-010	COVER, SPRING GEAR		1
	4-18	★9X-264-210-810	MAGNET ASSY		1
	4-19	★92-642-165-010	CHASSIS, CHUCK		1
	4-20	★92-642-181-010	PULLEY, CHUCKING		1
	4-21	★92-642-161-010	HOLDER, FRONT TRAY		2
	4-22	91-572-052-110	SWITCH, LEAF (OPEN/CLOSE)		1
	4-23	★9X-264-210-610	SPRING MAIN CHASSIS ASSY		1
	4-24	★92-642-512-010	HOLDER, MD BOSS REAR		1
	4-25	★92-642-510-010	HOLDER, MD BOSS		1
	4-26	★92-642-153-010	CAM, SPRING CONTROL		1
	4-27	---	TAPE, FRONT		1
	4-28	★92-642-511-010	HOLDER, MD BOSS L		1
	4-29	★92-642-173-010	PLATE, RING		1
	4-30	★92-642-133-020	BOSS		1
	4-31	★9X-264-210-910	STOPPER RING ASSY		1
	4-32	9X-264-133-610	MOTOR ASSY (LOADING)		1
	4-33	★91-624-793-210	CD MOTOR 2 C.B		1
	4-34	★91-564-721-110	CONNECTOR, PIN 5P		1
	4-35	★92-642-156-010	TRAY		1
	4-36	★92-642-125-010	DAMPER		2

EXPLODED VIEW – 5 (FD – N6)

REF.NO.	PART NO.	DESCRIPTION
A	92-641-386-010	PTT+2-5
B	97-621-255-350	P+2-5
C	93-303-809-310	SPECIAL SCREW M1.7-3
D	92-641-447-010	STP+2.6-8



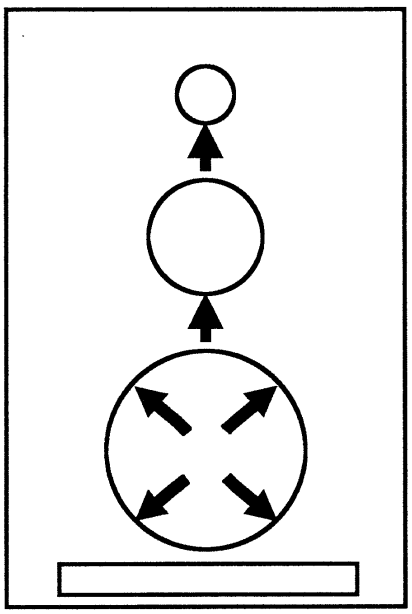
PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	5-1	★94-910-431-010	SHAFT, SLIDE		1
	5-2	98-848-127-11Z	PICK UP(KSS-210A)		1
	5-3	★92-641-443-020	HOLDER, SLIDE J		1
	5-4	★92-641-434-010	COVER, GEAR		1
	5-5	★92-564-720-110	CONNECTOR, PIN		1
	5-6	92-641-404-020	GEAR, A		1
	5-7	★92-641-403-050	GEAR, B		1
	5-8	★92-641-448-020	CLAMP, SHAFT		2
	※5-9	9X-264-135-610	SP MOTOR ASSY(W/CHASSIS, T.T) (DISC)(RF-310T-11400)		1
	※5-9	9X-264-135-810	SP MOTOR ASSY(W/CHASSIS, T.T) (DISC)(MDN-4RA3NTAS)		1
	5-10	★92-641-371-010	STOPPER		1
	※5-11	★91-625-848-110	CD MOTOR 1 C.B(RF-310T-11400)		1
	※5-11	★91-628-263-110	CD MOTOR 1 C.B (MDN-4RA3NTAS/4RA3ETA)		1
	※5-12	9X-264-077-010	SLED MOTOR GEAR ASSY(SLED) (RF-310T-11400)		1
	※5-12	9X-264-134-410	SLED MOTOR GEAR ASSY(SLED) (MDN-4RA3ETA)		1
	5-13	91-572-053-110	SWITCH LEAF(LIMIT)		1

※Caution
Two Types of the spindle (DISC) motor and sled motor are used, but they are not compatible.
Check the part numbers (MDN ····, RF ····) on the labels of motors and replace motors with the same one.

MODEL NO.

SX – N6

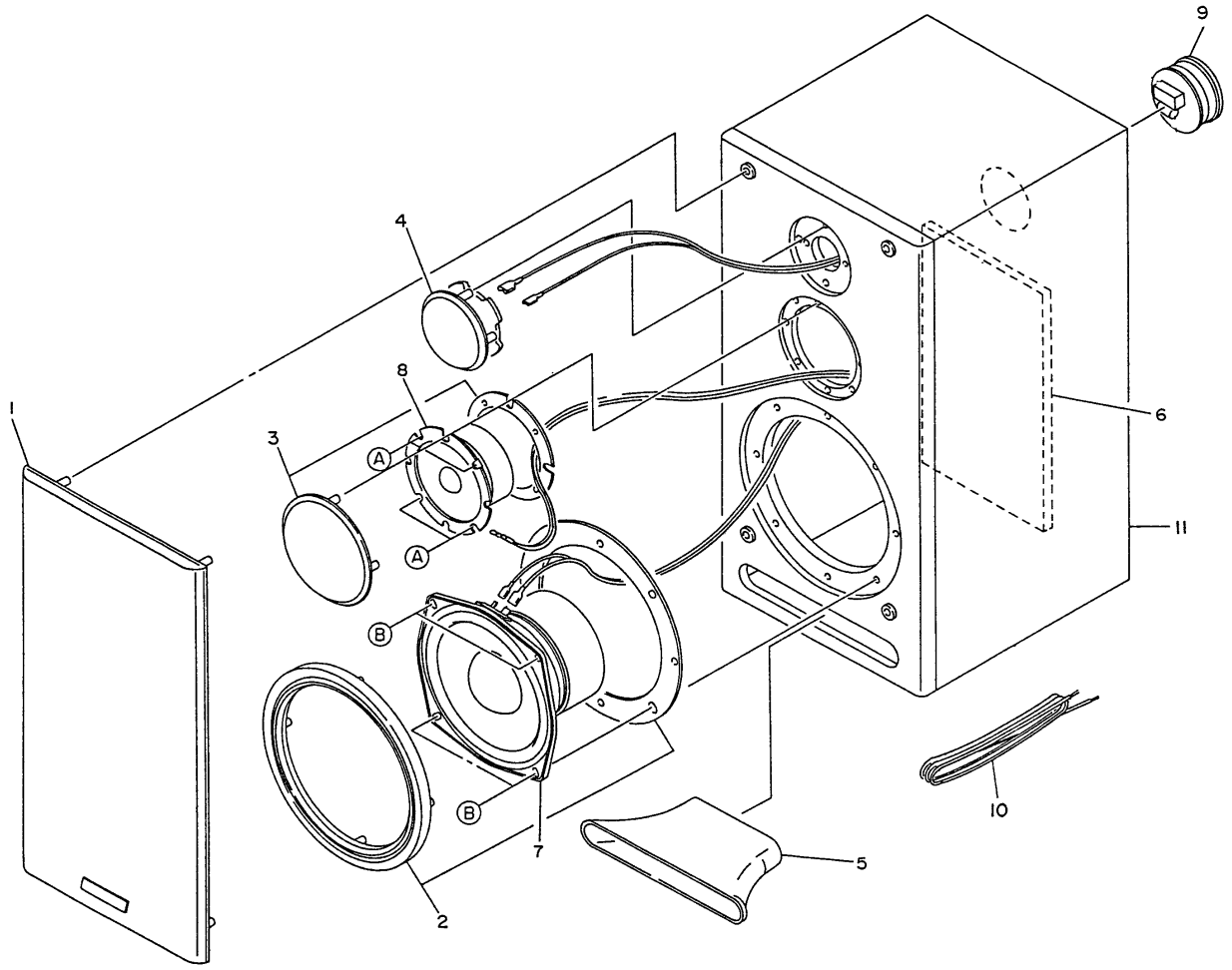
DISASSEMBLY INSTRUCTIONS (SX – N6)



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

• SX – N6 (3-way speaker system)

EXPLODED VIEW (SX – N6)



■ SPEAKER LIST (SX – N6)

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q,TY
	1	★80-MSD-019-010	GRILL ASSY	※	2
	2	★80-VS2-005-010	PANEL W ASSY		2
	3	★80-VS1-012-010	PANEL M ASSY		2
	4	★80-VS1-013-010	PANEL T ASSY		2
	5	★80-VS2-004-010	DUCT		2
	6	★80-MSD-004-010	FELT	※	2
	7	80-MSD-602-010	SPEAKER W	※	2
	8	80-MSD-604-010	SPEAKER T	※	2
	9	★83-149-611-010	TERMINAL		2
	10	★81-672-612-010	SPEAKER CORD		2
	11	- - -	CABINET		2

■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q,TY
	1	★80-MX3-909-018	INSTRUCTION BOOKLET, K6	※	1
	2	★80-MRD-017-019	REMOTE – CONTROLLER RC – TN6 LYBN	※	1
	3	★81-ED1-015-019	DM – H15YBNTS		1
	4	★81-653-645-010	AM – LOOP ANT (6T) NC		1
	5	★87-043-106-019	FM WIRE ANT (Z)		1

920074, 737004, 861377