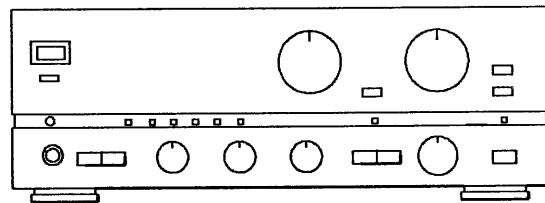


aiwa

XA-950

# SERVICE MANUAL



STEREO INTEGRATED AMPLIFIER

● TYPE. E,K,Z

## SPECIFICATIONS

### General

#### Power requirements

XA-950E, Z  
230V AC, 50 Hz  
XA-950K  
240V AC, 50 Hz

#### Power consumption

300 W

### Power amplifier

#### Effective output power

150 W+150 W  
(4 ohms, T.H.D. 0.9%,  
1 kHz)  
100 W+100 W  
(8 ohms, T.H.D. 0.9%,  
1 kHz)

#### Total harmonic distortion

0.005%  
(20 Hz-20 kHz, 75 W,  
8 ohms)

#### Output bandwidth

5 Hz-70 kHz  
(less than 0.05%)  
(Both channels driven,  
8 ohms)

#### Frequency response

5 Hz-150 kHz (  $-0$  dB)

### Preamplifier

#### S/N ratio

IHF A curve short circuited  
PHONO : MM 95 dB  
(5 mV input)  
: MC 75 dB  
(0.5 mV input)  
TUNER, CD, VIDEO/AUX,  
TAPE 1, TAPE 2/DAT,  
ADAPTOR: 110 dB

### Input jacks

#### (Sensitivity/Input impedance)

PHONO : MM  
2.5 mV/47k ohms  
: MC  
0.2 mV/100 ohms  
TUNER, CD VIDEO/AUX,  
TAPE 1, TAPE 2/DAT,  
ADAPTOR: 150 mV/47k ohms

#### PHONO overload level

130 mV (MM)  
(1 kHz, T.H.D. 0.01%)

### Output jacks

#### (Level/output impedance)

TAPE 1, TAPE 2/DAT,  
ADAPTOR: 150 mV/47k ohms  
Headphones: 8-32 ohms  
Speakers: 4-16 ohms  
(A+B: 8-16 ohms)

#### RIAA deviation

$\pm 0.5$  dB (30 Hz-15 kHz)

#### SUBSONIC filter

16 Hz 12 dB/Oct

### Maximum dimensions

(w/h/d) 430 x 140 x 340 mm  
(17 x 5<sup>5</sup>/<sub>8</sub> x 13<sup>1</sup>/<sub>2</sub> inches)

### Weight

10.5 kg (23.1 lbs)

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

AIWA CO.,LTD.

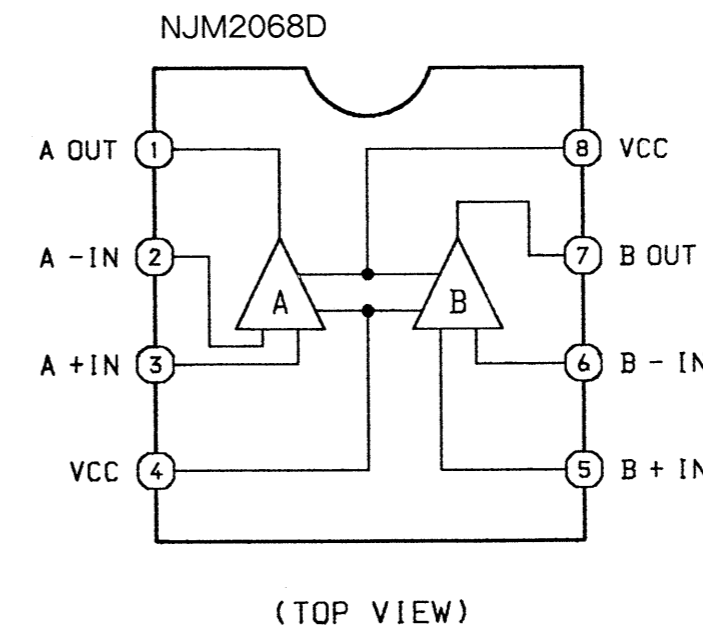
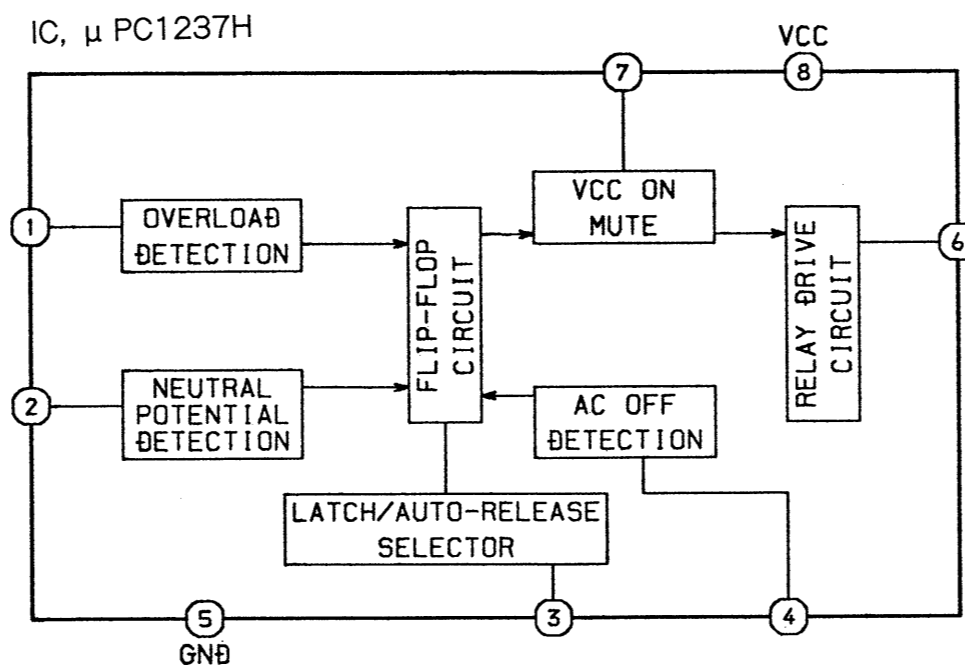
Tokyo Japan

Printed in Japan

# ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
=== IC ===					
	87-002-669-010	IC, GP1U-571X (SENSOR)	C133	★87-018-100-089	CAP, CERA-SOL U 4.7P-50 SL
	87-020-738-019	IC, LB1630	C134	★87-018-100-089	CAP, CERA-SOL U 4.7P-50 SL
	82-AA1-645-110	IC, LC6527H-4989	C135	★87-018-217-089	CAP, CERA-SOL U 3300P-50C (Z)
	87-001-171-019	IC, NJM2068D	C136	★87-018-217-089	CAP, CERA-SOL U 3300P-50C (Z)
	87-001-536-019	IC, NJM78M05FA	C137	★87-018-217-089	CAP, CERA-SOL U 3300P-50C (Z)
	87-027-787-010	IC, UPC1237H	C138	★87-018-217-089	CAP, CERA-SOL U 3300P-50C (Z)
			C139	★87-018-131-089	CAP, CERA-SOL U 1000P-50 B (Z)
			C140	★87-018-131-089	CAP, CERA-SOL U 1000P-50 B (Z)
=== TRANSISTOR ===					
	89-503-696-080	FET, 2SK369 (BL)	C141	★87-018-131-089	CAP, CERA-SOL U 1000P-50 B (Z)
	89-109-705-089	TRANSISTOR, 2SA970 (GR)	C142	★87-018-131-089	CAP, CERA-SOL U 1000P-50 B (Z)
	89-110-155-089	TRANSISTOR, 2SA1015 (GR)	C143	★87-018-133-089	CAP, CERA-SOL U 4700P-16 X (Z)
	89-112-162-310	TRANSISTOR, 2SA1216 (P/Y)	C144	★87-018-133-089	CAP, CERA-SOL U 4700P-16 X (Z)
	89-112-201-210	TRANSISTOR, 2SA1220A (R/Q)	C145	★87-010-401-089	CAP, ELECT 1-50 SME
	89-113-603-410	TRANSISTOR, 2SA1360 (O, Y)	C146	★87-010-401-089	CAP, ELECT 1-50 SME
	89-213-302-089	TRANSISTOR, 2SB1330 (Q)	C152	★87-010-401-089	CAP, ELECT 1-50 SME
	89-318-155-089	TRANSISTOR, 2SC1815 (GR)	C153	★87-010-762-089	CAP, ELECT, 220-10V BP
	89-322-405-089	TRANSISTOR, 2SC2240 (GR)	C155	★87-010-405-089	CAP, ELECT 10-50 SME
	89-326-821-210	TRANSISTOR, 2SC2682 (Q/P)	C156	★87-010-260-089	CAP, ELECT 47-25 SME
	89-326-901-210	TRANSISTOR, 2SC2690A (R/Q)	C157	★87-010-260-089	CAP, ELECT 47-25 SME
	89-329-222-310	TRANSISTOR, 2SC2922 (P/Y)	C158	★87-010-260-089	CAP, ELECT 47-25 SME
	89-333-296-089	TRANSISTOR, 2SC3329 (BL)	C159	★87-010-260-089	CAP, ELECT 47-25 SME
	89-334-194-010	TRANSISTOR, 2SC3419 (Y)	C160	★87-010-260-089	CAP, ELECT 47-25 SME
	89-420-062-089	TRANSISTOR, 2SD2006 (Q)	C161	★87-010-260-089	CAP, ELECT 47-25 SME
			C162	★87-010-260-089	CAP, ELECT 47-25 SME
=== DIODE ===					
	87-020-123-089	DIODE DS446-AT (TA)	C163	★87-010-397-099	CAP, ELECT 1000-35
	87-001-783-089	DIODE, 1N4002-T	C164	★87-010-397-099	CAP, ELECT 1000-35
	87-020-110-089	DIODE, 1SS177	C165	★82-AA1-631-010	CAP, ELECT 12000-63
	87-027-788-010	DIODE, D5FB20	C166	★82-AA1-631-010	CAP, ELECT 12000-63
	87-027-224-089	DIODE, ZENER 05Z12L	C171	★87-010-384-089	CAP, ELECT 100-25 SME
	87-027-449-089	DIODE, ZENER HZ15-3L	FR1	★87-029-130-090	RES, FUSE 220-1W
			FR2	★87-029-130-090	RES, FUSE 220-1W
			J102	★87-009-395-010	JACK, PIN 6P EARTH (INPUT)
=== MAIN CIRCUIT BOARD SECTION ===					
C41	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	J103	★87-009-392-010	JACK, PIN 6P (TAPE 2/DAT, TAPE 1)
C42	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	J104	★87-009-392-010	JACK, PIN 6P (TAPE 1, ADAPTOR)
C43	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	L1	★87-005-158-019	COIL, 1UH
C44	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	L2	★87-005-158-019	COIL, 1UH
C45	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R159	★87-022-326-089	RES, NF 56-1/4W J
C46	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R160	★87-022-326-089	RES, NF 56-1/4W J
C47	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R163	★87-025-479-089	RES, NF 100-1/4 WJ
C48	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R164	★87-025-479-089	RES, NF 100-1/4 WJ
C49	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R165	★87-025-479-089	RES, NF 100-1/4 WJ
C50	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R166	★87-025-479-089	RES, NF 100-1/4 WJ
C51	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R173	87-025-477-089	RES, NF 47-1/4W J
C52	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R174	87-025-477-089	RES, NF 47-1/4W J
C53	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R175	87-025-477-089	RES, NF 47-1/4W J
C54	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R176	87-025-477-089	RES, NF 47-1/4W J
C55	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R179	★81-AA3-619-010	RES, 0.22-5WX2 MPC
C56	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R180	★81-AA3-619-010	RES, 0.22-5WX2 MPC
C57	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R193	★87-025-487-089	RES, M/F 10-1W
C58	★87-018-121-089	CAP, CERA-SOL U 150P-50 B (Z)	R194	★87-025-487-089	RES, M/F 10-1W
C59	★87-018-134-089	CAP, CERA-SOL U 0.01-16 Y	R197	★87-025-347-090	RES, 10-2W
C101	★87-010-405-089	CAP, ELECT 10-50 SME	R198	★87-025-347-090	RES, 10-2W
C102	★87-010-405-089	CAP, ELECT 10-50 SME	R223	★87-025-471-089	RES, NF 4.7-1/4WJ
C103	★87-010-430-089	CAP, ELECT 100-63	R224	★87-025-471-089	RES, NF 4.7-1/4WJ
C104	★87-010-430-089	CAP, ELECT 100-63	R225	★87-025-471-089	RES, NF 4.7-1/4WJ
C109	★87-010-430-089	CAP, ELECT 100-63	R226	★87-025-471-089	RES, NF 4.7-1/4WJ
C110	★87-010-430-089	CAP, ELECT 100-63	R227	★87-025-484-089	RES, NF 680-1/4W J
C111	★87-010-263-089	CAP, ELECT 100-10	R228	★87-025-484-089	RES, NF 680-1/4W J
C112	★87-010-263-089	CAP, ELECT 100-10	R231	★87-025-467-089	RES, NF 1-1/4 WJ
C127	★87-018-131-089	CAP, CERA-SOL U 1000P-50 B	R232	★87-025-467-089	RES, NF 1-1/4 WJ
C128	★87-018-131-089	CAP, CERA-SOL U 1000P-50 B	RY1	★87-045-330-010	RELAY, RY-12WK
			RY2	★87-045-330-010	RELAY, RY-12WK
			RY3	★87-045-330-010	RELAY, RY-12WK
			RY4	★87-045-330-010	RELAY, RY-12WK

IC BLOCK DIAGRAM



TRUTH TABLE

LB1630

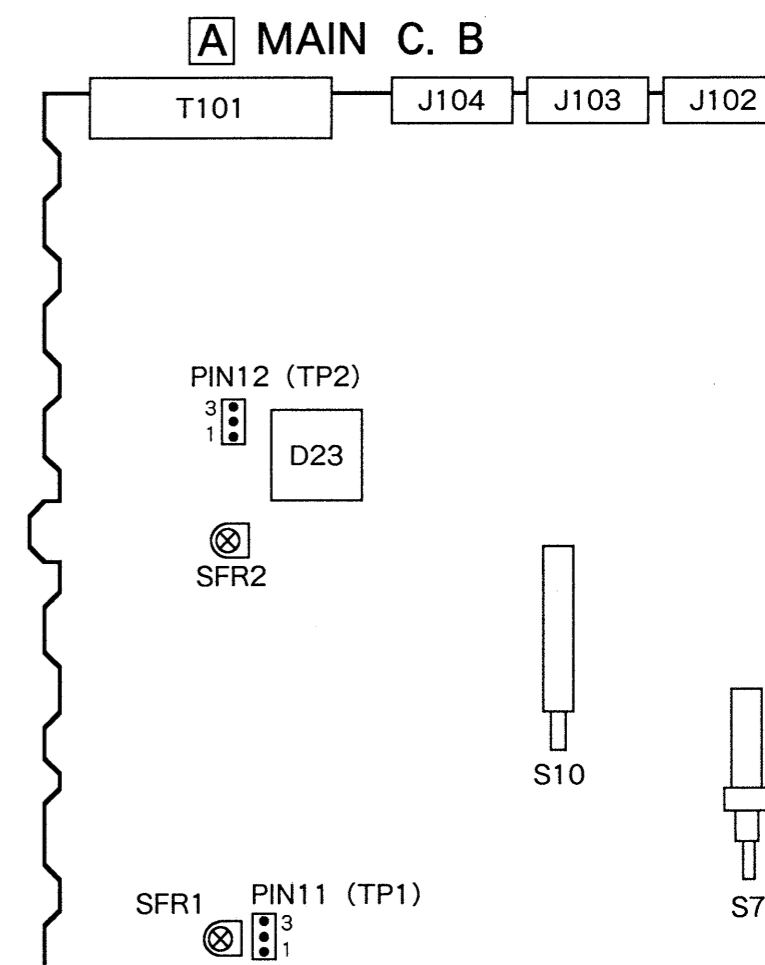
IN1	IN2	OUT1	OUT2	MOTOR
H	L	H	L	FORWARD
L	H	L	H	REVERSE
H	H	OFF	OFF	STANDBY
L	L	OFF	OFF	STANDBY

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
EQ CIRCUIT BOARD SECTION					
C1	★87-018-119-089	CAP, CERA-SOL U 100P-50 B (E, K)	C9	★87-018-114-089	CAP, CERA-SOL U 39P-50 SL
C2	★87-018-119-089	CAP, CERA-SOL U 100P-50 B (E, K)	C10	★87-018-114-089	CAP, CERA-SOL U 39P-50 SL
C3	★87-018-131-089	CAP, CERA-SOL U 1000P-50 B	C11	★87-018-199-089	CAP, CERA-SOL U 3300P-16 X
C4	★87-018-131-089	CAP, CERA-SOL U 1000P-50 B	C12	★87-018-199-089	CAP, CERA-SOL U 3300P-16 X
C5	★87-018-125-089	CAP, CERA-SOL U 330P-50 B	C13	★87-010-370-089	CAP, ELECT 330-6.3 SME
C6	★87-018-125-089	CAP, CERA-SOL U 330P-50 B	C14	★87-010-370-089	CAP, ELECT 330-6.3 SME
C7	★87-018-125-089	CAP, CERA-SOL U 330P-50 B (Z)	C21	★87-010-404-089	CAP, ELECT 4.7-50 SME
C8	★87-018-125-089	CAP, CERA-SOL U 330P-50 B (Z)	C22	★87-010-404-089	CAP, ELECT 4.7-50 SME
FRONT CIRCUIT BOARD SECTION					
C61	★87-018-126-089	CAP, CERA-SOL U 390P-50 B	C23	★87-018-200-089	CAP, CERA-SOL U 3900P-16X
C62	★87-018-126-089	CAP, CERA-SOL U 390P-50 B	C24	★87-018-200-089	CAP, CERA-SOL U 3900P-16X
C65	★87-010-401-089	CAP, ELECT 1-50 SME	C29	★87-018-121-089	CAP, CERA-SOL U 150P-50 B
C66	★87-010-401-089	CAP, ELECT 1-50 SME	C30	★87-018-121-089	CAP, CERA-SOL U 150P-50 B
C67	★87-018-109-089	CAP, CERA-SOL U 22P-50 SL	C31	★87-010-404-089	CAP, ELECT 4.7-50 SME
C68	★87-018-109-089	CAP, CERA-SOL U 22P-50 SL	C32	★87-010-404-089	CAP, ELECT 4.7-50 SME
C69	★87-010-403-089	CAP, ELECT 3.3-50 SME	C33	★87-018-134-089	CAP, CERA-SOL U 0.01-16 Y
C70	★87-010-403-089	CAP, ELECT 3.3-50 SME	C35	★87-010-260-089	CAP, ELECT 47-25 SME
C77	★87-018-123-089	CAP, CERA-SOL U 220P-50 B	C36	★87-010-260-089	CAP, ELECT 47-25 SME
C78	★87-018-123-089	CAP, CERA-SOL U 220P-50 B	C37	★87-010-381-089	CAP, ELECT 330-16 SME
C81	★87-010-382-089	CAP, ELECT 22-25 SME	C38	★87-010-381-089	CAP, ELECT 330-16 SME
C82	★87-010-382-089	CAP, ELECT 22-25 SME	C39	★87-010-260-089	CAP, ELECT 47-25 SME
C83	★87-010-401-089	CAP, ELECT 1-50 SME	C40	★87-010-260-089	CAP, ELECT 47-25 SME
C84	★87-010-401-089	CAP, ELECT 1-50 SME	C401	★87-010-260-089	CAP, ELECT 47-25 SME
C85	★87-010-260-089	CAP, ELECT 47-25 SME	C402	★87-010-260-089	CAP, ELECT 47-25 SME
C86	★87-010-260-089	CAP, ELECT 47-25 SME	J101	★87-009-610-019	JACK, PIN 2P H EARTH (PHONO INPUT)
C87	★87-018-109-089	CAP, CERA-SOL U 22P-50 SL	L3	87-005-154-089	COIL 220UH LAL03(Z)
C88	★87-018-109-089	CAP, CERA-SOL U 22P-50 SL	L4	87-005-154-089	COIL 220UH LAL03(Z)
C89	★87-010-260-089	CAP, ELECT 47-25 SME	L5	87-005-154-089	COIL 220UH LAL03(Z)
C90	★87-010-260-089	CAP, ELECT 47-25 SME	L6	87-005-154-089	COIL 220UH LAL03(Z)
C91	★87-010-404-089	CAP, ELECT 4.7-50 SME	S8	★82-AA1-636-010	SW, PUSH(SUBSONIC)
C92	★87-010-404-089	CAP, ELECT 4.7-50 SME	S9	★82-AA1-637-010	SW, PUSH(CARTRIDGE)
C172	★87-018-209-089	CAP, CERA-SOL U 0.1-50 F	LED CIRCUIT BOARD SECTION		
C173	★87-018-209-089	CAP, CERA-SOL U 0.1-50 F	LED1	87-002-819-080	LED, SLR-56VR(ADAPTOR TAPE MONITOR)
C174	★87-018-209-089	CAP, CERA-SOL U 0.1-50 F	PHONES CIRCUIT BOARD SECTION		
C175	★87-018-209-089	CAP, CERA-SOL U 0.1-50 F	J105	★87-009-043-010	JACK, 6.3 12.5-11.5 (PHONES)
C176	★87-018-209-089	CAP, CERA-SOL U 0.1-50 F	S2	★82-AA1-632-010	SW, PUSH(SPEAKERS)
C177	★87-018-209-089	CAP, CERA-SOL U 0.1-50 F	VOL. CIRCUIT BOARD SECTION		
C201	★87-010-370-089	CAP, ELECT 330-6.3 SME	C167	★87-010-382-089	CAP, ELECT 22-25 SME
C202	★87-010-401-089	CAP, ELECT 1-50 SME	C168	★87-010-382-089	CAP, ELECT 22-25 SME
C203	★87-010-401-089	CAP, ELECT 1-50 SME	L7	87-005-235-080	COIL, 2.7MH
C204	★87-015-695-089	CAP, ELECT 1-50 7L	VR1	★82-AA1-639-010	VR, 100K(B) W/LED 10, MOTOR(VOLUME)
C205	★87-018-133-089	CAP, CERA-SOL U 4700P-16 X	PULSE SW CIRCUIT BOARD SECTION		
C206	★87-018-133-089	CAP, CERA-SOL U 4700P-16 X	S11	★82-AA1-638-010	SW, ROTARY (INPUT SELECTOR)
C207	★87-010-370-089	CAP, ELECT 330-6.3 SME	REMOTE CIRCUIT BOARD SECTION		
LED2	★87-002-819-080	LED, SLR-56VR (SOURCE DIRECT)	P. T. CIRCUIT BOARD SECTION		
LED3	★87-002-819-080	LED, SLR-56VR (PHONO)	Δ	87-033-213-089	CLAMP FUSE SMK
LED4	★87-002-819-080	LED, SLR-56VR (TUNER)	C199	★87-016-157-090	CAP, MYLER 0.1-250
LED5	★87-002-819-080	LED, SLR-56VR (CD)	ΔF1	87-035-367-010	FUSE, 3.15A 250V T E
LED6	★87-002-819-080	LED, SLR-56VR (VIDEO/AUX)			
LED7	★87-002-819-080	LED, SLR-56VR (TAPE2→1)			
LED8	★87-002-819-080	LED, SLR-56VR (TAPE1→2)			
LED9	★87-002-819-080	LED, SLR-56VR (POWER)			
R250	87-025-478-089	RES, NF 68-1/4W J			
S4	★82-AA1-634-010	SW, PUSH(MUTING)			
S5	★82-AA1-635-010	SW, PUSH(LOUDNESS/SOURCE DIRECT)			
VR2	★82-AA1-640-010	VR, 100K(M, N) (BALANCE)			
VR3	★82-AA1-641-010	VR, 50K(C) C OPEN (TREBLE)			
VR4	★82-AA1-642-010	VR, 50K(C) C SHORT (BASS)			
X1	★87-MX1-704-089	CERA LOCK (MU) 3.9MHZ			

TRANSISTOR ILLUSTRATION

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
ΔPT1	82-AA1-608-018	PT, E (E, Z)	ΔJ8	★87-009-932-010	OUTLET, AC E (AC OUTLET) (E, Z)
ΔPT1	82-AA1-609-018	PT, K (K)	ΔJ8	★87-009-933-010	OUTLET, AC K-N (AC OUTLET) (K)
P. S. CIRCUIT BOARD SECTION					
ΔC251	★87-019-112-019	CAP, SG 0.01 E	ΔJ9	★87-009-932-010	OUTLET, AC E (AC OUTLET) (E, Z)
ΔS1	87-036-234-010	SW, PUSH (POWER)	ΔJ9	★87-009-933-010	OUTLET, AC K-N (AC OUTLET) (K)
OUTLET (E, K, Z ONLY) CIRCUIT BOARD SECTION					
ΔJ8	★87-009-932-010	OUTLET, AC E (AC OUTLET) (E, Z)	2SA970		
ΔJ8	★87-009-933-010	OUTLET, AC K-N (AC OUTLET) (K)	2SA1015		
ΔJ9	★87-009-932-010	OUTLET, AC E (AC OUTLET) (E, Z)	2SC1815		
ΔJ9	★87-009-933-010	OUTLET, AC K-N (AC OUTLET) (K)	2SC2240		
MISCELLANEOUS					
Δ	★87-034-592-018	AC CORD (RS) (K)	2SC3329		
Δ	★87-034-781-018	AC CORD (E) (E, Z)			
Δ	★87-085-185-010	BUSHING, AC CORD E			

ADJUSTMENT



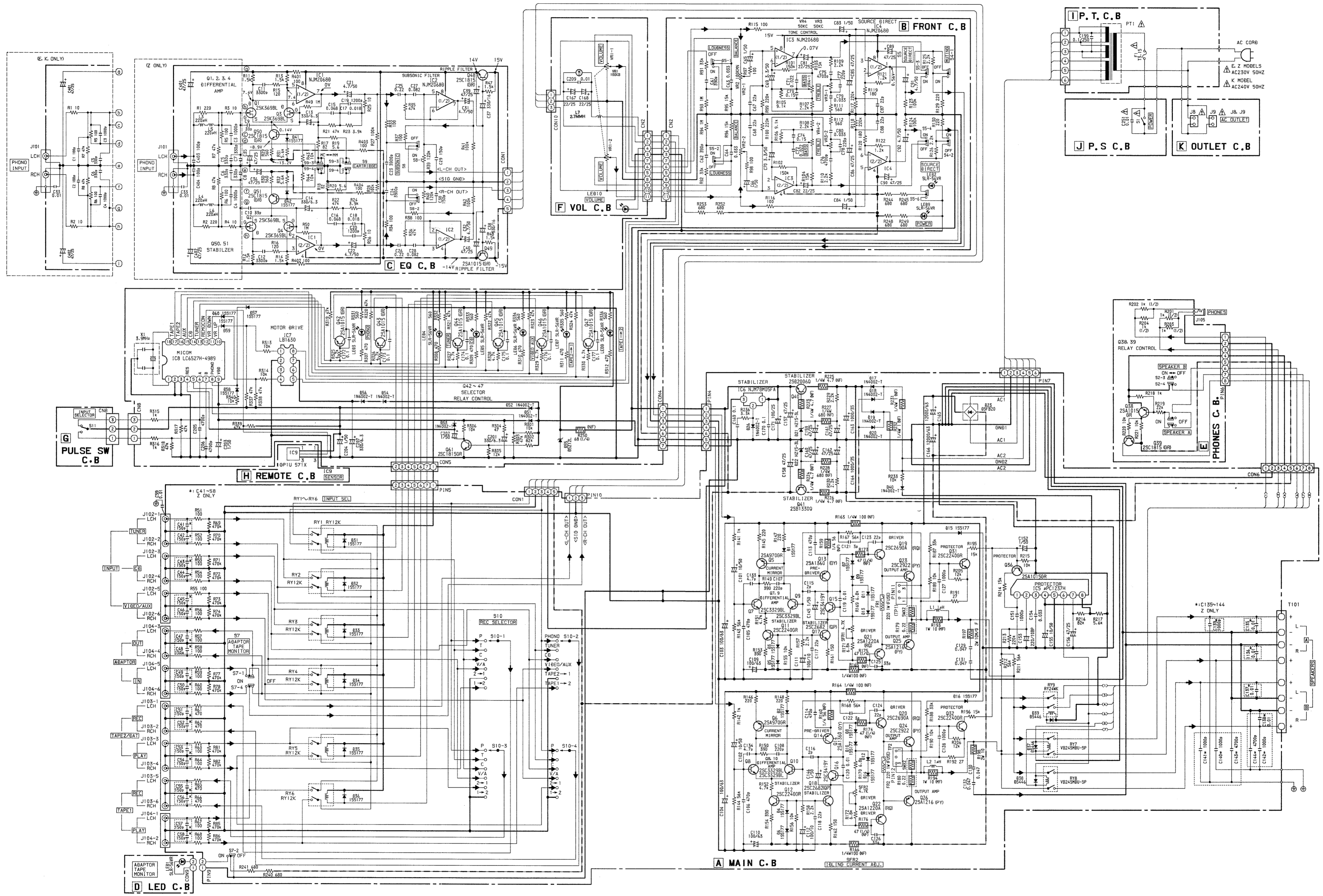
IDLING CURRENT ADJUSTMENT

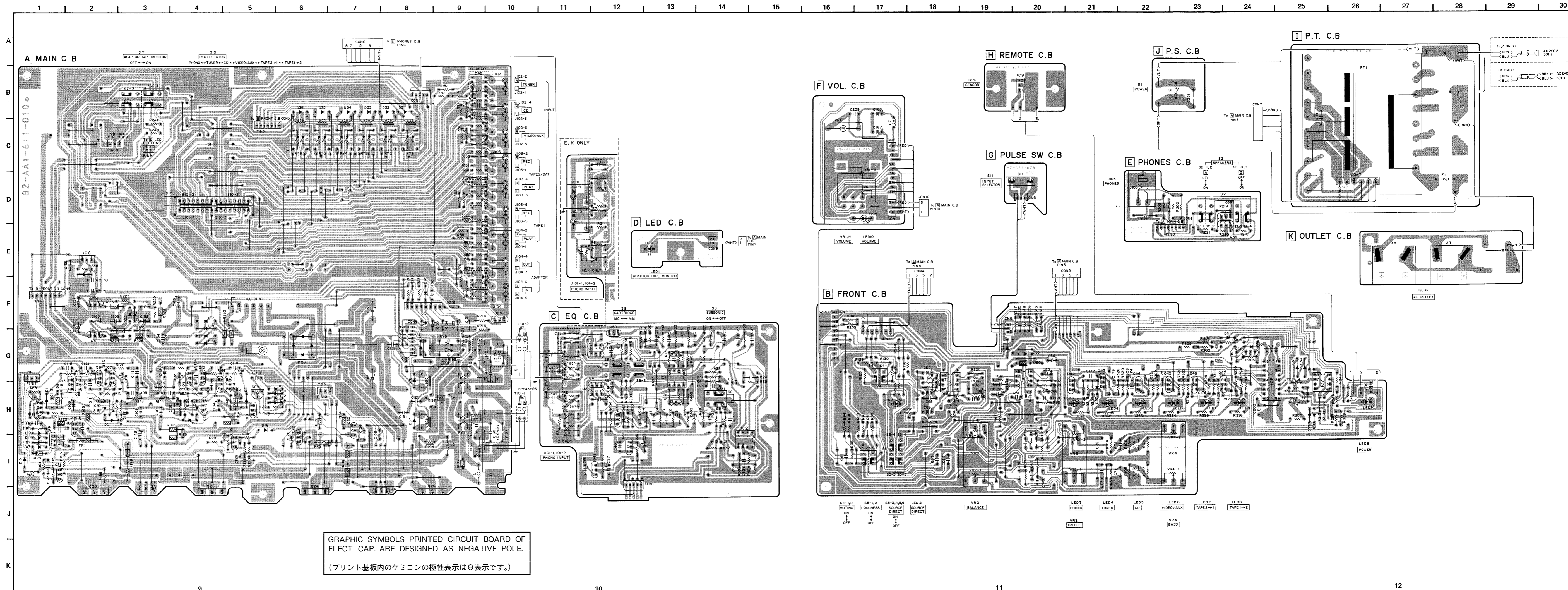
Settings : • Test Points : TP1 (PIN11, Lch)  
 TP2 (PIN12, Rch)  
 • Adjustment Locations : SFR1 (Lch)  
 SFR2 (Rch)  
 Method : Connect the voltmeter at TP1, TP2 (⊕ side : 1,  
 ⊖ side : 3) and adjust so that the voltage is  
 8.0mV.

IC DESCRIPTION

IC, LC6527H - 4989

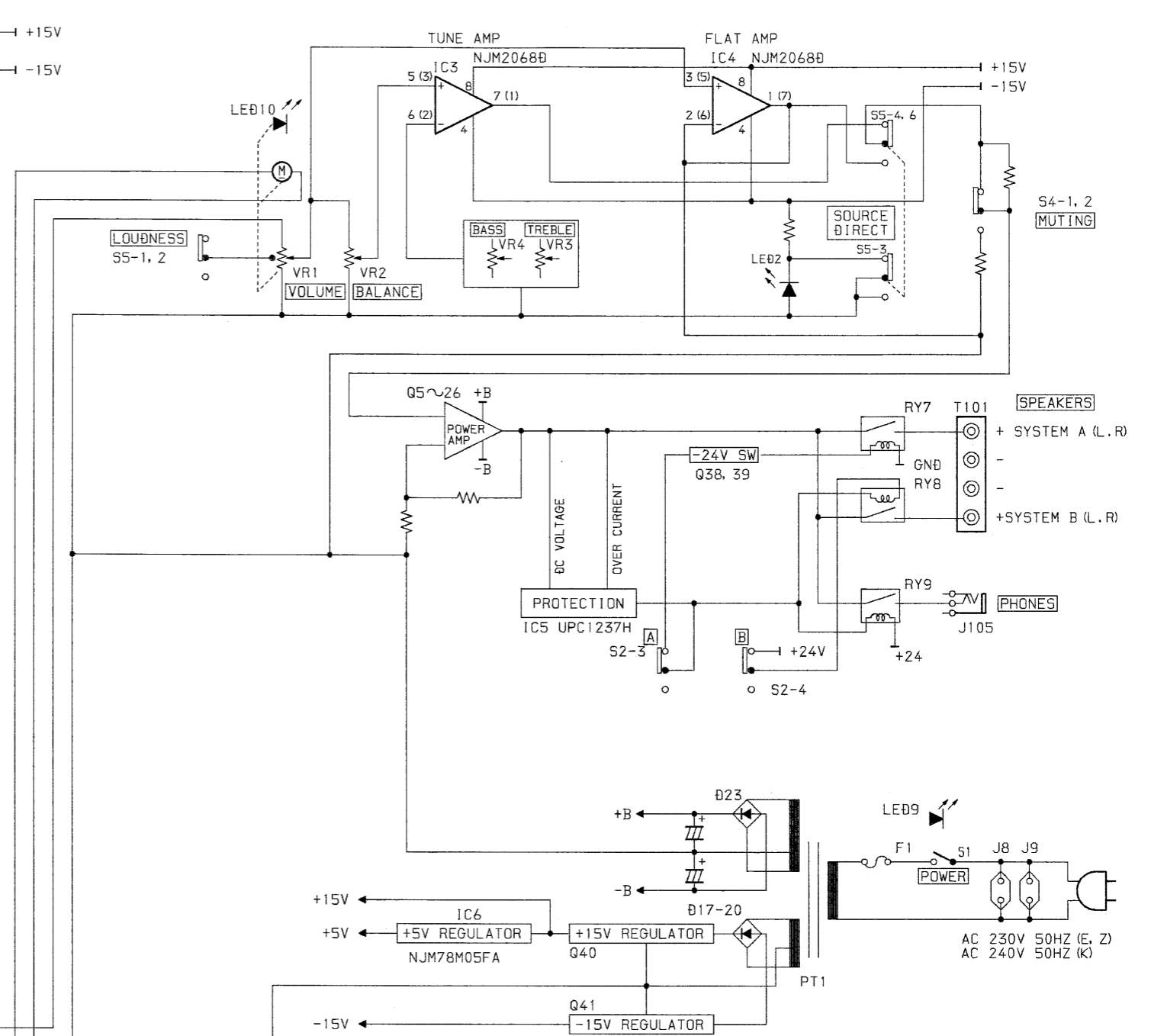
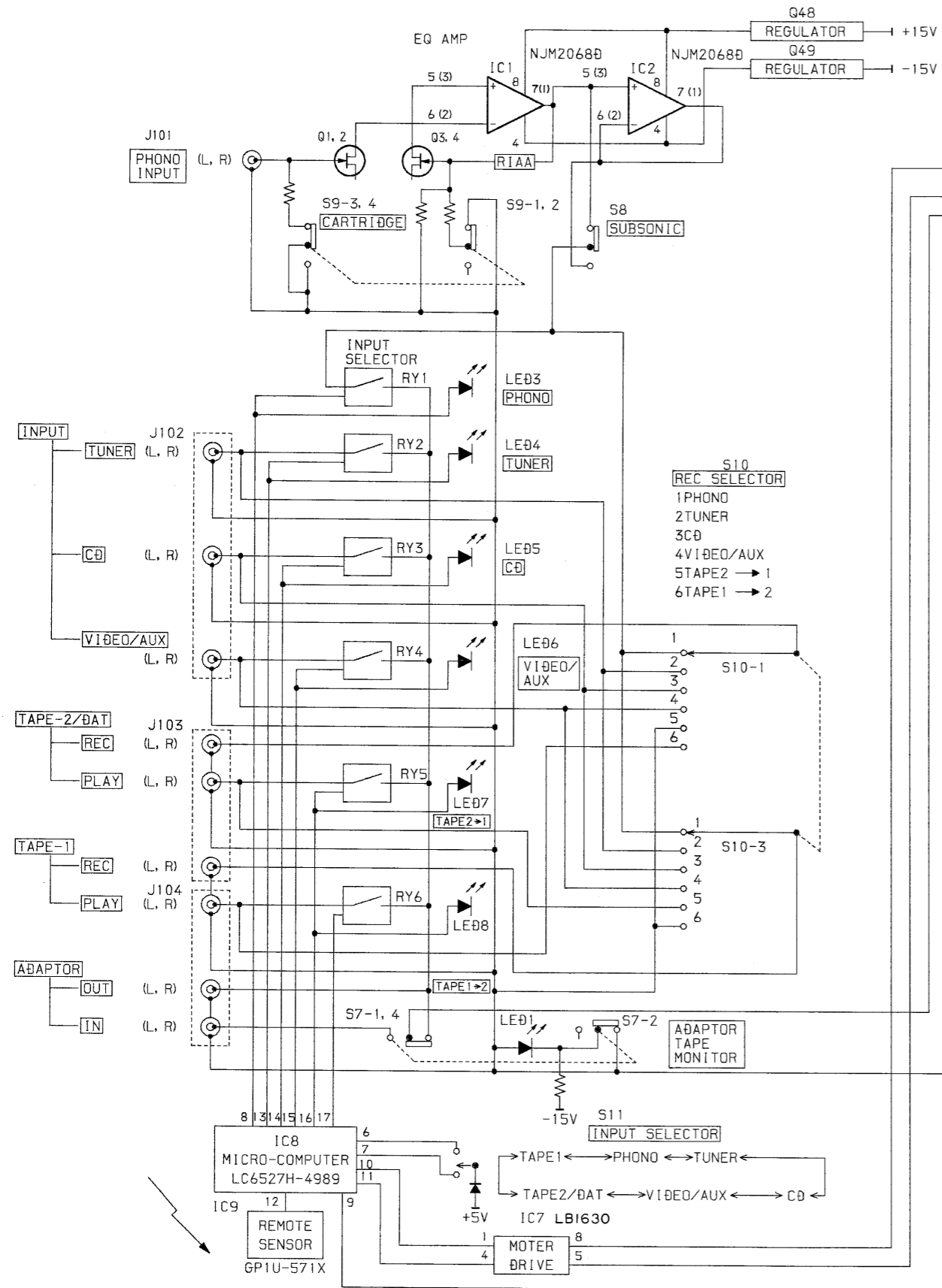
Pin No.	Pin Name	I/O	Description
1	OSC1	-	SYSTEM clock oscillator signal. Clock frequency is 4MHz.
2	TEST	-	LSI TEST mode setting. Connected to VSS
3	VSS	I	Connected to ground
4	RES	I	SYSTEM reset input
5	PA0	-	Power on detection signal
6	PA1	I	ENCODER A signal input. (active : Hi)
7	PA2	I	ENCODER B signal input. (active : Hi)
8	PA3	I	REMOCON signal input.
9	VDD	-	Power supply. (connected to +5V)
10	PC0	O	VOLUME UP signal output. (active : Hi)
11	PC1	O	VOLUME DOWN signal output. (active : Hi)
12	PC2	O	RELAY, LED driver output. (active : Hi)
13	PC3	O	RELAY, LED driver output. (active : Hi)
14	PD0	O	RELAY, LED driver output. (active : Hi)
15	PD1	O	RELAY, LED driver output. (active : Hi)
16	PD2	O	RELAY, LED driver output. (active : Hi)
17	PD3	O	RELAY, LED driver output. (active : Hi)
18	OSC2	-	SYSTEM clock oscillator signal





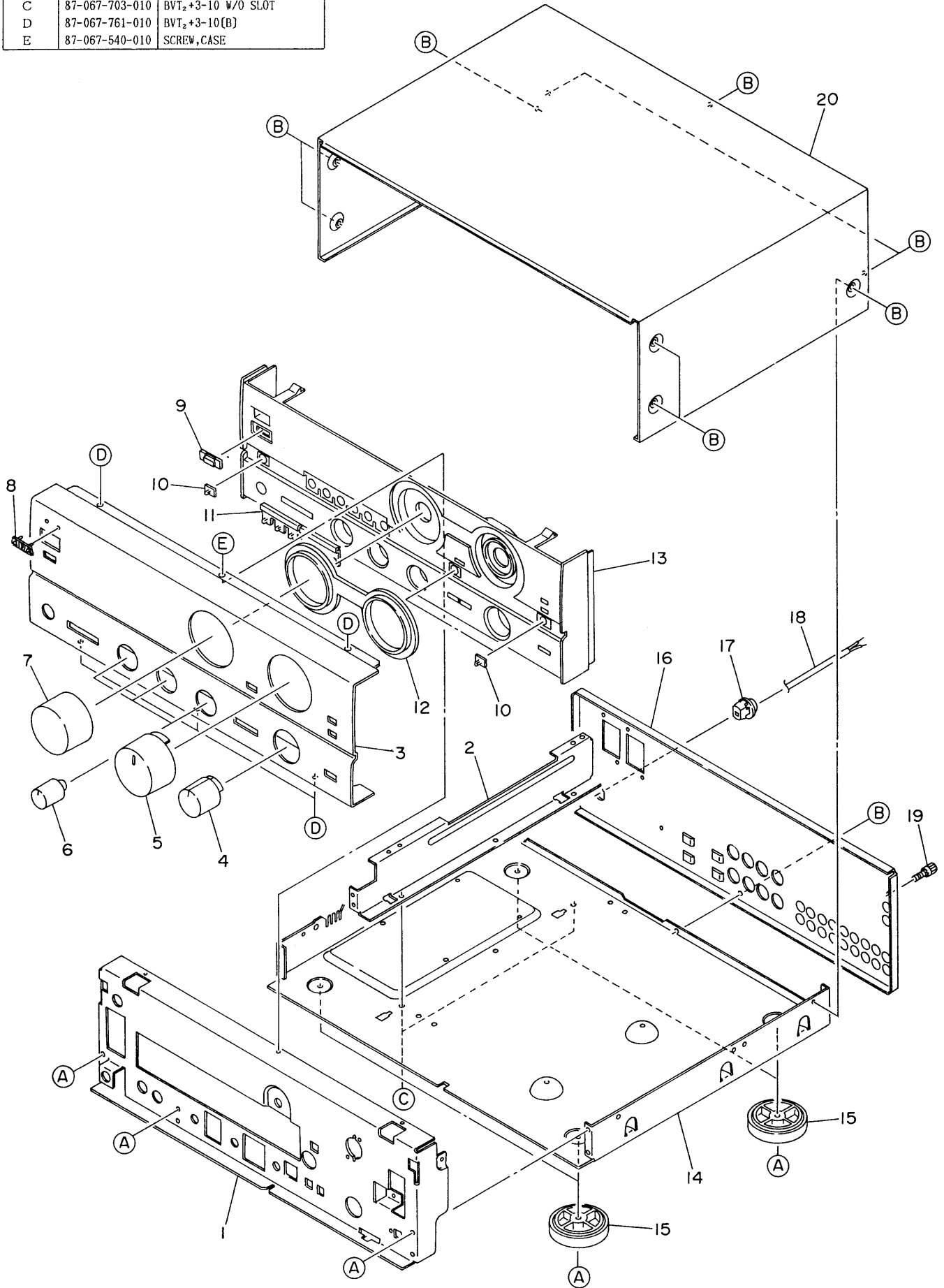
GRAPHIC SYMBOLS PRINTED CIRCUIT BOARD OF ELECT. CAP. ARE DESIGNED AS NEGATIVE POLE.  
 (プリント基板内のケミコンの極性表示は⊖表示です。)

BLOCK DIAGRAM



# EXPLODED VIEW - 1

REF. NO.	PART NO.	DESCRIPTION
A	87-067-689-010	BVTT+3-8
B	87-067-660-010	BVT <sub>2</sub> +3-8 W/O SLOT(B)
C	87-067-703-010	BVT <sub>2</sub> +3-10 W/O SLOT
D	87-067-761-010	BVT <sub>2</sub> +3-10(B)
E	87-067-540-010	SCREW, CASE



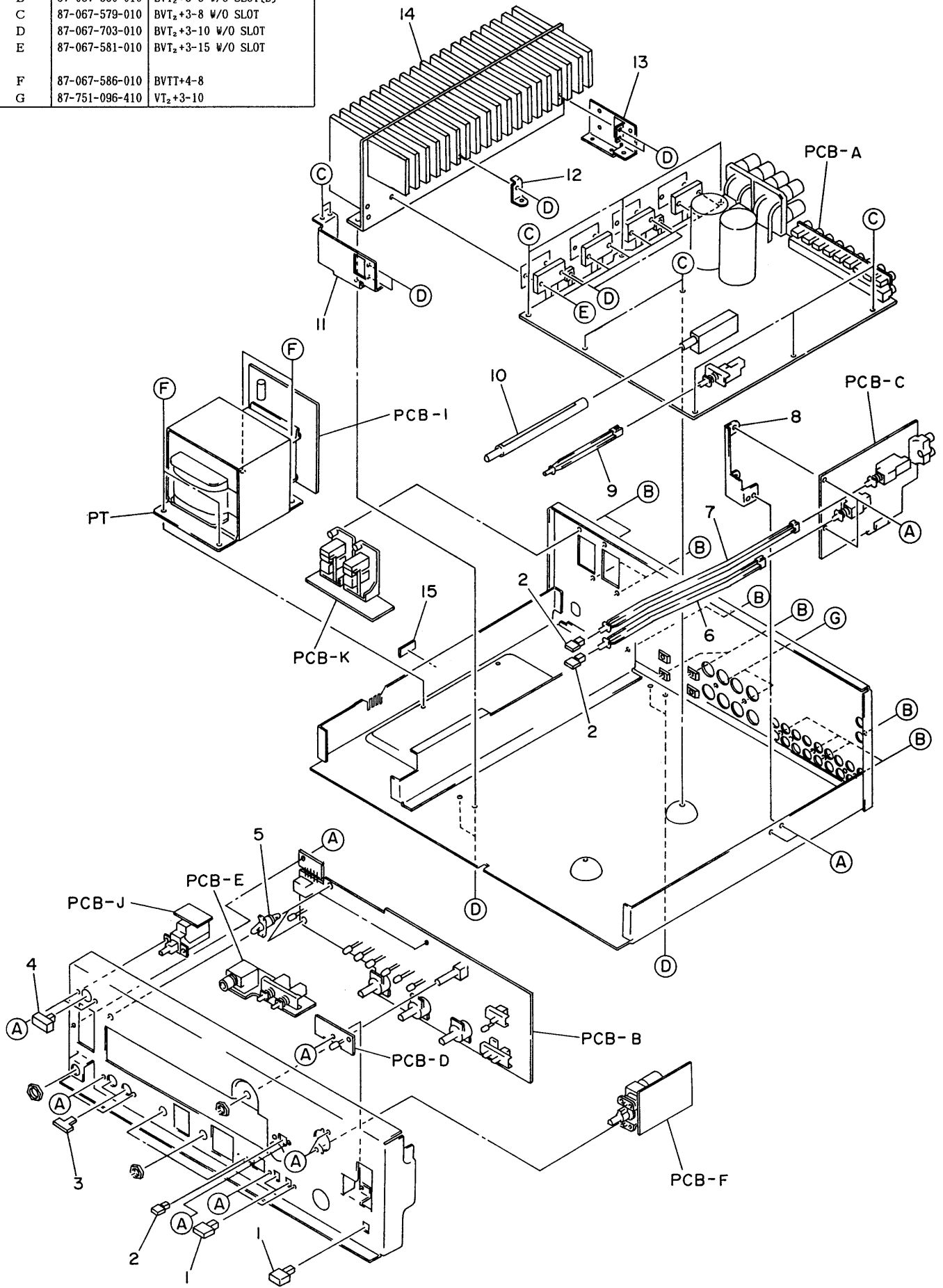
# MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
1-1		---	CHASSIS, FRONT		1
1-2		---	HOLDER, SIDE		1
1-3	★	82-AA1-004-010	PANEL, FRONT	*	1
1-4	★	82-AA1-012-010	KNOB REC SEL ASSY	*	1
1-5	★	82-AA1-009-010	KNOB VOLUME ASSY	*	1
1-6	★	82-AA1-010-019	KNOB, BALANCE	*	3
1-7	★	82-AA1-011-010	KNOB INPUT SEL ASSY	*	1
1-8	★	81-DS1-011-019	BADGE, AIWA N		1
1-9	★	82-AA1-020-019	WINDOW, RC	*	1
1-10	★	82-AA1-022-019	POINTER, 1P	*	3
1-11	★	82-AA1-017-019	POINTER, 6P	*	1
1-12	★	82-AA1-018-019	RING, VOLUME	*	1
1-13	★	82-AA1-001-010	CABINET, FRONT	*	1
1-14		---	CHASSIS, MAIN		1
1-15	★	82-AA1-029-010	FOOT	*	4
1-16	★	82-AA1-006-019	PANEL, REAR(E)	*	1
1-16	★	82-AA1-007-019	PANEL, REAR(K)	*	1
1-16	★	82-AA1-008-019	PANEL, REAR(Z)	*	1
1-17	★	87-085-185-010	BUSHING, AC CORD		1
1-18	★	87-034-781-010	CORD, AC(E, Z)		1
1-18	★	87-034-592-010	CORD, AC(K)		1
1-19		---	TERMINAL, EARTH		1
1-20	★	82-AA1-002-018	CABINET, STEEL	*	1



# EXPLODED VIEW - 2

REF. NO.	PART NO.	DESCRIPTION
A	87-067-689-010	BVTI+3-8
B	87-067-660-010	BVI <sub>2</sub> +3-8 W/O SLOT(B)
C	87-067-579-010	BVI <sub>2</sub> +3-8 W/O SLOT
D	87-067-703-010	BVI <sub>2</sub> +3-10 W/O SLOT
E	87-067-581-010	BVI <sub>2</sub> +3-15 W/O SLOT
F	87-067-586-010	BVTI+4-8
G	87-751-096-410	VI <sub>2</sub> +3-10



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q, TY
	2-1	★ 82-AA1-014-019	BUTTON, LOUDNESS	*	3
	2-2	★ 82-AA1-013-019	BUTTON, MUTE	*	3
	2-3	★ 82-AA1-015-019	BUTTON, SPEAKER	*	2
	2-4	★ 82-AA1-016-019	BUTTON, POWER	*	1
	2-5	---	HOLDER, B PWB		3
	2-6	★ 82-AA1-207-019	ROD, SUB	*	1
	2-7	★ 82-AA1-206-019	ROD, MM/MC	*	1
	2-8	---	HOLDER, PCB 3		1
	2-9	★ 82-AA1-211-019	ROD, ADAPTOR	*	1
	2-10	★ 82-AA1-208-019	ROD, SEL	*	1
	2-11	---	HOLDER, PCB 1		1
	2-12	---	HOLDER, A		1
	2-13	---	HOLDER, PCB 2		1
	2-14	---	HEAT SINK, MAIN		1
	2-15	★ 81-512-246-010	G-CUSHION, 3-8-20		1

## ■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	1	★ 82-AA1-901-018	INSTRUCTION BOOKLET, EX	※	1
	2	★ 82-AA1-033-010	REMOTE CONTROL, RC-A950LE(E, Z)	※	1
	3	★ 82-AA1-034-010	REMOTE CONTROL, RC-A950L(K)	※	1

# PRINTING THE SERVICE MANUAL

The PDF of this service manual is not designed to be printed from cover to cover. The pages vary in size, and must therefore be printed in sections based on page dimensions.

## NON-SCHEMATIC PAGES

Data that does NOT INCLUDE schematic diagrams are formatted to 8.5 x 11 inches and can be printed on standard letter-size and/or A4-sized paper.

## SCHEMATIC DIAGRAMS

The schematic diagram pages are provided in two ways, full size and tiled. The full-sized schematic diagrams are formatted on paper sizes between 8.5" x 11" and 18" x 30" depending upon each individual diagram size. Those diagrams that are LARGER than 11" x 17" in full-size mode have been tiled for your convenience and can be printed on standard 11" x 17" (tabloid-size) paper, and reassembled.

### TO PRINT FULL SIZE SCHEMATIC DIAGRAMS

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If you have access to a large paper plotter or printer capable of outputting the full-sized diagrams, output as follows:


- 1) Note the page size(s) of the schematics you want to output as indicated in the middle window at the bottom of the viewing screen.
- 2) Go to the File menu and select Print Set-up. Choose the printer name and driver for your large format printer. Confirm that the printer settings are set to output the indicated page size or larger.
- 3) Close the Print Set Up screen and return to the File menu. Select "Print..." Input the page number of the schematic(s) you want to print in the print range window. Choose OK.

### TO PRINT TILED VERSION OF SCHEMATICS

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Schematic pages that are larger than 11" x 17" full-size are provided in a 11" x 17" printable tiled format near the end of the document. These can be printed to tabloid-sized paper and assembled to full-size for easy viewing.



If you have access to a printer capable of outputting the tabloid size (11" x 17") paper, then output the tiled version of the diagram as follows:


- 1) Note the page number(s) of the schematics you want to output as indicated in the middle window at the bottom of the viewing screen.
- 2) Go to the File menu and select Print Set-up. Choose the printer name and driver for your printer. Confirm that the plotter settings are set to output 11" x 17", or tabloid size paper in landscape (  ) mode.
- 3) Close the Print Set Up screen and return to the File menu. Select "Print..." Input the page number of the schematic(s) you want to print in the print range window. Choose OK.

### TO PRINT SPECIFIC SECTIONS OF A SCHEMATIC

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To print just a particular section of a PDF, rather than a full page, access the Graphics Select tool in the Acrobat Reader tool bar.

- 1) To view the Graphics Select Tool, press and HOLD the mouse button over the Text Select Tool which looks like: . This tool will expand to reveal to additional tools. Choose the Graphics Select tool by placing the cursor over the button on of the far right that looks like: 
- 2) After selecting the Graphics Select Tool, place your cursor in the document window and the cursor will change to a plus (+) symbol. Click and drag the cursor over the area you want to print. When you release the mouse button, a marquee (or dotted lined box) will be displayed outlining the area you selected.
- 3) With the marquee in place, go to the file menu and select the "Print..." option. When the print window appears, choose the option under the section called "Print Range" which says "Selected Graphic".

Select OK and the output will print only the area that you outlined with the marquee. 

(continued >)