

TA-F248E

SERVICE MANUAL

*AEP Model
UK Model*



SPECIFICATIONS

Amplifier section

DIN power output

70 W + 70 W (4 ohms at 1 kHz)
50 W + 50 W (8 ohms at 1 kHz)

Total harmonic distortion

Less than 0.008% (at 10 W output)

Frequency response

PHONO (20 Hz - 20 kHz): RIAA equalization curve
 ± 0.5 dB
TUNER, CD, AUX, TAPE1/DAT, TAPE2/MD:
7 Hz - 100 kHz ± 0.5 dB

S/N (network A)

PHONO: 94 dB
TUNER, CD, AUX, TAPE1/DAT, TAPE2/MD: 105 dB

Output voltage / impedance

RECOU: 150 mV, 1 kilohm
PHONES: 10 mW (at 8 ohms)

Speakers impedance

4 - 16 ohms

Damping factor

100 (8 ohms, 1 kHz)

General

System

Power amplifier: Pure-complementary SEPP OCL
power amplifier with all stages directly coupled
Preamplifier: Low-noise, equalizer amplifier

Power requirements

230 V AC, 50/60 Hz

Power consumption

180 W

Dimensions (approx.) (w/h/d)

430 × 135 × 365 mm
incl. projecting parts and controls

Mass (approx.)

6.4 kg

Design and specifications are subject to change without notice.

INTEGRATED STEREO AMPLIFIER



SONY®

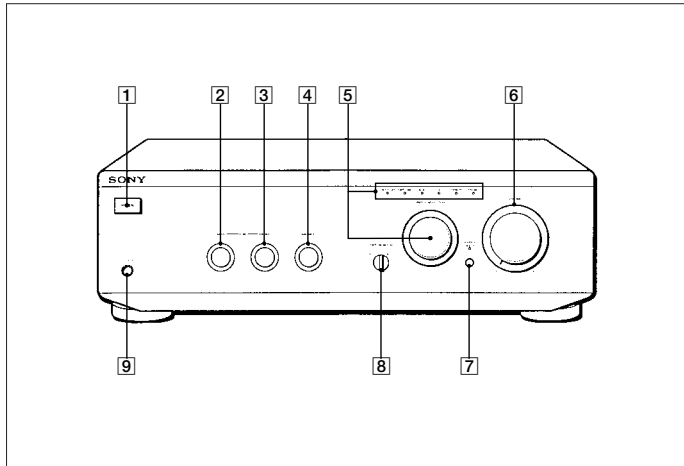
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

**SECTION 1
GENERAL**

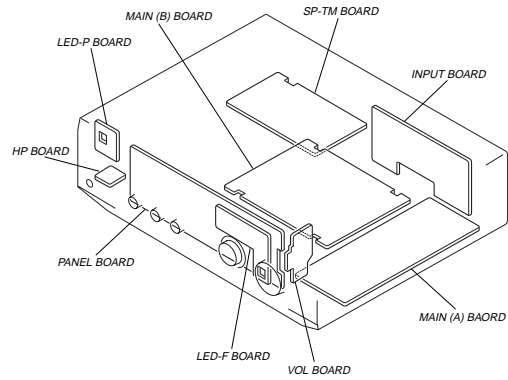


- 1 POWER button
- 2 BASS
- 3 TREBLE
- 4 BALANCE
- 5 INPUT SELECTOR

- 6 VOLUME
- 7 SOURCE DIRECT button
- 8 TAPE MONITOR switch
- 9 PHONES jack

**SECTION 2
DIAGRAMS**

2-1. CIRCUIT BOARDS LOCATION

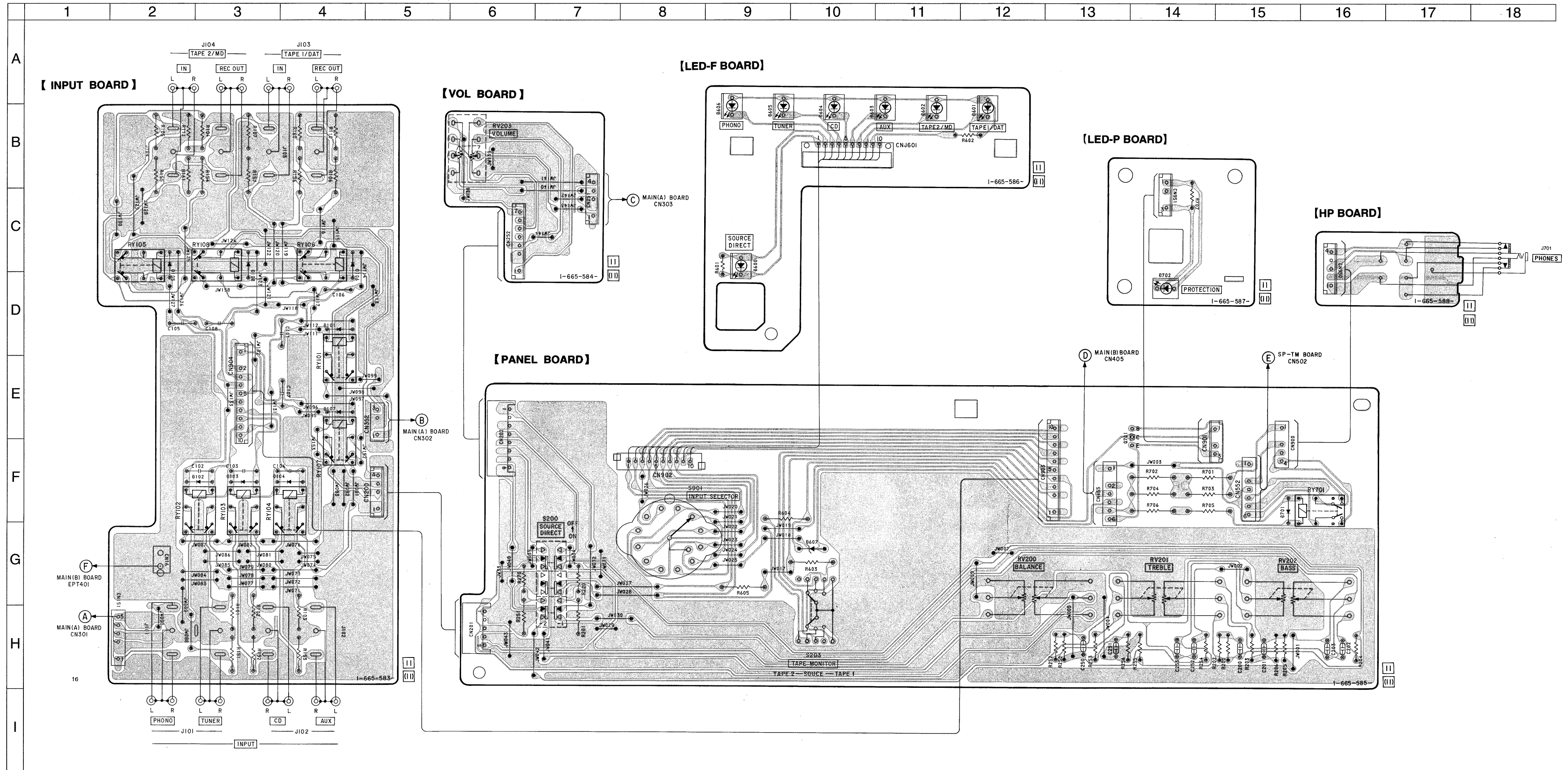


TA-F248E

2-2. PRINTED WIRING BOARD — PANEL SECTION —

• Semiconductor Location

Ref. No.	Location
D101	D-4
D102	F-3
D103	F-3
D104	F-4
D105	C-2
D106	C-4
D107	E-4
D108	C-3
D600	C-9
D601	B-12
D602	B-11
D603	B-11
D604	B-10
D605	B-9
D606	B-9
D607	G-10
D701	F-15
D702	D-14
Q701	E-14

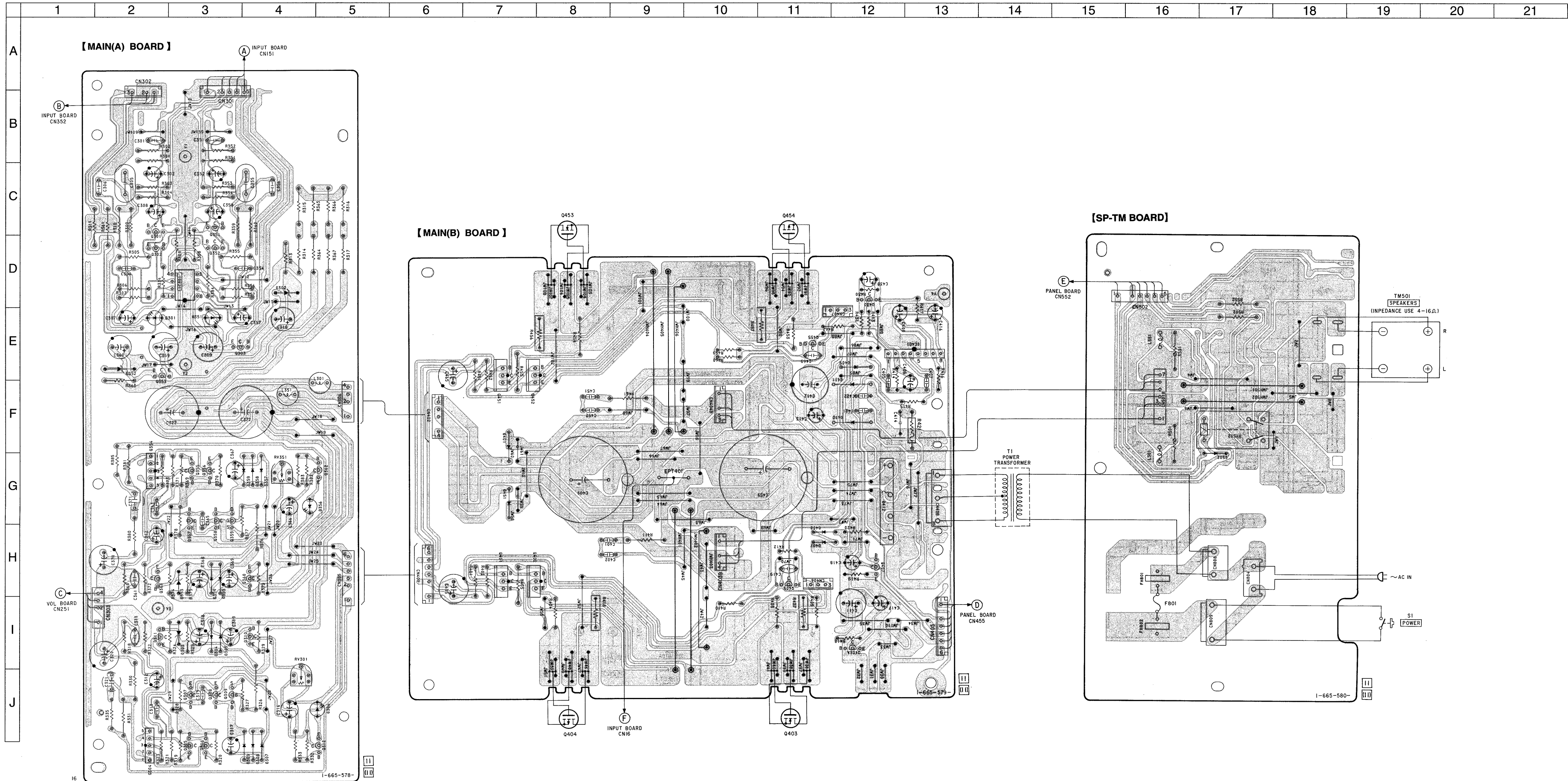


Note:
 • : Parts extracted from the component side.
 • Δ : Internal component.
 • : Pattern on the side which is seen.

2-4. PRINTED WIRING BOARD — MAIN SECTION —

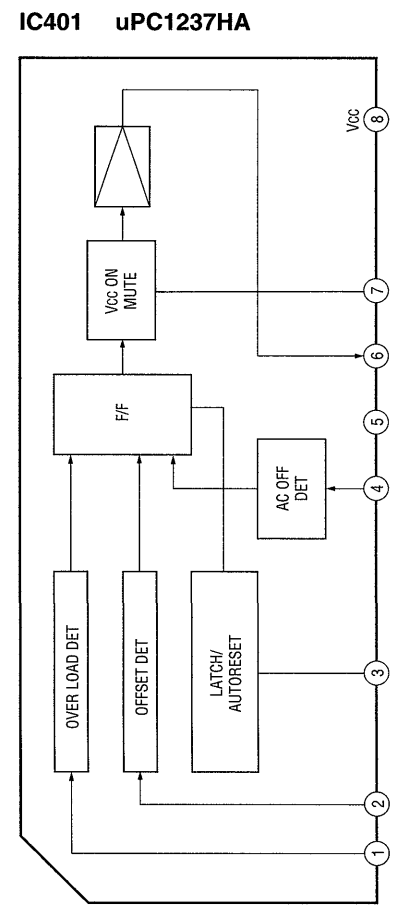
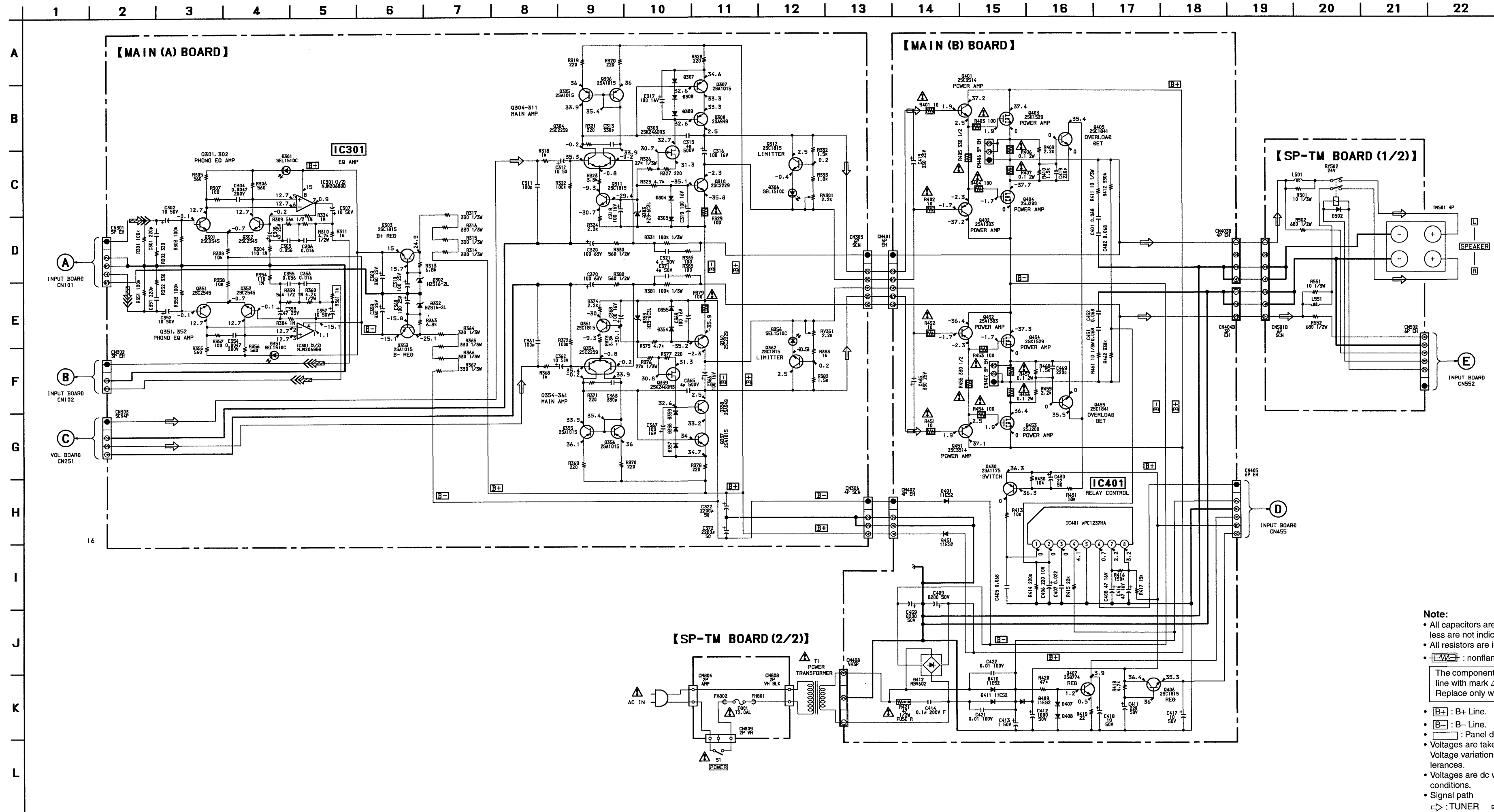
• Semiconductor Location

Ref. No.	Location
D301	E-2
D302	D-4
D303	I-3
D304	I-3
D305	I-3
D306	J-5
D307	J-4
D308	J-4
D309	J-4
D351	E-3
D352	E-2
D353	H-3
D354	H-3
D355	H-3
D356	G-4
D357	G-4
D358	G-4
D359	G-4
D401	F-7
D407	H-11
D408	H-11
D409	E-12
D410	F-12
D411	F-12
D412	G-12
D451	G-7
D502	F-17
IC301	D-3
IC401	E-13
Q301	C-2
Q302	D-2
Q303	E-3
Q304	J-2
Q305	J-3
Q306	J-3
Q307	J-3
Q308	J-3
Q309	J-3
Q310	I-4
Q311	I-2
Q312	J-5
Q351	C-3
Q352	D-3
Q353	F-2
Q354	G-2
Q355	G-3
Q356	G-3
Q357	G-3
Q358	G-3
Q359	G-3
Q360	H-4
Q361	H-2
Q362	G-5
Q401	H-7
Q402	H-7
Q405	H-11
Q406A	I-12
Q407	H-12
Q430	D-12
Q451	E-7
Q452	E-7
Q455	E-11



Note:
 • — : Parts extracted from the component side.
 • △ : Internal component.
 • — : Pattern on the side which is seen.

2-5. SCHEMATIC DIAGRAM — MAIN SECTION —



Note:
 • All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
 • All resistors are in Ω and 1/4W or less unless otherwise specified.
 • \triangle : nonflammable resistor.

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

- $B+$: B+ Line.
- $B-$: B- Line.
- \square : Panel designation
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production to tolerances.
- Voltages are dc with respect to ground under no-signal conditions.
- Signal path
- \rightarrow : TUNER \Rightarrow : PHONO

LED-P

MAIN (A)

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	1-665-587-11	LED-P BOARD *****				< CONNECTOR >	
		< CONNECTOR >		CN301	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
				CN302	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
CN951	1-691-765-11	PLUG (MICRO CONNECTOR) 3P				< DIODE >	
		< DIODE >		D301	8-719-310-61	DIODE SEL1510C-D	
				D302	8-719-933-88	DIODE HZS16-2L	
D702	8-719-313-48	DIODE SEL6210S-TH12 (PROTECTION)		D303	8-719-933-41	DIODE HZS6C3L	
		< RESISTOR >		D304	8-719-987-63	DIODE 1N4148M	
				D305	8-719-987-63	DIODE 1N4148M	
R707	1-259-143-21	CARBON 100 5% 1/4W		D306	8-719-310-61	DIODE SEL1510C-D	

*	A-4398-006-A	MAIN (A) BOARD, COMPLETE *****		D307	8-719-987-63	DIODE 1N4148M	
		< CAPACITOR >		D308	8-719-987-63	DIODE 1N4148M	
				D309	8-719-987-63	DIODE 1N4148M	
C301	1-102-978-00	CERAMIC 220PF 5% 50V		D351	8-719-310-61	DIODE SEL1510C-D	
C302	1-126-059-11	ELECT 10uF 20% 50V				< DIODE >	
C304	1-106-359-00	MYLAR 4700PF 5% 200V		D352	8-719-933-88	DIODE HZS16-2L	
C305	1-136-162-00	FILM 0.056uF 5% 50V		D353	8-719-933-41	DIODE HZS6C3L	
C306	1-137-471-11	FILM 0.016uF 5% 50V		D354	8-719-987-63	DIODE 1N4148M	
				D355	8-719-987-63	DIODE 1N4148M	
C307	1-126-059-11	ELECT 10uF 20% 50V		D356	8-719-310-61	DIODE SEL1510C-D	
C308	1-126-022-11	ELECT 47uF 20% 25V				< DIODE >	
C309	1-126-025-11	ELECT 330uF 20% 25V		D357	8-719-987-63	DIODE 1N4148M	
C310	1-126-023-11	ELECT 100uF 20% 25V		D358	8-719-987-63	DIODE 1N4148M	
C311	1-102-973-00	CERAMIC 100PF 5% 50V		D359	8-719-987-63	DIODE 1N4148M	
						< IC >	
C312	1-124-721-11	ELECT 10uF 20% 50V		IC301	8-759-701-25	IC NJM2068D-D	
C313	1-104-290-11	POLYSTYRENE 330PF 5% 50V				< COIL >	
C315	1-102-230-00	CERAMIC 4PF 0.25PF 500V		L301	1-428-203-11	COIL, AIR-CORE	
C316	1-126-023-11	ELECT 100uF 20% 16V		L351	1-428-203-11	COIL, AIR-CORE	
C317	1-126-023-11	ELECT 100uF 20% 16V				< TRANSISTOR >	
C318	1-126-023-11	ELECT 100uF 20% 16V		Q301	8-729-354-52	TRANSISTOR 2SC2545	
C319	1-126-023-11	ELECT 100uF 20% 16V		Q302	8-729-354-52	TRANSISTOR 2SC2545	
C320	1-110-393-11	ELECT 100uF 20% 63V		Q303	8-729-281-54	TRANSISTOR 2SC1815-BL	
C321	1-113-496-11	POLYSTYRENE 4PF 10% 50V		Q304	8-729-620-17	TRANSISTOR 2SC2259-FG	
C322	1-126-057-11	ELECT 2200uF 20% 50V		Q305	8-729-201-53	TRANSISTOR 2SA1015-GR	
				Q306	8-729-201-53	TRANSISTOR 2SA1015-GR	
C351	1-102-978-00	CERAMIC 220PF 5% 50V		Q307	8-729-201-53	TRANSISTOR 2SA1015-GR	
C352	1-126-059-11	ELECT 10uF 20% 50V		Q308	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6	
C354	1-106-359-00	MYLAR 4700PF 5% 200V		Q309	8-729-202-67	TRANSISTOR 2SK246-GR3	
C355	1-136-162-00	FILM 0.056uF 5% 50V		Q310	8-729-021-73	TRANSISTOR 2SC2229-OY-TPE6	
C356	1-137-471-11	FILM 0.016uF 5% 50V				< TRANSISTOR >	
C357	1-126-059-11	ELECT 10uF 20% 50V		Q311	8-729-281-54	TRANSISTOR 2SC1815-BL	
C358	1-126-022-11	ELECT 47uF 20% 25V		Q312	8-729-281-54	TRANSISTOR 2SC1815-BL	
C359	1-126-025-11	ELECT 330uF 20% 25V		Q351	8-729-354-52	TRANSISTOR 2SC2545	
C360	1-126-023-11	ELECT 100uF 20% 25V		Q352	8-729-354-52	TRANSISTOR 2SC2545	
C361	1-102-973-00	CERAMIC 100PF 5% 50V		Q353	8-729-201-53	TRANSISTOR 2SA1015-GR	
				Q354	8-729-620-17	TRANSISTOR 2SC2259-FG	
C362	1-124-721-11	ELECT 10uF 20% 50V		Q355	8-729-201-53	TRANSISTOR 2SA1015-GR	
C363	1-104-290-11	POLYSTYRENE 330PF 5% 50V		Q356	8-729-201-53	TRANSISTOR 2SA1015-GR	
C365	1-102-230-00	CERAMIC 4PF 0.25PF 500V		Q357	8-729-201-53	TRANSISTOR 2SA1015-GR	
C366	1-126-023-11	ELECT 100uF 20% 16V		Q358	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6	
C367	1-126-023-11	ELECT 100uF 20% 16V				< TRANSISTOR >	
C368	1-126-023-11	ELECT 100uF 20% 16V		Q359	8-729-202-67	TRANSISTOR 2SK246-GR3	
C369	1-126-023-11	ELECT 100uF 20% 16V		Q360	8-729-021-73	TRANSISTOR 2SC2229-OY-TPE6	
C370	1-110-393-11	ELECT 100uF 20% 63V		Q361	8-729-281-54	TRANSISTOR 2SC1815-BL	
C371	1-113-496-11	POLYSTYRENE 4PF 10% 50V		Q362	8-729-281-54	TRANSISTOR 2SC1815-BL	
C372	1-126-057-11	ELECT 2200uF 20% 50V					

MAIN (A)

MAIN (B)

Ref. No.	Part No.	Description	Remarks
< RESISTOR >			
R301	1-259-215-21	CARBON 100K 5%	1/4W
R302	1-249-911-11	CARBON 330 5%	1/4W
R303	1-259-215-21	CARBON 100K 5%	1/4W
R304	1-249-900-11	CARBON 110 1%	1/4W
R305	1-259-161-21	CARBON 560 5%	1/4W
R306	1-259-161-21	CARBON 560 5%	1/4W
R307	1-259-143-21	CARBON 100 5%	1/4W
R308	1-259-191-21	CARBON 10K 5%	1/4W
R309	1-249-844-11	CARBON 56K 1%	1/2W
R310	1-259-320-11	CARBON 4.7K 1%	1/2W
R311	1-259-167-21	CARBON 1K 5%	1/4W
R313	1-249-943-11	CARBON 6.8K 5%	1/4W
R314	1-249-198-11	CARBON 330 5%	1/3W
R315	1-249-198-11	CARBON 330 5%	1/3W
R316	1-249-198-11	CARBON 330 5%	1/3W
R317	1-249-198-11	CARBON 330 5%	1/3W
R318	1-259-167-21	CARBON 1K 5%	1/4W
R319	1-259-151-21	CARBON 220 5%	1/4W
R320	1-259-151-21	CARBON 220 5%	1/4W
R321	1-259-151-21	CARBON 220 5%	1/4W
R322	1-259-215-21	CARBON 100K 5%	1/4W
R323	1-259-179-21	CARBON 3.3K 5%	1/4W
R324	1-259-175-11	CARBON 2.2K 5%	1/4W
R325	1-259-183-11	CARBON 4.7K 5%	1/4W
R326	1-249-490-11	CARBON 27K 5%	1/2W
R327	1-259-151-21	CARBON 220 5%	1/4W
R328	1-259-151-21	CARBON 220 5%	1/4W
△R329	1-249-899-11	CARBON 100 5%	1/4W F
R330	1-247-749-11	CARBON 560 5%	1/2W F
R331	1-249-496-11	CARBON 100K 5%	1/2W
R332	1-259-171-21	CARBON 1.5K 5%	1/4W
R333	1-259-167-21	CARBON 1K 5%	1/4W
R334	1-259-239-11	CARBON 1M 5%	1/4W
R335	1-259-143-21	CARBON 100 5%	1/4W
R351	1-259-215-21	CARBON 100K 5%	1/4W
R352	1-249-911-11	CARBON 330 5%	1/4W
R353	1-259-215-21	CARBON 100K 5%	1/4W
R354	1-249-900-11	CARBON 110 1%	1/4W
R355	1-259-161-21	CARBON 560 5%	1/4W
R356	1-259-161-21	CARBON 560 5%	1/4W
R357	1-259-143-21	CARBON 100 5%	1/4W
R358	1-259-191-21	CARBON 10K 5%	1/4W
R359	1-249-844-11	CARBON 56K 1%	1/2W
R360	1-259-320-11	CARBON 4.7K 1%	1/2W
R361	1-259-167-21	CARBON 1K 5%	1/4W
R363	1-249-943-11	CARBON 6.8K 5%	1/4W
R364	1-249-198-11	CARBON 330 5%	1/3W
R365	1-249-198-11	CARBON 330 5%	1/3W
R366	1-249-198-11	CARBON 330 5%	1/3W
R367	1-249-198-11	CARBON 330 5%	1/3W
R368	1-259-167-21	CARBON 1K 5%	1/4W
R369	1-259-151-21	CARBON 220 5%	1/4W
R370	1-259-151-21	CARBON 220 5%	1/4W
R371	1-259-151-21	CARBON 220 5%	1/4W
R372	1-259-215-21	CARBON 100K 5%	1/4W

Ref. No.	Part No.	Description	Remarks
R373	1-259-179-21	CARBON 3.3K 5%	1/4W
R374	1-259-175-11	CARBON 2.2K 5%	1/4W
R375	1-259-183-11	CARBON 4.7K 5%	1/4W
R376	1-249-490-11	CARBON 27K 5%	1/2W
R377	1-259-151-21	CARBON 220 5%	1/4W
R378	1-259-151-21	CARBON 220 5%	1/4W
△R379	1-249-899-11	CARBON 100 5%	1/4W F
R380	1-247-749-11	CARBON 560 5%	1/2W F
R381	1-249-496-11	CARBON 100K 5%	1/2W
R382	1-259-171-21	CARBON 1.5K 5%	1/4W
R383	1-259-167-21	CARBON 1K 5%	1/4W
R384	1-259-239-11	CARBON 1M 5%	1/4W
R385	1-259-143-21	CARBON 100 5%	1/4W
< VARIABLE RESISTOR >			
RV301	1-241-762-11	RES, ADJ, CARBON 2.2K	
RV351	1-241-762-11	RES, ADJ, CARBON 2.2K	

*	A-4398-007-A	MAIN (B) BOARD, COMPLETE	

< CAPACITOR >			
C401	1-136-163-00	FILM 0.068uF 5%	50V
C402	1-136-163-00	FILM 0.068uF 5%	50V
C405	1-136-163-00	FILM 0.068uF 5%	50V
C406	1-126-923-11	ELECT 220uF 20%	10V
C407	1-136-157-00	FILM 0.022uF 5%	50V
C408	1-126-967-11	ELECT 47uF 20%	16V
C409	1-109-870-11	ELECT 8200uF 20%	50V
C411	1-126-969-11	ELECT 220uF 20%	50V
C412	1-126-972-11	ELECT 1000uF 20%	50V
C413	1-126-960-11	ELECT 1uF 20%	50V
C414	1-104-999-11	MYLAR 0.1uF 10%	200V
C415	1-126-025-11	ELECT 330uF 20%	25V
C416	1-126-967-11	ELECT 47uF 20%	16V
C417	1-126-964-11	ELECT 10uF 20%	50V
C418	1-126-964-11	ELECT 10uF 20%	50V
C419	1-164-077-11	CERAMIC 220PF 10%	50V
C421	1-137-150-11	MYLAR 0.01uF 10%	100V
C422	1-137-150-11	MYLAR 0.01uF 10%	100V
C430	1-126-965-11	ELECT 22uF 20%	50V
C451	1-136-163-00	FILM 0.068uF 5%	50V
C452	1-136-163-00	FILM 0.068uF 5%	50V
C459	1-109-870-11	ELECT 8200uF 20%	50V
C465	1-126-025-11	ELECT 330uF 20%	25V
C469	1-164-077-11	CERAMIC 220PF 10%	50V
< CONNECTOR >			
CN401	1-691-768-11	PLUG (MICRO CONNECTOR) 6P	
CN402	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
CN405	1-691-768-11	PLUG (MICRO CONNECTOR) 6P	
CN406	1-564-506-11	PLUG, CONNECTOR 3P	
CN407	1-564-506-11	PLUG, CONNECTOR 3P	
* CN408	1-564-687-11	PIN, CONNECTOR 3P	
CN403B	1-691-765-21	PLUG (MICRO CONNECTOR) 3P	
CN404B	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

MAIN (B)

PANEL

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
		< DIODE >		R460	1-259-432-11	CARBON 1.5K 5%	1/6W
D401	8-719-024-99	DIODE 11ES2-NTA2B		R461	1-249-162-11	CARBON 10 5%	1/3W
D407	8-719-987-63	DIODE 1N4148M		R462	1-259-488-11	CARBON 330K 5%	1/6W
D408	8-719-987-63	DIODE 1N4148M		*****			
D409	8-719-024-99	DIODE 11ES2-NTA2B		*	A-4398-012-A	PANEL BOARD, COMPLETE	
D410	8-719-024-99	DIODE 11ES2-NTA2B				*****	
		< CAPACITOR >					
D411	8-719-024-99	DIODE 11ES2-NTA2B		C200	1-130-475-00	MYLAR 0.0022uF 5%	50V
D412	8-719-302-38	DIODE RBV-602-01		C201	1-136-153-00	FILM 0.01uF 5%	50V
D451	8-719-024-99	DIODE 11ES2-NTA2B		C202	1-136-155-00	FILM 0.015uF 5%	50V
		< TERMINAL >		C203	1-136-165-00	FILM 0.1uF 5%	50V
* EPT401	4-924-264-21	TERMINAL, MOUNT		C250	1-130-475-00	MYLAR 0.0022uF 5%	50V
		< IC >					
IC401	8-759-111-68	IC uPC1237HA		C251	1-136-153-00	FILM 0.01uF 5%	50V
		< TRANSISTOR >		C252	1-136-155-00	FILM 0.015uF 5%	50V
Q401	8-729-104-18	TRANSISTOR 2SC3514-Q		C253	1-136-165-00	FILM 0.1uF 5%	50V
Q402	8-729-104-91	TRANSISTOR 2SA1383				< CONNECTOR >	
Q405	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		* CN201	1-564-520-11	PLUG, CONNECTOR 5P	
Q407	8-729-140-96	TRANSISTOR 2SD774-34		CN202	1-564-523-11	PLUG, CONNECTOR 8P	
Q430	8-729-119-76	TRANSISTOR 2SA1175-HFE		CN901	1-691-765-11	PLUG (MICRO CONNECTOR) 3P	
		< TRANSISTOR >		CN903	1-691-772-11	PLUG (MICRO CONNECTOR) 10P	
Q451	8-729-104-18	TRANSISTOR 2SC3514-Q				< CONNECTOR >	
Q452	8-729-104-91	TRANSISTOR 2SA1383		CNP902	1-774-460-11	CONNECTOR, BOARD TO BOARD 10P	
Q455	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				< DIODE >	
Q406A	8-729-281-54	TRANSISTOR 2SC1815-BL		D607	8-719-001-76	DIODE UZL-12M3	
		< RESISTOR >		D701	8-719-987-63	DIODE 1N4148M	
△ R401	1-249-393-11	CARBON 10 5%	1/4W F			< TRANSISTOR >	
△ R402	1-249-393-11	CARBON 10 5%	1/4W F				
△ R403	1-249-405-11	CARBON 100 5%	1/4W F	Q701	8-729-900-63	TRANSISTOR DTA124ES	
△ R404	1-249-405-11	CARBON 100 5%	1/4W F			< RESISTOR >	
△ R405	1-247-745-11	CARBON 330 5%	1/2W F	R200	1-259-500-11	CARBON 1M 5%	1/6W
		< RESISTOR >		R201	1-259-446-11	CARBON 5.6K 5%	1/6W
△ R406	1-208-601-11	WIREWOUND 0.1 10%	2W F	R202	1-259-446-11	CARBON 5.6K 5%	1/6W
△ R407	1-208-601-11	WIREWOUND 0.1 10%	2W F	R203	1-259-436-11	CARBON 2.2K 5%	1/6W
R409	1-259-436-11	CARBON 2.2K 5%	1/6W	R204	1-259-464-11	CARBON 33K 5%	1/6W
R410	1-259-432-11	CARBON 1.5K 5%	1/6W	R205	1-259-446-11	CARBON 5.6K 5%	1/6W
R411	1-249-162-11	CARBON 10 5%	1/3W	R206	1-259-500-11	CARBON 1M 5%	1/6W
R412	1-259-488-11	CARBON 330K 5%	1/6W	R220	1-259-464-11	CARBON 33K 5%	1/6W
R413	1-259-452-11	CARBON 10K 5%	1/6W	R250	1-259-500-11	CARBON 1M 5%	1/6W
R414	1-259-484-11	CARBON 220K 5%	1/6W	R251	1-259-446-11	CARBON 5.6K 5%	1/6W
R415	1-259-460-11	CARBON 22K 5%	1/6W	R252	1-259-446-11	CARBON 5.6K 5%	1/6W
R416	1-259-480-11	CARBON 150K 5%	1/6W	R253	1-259-436-11	CARBON 2.2K 5%	1/6W
R417	1-259-456-11	CARBON 15K 5%	1/6W	R254	1-259-464-11	CARBON 33K 5%	1/6W
R418	1-259-444-11	CARBON 4.7K 5%	1/6W	R255	1-259-446-11	CARBON 5.6K 5%	1/6W
R419	1-259-388-11	CARBON 22 5%	1/6W	R256	1-259-500-11	CARBON 1M 5%	1/6W
R420	1-259-468-11	CARBON 47K 5%	1/6W	R270	1-259-464-11	CARBON 33K 5%	1/6W
△ R421	1-212-974-00	FUSIBLE 47 5%	1/2W F	R603	1-247-742-11	CARBON 180 5%	1/2W F
R430	1-259-452-11	CARBON 10K 5%	1/6W	R604	1-247-742-11	CARBON 180 5%	1/2W F
R431	1-259-458-11	CARBON 18K 5%	1/6W	R605	1-247-745-11	CARBON 330 5%	1/2W F
△ R451	1-249-393-11	CARBON 10 5%	1/4W F	R701	1-260-170-11	CARBON 750 5%	1/2W
△ R452	1-249-393-11	CARBON 10 5%	1/4W F	R702	1-260-170-11	CARBON 750 5%	1/2W
△ R453	1-249-405-11	CARBON 100 5%	1/4W F	R703	1-260-170-11	CARBON 750 5%	1/2W
△ R454	1-249-405-11	CARBON 100 5%	1/4W F	R704	1-260-170-11	CARBON 750 5%	1/2W
△ R455	1-247-745-11	CARBON 330 5%	1/2W F	R705	1-247-753-11	CARBON 1.2K 5%	1/2W
△ R456	1-208-601-11	WIREWOUND 0.1 10%	2W F	R706	1-247-753-11	CARBON 1.2K 5%	1/2W
△ R457	1-208-601-11	WIREWOUND 0.1 10%	2W F				
R459	1-259-436-11	CARBON 2.2K 5%	1/6W				

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remarks
		< VARIABLE RESISTOR >	
RV200	1-223-933-21	RES, VAR, CARBON 250K/250K	
RV201	1-223-934-21	RES, VAR, CARBON 250K/250K	
RV202	1-223-935-21	RES, VAR, CARBON 900K/900K	
		< RELAY >	
RY701	1-515-614-11	RELAY	
		< SWITCH >	
S200	1-571-828-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)	
S203	1-762-656-11	SWITCH, ROTARY (TAPE MONITOR)	
S901	1-692-974-11	SWITCH, ROTARY (INPUT SELECTOR)	

*	1-665-580-11	SP-TM BOARD	

	1-533-233-11	HOLDER, FUSE	
		< CONNECTOR >	
CN502	1-564-510-11	PLUG (MICRO CONNECTOR) 6P	
CN804	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
* CN808	1-564-321-21	PIN, CONNECTOR 2P	
* CN809	1-565-792-11	PIN, CONNECTOR 2P	
		< DIODE >	
D502	8-719-987-63	DIODE 1N4148M	
		< FUSE >	
△F801	1-532-388-51	FUSE TIME LAG 2A	
		< COIL >	
L501	1-411-906-11	COIL, AIR-CORE	
L551	1-411-906-11	COIL, AIR-CORE	
		< RESISTOR >	
R501	1-249-162-11	CARBON 10 5% 1/3W	
R502	1-247-750-11	CARBON 680 5% 1/2W F	
R551	1-249-162-11	CARBON 10 5% 1/3W	
R552	1-247-750-11	CARBON 680 5% 1/2W F	
		< RELAY >	
RY502	1-515-920-11	RELAY (24V)	
		< TERMINAL >	
TM501	1-537-893-11	TERMINAL BOARD (SP) (SPEAKERS)	

Ref. No.	Part No.	Description	Remarks
*	1-665-584-11	VOL BOARD	

		< CONNECTOR >	
CN251	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
CN252	1-691-769-11	PLUG (MICRO CONNECTOR) 7P	
		< VARIABLE RESISTOR >	
RV203	1-225-228-11	RES, VAR, CARBON 120K/120K (VOLUME)	

		MISCELLANEOUS	

△59	1-777-185-11	CORD, POWER	
△60	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK)	
△S1	1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)	
△T1	1-431-277-11	TRANSFORMER, POWER	

		ACCESSORIES & PACKING MATERIALS	

3-860-500-11		MANUAL, INSTRUCTION	
		(ENGLISH/FRENCH/GERMAN/SWEDISH/ ITALIAN/PORTUGUESE)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

TA-F248E

SONY®

AEP Model
UK Model

SERVICE MANUAL

SUPPLEMENT-1

File this supplement with the service manual.(9-920-925-11)

Subject: ELECTRICAL ADJUSTMENT ADDITION

(SFD-98001)

BIAS ADJUSTMENT

Adjustment Procedure:

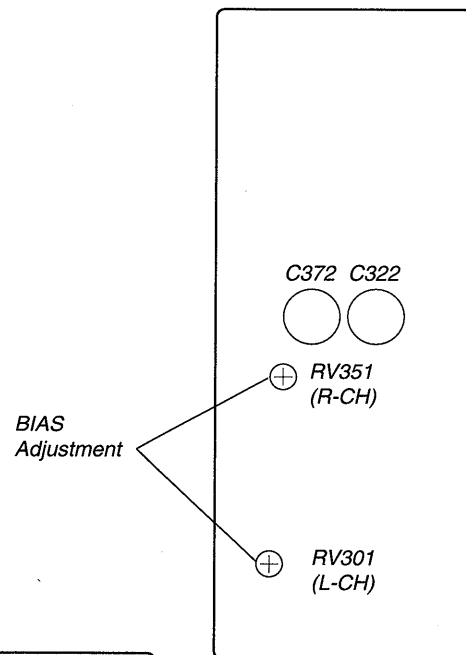
1. Rotate fully the bias adjusting semi-fixed resistors (RV301 (L-CH), RV351 (R-CH)) to the minimum position (counterclockwise).
2. Connect a digital voltmeter to the CN406 (L-CH) and CN407 (R-CH).

	pin①	pin③
CN406 (L-CH)	-	+
CN407 (R-CH)	+	-

3. Set the slidack to 0 V AC, and press the **POWER** button (ON) on the set.
4. Raise gradually the slidack voltage up to the rated voltage (230 V AC).
5. At this time, confirm that the speaker relay is turned on (it will click).
6. Adjust the RV301 (L-CH) and RV351 (R-CH) so that a reading of digital voltmeter is $10 \text{ mV} \pm 1 \text{ mV}$.
7. Return the slidack to 0 V AC, and press the **POWER** button (OFF) on the set.

Connection and Adjustment Location:

[MAIN (A) BOARD]
- Component side -



[MAIN (B) BOARD] - Component side -

