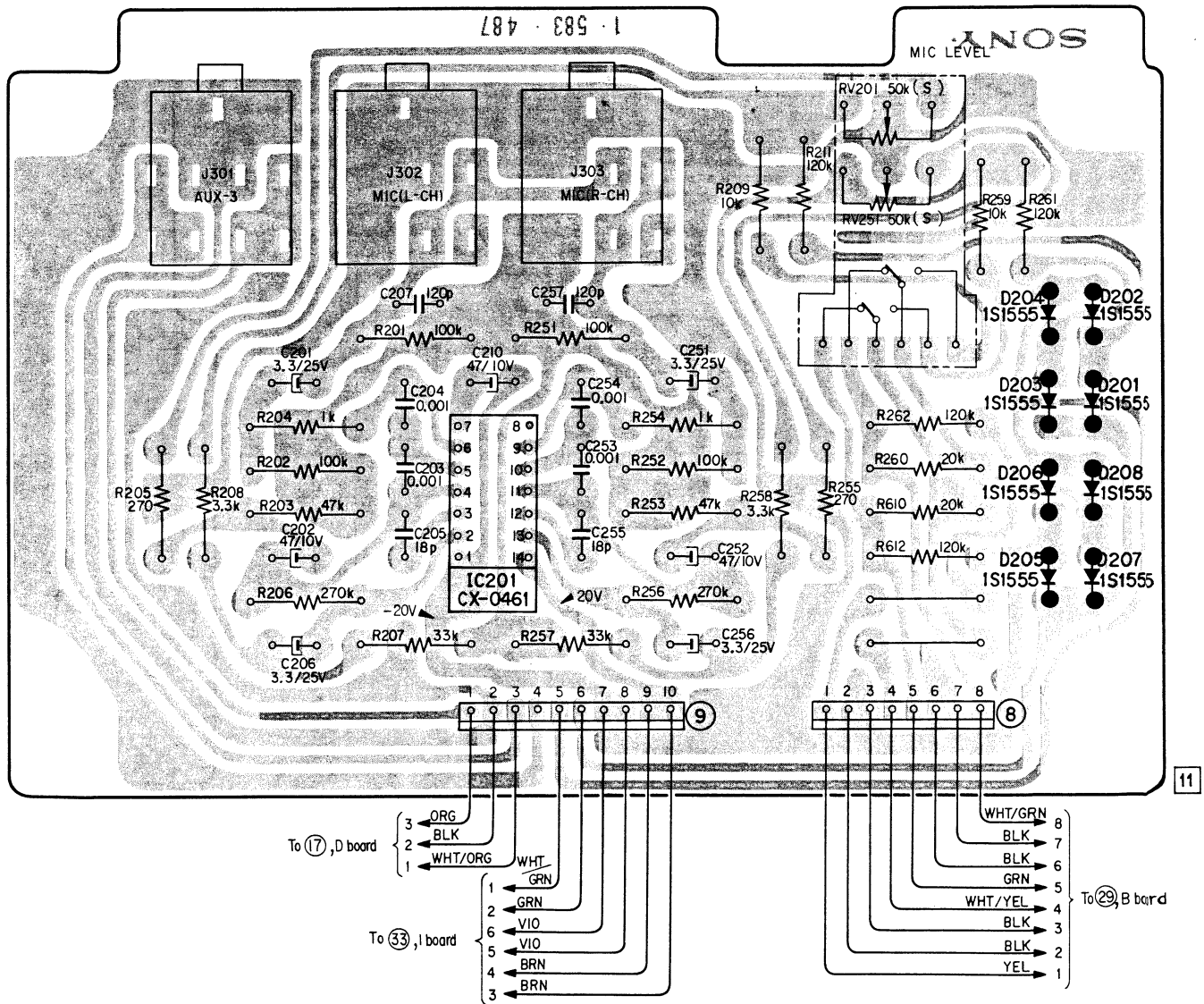
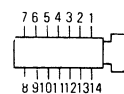
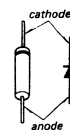
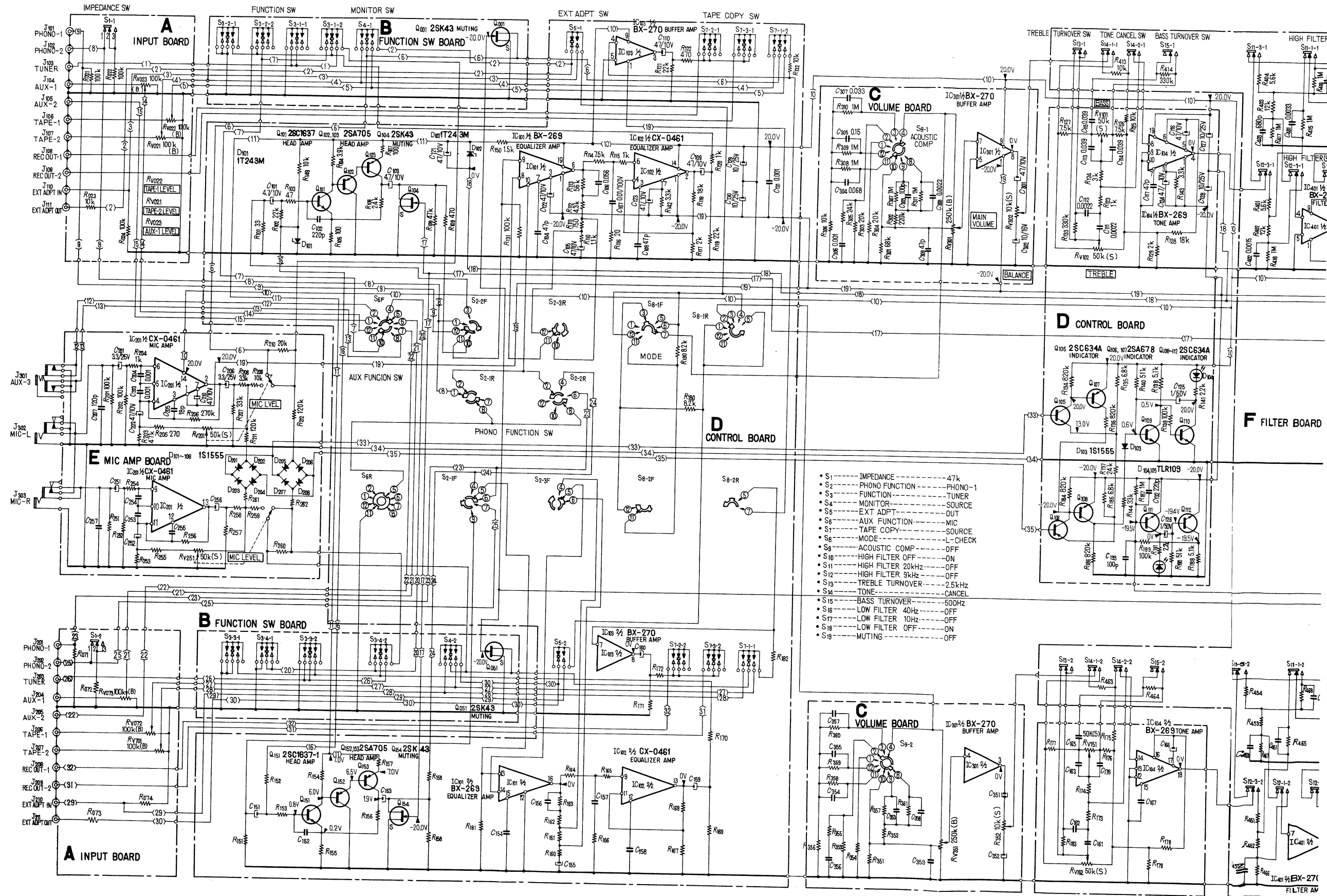


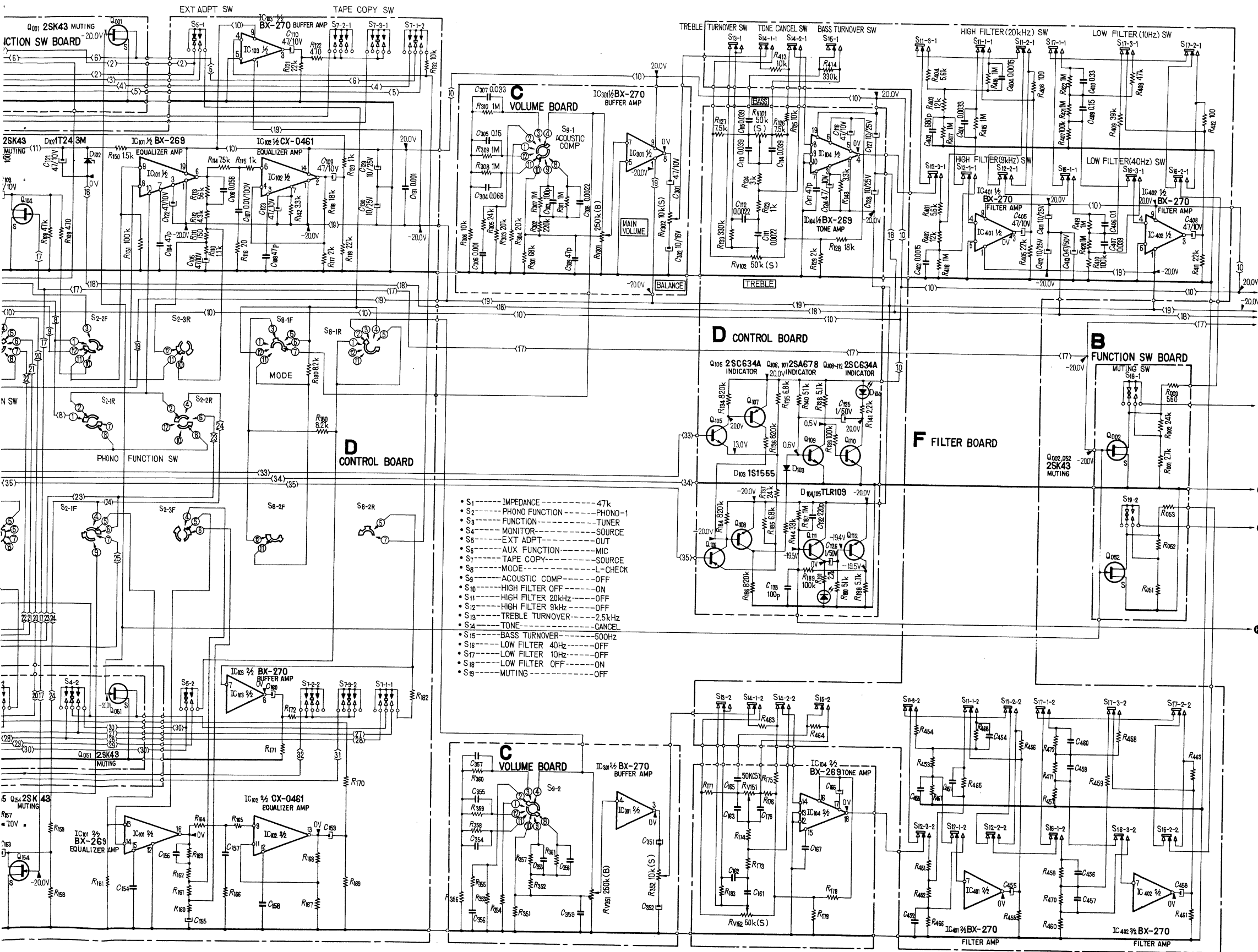
E4-7. MOUNTING DIAGRAM – E Board **MIC AMP** –

– Conductor Side –

**CX-0461****1S1555**

4-8. SCHEMATIC DIAGRAM — Preamp Section —





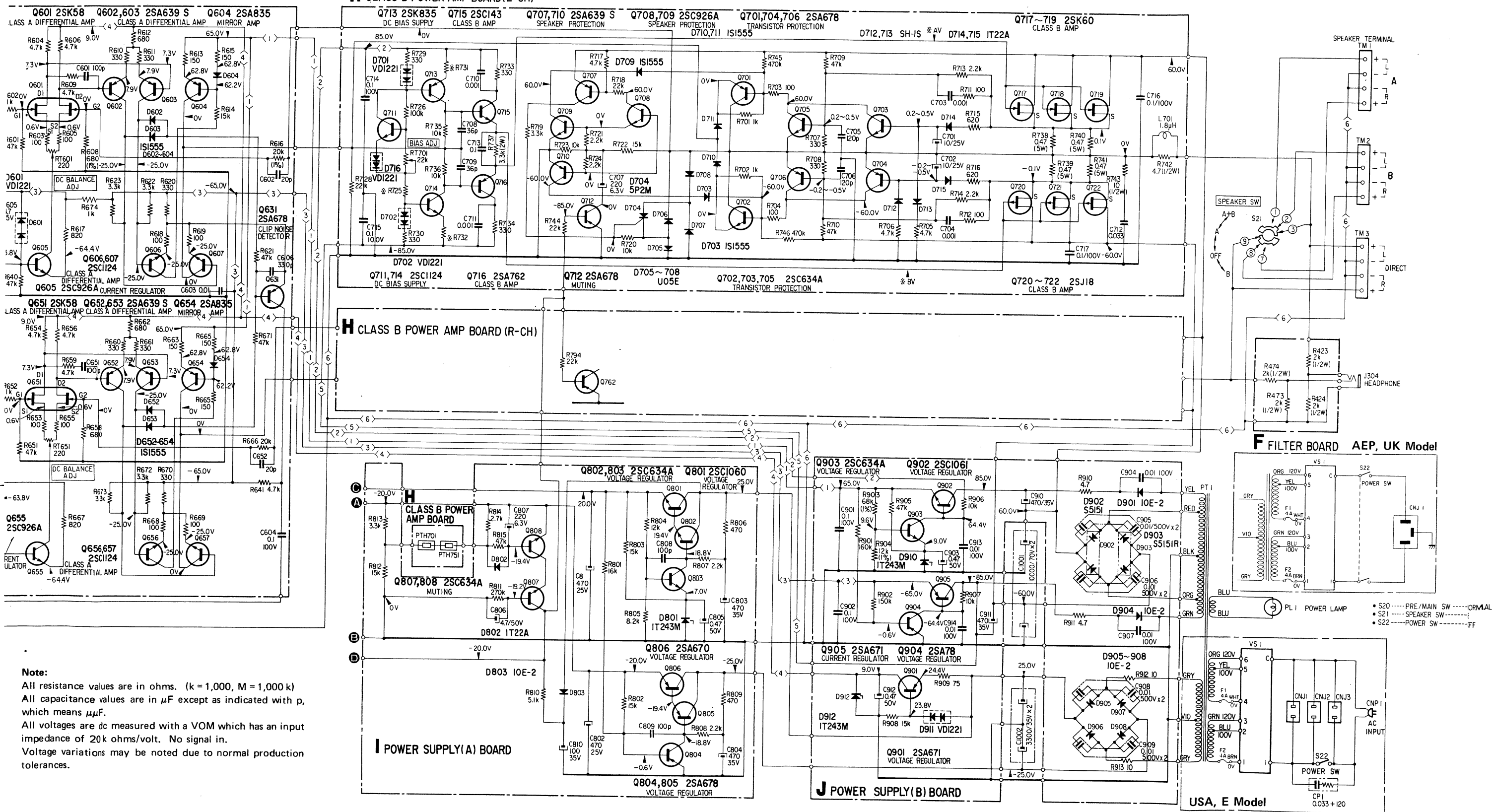
Note:
 All resistance values are in ohms. (k = 1,000, M = 1,000k)
 All capacitance values are in μF except as indicated with p, which means μF .
 All voltages are dc measured with a VOM which has an input impedance of 20 k ohms/volt. No signal in.
 Voltage variations may be noted due to normal production tolerances.

Q717~719 2SK60	* R725, 775	* R731, 781 * R732, 782	* A	* B
-53	33k	1.8k	-9.4V ~ -11.9V	9.4V ~ 11.9V
-54	33k	1.5k	-11.9V ~ -14.4V	11.9V ~ 14.4V
-55	33k	1.2k	-14.4V ~ -16.9V	14.4V ~ 16.9V
-56	30k	1.0k	-16.9V ~ -19.4V	16.9V ~ 19.4V
-57	30k	1.0k	-19.4V ~ -21.9V	19.4V ~ 21.9V
-58	30k	820	-21.9V ~ -24.4V	21.9V ~ 24.4V

CLASS A POWER AMP BOARD

SA Model: Serial No. 800,141 and later
JK Model: Serial No. 600,001 and later
EP Model: Serial No. 500,001 and later
E Model: Serial No. 400,001 and later

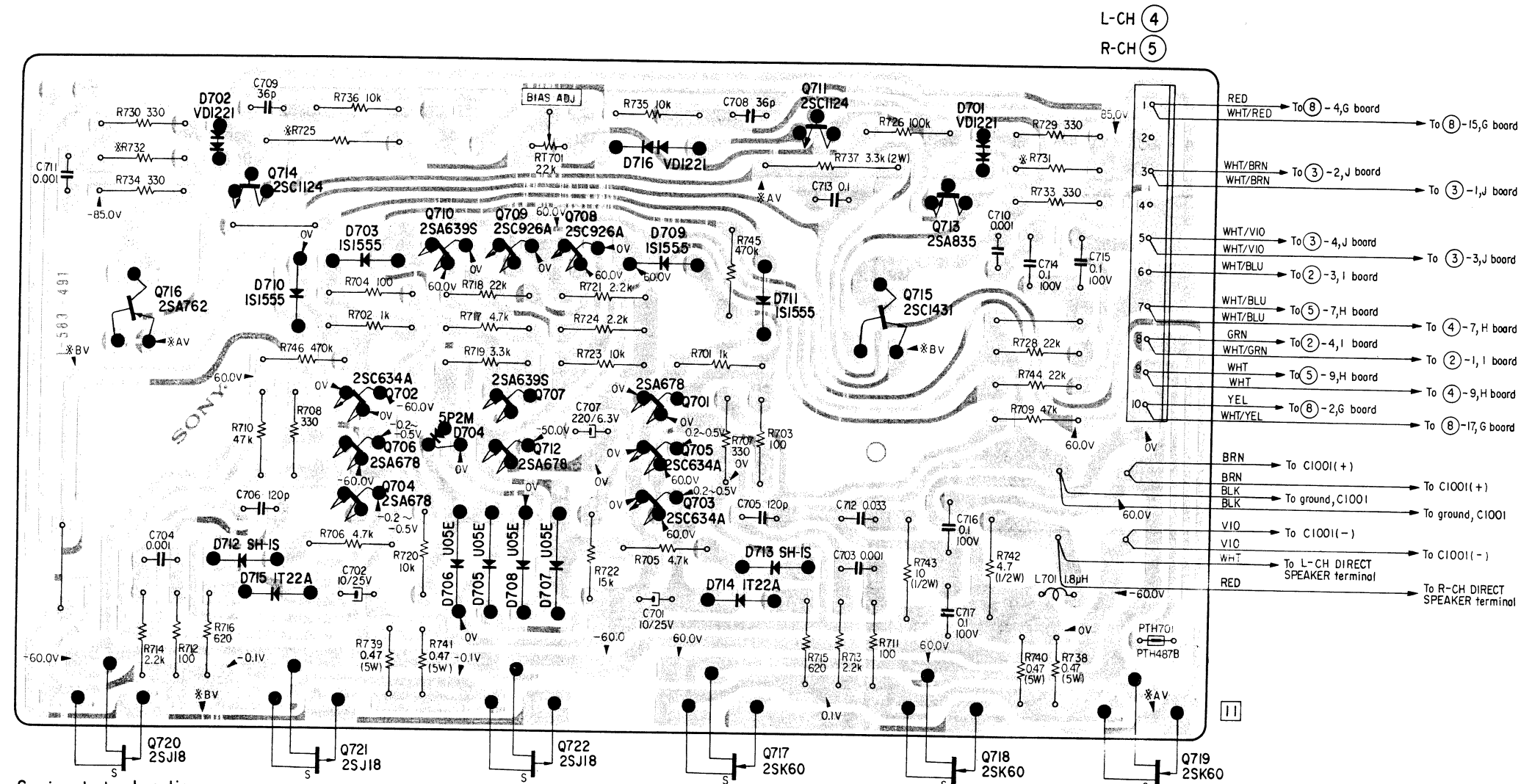
CLASS B POWER AMP BOARD (L-CH)





4-10. MOUNTING DIAGRAM — H Board CLASS B POWER AMP —

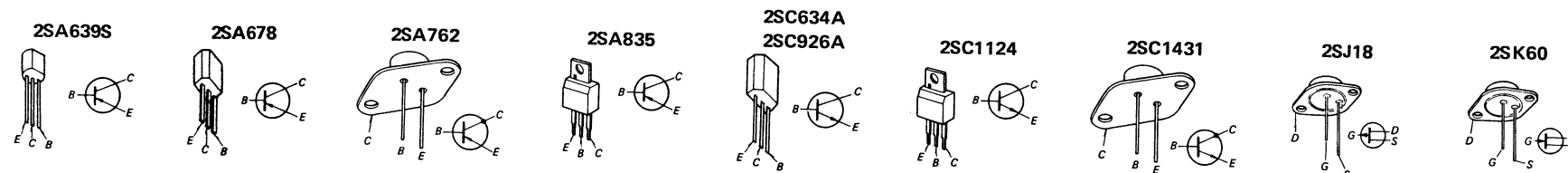
— Conductor Side —



Semiconductor Location

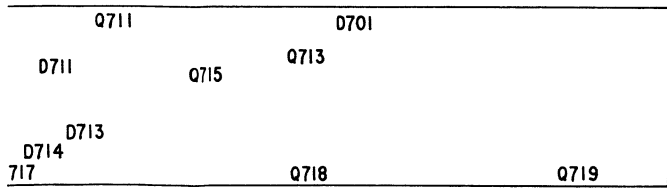
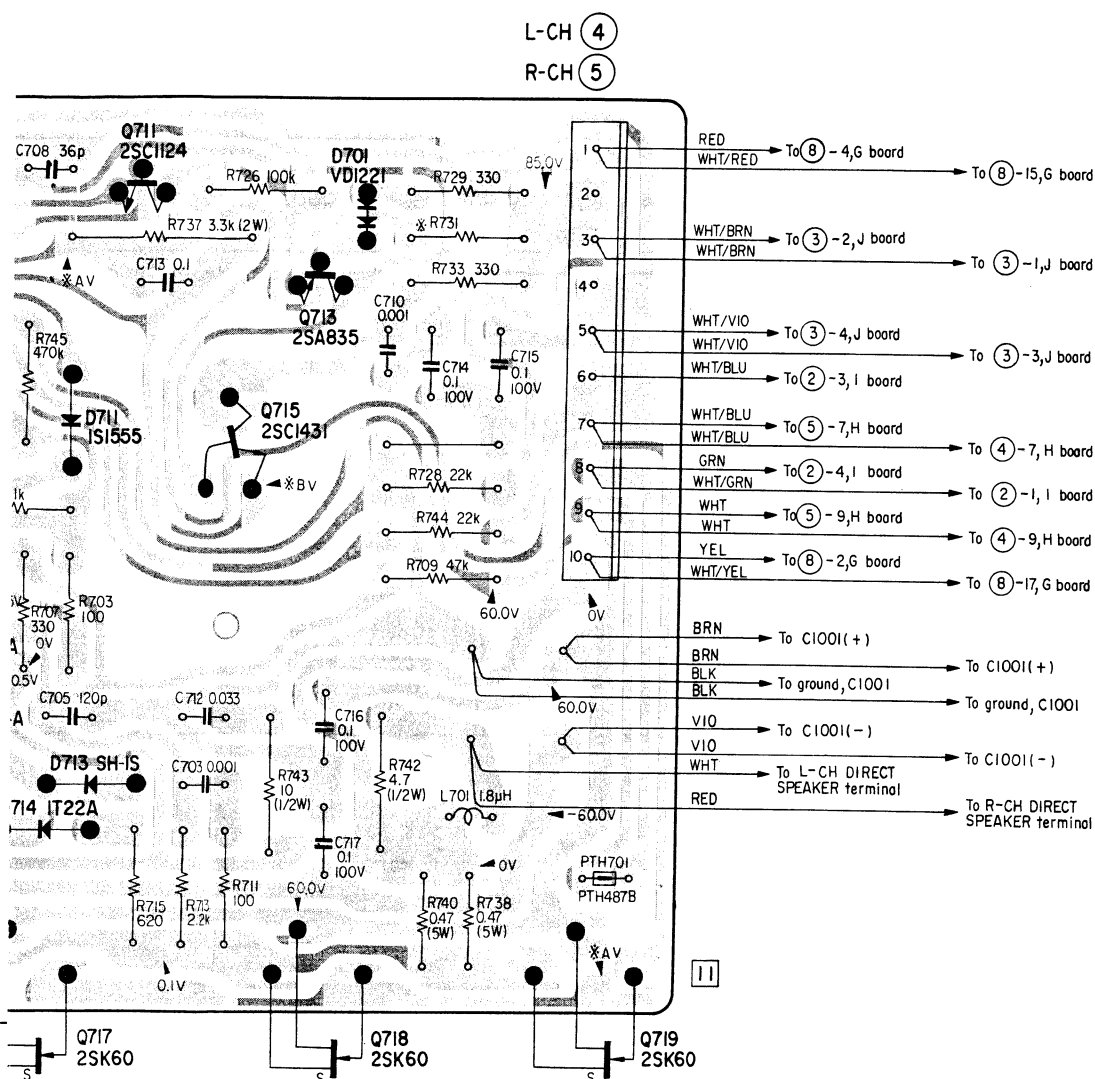
Q716	D702	Q714	D710	D703	Q710	Q709	Q708	D716	Q711	D701
				Q702		Q707		D709	D711	Q715
				Q706	D704	Q712		Q701		Q713
				Q704				Q705		
					D706	D705	D708	Q703	D714	
							D722		D713	
Q720			Q721						Q717	Q718
										Q719

Q717~719 Q720~722 2SK601 2SJ18	R725, 775	R731, 781 R732, 782	A	B
-53	33k	1.8k	-9.4V~-11.9V	9.4V~11.9V
-54	33k	1.5k	-11.9V~-14.4V	11.9V~14.4V
-55	33k	1.2k	-14.4V~-16.9V	14.4V~16.9V
-56	30k	1.0k	-16.9V~-19.4V	16.9V~19.4V
-57	30k	1.0k	-19.4V~-21.9V	19.4V~21.9V
-58	30k	820	-21.9V~-24.4V	21.9V~24.4V

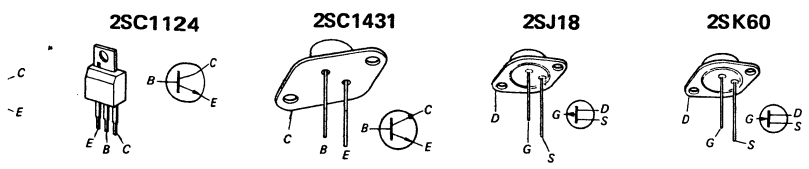




MEMO



※				
Q717~719	R725, 775	R731, 781	A	B
Q720~722		R732, 782		
2SK60 } -53	33k	1.8k	-9.4V~-11.9V	9.4V~11.9V
2SJ18 } -54	33k	1.5k	-11.9V~-14.4V	11.9V~14.4V
	33k	1.2k	-14.4V~-16.9V	14.4V~16.9V
	30k	1.0k	-16.9V~-19.4V	16.9V~19.4V
	30k	1.0k	-19.4V~-21.9V	19.4V~21.9V
	30k	820	-21.9V~-24.4V	21.9V~24.4V



G

G

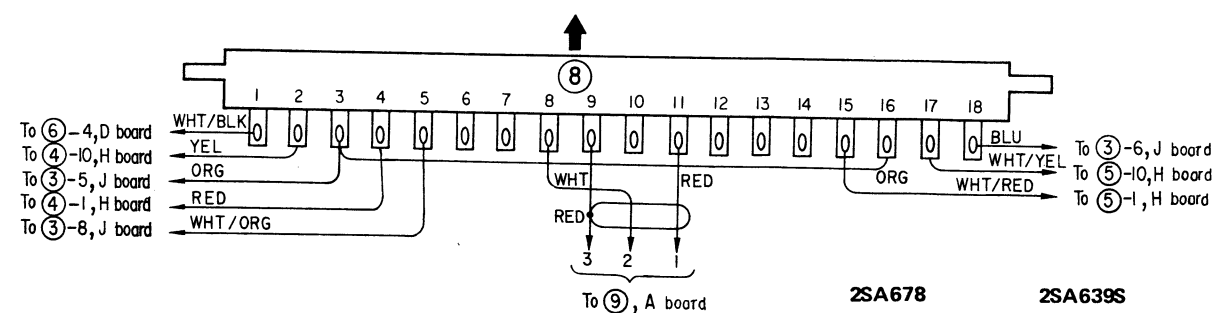
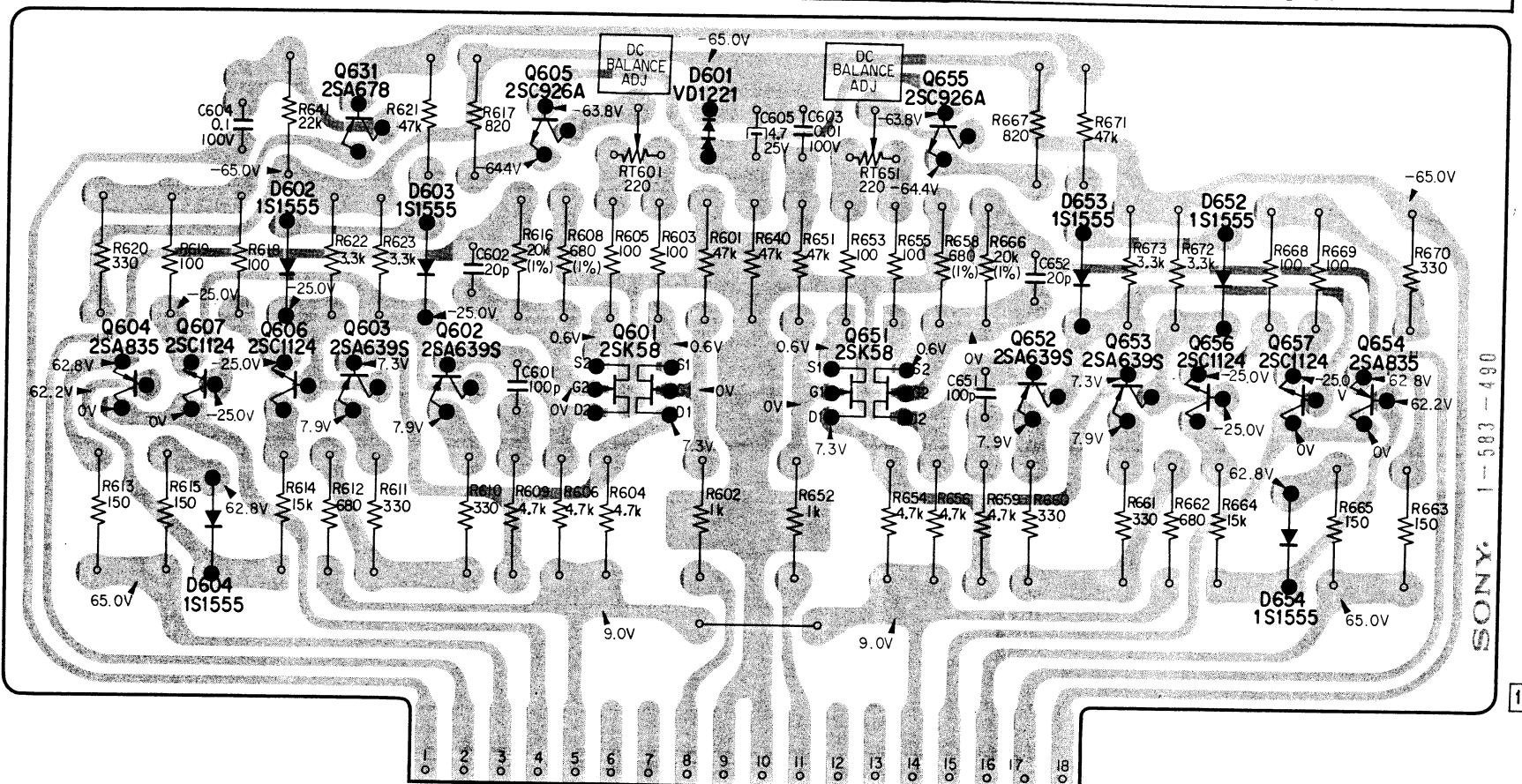
4-11. MOUNTING DIAGRAM — G Board CLASS A POWER AMP —

— Conductor Side —

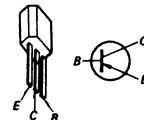
USA Model only: Up to Serial No. 800,140

Semiconductor Location

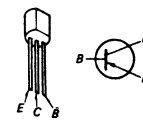
Q604	Q607	D602	Q631	D603	Q605	D601	Q655	D653	D652	Q657	Q654
	D604	Q606	Q603	Q602	Q601	Q651	Q652	Q653	Q656	D654	



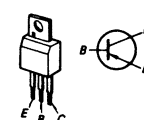
2SA678



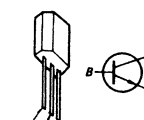
2SA639S



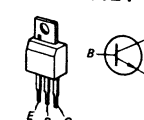
2SA835



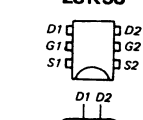
2SC926A



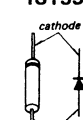
2SC1124



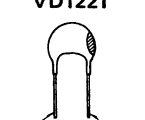
2SK58



1S1555



VD1221



USA Model: Serial No. 800,141 and later

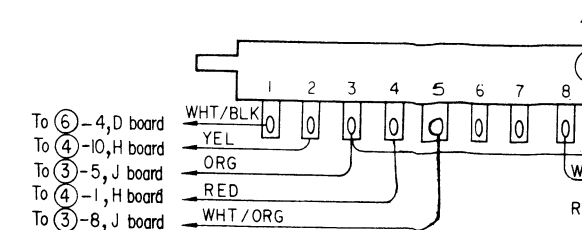
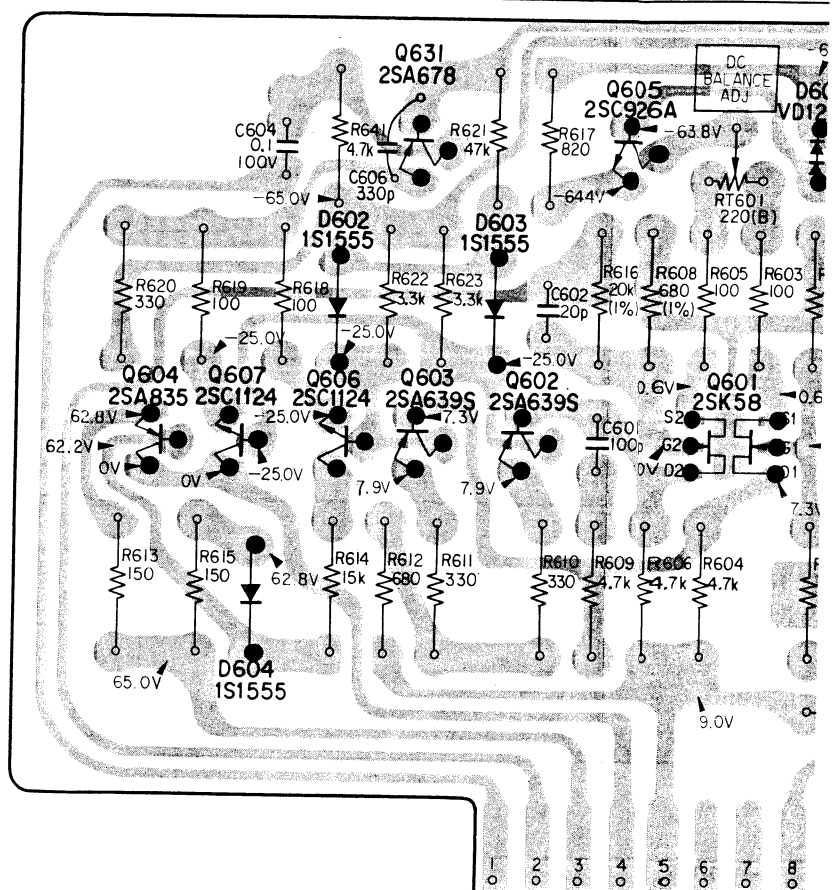
UK Model: Serial No. 600,001 and later

AEP Model: Serial No. 500,001 and later

E Model: Serial No. 400,001 and later

Semiconductor Location

Q604	Q607	D602	Q631	D603	Q605	D601	Q655	D653	D652	Q657	Q654
	D604	Q606	Q603	Q602	Q601	Q651	Q652	Q653	Q656	D654	

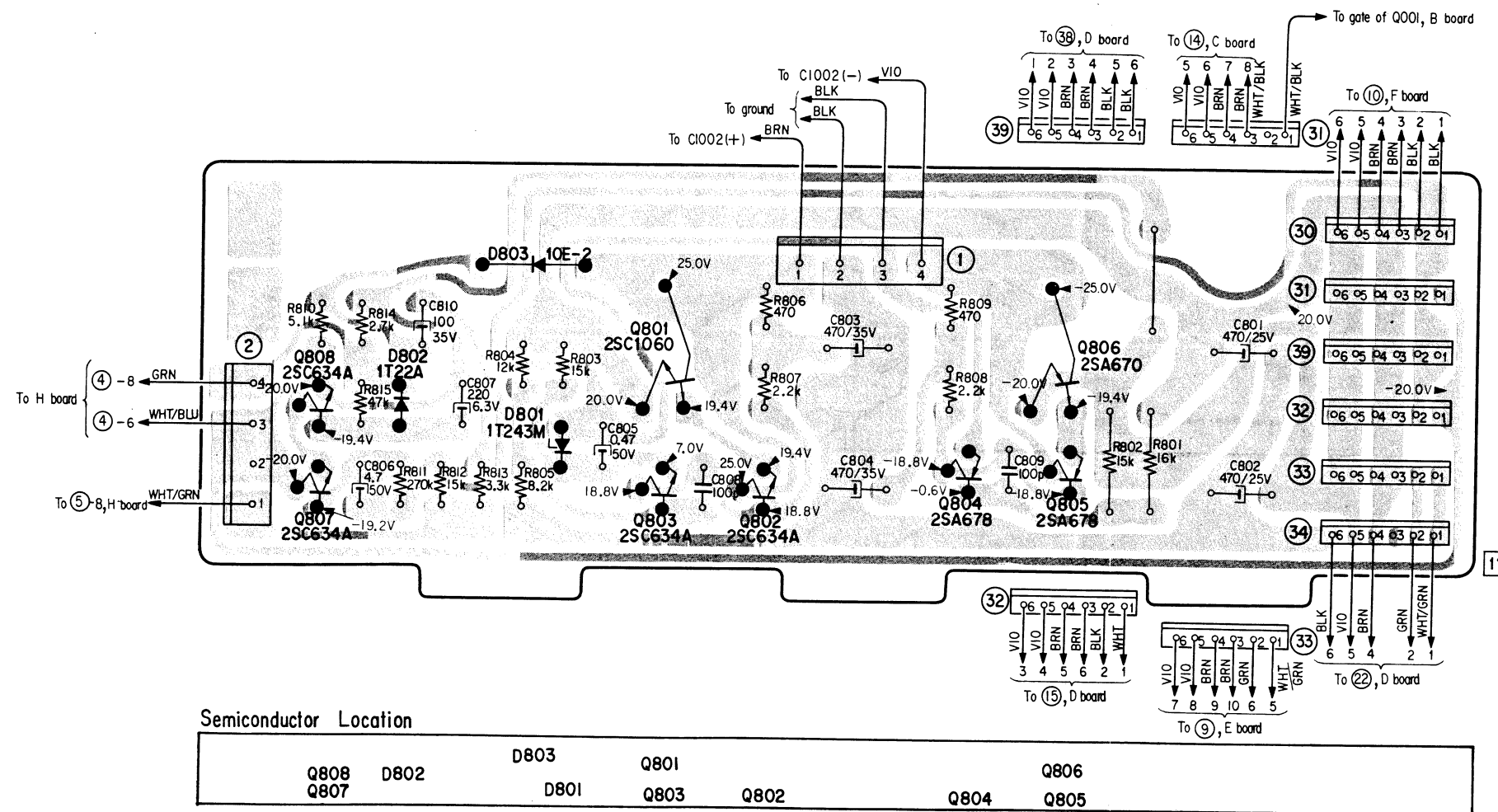


G

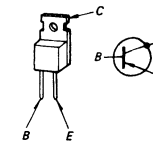


4-12. MOUNTING DIAGRAM — I Board **POWER SUPPLY A** —

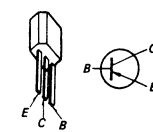
— Conductor Side —



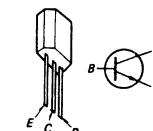
2SA670



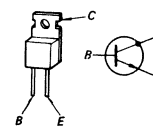
2SA678



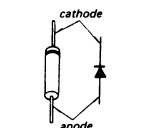
2SC634A



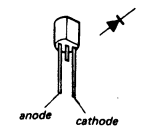
2SC1060



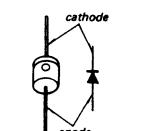
1T22A



1T243M













10E-2



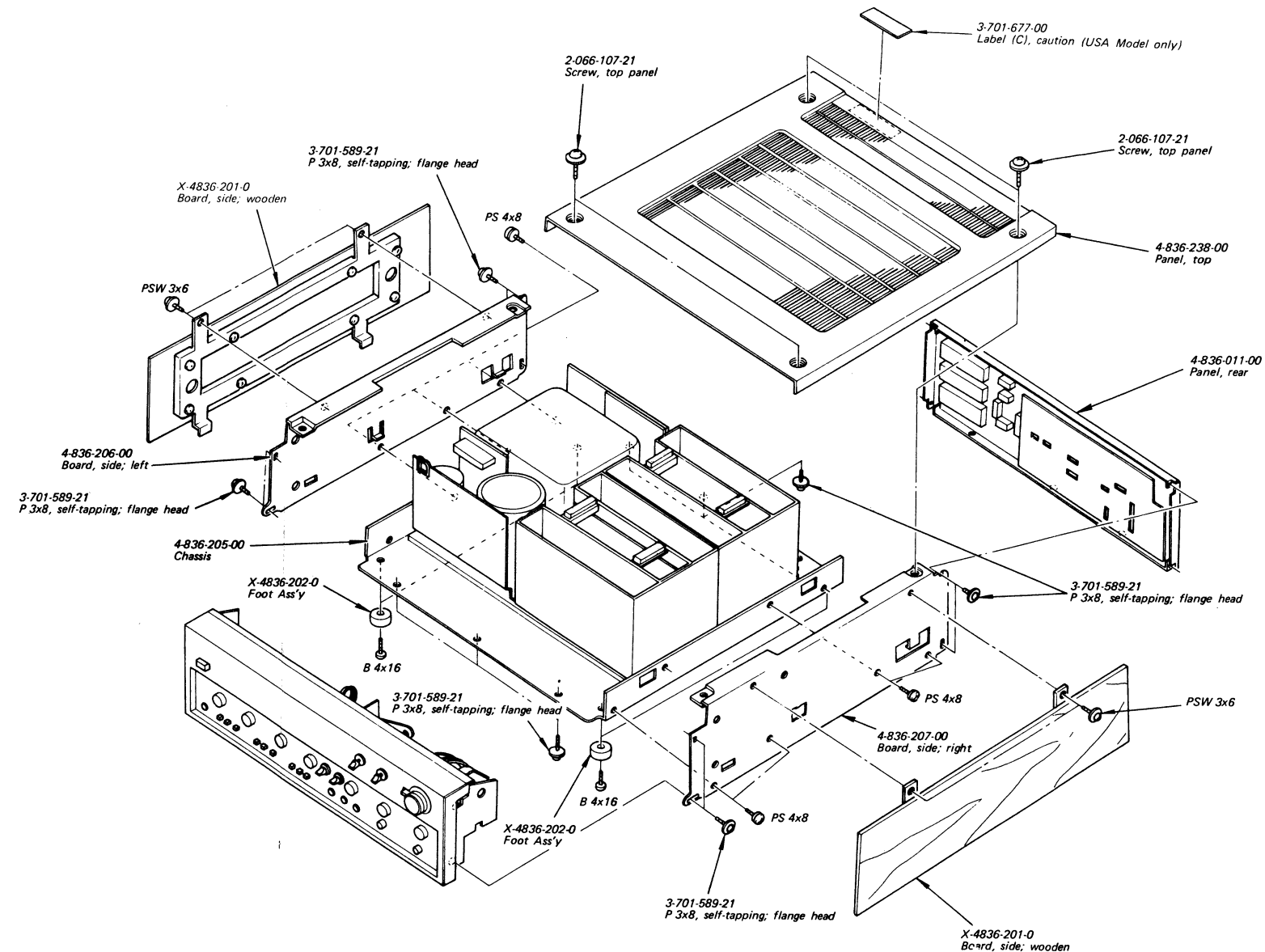
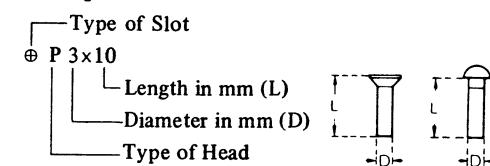
SECTION 5 EXPLODED VIEWS

(1)

—Hardware Nomenclature—

P	— Pan Head Screw	
PS	— Pan Head Screw with Spring Washer	
K	— Flat Countersunk Head Screw	
B	— Binding Head Screw	
RK	— Oval Countersunk Head Screw	
T	— Truss Head Screw	
R	— Round Head Screw	
F	— Flat Fillister Head Screw	
SC	— Set Screw	
E	— Retaining Ring (E Washer)	
	W — Washer	
	SW — Spring Washer	
	LW — Lock Washer	
	N — Nut	

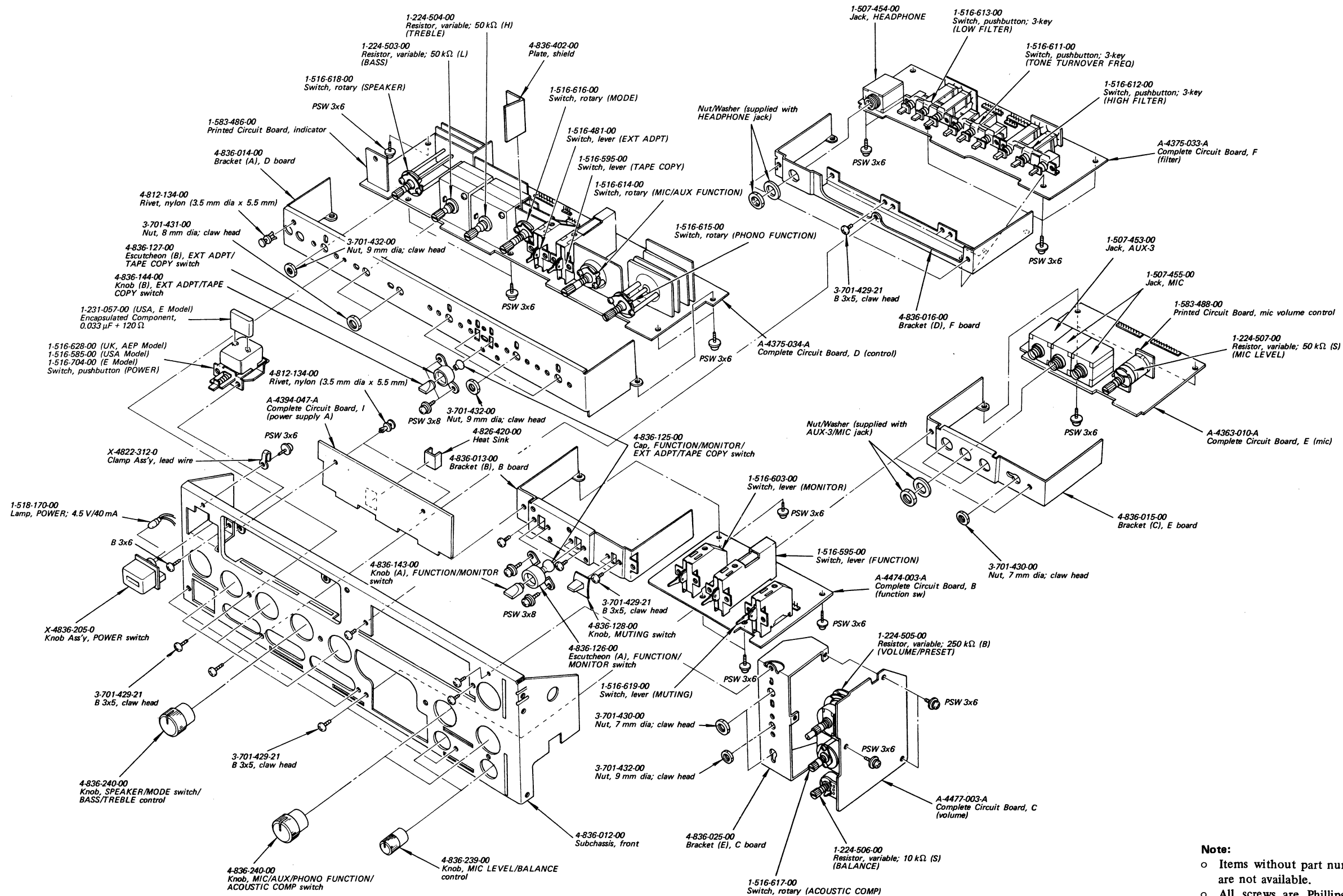
— Example —



Note:

- Items without part number and description are not available.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (—) = slotted head
- "PPT" type screws may be replaced with "B" type screws.

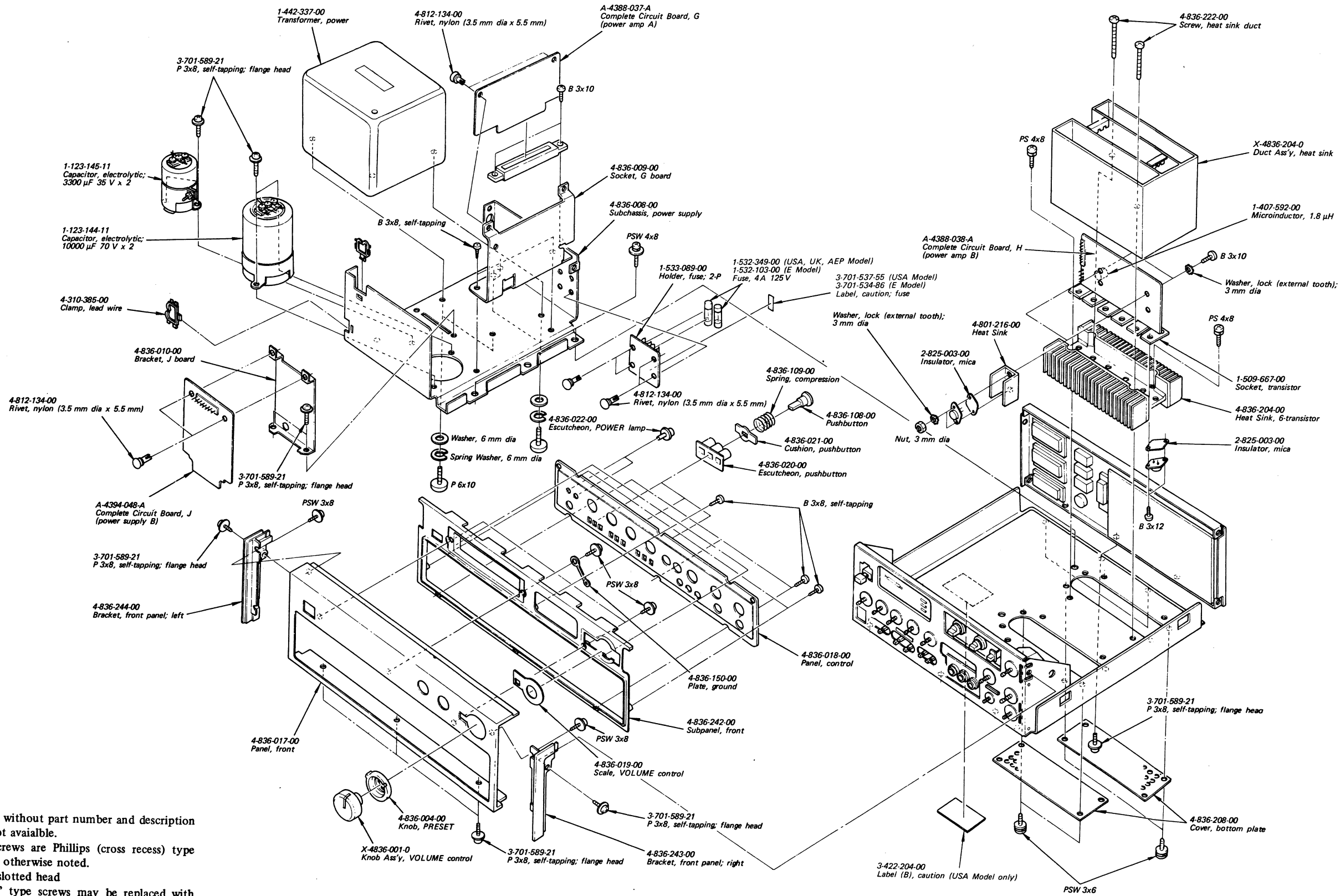
(2)



Note:

- Items without part number and description are not available.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head
- "PPT" type screws may be replaced with "B" type screws.

(3)



Note:

- Items without part number and description are not available.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head
- "PPT" type screws may be replaced with "B" type screws.

Ref. No.	Part No.	Description
IC401	IC	BX-270
IC402	IC	BX-270
D101	Diode	1T243M
D102	Diode	1T243M
D103	Diode	1S1555
D104	Diode	TLR109
D105	Diode	TLR109
D201~D208	Diode	1S1555
D601	Diode	VD1221
D602~D604 (D652~D654)	Diode	1S1555
D701(D751)	Diode	VD1221
D702(D752)	Diode	VD1221
D703(D753)	Diode	1S1555
D704(D754)	Diode	5P2M
D705~D708 (D755~D758)	Diode	UO-5E
D709~D711 (D759~D761)	Diode	1S1555
D712(D762)	Diode	SH-1S
D713(D763)	Diode	SH-1S
D714(D764)	Diode	1T22A
D715(D765)	Diode	1T22A
D716(D766)	Diode	VD1221
D801	Diode	1T243M
D802	Diode	1T22A
D803	Diode	10D-2
D901	Diode	10D-2
D902	Diode	S5151
D903	Diode	S5151R
D904~D908	Diode	10D-2
D910	Diode	1T243M
D911	Diode	VD1221
D912	Diode	1T243M
Pth701 (Pth751)	1-800-340-21	Posistor

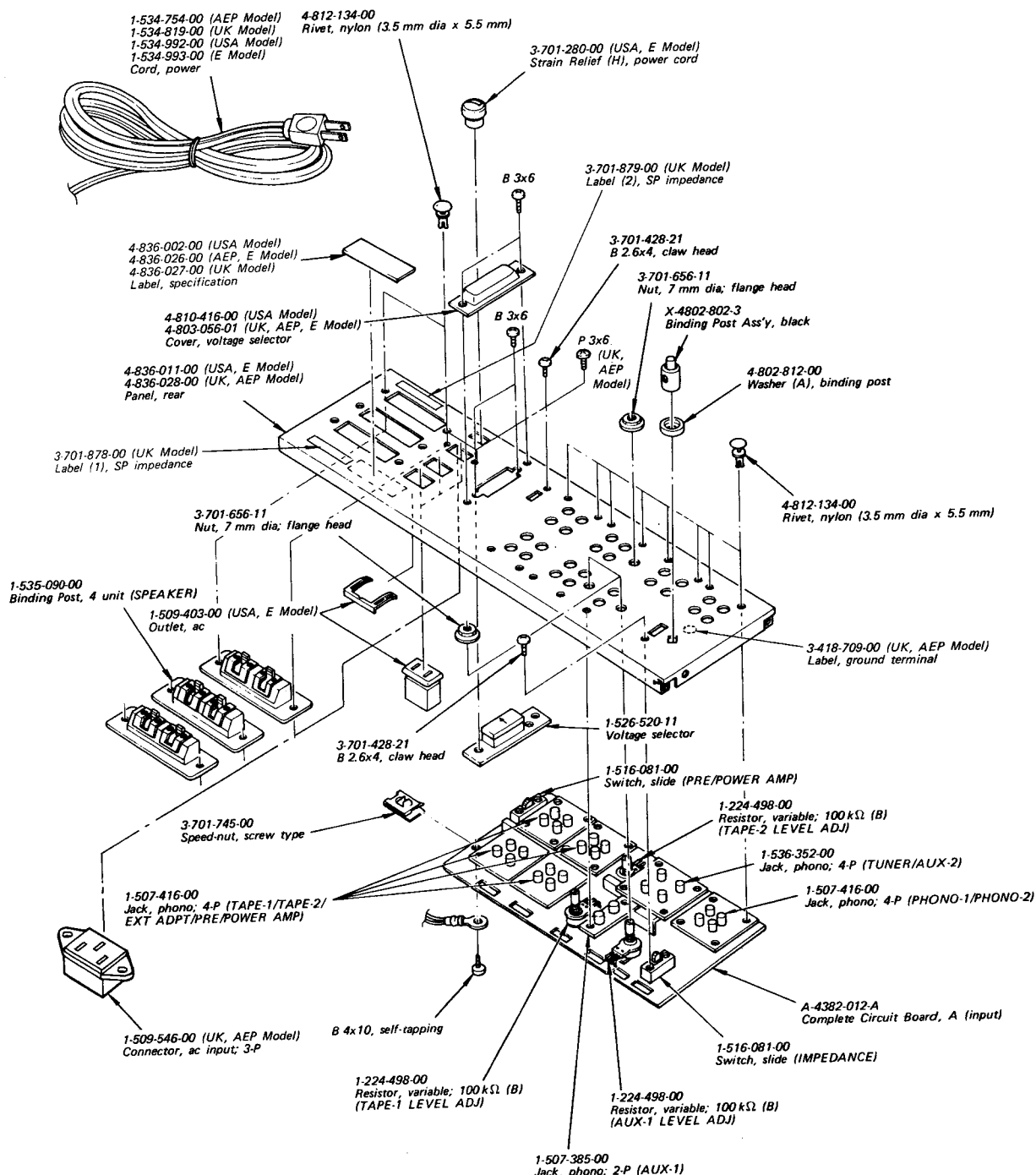
Ref. No.	Part No.	Description
TRANSFORMER AND INDUCTORS		
L701(L751)	1-407-592-00	Microinductor, 1.8 μ H
PT1	1-442-337-00	Transformer, power
CAPACITORS		
Capacitors listed here are 50 V mylar type unless otherwise specified and in μ F except as indicated with p (p means μ μ). elect = electrolytic		
C101(C151)	1-131-192-11	4.7 10 V tantalum
C102(C152)	1-102-978-11	220p 50 V ceramic
C103(C153)	1-131-192-11	4.7 10 V tantalum
C104(C154)	1-101-880-11	47p 50 V ceramic
C105(C155)	1-121-927-11	47 10 V elect
C106(C156)	1-105-522-12	0.056
C107(C157)	1-129-701-11	0.01 100 V film
C108(C158)	1-101-880-11	47p 50 V ceramic
C109(C159)	1-121-927-11	47 10 V elect
C110(C160)	1-121-927-11	47 10 V elect
C111(C161)	1-105-505-12	0.0022
C112(C162)	1-105-505-12	0.0022
C113~C115 (C163~C165)	1-105-520-12	0.039
C116(C166)	1-121-927-11	47 10 V elect
C117(C167)	1-101-880-11	47p 50 V ceramic
C121~C124	1-121-352-11	47 10 V elect
C125	1-121-912-11	1 50 V elect
C126	1-121-912-11	1 50 V elect
C127~C130	1-121-398-11	10 25 V elect
C131	1-105-661-12	0.001
C132	1-102-978-11	220p 50 V ceramic
C133	1-102-973-11	100p 50 V ceramic
C201(C251)	1-121-913-11	3.3 25 V elect
C202(C252)	1-121-927-11	47 10 V elect
C203(C253)	1-105-661-12	0.001
C204(C254)	1-105-661-12	0.001
C205(C255)	1-102-953-11	18p 50 V ceramic
C206(C256)	1-121-913-11	3.3 25 V elect
C207(C257)	1-102-816-11	120p 50 V ceramic
C210	1-121-927-11	47 10 V elect

Ref. No.	Part No.	Description
C301(C351)	1-121-927-11	47 10 V elect
C302(C352)	1-121-916-11	10 16 V elect
C303(C353)	1-102-973-11	100p 50 V ceramic
C304(C354)	1-105-683-12	0.068
C305(C355)	1-105-687-12	0.15
C306(C356)	1-105-661-12	0.001
C307(C357)	1-105-679-12	0.033
C308(C358)	1-105-665-12	0.0022
C309(C359)	1-101-880-11	47p 50 V ceramic
C401(C451)	1-105-667-12	0.0033
C402(C452)	1-105-663-12	0.0015
C403(C453)	1-102-116-11	680p 50 V ceramic
C404(C454)	1-105-663-12	0.0015
C405(C455)	1-121-927-11	47 10 V elect
C406(C456)	1-105-685-12	0.1
C407(C457)	1-105-680-12	0.039
C408(C458)	1-121-927-11	47 10 V elect
C409(C459)	1-105-687-12	0.15
C410(C460)	1-105-691-12	0.33
C411	1-121-398-11	10 25 V elect
C412	1-121-398-11	10 25 V elect
C413	1-121-726-11	0.47 50 V elect
C601(C651)	1-102-973-11	100p 50 V ceramic
C602(C652)	1-102-958-11	20p 50 V ceramic
C603	1-105-713-12	0.01 100 V
C604	1-105-725-12	0.1 100 V
C605	1-121-395-11	4.7 25 V elect
C701(C751)	1-121-398-11	10 25 V elect
C702(C752)		
C703(C753)	1-105-661-12	0.001
C704(C754)		
C705(C755)	1-102-816-11	120p 50 V ceramic
C706(C756)		
C707(C757)	1-121-419-11	220 6.3 V elect
C708(C758)	1-102-964-11	36p 50 V ceramic
C709(C759)		
C710(C760)	1-105-661-12	0.001
C711(C761)		
C712(C762)	1-105-679-12	0.033
C713(C763)	1-105-685-12	0.1

Ref. No.	Part No.	Description
C714(C764)	1-105-725-12	0.1 100 V
C715(C765)		
C716(C766)	1-105-725-12	0.1 100 V
C717(C767)		
C801	1-121-940-11	470 25 V elect
C802	1-121-940-11	470 25 V elect
C803	1-121-941-11	470 35 V elect
C804	1-121-941-11	470 35 V elect
C805	1-121-726-11	0.47 50 V elect
C806	1-121-396-11	4.7 50 V elect
C807	1-121-419-11	220 6.3 V elect
C808	1-102-973-11	100p 50 V ceramic
C809	1-102-973-11	100p 50 V ceramic
C810	1-123-062-11	100 35 V elect
C901	1-105-725-12	0.1 100 V
C902	1-105-725-12	0.1 100 V
C903	1-121-726-11	0.47 50 V elect
C904	1-105-713-12	0.01 100 V
C905	1-102-355-11	0.01/0.01 500 V ceramic
C906	1-102-355-11	0.01/0.01 500 V ceramic
C907	1-105-713-12	0.01 100 V
C908	1-102-355-11	0.01/0.01 500 V ceramic
C909	1-102-355-11	0.01/0.01 500 V ceramic
C910	1-121-941-11	470 35 V elect
C911	1-121-941-11	470 35 V elect
C912	1-121-726-11	0.47 50 V elect
C913	1-105-713-12	0.01 100 V
C914	1-105-713-12	0.01 100 V
C1001	1-123-144-11	10,000/10,000 70 V elect
C1002	1-123-145-11	3,000/3,000 35 V elect
RESISTORS		
All resistors are in Ω . $\frac{1}{4}$ W, \pm 5%,carbon resistors (except particular type) are omitted. Check schematic diagram for the resistance values. k = 1000, M = 100 k		
R110(R160)	1-212-534-21	1.1 k \pm 1% metal-oxide
R111(R161)	1-212-530-21	750 \pm 1% metal-oxide

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(4)



Note:

- Items without part number and description are not available.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head
- "PPT" type screws may be replaced with "B" type screws.

SECTION 6

ELECTRICAL PARTS LIST

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
CIRCUIT BOARDS					
	A-4382-012-A	A (input), complete		Q701(Q751)	Transistor 2SA678
	A-4474-003-A	B (function switch), complete		Q702(Q752)	Transistor 2SA634A
	A-4477-003-A	C (volume), complete		Q703(Q753)	Transistor 2SC634A
	A-4375-034-A	D (control), complete		Q704(Q754)	Transistor 2SA678
	A-4363-010-A	E (mic), complete		Q705(Q755)	Transistor 2SC634A
	A-4375-033-A	F (filter), complete		Q706(Q756)	Transistor 2SA678
	A-4388-037-A	G (power amp (A)), complete		Q707(Q757)	Transistor 2SA639S
	A-4388-038-A	H (power amp (B)), complete		Q708(Q758)	Transistor 2SC926A
	A-4394-047-A	I (power supply (A)), complete		Q709(Q759)	Transistor 2SC926A
	A-4394-048-A	J (power supply (B)), complete		Q710(Q760)	Transistor 2SA639S
	1-583-486-00	Indicator		Q711(Q761)	Transistor 2SC1124
	1-583-488-00	Mic Amp		Q712(Q762)	Transistor 2SA678
SEMICONDUCTORS				Q713(Q763)	Transistor 2SA835
Q001(Q051)	FET	2SK43		Q714(Q764)	Transistor 2SC1124
Q002(Q052)	FET	2SK43		Q715(Q765)	Transistor 2SC1431
Q101	Transistor	2SC1637		Q716(Q766)	Transistor 2SA762
Q102	Transistor	2SA705		Q717~Q719	FET 2SK60
Q103	Transistor	2SA705		(Q767~Q769)	
Q104	FET	2SK43		Q720~Q722	FET 2SJ18
Q105	Transistor	2SC634A		(Q770~Q772)	
Q106	Transistor	2SA678		Q801	Transistor 2SC1060
Q107	Transistor	2SA678		Q802	Transistor 2SC634A
Q108~Q112	Transistor	2SC634A		Q803	Transistor 2SC634A
Q151	Transistor	2SC1637		Q804	Transistor 2SA678
Q152	Transistor	2SA705		Q805	Transistor 2SA678
Q153	Transistor	2SA705		Q806	Transistor 2SA670
Q154	FET	2SK43		Q807	Transistor 2SC634A
Q601(Q651)	FET	2SK58		Q808	Transistor 2SC634A
Q602(Q652)	Transistor	2SA639S		Q901	Transistor 2SA671
Q603(Q653)	Transistor	2SA639S		Q902	Transistor 2SC1061
Q604(Q654)	Transistor	1S1555		Q903	Transistor 2SC634A
Q605(Q655)	Transistor	2SC926A		Q904	Transistor 2SA678
Q606(Q656)	Transistor	2SC1124		Q905	Transistor 2SA671
Q607(Q657)	Transistor	2SC1124		IC101	IC BX-269
Q631	Transistor	2SA678		IC102	IC CX-0461
				IC103	IC BX-270
				IC104	IC BX-269
				IC201	IC CX-0461
				IC301	IC BX-270