JC-50 SERVICE NOTES

ERRATA & SUPPLEMENT is attached at the end of the page.
最終頁に正誤表＆追加情報があります。

Second Edition

This Service Notes makes First Edition (Printed FEB. 1, 1979) obsolete and includes its contents in PART2 of this edition.

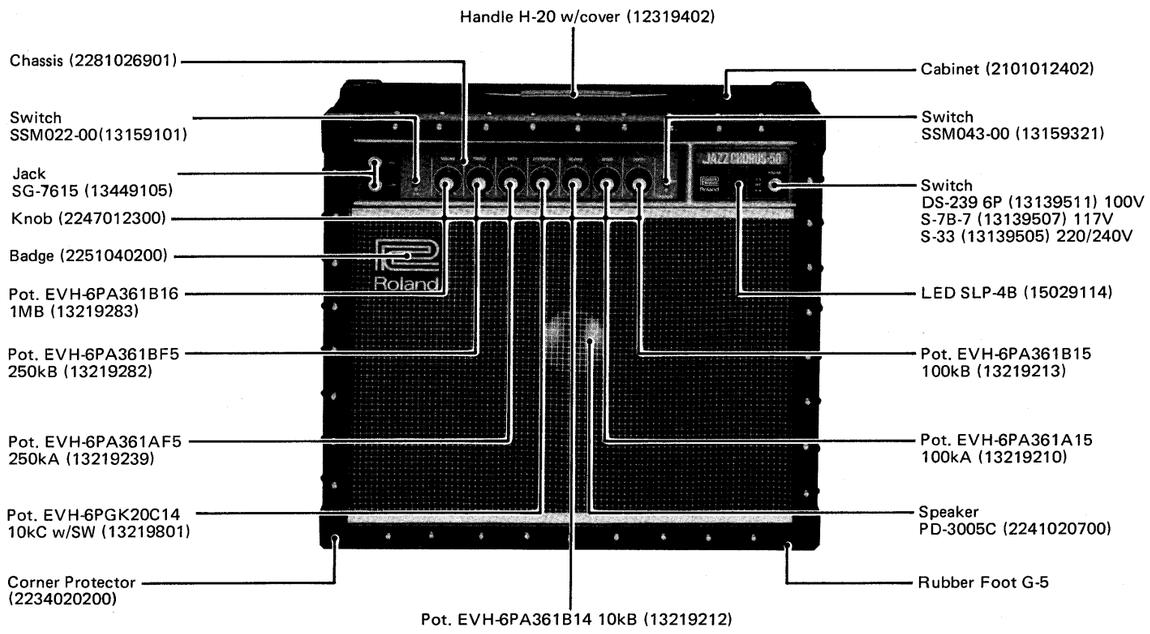
APPLICABLE TO JC-50 MODELS with Serial Numbers

PART1 (PP.1 thru 3) 258400 and up (except USA)
251100 and up (USA only)

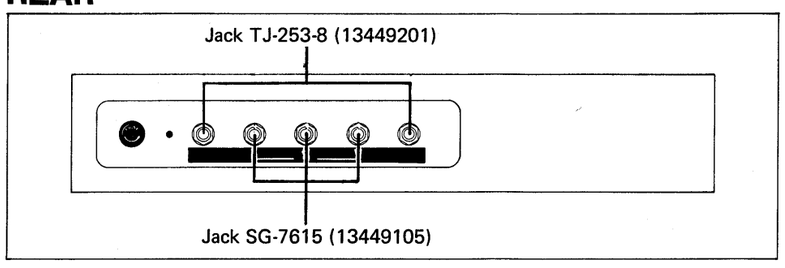
PART2 (PP.5 thru 8) up to 248399
up to 241099 (USA only)

SPECIFICATIONS

Output	50 W (rms)	**Dimensions**	548(W) x 506(H) x 239(D) mm 21-5/8" x 19-7/8" x 9-3/8"
Speaker	30 cm x 1		
Power Consumption	150 VA	**Weight**	18 kg, 40 lbs



REAR



Chassis Removal Screw
5 x 35 mm truss BC

Back Board Removal Screw
Tapping 4 x 25mm A1 truss

PARTS LIST

Parts marked with ● are the same as those on early model. Only part numbers changed.

2101012402	Cabinet Assembly (Including Handle, Badge, Corner Protector, Rubber Feet and Baffle Board)	
2281026901	Chassis	
2247012300	Knob	

SPEAKER

● 2241020700	PD-3005C	

SWITCH

13139511	DS-239 6P	POWER 100V
● 13139507	S-7B-7	POWER 117V
13139505	S-33	POWER 220/240V
13159321	SSM043-00	CHORUS/VIB.
● 13159101	SSM022-00	BRIGHT

JACK

13449105	SG-7615
13449201	TJ-253-8

POWER TRANSFORMER

22450144N1	100/117V
22450145D0	220/240V

REVERB UNIT

● 12389104	HS-700W

FUSE

● 12559117	MGC 3A	pri. 100/117V
● 12559521	CEE T1.6A	pri. 220/240V
● 12559109	SGA 4A	sec. 100/117V
● 12559517	CEE T4A	sec. 220/240V

FUSE HOLDER

● 12199514	SN-2059 or FH-032	pri. 100/117V
12199515	SN-2250 or FH-033	pri. 220/240V
12199519	TF-758	sec.

PCB ASSEMBLY

Compatible with old one. See P.2 for detail.

70113260	(pcb 2291018801)

POTENTIOMETER

13219212	EVH-6PA361B14 10kB REVERB
13219210	EVH-6PA361A15 100kA VIB. SPEED
13219213	EVH-6PA361B15 100kB VIB. DEPTH
13219239	EVH-6PA361AF5 250kA BASS
13219282	EVH-6PA361BF5 250kB TREBLE
13219283	EVH-6PA361B16 1MB VOLUME
13219801	EVH-6PGK20C14 10kC w/SW DISTORTION

IC

15189102	NJM4558DD	
15219205	MN-3007	BBD
15169504	MN-3101	CLOCK GENERATER/ DRIVER

TRANSISTOR

15119111	2SA970-GR
15119602	2SB647-C
15129114	2SC1815-GR
15129120	3SC2240-GR
15129601	2SD666-C
15129602	2SD667-C
15129820	2SD313-E or 2SD526, 2SD1624, 2SD880
15129825	2SD718-O or R or 2SC3182, 2SD588

FET

● 15139106	2SK117-GR
15139112	2SK246-GR

DIODE

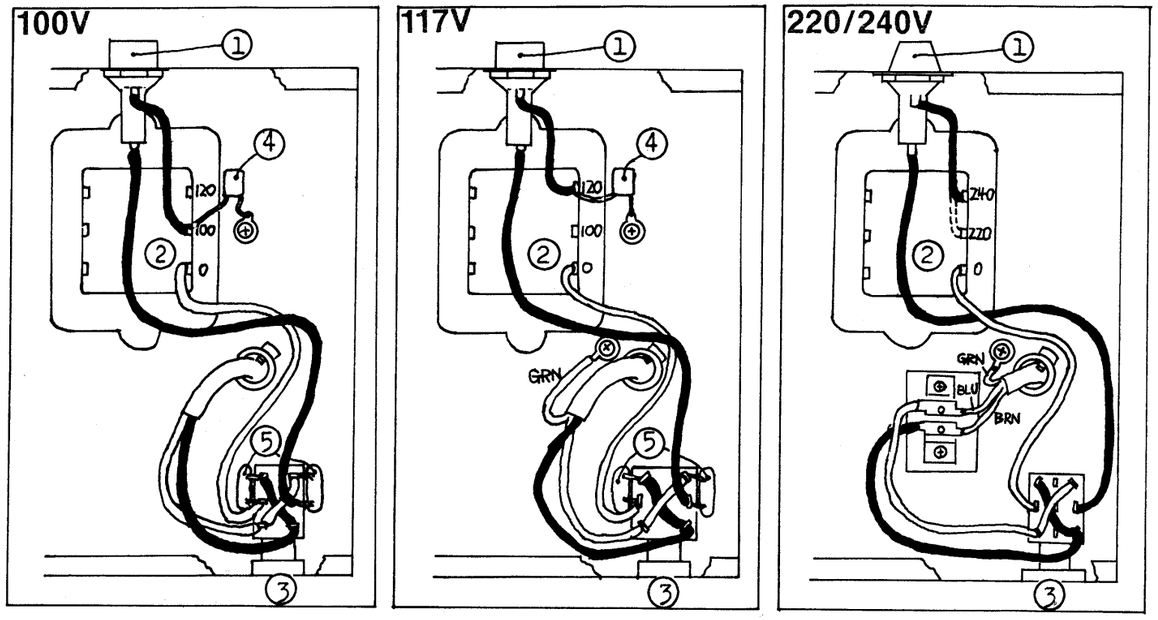
15019103	1S2473	
15019205	1N4003 or S5500G	
● 15019210	1R5BZ61	rectifier
15019560	RD16EB2	zener
15019582	RD30EB4	zener
15029114	SLP-4B	LED

CAPACITOR

13639942S0	50MV 1NP 1μF/50V	electro. bi-polar
13639922M0	ECEA1CN100S 10μF/16V	electro. bi-polar
13549625M0	ECQM2103KZ 0.01μF/200V	polypropylene
● 13549871M0	ECQM6472MZ 0.0047μF/600V	polypropylene
● 13549883M0	ECQM6473MZ 0.047μF/600V	

RESISTOR

13869301	0.33Ω 5W	cement
13829254F0	330Ω 2W	metal oxide film
12559702	FRNB 10Ω ½W	fusible
12559704	FRNB 100Ω ½W	fusible
13829802M0	ERD-50FJ 27Ω ½W	metal oxide film non-flammable

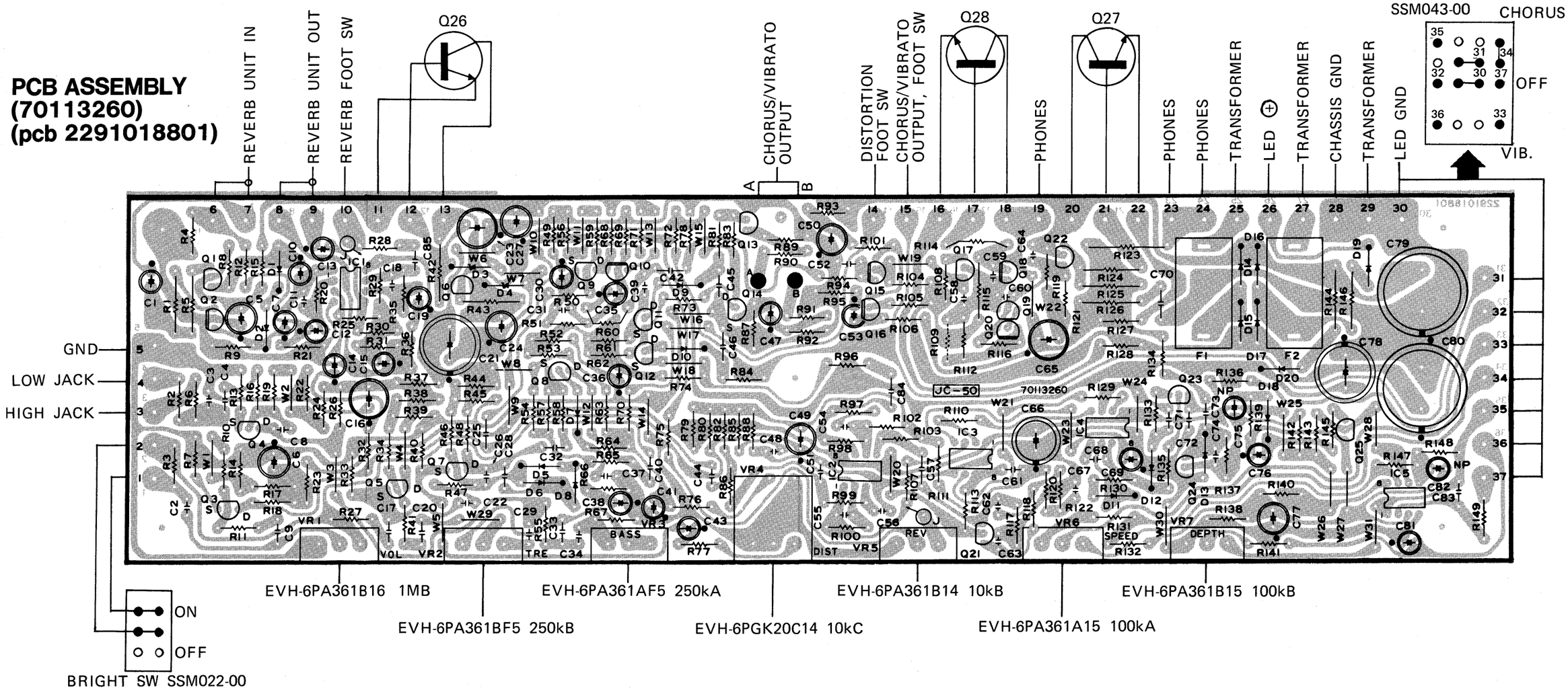


	100/117V	220/240V
1. PRI. FUSE FUSE HOLDER	MGC 3A SN-2059 or FH-032	CEE T1.6A SN-2250 or FH-033
SEC. FUSE FUSE HOLDER	SGA 4A TF-758	CEE T4A TF-758
2. TRANSFORMER	(22450144N1)	(22450145D0)
3. POWER SWITCH	DS-239 6P (100V) S-7B-7 (117V)	S-33
4. Line Cap	ECQM6472MZ	
5. Line Cap	ECQM6473MZ	

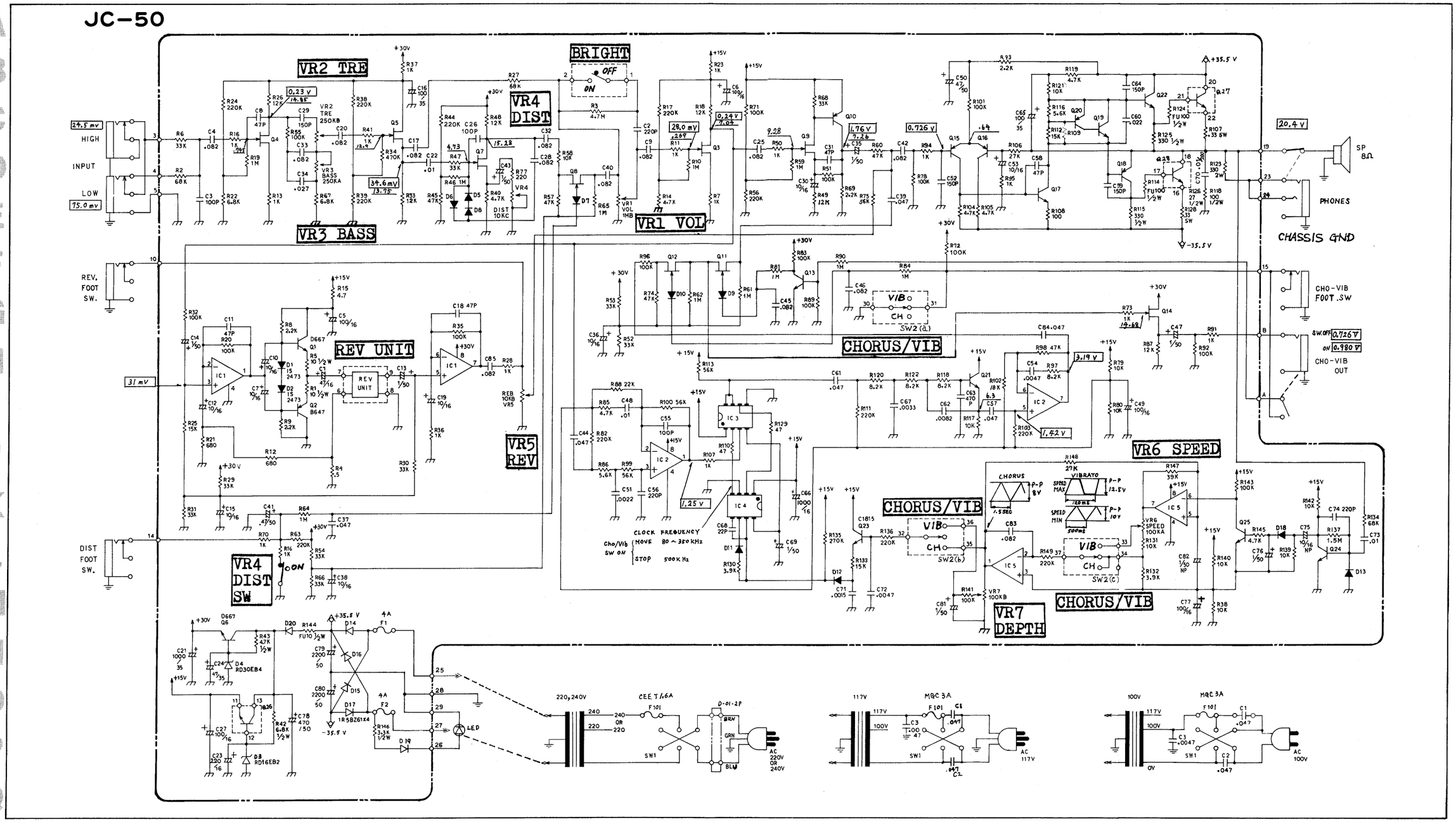
WHEN SUBSTITUTING THIS BOARD FOR ITS PREDECESSOR, FOLLOW THE PROCEDURE BELOW:

- Prepare new CH/VIB SW, SSM043-00, and interwire PCB and SW terminals of the same number – 30 thru 37.
- VR9 on the rear panel becomes obsolete.
- Remove the resistor from BRIGHT SW and rewire the lead from terminal No.2.
- Terminal pads, marked A or B, should be left unconnected.

PCB ASSEMBLY (70113260) (pcb 2291018801)



JC-50



IC1, 2, 5	: NJM4558DD	Q10, 15, 16	: 2SA970-GR	D1, 2, 5–13, 18	: 1S2473
IC3	: MN3007	Q13, 21, 23–25	: 2SC1815-GR	D3	: RD16EB2
IC4	: MN3101	Q17	: 2SD666-C	D4	: RD30EB4
		Q19	: 2SC2240-GR	D14–17	: 1R5BZ61
		Q20	: 2SA970-GR	D19, 20	: 1N4003
Q1, 6, 22	: 2SD667-C	Q26	: 2SD313-E		or S5500G
Q2, 18	: 2SB647-C		or 2SD526, 2SD1624, 2SD880		
Q3–5, 7, 9, 14	: 2SK117-GR	Q27, 28	: 2SD718-O or R		
Q8, 11, 12	: 2SK246-GR		or 2SC3182, 2SD558		

Signal Voltages Taken Under Conditions:

Input ..... 1kHz sine
Tone controls ..... BASS-FCW
TRE -FCW

JACKS COLD terminals not connected to PCB terminals are to chassis.

Secondary Winding Ratings (DC)
35.5V x 2 @ 1.3A
2200μF INPUT

JC-50

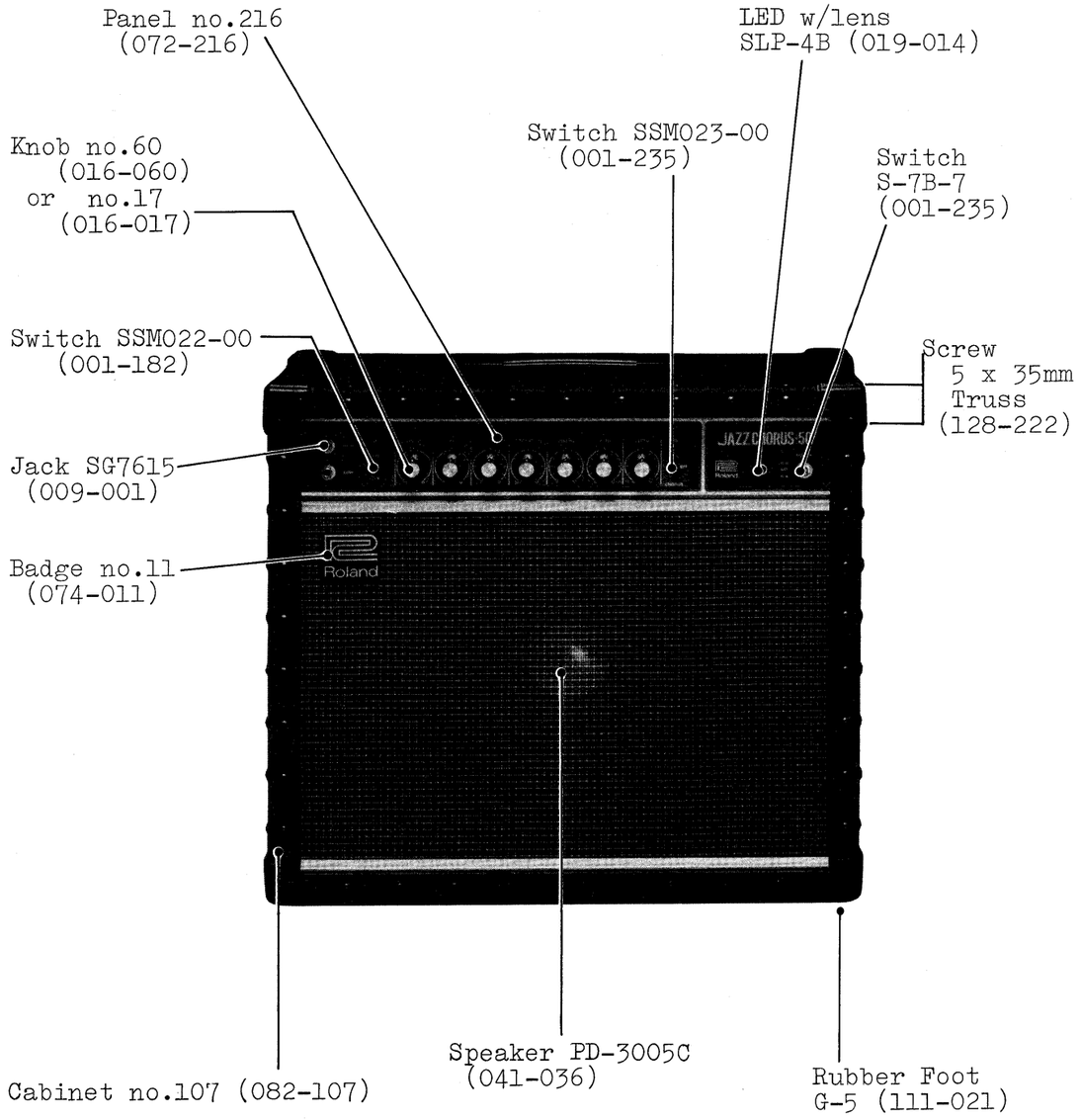
SERVICE NOTES

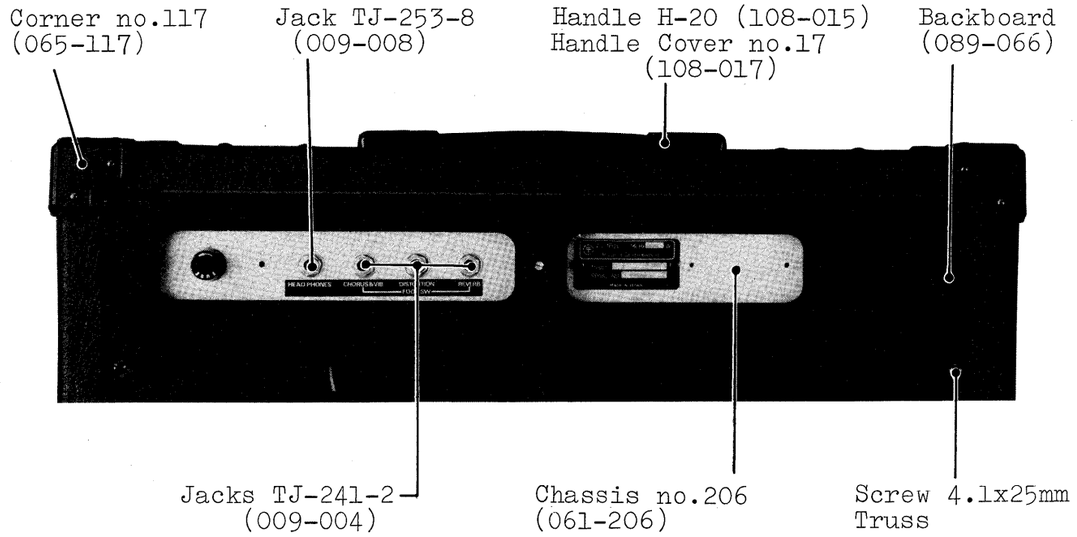
APPLICABLE TO SERIAL NUMBERS

Up to 248399, Up to 241099 (USA only)

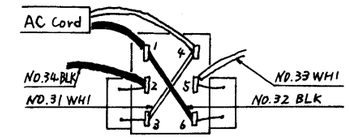
SPECIFICATIONS

Output ------- 50W rms into 8-ohm
Speaker ------ 30cm x 1
Input Jack --- High/Low
Controls ----- Volume, Treble, Bass, Distortion, Reverb, Vibrato Speed, Vibrato Depth, Chorus/Vibrato Select, Bright ON/OFF
Foot Switch -- Reverb, Distortion, Chorus/Vibrato
Jack
Output Jack -- Headphones
Power Consumption -- 150VA
Weight ------- 18Kg
Accessory supplied -- Vinyl Cover

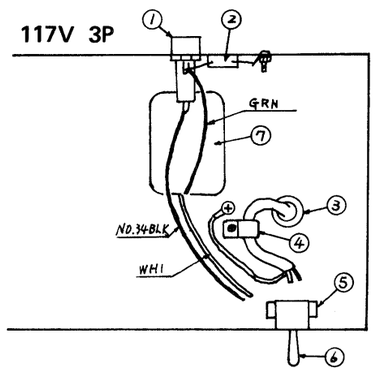




Power Supply Parts Layout

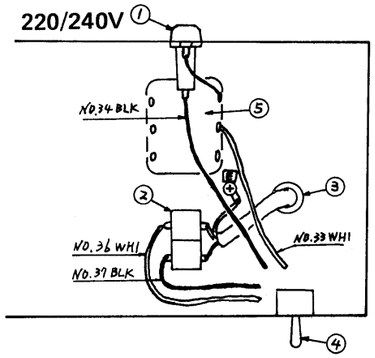


117V 3P

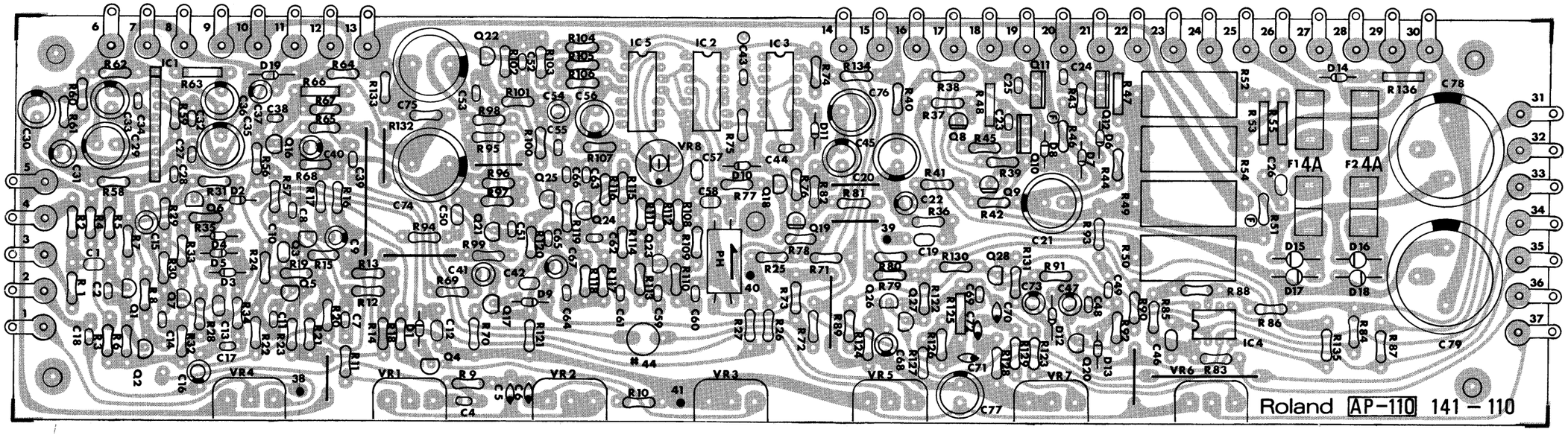


1. Fuse Holder SN-2059 (012-020)
   Fuse primary MGC 3A (008-159)
2. Line Capacitor ECQ-1A472MC (035-107)
3. Strain Relief EA-5 (047-025)
4. Clamp HP-5N (047-006)
5. Line Capacitor ECQ-1A473MC (035-108)
6. Power Switch S-7B-7 (001-235)
7. Power Transformer (022-111C)

220/240V



1. Fuse Holder SN-2250 (012-019)
   Fuse prim. CEE 1.6AT (008-069)
2. Terminal Block D-01-2P (042-032)
3. Strain Relief EA-5 (047-025)
4. Power Switch S-7B-7 (001-235)
5. Power Transformer (022-111D)



IMPORTANT
If, as a substitutive for this board, PCB ASS'Y 70113260 or pcb 22910188 is supplied, see page 2 for replacement procedure.

Fuse F1, F2
4A (100, 117V 3P)
4AT (220, 240V 3P)

LED
GND
Transformer

Chassis
GND
Transformer

LED
⊕
Transformer

Headphone Jack
No. 8
Headphone Jack
No. 4

Emitter
Base
Collector

Headphone Jack
No. 3, 6

Collector
Base
Emitter

Chorus/Vibrato
Foot Sw.
Distortion
Foot Sw.

Reverb
Foot Sw.
Reverb Unit Out

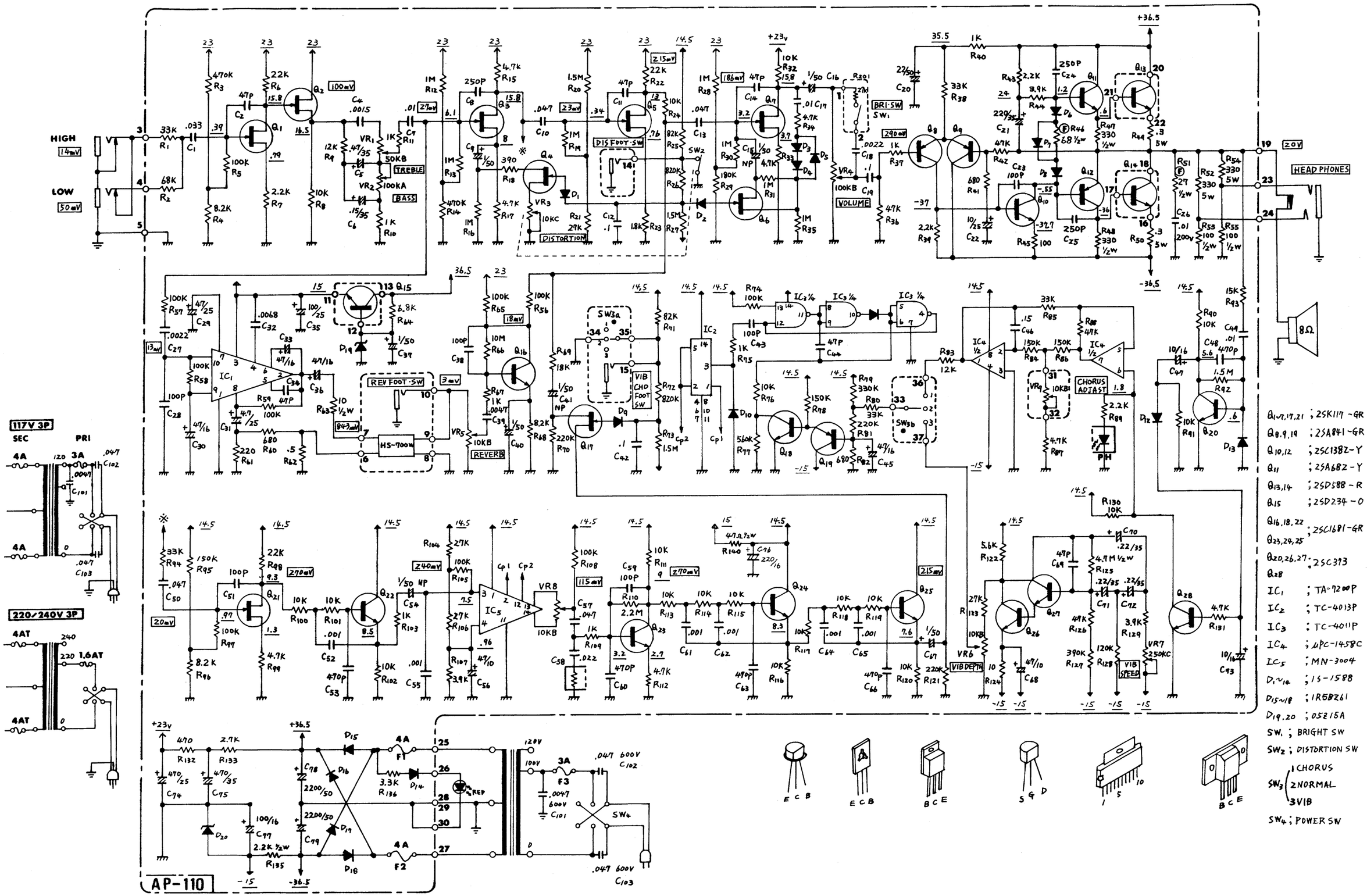
Reverb Unit In

High Jack
GND
Low Jack
No 1

VR 9
No. 2

Bri Sw

Chorus/Vibrato
Changeover SW



Q1,17,21 ; 2SK117-GR
Q8,9,19 ; 2SA841-GR
Q10,12 ; 2SC1383Z-Y
Q11 ; 2SA682Z-Y
Q13,14 ; 2SD588-R
Q15 ; 2SD234-O
Q16,18,22
Q23,24,25 ; 2SC1681-GR
Q20,26,27
Q28 ; 2SC373
IC1 ; TA7200P
IC2 ; TC4013P
IC3 ; TC4011P
IC4 ; μPC1458C
IC5 ; MN3004
D1~14 ; 1S1588
D15~18 ; 1R5BZ61
D19,20 ; 05Z15A
SW1 ; BRIGHT SW
SW2 ; DISTORTION SW
SW3 ; 1 CHORUS, 2 NORMAL, 3 VIB
SW4 ; POWER SW

PARTS LIST *Please read new Parts List on p.1 for reference.*

131-105	Vinyl Cover	no.105		
130-209	Carton	no.209		
001-182	Switch	SSM-022-00	slide	Bright
001-235	Switch	SSM-023-00	slide	Vib/Cho
022-111	Power Transformer	no.111 (C - 117V, D - 220/240V)		
040-004	Reverb Unit	HS-700W		
012-029	Fuse Holder	SN-5054	sec.	
008-158	Fuse	MGC 4A	sec.	117V
008-074	Fuse	CEE 4AT	sec.	220/240V
048-055	Heat Sink	no.55	power	transistors
053-166	Connector Assy	no.166		
053-235	Connector Assy	no.235		

PCB

141-110	AP-110	(052-396)

TRANSISTORS DIODES ICS

017-069	2SA-841-GR	Transistor	
017-034	2SA-682-Y	Transistor	
017-062	2SC-1681-GR	Transistor	
017-011	2SC-373	Transistor	
017-035	2SC-1382-Y	Transistor	
017-010	2SD-234-O	Transistor	
017-102	2SD-588-R	Transistor	power
017-103	2SK-117-GR	FET	
018-059	1S1588	Diode	
018-061	1R5BZ61	Diode	rectifier
018-066	05Z20A	Zener	
019-014	SLP-24B	LED	
019-006	P873-G350-380	Photocupler	
020-028	TA-7200P	IC	
020-062	uPC1458C	IC	
020-040	TC-4011P	IC	
020-041	TC-4013P	IC	
020-063	MN-3004	BBD	

POTENTIOMETERS

030-465	SR-19R	B10K	trimmer	BBD Adj.
028-983	EVH-8MA S10	B10K		Chorus/Vibrato
028-481	EVH-6PA K20	B10K		Reverb/Vibrato
028-483	EVH-6PA K20	B50K		Treble
028-484	EVH-6PA K20	B100K		Volume
028-474	EVH-6PA K20	A100K		Bass
028-501	EVH-6PA K20	C250K		Vibrato Speed
028-502	EVH-6PG K20	C10K	w/sw	Distortion

CAPACITORS

032-092	0.15μF		35V		tantalum
032-093	0.22μF		35V		tantalum
032-095	0.47μF		35V		tantalum
032-047	CE04D1H010	1μF	50V		electro. Bi-Polar
035-103	ECQM2103KZ	0.01μF	200V		polyester
035-101	ECQM6472MZ	0.0047μF	600V		

RESISTORS

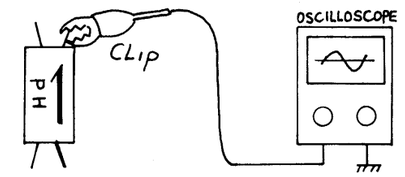
044-258	MS-5	0.3-ohm	5W	wire wound
044-289	MS-5	330-ohm	5W	wire wound
044-398	ERD-12FJ	27-ohm	$\frac{1}{2}$W	noninflammable
044-403	ERD-12FJ	68-ohm	$\frac{1}{2}$W	noninflammable

*Resistors of $\frac{1}{4}$W $\pm$5%, mylar, ceramic, and ordinary electrolytic capacitors are omitted.
* For other parts not listed above, see pictorial.

ADJUSTMENT

Set Vol. Tre. Bass at maximaum.
Rev. Dist. Vib-Spped, -Depth at minimum.
Set Input Signal for the JC-50's maximum output (onset of clipping) -- approx.20V rms.
Connect oscilloscope lead to PH lead on AP-110. -- Fig.1

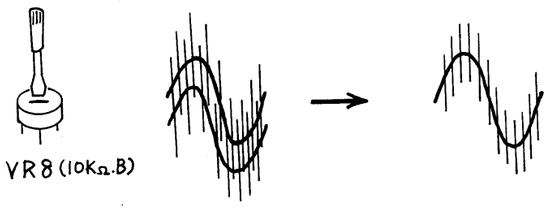
Fig 1



BBD OUTPUT WAVE ADJUSTMENT

Adjust VR-8 for Fig.2.

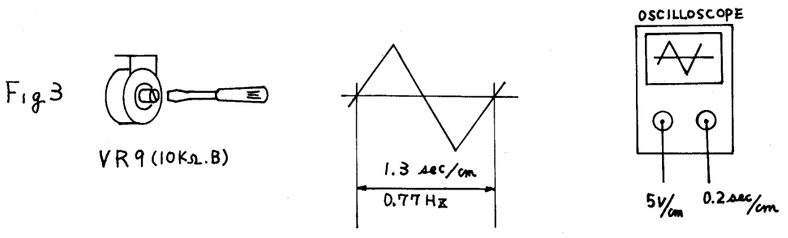
Fig 2



CHORUS ADJUSTMENT

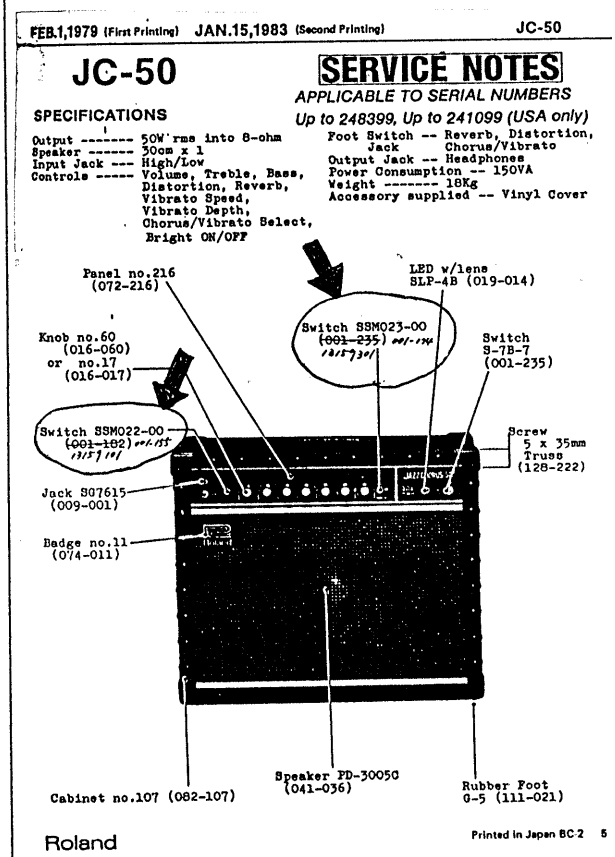
Connect oscilloscope to no.36 terminal on AP-110.
Adjust VR-9 for Fig.3.

Fig 3



ER00013

JC-50 (2nd) SERVICE NOTES 1991.05.27
ERRATA & SUPPLEMENT 正誤表 & 追加情報
(Small errors are ignored. 重要でないエラーは無視します。)

Page	WRONG 誤 →	CORRECT 正
5	JC-50 SECOND EDITION JC-50 up to 248399/以前 up to 241099(USA only) PART NUMBER ERROR ﾊﾟｰﾂｺｰﾄﾞ誤記訂正 * Switch SSM023-00 (~~001-235~~) * Switch SSM022-00 (~~001-182~~)	* Switch SSM023-00 (13159301) * Switch SSM022-00 (13159101) 
8	PARTS LIST --- ~~001-182~~ Switch SSM-022-00 slide Bright ~~001-235~~ Switch SSM-023-00 slide Vib/Cho	PARTS LIST --- 13159101 Switch SSM-022-00 slide Bright 13159301 Switch SSM-023-00 slide Vib/Cho * Please amend all existing service notes as above. * 該当ｻｰﾋﾞｽﾉｰﾄを上記のように修正して下さい。