

ELECTRONIC MUSICAL INSTRUMENT

- JC-60** Serial number 512400 and higher
- JC-80** Serial number 510950 and higher
- JC-120** Serial number 510850 and higher
- JC-160** Serial number 512500 and higher

SERVICE NOTES

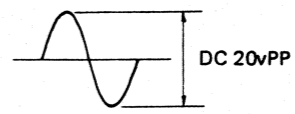

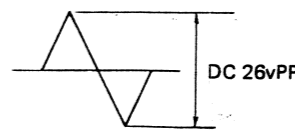
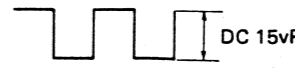
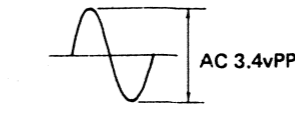
Provisional
Printed in Japan



WAVE FORMS

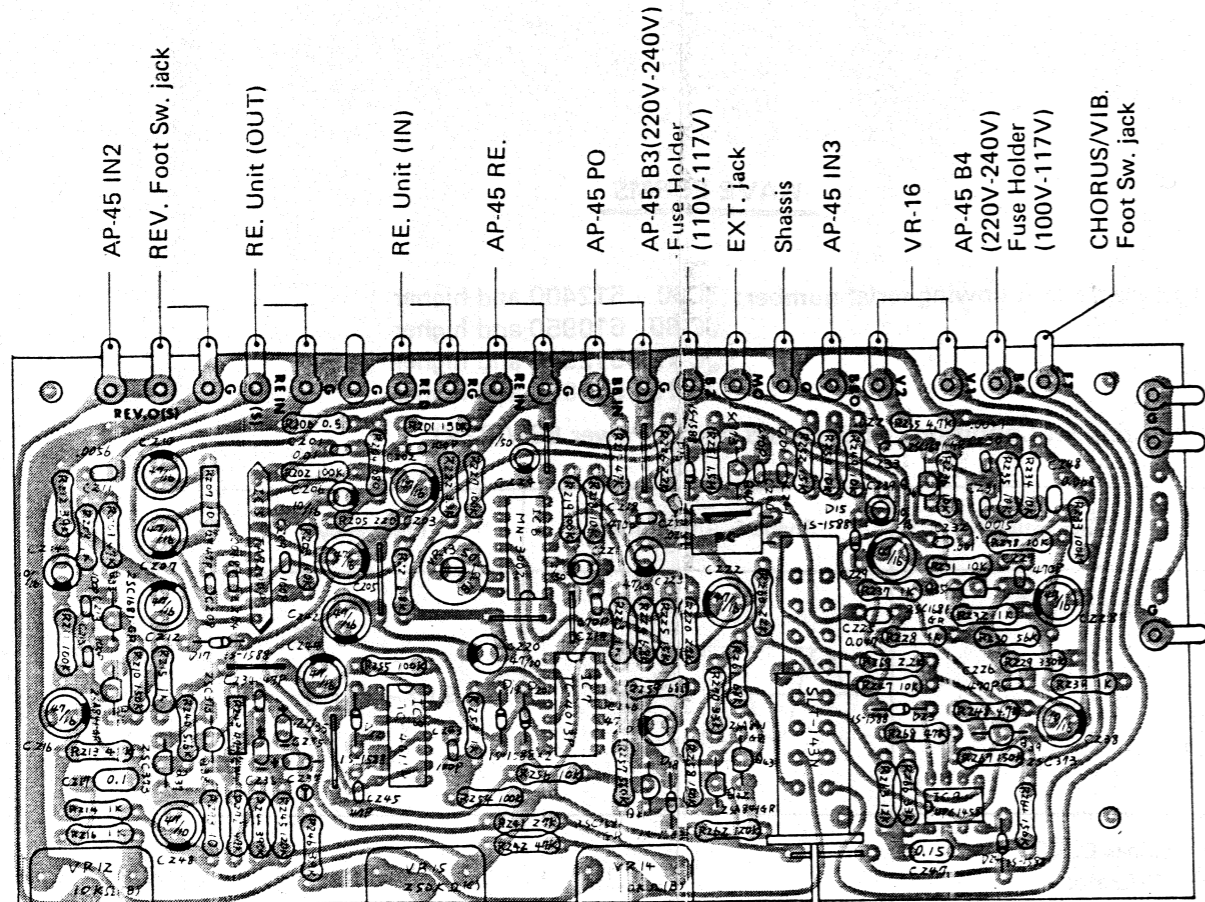
Applicable to following serial number: JC60 512400 and higher
 JC-80 510950 and higher
 JC-120 512500 and higher
 JC-160 510850 and higher

Measurement Condition: at the rated output Power 60W(22V)

Description	Shape & Amplitude	Frequency
Vibrato O.S.C	 DC 20vPP	(1.9 Hz – 11 Hz)
Clock O.S.C (Vibrato)	 DC 15vPP	52kHz–71.4kHz
Chorus O.S.C	 DC 26vPP	(1.24Hz)
Clock O.S.C (Chorus)	 DC 15vPP	45 KH – 130 KH
BBD output (18dB/OCT filtered)	 AC 3.4vPP	1 KHz

JC-60 JC-80

ET-6 (151-006) PCB 052-199 JC-60 serial NO. 543150 and higher
 JC-80 serial NO. 541050 and higher



V24L5PHIN20KCB10K
 (030-180)
 (EVC-S0A, K20)
 13249207

V24L5PHIN20KC15C
 C250K (030-193)
 (EVC-S0A, K20)
 13249211

SLT-143N
 (001-082)

ET-6 parts modification

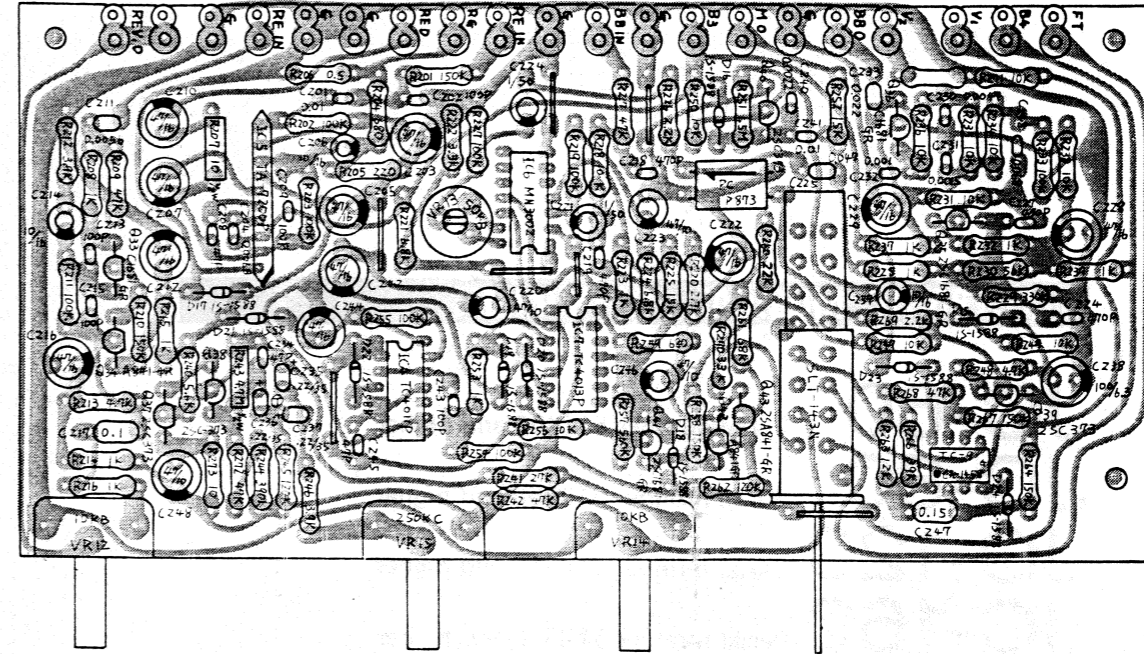
JC-60 532950	R266		
JC-80 530950	39K → 33K		
JC-60 543150	pc board	C240	R271 C249
JC-80 541050	052-190A → 052-199	0.0022μf → 470pf	omitted
JC-60 573650	D21	C250	C238
JC-80 571150	1S1588 omitted	0 → 0.022μf	100μf 6.3V → 10μf 16V

AP-45 parts modification

JC-60 532950	Q16, Q19	R101	R134	R108	C135
JC-80 530950	2SK30A(GR) → 2SK30A(Y)	47K → 82K	4.7K → 5.6K	3.3K → 8.2K	0.0047μf → 0.001μf
JC-60 543150	C117				
JC-80 541050	100μf-50V → 470μf-35V				
JC-60 563450	R142, R145, R146, R148, R151	R149, R116			
JC-80 561150	1/4R → fusing resistor	1/4W → 1/2W			

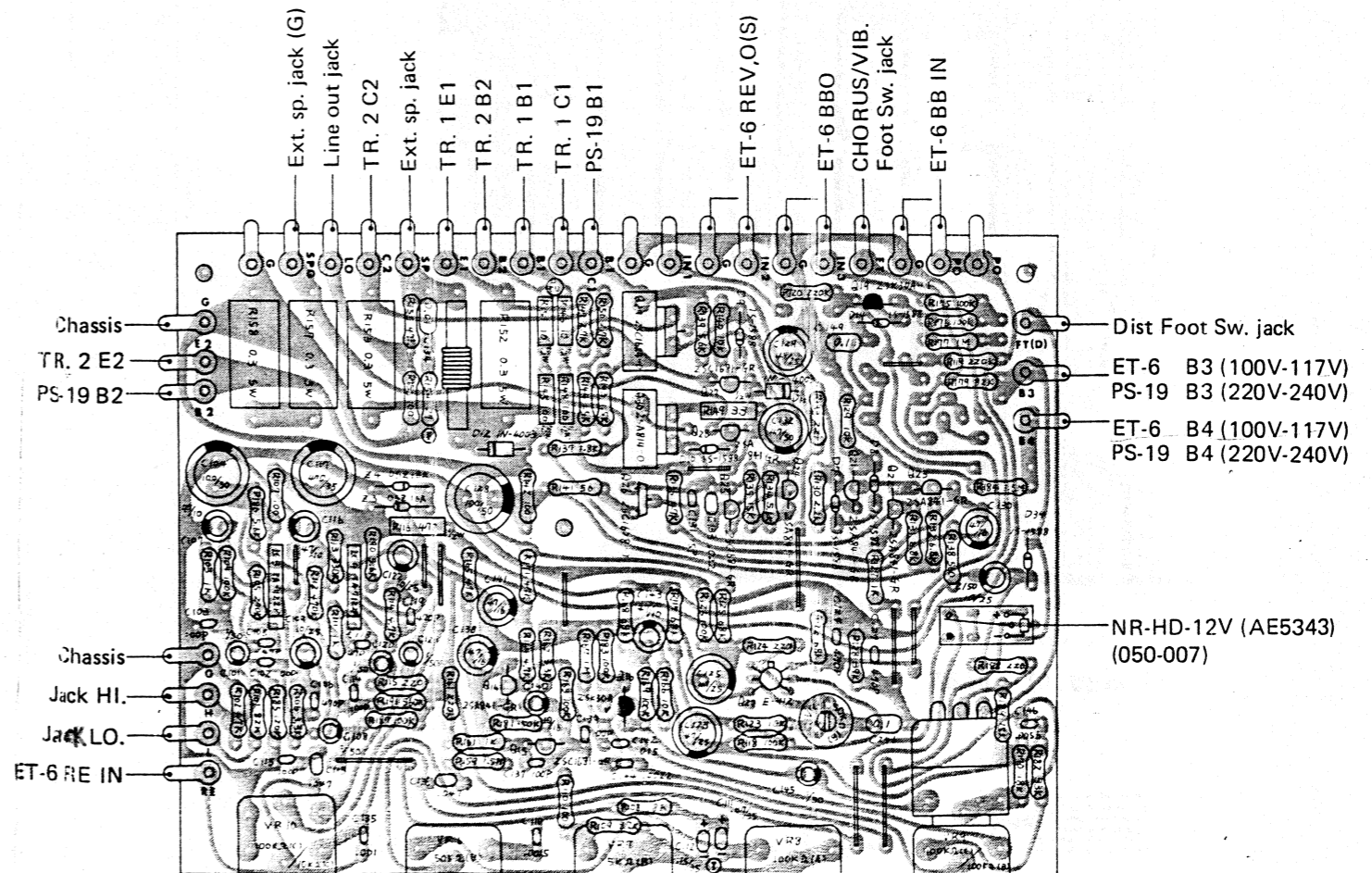
July 20 1977

ET-6 052-190A (parts side) JC-60 serial NO. 512400 - 533149
 052-182A (pattern side) JC-80 serial NO. 510950 - 531049



The difference between ET-7 and ET-6 is only on value of C211. Both can be interchangeable by replacing C211 of 0.022 (ET-7) or 0.0056 (ET-6). Two of these ET-6's are interchangeable. Shown on the left is electrically superior, when replacing, ET-6 on the left is better recommended.

AP-45 (141-045) PCB 052-189A (parts side)
 052-181A (pattern side)



V24L5G3PHIN20KC
 15C100K, 15C10K
 (030-196)

V24L5PHIN20KC
 B50K (030-182)
 (EVC-S0A, K20)
 13249208

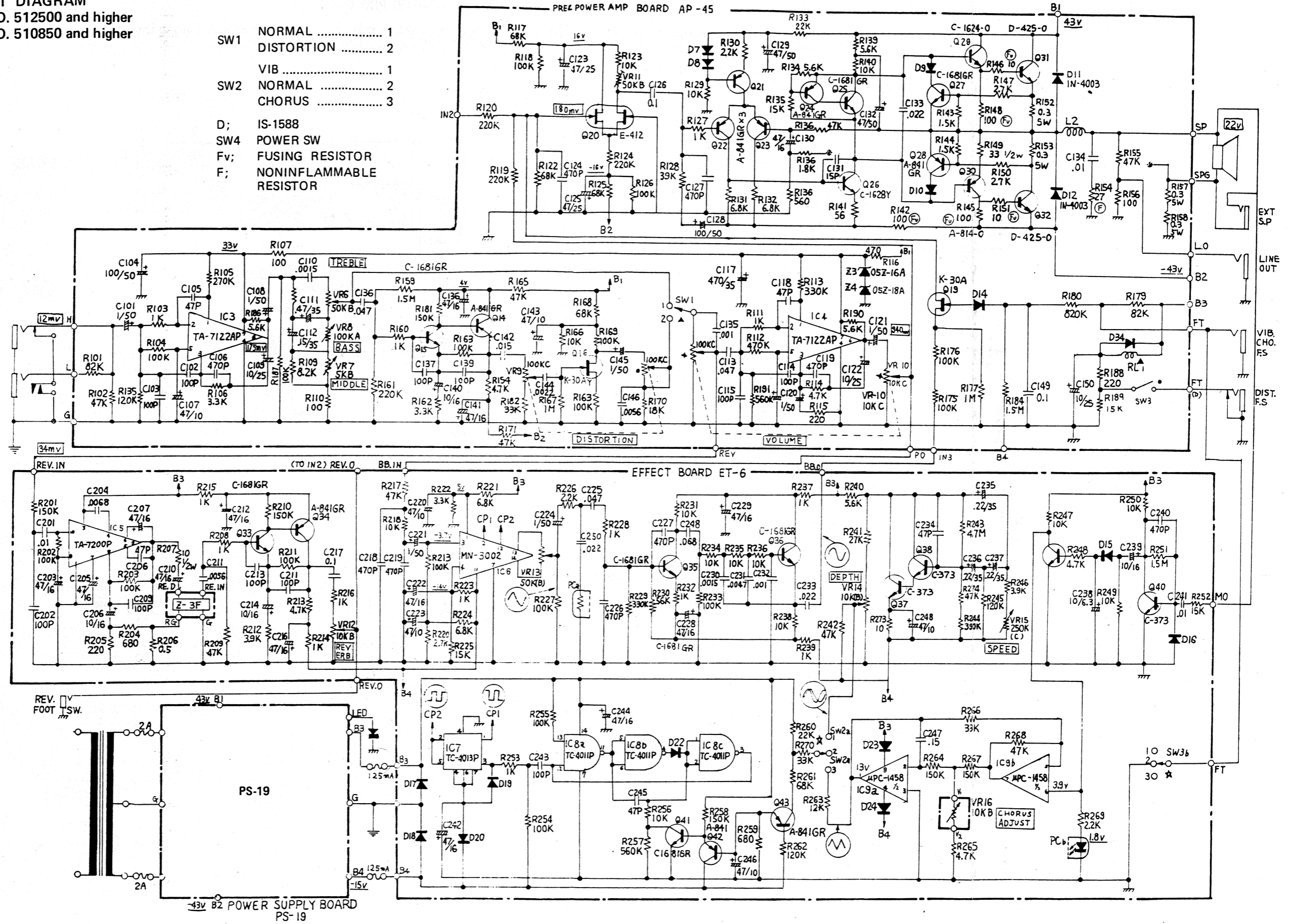
V24PHIN20KCB5K
 (030-179)
 (EVC-S0A, K20)
 13249206

V24L5PHIN20KC
 15A100K (030-174)
 EVC-S0A, K20
 13249204

EWf-NOHK20, 836
 (029-060)

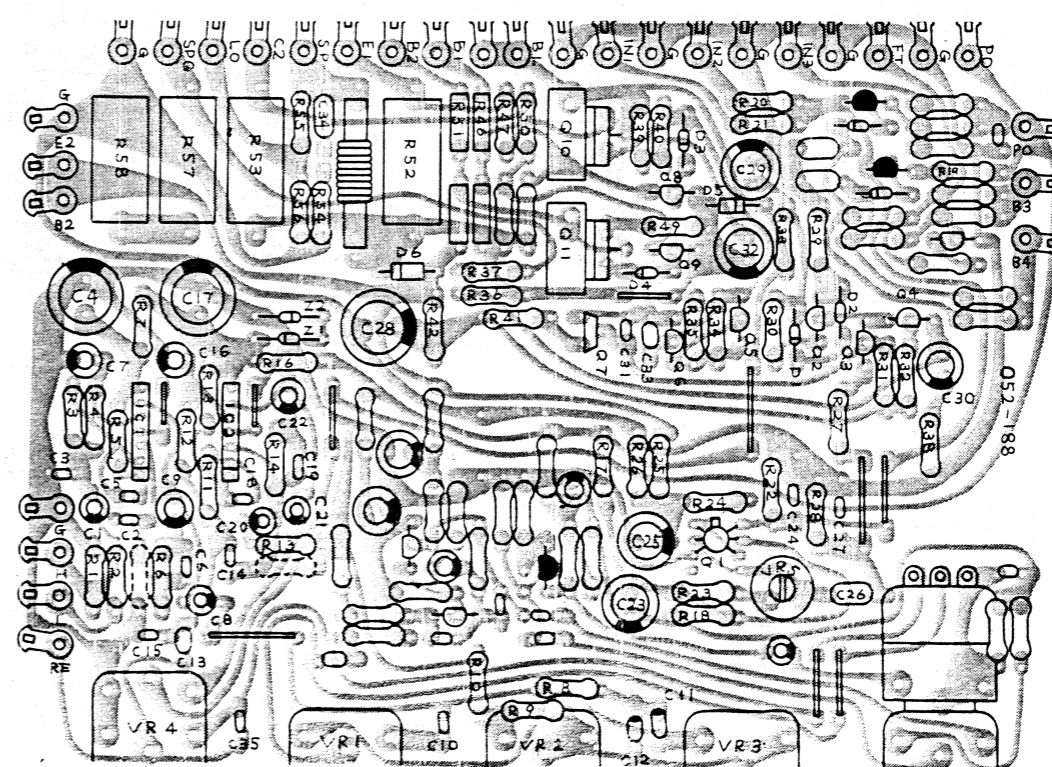
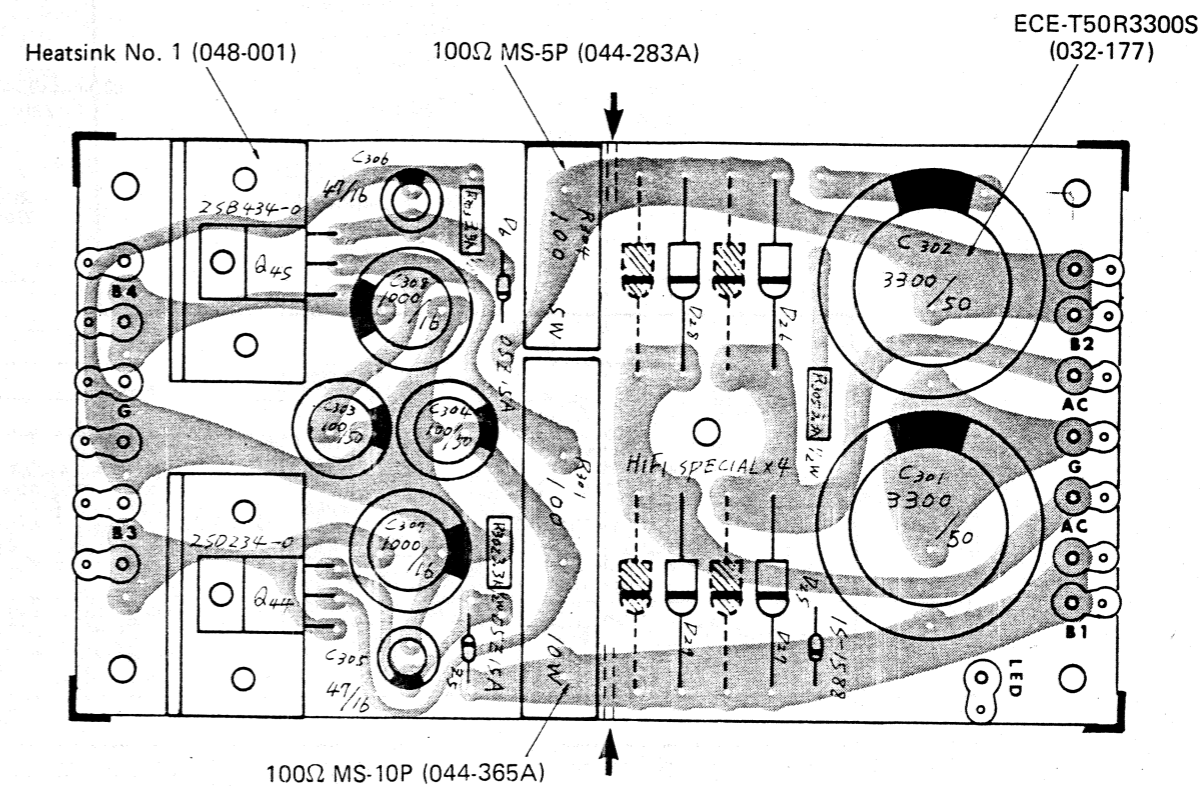
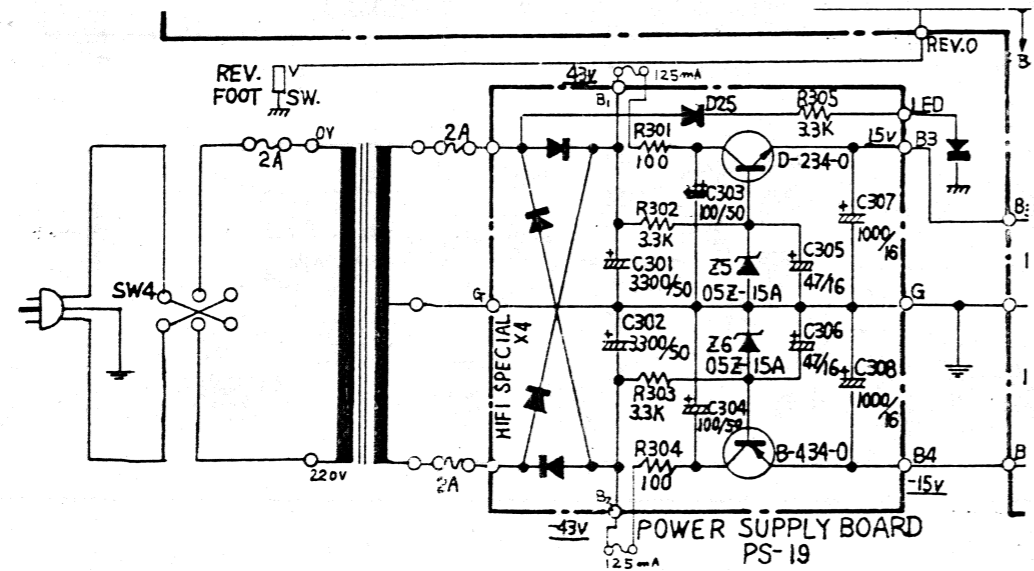
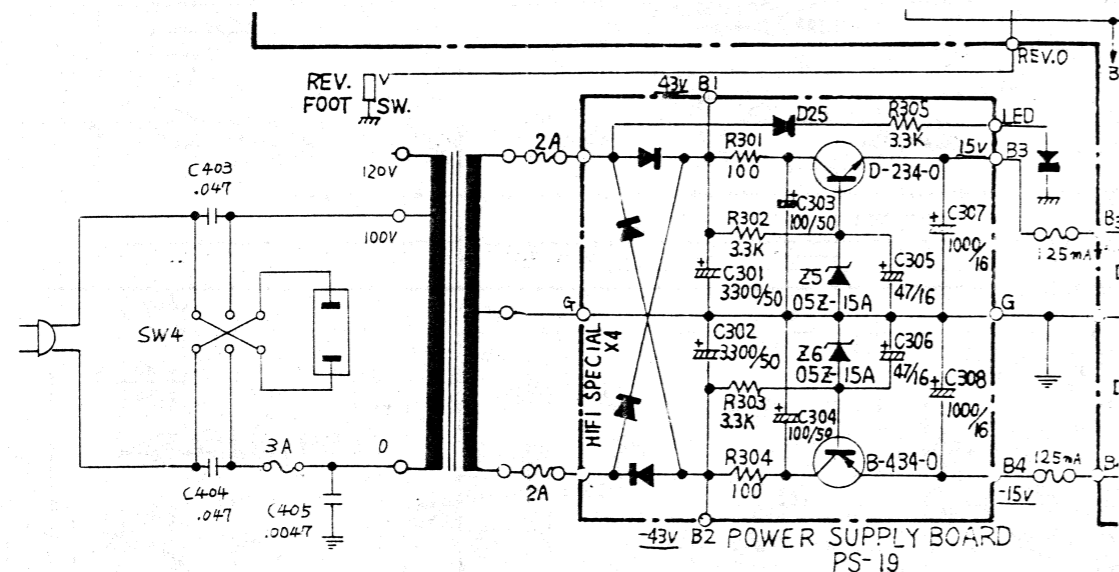
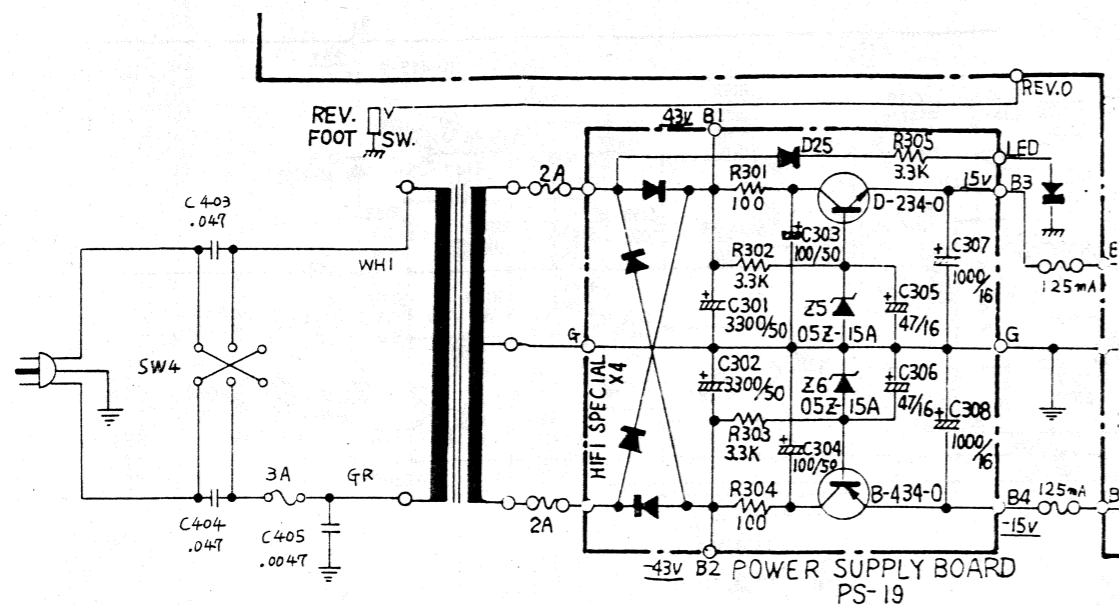
OVERALL CIRCUIT DIAGRAM
 JC-60 serial NO. 512500 and higher
 JC-80 serial NO. 510850 and higher

- SW1 NORMAL 1
- DISTORTION 2
- VIB 1
- SW2 NORMAL 2
- CHORUS 3
- D; IS-1588
- SW4 POWER SW
- Fv; FUSING RESISTOR
- F; NONINFLAMMABLE RESISTOR



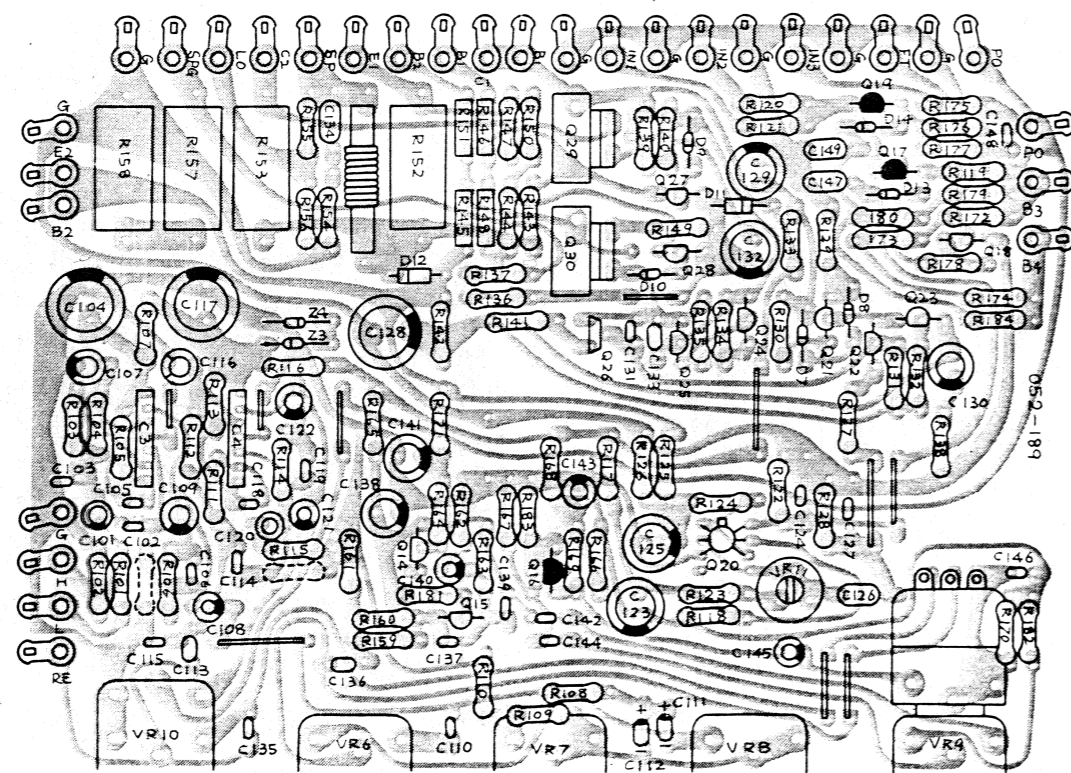
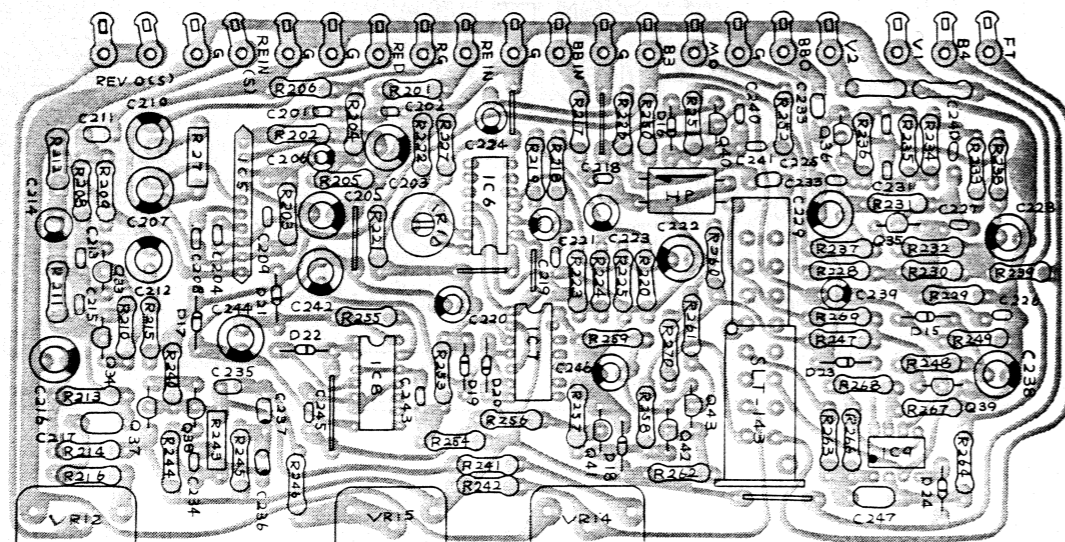
PS-19 (146-019) PCB 052-123A

The pattern, arrow marked, must be scraped off along the dotted lines, to permit conduction through the fuse to be placed across (220V-240V only)



APPENDIX

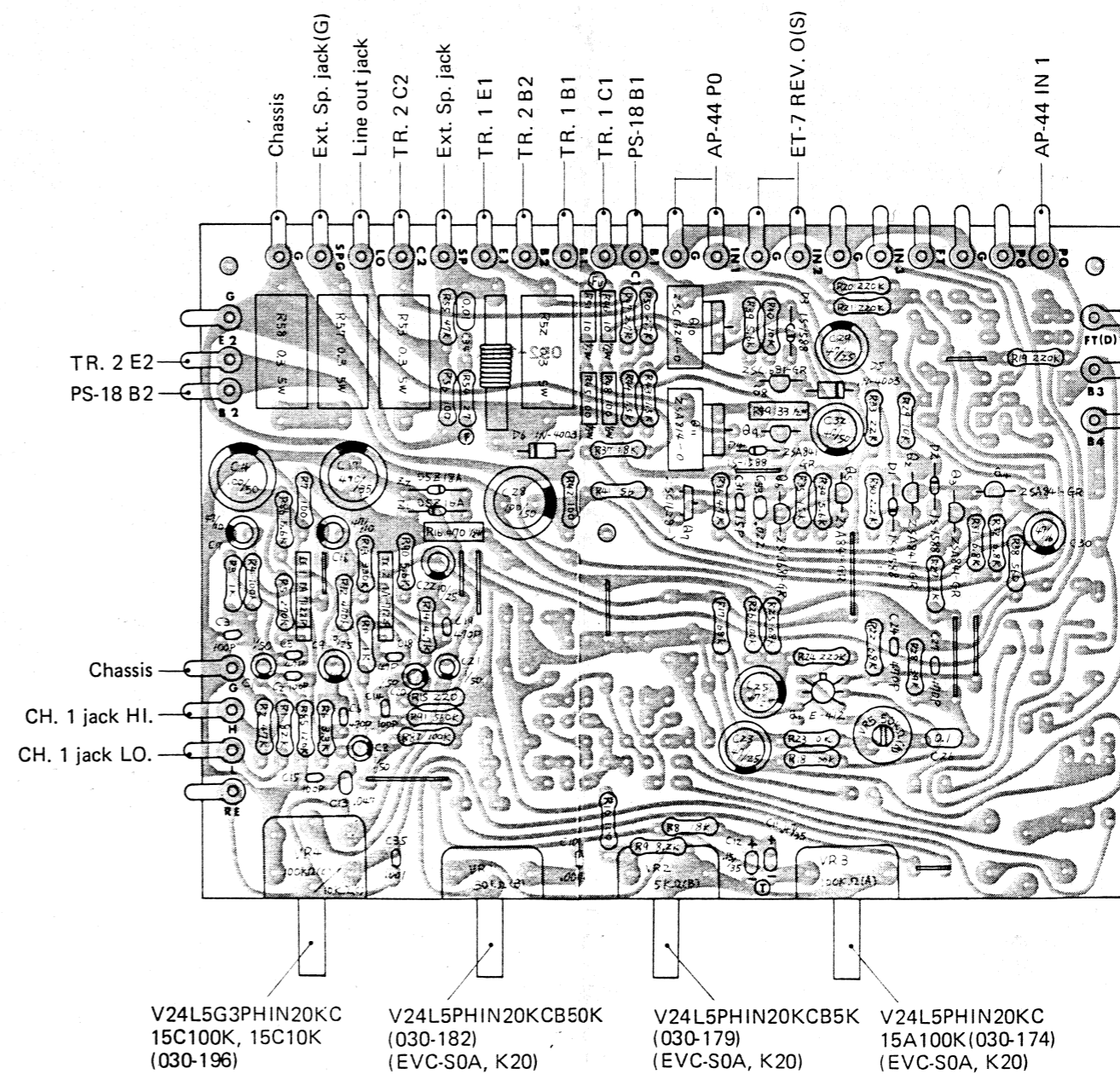
Wiring patterns and component layouts; JC- 60 serial NO.481650 — 502399 JC-120 serial NO.481650 — 502499
JC- 80 serial NO.480500 — 500949 JC-160 serial NO.480550 — 500849



AP-43 parts modification

JC-120 522850 JC-120 520950	R1 47K → 82K	R34 4.7K → 5.6K	R8 3.3K → 8.2K	C35 .0047μf → .001μf
JC-120 543650 JC-160 541050	C17 100μf50V → 470μf 35V			
JC-120 564200 JC-160 561100	R46, R51, R48, R45, R42 1/4R → Fusing Resistor		R49, R16 1/4W → 1/2W	

AP-43 (141-043) PCB 052-188A (parts side)
052-181A (pattern side)



OVERALL CIRCUIT DIAGRAM
JC-120 serial No. 512500 and higher
JC-160 serial No. 510850 and higher

