

BOSS TW-1 SERVICE NOTES

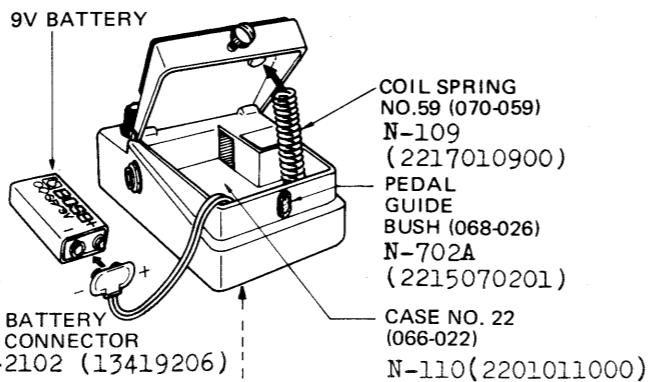
Second Edition

SPECIFICATIONS

Power	Battery 9V (1)
	AC Adaptor
Current draw	6mA @9V
S/N ratio	Over 80dB
Input impedance	470KΩ
Output load impedance	Over 10KΩ
Dimensions	70(W) x 55(H) x 125(D)mm
Weight	400g

This edition is a major revision of Notes(OCT. 20, 1978) and makes that edition obsolete.

COVER NO.130 (065-130)
BASE NO.32 (111-032)
BOTTOM NOT SHOWN



N-116 (2202011600)
N-305 (2235030500)

Jack HEC-0003(13449702)
*HEC-0317-1-1 or *HEC-0749-01010 (13449704) see back page

Pot. EVH8MA218B54 50KB (13229508)(030-941)

Switch MS328A (001-200) *MS-500BC(A) white (13139518)

Jack SG-7622 (13449106)(009-012)

Pedal N-506A (2218050601) Cover No. 149 (065-149)

Screw 3 x 10mm

LED GL-32AR (019-008) *SLP-135B(15029117)

Pot. EVH8MA218A15 100KA (13229502) (030-932)

Knob TK-1122 (2247010500) (016-025)

Jack SG-7713 (13449104)(009-036)

Base N-304 (2235030400) No. 31 (111-031)

Parts are designated in new numbering - 8 to 10 digits without their old number deleted for cross reference. Some parts are renamed.

Component changed is identified with "*" prefixed to the new one. No comment upon compatible ones.

N is always followed by abbreviated new number.

PARTS LIST

NEW	OLD	
2201011000	066-022	Case N-110 (brn)
2218050601	065-149	Pedal N-506A (cover)
2202011600	065-130	Cover N-116 bottom
2235030400	111-031	Base N-304 pedal matt
2235030500	111-032	Base N-305 bottom
2215070201	068-026	Guide bushing N-702A
2217010900	070-059	Spring coil N-109
2247010500	016-025	Knob TK-1122

SWITCH

001-200	or	MS-328A	wht
*13139518		MS-500BC(A)	wht
001-191	or	JM04001#1	wht
*13129710	001-295	JM0404	blk incompatible, different in size

*7520651002 . . . PCB ET-5206-510B
*2291032704 . . . ET- less parts compatible with predecessors with care taken to LED (see MODIFICATION 4 above right.)

2244020500 022-033 Coil 3R 700mH choke

SEMICONDUCTORS

15129104	017-013	2SC732TM-GR	tr.
*15129108	017-110	2SC945-P(28C1815-Y)	
15119112	017-105	2SA1015-Y	
15139101	017-014	2SK30ATM-Y	FET
15019103	018-014	1S2473	diode
15019547	018-039	RD-11EB-3	zener
15019523	018-075	RD-5.1EB-3 (0525.1L)	
*15029117	019-034	SLP-135B(019-008 GL32AR)	
*15229702		P873G35-380 red photocoupler (019-015 no mark)	

POTENTIOMETER

13229508	030-941	EVH8MA218B54	50KB
13229502	030-932	EVH8MA218A15	100KA
13299117	030-471	SR-19R	100KB trimpot.

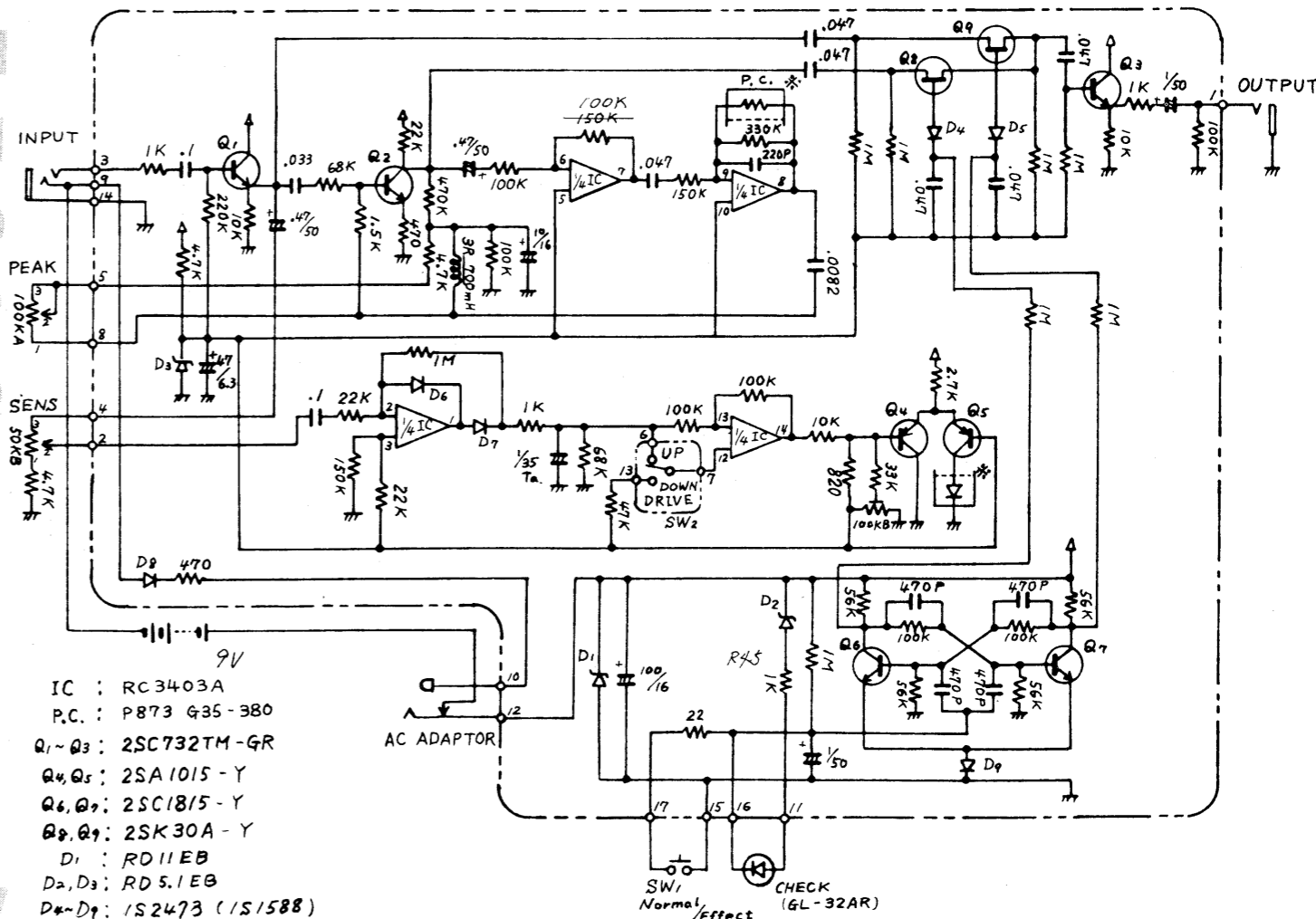
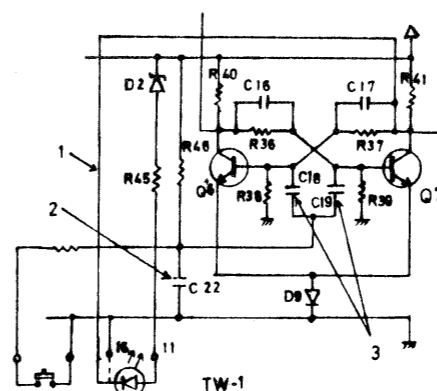
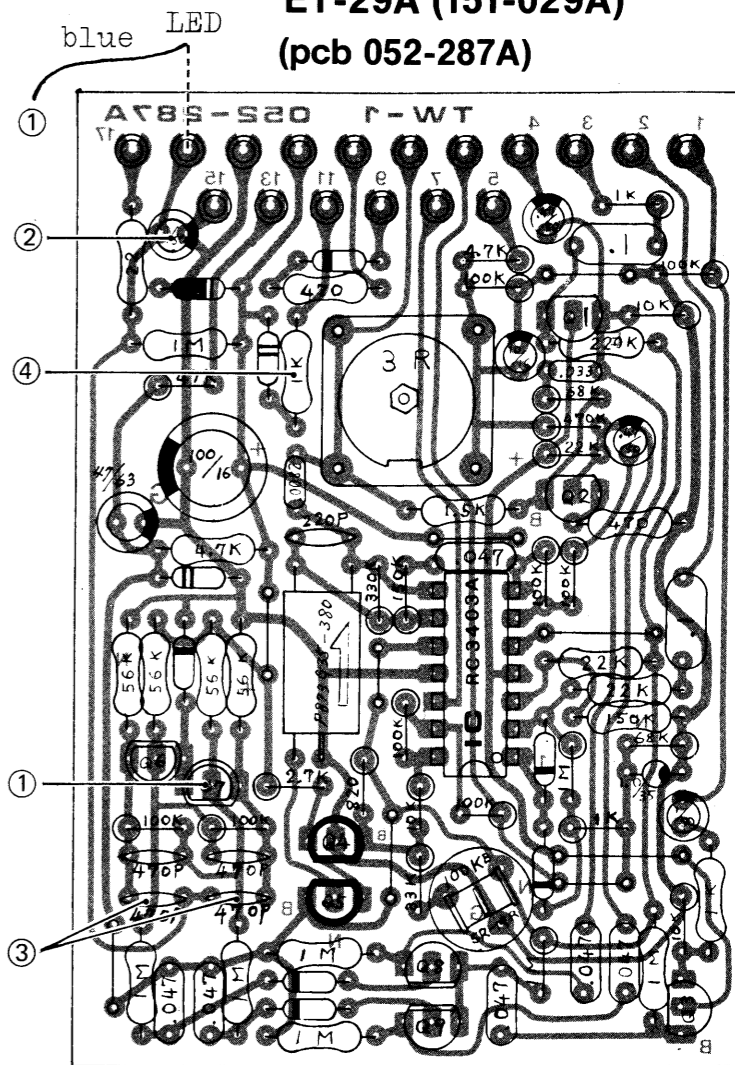
JACK

13449702	009-022	HEC-0003	AC adaptor
*13449704		HEC-0317-1-1	
see back page	or	HEC-0749-01010	
13449106	009-012	SG-7622	
13449104	009-036	SG-7713	

LED CIRCUIT MODIFICATION

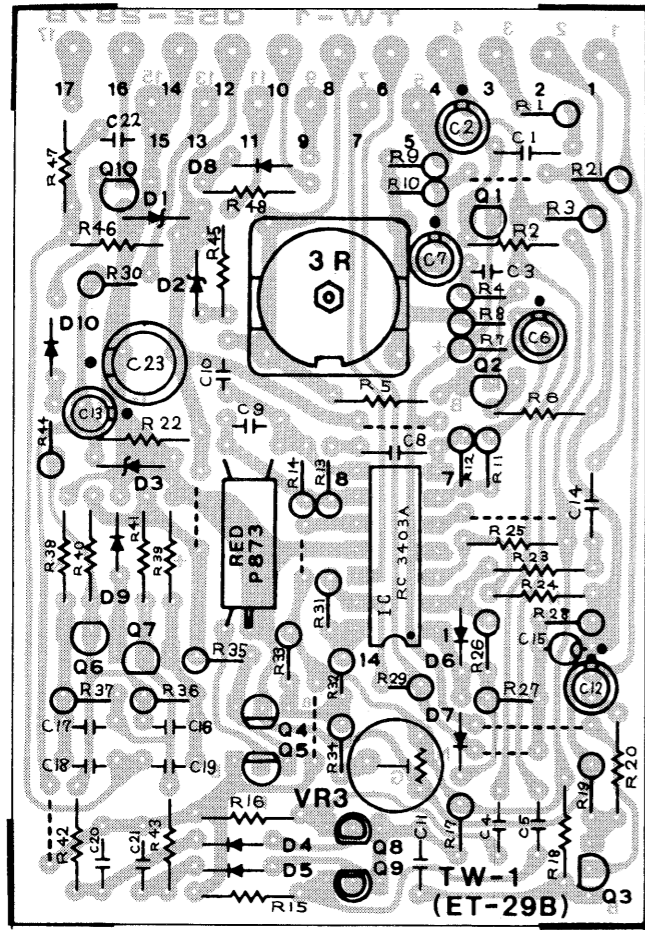
LED connected to ET-29A does not light continuously in effect mode since circuit is arranged so. The following modification makes LED keep light.

1. Shift LED blue wire to Q7 C.
2. Replace C22(1/50 or .47/50 with 0.01 mylar.
3. Replace C18 and C19 (470pF) with 220pF for stable flip-flop at lower DC supply (6-7V).
4. For long battery life, lower-power-consumption LED SLP-135B is incorporated with later PCB. When changing LEDs, also change R45 1k ohms to 3.9k.



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

A
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V



ET5206-510A (7520651001)
or ET-29B (151-029B)
Serial Number 9000-0300

CHANGES

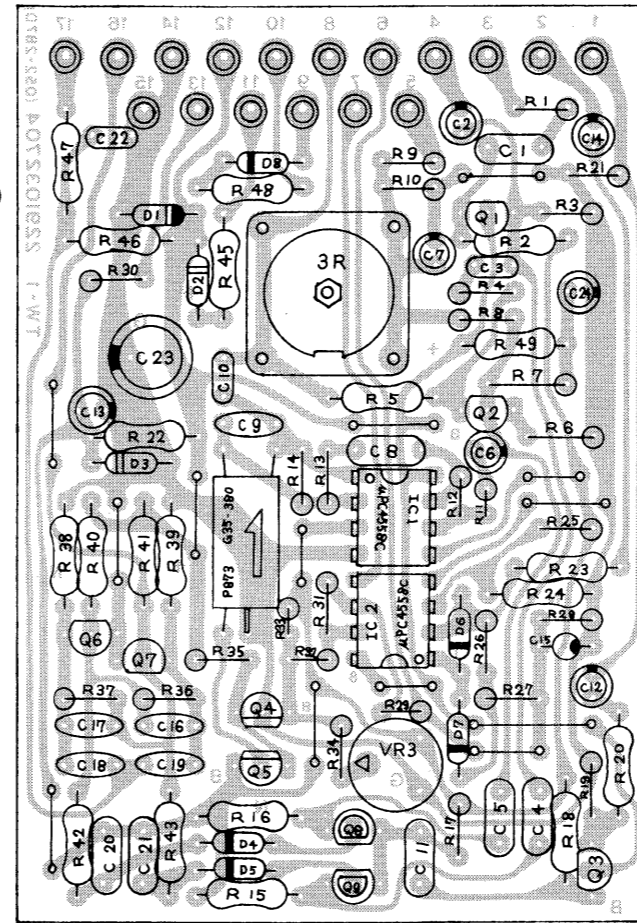
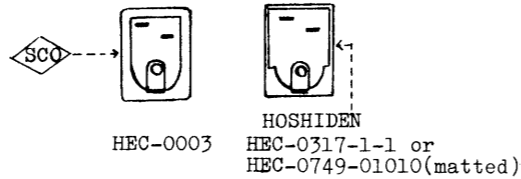
ET-29A to ET-29B(ET5206-510A)
(Serial Number with 9000)
Provide LED driver Q10 for continuous light during effect mode.
Remove D9. Change R47 1k to 100.(S/N 0300-)

ET5206-510A to ET5206-510B (S/N 0400-)
Remove Q10,D10,R44 to simplify LED circuit.
Add R49 and C24 to smooth out hum induced on DC supply from AC adaptor.
Change IC RC3403A to uPC4558C. Incompatible but interchangeable on PCB assembly basis.

Jack HEC-0003 to HEC-0317-1-1
Incompatible unless otherwise mounting hole in a case is re-worked.

Jack HEC-0317 to HEC-0749-01010(matted)
Compatible; the new for abrasion-free.

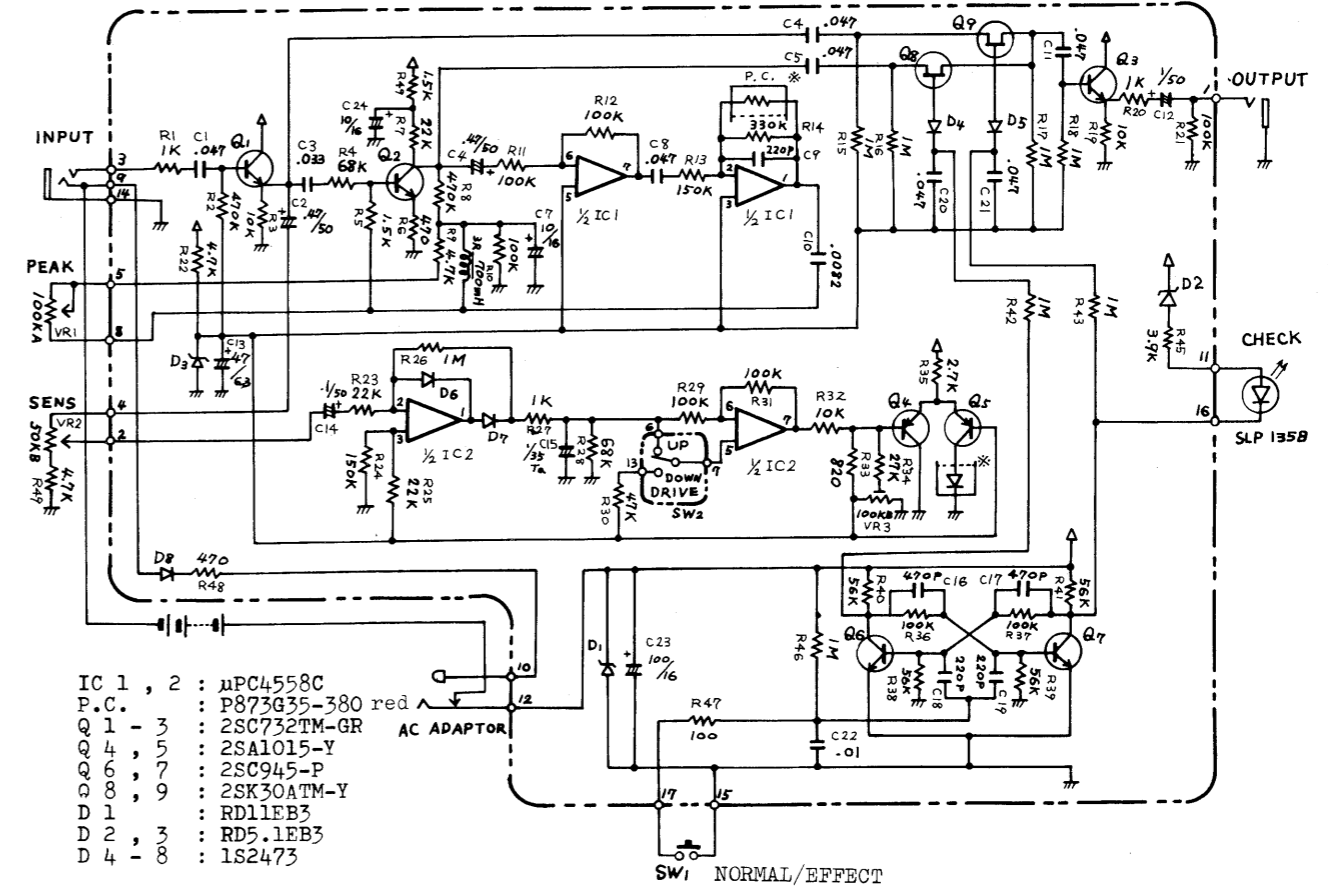
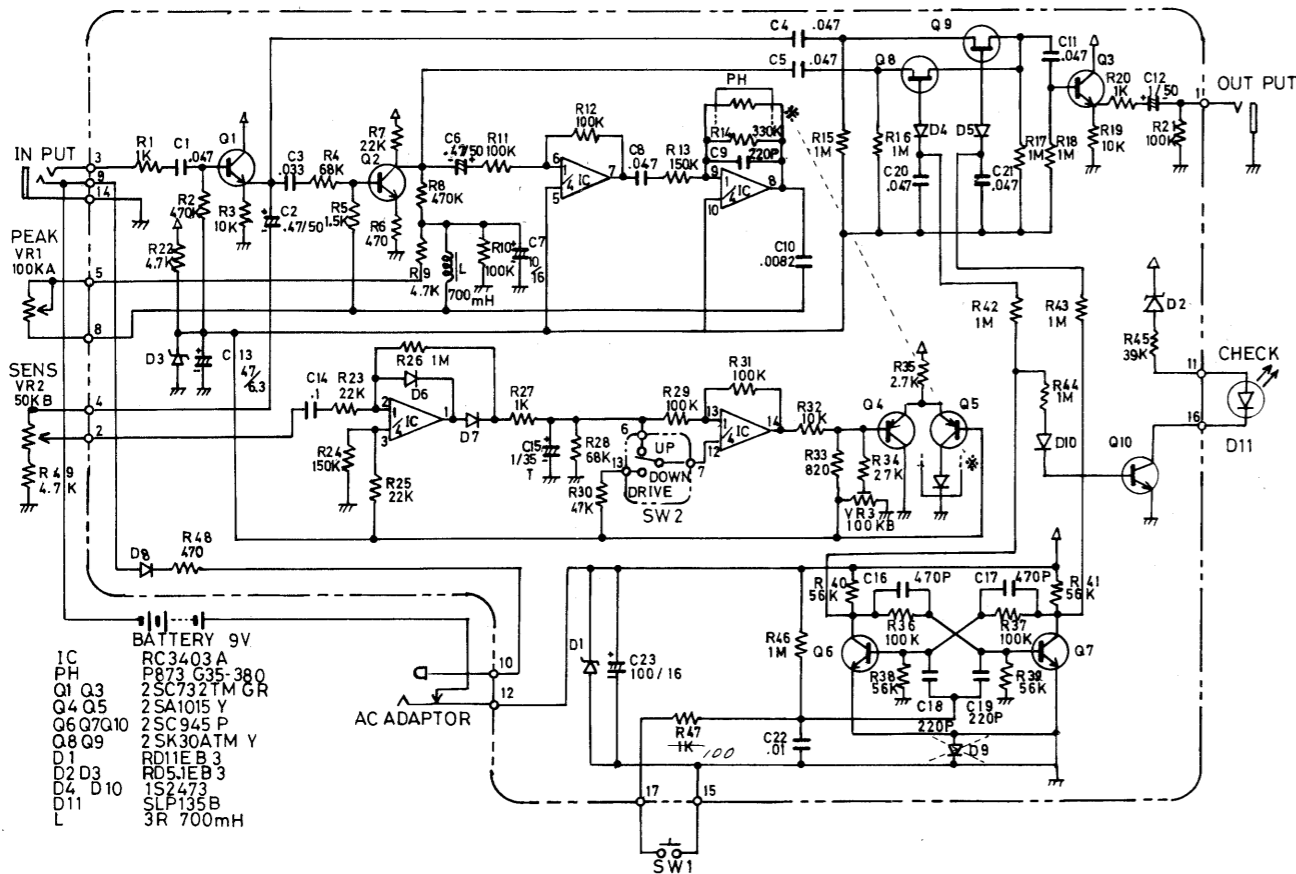
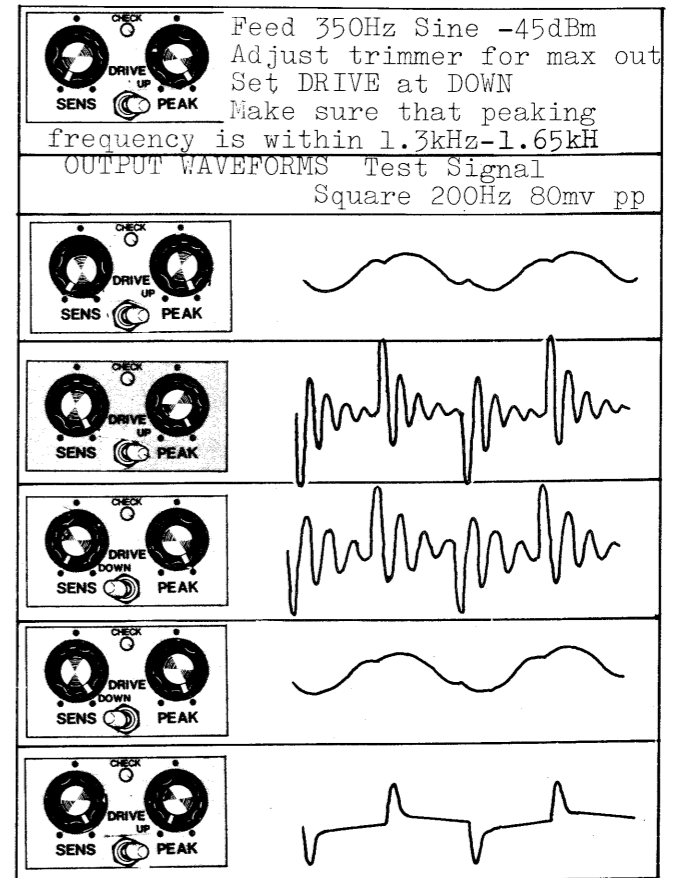
Serial Number
Four digits(stamped on case top) to six digits(labeled on battery compartment).
First two digits begins with 00 after 99 is used.



ET5206-510B (7520651002)
(pcb 2291032704)
With Serial Number 0400

TW-1

FREQUENCY ADJUSTMENT



- IC 1, 2 : uPC4558C
- P.C. : P873G35-380 red
- Q1 - 3 : 2SC732TM-GR
- Q4, 5 : 2SA1015-Y
- Q6, 7 : 2SC945-P
- Q8, 9 : 2SK30ATM-Y
- D1 : RD11EB3
- D2, 3 : RD5.1EB3
- D4 - 8 : 1S2473