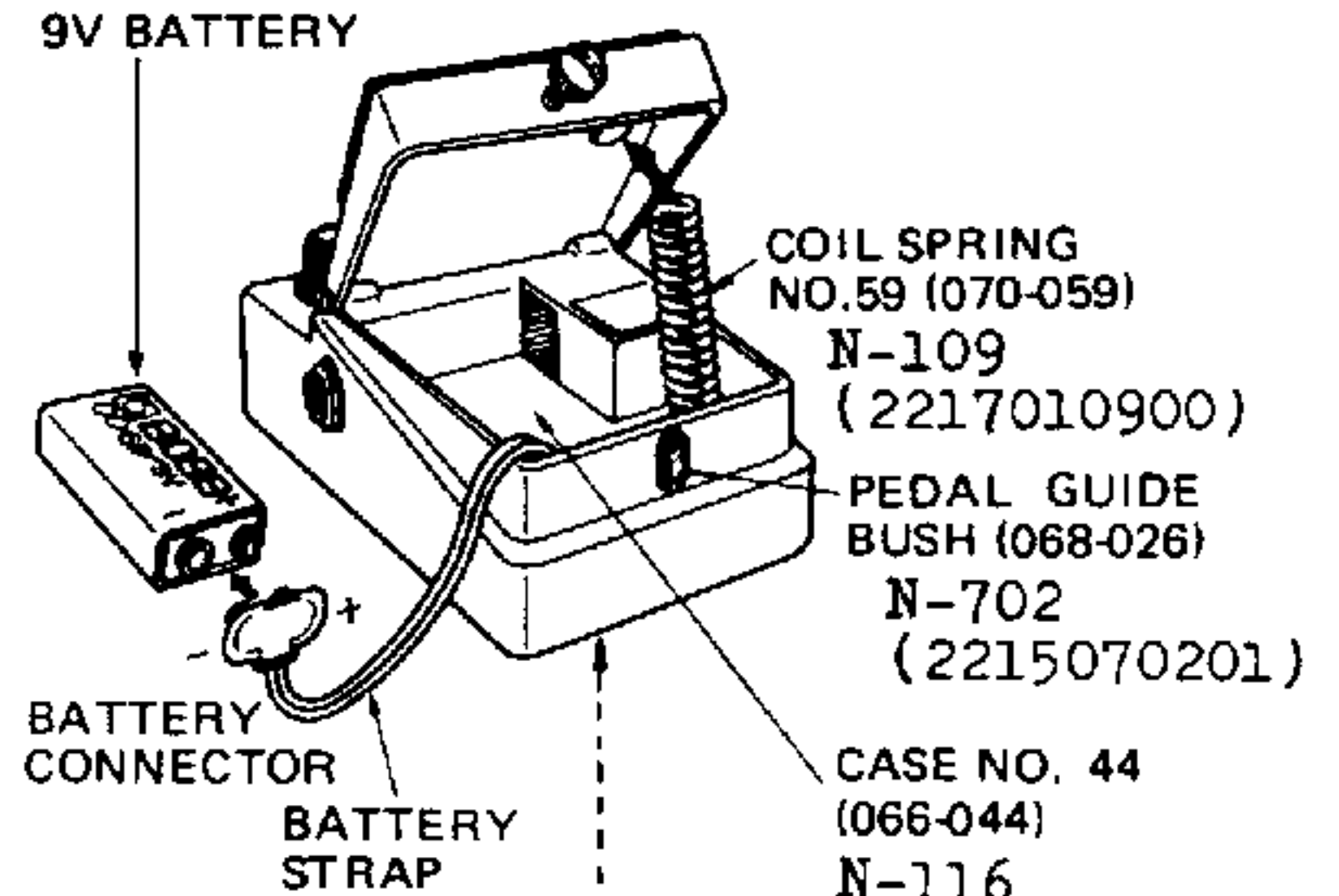


# BOSS SG-1 SERVICE NOTES

Second Edition

## SPECIFICATIONS

Power . . . . .	Battery 9V (1), AC Adaptor
Current requirements. . . . .	3.9mA at 9V
Input impedance . . . . .	470KΩ
Output load impedance . . . . .	Over 10KΩ
Gain . . . . .	UNITY (1)
Dimensions . . . . .	70(W) x 55(H) x 125(D)mm (2.8" x 2.2" x 4.9")
Weight . . . . .	400g (0.88lbs.)



COVER NO.130 (065-130) N-116 (2202011600)  
 BASE NO.32 (111-032) N-305 (2235030500)  
 BOTTOM NOT SHOWN

Jack  
 HEC-0003  
 (13449702)

\* HEC-0317-1-1  
 (13449704)  
 see back page

Pot.  
 EVH8MA218A15 100KA  
 (13229502)

Jack  
 SG-7622  
 (13449106)

Cover No. 251(065-251)  
 Pedal N-509  
 (2218050900)

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

Pot  
 EVH8MA218B24 20KB  
 (030-940)(13229506)  
 Knob TK-1122  
 (016-025) (2247010500)

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

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

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.

ORNAMENTAL SCREW 3x10mm

## PARTS LIST

NEW	OLD	
2201011600	066-044	Case N-116 blk
2218050900	065-251	Pedal N-509 blk (formerly cover)
2202011600	065-130	Cover N-116
2235030400	111-031	Base N-304
2235030500	111-032	Base N-305
2215070201	068-026	Guide bushing N-702A
2226030500	107-053	Cushion N-305 pcb
2216050200	065-153	Cover N-502 pcb
2217010900	070-059	Coil spring N-109
2247010500	016-025	Knob TK-1122

SEMICONDUCTOR		
15129108	017-110	2SC945-P transistor
15129104	017-020	2SC732TM-GR
15139103	017-016	2SK30ATM-GR FET
15019103	018-014	1S2473 diode
15019523	018-038	RD-5.1EB3 zener
	(RD4.7EB)	
15019547	018-039	RD-11EB3 zener
15019525	018-099	RD-5.6EB3 zener RD-5.6EB2
*15029117	019-034	LED SLP-135B (019-008 GL32AR)

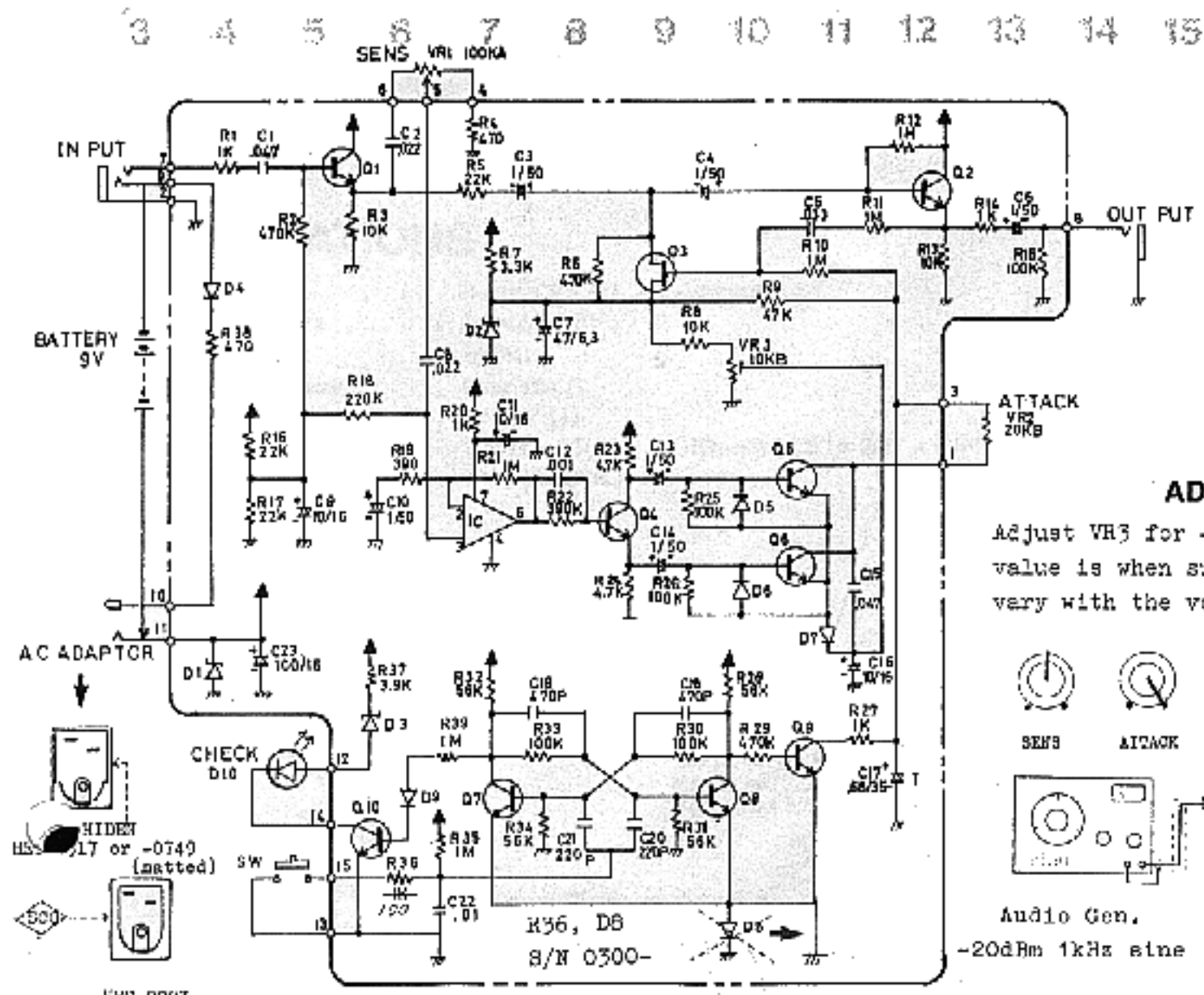
JACK		
13449104	009-036	SG-7713 INPUT
13449106	009-012	SG-7622 OUTPUT
13449702	009-022	HEC-0003 AC adaptor

\*13449704 or . . . HEC-0317-1-1 or HEC-0749-01010 (same but matted) refer to back page for detail

SWITCH		
. . .	001-191	JM-0400#1 (JP5005) white
	or	
*13129710	001-295	JM-0404 black incompatible, different in size

POTENTIOMETER		
13229502	030-932	EVH8MA218A15 100KA
13229506	030-940	EVH8MA218B24 20KB

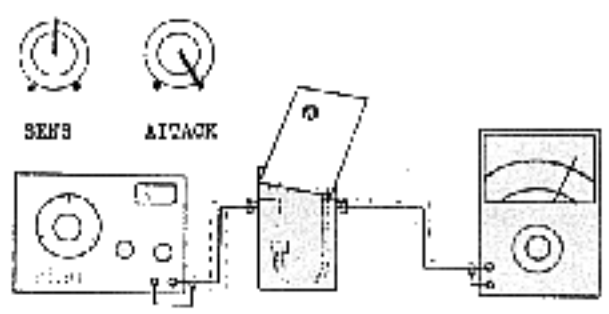
*7520951000 . . .	PCB ass'y ET5209-510A (ET-49B)
*2291033002 052-471B	ET... less parts



IC	ICPC741C
Q1	RD11EB 3
Q2	RD5.6EB 2
D3	RD5.1EB 3
D4 - D9	152473
D10	SLP 135B
Q1 Q2	25C732TM GR
Q3	25K304TM GR
Q4 - Q10	25C945

**ADJUSTMENT**

Adjust VR3 for  $-25dB \pm 0.1dBm$  reading. This value is when supply is exact 9V and will vary with the voltage, e.g.  $-22dBm$  at 11V DC.



Audio Gen. -20dBm 1kHz sine  
 SG-1  
 Millivoltmeter -25 ± 0.1dBm

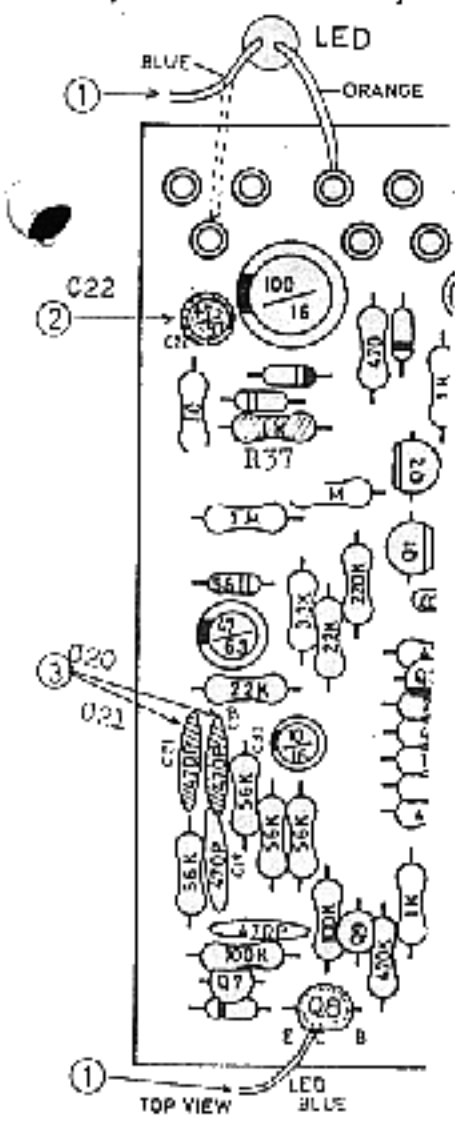
HEC-0003

**SERIAL NUMBER**  
 Earlier products -- 4 digits, stamped on case top  
 Later products -- 6 digits, labeled on battery housing  
 First two digits goes back to 00 after 99.

On later products HEC-0317-1-2 is employed as AC adaptor jack for positive connection. The change involves redesigning of mounting hole in cases because of size difference between two jacks. HEC-0003 only can enter the holes in new and old cases.

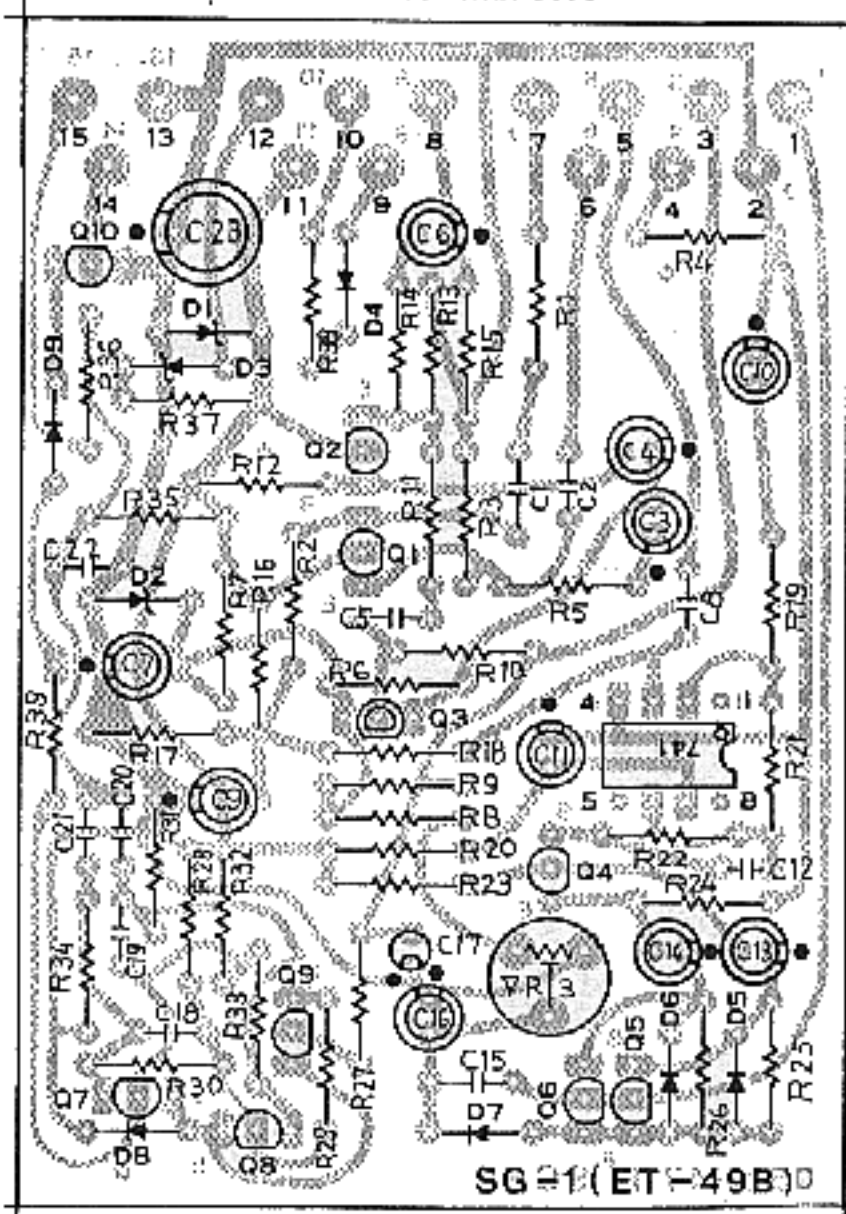
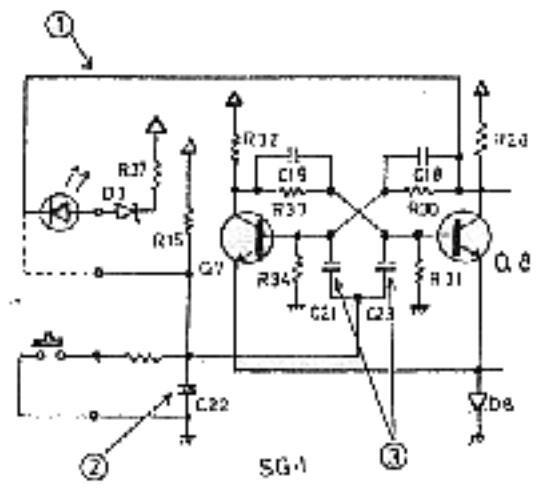
**ET5209-510A (ET-49B)**  
**(P/N 7520951000)**  
**(Etch mask 2291033002 or 052-471B)**  
 Serial Number with 9100

**ET-49(151-049)**  
**(Etch mask 052-471)**

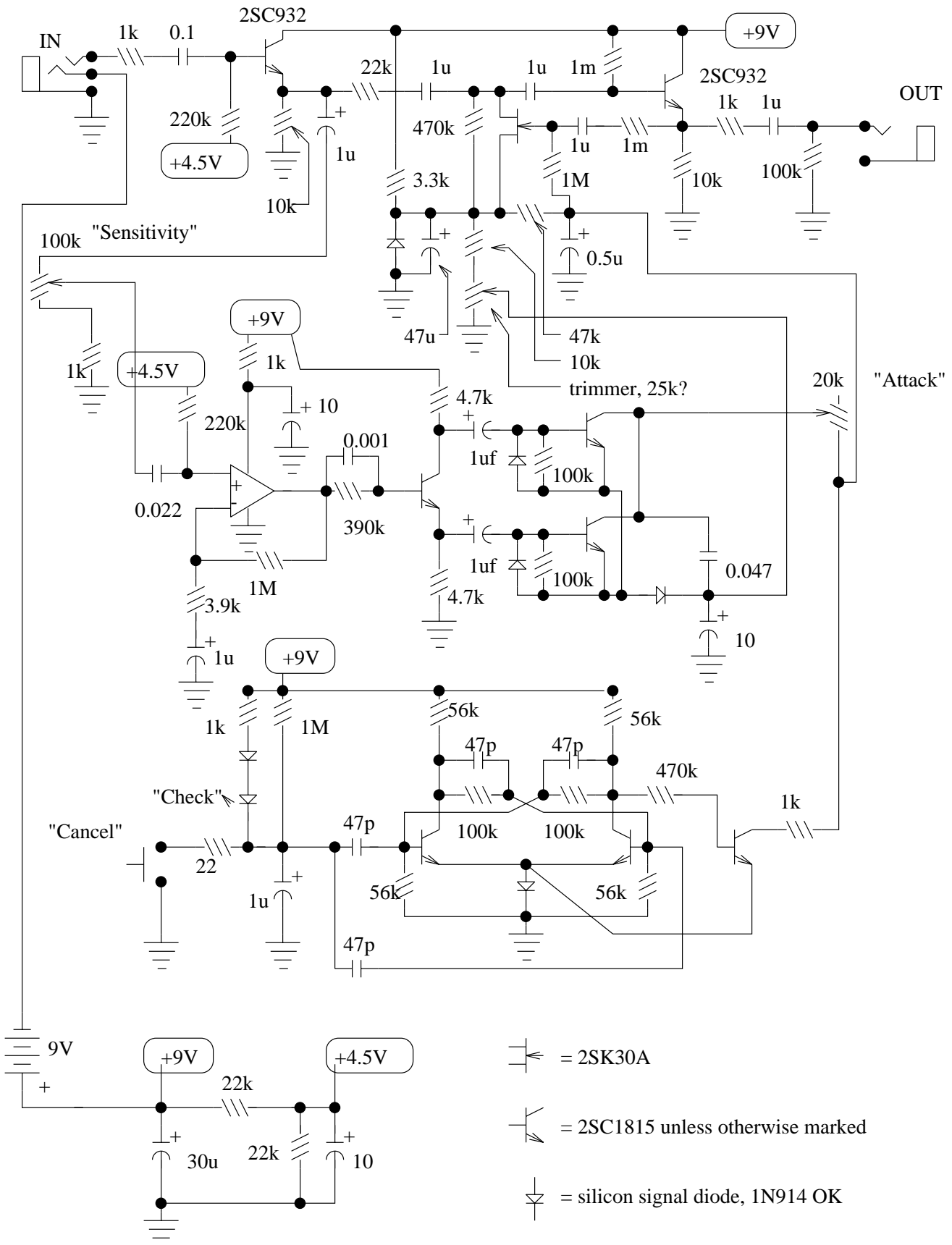


LED connecting to ET-49 does not light continuously in effect mode since circuit is so arranged. The following for the modification for keeping LED lit.

1. Shift LED blue wire to Q8 C.
  2. Replace C22 (1/50 or 0.47/50) with 0.01 mylar.
  3. Replace C20 and C21 (470pF) with 220pF for stable flip-flop at lower DC supply (6-7V).
- For long battery life, low-power-consumption LED SLP-135B is incorporated with later PCB. When changing LEDs, also change R37 1k to 3.9k ohms.



# BOSS Slow Gear SG-1 Attack Delay



The SG-1 is an attack delay unit. A struck note is at first inaudible, then fades up, similar to a reversed tape recording.