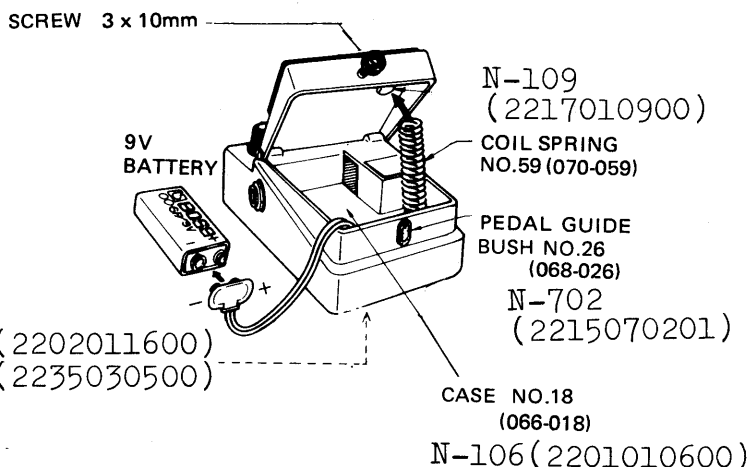


BOSS SP-1 SERVICE NOTES

Second Edition

SPECIFICATION

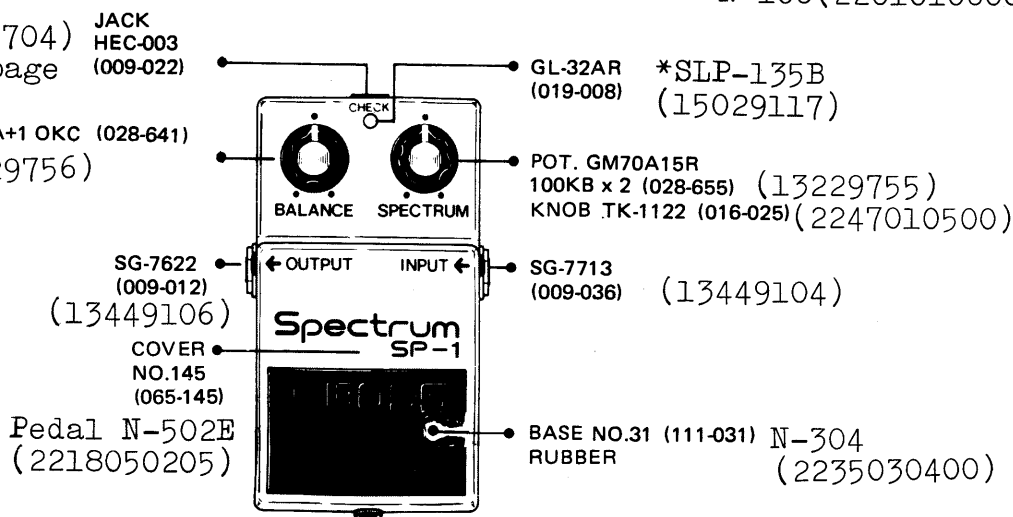
Power Battery 9V (1)
 AC Adaptor
 Current draw 3.5mA
 S/N ratio Over 80dB
 Input impedance 470KΩ
 Output load impedance Over 10K Ω
 Dimensions 70(W) x 55(H) x 125(D)mm
 2.8(W) x 2.2(H) x 4.9(D)in
 Weight 400g, 0.88lb



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

*HEC-0317 (13449704) JACK HEC-003 (009-022)
 detail on back page

GM70A15R- 10KA+1 OKC (028-641)
 (13229756)



PARTS LIST

DESIGNATION Both New(8-10 digits) and Old (6 digits) for cross-reference
 SYMBOL "*" Indicates latest one of the changed parts
 COMPATIBILITY No comment on compatible ones
 N for No. Always followed by abbreviated NEW number

NEW	OLD	DESCRIPTION
2201010600	066-018	Case N-106 main
2218050205	065-145	Pedal N-502E top
2235030400	111-031	Base N-304 pedal matt
2202011600	065-130	Cover N-116 bottom
2235030500	111-032	Base N-305 bottom,rubber
2247010500	016-025	Knob TK-1122 w/screw
2215070201	068-026	Guide bushing N-702A
2217010900	070-059	Coil spring N-109
13449106	009-012	Jack SG-7622 output
13449104	009-036	Jack SG-7713 input
13449702	009-022	Jack HEC-0003 AC adaptor (w/SCO mark)
*13449704	HEC-0317-1-1 (HOSHIDEN) downward compatibility: verte(see even page)

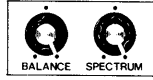
.	001-091	Switch JM0400#1 white
*13129710	or 001-295	JM-0404 black incompatible different in size
.	151-024B	PCB assy ET-24B (pcb 052-282B)
*7520251000	or	ET-5202-510A (pcb 2291032204 or 052-282D)
POTENTIOMETER		
13229755	028-655	GM70A15R 100KB x 2
13229756	028-641	GM70A15R 10KA + 10KC
13299109	030-459	SR-19R 1kB trimmer
SEMICONDUCTOR		
15189114	020-077	RC3403A quad op amp
*15129108	017-110	28C945-P(017-037 28C536-F)
15139103	017-016	28K30ATM-GR FET
15019103	018-014	1S2473 (1S1555) diode
*15019523	018-075	RD5.1EB-3 (018-073 02B24.7A)
15019617	018-068	05Z-11A zener
*15029117	019-034	SLP-135B (019-008 GL-32AR)
ELECTROLYTIC CAPACITOR		
13639109	032-008	ECEA6V47 47mfd 6.3V
13639150	032-037	ECEA16V100 100mfd 16V
13639202	032-071	ECEA50V1 1mfd 50V
13639165	032-046	ECEA25V4R7 4.7mfd 25V

GAIN ADJUSTMENT

OUTPUT WAVEFORM CHECKING (EFFECT)

test signal: 5KHz±10%, sine, -20dBm. set SPECTRUM, BALANCE at max. (FCW), adjust trimmer pot. 1K for 2.5dBm output at peaking freq. (5KHz±10%)

test signal: 200Hz, square, 80mVpp



NOTE: peaking freq. response 500~600Hz 0~-5dBm with SPECTRUM at min. (FCW)

ET5202-510A (P/N 7529251000)

(pcb 2291032204 or 052-282D)

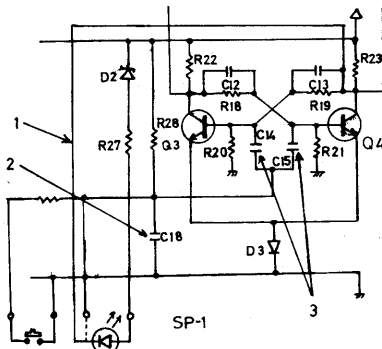
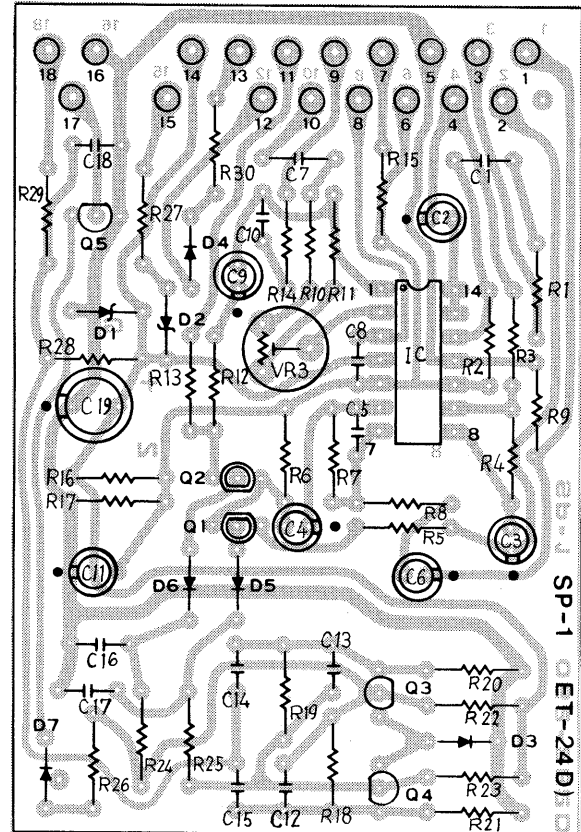
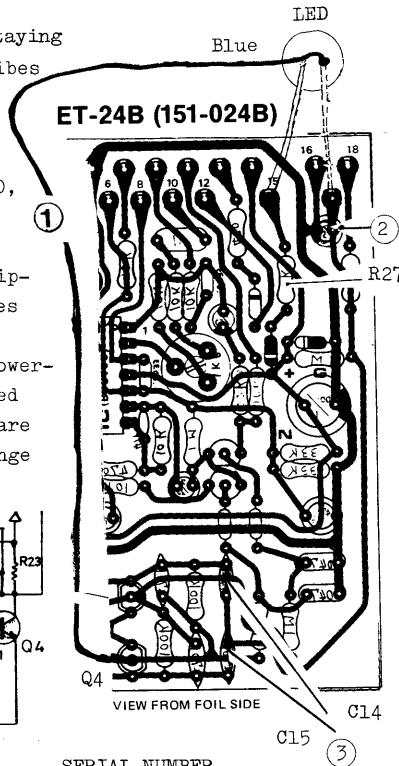
Serial number with 9100

ET-24B MODIFICATION CONTINUOUS LED LIGHTING

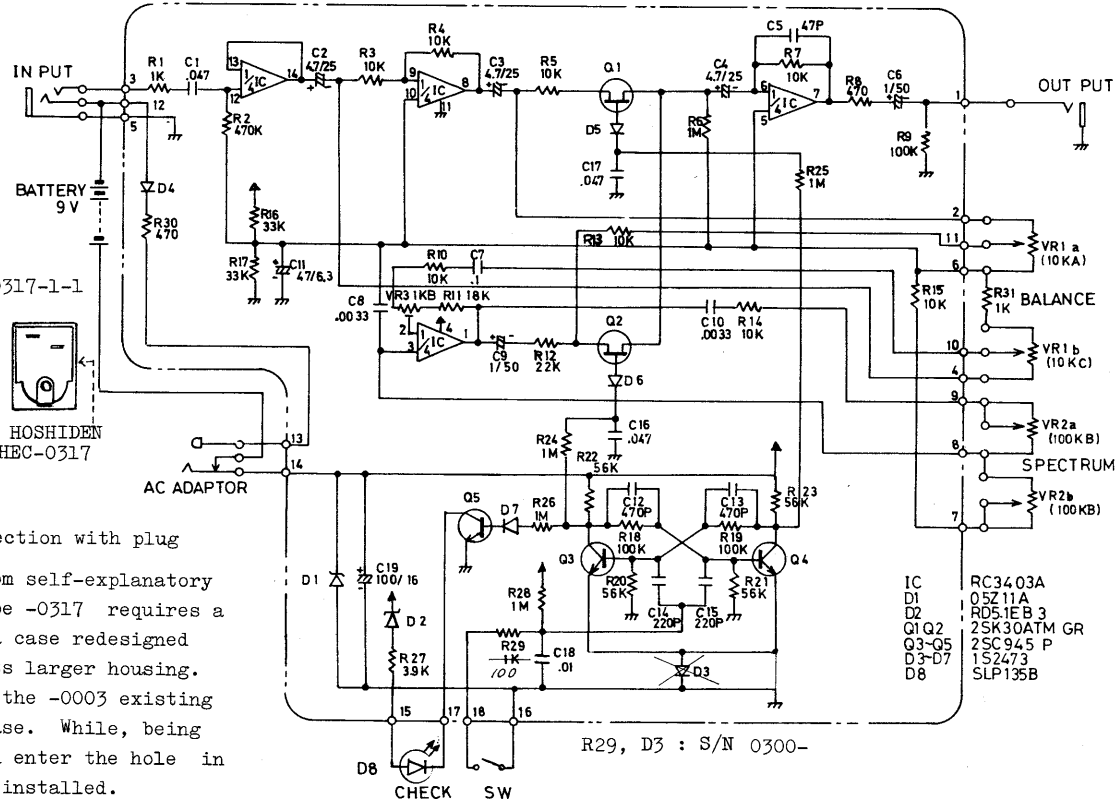
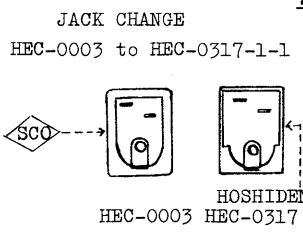
ET-24B does not keep the LED staying on in EFFECT mode. Below describes modification steps.

- 1. Reroute LED blue lead to Q4 collector.
2. Replace C18, 1/50 or 0.47/50, with 0.01mfd mylar.
3. Changing of C14 and C15 to 220pF will ensure stable flip-flop at lower supply voltages (6-7V).

For long battery life, lower-power-consumption LED SLP-135B is used with later PCBs. If the LEDs are changed, another necessary change is R27, from 1k to 3.9k.



SERIAL NUMBER stamped on case top First two digits re-cycle when exhausted. --- 9100 --- 9900 --- 0000 --- 0300 ---



For positive connection with plug As can be seen from self-explanatory figures above, type -0317 requires a mounting hole in a case redesigned to accommodate its larger housing. It cannot replace the -0003 existing in an exclusive case. While, being smaller, -0003 can enter the hole in a new case and be installed.

- IC RC3403A
D1 05Z11A
D2 RD5.1EB 3
Q1 Q2 25K30ATM GR
Q3-Q5 25C945 P
D3-D7 1S2473
D8 SLP135B

R29, D3 : S/N 0300-

A B C D E F G H I J K L M N O P Q R S T U V