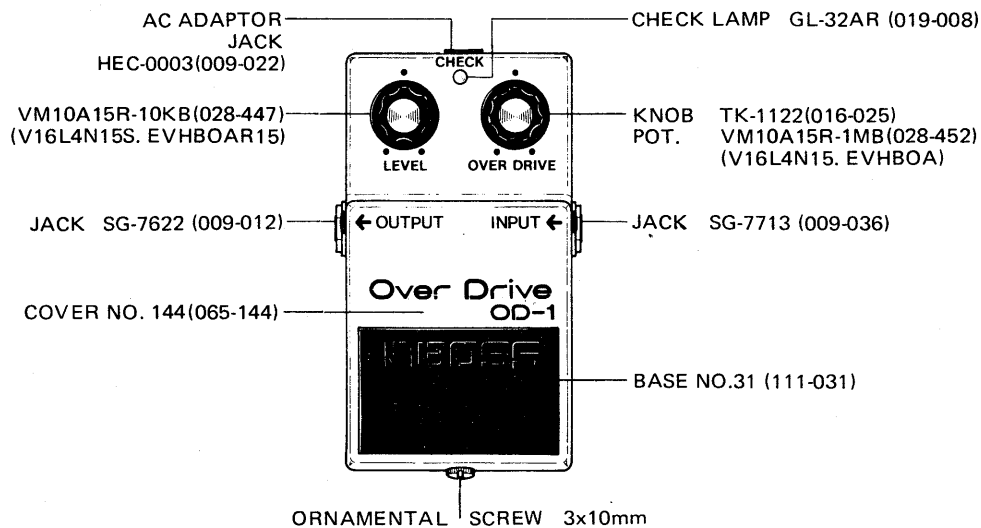
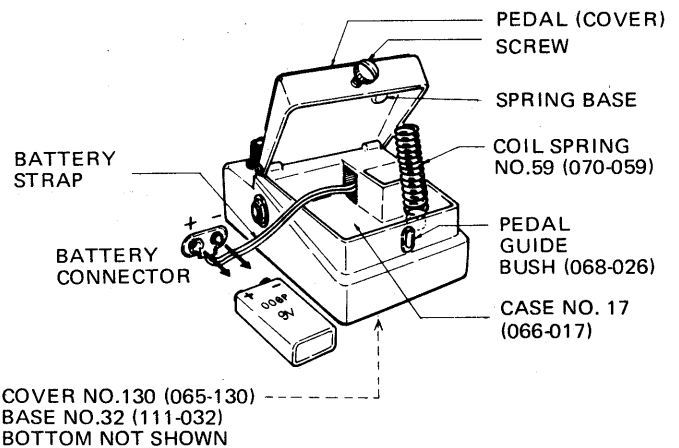


BOSS OD-1 SERVICE NOTES

First Edition

SPECIFICATIONS

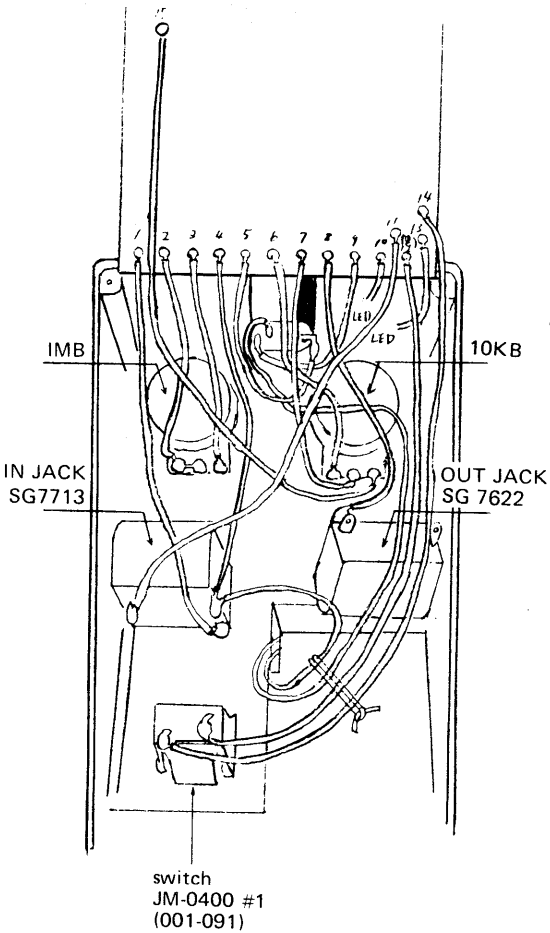
Power	Battery 9V (1) AC Adaptor
Current draw	DC9V, 3.5mA
Control	Overdrive, Level
Others	Normal/Effect Changeover Switch, Battery Check Lamp
Jack	Input, Output, AC Adaptor
S/N ratio	Over 80dB
Input impedance	220kΩ
Output load impedance	Over 600Ω
Dimensions	70(W) x 55(H) x 125(D)mm
Weight	400g



PARTS LIST

066-017	case NO.17 main	020-077	semiconductors
065-144	cover NO.144 top	017-037	RC3403 IC
065-130	cover NO.130 bottom	017-016	2SC-536 F transistor
111-031	base NO.31 pedal rubber	018-014	2SK-30A GR FET
111-032	base NO.32 bottom rubber	018-068	1S-2473 (1S-1555) diode
016-025	knob TK-1122 screw fixing	028-073	05Z-11A zener
028-026	guide bush NO.26	019-008	02BZ-4.7A zener
070-059	coil spring NO.59		GL-32AR LED
009-012	jack SG-7622 output	032-071	capacitors
009-022	jack HEC-0003 AC adaptor	032-033	ECEA50V1 1μF 50V electrolytic
009-036	jack SG-7713 input	032-008	ECEA16V10 10μF 16V electrolytic
001-091	switch JM-0400#1	032-037	ECEA6V47 47μF 6.3V electrolytic
151-023B	PCB assy ET-23B		ECEA16V100 100μF 16V electrolytic
052-281B	PCB less parts		
	potentiometers		
028-447	VM10A15R-10KB		
028-452	VM10A15R-1MB		
	(V16L4N, EVHBOA S/R-15)		

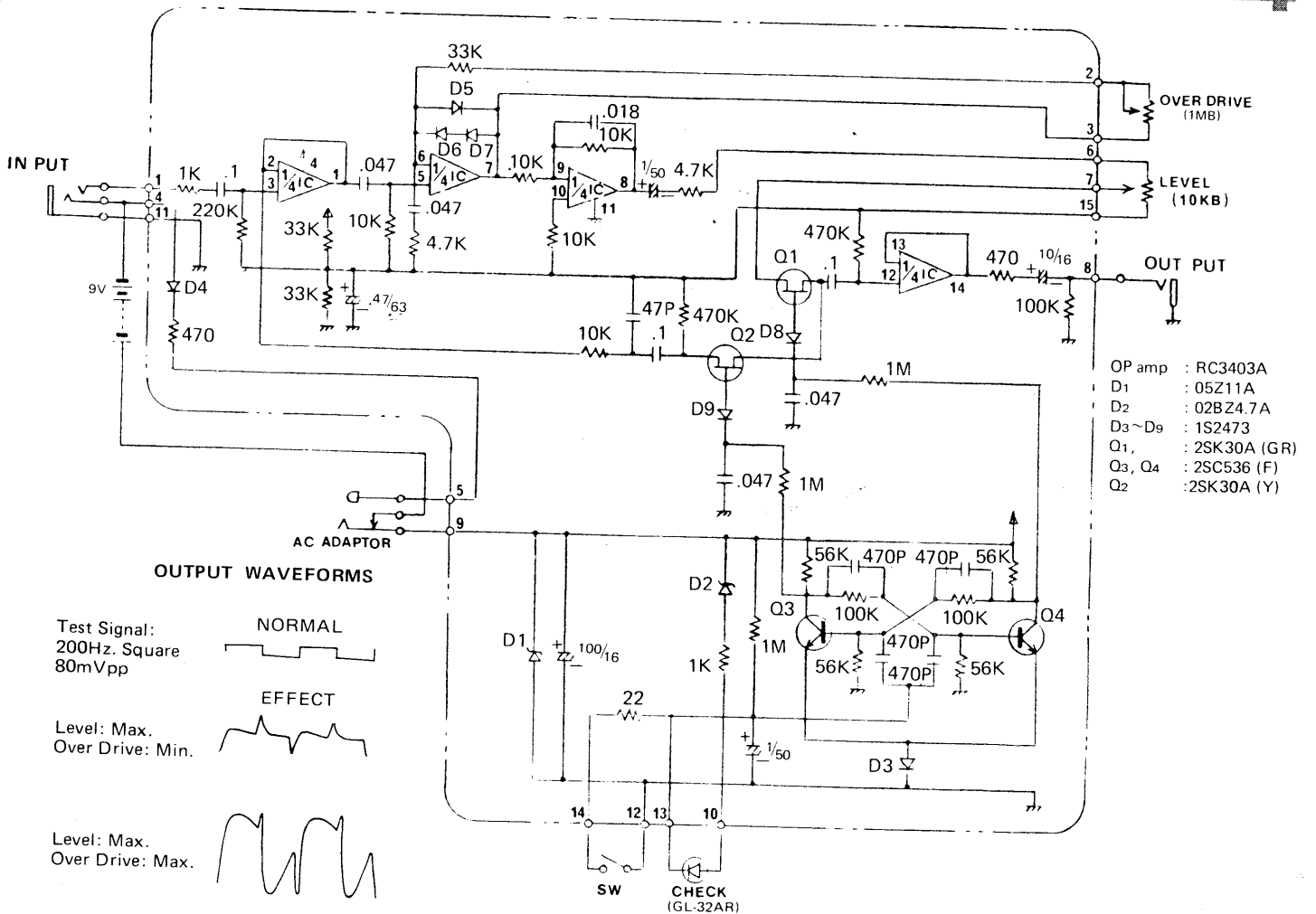
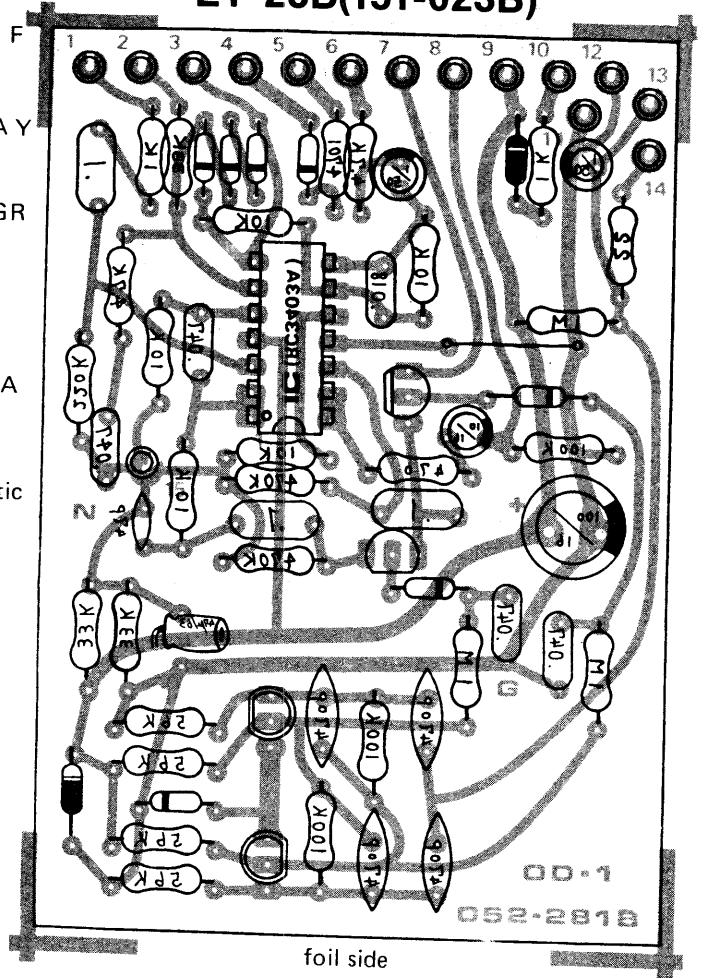
* resistors, mylars, ceramics are omitted
() indicates equivalent



TOP VIEW

- 2SC-536 F
- E C B
- 2SK-30A Y
- S G D
- 2SK-30A GR
- S G D
- R-25 J
- IS2473
- 02BZ4.7A
- 05Z11A
- electrolytic
- mylar
- ceramic

ET-23B(151-023B)



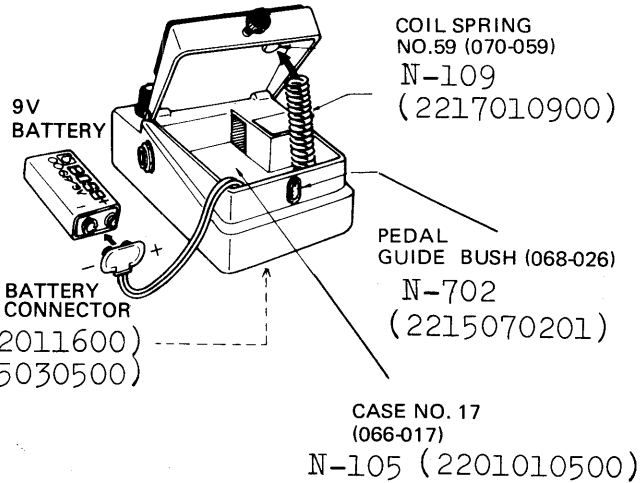
BOSS OD-1 SERVICE NOTES

SPECIFICATIONS

Power Battery 9V (1)
 AC Adaptor
 Current draw 3.5mA DC 9V
 S/N ratio Over 80dB
 Input impedance 470 kΩ
 Output load impedance Over 10kΩ
 Dimensions 70(W) x 55(H) x 125(D)mm
 Weight 400g

(Second Printing)
 MAY, 1984 A-3

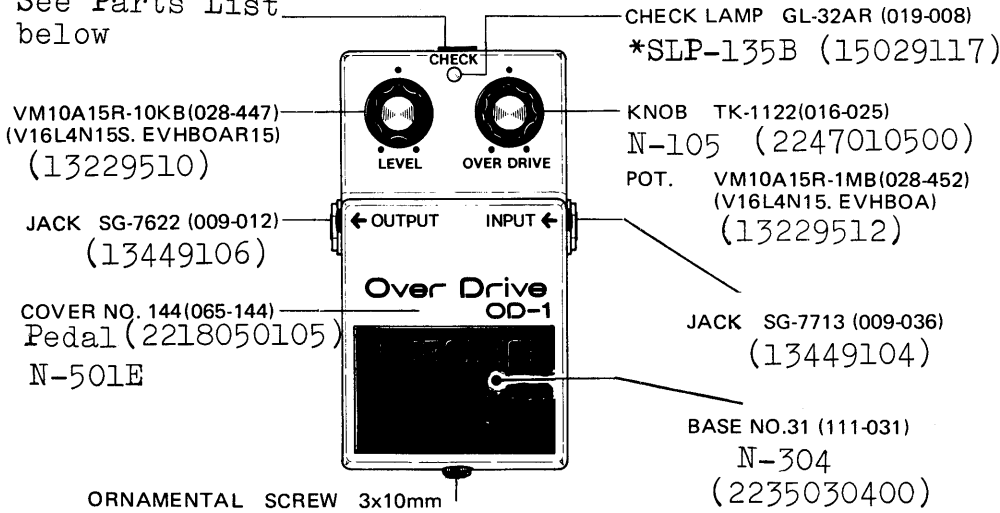
Second Edition



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

*HEC-0317-1-1 (13449704)
 HEC-0003(009-022) (13449702)

See Parts List below



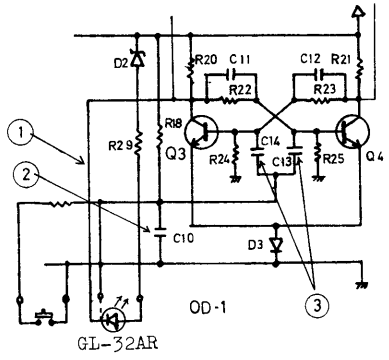
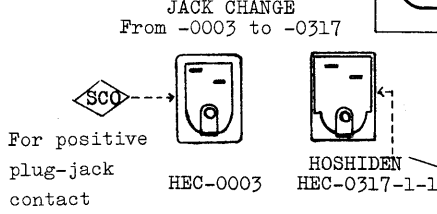
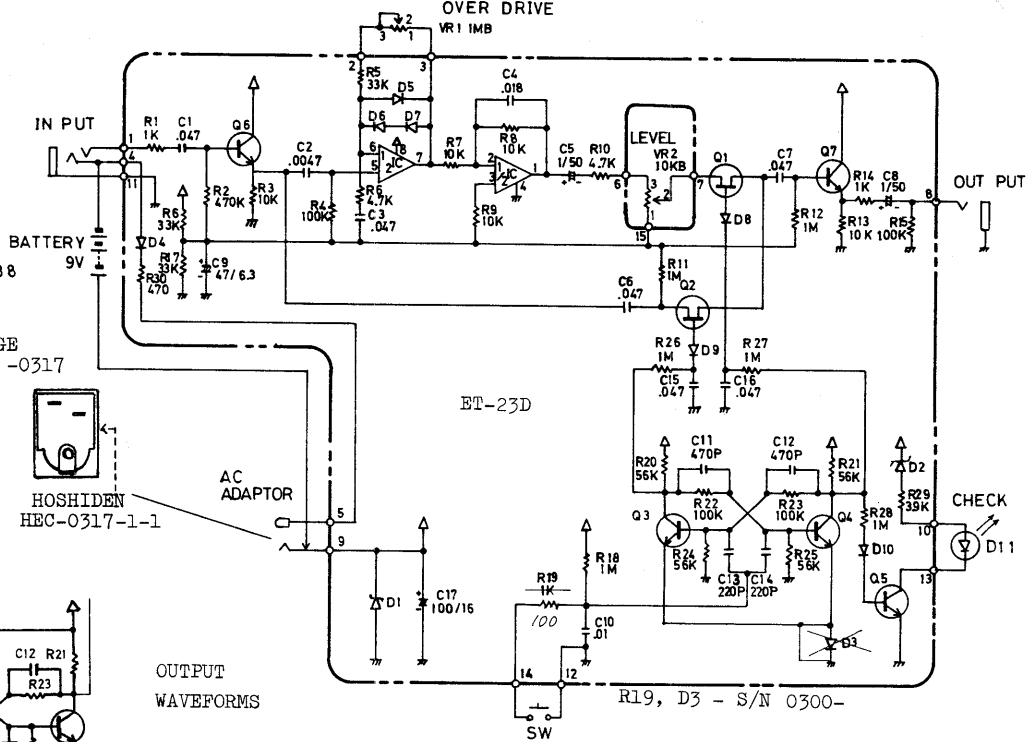
Part is designated in new numbering - 8 to 10 digits - without deleting its old number for cross-reference. Components changed are identified with an asterisk heading the latest one. Without any comment they are compatible

NEW	OLD	DESCRIPTION	"N-"	always followed by abbreviated NEW number only
2201010500	066-017	Case N-105 main	*7520151000	. . . ET5201-510A (ET-23D) PCB assy
2218050105	065-144	Pedal N-501E	S/N 9000-	(pcb 2291032104/052-281D)
2202011600	065-130	Cover N-116 bottom	13229510	028-447 Potentiometer VM10A15R-10KB
2235030400	111-031	Base N-304 rubber matt, pedal	13229512	028-452 Potentiometer VM10A15R-1MB
2235030500	111-032	Base N-305 matt, bottom		(substitutive-V16L4N, EVHBOA-S/R15 screw fix)
2247010500	016-026	Knob TK-1122 w/screw		SEMICONDUCTORS
2215070201	028-026	Guide bushing N-702A	*15189105	020-097 uPC4558C (020-077 RC3403) IC
2217010900	070-059	Coil spring N-109	*15129104	017-104 2SC732TM-GR (incompatible)
13449106	009-012	Jack SG-7622 OUTPUT	15139103	017-016 2SK30ATM-GR FET
13449702	009-022	Jack HEC-0003 AC adaptor	*15129108	017-110 2SC945-P
*13449704	. . .	HEC-0317-1-1 (marked HOSHIDEN)	*15139101	017-014 2SK30ATM-Y FET
		Downward compatibility: needs different mount hole	15019103	018-014 1S2473 (1S1555) diode
		Substitution: type -0003 for -0317 only	*15019547	018-039 RD11EB-3 (018-068 05Z11A) zener
13449104	009-036	Jack SG-7713 INPUT	*15019523	018-075 RD5.1EB-3 (018-073 02B24.7A) zener
. . .	001-091	Switch JM-0400#1 (JP5005)white	*15029117	019-034 SLP-135B (019-008 GL-32AR) LED
*13129710	001-295	JM-0404 black	13638202M0	032-071 ECEA50V1 1uF/50V electro.
		Both require different mounting hole, in size.	13638109M0	032-008 ECEA6V47 47uF/6.3V electro.
			13639150M0	032-037 ECEA16V100 100/16V electro.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

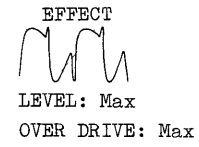
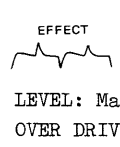
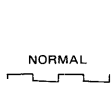
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V

- IC μPC4558C
- Q1 2SK30ATM Y
- Q2 2SK30ATM GR
- Q3 - Q5 2SC945 P
- 2SC1815 Y
- Q6 Q7 2SC732TM GR
- D1 RD11EB 3
- D2 RD5.1EB 3
- D3 - D10 1S2473 or 1S1588
- D11 SLP 135B



OUTPUT WAVEFORMS

TEST SIGNAL:
200Hz.
Square.
80mVpp



LEVEL: Max
OVER DRIVE: Min

LEVEL: Max
OVER DRIVE: Max

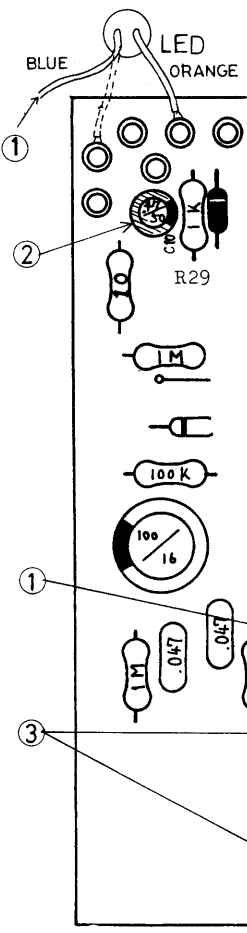
ET-23B(151-023B)

MODIFICATION ON LED DRIVE CIRCUIT

LED connecting to ET-23B does not light during Effect mode. The following give information on modification for continuous LED lighting in the mode.

1. Shift LED blue lead ① to Q3 collector, at the foil side (surface mounting).
2. Replace C10 ②, 1/50 or .47/50, with 0.01 mylar capacitor.
3. Replace C13 and C14 ③, 470pF, with 220pF if flip-flop circuit becomes unstable at lower supply voltages (7-6V).

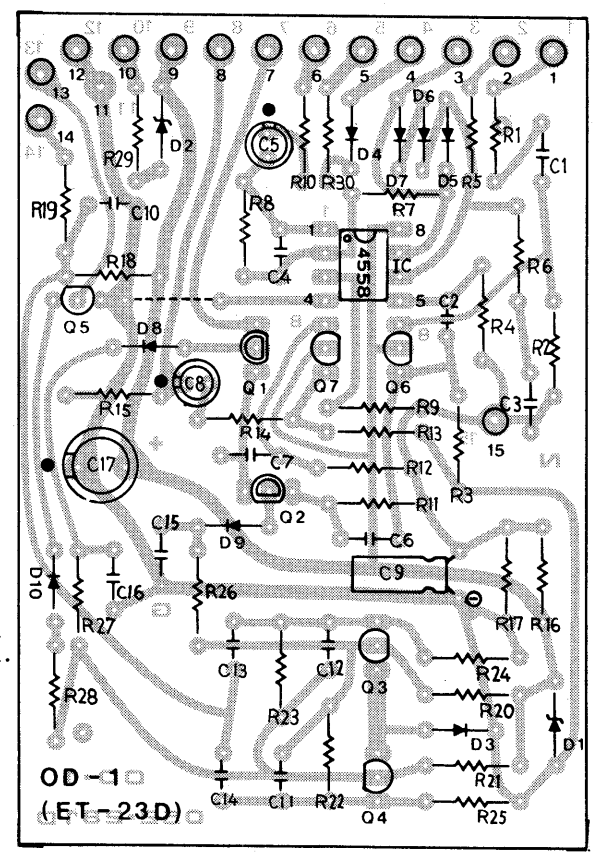
Inevitably, current draw will increase after modification. The new circuit on ET-23D is accompanied with low-power-consumption LED SLP135B for less battery drain. When LEDs are changed, R29 should also be changed to 3.9k ohms.



SERIAL NUMBER stamped on case top
First two digits re-cycle when exhausted.

9000	...
9900	...
0000	...
0300	...

ET5201-510A (ET-23D) (7520151000)
(pcb 2291032104/052-281D)
Serial number with 9000



OD-1
(ET-23D)