

BOSS DM-100 SERVICE NOTES

First Edition

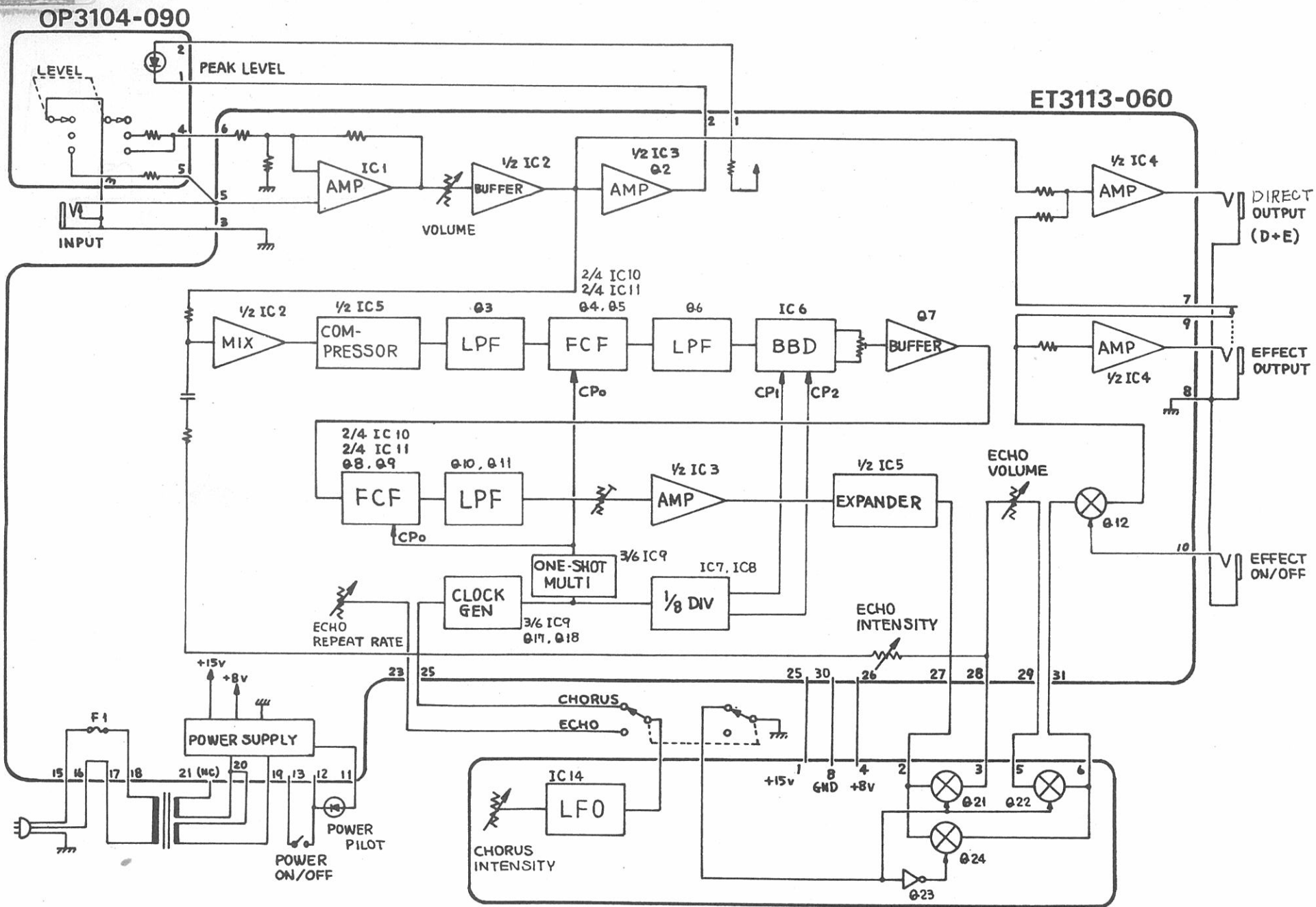
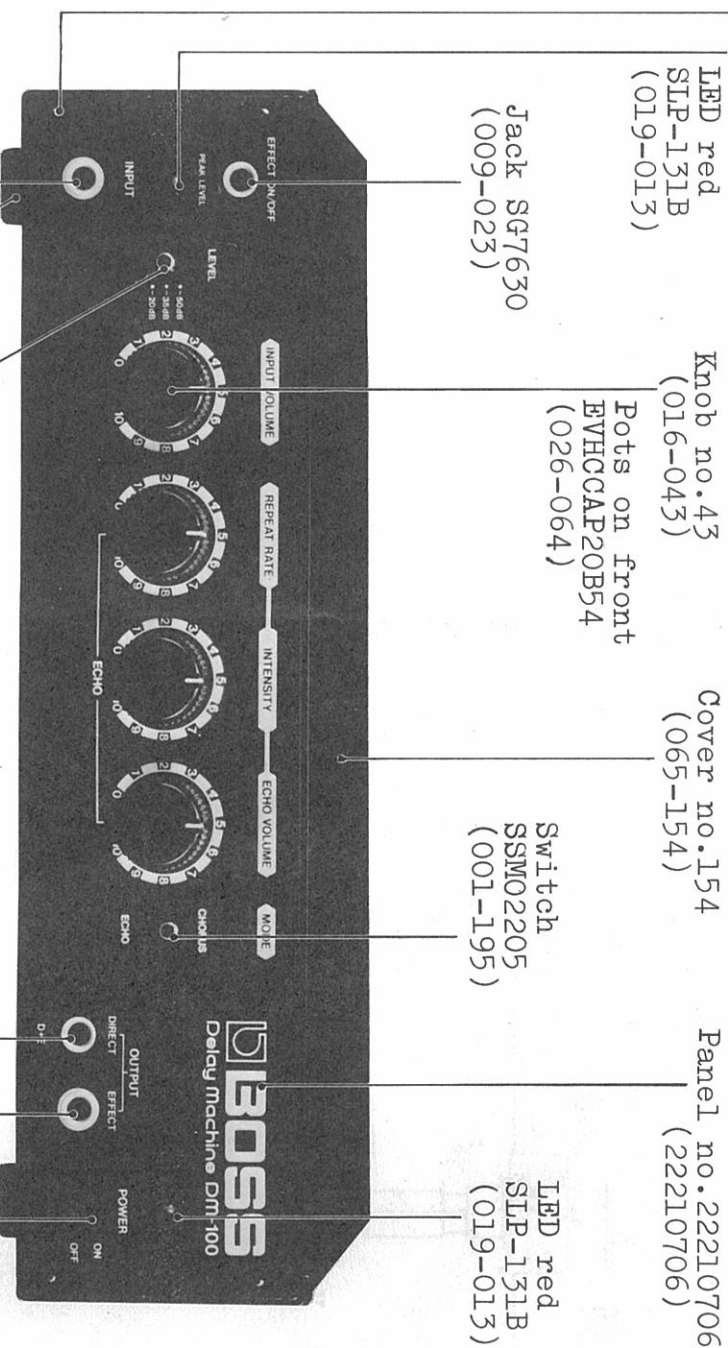
SPECIFICATIONS

Delay Machine ■ DM-100
Input Level/Impedance
 -50dB (3.16mV)/4.7kΩ
 -35dB (17.8mV)/470kΩ
 -20dB (100mV)/470kΩ
Output Level/Load Impedance
 -20dB* (100mV)/over 200Ω
 * At effect off

Power Consumption 6W
Dimension 340(W) x 95(H) x 165(D) mm
 13.4"(W) x 3.7"(H) x 6.5"(D)
Weight 2.6kg, 5.8lbs.
S/N more than 60dB
Delay Time
 Echo 20ms (10kHz) ~ 400ms (1.5kHz)
 Chorus 20ms

COVER REMOVAL SCREWS: Four 4 x 8mm binder on the bottom (washers - 4mm lock)

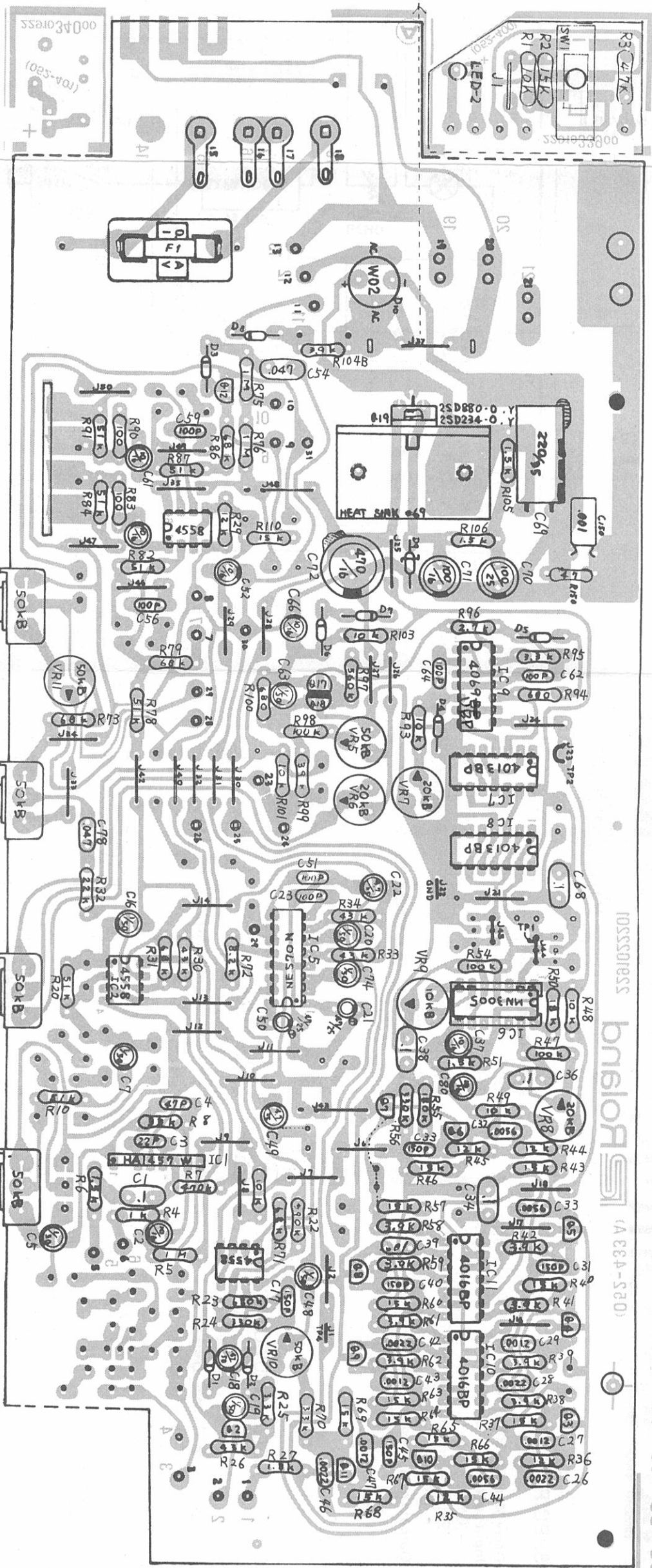
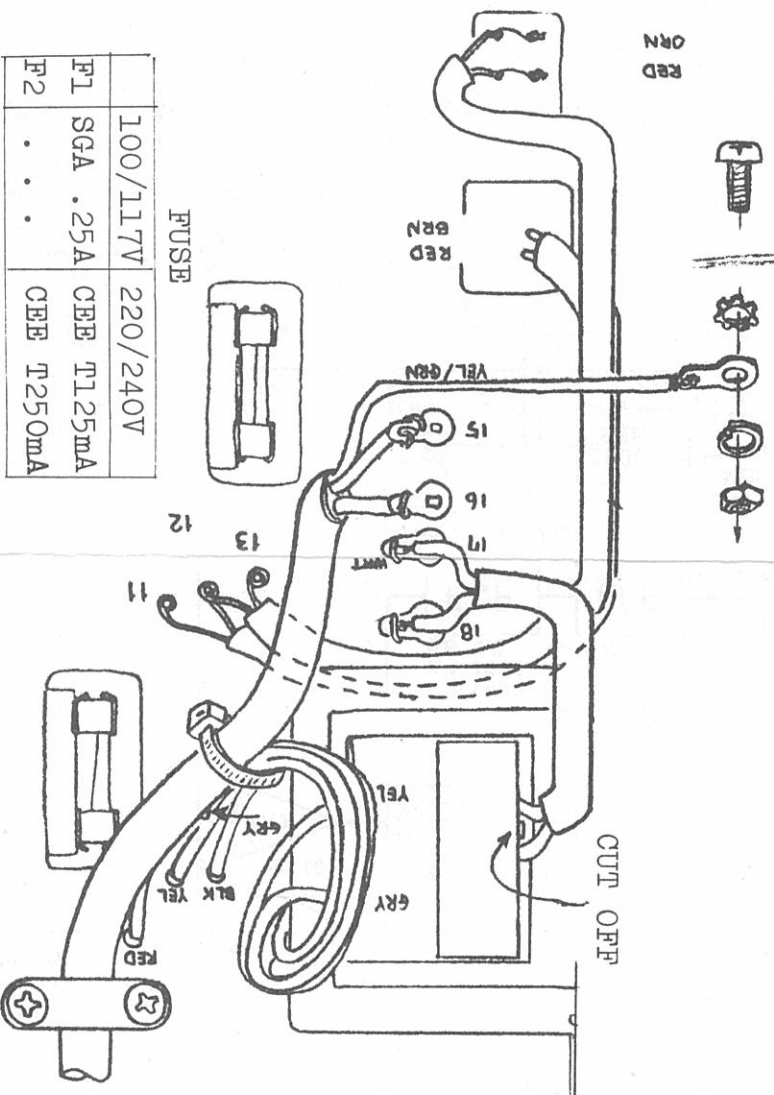
Screws (3 x 10mm oval Br) -- No relation to cover removal



BLOCK DIAGRAM

OP101 (149-101)
(pcb 052-400,
22910339)

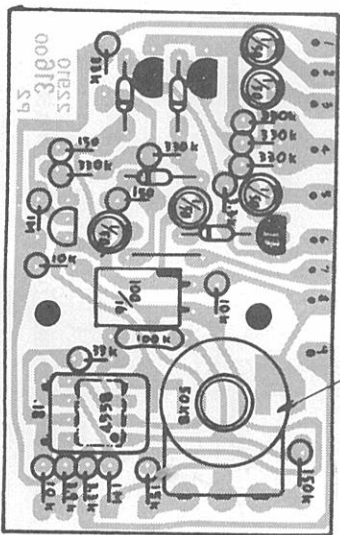
ET3113-060
(73113060)
(pcb 052-433A,
2291022201)



OP3113-120 (73113120)
(pcb 22910316)

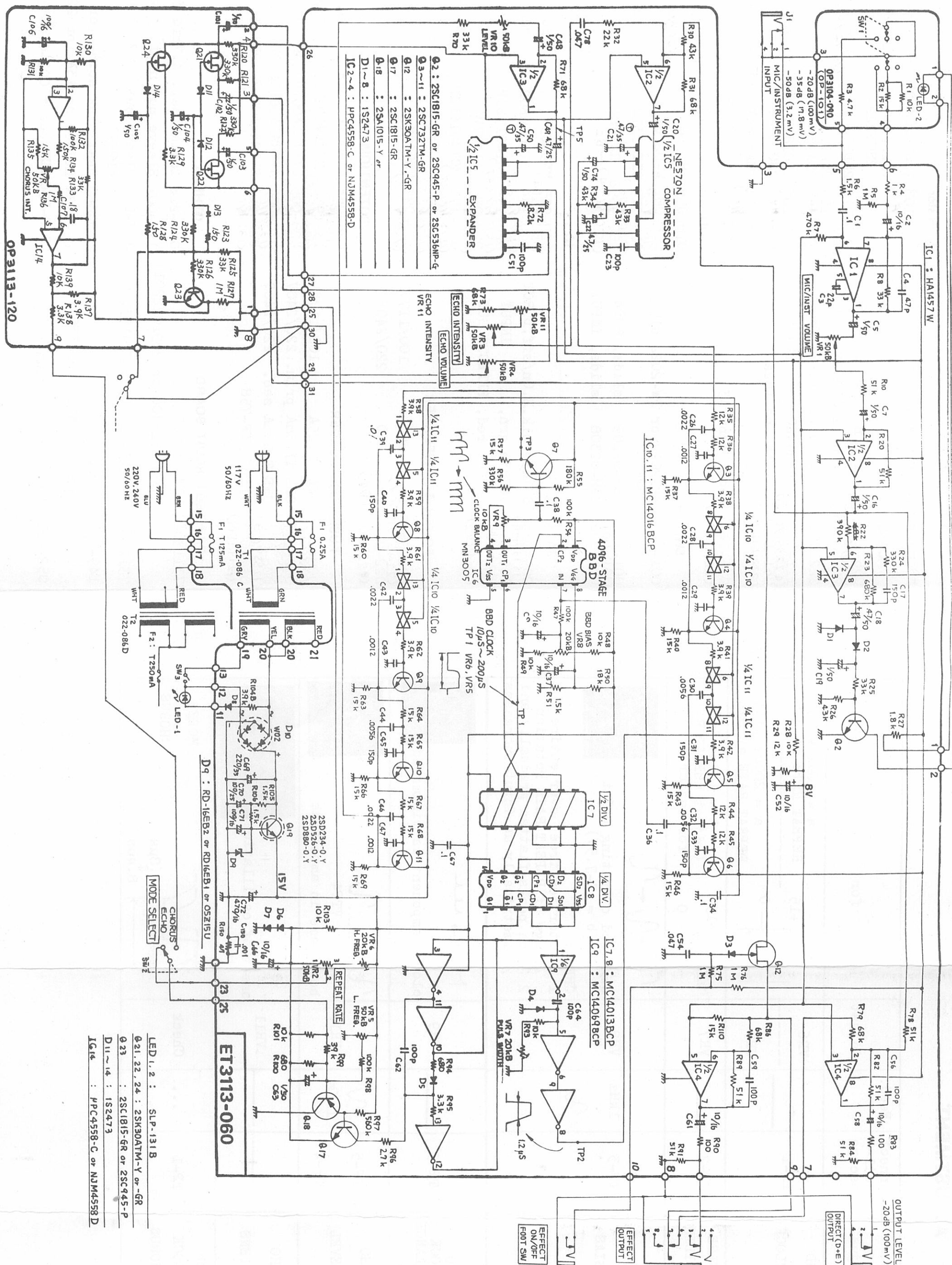
When dismantling pc board,
unscrew on the rear panel.

021, 22, 24 : 2SK30ATM-Y.-GR
023 : 2SC1815-GR or 2SC945-P or 2SC536NP-G
D11~14 : 1S2413 or 1S1588
IC : PPC4558C or NUM4558D



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



LED 1, 2 : SLP-131B
Q21, 22, 24 : 2SK30ATM-Y or -GR
Q23 : 2SC1815-GR or 2SC945-P
D11~14 : 1S2473
IC14 : PPC4558-C or NJM4558D

ADJUSTMENT

To adjust	Connect oscil- loscope to	Feed	Ad just	for
BBD CLOCK	TP-1	VR6	VR5	<p>a = 10us with REPEAT RATE at max a = 200us with REPEAT RATE at min</p>
PULSE WIDTH	TP-2	VR7		<p>b = 1.2us (adjust REPEAT RATE for easier view)</p>
BBD BIAS	TP-3	VR8		<p>1kHz centered operating point (Vb = 7-7.5V)</p>
				<p>CHECK: 1 distortion free over entire range of REPEAT RATE rotation 2 both peaks flatten gradually and symmetrically as input increases</p>
BBD CLOCK BALANCE	TP-3	VR9		<p>clock component is minimized</p>
ECHO LEVEL	TP-5 TP-4	VR10		<p>VTP5 VTP4 both same in amplitude</p>
ECHO INTENS		VR11		<p>onset of oscillation</p>
BBD CLOCK CHORUS	TP-1	...	Check	<p>6.8us 8.4us</p> <p>MODE: CHORUS</p>

PARTS LIST

*Some parts in new numbering

CASE

065-154 Cover no.154 case
(230/012005)
22020803 Cover no.22020803 rear
22210706 Panel no.22210706 front
111-020 Base no.20 (foot)
(022350/01002)
061-182A Chassis no.182A
(2281016901)

016-043 Knob no.43
(2247011200)

SWITCH

001-007 SP-2022 or PW-2022 blk
power
001-195 SSM-02205 slide, MODE
(13159104)
001-196 SSM-02308 slide, INPUT

JACK

009-023 SG7630 blk,E.On/off,DIRECT
(13139121)
009-031 SG7630 grn, INPUT
(13449103)
009-032 SG7640 red, EFFECTS OUT
(13449202)

POWER TRANSFORMER

022-086C PT no.86C 100/117V
(2245012300)
022-086D PT no.86D 220/240V
(022450124D0)

FUSE, FUSE HOLDER

008-023 SGA 0.25A 100/117V
(1259163)
008-057 CEE T125mA prim. 220/240V
(12559508)
008-060 CEE T250mA sec. 220/240V
(12559108)
012-003 Clip TF-758
(02199519)

PRINTED CIRCUIT BOARD

73113060 ET3113-060
4 (pcb 052-400 or 2291022201)
73113120 OP3113-120 (pcb 22910316)
149-101 OP101
(pcb 052-400/22910339)
052-401 Power on LED mount

SEMICONDUCTOR

Transistor

017-103 2SC732TM-GR or equiv.
(15129104)
(2SC2240-GR, 2SC1000-GR,
2SC1222-E, 10-noise)
017-010 2SD234-0 or 2SD880-0/Y
(15129104)
017-105 2SA1015-Y or 2SA733-Q or
(1519112)
017-106 2SC1815-GR or 2SC1740-Q or
(15129114)
017-014 2SK30ATM- G or Y FET
(15139101)

Diode

018-059 1S1588 or 1S2473
(15019204)
018-082 W-02 or 1M152/152R rect.
(15019236)
019-013 SLP-131B red, LED
(15029116)
15019558 RD16E- B1 or B2 zener
(15019654) ← B2

IC

020-085 MN3005 BBD
(15219204)
020-176 MC14069BCP or TC4069BP
(1515911670)
020-179 MC14013BCP or TC4013BP
(1515910520)
020-080 HA1457W
(15159802)
020-171 MC14016BCP or TC4016BP
(1515910620)
020-097 PC4558 or NJM4558D
(15159105)
020-098 NE570N
(15219108)

POTENTIOMETER

026-064 EVHCAP20B54 50kΩ CHR
(13219228)
13219305 EVHLMAD25B54(L) CHORS.INT
(13219305)
028-005 EVTR4AA00(SR19R) 20k trimmer
(13299163)
028-006 EVTR4AA00(SR19R) 50k trimmer
(13299187)
028-004 EVTR4AA00(SR19R) 10k trimmer
(1329901)

OTHERS

032-228 Tantal.cap. 4.7mfd 35V K
123-001 Sleeve nut no.1 3 x 10mm
123-002 Sleeve nut no.2 3 x 16.4mm
spacer
048-069 Heat sink no.69 (or no.32)
064-134 Holder no.134 (or 22190234)
012-030 IC socket C03-014-350T