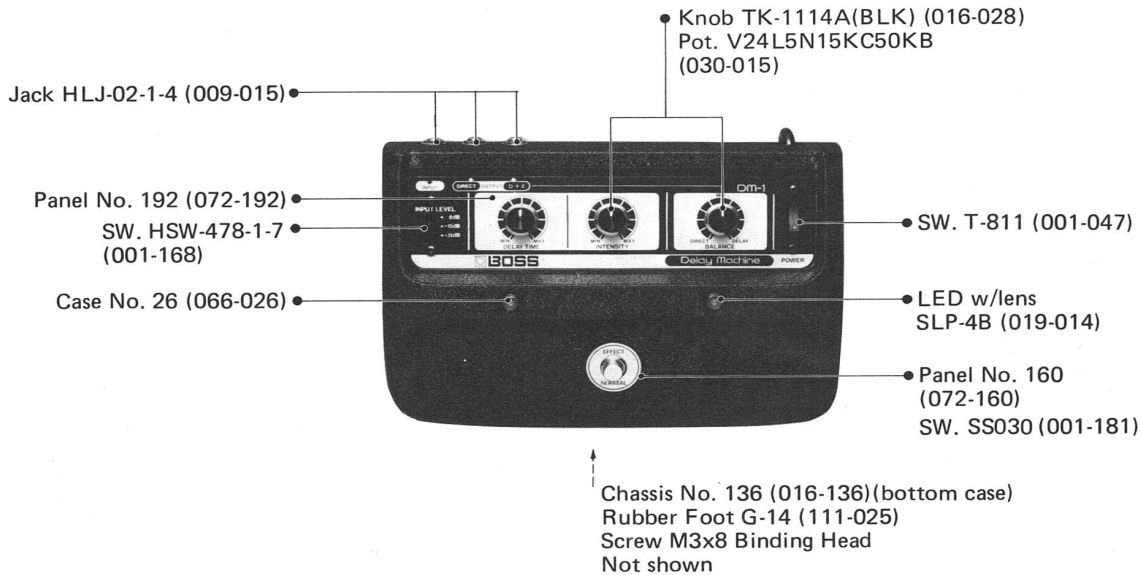


BOSS DM-1 SERVICE NOTES

SPECIFICATIONS

Power consumption	3W	Input impedance	220K Ω
Controls	Delay time (25–500ms continuous), (Bandwidth: 10K–1KHz) Intensity, Balance	Output load impedance . . .	Over 600 Ω
Switches	Power, Input Level Selector, (0/–15/–35dB), Normal/Effect Selector	Gain	UNITY 1
Others	Power Pilot Lamp, Effect/Normal Indicator	S/N ratio	Better than 80dB
		Dimension	260(W)x64(H)x180(D)mm 10.2(W)x2.5(H)x7.1(D)in
		Weight	1.8kg, 3.9lbs.



PARTS LIST

- 066-026 Case NO.26
- 061-136 Chassis NO136 (cover)
- 072-192 Panel NO.192
- 072-176 Panel NO.160 (E/N)

SWITCHES

- 001-047 T-811 power
- 001-181 SS030 push
- 001-168 HSW-478-1-7 slide
- 016-028 Knob TK-1114A (Blk)
- 009-015 Jack HLJ-02-1-4
- 151-031B PCB Assy ET-31B
- 052-313B PCB less parts
- 111-025 Rubber Foot G-14

ICs

- 020-087 R5101 CCD
- 020-083 TC-4016P
- 020-084 TC4069P
- 020-041 TC-4013P
- 020-064 μ PC-4558C

TRANSISTORS

- 017-010 2SD234-O
- 017-022 2SB434-O
- 017-021 2SC900-F
- 017-012 2SA733-Q
- 017-014 2SK30A-Y FET
- 017-091 2SK30A-O FET

DIODES

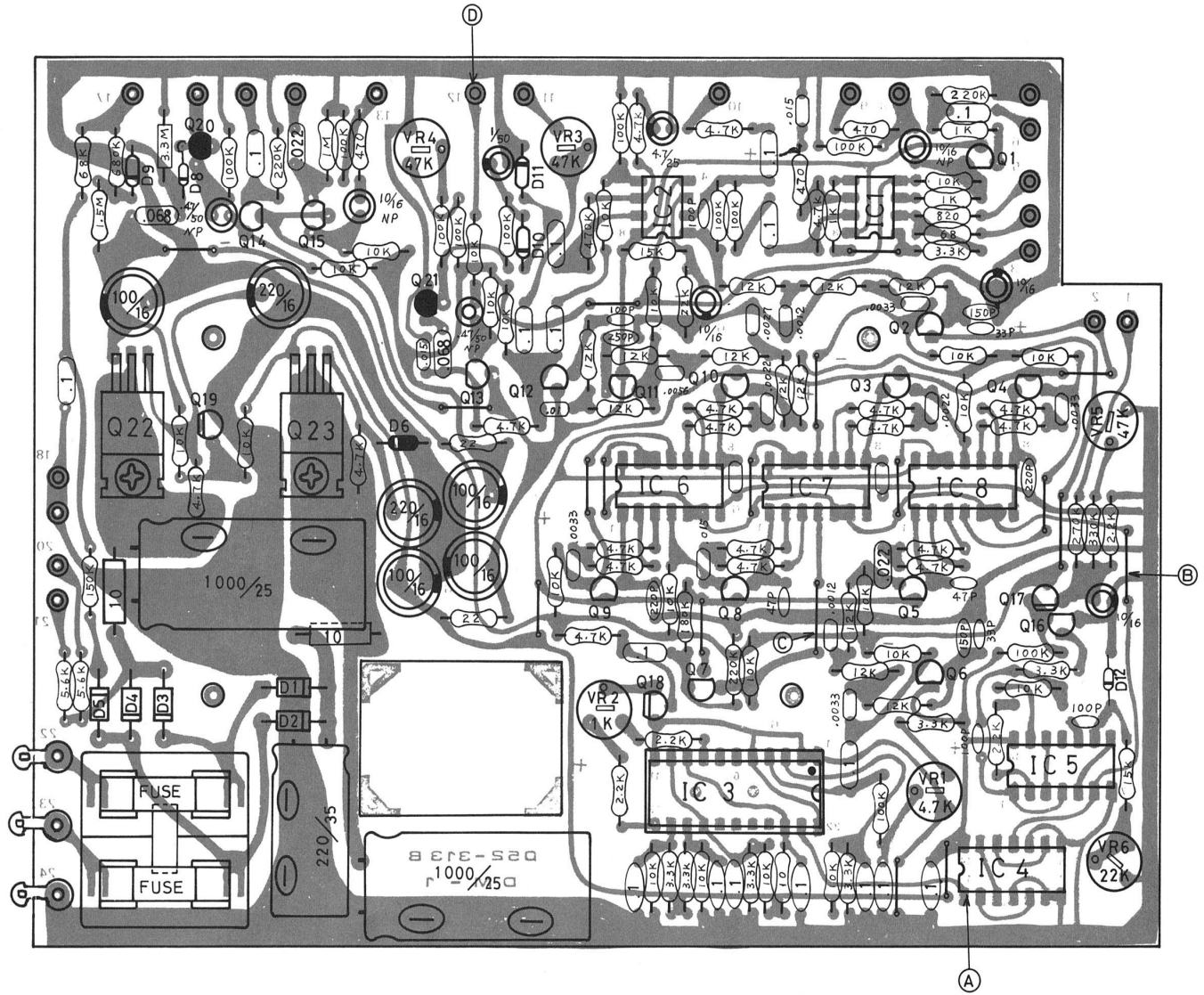
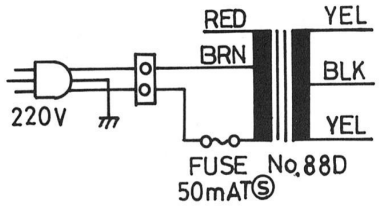
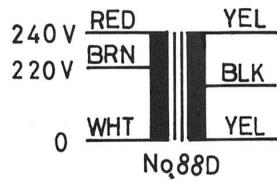
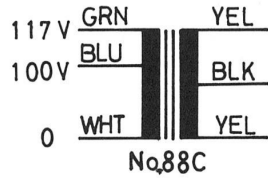
- 018-014 2S2473 or 1S1588, 1S1555
- 018-022 1N4003
- 018-085 RD13EC or 05Z13U
- 019-014 SLP-4B LED w/lens

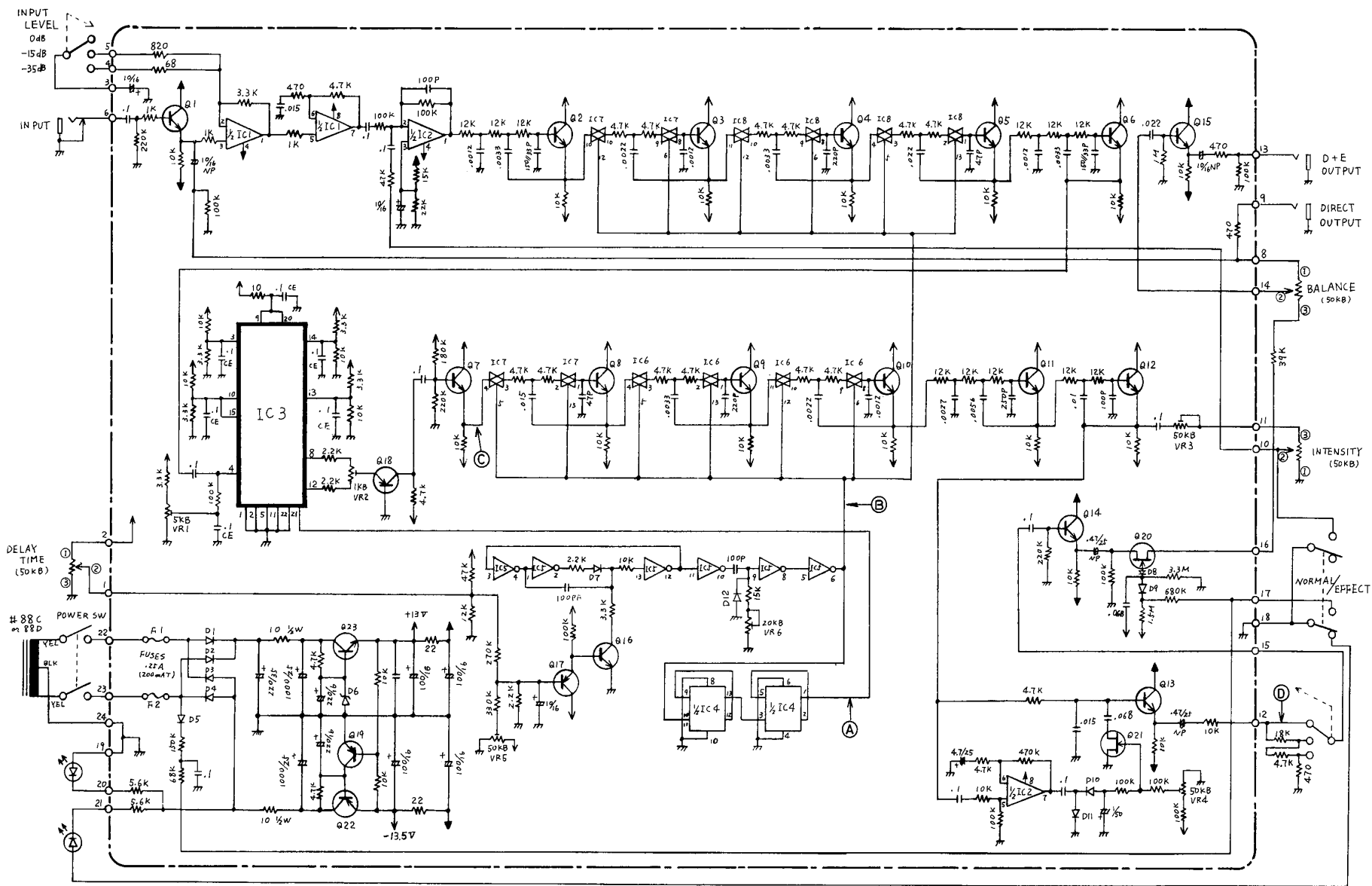
POTENTIOMETERS

- 030-015 V2415N15KC50KB
- 030-489 CR19R 1K trim.
- 030-463 SR19R 4.7K trim.
- 030-467 SR19R 22K trim.
- 030-469 SR19R 47K trim.
- 022-088C Power Transformer 100/117V
- 022-088D Power Transformer 220/240V
- 008-023 Fuse SGA 0.25A 100/117V
- 008-059 Fuse CEE 200mA 220/240V
- 008-053 Fuse CEE 50mA Prim. 220/240V

ET-31B(151-031B)

- IC1, 2 uPC4558C
- IC3 R5101
- IC4 TC4013P
- IC5 TC4069P
- IC6-8 TC4016P
- Q20 2SK30A-O
- Q 1-16 2SC900-F
- Q17-19 2SA733-Q
- Q21 2SK30A-Y
- Q22 2SB434-O
- Q23 2SD234-O
- D1-5 1N4003
- D6 05Z13U or
RD13EC
- D7-12 1S2473 or
1S1588
- IC socket ICL-244-S7G





CHECKING & ADJUSTMENT

Before starting any electrical adjustment, check the DC voltages:

- +B +13±0.5V at Q23 (2SD-234) E
- B -13.5±0.5V at Q22 (2SB-434) E

To check or adjust	connect to	Feed	Set	Adjust	for	Remark	
Clock F Low	Scope or F Counter	PCB T.P (A)		VR5 47K	125usec (8kHz)		
Clock F High	F Counter	(A)		(check)	6.25usec (160kHz)	Tolerance +10%	
F. C. F Duty Ratio	Scope	(B)		VR6 22K		Sweep Time 5usec 5X MAG	
CCD Clock Pulse Cancel 1st (1st)	Scope (AC range)	(C)		VR2 1K		Coarse (Fine Adj. later)	
CCD Bias	Gen	IN jack	Sine 500Hz 0dBm		VR1 4.7K		Without Distortions
	Scope	(D)		(check)			
CCD Clock Pulse Cancel (2nd)	Scope (AC range)	(C)		VR2 1K		Minimize amplitude	
Cutoff F	VIM Gen	(D) IN jack	Sine -20dBm		(check)	Fig.1	
Noise Killer	Amp Sp	D+E jack	Effect On	VR4 47K	Rotating from FCW position, stop where noise suddenly reduces		
Intensity	Amp Mic	D+E jack	Staccato Effect On	VR3 47K		Multiple repetitions with constant amplitude	

- Abbreviation**
 Scope Oscilloscope
 F Frequency
 Gen Signal Generator
 VTM Voltmeter
 FCW Fullclockwise

