BOSS DM-2 SERVICE NOTES

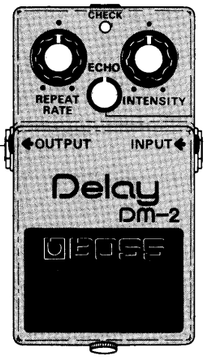
Second Edition

APPLICABLE SERIAL NUMBERS 182000 AND ABOVE.

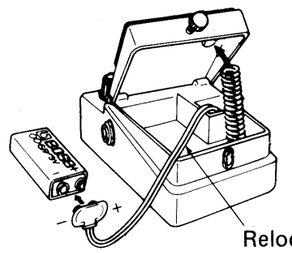
To keep up with latest electronic developments, Roland changes BBD to improved version. This also relieves the factory from employing only BBDs selected among its stocks.
Although the BBD and BBD driver are incompatible with old ones, PCB assemblies are interchangeable.

Adjusting procedure and values of the first edition remain unrevised and should be referred to as necessary.

CHANGE ON PARTS

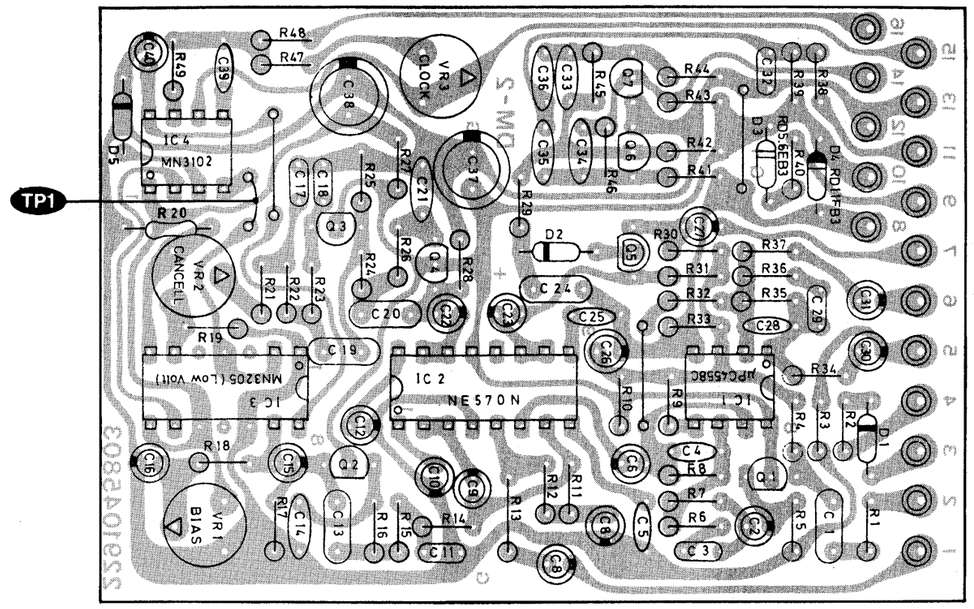


Jack SG-7615 (13449105)

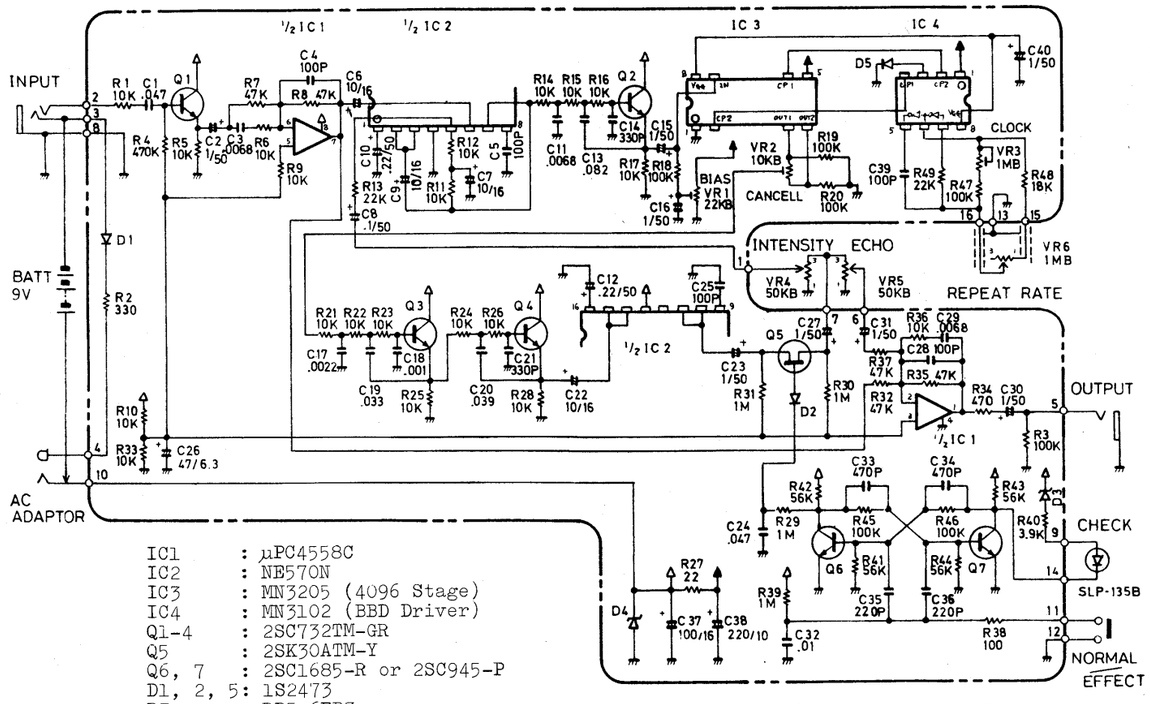


Relocation of leading-in hole. To the top. (P/No — same)

	OLD	NEW	COMPATI-BILITY
PCB	ET5214-510 (7521451001) (pcb 2291045801)	ET5214-510A (7521451005) (pcb 2291045803)	YES
TRANSISTOR	2SC945-P (15129108)	2SC945-P or 2SC1685-R (151291290R)	YES
ZENER	RD11EB3 (15019547)	RD11FB3 (15019633)	YES
BBD DRIVER	MN3101 (15169504)	MN3102 (15219214)	NO
BBD	MN3005 (152192040A)	MN3205 (15219214)	NO
JACK	SG-7622 (13449106)	SG-7615 (13449105)	YES
R2	100Ω	330Ω	



ET5214-510A (7521451005) (pcb 2291045803)



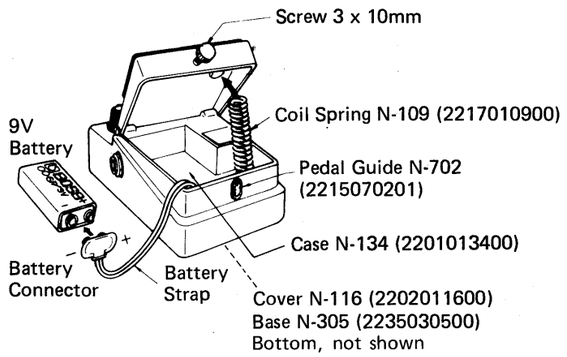
IC1 : μPC4558C
IC2 : NE570N
IC3 : MN3205 (4096 Stage)
IC4 : MN3102 (BBD Driver)
Q1-4 : 2SC732TM-GR
Q5 : 2SK30ATM-Y
Q6, 7 : 2SC1685-R or 2SC945-P
D1, 2, 5: 1S2473
D3 : RD5.6EB3
D4 : RD11FB3

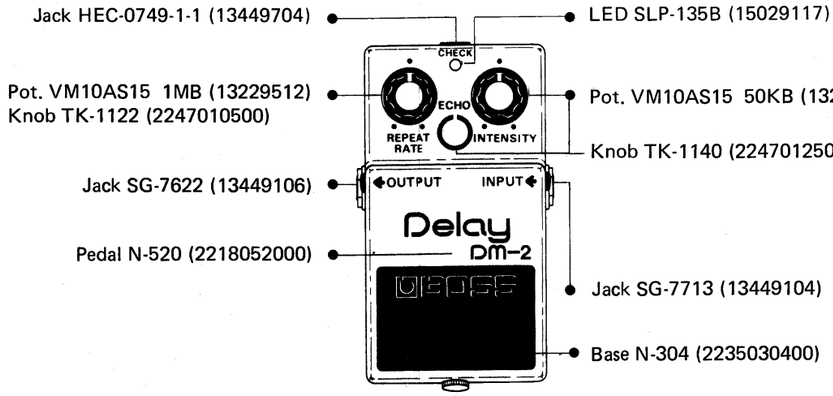
BOSS DM-2 SERVICE NOTES

First Edition

SPECIFICATIONS

Power	Battery 9V(1), AC Adapter
Current draw	11mA at 9V
Delay time	20ms ~ 300ms
Residual noise	Less than -100dBm (IHF-A)
Input impedance	470kΩ
Output load impedance	Over 10kΩ
Dimensions	70(W) x 55(H) x 125(D)mm
Weight	450 g





PARTS LIST

2201C13400	Case	N-134
2218052000	Pedal	N-520
2202011600	Cover	N-116 bottom
2235030500	Base	N-305 bottom
2235030400	Base	N-304 pedal matt
2215070201	Guide bushing	N-702
2226030500	Cushion	N-305 pcb
2216050200	Spacer	N-502 pcb
2217010900	Spring coil	N-109
2247010500	Knob	TK-1122
2247012500	Knob	TK-1140
13129710	Switch	J-M0404

PCB

7521451001	ET5214-510 assy (pcb 2291045801)	
2291049600	LED mounting, less parts	

POTENTIOMETER

13229512	VM10AS15	1MB
13229513	VM10AS15	50KB

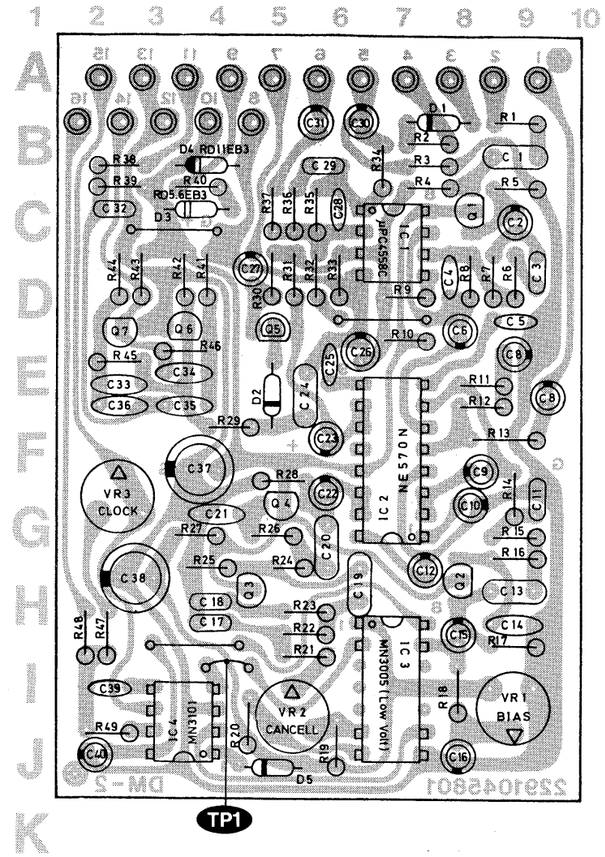
SEMICONDUCTOR

15139101	2SK30A(TM)-Y	FET
15129108	2SC945-P	transistor
15129104	2SC732TM-GR	transistor
15019103	1S2473	diode
15019526	RD5.6EB-3	zener
15019547	RD11EB-3	zener
15029117	SLP-135B	LED
15189105	μPC4558C	BP MON Dual op amp
15219108	NE570N	compander
15169504	MN3101	BBD driver
152192040A	MN3005	BBD 4096 stages green dotted, selected for specified gain at lower supply (down to 8V). Non-selected substitute should be checked for output level, powered by aged battery.

SOCKET

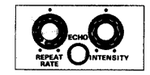
13429502	ICC03-014-350T	BBD
13449104	SG-7713	
13449106	SG-7622	
13449704	HEC-0749-1-1	AC adaptor being identical with HEC0317 on elder models in the family, shares the same part code, but finish is matted.

ET5214-510(7521451001) (pcb 2291045801)

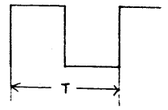


ADJUSTMENT

CLOCK — CHECK POINT: TP-1 (IC4 pin 4)



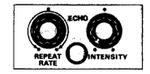
Power supply 8V



Set VR3 for T=146μs(6.8kHz).

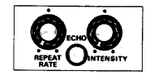
BBD BIAS — CECK POINT: pcb terminal 7

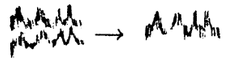
INPUT SIGNAL: 0dBm 200Hz sinewave into INPUT jack



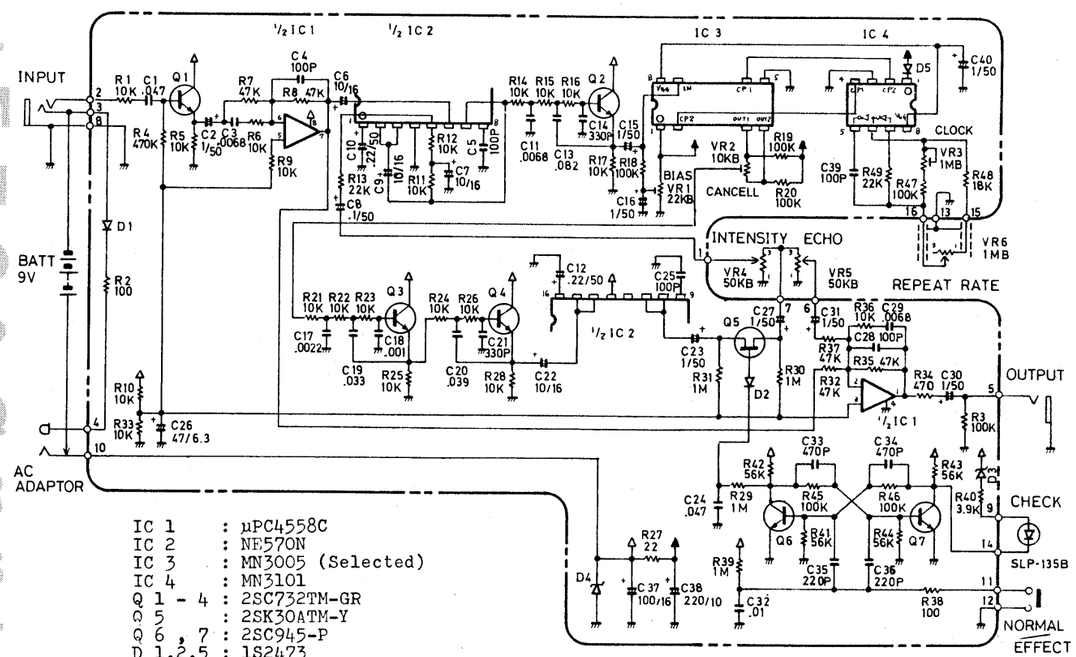
Set VR1 to the point where distortion is minimum regardless of R.RATE setting position.

CLOCK LEAKAGE CANCEL CHECK POINT:VR2 wiper





Turn VR2 to converge two outputs so that clock component is minimum at output pin with no input signal fed.



IC 1 : μPC4558C
IC 2 : NE570N
IC 3 : MN3005 (Selected)
IC 4 : MN3101
Q 1 - 4 : 2SC732TM-GR
Q 5 : 2SK30ATM-Y
Q 6 , 7 : 2SC945-P
D 1,2,5 : 1S2473
D 3 : RD5.6EB3
D 4 : RD11FB3