

SERVICE SCOOPS

CH3 INOPERATIVE (PAD ONLY) MIC OK.

Mono lead used to join pads 1 + 2 to 3 + 4. (Should be stereo lead)

CHANNEL PERMANENTLY TRIGGERED

IC 1B LOCKED DOWN (-15v Pin (7))

IC 2A or 2B LOCKED UP (+15v Pin (1) or (7))

CHANNEL TONE SOUNDS HIGH - PITCH CONTROL DOES NOTHING

R65B o/c

IC3B LOCKED UP (+15v Pin (7))

CHANNEL THUMPS (NO OTHER SOUND AVAILABLE)

IC3A LOCKED UP OR DOWN (+or -15v Pin (1))

R29 (150K) o/c

IC3B LOCKED DOWN (-15v Pin (7))

HISS FROM CHANNEL WHEN USING LOW PITCH SOUNDS

TRACK CARRYING NOISE TO VCF INPUTS (PIN (12) IC4) PASSING NEAR T4 + T5 (FETS)

CH 2 - 4 ONLY EQ OUT

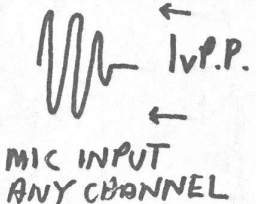
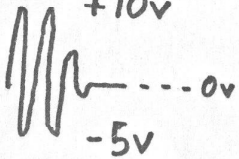

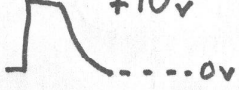
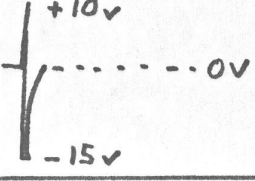

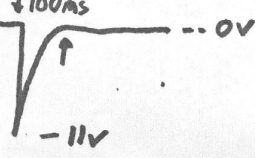
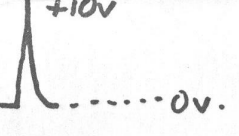
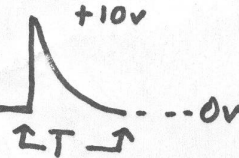
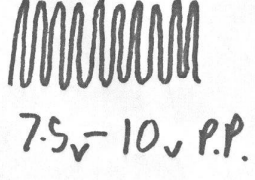
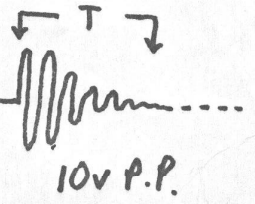
CUT TRACK AND REWIRE CLEAR OF T4 + T5 (Not applicable to later models)

BLEED THROUGH FROM LFO AT HIGH SPEEDS

UNAVOIDABLE - USE ONLY ON BELLS AND GONGS AND USE ONLY LOW END OF SPEED CONTROL

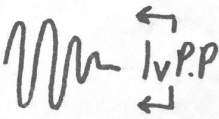
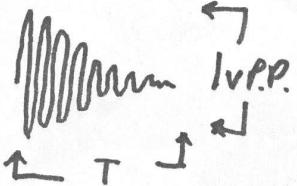
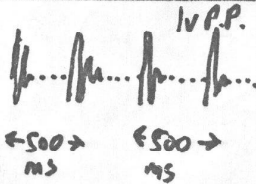

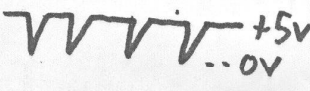
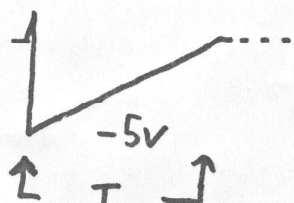
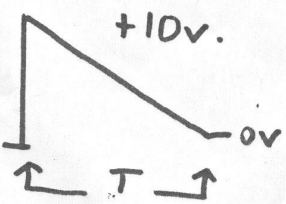
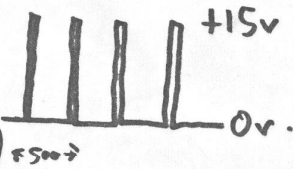
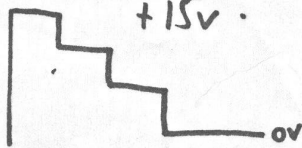
SDS III WAVEFORM FLOW CHART.

①

INPUT	TEST POINT	WAVEFORM	CONDITIONS	COMMENTS.
 <p>MIC INPUT ANY CHANNEL</p>	IC1A PIN ①		MIC SENSITIVITY CONTROL MAX. MIC ON/OFF SWITCH ON. NO FOOTSWITCH USED	A SIMILAR WAVEFORM IS OBTAINED IF THE PAD IS USED TO TRIGGER THE CHANNEL.
AS ABOVE	D1 +VE 		AS ABOVE	AS ABOVE
AS ABOVE	IC1B PIN ⑦		AS ABOVE	AS ABOVE
AS ABOVE	D2 -VE 		AS ABOVE	THIS WAVEFORM FED TO FM INPUT OF VCF VIA R15 AND INVERTER IC3 - IMPACT CLICK.
AS ABOVE	IC2A PIN ①		AS ABOVE	-
AS ABOVE	D3 +VE AND OUTPUT OF BUFFER IC2B PIN ⑦		T DEPENDS ON SETTING OF R17 DECAY TIME CONTROL. MIN. 200MS MAX 10 SECONDS.	THIS WAVEFORM USED FOR BEND UP. AND VIA INVERTER IC3B FOR BEND DOWN ALSO FED TO CONTROL INPUT OF OUTPUT VCA IC8 FOR GATING.
AS ABOVE.	VCF OUTPUT. IC3A PIN ①.		TONE NOISE TO TONE. INITIAL PITCH LOW. CHANNEL PITCH HALFWAY.	THIS WAVEFORM PRESENT REGARDLESS OF INPUT CONDITION
AS ABOVE.	VCA OUTPUT IC8 PIN ⑥		T DEPENDS ON SETTING OF R17 DECAY TIME CONTROL MIN 200MS. MAX 10 SECONDS.	CHANNEL LEVEL HALF WAY.

SOS III WAVEFORM FLOW CHART.


2

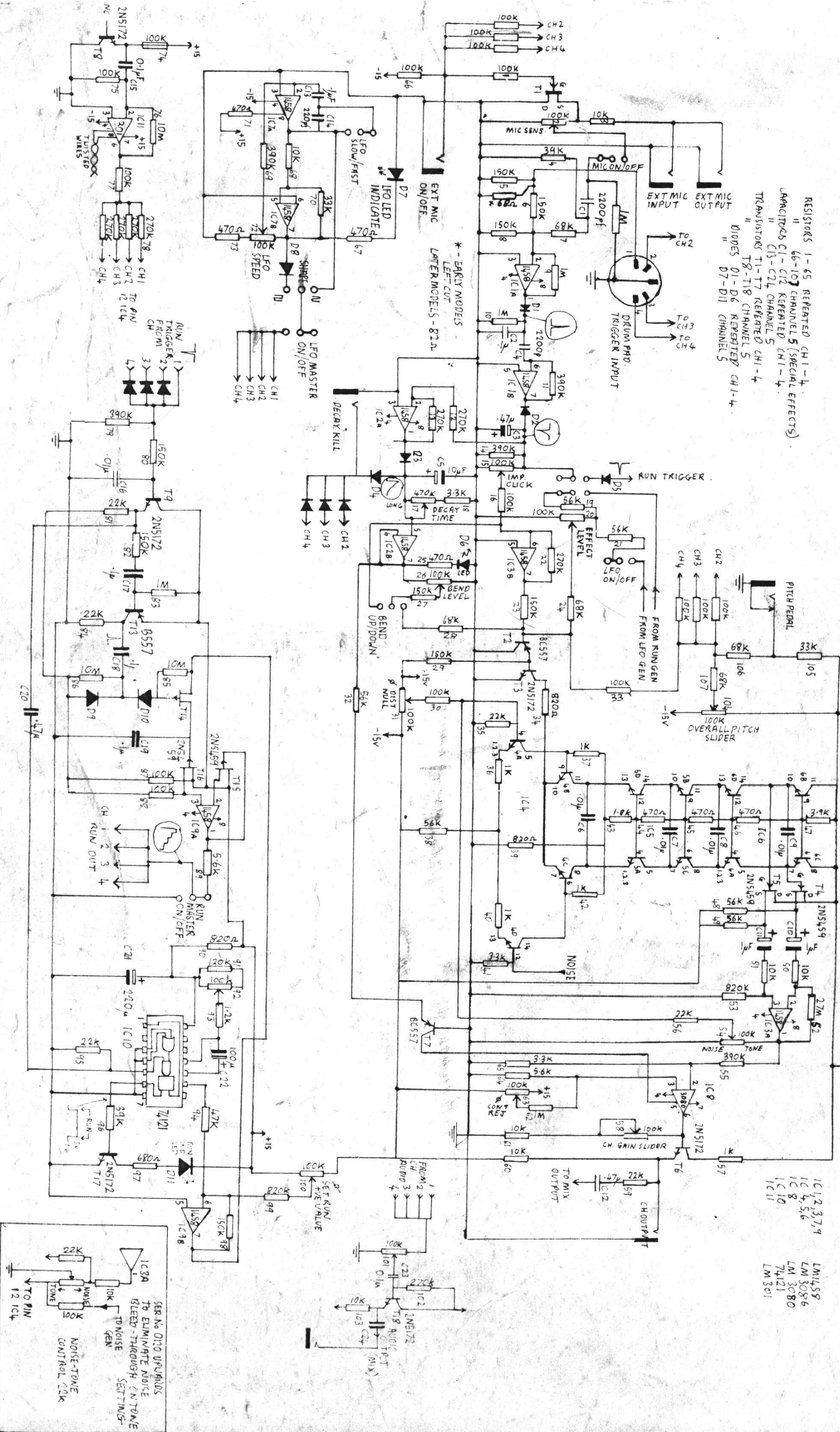
INPUT	TEST POINT	WAVEFORM	CONDITIONS	COMMENTS
	EMITTER T18 (OUTPUT MIX)		T DEPENDS UPON SETTING OF KIT DECAY TIME CONTROL. MIN 200MS. MAX 10SEC.	CHANNEL LEVEL + OUTPUT LEVEL HALF WAY.
	JUNCTION R80 + R79		INPUT PULSES. (MIC INPUT) OR PAD STRUCK AT .5 SECOND INTERVALS. RUN ON + MASTER RUN ON.	RUNTIME HALF WAY
AS ABOVE	EMITTER T13. (SINGLE SHOT DRIVE)		AS ABOVE	AS ABOVE
AS ABOVE	IC 10 PIN (9) (SINGLE SHOT OUTPUT.)		T DEPENDS UPON SETTING OF RUN TIME CONTROL.	POWER SUPPLY TO IC 10 = 4.5V (PIN 16)
AS ABOVE	IC 9B PIN (7)		AS ABOVE	-
AS ABOVE	COLLECTOR T13 (SAMPLE + HOLD TRIGGER)		INPUT PULSES AT 500MS INTERVALS.	
AS ABOVE	IC 9A PIN (1). RUNGEN OUTPUT			THIS VOLTAGE WHEN FED TO FM INPUT OF VCF PRODUCE DESCENDING TONES.

SDS III

VCF CHECK POINTS .

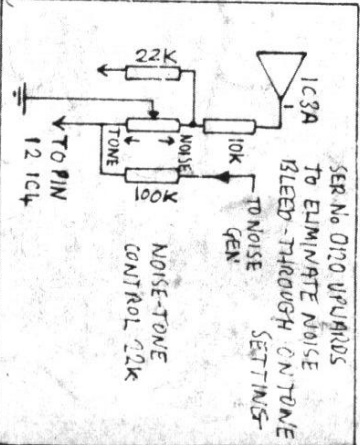
(2)

INPUT	TEST POINT	WAVE FORM	CONDITIONS	COMMENTS.
-	VCF CONTROL INPUT. (BASE OF T2.)	<p>DC + 50mv</p> <p>DC - 150mv</p>	<p>OVERALL PITCH AT <u>LOW</u></p> <p>INDIVIDUAL CHANNEL PITCH <u>HIGH</u></p> <p>INDIVIDUAL CHANNEL PITCH <u>LOW</u></p>	<p>IF R65B (150K) BIAS RESISTOR GOES O/C VCF WILL BE PERMENANTLY OPEN. (OSCILLATE HIGH)</p>
-	COLLECTOR T3	<p>DC + 50mv</p> <p>DC + 750mv</p>	<p>OVERALL PITCH AT <u>LOW</u></p> <p>INDIVIDUAL CHANNEL PITCH <u>HIGH</u>.</p> <p>INDIVIDUAL CHANNEL PITCH <u>LOW</u>.</p>	<p> 75mv RIPPLE PRESENT.</p>



RESISTORS 1-65 REPEATED CH1-4.
 " 66-103 CHANNEL 5 (SPECIAL EFFECTS)
 CAPACITORS C1-C12 REPEATED CH1-4.
 " C13-C24 CHANNEL 5
 TRANSISTORS T1-T7 REPEATED CH1-4
 " T8-T18 CHANNEL 5
 DIODES D1-D6 REPEATED CH1-4
 " D7-D11 CHANNEL 5

* - EARLY MODELS LEFT CUT LATER MODELS - 82A



- IC1,2,3,7,9
- IC4,5,6
- IC8
- IC10
- IC11
- LM1458
- LM3086
- LM3080
- 74121
- LM301

IC8

IC9

IC10

IC2

IC1

IC4

IC5

IC6

IC3

IC3

IC7

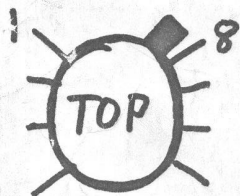
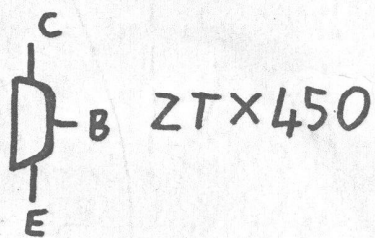
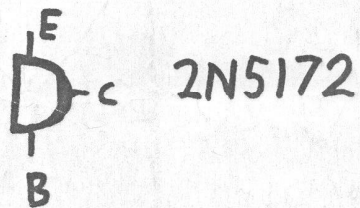
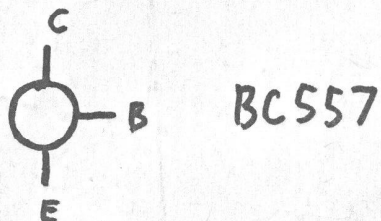
IC11

7A 1458TC = LM 1458

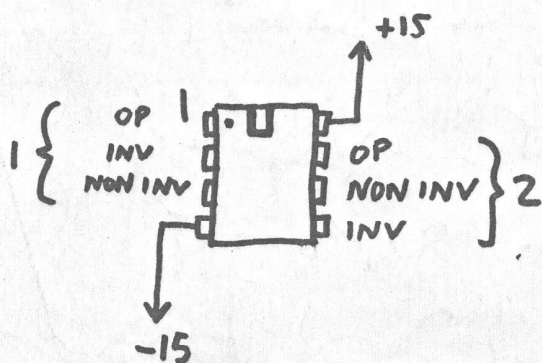
2N 5172 = ZTX 450 (LEG LAYOUT DIFFERENT).

BC204 = BC557

TOP VIEW COMPONENTS.



METAL CAN CA 3080
LM 3080.



1458 DUAL OP AMP.



This Document Was Downloaded from
www.Simmons.Synth.Net

And was donated by various members of the simmons drum synth mailing list.
If you paid for this, you've been had!