

Build documentation for:

ROLAND 100M 131 VCA A.K.A SYSTEM X AMPLIFIER

Layouts and documentation by

FREQUENCY CENTRAL

What's changed:

- CA3080 used instead of BA662A
- 2 x back to back 22uF caps used instead of 10uF BP caps

Colour coding:

Red traces: +12v

Brown traces: Ground

Green traces: -12v

Grey pads: Inputs/switch

Blue pads: Outputs

Lin/Exp switch:

Switchable linear/exponential response. Use a SPDT switch.

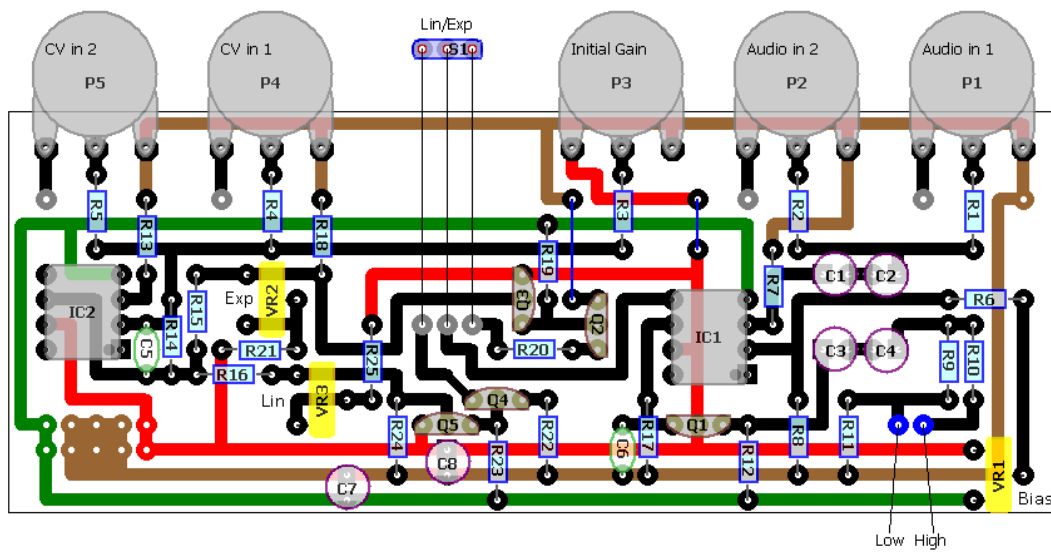
Calibration:

VR1 sets the bias adjust to somewhere around the midpoint until little or no DC 'thunk' is heard when a CV is applied.

VR2 and **VR3** set the linear and exponential offset respectively. Set them by ear so that they both have equal volume with respect to each other.

System X Amplifier

Layout by frequencycentral



Created with freeware DIY Layout Creator by Storm Software
<http://www.storm-software.co.yu/diy/>



Bill of materials

R1: 180K	C1: 22uF	IC1: CA3080	P1: 100K log
R2: 180K	C2: 22uF	IC2: LF351	P2: 100K log
R3: 150K	C3: 22uF	Q1: 2N5485*	P3: 100K lin
R4: 100K	C4: 22uF	Q2: BC557C PNP	P4: 100K lin
R5: 100K	C5: 0.01uF	Q3: BC547C NPN	P5: 100K lin
R6: 1M	C6: 47pF	Q4: BC557C PNP	All pots Alpha 16mm
R7: 560R	C7: 100uF	Q5: BC547C NPN	VR1: 100K
R8: 560R	C8: 100uF		VR2: 22K
R9: 33K			VR3: 100K
R10: 1K		*or use a BF245, but flip for pinout.	2 x Jumpers!!
R11: 3.3K			
R12: 10K			
R13: 15K			
R14: 68K			
R15: 22K			
R16: 6.8K			
R17: 33K			
R18: 1K			
R19: 100K			
R20: 15K			
R21: 47K			
R22: 6.8K			
R23: 10K			
R24: 15K			
R25: 150K			

