Twin Monarch Bill of Materials

RESISTORS		CAPACITORS	
R1	1M	C1	.01uF ###
R2	1M	C2	100pf mica
R3	10k	C3	.01uF
R4	33k	C4	.01uF
R5	27k	C5	.1uF
R6	10k	C6	.01uF ##
R7	220k #	C7	.01uF ##
R8	6.8k	C8	1uf electrolytic
R9	1k	C9	1uf film
R10	6.8k	C10	100uf electrolytic
R11	1M	C11	100uf electrolytic
R12	47k (12k)	C12	.01uF ###
R13	47k (12k)	C13	100pF mica
R14	2.2k	C14	.01uF
R15	1M	C15	.01uF
R16	1M	C16	.1uF
R17	10k	C17	.01uF ##
R18	33k	C18	.01uF ##
R19	27k	C19	1uf electrolytic
R20	10k	C20	1uf film
R21	220k #		
R22	6.8k		
R23	1k		
R24	6.8k		
R25	1M		
R26	2.2k		

DIODES

D1-D4 MA856*
D10-D13 MA856*
D5, D61S1588**
D8, D91S1588**
D7, 1N5817******

OPAMPS

IC1, IC2, JRC4580D***

VARIABLE RESISTORS

VR1, VR2, 50k****

POTENTIOMETERS

Vol.1, Vol.2, A100k
Gain 1, Gain 2, B100k (B250k for high gain mod)
Tone 1, Tone 2, B25k

DIP 1, DIP 2***

2 Chan.2 Position

SUBSTITUTES

* BA282, 1N914, BAT41, BA278 (SMD)
** 1N4001, 1N4148 or MOSFETS BS170,2N7000, BS250
*** JRC4558, LM833, NE5532, CA3260, TL072 (TL2272, LF353n high gain)
**** B50k potentiometers (off-board)
***** use four SPST mini-toggle switches
****** use shottky
# use 330k for more gain
use .022uF for more bass
use .027uF to .047uF for more bass

Mods and Notes

Use a 250k pot instead of 100k for the first stage gain.

Use a TL2272 or LF353n for higher gain.

Use .047uF input caps at C1 and C12 for more bass response.

Use B50k pots instead of variable resistors for presence control.

Use four SPST mini toggles instead of internal DIP switches for diode switching.

Use a Schotky diode for D7 to reduce voltage drop at power-up.

Use 2N7000 MOSFETs in place of 1S1588 clipping diodes by connecting their respective drains and gates.