

VC QUADRATURE GENERATOR PARTS LIST

All resistors are 1/4-watt, 5% values.

R1	100 Ω trimmer potentiometer
R2	390 Ω
R3 – R10	1k
R11	2k
R12	4.7k
R13	5.6k
R14 – R24	10k
R25	12k
R26	15k
R27	18k
R28, R29	22k
R30, R31	47k
R32	56k
R33 – R38	100k
R39, R40	100k trimmer potentiometer
R41 – R43	100k linear potentiometer
R44	150k
R45	3.3M

All capacitors are 16V or better.

C1, C2	100pF disc
C3	0.001 μ F mylar
C4	0.0022 μ F mylar
C5 – C11	0.01 μ F disc
C12	0.47 μ F mylar
C13, C14	10 μ F electrolytic

Semiconductors

D1, D2	1N4148
D3 – D6	red LED
Q1	2N3904 PNP transistor
Q2, Q3	2N3906 NPN transistor
Q4	MPF102 FET
IC1	LM13700 dual OTA
IC2, IC3	TL074 quad op-amp
IC4	4001 quad NOR gate

Other components

J1 – J6 1/4" phone jack, n.o.

Miscellaneous: printed circuit board, IC sockets, front panel, knobs, wire, etc.

Note: For improved temperature stability, Q1 and Q2 should be expoxied together in thermal contact.