

281 FG PROJECT BOM**RESISTORS**

VALUE	DES	QTY	NOTES:
1K(1%)	R7*,R8*,R29	3	R7,R8: FOR 12V OPERATION USE 1.2/1.5K HERE
10K	R19,R28	2	
100K	R30*,R31*,R35*,R37,R41	4	R35: WIRE OFF-BOARD; R30: CHOOSE FOR LED DRIVE RANGE
1M	R24	1	
12K*	R27	1	CHANGED FROM 22K
1.5K	R33*	1	CHANGE TO SUIT LED/POWER USED.
15K	R39	1	
20K(1%)	R26	1	
2.2K	R44,R46	2	R44-46: PEAK CIRCUITRY [BUILD ONCE PER PAIR]
2.7K*	R40	1	CHANGED FROM 4.7K TO ALLOW 5V TRIGGER PULSES/GATES
470R	R32	1	
4.7K	R10,R16,R22	4	
47K	R1,R4,R11,R21,R23,R36,R38*,R42,R47*	8	R38: "A" BOARD ONLY; ADDED R47: WIRE OFF-BOARD
470K	R20	1	
4.7M	R12,R34	2	
49.9K(1%)	R2,R3,R5,R6,R25	5	
5.6K	R9	1	
56K	R45	1	R44-46: PEAK CIRCUITRY [BUILD ONCE PER PAIR]
680R	R13,R14,R17	3	
10-50K LIN	VR1, VR2	2	
20-50K TRIMPOT	VR3	1	

CAPACITORS

VALUE	DES	QTY	NOTES:
.1uF*	C1	1	USE HI QUALITY; VALUE IS FLEXIBLE .1-.18uF [ORIGINAL]
.047uF	C2	1	
1.8nF*	C3	1	VALUE IS SOMEWHAT FLEXIBLE HERE, COULD BE SLIGHTLY HIGHER
47uF*	C4	1	10V+ BYPASS CAPACITOR; VALUE[S] DEPEND ON CONFIG OF BOARDS
10uF	C5, C6	3	BYPASS CAPACITORS
.1uF	CBP	5	BYPASS CAPACITORS

SEMICONDUCTORS

VALUE	DES	QTY	NOTES:
CD4016B	IC1	1	USE BUFFERED
CA3080	IC2	1	
TL064	IC3	1	
CD4001B	IC4	1	USE BUFFERED
L7810	IC5	1	ONCE PER MULTIPLE GENERATORS
MPF-102	Q3	1	GEN PURP N CHAN. JFET; OTHERS MAY WORK, UNTESTED
2N3906	Q1,Q2,Q5*,Q6*	4	Q5, Q6: PEAK CIRCUITRY [BUILD ONCE PER PAIR]
2N3904	Q4	1	
1N914/4148	D2-D11*	9	D11 OPTIONAL; INSTALL FOR 'GATE PRIORITY' IN CYCLE MODE
1N4740/5240	D1	1	10V ZENER

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OTHER

DES

QTY NOTES:

N/A	LV+; LV-	2	INSTALL LINK, BEAD, LOW OHM RESISTOR
3-POS TOGGLE	MODE SWITCH	1	ON-OFF-ON TYPE SPDT
SPST TOGGLE	QUADRATURE MODE SWITCH	1	1 PER PAIR