

El Mighty Cacahuate bill of materials

Quantity	Value	Rating	Description	Notes
Input stage				
Resistors				
2	27k	3W	anode load	20k-27k range is ok, see write up
2	1M	1/2W	grid reference	large value, 470k+
2	300	1/2W	grid stopper	between 240-1k values ok here
2	470	1/2W	cathode resistor	300-470 range is ok, see write up
Capacitors				
2	100uF	16V	cathode bypass capacitor	higher values ok here
2	0.1uF	400V	coupling capacitor	no electrolytics, larger values ok
Output stage				
Resistors				
2	470k	1/2W	grid reference	1M is maximum value here
2	300	1/2W	grid stopper	between 240-1k values ok here
2	330	2W	cathode resistor	270-330 range ok, see write up
2	100	1/2W	screen resistor	limits screen current
Capacitors				
2	220uF	35V	cathode bypass capacitor	higher values ok here
Other				
1	DPDT mini toggle		UL/triode switch	only flip when powered down, optional
2	5k:8 w/UL	5W	output transformers	match secondary to speakers/HP, eg Edcor GXSE10-5K
Power supply				
Resistors				
1	220k	1W	bleeder resistor	discharges caps when powered down
Capacitors				
2	100uF	350V	filter capacitors	higher voltage rating ok
1	33uF	350V	input capacitor	must be changed if using other rectifiers (eg 5R4, 5Y3, etc)
Other				
1	6H	100mA	filter choke	higher inductance or current rating ok, eg Hammond 159R
1	1H	100mA	filter choke	higher inductance or current rating ok, eg Hammond 158SA
1	600VCT	100mA	power transformer	needs 3A 5V and 2.5A 6.3V windings, eg Edcor XPWR215
Tubes				
1	6CG7		input tube	swappable to 6DJ8 types (higher gain)
2	EL84		output tube	swappable to 6P14P (in theory, not tested)
1	5U4		rectifier tube	swappable to 5AR4, other types if PSU input cap is lowered
3	9 pin sockets		uh, tubes go in these	personal preference is Belton brand
1	octal socket		ditto	personal preference is Belton brand
Controls, I/O				
1	AC power inlet		"IEC" type in USA	can have integrated fuse/switch, don't forget a cord
1	DPST power switch		on/off	switch hot and neutral instead of just hot
1	fuse holder		holds fuses	1 1/4 inch is AKA 3AG, use 5 x 20mm if easier to source
1	pack of fuses		should fit in holder	1A min, 2A max, buy spares
2	pairs binding posts		speaker connection	must be insulated if chassis is metal, two pairs or four total
2	RCA jacks		one red, one white	must be insulated if chassis is metal
???	terminal strips		5 or 6 eyelets per strip	usually one per tube socket and extra few for PSU
???	hook up wire		fer wirin	18ga is generally largest that fits in sockets