

Tubelab Universal Driver Board Parts List:

RESISTORS:

LOC	WATT	VALUE	Digikey #	
R1	.25W	221K		
R2	.25W	1K		
R3	.25W	100 ohm		
R4	Trimmer	1K	3309P-102-ND	
R5	.25W	1K		
R6	2W	150K		Plate load for V1, value depends on B++ supply voltage and tube choice
R7	2W	150K		Plate load for V1, value depends on B++ supply voltage and tube choice
R8	.25W	1K		
R9	Note 1	Note 1		Value depends on NEGATIVE MOS supply voltage, need 1 to 2 mA, so 500 ohms to 1 K per volt
R10	Trimmer	100K	3309P-104-ND	
R11	Note 2	Note 2		Value depends on POSITIVE MOS supply voltage, need 1 to 2 mA, so 500 ohms to 1 K per volt
R12	.25W	100 ohm		
R13	Trimmer	1k	3309P-102-ND	
R14	.25W	1K		
R15	.25W	1K		
R16	.25W	1K		
R17	2W	24K		Plate load for V2, value depends on B++ supply voltage and tube choice
R18	2W	24K		Plate load for V2, value depends on B++ supply voltage and tube choice
R19	Note 3	Note 3		Experimental feedback resistors from output tube plates. Each resistor must be rated for the full output stage B+ voltage.
R20	Note 3	Note 3		Experimental feedback resistors from output tube plates. Each resistor must be rated for the full output stage B+ voltage.
R21	Note 3	Note 3		Experimental feedback resistors from output tube plates. Each resistor must be rated for the full output stage B+ voltage.
R22	Note 3	Note 3		Experimental feedback resistors from output tube plates. Each resistor must be rated for the full output stage B+ voltage.
R23	2W	10K		
R24	Note 4	Note 4		R24 and R33 set the maximum NEGATIVE bias voltage Not used (open) for screen drive (positive grid)
R25	Note 4	Note 4		R25 and R34 set the minimum POSITIVE grid voltage for screen drive. Not used for G1 drive
R26	Note 4	Note 4		R26 and R36 set the negative voltage reached when the bias is set for maximum tube current. Typically not used in screen drive
R27	Note 4	Note 4		R27 and R35 set the positive voltage reached when the bias is set for maximum tube current. Typically not used in G1 drive
R28	.25W	470K		
R29	.25W	1K		
R30	2W	10K to 33K		Sets the idle current through the mosfet. You want 10 to 20 mA at idle, less if there is a secondary current path like a screen grid
R31	.25W	1k		
R32	.25W	470K		
R33	Note 4	Note 4		R24 and R33 set the maximum NEGATIVE bias voltage Not used (open) for screen drive (positive grid)
R34	Note 4	Note 4		R25 and R34 set the minimum POSITIVE grid voltage for screen drive. Not used for G1 drive
R35	Note 4	Note 4		R27 and R35 set the positive voltage reached when the bias is set for maximum tube current. Typically not used in G1 drive
R36	Note 4	Note 4		R26 and R36 set the negative voltage reached when the bias is set for maximum tube current. Typically not used in screen drive
R37	Trimmer	100K	3309P-104-ND	
R38	2W	10K to 33K		Sets the idle current through the mosfet. You want 10 to 20 mA at idle, less if there is a secondary current path like a screen grid

R39	Note 3	Note 3	
R40	Note 3	Note 3	
R41	Note 3	Note 3	
R42	Note 3	Note 3	
R43	Trimmer	100K	3309P-104-ND

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C1		.47uf 630V	Mylar
C2		.47uf 630V	
C3		47 uF 450 V	Electrolytic
C4		.47uf 630V	
C5		.47uf 630V	
C6		.1 uF 630 V	coupling cap
C7		.1 uF 630 V	coupling cap
C8		.47uf 630V	
C9		.47uf 630V	
C10		.47uf 630V	

IC1	10M45
IC2	10M45
IC3	LM4041AIZ-1.2
IC4	LM4041AIZ-1.2

Q1	FQP2N60 , NDF02N60, NDF04N60....
Q2	FQP2N60 , NDF02N60, NDF04N60....

You want an N channel 600 volt or higher mosfet with a Crss below 10pF that stays constant over the voltage range used.
 These things go extinct in a year or two because better ones appear. Today's choice will not be here for long.

LMP1	NE-2
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V1	6CG7
V2	6CG7