

### Parts List for the 2x-813 Linear Amplifier

(Parts in parentheses were used in the actual unit)

B	4.68 inch muffin fan, 120 VAC
C1 thru C6	270 $\mu$ f at 500 VDC, snap in electrolytic (Nichicon LGN2H271MELC40, available from Mouser)
C7, C8	2200 pf at 6 kV disc ceramic (Vishay 564R60GAD22, available from Mouser)
C9, C10	1000 pf at 5 kV minimum doorknob capacitor. (Centralab 858S-1000)
C11	Transmitting variable, dual section, .075 inch minimum spacing, 100 pf per section
C12	Transmitting variable, 1500 pf. Multi-section receiving type variable also suitable.
CB1	10 amp circuit breaker (Carling CLB-103-11B3ABA, available from Mouser)
CB2	3 amp circuit breaker (Carling CLB-033-11B3ABA, available from Mouser)
D1	Red LED
D2	Green LED
J1, J2	SO-239 UHF Jack
J3	RCA phono jack
K1	DPDT, contacts 15A at 120 VAC, 120 VAC coil
K2	DPDT, contacts 10A at 120 VAC, 24 VDC coil, 475 ohm
K3	3PDT, contacts 10A at 120 VAC, coil 12 VDC, 120 ohm
L1	16 turns #20 close wound on .5 inch diameter slug tuned form, National XR-50
L2	11 turns #20 close wound on .5 diameter inch slug tuned form, National XR-50
L3	7 turns #16 close wound on .5 diameter inch slug tuned form, National XR-50
L4	(Illumitronic vari-pitch pi-dux P/N 2408D4, see photos)
M1	50 $\mu$ a panel meter, calibrated to 3000 VDC full scale
M2	1 ma panel meter, calibrated to 1000 ma full scale
M3	1 ma panel meter, calibrated to 100 ma full scale
PC1, PC2	4 turns #18, .3 inch diameter, .5 inch long, paralleled by two 100 ohm, 2 watt carbon comp resistors
R1 thru R6	35 kohm, 10 watt, wirewound (Ohmite 40F35KE, available from Mouser)
R7	0.5 ohm, wirewound, 25 watt, 1% preferred, chassis mount
R8	Panel mount potentiomer, wirewound
RFC1	Filament choke, #14 enamel bifilar wound on four inch ferrite rod type R61-050-400 (Amidon FLC-10 kit)
RFC2	Plate choke, 145 $\mu$ H (National type R-175A)

RFC3	Pi-wound choke, .5 mH
RFC4	Pi-wound choke, 2.5 mH
S1	DPDT toggle, contacts 5A at 120 VAC
S2	DPDT toggle, contacts 10A at 120 VAC
S3	SPST toggle, contacts 5A at 120 VAC
S4	Single pole, 3 position rotary switch, heavy duty (Radio Switch Corp)
S5	Double pole, 3 position rotary switch, mechanically linked to S4
T1	Plate/filament transformer, toroid, 800 VA, dual 800 VAC at .5 amps, dual 6.3 VAC at 4 amps, dual 120 VAC primaries. (Antek P/N AN-8T800, available from antekinc.com)
T2, T3	Control transformer, 120 VAC primary, secondary 5.0 VAC at 10A (Stancor P-6135). See text for alternates.
T4	Filament transformer, primary 120 VAC, secondary 12.6 VAC CT at .1A (Xicon 41FG100 available from Mouser)

General Notes for Linear Parts:

1. Fixed capacitors: Capacitors marked with an asterisk are silver mica, 500 volt minimum rating. Capacitors with a plus sign are electrolytic. Unless otherwise noted, all other fixed capacitors are disc ceramic, 500 volt rating minimum.
2. Fixed resistors: Unless otherwise noted, resistors are 0.25 watt, 5 percent tolerance, carbon composition or carbon film. 0.5 and 1.0 watt are 5 percent tolerance, carbon composition or carbon film. 20 watt are wire wound.
3. 10.5 meg resistors used in plate voltage meter circuit may be 10 meg, 5%, .25 watt. Select value of 4.7 k across meter to give correct reading.
4. Diodes: With the exception of the HV doubler circuit, lower PRV diodes can be used in other locations. However, since 1N5408 and 1N4007 diodes are only pennies apiece in quantities of 100, no alternates are specified.