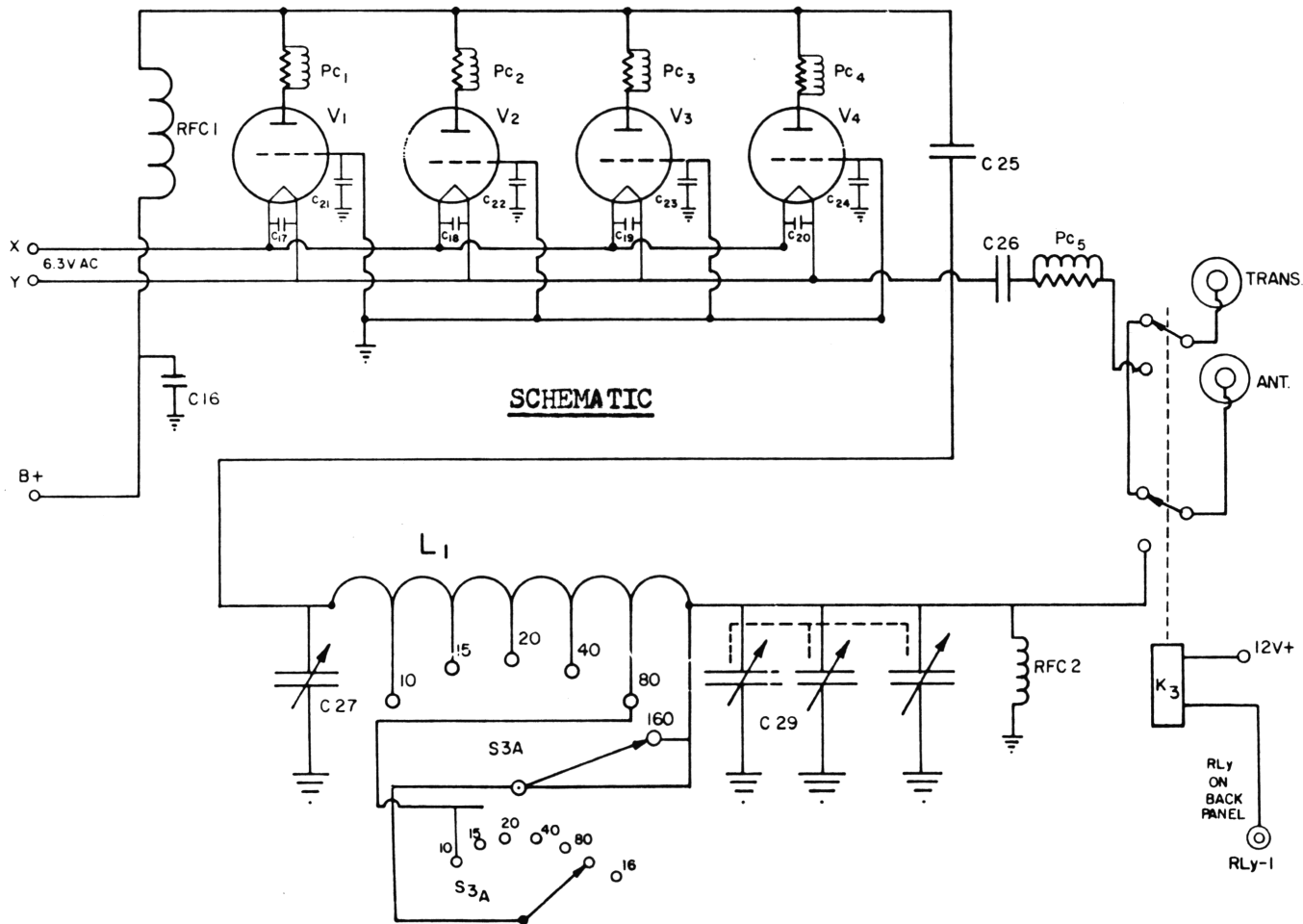


# DENTRON 160-10L Amplifier



**SCHEMATIC**

**"WARNING"**

NEVER OPERATE 160 - 10L OUTSIDE OF ITS CABINET

The 160 - 10L Amplifier was designed and engineered to provide long and hard hours of service. Don't be afraid to push it to its full capabilities. Just use common sense and observe the safety precautions as outlined in manual.

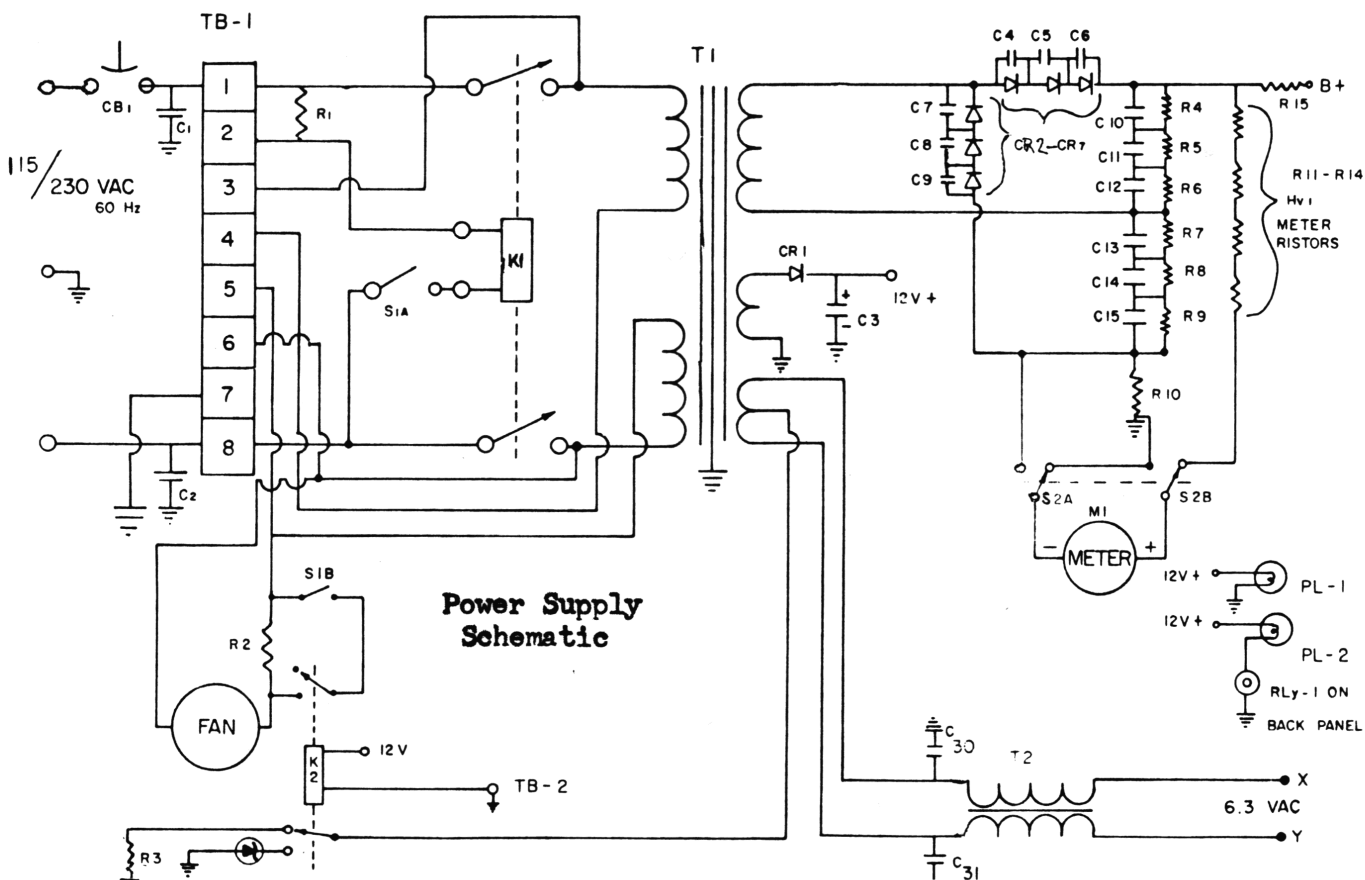
**NOTE**

The 160 - 10L should not be turned off immediately after long periods of transmitting, but should be left on stand-by for several minutes with zero plate amperes to allow the 811A's or 572B's time to cool down.

**160 10L BASIC TUNE UP CHART**

BAND	BAND SELECTOR	LOADING CONTROL	TUNING CONTROL
160	1.8	4	1.8
80	3.5	2	3.5 (No. 2)
75	3.5	3	3.5 (No. 4)
40	7.0	3½	7.0
20	14	5	14
15	21	7	21-28
10	28	8	28

# DENTRON 160-10L Amplifier, cont.



## Drive Requirements:

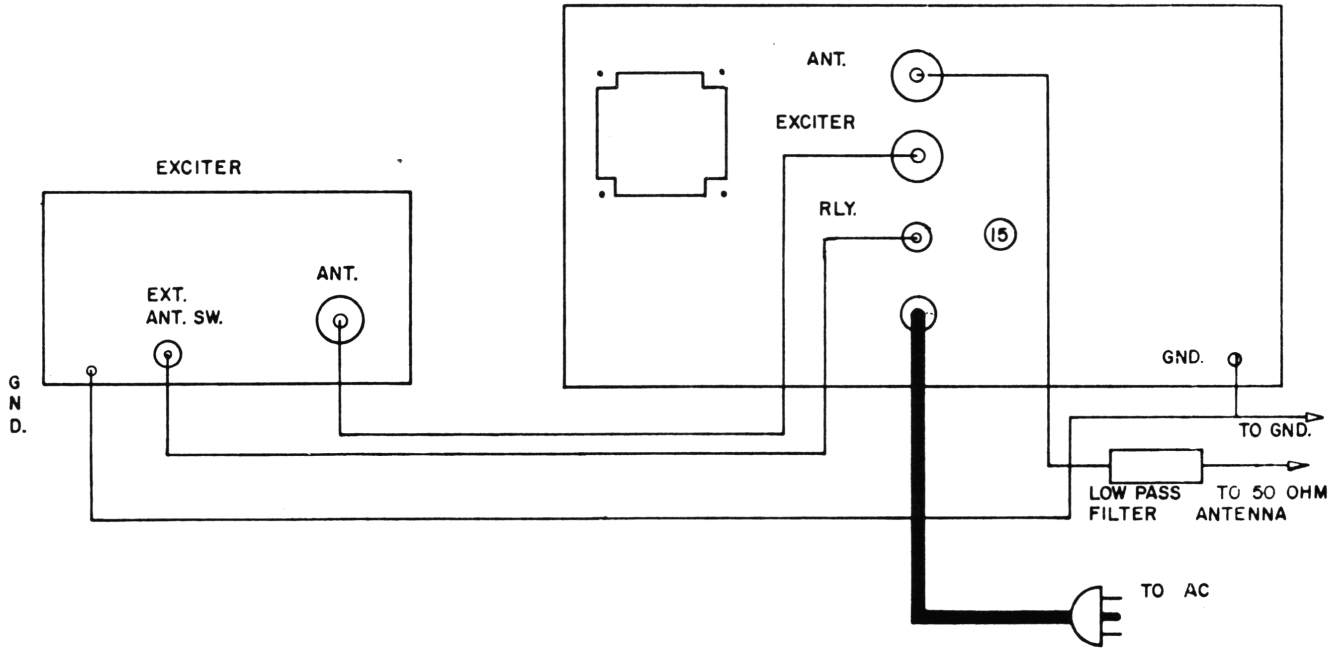
To operate the 160 - 10L the exciter drive power can be as little as a few watts to 125 watts, the 160 - 10L with 572B tubes can be driven with as much as 150 watts —

### Caution

This amount of drive will run the amplifier above the legal limit of 2000 watts input.

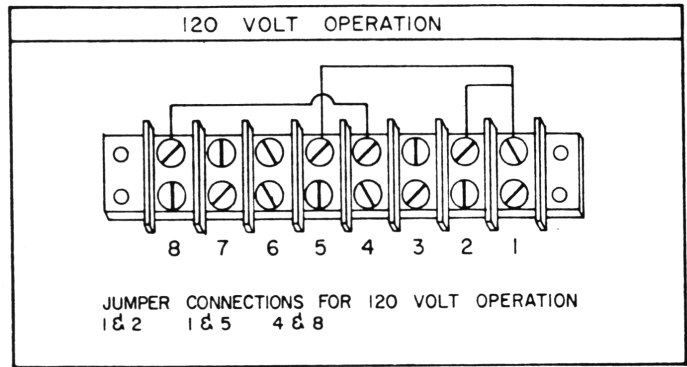
## Operation

1. Make sure 160 - 10L is in the off position.
2. Connect the antenna or a dummy load to the 160 - 10L Antenna Connector.
3. Set the band selector to the proper band.
4. Preset loading and tuning controls as shown on control sheet — **it is very important to have these controls preset before tune up.**
5. Tune and load the exciter into the antenna or dummy load, the amplifier is still in the off position. Tune to approximately 70 - 100 wats output — turn exciter off.
6. Turn the 160 - 10L switch to CONTINUOUS DUTY — power light will come on — and check in DC volt position for 1700 -2000 volts showing on the meter.
7. Switch the meter switch DC AMPS-should read zero.
8. Turn on the exciter and insert a small amount of power into the amnplifier and adjust tuning control for maximum output as indicated on a watt meter such as the DenTron W-2 or SWR Bridge in the antenna coax lead.
9. Insert full power (70 - 100 watts) into amplifier and tune the 160 - 10L for maximum output alternately adjusting the loading and tuning controls for maximum forward power as indicated on station wattmeter or SWR Bridge. In case of low exciter power the loading control setting may deviate counter-clockwise from basic chart setting.
10. To Calculate Power = Voltage × Current + Exciter Drive  
example on 160 - 10L: 1800 Volts × 1000 MA = 1800 Watts input + 125 Watts Drive = 1925 DC input
11. The 160 - 10L is capable of much greater input than 1KW but only on SSB model with switch in the Continuous Duty position. **On CW, RTTY, SSTV keep input at 1KW** and operate in the continuous duty model
12. Normal SSB operation:
  - a) Switch in SSB
  - b) Voice peaks should read about .4 on DC amp scale — with speech processing much greater readings will show
  - c) Idle current will be approximately 40 - 60 MA.

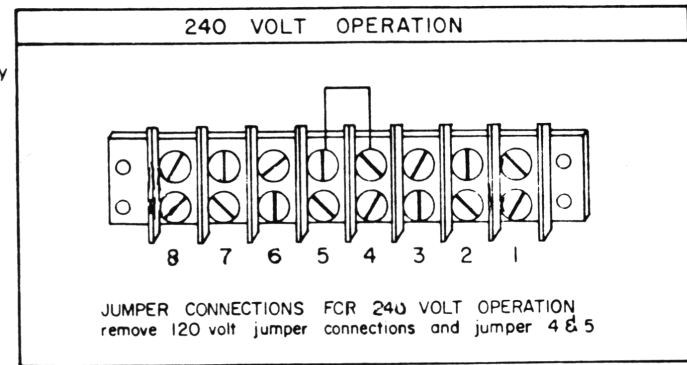


**Parts List**

C-1, C-2, C-4, C-9, C-17, C-26	.01 Disc 1KV
C-3	800MFD - 25WVDC
C-10 thru C-15	150MFD - 450WVDC
C-16	500PF - 6KV Disc
C-25	500PF - 20KV Cap
C-27	D-232 Plate Cap
C-29	D-1500L Load Cap
CB-1	15 amp breaker
CR-1, CR7	1N4007 Diodes
K 1	115VAC DPDT Relay
K 2 - K 3	12 VDC DPDT Relay
L 1	Plate Tank Coil
M 1	0-2000VDC and 0-1 amp meter
PC 1 - PC 4	Parasitic Chokes
PL 1 & PL 2	#330 and #328 Bulbs
R 1	1000 ohm 10 watt wire wound
R 2	2000 ohm 5 watt wire wound
R 3	50K ohm 10 watt wire wound
R 4 - R 9	25K 10 watt wire wound
R 11 - R 14	Meter resistors selected at factory
R 15	1 ohm 1 watt Carbon
RFC - 1	Plate Choke
RFC - 2	2.5mh 300 ma Choke
RLY - 1	R.C.A. phono receptacle
S 1	DP-3T Rotary Switch
S 2	DPDT Rotary Switch
S 3	2P6T Rotary Switch
T 1	Power Transformer
T 2	Filament Choke
V 1 thru V 4	811A Tubes or 572B Tubes
Z - 1	50W, 9V Zener Diode



REAR OF CHASSIS



**NOTE:** THE AC CORD HAS 3 CONDUCTORS ... THE GREEN LEAD IS GROUND

**NOTE:** To locate terminal 1-8 find a 2000 ohm 5 watt resistor on terminal 1 & 2 and count toward front of amplifier.

**NOTE:** Replace 15 Amp circuit breaker with 10 Amp circuit breaker.