

Care and Feeding of the Alpha 78

The best way to run the 78 is to tune up in the CW position to about 500w output, then switch to it to SSB (higher plate voltage) and continue your tuneup to whatever output you desire.

The CW / SSB HV settings were made for the old USA FCC power rules, which were **1.0 kw DC Input on CW or 2.0 kw PEP Input on SSB**. The ratio of the low to high HV is such that if you tuned up at the CW limit using the lower HV (CW), you could then just switch to SSB and the amp would be tuned up correctly for the higher SSB limit.

It is better for the amp to run the higher HV all the time, it keeps the grid and plate current low. Watch the grid current, NEVER exceed 50ma per tube (as stated in the manual).

For 1500w output, tune the amp with a keyer sending fast dots. The grid current will be about 75ma, plate current will be about 1.2A. Sending dots at 40 wpm gives about 1/2 of the key-down reading on the meters.

When using the BANDPASS function on various bands, keep the antenna VSWR below 1.5:1. Higher VSWR can damage the capacitors in the BANDPASS circuitry, they are not voltage rated as high as the much larger manual TUNE and LOAD capacitors. **Do NOT hold the key down at 1500w in the BANDPASS mode.**

It is normal to have slightly lower output on 10m than the lower bands.

Information on tuning up on 17m is on our web site. Do NOT use the 78 on 12m, the plate choke will burn up.

<http://www.rfconcepts.com/1979-WARC-BAND-COVERAGE-INFORMATION>

The 78/76A/374A amps were designed to run on 240vac. Using lower voltage that is 10% less (like 220vac or less) lowers the filament voltage of the tubes, lowers the output power and will shorten tube life.