

GENERAL ADDENDUM TO POWER AMPLIFIER INSTRUCTIONS

Because it is so easy to damage rf power transistors in the field due to abuse, transistor manufacturers do not provide any warranty to cover replacement in such cases. They do not honor claims that "the transistor must have been bad from the factory". They are very careful to fully check each transistor before it is shipped so you can be sure that they are good when received. The following precautions should be observed.

1. Transistors are made to operate in specific circuits. Do not try to check with ohmmeter, etc. Sometimes, you can blow a transistor when you reverse polarity.
2. Observe power and duty cycle ratings in the specifications published in our catalog. Some units are not designed for continuous operation. Keep heatsink fins in free air, not closed in, and not upside down on solid surface. When tuning on bench, allow for cooling periods to avoid overheating.
3. Sometimes, transistors may be destroyed by parasitic oscillations occurring during tuning because of the extremes of capacitor settings, etc. or due to accidental shorting of components. To protect against such damage, turn power supply voltage down to 9 or 10 Vdc when you first apply rf until the unit is tuned. Of course, bias adjustments and final fine tuning should be done at full 13.6 Vdc.
4. Never exceed 13.6 Vdc. Be sure you have a low impedance connection to power supply, i.e., short, heavy cable.

NOTE

Zener diode 1N5235 is now used in place of regulator transistor SC-4. The cathode (banded lead) is connected to the positive circuit, and the anode is connected to ground. Following are sketches of the old and new methods for comparison.

