

THINGS TO KNOW ABOUT AN AMPLIFIER

by G.L.

1. **Excessive Drive:** Causes poor audio and downward modulation. Modulation only shows on peak reading wattmeters.

Under Drive: Causes low power output and poor RF keying.

2. Engine must be running for full power operation in mobiles over 100 watts. If used with power supplies in base operation be sure the power supply has enough amperage.
3. Wires must be large enough to carry the required current and must be run directly from the battery plus and minus posts to the amplifier. See table below:

<u>CURRENT DRAWN</u>	<u>TABLE I POWER OUTPUT RF WATTS</u>	<u>WIRE REQUIRED</u>
5 to 8 AMPS	50 to 75 WATTS	14 to 12 GA.
8 to 12 AMPS.	100 to 200 WATTS	10 GA.
20 to 40 AMPS.	200 to 400 WATTS	8 GA.
40 to 60 AMPS.	200 to 400 WATTS (TUBE)	4 to 6 GA.
100 AMPS.	500 WATTS AND UP	2 to 4 GA.

The above table is for runs of less than 10 feet. If over 10 feet use the next larger wire size in the table. If using quick disconnects be sure they are rated to carry the current drawn by the amplifier; refer to the above table.

4. Most foreign and small cars have 30 - 45 AMP. battery and charging systems with the engine running and airconditioning on. Most american and full sized cars have 45 - 65 AMP. battery and charging systems with the engine running and air conditioning on.
5. 400 Watts and larger amplifiers require multiple batteries.
6. The antenna must be rated for the power output of your amplifier. CAUTION: Base loaded antennas are poor power handlers in spite of any manufacturers claims. Fiberglass antennas are best.
7. Run separate power wires for the radio and amplifier to the plus and minus battery posts for best operation.
8. Jumper cables should be RG-58U for short runs (Less than 4 feet). for long runs use more than 7 feet; 11'4" is perfect for solid insulated coax, 13' 11" is perfect for Foam insulated coax.
9. By following the above rules you will get better performance from your amplifier, longer life, and less service headaches.
10. CAUTION:.....HEAT KILLS AMPLIFIERS! DON'T: Clamp mobiles to carpets, DON'T block air flow around heatsinks or into vent holes on tube amplifiers.