

LINEAR AMPLIFIER NOTES

MODIFICATION FOR PRIDE AND PALOMAR 100W LINEAR AMP

1. The big problem with most mobile amplifiers is over-drive. This causes distortion and T.V.I. The cure is to keep the AM modulation below 100% and the AM power at $3\frac{1}{2}W$. This cannot always be done so the best thing to do is change the amp so you will not over-drive it with high power.
2. Locate the input transformer on the amplifier. This will have 3 turns of wire on it. Remove the wire and rewind the transformer for four turns. This effectively lowers the drive level to the amplifier.
3. Make sure you have good jumper cables and #8 or larger gage wire running to the amp from the battery. Note: Fuse this wire at the battery for 20 amps. I use four fuse links with 5 amp fuses in them and solder them to the #8 wire and tape the connection, and the other end I install a terminal lug. I like to connect this end at the starter solenoid, but this is not possible in every case. Connecting directly to the battery should only be done as a last resort, because of corrosion. The ground wire must be as short as possible - not over 12 inches. This must be connected to the vehicle or car with a star washer and a #12 or larger sheet metal screw or bolt. Make sure all paint or rust is removed from where the ground is connected. By doing this, you eliminate ground loops.
4. Your antenna should have a good ground if it is mounted on the trunk lip. Use grounding straps for the best ground connection.
5. Check your SWR. If it is not the same on low power or barefoot as with the amp on you have an antenna problem - bad ground or bad antenna. Check the coil spring on your antenna. It may be rusted or the strap inside the spring may be broken or corroded. The SWR should not move more than 1 or 2 points between barefoot operation or hi power. If it does you will fry your amp. Zap the transistors and you are out approximately \$20 each plus labor, so take care.

