Upgrade the ALS-600 Meter Lamps to LEDs
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Over the four years I've had my ALS-600 amplifier I've replaced the amplifier meter bulb twice, and the power supply meter bulb once. So I decided it was time to replace the bulbs with LEDs for essentially infinite lifetime. Converting both meter lamps to LEDs requires less than $5 of parts. Both amplifier and power supply meters use the same lamp assembly. Photo A shows an original bulb assembly.


Photo A: Original meter lamp assembly

To modify the lamps, unplug the existing meter lamps from the meters and cut the black & red wires right at the bulb assemblies. Grip the original solder tabs with needle-nose pliers and rock them back and forth until they break off at the base of the plastic housing. Wrap the bulb and metal tabs with tape or cloth (in case the bulb breaks). Using pliers, pull out the old bulb and tabs from the housing. Next take two 3mm ultra-bright diffused white LEDs (All Electronics LED-83) and solder them together (Photo B) making sure you preserve the LED polarities by connecting a long lead to a short lead. Insert the dual LED assembly into the housing and snip off the positive (long) LED terminal so it extends about ½-inch out of the housing. Solder a ¼-watt 470-ohm resistor to this positive LED terminal (Photo C). Incidentally, while I like the even glow of the dual 3mm LEDs, you can use a single 5mm LED (All Electronics LED-75), but you'll need to file off the LED lip so it slides into the meter. And if you use a non-diffused LED (like the LED-75), lightly sand the end so light is diffused when the LED is inside the meter.

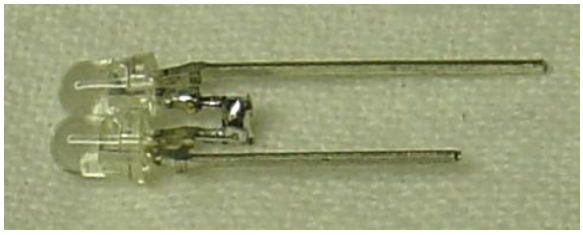
Photo B: 3mm LEDs soldered in series

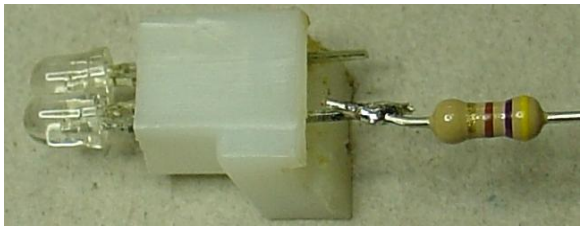
Photo C: New dual LED lamp assembly

Finally, insert the new assemblies into the lamp slots on the ALS-600 amplifier and power supply meters. Snip off both the resistor lead and the remaining LED lead to about ¼-inch and slide about an inch of heat-shrink tubing over the red and black meter-lamp wires. Solder the red wire to the resistor lead and the black wire to the short LED lead, then slide the heat shrink over the connections and shrink with a heat-gun or (carefully) with a match or lighter. That's it! Now your meter lamps won't ever stop working, and you'll be very pleased with the nice white glow of the illuminated meters.