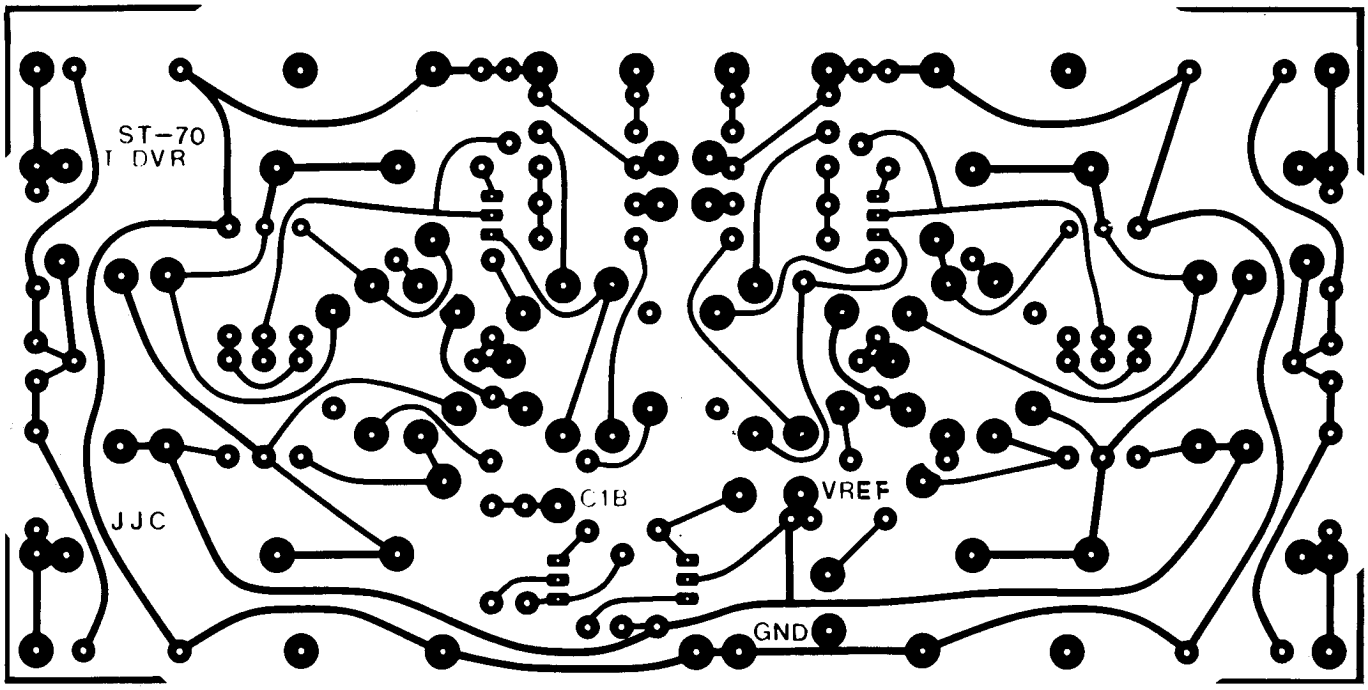

FIGURE 4a: Circuit pattern—Stereo-70 driver and regulator.

accumulate and lodge in the area between the phenolic and aluminum capacitor case, only to dislodge and cause havoc later.

Remove and discard the bias pots, selenium rectifier and 7199 driver board. Since the original wiring/insulation quality is questionable, I see little reason to save the original wire (unless you have difficulty obtaining new wire, which should be Teflon insulated, 18 AWG, non-magnetic).

Board

Using the component placement diagram (*Fig. 4*) makes the construction of the driver circuit board straightforward. Double-check all components with specified polarity (diodes, transistors, and electrolytic capacitors) for proper orientation. Since the 47kΩ, 2W plate resistors (R102/R202, R103/R203) will become warm in normal operation, allow space, approximately ¼-inch, between these resistors and the board.

The power supply/regulator circuit board component placement diagram is shown in *Fig. 5*. Most components on this assembly have a designated polarity, therefore proceed carefully and double-check your work. The current-limiting resistors (R2 and R3) must be spaced approximately ⅜-inch above the board surface. Normally they do not generate much heat, however, during a sustained short condition, they become quite hot and may become the sacrificial element. The plate regulator series pass transistor (Q2) may become hot (130°F) in normal operation depending on the AC line voltage, therefore, its heatsink (TO-3) should be spaced approximately 1/16-inch above the board.

I recommend you insert two 6-32 screws from the conductor side of the board, using "star" washers to ensure a reliable electrical connection, secured by a 5/16-inch nut on the component side. These will serve as the spacers. Drop the heatsink and then the transistor onto these screws, then the retaining nuts (¼-inch). Unless you are using this regulator board in an alternate application (requiring a different plate/screen regulator output than is specified here), you should omit the 5W zener reference diodes (ZD1–4 and resistor R1).

Chassis

Before you begin to reassemble your amplifier, remember that the effort you expend now in careful construction practices will have both sonic and aesthetic rewards afterward. Most of the connections you will be making involve high impedance/high level signal conductors susceptible to mutual coupling. Almost all contain lethal voltage levels. Dress your wires carefully (against the chassis) and solder thoroughly. Always check the insulation following the soldering operation to determine if it has been compromised. I strongly recommend Teflon insulation.

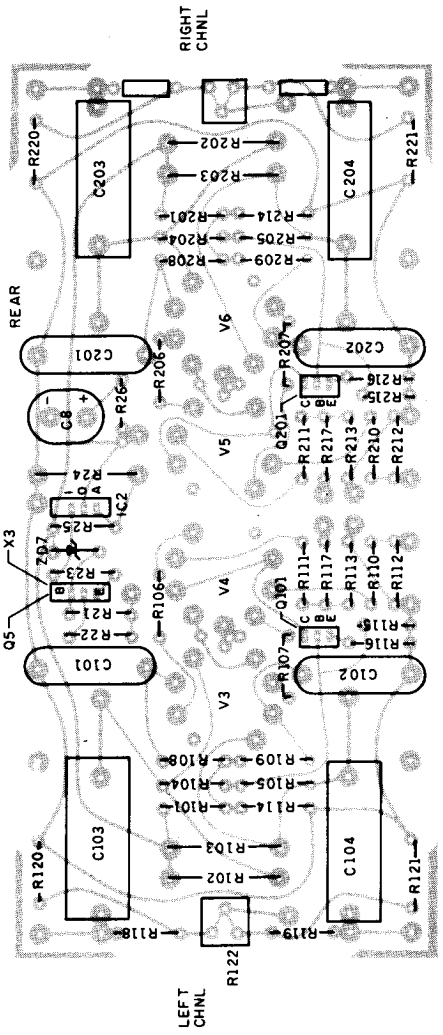

FIGURE 4b: Component layout.