

Five transistors, a relay and a few other components make up the loudspeaker protector circuit.

Figure 11

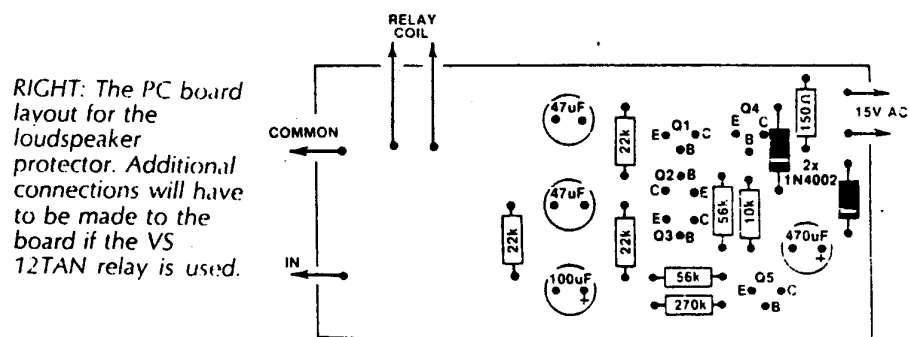


Figure 12

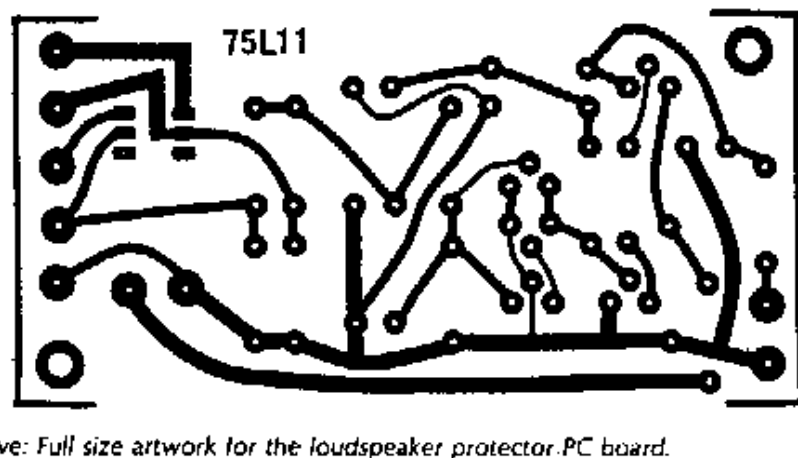
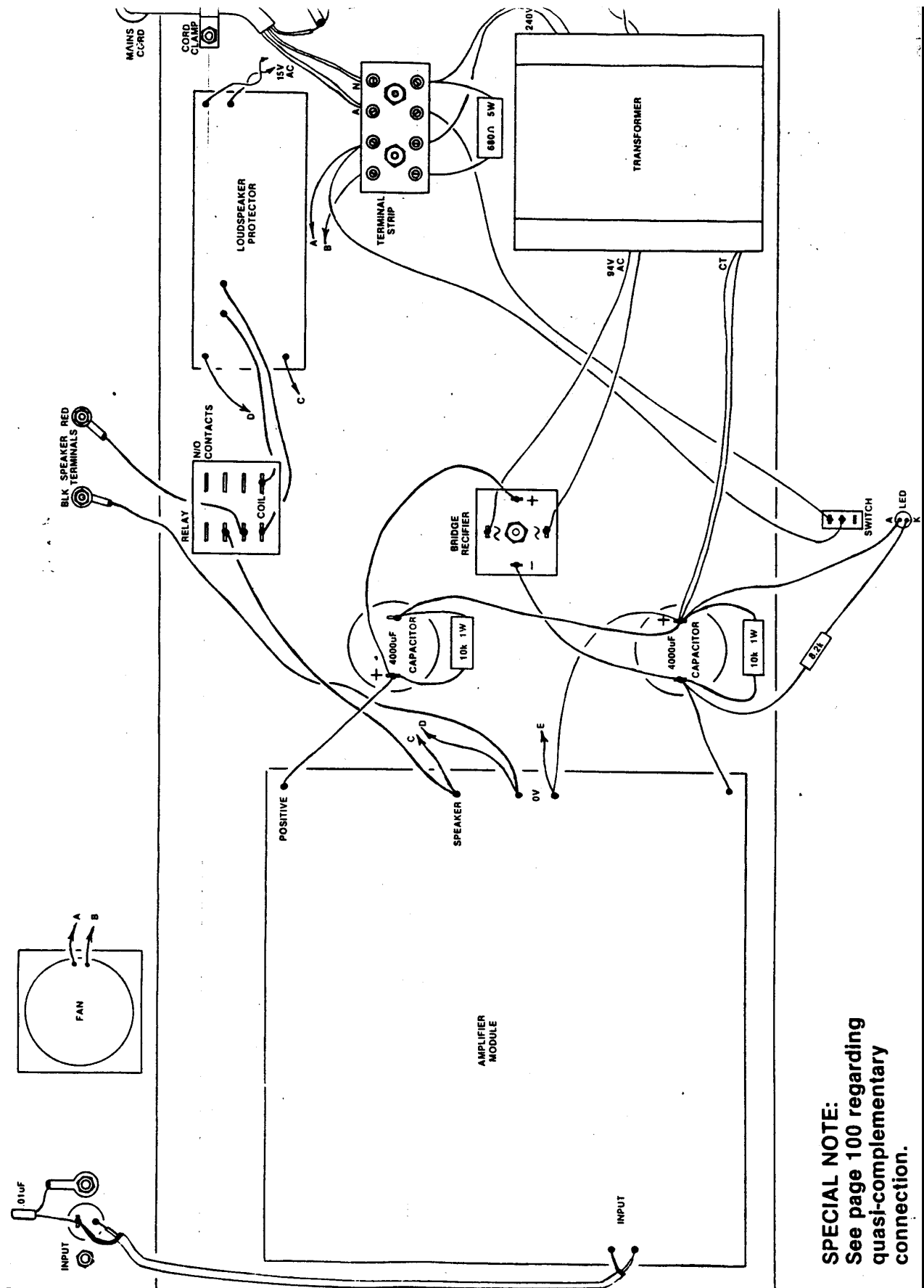


Figure 14

Above: Full size artwork for the loudspeaker protector PC board.



SPECIAL NOTE:
See page 100 regarding
quasi-complementary
connection.

Figure 13

PARTS LIST

LOUDSPEAKER PROTECTOR

- 1 PC board code 75L11, 102 x 51mm
- 3 BC547 NPN transistors
- 2 BC557 PNP transistors
- 2 1N4002 silicon diodes
- 1 470uF/25VW PC electrolytic
- 1 100uF/25VW PC electrolytic
- 2 47uF/50VW non-polarised electrolytics
- 1 12V DC relay, 10A contacts (see text)
- 6 PC stakes
- RESISTORS ($\frac{1}{4}$ or $\frac{1}{2}$ W, 5%)
- 1 x 270k, 2 x 56k, 3 x 22k, 1 x 10k,
- 1 x 150 ohm/1W

CHASSIS & HARDWARE

- 1 power amplifier module (see last month)
- 1 power supply (see last month)
- 1 483mm rack mounting case, 425 x 140 x 250mm (W x H x D)
- 1 80mm cooling fan (optional), see text

- 1 Scotchcal front panel label
- 1 SPDT 240V AC miniature toggle switch
- 1 5mm red LED and mounting bezel
- 2 14mm speaker terminal binding posts
- 1 RCA panel mounting socket
- 6 6mm brass spacers
- 1 22cm length shielded cable
- 1 8.2k resistor ($\frac{1}{4}$ or $\frac{1}{2}$ W, 5%)
- 1 680 ohm/5W resistor (see text)
- 1 .01uF polyester capacitor
- 1 mains cord clamp
- 1 four-way insulated terminal block

MISCELLANEOUS

Hook-up wire, 24 x 0.2mm core
heavy duty hook-up wire, machine screws and nuts, solder, insulation tape etc.

NOTE: Ratings are those used for the prototype. Components with higher ratings may be used provided they are physically compatible.

Figure 15