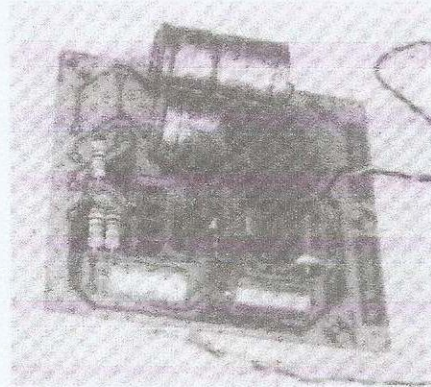


82 7 watt IC audio amplifier

(T6 . . . T10) functions in the same way. Transistor T11 functions as a noise source. The signal across R30 is amplified by T12, T13 and can be superimposed, via R35 and S1, upon the signal generated by the first astable. The signals from these three sources are passed, via controls P3, P6 and P7, to three tone filters. These filters include the tone controls P8, P9 and P10. Finally, the output signals from the tone filters are mixed (R45 . . . R48) to produce the desired noise effect at the output of T14.

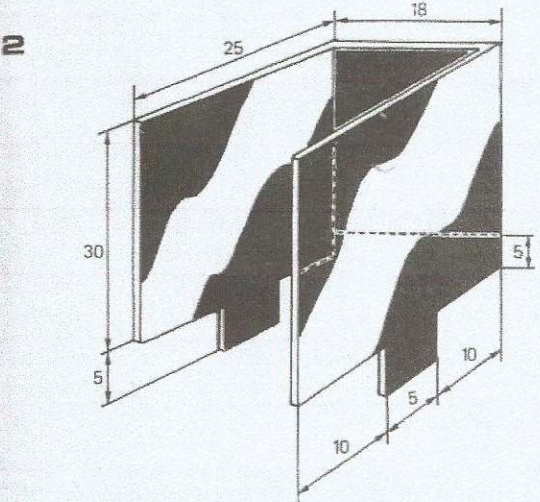
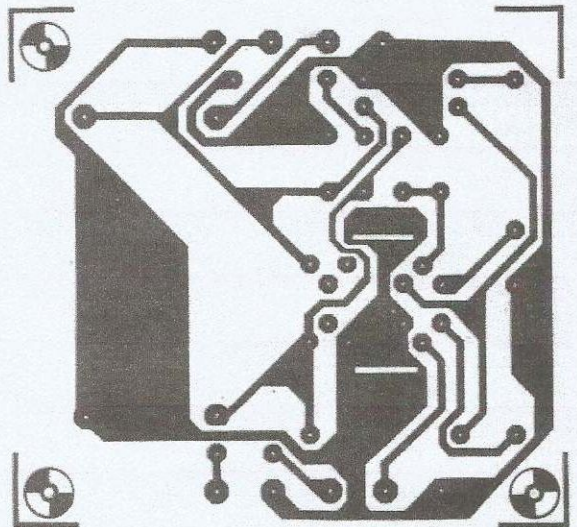
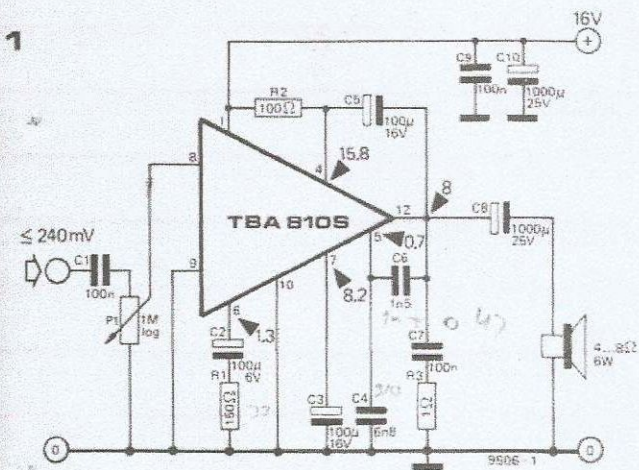


The input impedance is practically determined by P1 (1 M), so it is possible to connect a crystal cartridge direct to the input. If this high input impedance is not required, the value of P1 can be reduced.

There are two versions of the TBA810: the 'S' and the 'AS', with differently shaped cooling fins. The additional fin shown in the drawing is suitable for the 'S' version, but it will need some slight modifications to fit the 'AS' type. The frequency response is ± 3 dB from 40 Hz to 18 kHz. The voltages shown in the circuit were measured when the unit was powered with a 16 V power supply. Note that the pin numbers in the circuit do not take account of the cooling fin; the IC has a total of 12 pins.

Without any additional cooling, the IC can deliver 1 Watt into a 4 Ω load with a 6 V supply. With a sufficiently large cooling fin and a 16 V supply it can deliver up to 7 W into 4 Ω , the input sensitivity in this case is 240 mV. If 8 Ω loudspeakers are used, the maximum output power is about half.

82 The TBA 810 has been in production for several years, and by now the price has dropped to a very reasonable level. It has built in thermal and short-circuit protection circuits, so it should have a reasonable life expectancy.



9506 - 2 all dimensions in mm.

