

FIDELITY RADIO



Music Master (U. A. 2)

Circuit

THIS is a description of the right-hand channel. The left-hand channel is identical.

The output from the cartridge is fed into an impedance matching/equalisation network C1, R1, C3, before frequency response shaping by TR1 and its associated negative feedback components. The signal is then passed through the volume control. The network R17/C13 provides a degree of bass lift at low settings of the volume control.

Transistors TR3, TR5, TR6, TR9, TR10, TR13, TR14, are connected in a directly coupled quasi-complementary power amplifier circuit. D.C. quiescent output voltage is closely defined by the resistor chain R25, R19, R20 (R21 being negligibly small), and 100% D.C. feedback from the output via R36. Resistors R36 and R21 define the A.C. gain of the power amplifier, while capacitor C20 provides high frequency roll-off outside the feedback loop, providing adequate stability without impairing high frequency distortion characteristics.

The output network R46, C24, prevents the load seen by the amplifier from becoming too reactive at high frequencies.

TR5 is a constant current source providing high impedance drive to the output circuit.

Power is derived from a full-wave bridge rectifier W1, smoothed by capacitor C29.

C28 is in fact in parallel with C29, but is placed physically close to the output transistors on the printed circuit board to provide good high frequency decoupling around the output stage.

Dismantling

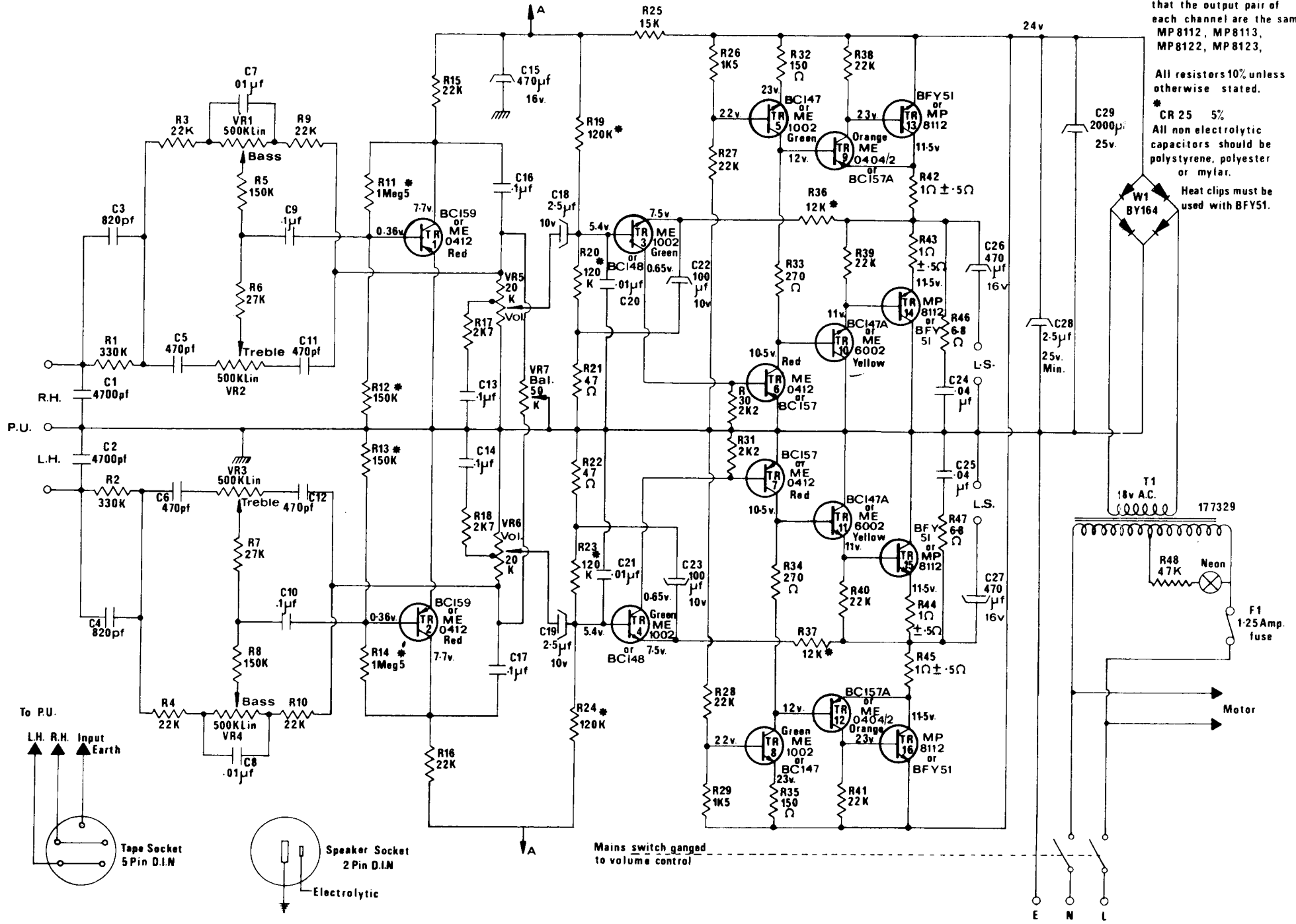
Removal of the base (by removing the four Phillips screws securing the feet), will give access to the underside of the record player mechanism and limited access to the amplifier chassis and rear socket panel. For most servicing requirements it will be necessary to remove the chassis and/or back panel. If this is necessary, proceed as follows:

Remove the screw securing the printed circuit board to the boss in the main moulding.

Remove the screws securing the front moulding to the main moulding. Four of these are located at the top of the unit, between the rear edge of the front moulding and the base of the autochanger mechanism. The other two are located underneath the unit, towards the sides of the cabinet.

The rear panel containing the loudspeaker output sockets and the tape recorder input/output socket is removed by releasing the six Phillips screws securing it to the rear of the main moulding.

Tape socket (5 pin D.I.N.).

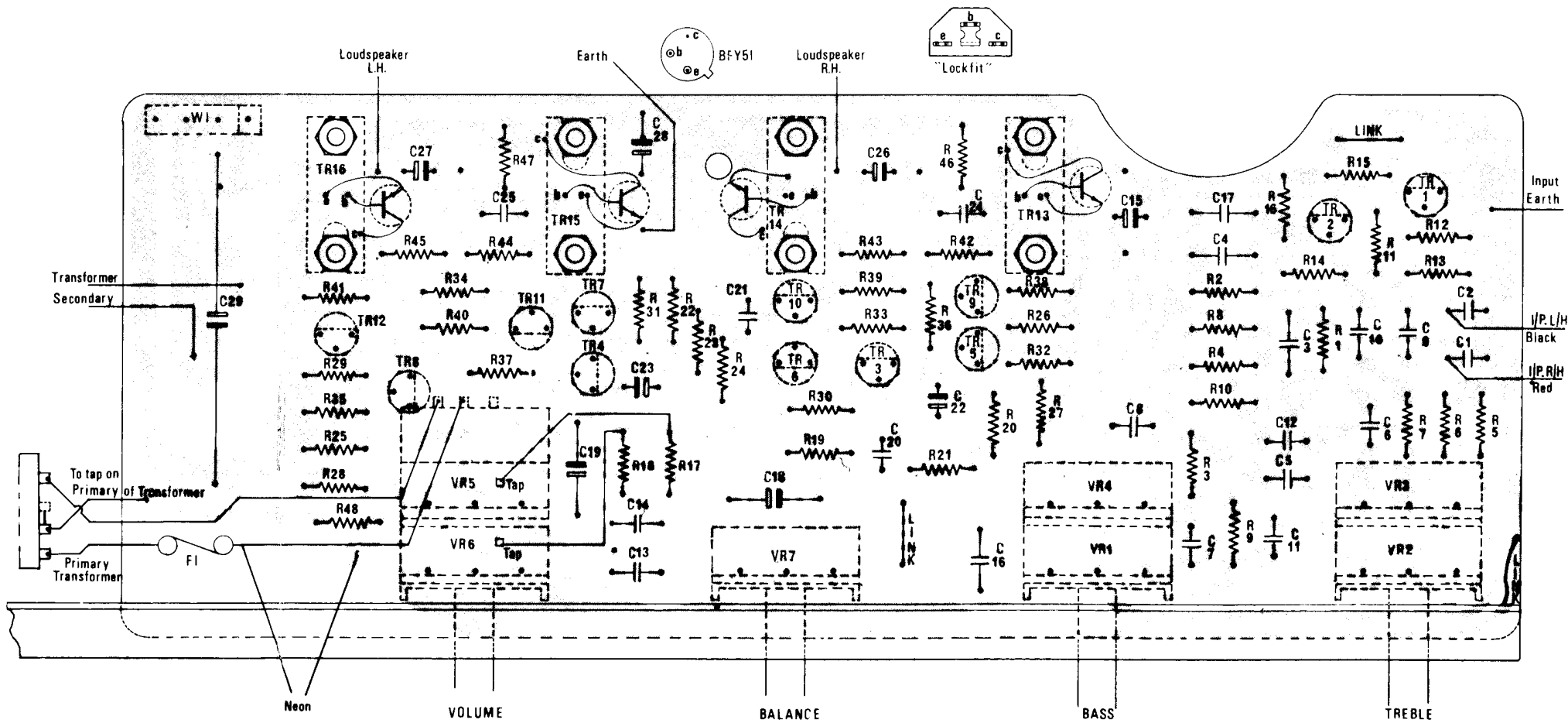


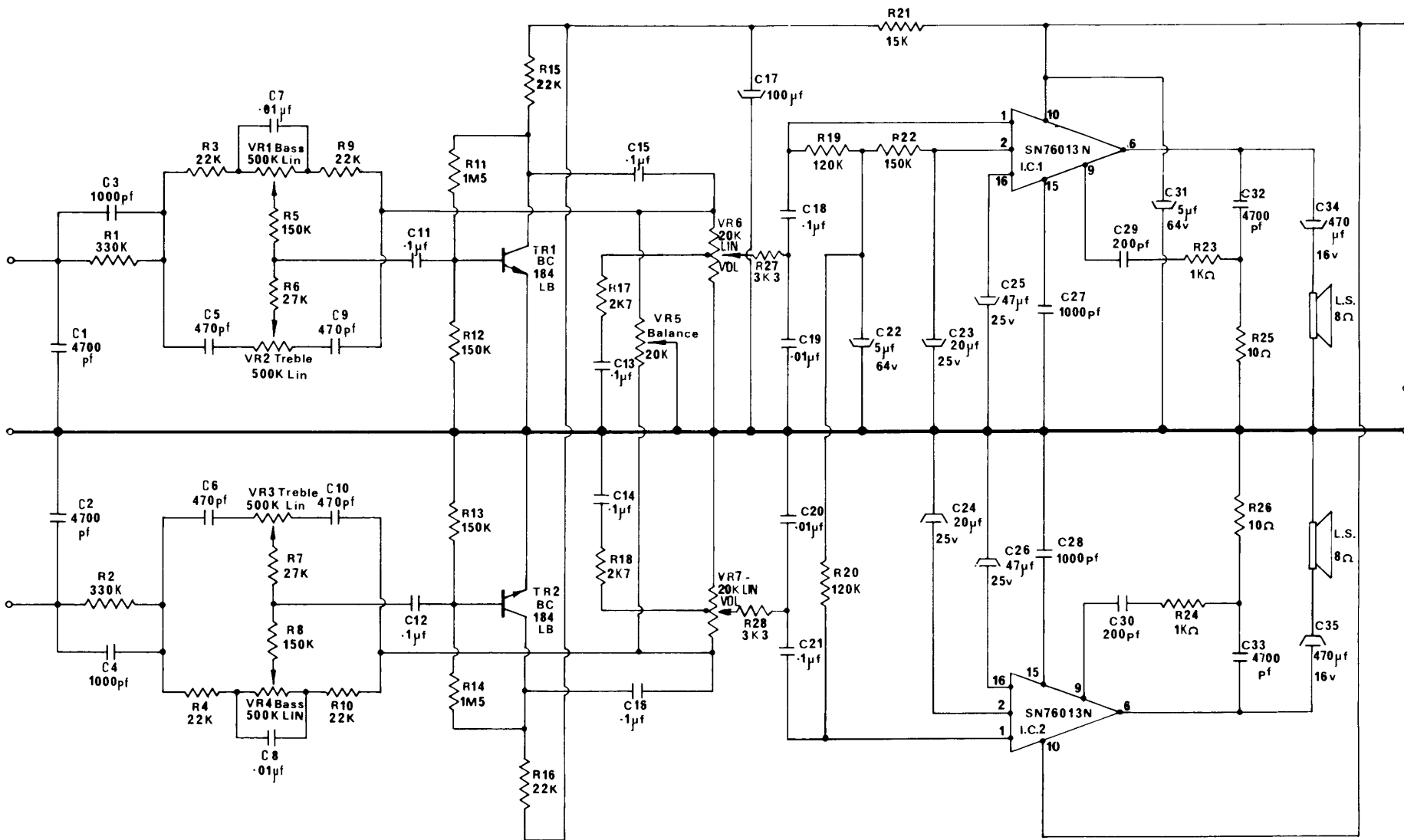
Note:
 MP8112 can be any of the following types, provided that the output pair of each channel are the same
 MP8112, MP8113, MP8122, MP8123,

All resistors 10% unless otherwise stated.

* CR 25 5%
 All non electrolytic capacitors should be polystyrene, polyester or mylar.

Heat clips must be used with BFY51.





(A.2 Mk. II I.C. VERSION)