

CONSTRUCTION DETAILS

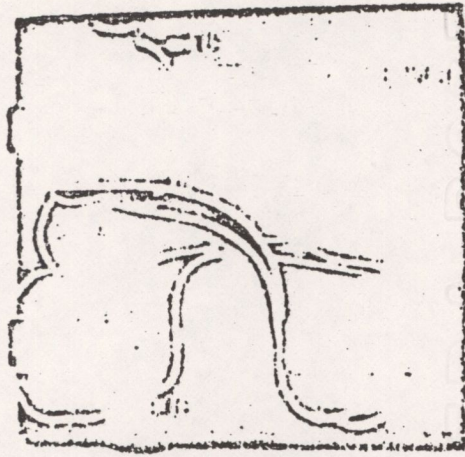


FIG 12b - KEYBOARD INTERFACE BOARD

This circuit can be built on breadboard or veroboard. The component arrangements for the veroboard design are illustrated in fig 12b. Sockets should be used for the three integrated circuits so that they are not damaged by overheating during soldering. Make sure that you break all of the copper strips as shown in the diagram. A 1/6" drill is suitable for this (see chapter 14 for some hints on construction). The circuit must be carefully wired up as in the full circuit diagram in fig 12a. The completed circuit board showing all of the components soldered into position, together with the interconnection wires is shown in fig 12b. The tips of the arrows on diodes D1 - D8 in the circuit diagram are normally represented by a band on the correct end of the components.

You will now want to connect some form of keyboard up to the circuit. The next chapter explains in detail how to connect up some joystick game controls. Alternatively, there are lots of full size keyboards available which could be connected up. The major problem here is that all of the keyboards tend to be wired in a different way. It is not therefore possible to give exact details for converting different keyboards in a book of this nature. The basic requirement is that the keyboard is rewired to conform to the Sinclair keyboard shown in fig 6. For example, the 'I' key must be connected between EKBD5 and EKBD11. The '7' key must be connected between EKBD5 and EKBD10 and so on. If this rewiring of a keyboard does not appeal to you, several large mail order companies will supply individual keyboard switches. It is fairly easy to mount these on a large piece of veroboard on a 5 x 8 key grid.

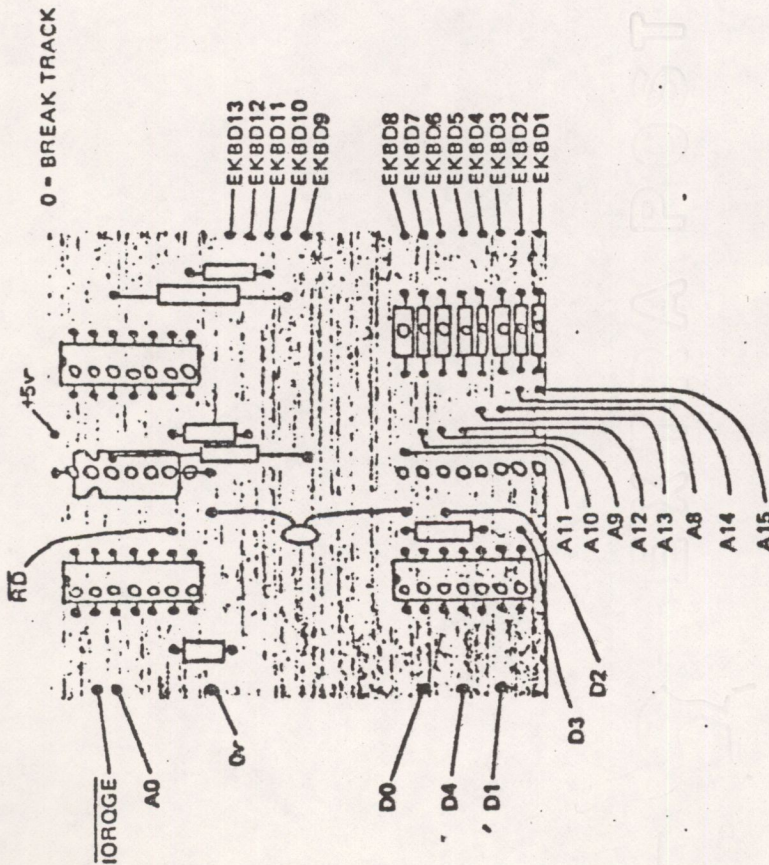


FIG 12b - ADDITIONAL KEYBOARD/JOYSTICKS COMPONENT LAYOUT DIAGRAM

