

switch. This can be to your choice, the front left or right hand side will be the most convenient, but you may prefer to use the back panel as the least damaging to your drive. If you have strong reservations about drilling a hole in your drive casing then you could leave the switch hanging out of the join in the casing when you put the top back on. ETP 2/8

At this stage we suggest that you put the top cover loosely on the base while the rest of the fitting is completed. It can be refitted after testing.

#### PART TWO... The '64

After disconnecting all connections to the '64 use a posidrive screwdriver to remove the three screws situated on the front underside of the '64, turn it back over and hinge the keyboard part upwards. Taking care to make a mental note of their positions, disconnect both the sets of wires leading from the keyboard to the circuit board. Both the connections are of the plug type and can be pulled off at the circuit board end. Some '64s have, what looks like, a large piece of tin obscuring the circuit board (it is in fact a heat sink). If you have one of this type then this must be removed by removing the retaining screws. Referring to diagram 2 locate the position of the kernal chip. This may be either soldered in or fitted into a socket, as was the case with the chips in the 1541. If the chip is on a socket remove it and replace it with the other circuit board provided, ensuring that the notch on the chip fitted in the board is to the rear of the computer.

If the kernal chip is soldered in then it is necessary to remove it and fit a socket in the space. To do this you will need to remove the circuit board of the '64 from its mounting by removing the screws that locate it to the base. To desolder the chip in question you will need a soldering iron of around 25 watts and a solder sucker. Do NOT attempt this part if you don't have a solder sucker or if you don't feel confident in doing it. From the underside of the board heat up one pin of the chip at a time and when the solder is molten use the sucker to remove the solder. Do this to all pins repeatedly until the chip is free. Once the chip is out give the area vacated a good inspection and remove any surplus bits of solder that may be present. When the position looks ready insert the socket provided into the board and solder it in, taking care not to apply too much solder. When it is in inspect the work to ensure that all pins are soldered correctly and that no excess solder is bridging any pins or tracks. When you are happy with the job refit the board into the base and then fit the small board into the socket with the notch on the chip to the rear of the computer. The switch that trails from the board can be mounted in a convenient position on the back panel or left to trail out through the cassette port. The '64 can now be reassembled.

#### .OR THE '128

Owners of the CBM 128 can follow the general instructions for the '64. Removing the case involves removing 6 screws, the top can then be removed with a firm touch as it also clips together at a point level with the top row of keys of the keyboard. The heat sink requires the removal of another 6 screws so that it may be taken out of the casing. With the circuit board now exposed refer to diagram number 3 and ascertain the position of the '64 kernal chip. Remove this and replace it with the '128 Dolphin DOS kernal. Take care that the notch is towards the front of the computer. If your new kernal chip is on a circuit board it is the '64 type and must be exchanged. The unit can now be reassembled.

THE '128 KERNAL IS DIFFERENT TO THE '64 VERSION

#### TESTING

Now that you have the parts fitted reconnect the '64 to the power supply and monitor/TV and switch on. It should start up as normal but depending on which position the switch is in you will get either the standard CBM start up message or a message that includes the presence of "Dolphin DOS 2.0". Switch the '64 off and try the other position and check that everything is satisfactory. If not you will have to go back and check over everything that you have done.

When you are happy with the '64 switch off and reconnect the 1541 as normal, plus the parallel cable connector to the user port with the side marked "TOP" uppermost. Switch the '64 back on with the switch in the position that gives the "Dolphin DOS 2.0" message. Now switch on the 1541 and press F8. You will get one of two responses depending on the position of the new switch on the 1541. If you get "SYNTAX ERROR" switch the drive off again, alter the position of the new