

PROTECT IT!

BUILD A SWITCH FOR YOUR 1050 DISK DRIVE

Before you read any further, please bear in mind that any modification or alteration to your Atari equipment, other than that completed by authorised service agents, renders any guarantee null and void. But if your equipment is more than 12 months old or you want to modify and "risk it", then read on.

This modification to your 1050 disk drive will allow you to write to both sides of a disk, without having to remove the write protect tabs - just think, no more sticky glue marks on your disks, and you can forget about notchers, hole punchers and razor blades. It makes writing to the disk easy as pie, but beware - as with all good things there is always a snag!! It is so easy to use you can forget to check the LED colour and overwrite your master disk!! Disaster!!!

For those dedicated Atarian's who are still with us and who haven't chickened out, I can say that I have used this protect switch set up for the last two years without losing a single disk of data.

TOOLS YOU WILL REQUIRE

- Small 15 watt soldering iron and solder
- Pointed nose pliers
- Small crosshead screw driver
- and, most importantly, a clear work bench

CONSTRUCTION

A parts list is shown at the end of this article, descriptions are given together with the code number of each item, which can be found in the current 1990 Maplin electronic component catalogue.

The first task is to construct the switch and LED wiring harness and then to fit it into the drive. Take the length of 10 way ribbon cable and separate 3 wires from it, cut from this a three inch length, trim the 3 wires for about half an inch at

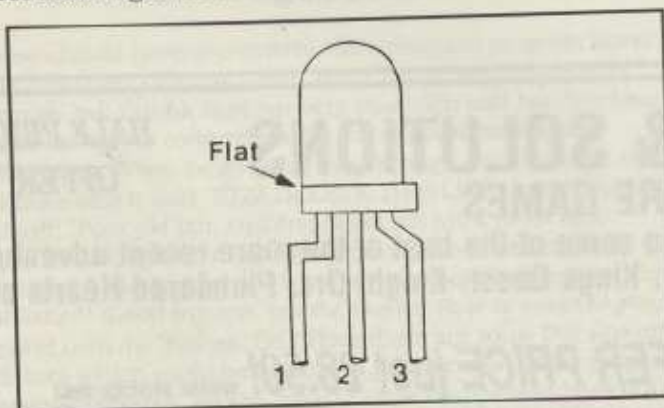


FIGURE 1

each end of the 3 inch piece. Strip the insulation back about 5 mm on each wire (at both ends) and tin the wires with solder ready to be soldered in position.

Cut eight quarter inch pieces off the heat shrink sleeving, and put 3 of them onto each wire, (at one end only), well back down the wire so that the tinned part still shows.

FIGURE 1 shows the multicoloured LED with its pins marked 1, 2 and 3. Note also the position of the flat on the LED's case. Solder one end of the wires to the legs of the LED, one wire to leg 1, another wire to leg 2 and the remaining wire to leg 3.

Slide the heat shrink down over the joints, apply a little heat and the sleeving will shrink and protect and insulate each joint. Each leg of the LED must be isolated from the others.

Take the remaining length of three wires and cut off 16 inches if switch and LED are to be fixed externally or 12 inches for internal fitting. Strip and tin the wire ends as before, both ends. On one end solder the three Minicon terminals and insert them into the Minicon housing. Figure 2 shows the correct positions for the 3 wires in the 4 way housing. You should now have an LED with 3 wires attached and a Minicon connector with 3 wires attached.

Now you must connect these to the switch. Referring to Figure 3 you can see where the six wires should connect to the switch. First though, locate the wire designated 2 on the LED and the wire designated 5 on the Minicon and twist the two tinned ends together, solder them into one connection. Now you only have 5 wires to connect to the switch which can be seen in Figure 3. Take the remaining 5 sleeves and push them over the 5 wires (including the paired wires).

Now solder each wire to the switch in its designated place. Be very careful here, make sure you get it right. As you solder each wire in place, pull down the sleeving and heat shrink in position. You should end up with a completed assembly as shown in Figure 4.

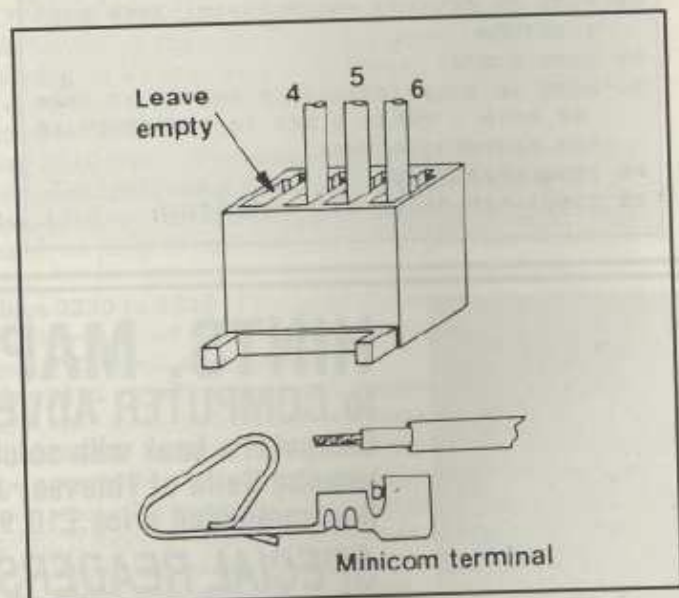


FIGURE 2

FITTING

At this stage you can either fit the assembly inside the 1050 case or fit it into a box that can be attached to the side of the drive with double sided pads.

To fit internally, turn your drive upside down and remove the 4 cross head screws located on each corner of the base. While holding case together turn the drive right way up and remove the top cover by lifting from the rear.

Looking into the drive from the front, you will see 5 brown connecting blocks at the left rear (they have lots of wire going to them from the top mechanism). Locate plug J11, its the one nearest the front.

Carefully remove plug J11 with a pair of long nosed pliers - do not pull it out by the wires, they are very delicate. Once unplugged you can just leave it disconnected, it should not interfere with the operation of the drive. You could tape it to the side if you are worried. Insert the Minicon plug you have just made into J11, ensure the pegs on the base of the Minicon housing are pointing inwards towards the centre of the drive.

Remove the dark grey front surround plate and lay to one side. Using Figure 5 as a guide, decide on the best positions for the LED and the switch. Drill a 3/16 inch hole for the switch and a 9/32 inch hole for the LED holder. Insert the switch into it's hole and fix with the nuts supplied, insert the LED holder into its hole in the front plate and fix with the washer and nut from the rear. Place the front surround back in position and reassemble the drive case.

If fitting the mod externally, feed the cable from the switch around the case and enter via the drive select switch at the rear, then insert the plug as described earlier.

TESTING

Power up the drive, the LED should either be RED or GREEN. If not your connections may be suspect. Move the switch until the LED shows RED. Insert a DOS disk and try to format, if all is well it won't be able to do this, and will error out!! Now set the LED to GREEN, now when you format all should be normal.

Remember RED IS PROTECTED, GREEN IS UNPROTECTED.

Page 6 acknowledges Derek Fern as an 'expert' on Atari hardware and has no hesitation in recommending this modification, however we can accept no responsibility for any damage caused if any reader should attempt this modification.

PARTS LIST

MAPLINS code numbers as shown as their 1990 catalogue

MULTICOLOUR LED	YH75S
LED HOLDER	YY40T
ULTRAMIN DPDT SWITCH	FH99H
MINICON HOUSING 4 WAY	HB58N
MINICON TERMINALS 3 OFF	YW25C
RIBBON CABLE 10 WAY 1 METRE	XRO6G
HEAT SHRINK SLEEVE	BF87U

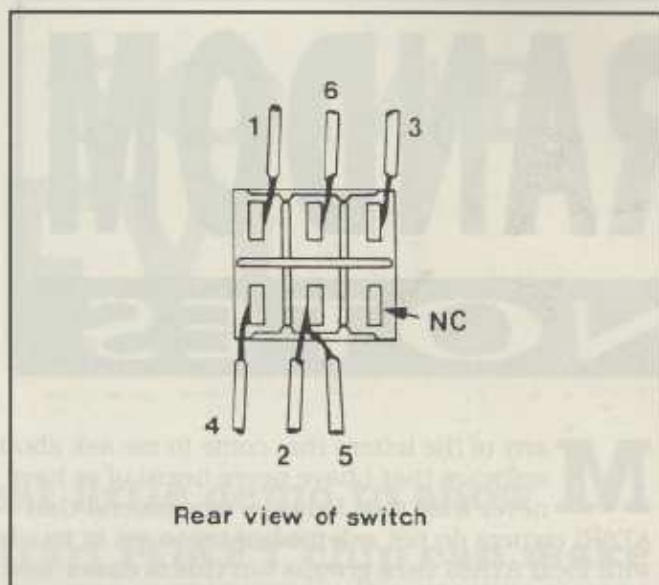


FIGURE 3

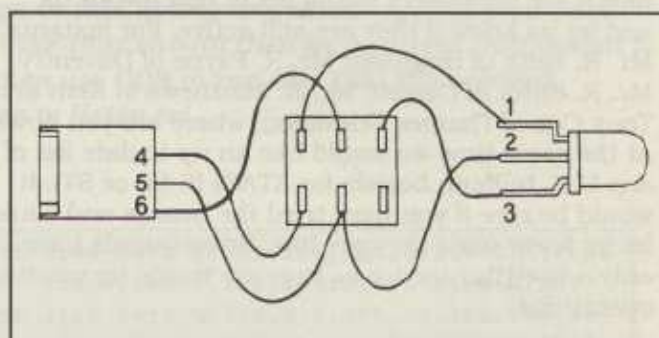


FIGURE 4

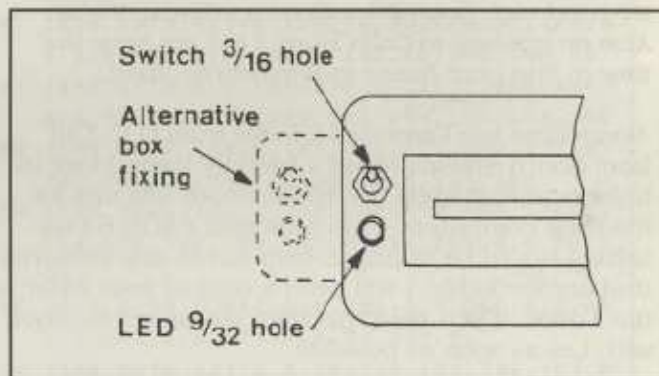


FIGURE 5

Article by Derek Fern

BUILD IT OR BUY IT?

All the components used are readily available from your local stockist, or you can try Maplins, I have quoted their part numbers to assist identification. If however you are not the type to build your own kit, contact me and for £6.50 plus £1.00 postage and packaging, I will supply you with a ready built and tested kit.

Telephone 021-353-5730 for further details.