

Updating500

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WRITTEN BY		August 24, 2024	

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Chapter 1

Updating500

1.1 Updating Your Amiga 500

Updating Your A500

This file tells you how to:

Update your kickstart from 1.3 to 2.04

How to modify your A500 to give you 1MB Chip-ram &
Adding in a switch to switch between 0.5 Chip 0.5 Fast / 1Mb Chip Memory

Opening up your Amiga 500:

The first thing you have to do with your old A500 is unscrew the case. A fairly simple job, because it's held together with three screws at the front and back. The tricky bit is that some A500s have hexagonal (TorX) screws, but the majority of them have the more familiar Phillips screws.

Once the screws are apart, it's time to take off the top cover. This is a fairly tight fit, so don't be afraid to give it a good tug. You should be down to the shield, an inner metal case which provides a shield from radio signals, confusing the computer and vice-versa.

A gentle tug on the ribbon cable going from the keyboard to the computer's circuit board will let you take the keyboard off. Note the colours on the wires - it appears that the purple wire is always on the right-hand side, but your system may well be the exception of this rule.

Removing the shield is pretty easy to do - just undo the four screws that are holding it down and use a pair of pliers to ease up the metal tabs which keep the upper part of the shield attached to the lower half. Once the tabs are bent straight, then simply pull the upper shield off.

Updating your Kickstart:

This modification is well worth it as you will be able to use Workbench 2.04 software as well as Workbench 2.04 which is far better than Workbench 1.3 and is the easiest update you can do to your Amiga, so long as it's a fairly recent revision 6 or 7 A500 or any B2000/A1500. You can check the

revision number by looking on the left-hand side of the circuit board, It's written near the words B52 Rock Lobster. It's really just a case of whipping out the old chip and putting in the new one. To find the kickstart chip look for the chip with a little Commodore symbol on it, it's located near the edge connector.

All you have to do is simply prise out the old ROM chip with a flat-bladed screwdriver. The chip is not very tall - just slip the screwdriver into the gap at the end, between the chip and the socket below it.

Gently apply pressure until the end starts to rise, then apply pressure to the other end. Eventually the chip will pop out. Put the new chip into the socket. Check and recheck the pins are lined up with the holes, and apply pressure to the top of the chip to ease it into place.

For the technically minded, I can tell you the changes needed to use a new ROM with an older version 5 or 3 A500. The ROM socket needs two minor changes: pin 1 must be connected to the A18 signal, and pin 31 must be connected to the +5V signal.

I'm deliberately not giving a procedure for this, as it's fairly complicated and you're really better off getting a professional to do it. Another reason is that I haven't actually tried it yet (all the other modifications listed have indeed been tried out). Remember, this problem only happens with revision 3 or 5 A500s.

It is possible to buy a kickstart sharer board and fit this board in your Amiga, and flick between the different version of Workbench while the computer is turned off. It may seem a little silly, in view of everything being made to work with the A500+. On the other hand, if you have some programs that you need and they don't work with Workbench 2, it could be right up your alley.

How To Modify Your A500 to get 1MB Chip Ram:

As you may or may not already know, an A500+ has 1MB chip memory, but the A500 has 0.5Mb Fast / 0.5Mb Chip memory. This tells you how to update your A500 to 1MB chip so that it's the same as an unexpanded A500+.

Programs tend to run a little faster in fast memory (hence the name), but Chip Memory is essential for graphics and sound samples and there are quite a few games which make use of the 1MB Chip memory so that you get better graphics and sound, etc. Also you'll need 1MB chip memory if you're thinking of buying an A570 CD Rom Drive as this needs 1MB Chip memory. Right, here's how to do the modification.

Firstly, I'd like to state that the speed of the chips on your trap-door memory expansion are quite important. Some older Commodore A501 trapdoor memory expansions (the ones that used to cost £150 for 0.5Mb!) operate too slowly. Look at the last couple of digits on the numbers printed on the chips on your expansion. They should be as low as possible, specifically 08 or 10. If it's 15 then it's too slow to keep up with the internal chip memory, and you need a new expansion board (or some faster chips at any rate).

The most important part of modifying your computer is realising that it doesn't in itself add more memory to your machine. An A500 with only 0.5Mb of Ram isn't transformed into a 1Mb machine by soldering a few tracks.

You therefore must have at least 1Mb of memory. This can either be on the motherboard itself (in the case of revision 6A or 7 A500s) or a completely normal memory expansion underneath the trapdoor slot. It doesn't really matter which route you take, although having all the memory on the board is aesthetically pleasing.

There are two operations in getting 1Mb of Chip Ram. This first is to locate JP2 - it's near the Kickstart ROM socket on all A500s, the exact location does vary. JP2 always consists of three solder pads, two of which are joined by a trace. You have to cut this trace, and solder the other two pads together.

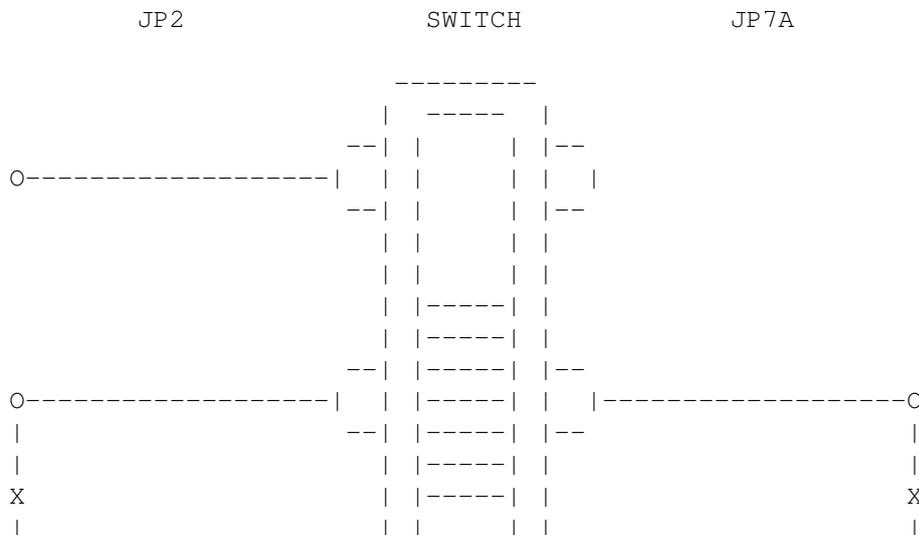
When I say 'cut', I don't mean you have to dig dirty great holes in the circuit board. A simple slice or two with a stanley knife will suffice. All you're trying to do is prevent an electrical signal from running across the trace.

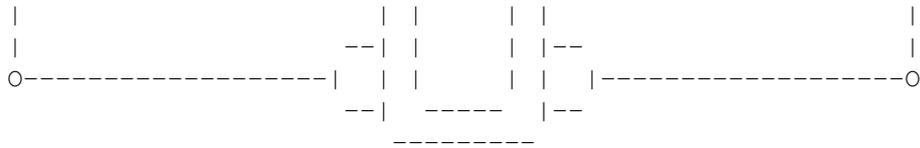
Once that little chore is out of the way, you have to find JP7A this is located near the pins at the trapdoor. Now this is clearly marked only on revision 6A machines (sorry but revision 5 owners may have a problem as this track isn't marked on revision 5 machines as the magazine shows a photograph of where you can locate the track).

The thing you have to do with JP7A is to cut it so that again no signals can pass through the trace.

After doing the modification you could add a switch if you like so that you can switch between 0.5 Chip/0.5 Fast and 1MB Chip memory. For this you'll need a DPDT switch and five bits of wire. The purpose of this is that some older software requires some fast-ram which means some older games may not work anymore. Here's how to add the switch.

Cut the trace between the outer and middle pad (indicated as an X) and solder between the outer and middle pad - so break the connection that's there (indicated as an X) and make one between the oppsite pad and the middle. You can mount the switch where it's easily accessible by drilling a hole in the Amiga casing. You can do this using a tool called a reamer, or an electric drill if you've got the right drill bit.





X = CUT TRACE

SWITCH UP = 1MB Chip RAM
SWITCH DOWN = 0.5MB Chip/0.5MB Fast

N.B Make sure the computer power supply is SWITCHED OFF before flicking the switch. If you don't you could cause a system crash, or even worse bugger your Amiga !

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