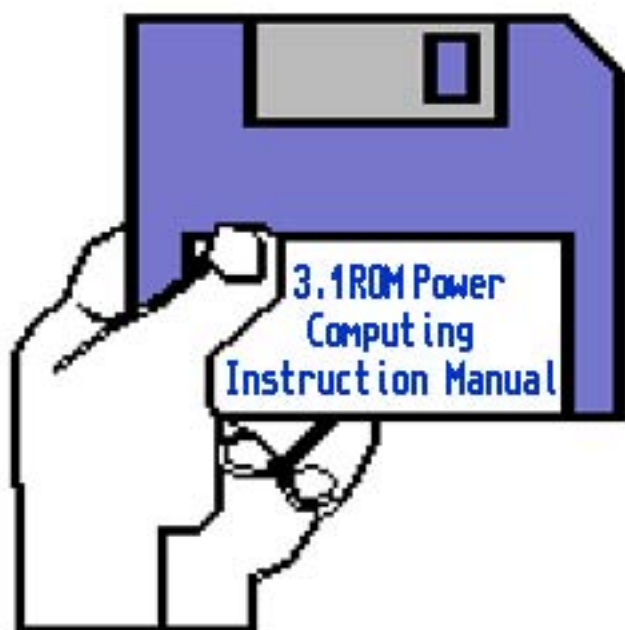


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P O W E R

COMPUTING LTD

3.1 ROM

for

A1200

A500

A600

A500 Plus

A1500

A2000

A3000

A4000

Installation Manual



P O W E R
COMPUTING LTD

3.1 ROM

Installation Instructions

Please read the following carefully

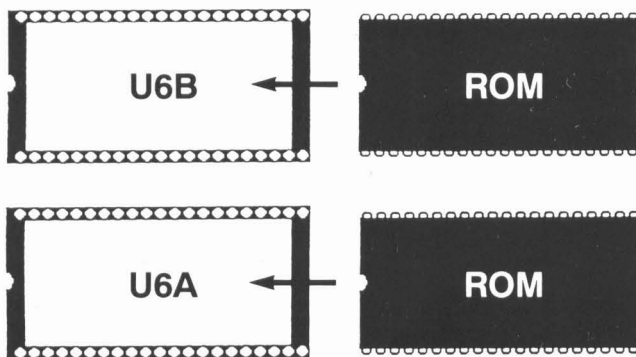
The following installation sequences should be performed by an authorised Amiga Technologies service centre, or by your Amiga Technologies dealer, i.e. Power Computing. Neither Amiga Technologies nor Power Computing will be responsible or liable for any damage caused by incorrect installation of the ROM chips.

Please take full static precautions when installing the ROM chip(s), as they are sensitive to static electricity. To help reduce static levels touch a nearby-grounded metal surface before touching the chip(s). For example a radiator, but not a painted metal surface.

Prior to installing any expansion device, you must disconnect the Amiga from the power supply and ensure that all cables for external peripherals are also unplugged from the Amiga.

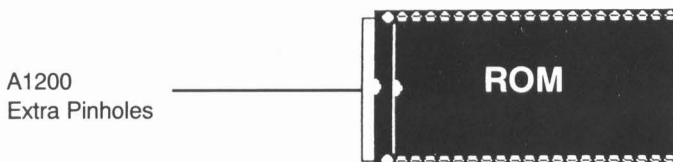
AMIGA A1200 INSTALLATION

- The A1200 should be placed keyboard-side down on a flat surface.
- There are five screws that have to be removed from underside of the case.
- The computer should be placed back to it's normal position. Flip back the top cover and remove the keyboard ribbon cable and LED lights before removing the keyboard.
- The main circuit board which is protected by a shield, is now in full view along with the ROMs. The Operating System ROM ICs are labelled and located at position U6A (lower) and U6B (upper), just left of the trapdoor slot. See overleaf.
- It is important to note the orientation of the old Operating System ROMs prior to removal.



Important

The ROM sockets have extra pinholes. To ensure correct installation you should align the ROMs to the right of the sockets, leaving the spare pinholes to the left. See below.



- Align the 3.1 ROMs with the sockets U6A and U6B and press firmly into place.
- The ROM installation is now complete.

AMIGA A500/A600/A500 PLUS INSTALLATION

- Place the A500 unit keyboard-side down on a flat surface.
- Remove the six case screws using a Torx or Phillips screwdriver.
- Turn the unit right side up. Remove the top cover by grasping at the rear corners and lifting.
- The orientation of the components should be noted at this point. Remove the keyboard unit by pulling the keyboard cable harness straight up. If there is a ground strap attached to the keyboard, detach it. Put the keyboard to one side.
- You are now presented with a metal shielding which should be removed using needle-nose pliers or a similar tool to straighten the four tabs which secure it. Now, remove the two screws located at the front of the circuit board and two on the left side of the circuit board. Remove the top shield by lifting straight up. Put the shield to one side.

Warning

The metal shielding is very sharp and can cut your fingers.

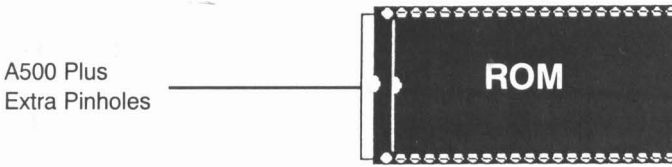
- The Amigas Motherboard is now showing. The Operating System ROM is located at position U6, just to the right side of the 68000 CPU chip. The old ROM should be marked 315093-01, 02, or, if your system is already upgraded, V2.04 (37.175).
- Note the orientation of the old Operating System ROM, which should be indicated by notches on both the chip and the socket. Remove the old ROM using a flathead screwdriver to gently prize either end of the chip from the socket.

Important

There are some differences in the revisions of the Amigas motherboard. The installation differs depending on the revision. (This revision number is located in the front right corner on the motherboard).

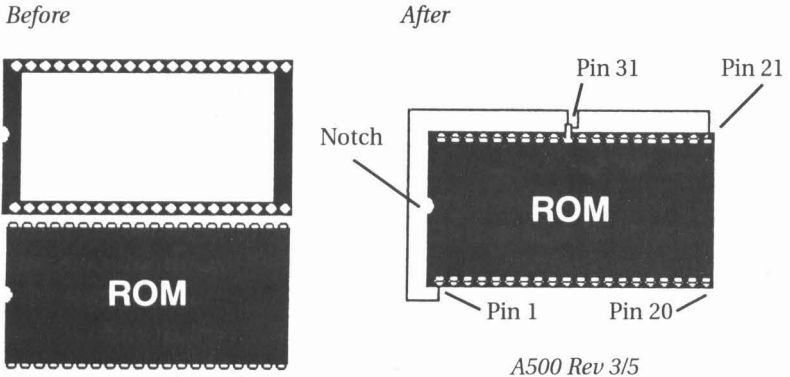
- For revision 3 and 5 boards, the ROM socket must have pin 1 connected to pin 31 and the ROM chip must have pin 21 connected to bent-up pin 31. See figure 1.
- For revision 6A and above, the ROM must not have any connections.

- For all A500 Plus owners, the ROM socket has extra pinholes and the ROM chip should be placed to the very right of the socket (shown below).



- Align the 3.1 ROM with the socket U6 using the notches as a guide (see below) and press firmly into place, taking care not to bend any pins.
- ROM installation is now complete.

Figure 1



AMIGA A1500/2000 INSTALLATION

Note:

If your machine is an A1500, please refer to the fitting instructions for the A500 after reading the disassembly instructions shown below.

- You must first take the top cover off by removing one screw on the back and two on each side which secure the top cover to the main assembly. Turn the computer so it faces you, grasp the sides of the top case and carefully slide it towards you and up.

- Next, the power supply needs to be taken out by removing the seven screws that secure it. The drive assembly also needs to be removed at this point. Now remove cables from the power supply and lift the power supply out of the way.

Important notes for machines equipped with A2620/30 boards:

If your A2000/1500 includes an A2620 or A2630 accelerator board, you may need to upgrade the ROM chips on those boards depending on their revision. The ROM chips at positions U4 and U5 must be revision -06 or higher. Please note that these ROMs may not be available anymore.

You can check the revision without opening the case by doing the following: At the processor selection screen, press SHIFT-M to enter the A2630 monitor. Using the version command from the Monitor, check the date on the chips, which should be 01/15/91 or later.

If you find that the ROM chips are old you will need to obtain upgraded ROM chips which are: LowROM #P/N 390282-06 and HighROM #P/N 390283-06.

Remove the A2620/30 accelerator board from the Coprocessor slot. On the A2620/30, remove the chips located at positions U4 and U5. Keep these ROMs in a safe place. Insert the LowROM #P/N 390282-06 in location U4, and insert the HighROM #P/N 390283-06 in location U5. Ensure that the notches on the ROM IC's line up with the notches on the sockets, then press firmly into place. Take care not to bend the pins. Re-insert the board and test the system before proceeding with the ROM installation. Note the above does not refer to the OS3.1 ROMs.

- Locate the Operating System ROM (see below). The old ROM chips should be marked 315093-01, -02 or, V2.04 (37.175). Note the orientation of the old Operating System ROM, which should be indicated by notches on both the chip and the socket. Remove the old ROM using a flathead screwdriver to gently prize either end of the chip from the socket. Do not discard this ROM chip.

IMPORTANT:

There are different versions of the A2000 motherboard. The installation differs depending on the motherboard version.

- Older machines are marked on the left side with *1989 COMMODORE

AMIGA 2000 and MADE IN GERMANY (BSW). The Operating System ROM, marked U2, is located to the right of the 68000. Note that pin 1 faces forward.

- For these boards, the ROM chip must have pin 1 connected to pin 31. See figure 1 for pin configuration.
- Newer A2000 motherboards are marked b2000-CR in the lower-left corner. The Operating System ROM, U500 is located just to the right of the 68000 and below Fat Agnus. Pin 1 faces rear.
- For revision 3 boards, the ROM socket must have pin 1 connected to pin 31 and the ROM IC must have pin 21 connected to bent-up pin 31. See figure 1 for pin configuration.
- For revision 4 and above, the ROM IC must not have any connection
- Align the 3.1 ROM with the socket and press firmly into place. Take care not to bend the pins.
- Installation is now complete.

AMIGA A3000 INSTALLATION

Removing the cover

- Remove the five screws that secure the top cover of your system.

Note for A3000T users:

Remove the left side panel of your A3000T then continue with section: Installation of the ROM Chips.

- Turn the computer so that it faces you, then pull the sides of the top case and slide it towards you and up.

The Sub-Chassis - How to remove it

- Locate the S-shaped clamp found in the middle of the expansion-daughterboard
- Carefully lift up expansion-daughterboard.
- Locate and remove the isolation.
- Remove the S-shaped clamps.
- You now need to remove the screws, which secure the power supply sub-chassis and drive.
- Carefully lift up the sub-chassis

Installation of the ROM Chips

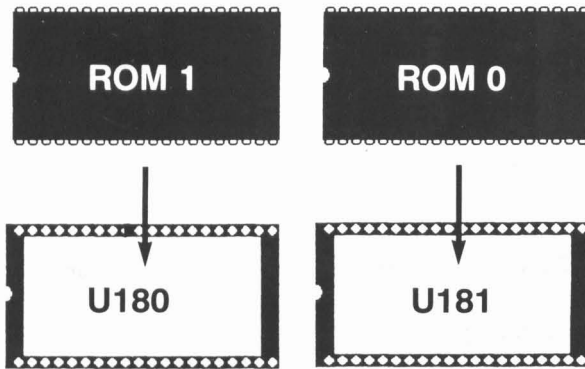
- The ROMs are located at the rear-right of the motherboard.

Note for A3000T users:

If your system is an A3000T, the ROMs are located between the power supply and the drive bracket to the front of the drive connectors.

Some A3000s have their ROMs situated on an adapter board that are installed upside down. The ROMs should be installed as described below.

- It is important to note the marking and orientation of the installed ROMs, prior to removal.
- The ROM 0 should be inserted in the ROM-socket marked as U181. The ROM 1 should be inserted in the ROM-socket marked as U180. See below.



- Align the ROMs with the socket in their correct marking and position. Press firmly into place.
- The installation is now complete.

AMIGA A4000 INSTALLATION

Removing the cover

- There are two screws located at the upper corners at the rear of the main unit.
- Push the cover on both sides and slide it backwards and up.

Removing the front bay

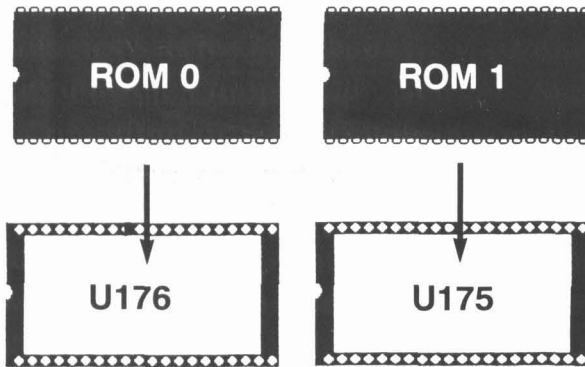
- You will now have to remove the front faceplate by squeezing and pushing the plastic tabs that hold it to the metal chassis.
- The ribbon cables and power cables that are connected to all devices can now be removed.
- It is important to note the orientation of the old Operating System ROMs prior to removal.

Removing the processor module

- The A4000 CPU slot is located on the right side of the motherboard. The processor module occupies this slot, which is mounted horizontally and parallel with the motherboard.
- Use your fingers to hook under at either end of the slot and lift.

Installation of the ROM chips

- The ROMs are located at the front left of the motherboard, left of the CPU slot between oscillator and the RAMSEY.
- The left ROM socket is marked as U176; the right ROM socket is marked as U175. Note the ROM chip orientation and then remove carefully with a small flathead screwdriver. See below.



- Align the ROMs with the socket in their correct marking and position. Press firmly into place.
- The installation is now complete.

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