

ARCHIMEDES ARTHUR ROM FITTING INSTRUCTIONS

This leaflet tells you how to upgrade your Archimedes 300 Series to version 1.2 of the Arthur operating system. It is not difficult to carry out the upgrade. All you need to do is to:

- Remove the top cover of your Archimedes
- Remove the system ROMs (four integrated circuits)
- Carefully insert the four new ones.

The only tools you will need for this are a medium size Phillips screwdriver (cross-head) and a small flat-bladed screwdriver or IC extraction tool. You will, however, need to take care to protect the ROMs from static electricity as this can seriously damage them. However, if you are unhappy about upgrading your Archimedes yourself then your Acorn supplier will be able to do it for you.

ATTENTION! Arthur 0.2 owners - please insert your old 0.2 ROMs into the protective foam which carried your new 1.2 ROM set, and return the 0.2 ROMs to Acorn using the envelope and reply paid label provided in this pack. This request does not apply to Arthur 0.3 owners.

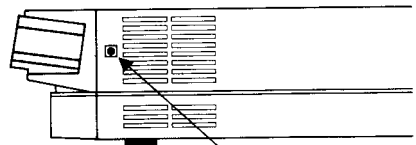
REMOVING THE TOP COVER FROM THE COMPUTER CASE

- 1 Switch off your Archimedes and disconnect the unit from the mains by unplugging the power supply cable.
- 2 Unplug any peripherals that are attached and remove any monitor or other loose items standing on the top of the case.
- 3 Locate the screws holding the top cover in place. (See diagrams below.)
- 4 Remove the three screws at the top rear of the unit and the single screws on each side of the unit.
- 5 Slide the cover of the unit to the rear of the machine, tilt the back upwards and then slide it off. You may need to 'spring' the sides outwards slightly. You should remove the cover completely and set it carefully to one side.

The position of the screws holding the top cover



Top cover fix



Top cover fix

LOCATING THE SOCKETS ON THE BOARD

Position the machine so that you are facing the front. The sockets will then be located halfway along the right-hand side of the main printed circuit board. They are labelled: IC24, IC25, IC26 and IC27. See diagram on separate sheet.

Note: If you have any Podules installed you will need to remove them in order to gain access to the ROM sockets.

REMOVING THE OLD ICs

You must remove the existing ICs in sockets IC24, IC25, IC26 and IC27. To do this, take an IC extraction tool or a flat-bladed screwdriver and gently prise up each end of the IC, a bit at a time.

It is important that you remove the ICs extremely gently otherwise you may bend the pins or damage the sockets. If you are using a screwdriver, be careful not to catch the ribs of the sockets.

IDENTIFYING THE ICs

The upgrade kit consists of four ROMs. The way in which the ICs are labelled and their appearance depends on the manufacturer. Before inserting the ICs it is important to clearly identify the type of ICs you are supplied with.

Using the table below, identify which IC is which by examining the markings on them.

ROM	Markings	Markings
1	0277,022	MB831000-20P-700
2	0277,023	MB831000-20P-701
3	0277,024	MB831000-20P-702
4	0277,025	MB831000-20P-703

You may find it easier when you come to install the ICs if you make a note of which IC is ROM 1, ROM 2 and so on.

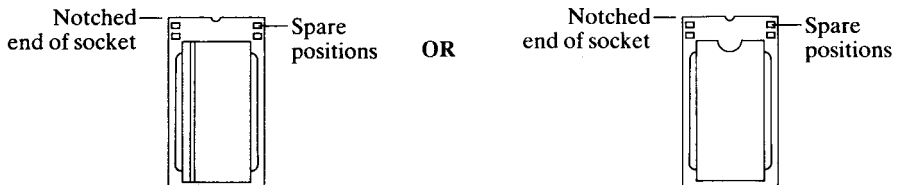
The ICs will be one of two types. These either have a distinctive semi-circular notch at one end of the IC or a long groove down one side.

INSERTING THE ICs

You are now ready to insert the ICs. When you handle the ICs, it is very important that you avoid touching the pins and that you protect the ICs from static electricity.

- 1 Remove the ICs from their packaging, holding the IC between finger and thumb.
- 2 Check that all the pins on the IC are straight. If they appear crooked or splayed, you will need to realign them. To do this, hold the IC sideways-on and press it gently against a firm flat surface.
- 3 Repeat for the other row of pins as necessary.
- 4 Identify socket IC24.
- 5 Take the IC which you have already identified as ROM 1.
- 6 The new ICs each have only 28 pins so four of the pin positions in each of the 32 pin sockets will be unused. Position the end of the IC with the semi-circular notch towards the notched end of the socket. (If you have grooved ICs you should position the IC so that the groove is on the left-hand side of the IC.) In either case, the four free positions should be left at the notched end of the socket. (See diagram below.)

A 28 pin IC in a 32 pin socket



- 7 Line up all the pins over socket IC24. Ensure that the notch on the IC points towards the notched end of the socket (or that the groove is on the left-hand side of the IC). Also, ensure that you have left four free pin positions at the notched end of the socket.
- 8 When you are sure that the IC is the correct way round, apply firm pressure to the IC until you feel it click home, but do not force it. When the IC is in place it may appear to be slightly raised.
- 9 Check that all the pins have entered the socket and that none are bent out or caught underneath.
- 10 Insert the remaining ICs. Ensure that the IC which you have identified as ROM 2 is inserted into socket IC25, ROM 3 into socket IC26 and ROM 4 into socket IC27.

REASSEMBLING THE ARCHIMEDES

Now reassemble the Archimedes:

- 1 If you have removed any Podules, re-install them in accordance with the supplier's instructions.
- 2 Slide the top cover of the Archimedes unit on from the rear, making sure that it is correctly located in its slots. These slots are positioned one on each side of the lower case.
- 3 Replace the screws at the rear and side of the unit and tighten them up.
- 4 Connect up the monitor and keyboard etc and then plug in the mains supply.

TESTING THE UPGRADE

- 1 Switch on the monitor.
- 2 Hold down `R' on the keyboard and switch on your Archimedes.
- 3 If you get a rolling, broken picture displayed, then switch off your Archimedes, and complete step 4 below.
- 4 Hold down `R' on the keyboard and switch on again. After approximately half a second the monitor should display a stable picture of the Desktop.

The installation is now complete.

Use the mouse (as described in your new Welcome Guide) to select operation.

NOTE: To go straight into BASIC (rather than the Desktop) set the configuration to LANGUAGE 4

ADDENDUM

ARCHIMEDES ARTHUR ROM FITTING INSTRUCTIONS

Acorn Computers Ltd are now using an additional supplier of ROMs, therefore, you may have been supplied with the ROMs described in this Addendum rather than one of the sets referred to on page two of the Archimedes Arthur ROM fitting instructions.

The set is numbered: 1, 2, 3 and 4, and although labelled Arthur 1.1, in fact contains Arthur 1.2.

The ROMs are installed in the following sockets:

ROM 1 in IC24

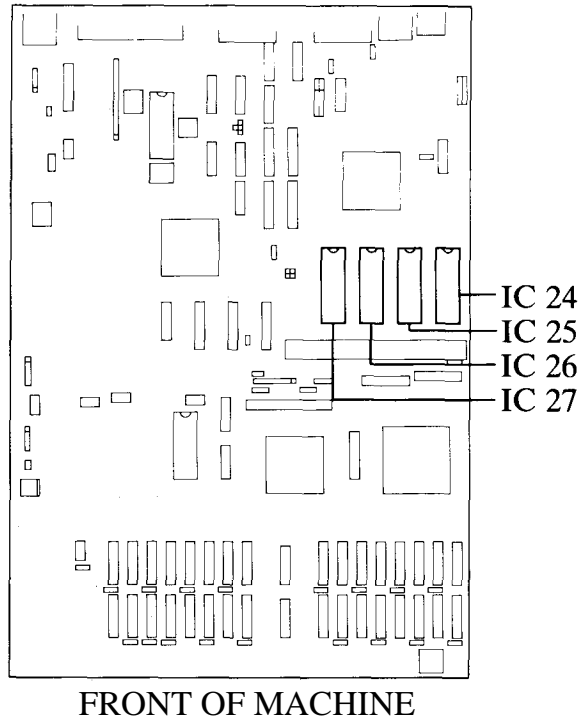
ROM 2 in IC25

ROM 3 in IC26

ROM 4 in IC27.

Refer to the Fitting instructions for information on how to carry out the upgrade.

Archimedes 300 series PCB
showing the position of the four ROM sockets



ROM 1 is in socket IC24
ROM 2 is in socket IC25
ROM 3 is in socket IC26
ROM 4 is in socket IC27