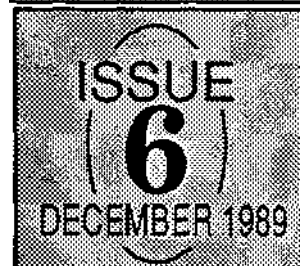


# Acorn Customer Service News

- All the documents in this newsletter are available on the Support Information Database (SID).
- Back-issues are available via SID and may also be obtained from Customer Services.
- Any suggestions you may have for information you would like to see in future issues should be sent to the Newsletter Editor via SID mail (ID 1000) or by post at our head office address.



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	A310 & A440 MEMC1A Field Change Order	FCO2008

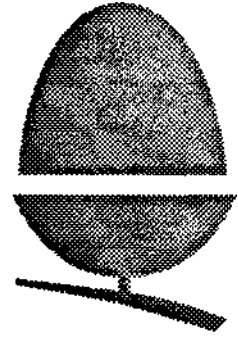
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**Acorn**   
The choice of experience.

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# News Bulletin



## 1. Customer Service Technical Support and General Enquiry Telephone Lines

Please note that the Customer Service Technical and General Support telephone lines will be closed for the Christmas Holiday at 12.00, 22nd December 1989, and will reopen at 2.00 pm, 2nd January 1990.

## 2. Spares and Warranty Department Stocktaking.

Please note that the Spares and Warranty Department will be closed from 22nd December 1989 to 15th January 1990 due to Christmas shutdown and Stocktaking. Consequently there will be no spares orders or warranty replacements despatched until after the 15th.

## 3. Philips monitors

We would also like to remind you that claims for LOT exchanges on Philips monitors will not be accepted after the 31st December 1989.

## 4. 1st Word Plus (Release 2) Upgrades

A special offer upgrade path is being provided to owners of 1st Word Plus (Release 1). This operation is being completed through a fulfilment house, for a limited period only. Please refer all enquiries to the Customer Services Department.

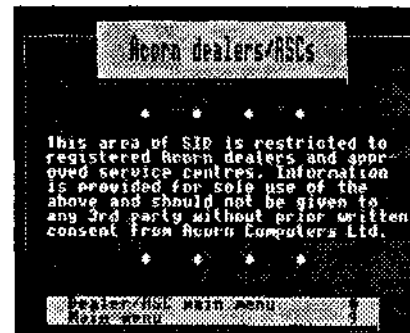
## 5. SCSI Expansion (AKA30)

The SCSI expansion card (AKA30) for RISC based Archimedes products (excluding A305's AKB 10) is now available. Please be aware that the host machine requires a MEMC1A and dealers fitting an AKA30 to A310's (AKBI5) or A440's (AKB20) will need to carry out Field Change Order 2008 (FCO2008), full details are given the appendix.

## 6. MEMC1A Upgrade Kits (AKA22)

There is an error on the Acorn Retail Price List issued in September 1989, concerning the listed retail price of the MEMC1A Upgrade Kit (AKA22), please note that the list price should indicate that it includes a fitting charge of £ 16 (sixteen). If the upgrade kit is not fitted by the supplying dealer then the fitting charge should be deducted from the full price and the customer advised accordingly. Only when the MEMC1A is required as part of the SCSI or Floating Point Expansion is it supplied and fitted free of charge (see FCO2008).

May we take this opportunity to wish you a Merry Christmas and a Prosperous New Year.



A customer contacted Customer Services recently with a rather sorry tale regarding his attempts to procure a copy of !FontEd from various dealers. Out of the thirty-odd dealers he asked, only one was prepared to download it from SID for him, and wanted £25 for doing it.

Now, !FontEd takes no more than 34 minutes to download. Allowing for the cost of the phone call, this would cost a dealer no more than £4 to download, which makes the 600% profit a bit hard to swallow.

In addition, we hear of dealers complaining that they have problems demonstrating the power of the Archimedes to potential customers.

May I take this opportunity to point out that SID contains one of the most comprehensive collection of Archimedes demos ever. This includes:

- \* Demo Euclid films, including the famous Banthorpe birds.
- \* Two demos from Acorn - a festive Christmas demo and a Euclid film promoting SID.
- \* Many scrolling text and music demos.

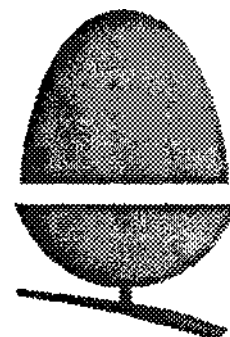
Remember that once downloaded, you can use them to your heart's content and even give them to customers after selling them a system!

By using SID in this manner, you help yourself. You improve your after-sales service by helping customers out (by downloading utilities and applications for them for a reasonable sum) and you improve your pre-sales service by demonstrating the power of the Archimedes.

I trust that 1990 will see much better use of the system. May I take this opportunity to wish you all a merry Christmas, a happy New Year and a prosperous next decade.

Philip Colmer  
Support Information Services Manager

# Econet Installation



It would appear from the number of calls Customer Services have received recently that a number of dealers have installed Filestore based Econets without either terminators or external clocks.

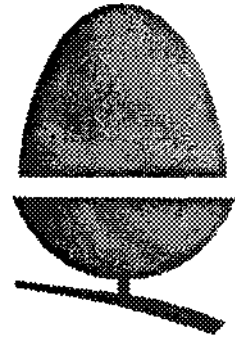
Econet systems of this type, under 20m containing only Master and/or Model B machines, causes few problems. However the situation changes radically when an Archimedes is introduced to such a network.

As dealers will be aware the Archimedes series is capable of large data transfers and this can prove to be somewhat problematic when using an Econet system which does not contain terminators. Terminators can be purchased as part of the Starter Kit (AEH19), which also contains a clock and socket box. Consequently all Econet systems containing these essential items are correctly installed.

Dealers are asked to check the suitability of the Econet installation if they are supplying any Archimedes computer for use on existing Econet systems.

Dealers are reminded that prior to supplying or installing any Econet systems, engineers are required to attend an Econet Installation Course at Acorn's or a distributor's training centre.

# Safety Requirements



## Safety Testing on Acorn Products

It has come to Acorn's attention that some Service sites and Dealers are not safety testing computers which they have repaired. Safety testing is critical when the power supply has been removed or replaced.

During quarter one, 1990, Acorn will be bringing in the requirement for Earth Continuity and Electric Strength tests in compliance with the British Standards Institute, Cert No. 5850.

These tests are vital to ensure the safety of the user, and **MUST** be performed on ALL Acorn products including the BBC models B and B+ , as well *as the* current RISC based products following any repair or upgrade. These tests are already a mandatory requirement for some Acorn products.

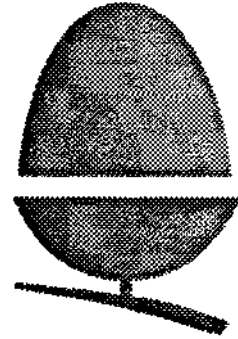
Acorn recommend that all Service sites and Dealers wishing to repair or upgrade Acorn products should procure the necessary equipment as soon as possible. Recommended equipment for the Earth Continuity test would be a Clares Instruments A433R and an AVO RM215-L/2 for use with the Electric Strength test. (This equipment may be hired or leased as opposed to purchasing.)

Please note this is an important safety issue, and all sites will be required to complete a declaration. Specifically, any site not possessing the relevant equipment will not be supplied with power supplies or associated spares items, from Acorn or any of our Distributors. This requirement covers both in and out of warranty repairs and upgrades.

Audit spot-checks may be made by Acorn to determine that an organisation claiming to possess the necessary equipment do indeed carry out suitable tests in the correct manner.

Information describing the method of testing and the levels of voltage and current will be provided early in 1990. Please ensure that you read the next Customer Service Newsletter in early 1990 for details of the tests involved.

# Service Information



## **Keyboard Cases for the Archimedes Computer.**

Acorn Spares and Warranty dept' is again receiving fully cased Keyboards returned as faulty on the Archimedes 300 and 400 series computers.

Please note that the printed circuit board fitted within the case is the only item which Acorn would expect to see returned as faulty. The outer case is constructed so that it should not need replacement as a result of normal use.

Where a service site identifies that a keyboard circuit failure has occurred, then only the keyboard PCB should be returned. This information has been provided by Acorn on two previous occasions. This means that any fully cased keyboard returns will be returned automatically to the sender with no action having been taken by Acorn Computers.

Please note, details of how to remove the Keyboard P.C.B. from the outer casing is provided in the Archimedes 300 series Module Level Service Manual.

## **Faulty Power Supplies.**

Please note that under no circumstances whatsoever should any power supply unit be repaired. No service information or spare parts are available for ANY Acorn power supply. The safety tests discussed previously refer to the exchange of the power supply unit only.

There are a number of very clear reasons why power supply units should not be repaired. The most important being safety. All power supplies used by Acorn are pre-tested at various levels to ensure the quality and safety of the unit in question.

**THE POWER SUPPLY UNIT CONTAINS HAZARDOUS LIVE VOLTAGES AND MUST ONLY BE MAINTAINED BY THE ORIGINAL MANUFACTURERS.**

**FIELD CHANGE ORDER**  
**ACORN COMPUTERS LTD**

<b>Field Change Order No.</b>	<b>2008</b>
<b>Date of Issue.</b>	<b>6th September 1989</b>
<b>Applicable to (Product)</b>	<b>A310 ((AKB15)), A440 ((AKB20))</b>
<p><b><u>Reason for Issue</u></b></p> <p>The FPU (AKA20) and SCSI (AKA30) expansion cards require the host machine to contain a MEMC1A (as opposed to MEMC1).</p>	
<p><b><u>Types Affected</u></b> (e.g. Serial Nos / Issues Levels)</p> <p>Any AKB15 being fitted with a SCSI (AKA30) expansion card. NOTE: FPU (AKA20) may NOT be fitted to A310 (AKB 15).</p> <p>Any AKB20 being fitted with a FPU (AKA20) or/and a SCSI (AKA30) expansion cards.</p>	<p><b><u>Description of Change</u></b></p> <p>Fit MEMC1A upgrade as per attached Technical Information Sheet.</p>
<p><b><u>Claim Procedure</u></b></p> <p>Following the fitting of a FPU (AKA20) or a SCSI (AKA30) and the necessary MEMC1A Upgrade (AKA22) from stock, Service Engineers should complete a Service Report clearly stating the Serial No's of the FPU (AKA20) or SCSI (AKA30) and the host unit (AKB15 or AKB20) and it's PCB Serial No., the FCO No. (above) and claim the FCO Credit Rate (below) for labour charges. Acorn will verify the Serial No's, process the claim for labour charges in the normal manner and issue a replacement MEMC1A Upgrade Kit.</p>	
<p><b><u>Rework Doc. Reference</u></b> (SID Doc.ref.) FCO2008</p>	<p><b><u>FCO Credit Rate</u></b> £ 16.00 (Sixteen)</p>

**Special Instructions:-**

**PLEASE NOTE:-** A Floating Point Unit can not be fitted to an Archimedes 310 (AKB15).

# MEMC1 A Upgrade

**Note:**

**This upgrade should only be installed by an Acorn Approved Service Centre —contact your supplier for details. If this instruction is disregarded, the guarantee on either this upgrade or the computer, or both, may be invalidated.**

**Applicable models**

- ArchJmedes 310
- ArchImedes 440

**Purpose**

To upgrade existing machines to include a MEMC1A memory controller. This is a necessary upgrade before fitting Acorn SCSI and (440 only) Floating Point expansion cards, and also increases performance generally by about 10%. This modification is not required on Archimedes 400/1 series, Acorn R140 or A3000 systems.

**Parts required**

- All models:
- MEMC1 A (part number 2201,375)
  - MEMC1A PAL ( 0277,401)
- Archimedes 440 only:
- 33R (33ohm) resistor (0502,330).

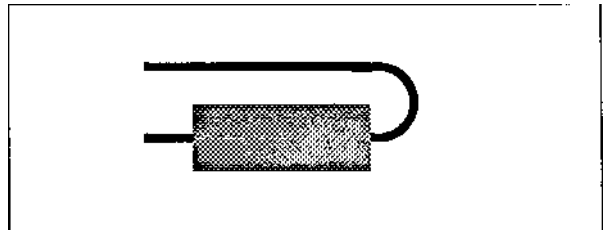
**PCB modification procedures**

**WARNING:**  
TAKE ALL PRECAUTIONS REGARDING STATIC ELECTRICITY AND EARTHING IN ACCORDANCE WITH BS 5783.

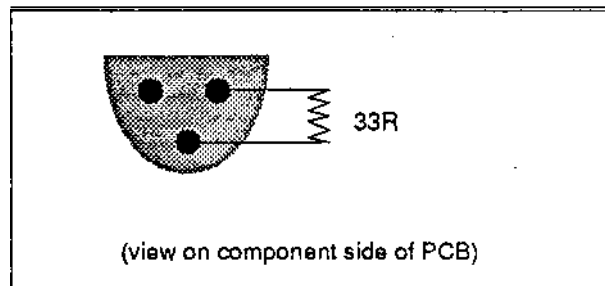
**ArchImedes 440 only**

- 1 Switch off and disconnect the computer from the mains supply.
- 2 Remove the top cover and the backplane (if fitted) disconnect the power leads, and remove the main PCB, in accordance with the disassembly instructions given in the service manual.
- 3 Desolder and remove transistor Q14 from the board.
- 4 Desolder and remove 330R (330ohm) resistor R121 from the PCB.

- 5 Take a new 33R (33ohm) resistor (part number 0502,330) and form it as shown below:



- 6 Solder the resistor between the emitter and base pads of 014 on the PCB as shown below:



- 7 Using the correct tool, remove the MEMC device from position IC45, and replace with a new MEMC1A (part number 2201,375), making sure that the orientation of the device is correct – the cutoff corner of the chip should match the corresponding feature of the socket.
- 8 Remove existing PAL from position IC44, and replace with a new MEMC1A PAL (part number 0277,401).
- 9 Reassemble the computer.
- 10 Test.
- 11 Complete the 'Installation details' on the Upgrade Guarantee form (part number 0476,363).

**ArchImedes 310**

Follow steps 1-2 and 7-11 only of the 440 modification procedure detailed above.

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