



**CUSTOMER  
SERVICES  
NEWS**

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## INDEX:

Page	Article
2	Warranty Repair Claim Procedure
3	Health and Safety Legislation Warranty Authorisation
4	ASC Training Acorn Training Schedule Events Calendar
5	Service of Power Supplies SID News
6	New BBC Model B Emulator
7	ChangeFSI
8	FCO2018 - Ethernet
11	FCO2019 - 20 Meg Hard Drive replacements
13	FCO2020 - FileStore E01

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Acorn Direct Dealers  
Acorn Approved Service Centres  
Acorn Central Workshops

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December 1990

Dear Colleague,

### Warranty Repair Claim Procedure

We recently advised you that the procedure for submitting Warranty Claims had undergone some changes, viz.

- RETURN LOCATION - now Coral Park Warehouse,
- COMPLETING DETAIL ON SERVICE REPORTS,
- RETURNS ADEQUATELY PACKAGED, INCLUDING PARTS, AND AFFIXED TO CLAIM,
- NO return to Central Workshop without prior authorisation from Acorn.

Unfortunately, not everyone appears to have read the procedure, and some claims are being received incomplete, and some product (and PCBs) returned to Central Workshops for repair without prior authorisation.

**Please read** and follow the procedure previously issued.

If you have not received it for some reason, or have mislaid it, please contact Mary Callen on extension 5600 for a further copy. She will also be able to assist in the verification of in-warranty claims, and the authorisation of returns for Central Workshop repair, if required.

**As from 10th December 1990, any claim received incorrectly, or product returned without authorisation, will be returned to the sender** without attention.

If you should require any further assistance or guidance, please contact me on extension 5381.

Yours faithfully,

A handwritten signature in cursive script, appearing to read "R K Walker".

Rosemary Walker  
Warranty Control Office

# News Bulletin

The Information contained the Acorn Customer Service Newsletters is of vital importance to all service engineers. Please ensure that copies are distributed to all your support and service staff.

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## Health and Safety Legislation.

On 1st April 1990 new Health and Safety regulations came into force which will affect all UK dealers. The new regulations are issued under the "Health and Safety" at Work Act 1974, specifically "The Electricity at Work" Regulations 1989.

Also available from the Health and Safety Executive, is a "Memorandum of Guidance" on the new regulations. We recommend strongly that you obtain a copy of both documents and seek advice from your local Health and Safety office on the implications for your business.

Both of these documents may be obtained via HMSO booksellers.

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## Warranty Authorisation

All product (or PCBs if applicable) that requires referral to a central workshop for warranty repair must be authorised by Acorn prior to submission. Application for authorisation should be made to the warranty control office tel: 0223 245200 x. 5394/5600. Warranty authorisation will be considered only if the following information is supplied:

1. full serial No. of the product concerned;
2. PCB serial No. (applicable to Archimedes systems only);
3. details of the fault;
4. end user's date of purchase.

Once authorisation has been granted a pre-paid label will be issued to cover the transportation cost.

It is important that substantiating documentation accompanies full product as detailed 1 - 3 above. Submission of PCB's for replacement require a fully completed service report in addition to substantiating documentation.

Failure to apply for authorisation, or spurious declarations as detailed 1 - 3 above may result in the sender bearing the cost of repair and transportation.

## Review of ASC Training Qualifications

As part of our ongoing policy of ensuring that our customers receive the quality of service to which they are entitled, a review of Acorn Service Centres will be performed in the new year.

As part of this review, we will be seeking clarification that those engineers who attended Acorn service training courses are still with the service organisation.

Where the trained engineer has left a service organisation, it is expected that either the replacement engineer or another engineer within the organisation will attend appropriate training course(s).

It is not considered an acceptable situation for an ASC to service without an Acorn trained engineer on the premises, and as such any ASC who no longer has a fully trained member of staff should take action to correct the shortfall - please refer to the training schedule below details of training dates.

### Acorn Training Courses

There are still places available on several training courses scheduled for November and December. If you wish to apply for a course or if you would like further information, please contact Val Raworth at the Acorn Training Centre (0223 214411). All prices include VAT. The following courses have places available:

A3000/Archimedes Servicing to Module Level (SA2).

Duration: 2 days            Cost: £92.00  
Dates: 21 - 22 November, 5 - 6 December

A3000/Archimedes Servicing to Component Level (SC/1).

Duration: 1 day            Cost: £115.00  
Dates: 7 December

Dealer Induction (dealers only) (DI/2).

Duration: 2 days            Cost £115.00  
Dates: 19 - 20 November, 3 - 4 December

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### Events Calendar.

Acorn will be present at the following event in 1990.

COMPUTER SHOPPER  
6, 7, 8 December  
Wembley Conference Centre, London

## Service of Power Supplies

As a result of a number of requests for information on the repair of PSU's, we would like to remind you that All PSU's fitted to Acorn equipment are deemed NON SERVICABLE items.

In the event of a PSU failure, irrespective of whether the fault is identified e.g a blown fuse, the PSU must be replaced. Acorn will not entertain any claim for payment for the repair of a PSU.

The only exception to the above is where it is identified that a crimp on a flying lead has an unreliable connection. In these circumstances, you are allowed to correct the problem by applying solder to the joint between the cable and the crimp.

Note that this only applies to the crimps on the main PCB end of the flying leads, not the crimps internal to the PSU. Also, soldering is the only method to be applied. No attempt should be made to strip and re-crimp the lead. If soldering the crimp/lead connection does not solve the problem, replace the entire PSU.

### Safety Testing

Where a PSU has been replaced, ensure that both an Earth bond test, and 500V DC Insulation breakdown test are applied to the reassembled system. Do not apply any high voltage AC tests i.e Flash Test to the PSU since this may well damage the suppression capacitors on the input side of the PSU.

Full details of the nature of the various safety tests that must be applied to repaired systems will shortly be published in this news letter.

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## Support Information Database

Do Y O U have a SID account yet

If you haven't, what do you do when a customer comes in asking for a piece of software which they know is available on SID ?

If you haven't, what do you do when you want a piece of support software urgently from Acorn ?

If you have, are there any changes you'd like to see in SID?

If you have let your SID subscription lapse tell us why.

Write to the SID Editor, at our Fulbourn Rd office.

## BBC B Emulator

Acorn has developed an enhanced Model B emulator for RISC OS. This has been made available at a special discount for use in Educational institutions in the UK and for Software Developers registered with Acorn. Teachers should approach their local LEA or IT centre for further information.

Subscribers to SID (Acorn's Support Information Database) can download a copy of the software and all the other parts normally supplied on the disc. The software can also be obtained on disc for people who do not have access to SID.

The disc comprises:

- \* improved version of !65Host, which emulates the BBC Model B environment;
- \* utilities such as DFS converters, picture converters to transfer BBC screens to the Acorn Archimedes or BBC A3000 and a program which will scan your BBC BASIC programs and check for any possible problems areas in them which will cause problems when porting the programs across, all these utilities are designed to help transfer and modify 6502-based programs for use with RISC OS computers;
- \* examples to illustrate how to port existing 6502-based programs onto RISC OS;
- \* comprehensive User Guide in electronic format( Text and Acorn DTP).

To obtain a copy of the software on disc, send:

- \* your name and address;
- \* a cheque or postal order for £19.55 (which includes VAT and postage) made payable to Acorn Direct;

to:

13 Dennington Road  
WELLINGBOROUGH  
Northants  
NN8 2RL

This is a special and limited offer by Acorn Computers Ltd and is not supported by Acorn or its dealer network. This does not infringe your statutory rights.

## ChangeFSI: Colour Image Processing Using a fixed set of 256 colours

Archimedes computers have full colour display capabilities built into them as standard. However, compared with the hardware found in larger workstations, the facilities provided have been carefully reduced (in order to make them cheap enough to fit all the time). So the precision of the digital to analog converters is only 4 bits (instead of 8) and the colour palette only has 16 entries (instead of 256).

This leads to a conversion problem for colour images built on other machines. The solution involves colour Floyd Steinberg error diffusion to a fixed colour palette and has implications for other machines, especially when sequences of images or many images shown on the same display are concerned.

In addition to solving this particular problem, a number of conventional image enhancement algorithms (sharpening, dynamic range expansion, histogram equalisation) and an "equal area" anti-aliased size scaling routine are all incorporated in the same step, giving a maximal quality output.

The following image formats are supported by ChangeFSI:

RISC OS 1, 2, 4 and 8 bit per pixel sprites  
 Watford digitiser pictures 512x256y64g and triple red, green, blue separations  
 ProArtisan compressed pictures 640x256y256c  
 TimeStep satellite image 800x800y256g  
 TimeStep satellite image 128x256y256g and triple red, green, blue separations  
 !Translator "Clear" format  
 AIM/Wild Vision Hawk V10 files 256x256y256g  
 lit\_\_pictures 1-24 bits per pixel  
 Electronic Art's IFF ILBM pictures  
 Sun `pixrect' raster files 1-24 bits per pixel  
 .PIC 8 bit per pixel files  
 MILLIPEDE PRISMA 768x574y 8 bit colour images  
 Compuserve's GIF files up to 8 bit per pixel  
 ZSoft PCX format 4/8 bit per pixel  
 MacPaint files 576x720y 1 bit per pixel  
 Windows 3 .BMP format 1/4/8 bits per pixel  
 Degas 1/2/4 bits per pixel colour images  
 Truevision "Targa" (both TGA and VDA)  
 Wild Vision V9 Colour images 512x256y12 bits  
 ArVis 15 bit HIP.+LOP. sprites 640x256y  
 Pineapple 16 bit colour images 512x256y  
**GEM IMG.** images  
 UNIX "rle" files  
**PC EGA .DSP** images 640x350y16c  
 MTV 24 bit pic. images  
 QRT 24 bit .raw images  
 RT 24 bit run length coded image. files

Subscribers to SID (Acorn's Support Information Database) can download a copy of the software and all the other parts normally supplied on the disc. The software can also be obtained on disc for people who do not have access to SID.

ChangeFSI can also be obtained on disc, by sending a cheque made payable to Acorn Direct for £19.55 (inc. VAT & **P+P**) from the Acorn direct address on the previous page.

# FIELD CHANGE ORDER ACORN COMPUTERS LTD

<b>Field Change Order No.</b>	2018
<b>Date of Issue.</b>	17th July 1990
<b>Applicable to (Product)</b>	Ethernet 1 - AKA25

## Reason for Issue

Unreliability can be caused when Ethernet 1 is used with other expansion cards that also use the CLK8 signal due to loading. Changing IC 18 from a 74 ACT 240 to a 74 AC 240 improves immunity by raising the logic threshold from TTL to CMOS levels.

## Types Affected

*(e.g. Serial Nos / Issues Levels)*

See attached pages for serial number ranges.

## Description of Change

Remove IC 18 (74 ACT 420) and replace with 74AC240 (Acorn approval No. 0750,240).

## Claim Procedure

Following completion of the Field Change Order instructions, Service Engineers should fill out a Service Report clearly stating the Serial No. of the Host unit, the FCO No. (above), and claim the FCO Credit Rate (below) for labour charges. Any replaced components should be wrapped to ensure safe carriage and returned with the Service Report. Acorn will verify the information, process the claim for labour charges in the normal manner and issue any replacement components as necessary.

## Rework Doc. Reference

*(SID Doc.ref.)*

## FCO Credit Rate

£ 16.00 (Sixteen)

## Special Instructions:-



FCO 2018

01 AKA25 (Ethernet) - serial number of machines not reworked by Callfind.

1000001 - 1000037  
1000039 - 1000074  
1000076 - 1000077  
1000079 - 1000081  
1000083 - 1000091  
1000093 - 1000100  
1000102- 1000108  
1000112 - 1000113  
1000115  
1000117  
1000119 - 1000120  
1000123  
1000125  
1000132 - 1000133  
1000137 - 1000138  
1000141 - 1000142  
1000145 - 1000149  
1000151 - 1000152  
1000154 - 1000156  
1000158  
1000160 - 1000163  
1000165 - 1000169  
1000171 - 1000175  
1000177 - 1000180  
1000182 - 1000187  
1000190- 1000222  
1000225 - 1000228  
1000230  
1000232 - 1000286  
1000288 - 1000289  
1000291 - 1000296  
1000301  
1000305 - 1000306  
1000311 - 1000314  
1000316 - 1000320  
1000322 - 1000326  
1000331 - 1000336  
1000338 - 1000340  
1000342 - 1000402  
1000406  
1000408  
1000410 - 1000411  
1000413  
1000422  
1000426  
1000428 - 1000430  
1000438

1000441  
1000443  
1000446 - 1000447  
1000449 - 1000450  
1000452  
1000461  
1000465  
1000468  
1000472 - 1000474  
1000476  
1000484 - 1000487  
1000492  
1000494 - 1000496  
1000498  
1000500  
1000504  
1000507 - 1000509  
1000512 - 1000513  
1000516  
1000518 - 1000521  
1000523 - 1000552  
1000554 - 1000564  
1000566  
1000568 - 1000573  
1000575 - 1000576  
1000578  
1000580 - 1000588  
1000590 - 1000594  
1000596  
1000598  
1000600 - 1000604  
1000609  
1000612 - 1000673  
1000676 - 1000679  
1000681 - 1000682  
1000684 - 1000685  
1000692 - 1000695  
1000700  
1000702  
1000708 - 1000710  
1000717  
1000720  
1000724  
1000733  
1000735  
1000738  
1000740  
1000759  
1000772 - 1000854  
1000867  
1000909  
1000914

1000919 - 1000920  
1000924  
1000929  
1000931 - 1000932  
1000936  
1000940 - 1000942  
1000949  
1000954  
1000957  
1000964 - 1000966  
1000968 - 1000969  
1000974  
1000976 - 1000980  
1000999  
1001001  
1001014  
1001017  
  
1001038 - 1001041  
1001049 - 1001078  
1001081 - 1001082  
1001085 - 1001087  
1001090- 1001093  
1001096  
1001098 - 1001103  
1001106 - 1001111  
1001114 - 1001157  
1001159 - 1001161  
1001164 - 1001166  
1001169 - 1001171  
1001173  
1001176  
1001178  
1001181  
  
1001183 - 1001184  
1001186  
1001188 - 1001189  
1001192 - 1001224  
1001228 - 1001229

1001297 - 1001304  
1001306 - 1001311  
1001316  
1001323  
1001327 - 1001331  
1001337  
1001339 - 1001341  
1001351 - 1001444

1001233  
1001236  
1001243  
1001248  
1001253  
1001255  
1001265  
1001267  
1001271  
1001276  
1001278  
1001280  
1001287  
1001289

# FIELD CHANGE ORDER ACORN COMPUTERS LTD

<b>Field Change Order No.</b>	2019
<b>Date of Issue.</b>	17th August 1990
<b>Applicable to (Product)</b>	A440 (AKB20), A420/1 (AKB42), AKD52
<b>Reason for Issue</b>	
<p>Latest source of 20 Meg hard disc drive is both mechanically different and requires a previously unspecified set of HForm parameters to ensure correct formatting.</p>	
<b>Types Affected</b> <i>(e.g. Serial Nos / Issues Levels)</i>	<b>Description of Change</b>
Any A440 (AKB20), A420/1 (AKB42) & AKD52 requiring hard disc replacement.	When using 20MB hard drives from Component Approval 0912,014 (Kalok KL320) in the above machines the additional instructions on sheet 2 must be followed.
<b>Claim Procedure</b>	
Not applicable	
<b>Rework Doc. Reference</b> <i>(SID Doc.ref.)</i>	<b>FCO Credit Rate</b>
FCO2019	Null: information only
<b>Special Instructions:</b>	
<p>The above is supplied for information only. All replacement Kalok drives will be supplied with the above information.</p>	

## FCO2019: Sheet 2

### A420/1, A440 and AKD52(Hard drive upgrade 300 series)

#### USE OF KALOK KL320 HARD DISC DRIVES.

When Kalok KL320 hard drives to Acorn Approval 0912,014 are used in A42011 (AKB42) or A440 (AKB20) computers as field replacements for either of the existing sources, the following instructions must be followed.

#### ASSEMBLY

Fit an M3.5 plain washer under the head of each of the four screws used to secure the drive to the -- drive bracket in addition to the existing spring washer.

#### FORMATING

When formating the hard disc drive using HForm Version 1.78 (or earlier) the shape of the Kalok drive will not be recognised and the following parameters must be entered after the prompts shown-

<i>Which make of hard disc (1-6)?</i>	<i>6 (other)</i>
<i>Old or New map format (O/N)?</i>	<i>N</i>
<i>Sectors per track?</i>	<i>32</i>
<i>Heads?</i>	<i>4</i>
<i>Cylinders?</i>	<i>615</i>
<i>Low current cylinder?</i>	<i>1023</i>
<i>Precompensation cylinder?</i>	<i>300</i>
<i>Parking cylinder?</i>	<i>615</i>

**The drive should undergo a full 24hour soak test cycle before being returned to the customer.**

## FIELD CHANGE ORDER ACORN COMPUTERS LTD

<b>Field Change Order No.</b>	2020
<b>Date of Issue.</b>	28th August 1990
<b>Applicable to (Product)</b>	Filestore E01
<p><b>Reason for Issue</b></p> <p>Design error: Bi-phase network clock is 180 degrees out of phase with clocks generated by Econet Clock Boxes and E01S Filestores. Consequently the system fails to recognise the presence of an external clock (when these are installed in large networks). This can cause unreliable network data transfer.</p>	
<p><b>Types Affected</b> <i>(e.g. Serial Nos / Issues Levels)</i></p> <p>All product.</p> <p>M Series (AEH26 - 0354, 002) C Series (AEH26 - 0354, 000)</p>	<p style="text-align: center;"><b>Description of Change</b></p> <p>On COMPONENT side of PCB: cut 2 tracks - IC26 pin 14 to SK10 pin 4 IC26 pin 15 to SK10 pin 5</p> <p>On SOLDER side of PCB: link as follows IC26 pin 14 to SK10 pin 5 IC26 pin 15 to SK10 pin 4</p>
<p><b>Claim Procedure</b></p> <p>Following completion of the field change order instructions, service engineers should fill out a service report clearly stating the serial no. of the host unit, the FCO No. (above), and claim the FCO credit Rate (below) for labour charges. Any replaced components should be wrapped to ensure safe carriage and returned with the service report. Acorn will verify the information, process the claim for labour charges in the normal manner and issue any replacement components as necessary.</p>	
<p><b>Rework Doc. Reference</b> <i>(SID Doc.ref.)</i> FCO2020</p>	<p><b>FCO Credit Rate</b> £ 16.00 (sixteen)</p>
<p><b>Special Instructions:-</b></p> <p>None</p>	