

## **ACORN CUSTOMER SERVICE NEWS (Issue 1 20/3/89)**

With the increase in the Acorn product range and the subsequent need to provide increasing amounts of information to our Dealer and service centres, we will be producing a monthly information bulletin to supplement the information provided through both SID and other sources.

This is the first of the new series of news-letters intended to keep you abreast of the latest changes on both the technical and general information front. Where appropriate, all the documents contained within this news-letter are also available through the SID system.

Over the coming months, we will be looking to provide this news-letter primarily through the SID system. This has a number of advantages both for ourselves and our Dealers and service centres, not least of which is the speed and flexibility of electronic information dissemination. With this in mind, we strongly recommend that you gain access to KID at the earliest opportunity.

If you have any comments about this news-letter, or suggestions for information that you would like to see included in latter issues, please write to Customer Services Information Section.

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# SERVICE QUESTIONNAIRE

## Surface Mount Technology (SMT) : Servicing

As with a number of other computer manufacturers, Acorn is about to commence the use of SMT in a number of its products. This in turn means that servicing at component level will require the use of special de-mounting/mounting re-work stations.

In order to determine the most appropriate servicing strategy for these products, we would appreciate feedback from you as follows:

	YES	NO	COMMENT
Do you already perform Archimedes component level servicing?			
If no, would you wish to? NOTE: training required.			
Would you wish to perform servicing of SMTs? NOTE: training and SMT re-work equipment required			
Do you already possess SMT servicing equipment?			
Do you already service SMT equipment?			

When you have completed the above, please return to -

Acorn Service Questionnaire,  
Acorn Computers Ltd.  
P.O.Box 22,  
Cambridge

Please add your name and address
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## ARCHIMEDES SONY DISC DRIVE REPAIR INFORMATION

A number of SONY 3.5" DISC DRIVES fitted into the Archimedes 300 and 400 series computer have been identified as having DISC DRIVE HEAD PROTECTION PLATES which are inadequately secured.

The head plate is a small square plate which is located directly above the upper disc drive head assembly. In some cases, the plate may become detached from the head assembly whilst the disc drive is operative and will result in the disc drive sustaining damage.

The serial numbers of the potentially faulty disc drives have been identified, and are in the range of 1019601 to 1032600.

If either -

1. An Archimedes series computer is encountered which contains a Sony disc drive within the above serial number range (whether faulty or otherwise), and where the security of the plate is suspect.
2. an Archimedes series computer is encountered where the protection plate has fallen off.

Then-

The Sony disc drive should be replaced and the disc drive (plus the plate) MUST be returned to Acorn for replacement with a service report quoting the reference 'plate'.

The work instructions for this are provided on the following pages.

### **Additional Servicing Facilities**

OUT-OF-WARRANTY service facilities for the SONY 3.5" disc drive have been established with Bedford Technical Engineering, P.O.Box 31, Ampthill Road, Bedford (Tel. (0234) 226474; Fax (0234) 226090) who will provide a repair service for £20 plus parts (excl. VAT). Where total repair cost is likely to exceed £45, you would be consulted prior to repair proceeding. BTE are also in a position to offer additional post-warranty services, and contact should be made directly with BTE for further information.

IN-WARRANTY SONY disc drive failures will continue to be replaced through Acorn Spares.

## SONY DISC DRIVE WORK INSTRUCTIONS

### Disassembly

1. Disconnect the computer and all peripherals, including the keyboard, from the mains supply.
2. Place the main unit, with the rear panel facing you, on a worksurface with a clean soft covering.
3. Remove the top cover as follows (see figure 1).

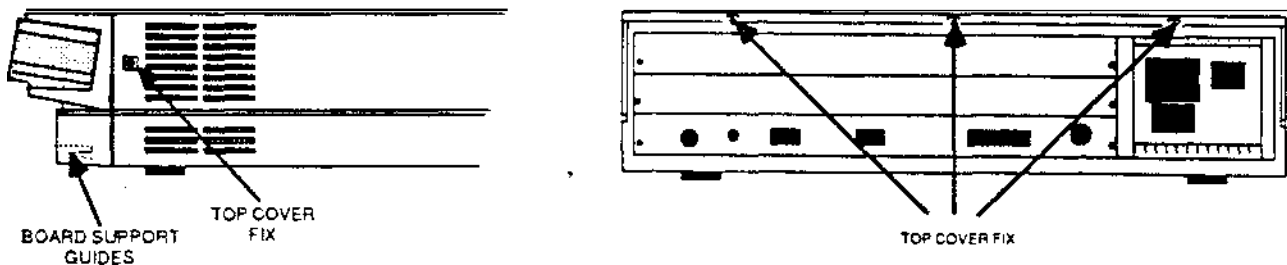


Figure 1

Remove the two screws in the sides of the top cover, immediately behind the front moulding.

Remove the three screws along the top of the rear panel and remove the top cover by sliding it off from the rear of the unit.

4. With reference to figure 2, unplug the disc drive data ribbon cable from SK 11 on the main PCB and the power cable connector from the rear of the disc drive. Locate and remove the two screws securing the disc drive mounting bracket to the saddle bracket and carefully withdraw the disc drive assembly from the main unit.
5. Remove the four screws, two each side, to release the disc drive from the mounting bracket.
6. Check the serial number of the disc drive. This is located along the right hand side of the disc drive (when viewed from the front).

7. Release the upper cover of the disc drive by applying finger pressure to one of the rearmost corners to disengage from the body of the disc drive.
8. Disengage the other corners to remove the cover entirely.

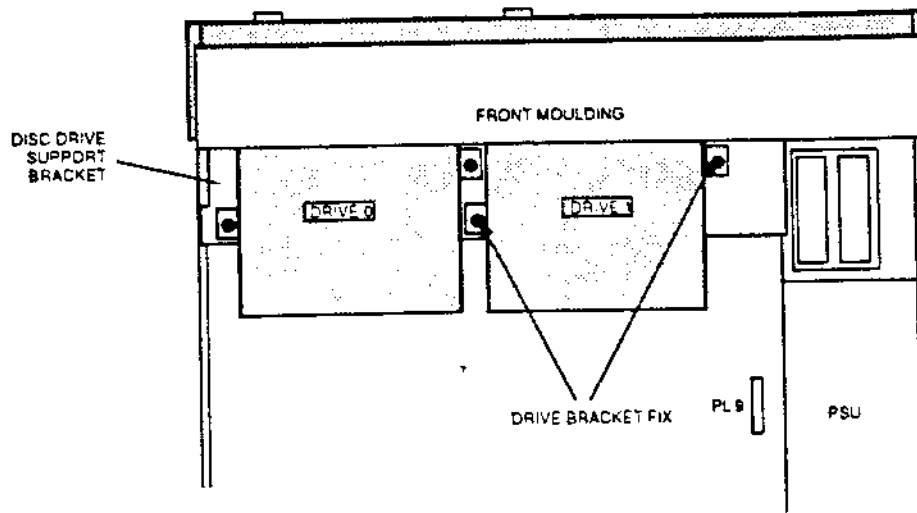


Figure 2

9. Locate the head assembly as shown in figure 3 and check that the head protection plate is in position and secure.
10. To check the security of the head protection plate, gently hold the lefthand side (viewed from the front) of the head assembly to prevent any movement in an upward direction and using a fingernail, VERY gently test the security of the head protection plate. If the head protection plate is loose then the disc drive should be exchanged.

**PLEASE NOTE** It is important not to raise the upper head assembly upwards as damage may occur to the spring which provides the tension for the whole assembly. Similarly, contamination of the read/write heads may occur if these are handled, with the result that the performance of the whole disc drive may be compromised.

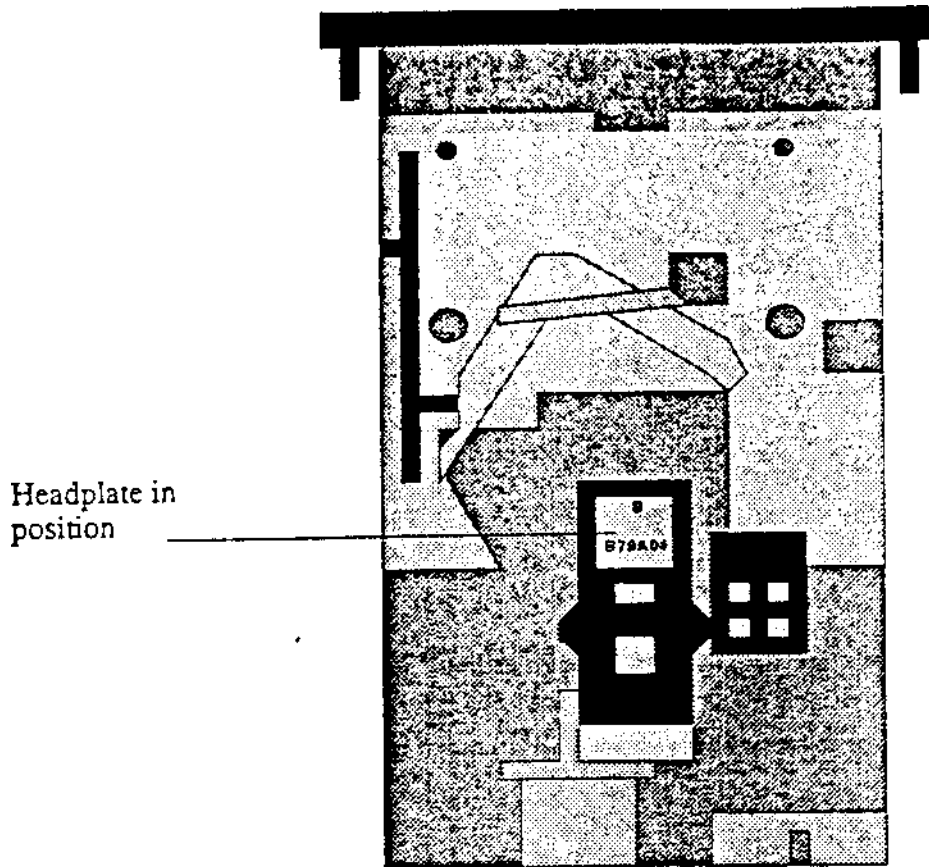


Figure 3

#### Assembly

11. Before installing a replacement disc drive, remove the front fascia which is supplied clipped to the disc drive and fix the eject button to its shaft using cyanoacrylate adhesive (observe safety precautions on the adhesive pack).

Partially insert a disc before carefully placing the disc drive assembly in position. Guide the disc through the slot in the moulding and adjust the position of the disc drive until the eject button passes through its slot in the moulding. Insert and partially tighten the two disc drive bracket fixing screws. Push the disc fully into the disc drive. Check that the disc drive will accept and reject discs correctly and that the eject button does not bind on the moulding. If 'binding' does occur, adjust the position of the disc drive mounting bracket and tighten the fixing screws.

12. To reassemble the computer, follow the reverse of procedure 1 to 5.

## ARCHIMEDES MODULE RETURNS

In our last news-letter, we requested that stickers and markings were not applied to faulty assemblies. As result of this, the instances of stickers being used has almost totally disappeared. Unfortunately, we now have different types of problems, all of which refer to modules for the Archimedes series computers.

During the last six months we have been receiving assemblies returned incomplete. The most common problem being the removal of the keyboard curly cable. It should be noted that this is regarded as part of the complete keyboard assembly. These items are now available from our Spares Department. The part numbers for both items are as follows:

Keytronics Type Cable	0999784
K.P.L Type cable (no socket)	0999438

If any assembly is incomplete, the warranty with our suppliers will be invalidated. So we must ask you to ensure that all modules are returned complete.

\* \* \*

We have been experiencing problems where items attached to faulty modules are also returned. There are two specific areas where this occurs;

Disc drives (Hard or Floppy)  
Keyboards.

Disc drives of both types are frequently returned with their mounting brackets. These are regarded as non-serviceable items and should be retained for use with the replacement disc drive. This will ensure that the mounting bracket is returned to the machine from which it was originally removed. We must therefore ask that you remove the mounting bracket prior to the disc drive being returned.

A similar problem exists with keyboard cases for the Archimedes being returned i.e fully cased keyboards are being returned to Acorn for replacement. If a fault exists with the keyboard PCB only; then only this item should be exchanged. It is very unlikely that a casing will need to be replaced under warranty. Please ensure that the keyboard is removed from its casing and retained for use with the replacement keyboard. The reset cap should be removed, but the curly cable should remain attached as described earlier. This ensures that the keyboard casing remains with its original machine.

**In** both cases, we have been accepting and returning the surplus items for use with replacements. However, the problem is now becoming so common that units returned complete will be immediately rejected back to the sender for the casing or mounting brackets to be removed. It is imperative that you adhere to this procedure to minimise both administrative and carriage costs for all parties involved.

## Carriage of Faulty Assemblies

With all the above problems, the faulty devices should be returned to Acorn in the same condition as they are removed from the host machine, with the exclusion that mounting plates are removed. This raises the point that goods, although they are faulty, should be packed to arrive in a safe condition with Acorn. **THIS IS OF THE UTMOST IMPORTANCE WITH FAULTY HARD DISC DISC DRIVES.**

Acorn has taken great care to provide reinforced packaging to guarantee safe transportation. In the case of the computer, this is the packaging utilised for the Archimedes 440. In the case of hard disc modules, it is the packaging utilised for the hard disc upgrade. Dealers **MUST** retain any such packaging for this purpose. Archimedes 300 series product with the hard disc upgrade fitted should only be transported in the Archimedes 440 packaging.

ANY movement of hard disc products, whether contained within a computer, moved as modules e.g. returned as faulty, **MUST** be in the prescribed packaging.

Any product returned to Acorn or its authorised agents in anything other than the approved packaging may be rejected.

In an emergency, please contact Acorn Spares Department who may be able to assist.

It is **IMPERATIVE** that —

1. Archimedes series customers are advised that, if their unit contains a hard disc
  - (i) they should not transport the computer without appropriate packaging.
  - (ii) they should always seek to **PARK** the hard disc before moving the computer.
2. Archimedes Dealers and ASCs **MUST NOT** ship hard disc products or modules **WITHOUT** the approved packaging, and they **MUST** ensuring that the hard disc is parked prior to shipment.

**PARKING** the hard disc is accomplished by issuing the \*BYE command when ADFS is selected as the current filing system. Better still, \*SHUTDOWN will park hard disc heads irrespective of current filing system.

Hard discs are delicate instruments and must be afforded the care reserved for such instruments.

A further point of note is that a number of disc drives are being returned to Acorn presumed faulty and have been subsequently tested and found to be working. These disc drives are of particular importance since they contain readily accessible user data. It is unfortunate that a disc drive is exchanged when no fault actually exists. We must therefore ask that full tests are performed prior to the disc drive being returned. Similarly, a number of 'soft errors' do occur and the disc drive can be restored to full working condition by reformatting.



Please note that before you return a faulty hard disc drive you should check that the modifications to the hard disc circuitry, as detailed in Acorn FCO 2000, have been carried out.

## Returns Procedures

On numerous occasions, we have received calls from Dealers who are unsure of the site to which faulty items should be sent. I would draw your attention to issue 2 of Acorn Engineering news dated December 1987 which contains all the relevant information. If you would like to obtain another copy, please contact the Customer Services Department.

\* \* \*

One of the most common problems which occurs is the return of faulty product without prior authorisation. In most cases, the faulty product is returned to Acorn for repair even though we do not provide an in-house servicing facility. Sending product to us will only lengthen the overall repair time since, in the absence of a forwarding facility, the unit will be returned to the submitting organisation. Once again details of the procedures are described in the above mentioned Engineering News.

The only items which should be returned to Acorn are faulty components with service reports, and faulty product via the Goods Return Authorisation (GRA) procedure. Please remember that if you do have problems with regard to the return/repair of faulty product; you can contact Acorn for assistance via the 'Returns Hotline'. Electronic messages can also be sent to Acorn via the Support Information Database (SID); messages should be sent to the Returns Department, mailbox I.D. 1007.

\* \* \*

Finally, a significant proportion of the mail for the Customer Services Department (including service reports) is still being addressed to Acorns' Technopark site. This significantly increases the length of time for mail to arrive with us. Please ensure that the address which you use is as follows:

Acorn Computers Limited,  
Fulbourn Road,  
Cherry Hinton,  
Cambridge,  
CB1 4JN.

Telephone: (0223) 245200  
Telex: 817875 ACORN G  
Fax: (0223) 210685

## **ARCHIMEDES SERVICE TRAINING**

The Service Strategy for the Archimedes series advised at the launch of the product, recognised the service problems inherent in the introduction of new board and component technology.

The MODULE replacement policy has operated well and will continue for those Dealers and service agents who wish to provide a good service without making the investment in the equipment, tools and expertise necessary for COMPONENT level servicing.

For those organisations that would now wish to commence COMPONENT LEVEL SERVICE themselves, Archimedes component level training courses commenced in the Acorn Training Centre, Cambridge, during January 1989 and will be repeated at regular intervals. These courses relate primarily to component level service of the main Archimedes PCB.

Training Schedules will be supplied shortly, together with the criteria that must be met before component level service will be authorised.

Organisations seeking to perform component level service for IN-WARRANTY Archimedes product will be required to demonstrate, at the time of application for the training course, that they possess (or will procure within a given time-frame) the pre-requisite equipment and tools to perform the repairs to the quality standards demanded by Acorn.

Organisations attending the training courses will be authorised to procure the appropriate Archimedes component level spares from Acorn, and will be authorised to perform component level repairs on IN-WARRANTY and out-of-warranty product.

Component Level service WARRANTY CLAIMS by organisations not authorised to perform this level of warranty service, will be rejected.

Please note that irrespective of attendance on a training course, Archimedes PSUs are NOT field servicable items and faulty PSUs SHOULD ALWAYS BE REPLACED. In-warranty PSU, disc drive and Mouse failures should be routed back to Acorn, accompanied by a duly completed Service Report, for replacement.

### **Archimedes Service Strategy**

In a subsequent news-letter, the full Archimedes service strategy will be published as a comprehensive document. This will provide a single reference source covering all aspects of Archimedes service.

## DISCONTINUED SPARES ITEMS

We regret to inform you that the following items are no longer available from this office. We are sure you will appreciate that to procure further supplies would be uneconomical for yourselves and ultimately your customers.

PART NO.	DESCRIPTION	PRODUCT
0103002	Case - lower	BBC
0103004	Case - upper	BBC
0127000	Winchester Host Adaptor	BBC
0201024	Plastic Ruler	BBC
0201034	Pet cable 34way	BBC/MISC
0201040	Fit cable 34way	BBC/MISC
0201041	Fit cable 20way	BBC/MISC
0201042	Fit cable 26way	BBC/MISC
0201043	Fit cable 20way D-type	BBC/MISC
0201074	Cardboard Carton	BBC
0201075	Poly case - upper	BBC
0201076	Poly case - lower	BBC
0201079	Keytop set	ELECTRON
0201096	Case label - keyboard	BBC
0201098	Case label - rear	BBC
0201111	Case label - lower	BBC
0201103	Case label - upper	6502
0201106	Case label - rear	6502
0201108	Case label - upper	Z80
0201742	Case label - rear	Z80
0201113	Mains adaptor	ELECTRON
0201121	Rom slot cover	BBC

0201126	Poly case - upper	ELECTRON
0201127	Poly case - lower	ELECTRON
0201134	Cardboard carton	ELECTRON
0201182	Case label - upper	PRESTEL
0201184	Case label - rear	PRESTEL
0201276	Case - lower	ELECTRON+3
0201277	Case - upper	ELECTRON+3
0201278	Case - front	ELECTRON+3
0201988	Cardboard carton	ELECTRON+3
0408003	Service manual	Z80
0409010	User guide	6502
0415000	User guide	PRESTEL
0415001	Service manual	PRESTEL
0450000	User guide	MUSIC 500
0865009	Clock box transformer	ECONET (AEH14)
0865010	Mains adaptor	ELECTRON+3
0999482	Information manual vol.1	MISC
0999483	Information manual vol.2	MISC
0999608	Case assy set	ELECTRON+3
0999970	Mains adaptor	ALF03
2201077	Plastic ruler	BBC BPLUS
ALL SPARES	Data Cassette Recorder Spares	(ANF03)

We would be grateful if you could consider any outstanding orders for the above parts as cancelled and amend your records and existing price lists accordingly.

## SUPPLEMENTARY SPARES PRICE LIST

The following prices supercede those quoted in your existing Spares Price List and with the exception of 0103.003 came into effect in March 1988 as stated in the previous news-letter. The price change in respect to BBC PSU will come into effect on the 01/04/89 and will apply to all orders received after this date.

PART NO.	DESCRIPTION	LIST PRICE
0103003	BBC PSU	46.00
0143050	M128 KEYBOARD	49.99
0702220	IC PCD8572 NV	2.95
0704816	IC 4816 DRAM	5.00
0706850	IC 6850 ACIA	2.70
0733691	IC 3691 RS422/423	3.06
0735159	IC 75159 RS422 DRV	3.92
0740016	IC 7416 TTL 14/03"	0.88
0742002	IC 74LS02 TTL 14/0.3"	0.55
0742139	IC 74LS139 <b>Tn.</b> 16/0.3"	0.72
0742257	IC 74LS257' TM 16/0.3"	0.76
0747574	IC 74LS574 TTL 1/0.3"	0.71
0800006	CONR 34WAY HDR IDC R	3.50
0800080	CONR TERM CRIMP	0.10
0800128	SKT IC 28/0.6"	0.53
0800200	FSTN. TAB 2.8	0.23
0800304	CONR 15WAY SKT "D"	4.11
0886003	K/B KEYSWITCH	0.32
0870701	K/B RIBBON CABLE 17WAY	4.08

Please be advised that the previous restriction of a maximum of 8 x 0704.816 (BBC DRAM) still applies.

We would respectfully remind you that when placing orders it is important that the following information is stated:-

1. Account No.
2. Order No.
3. Delivery Address (if different from Invoice Address)
4. Part No's and Descriptions as listed in Spares Price List

We would also like to remind you that all spares orders are subject to a minimum order level of £20.00. Orders received that do not comply to this stipulation will be returned unless the order states acceptance of a minimum order charge, e.g. order value £12.00 minimum order charge £8.00. We will also return orders that do not quote the information as stated in items 2 & 4 above.

Should you require any further information or clarification regarding the above, please contact the Spares Office Tel: (0223) 245200.