

**Routine Maintenance**

Preventative maintenance for the drive consists of cleaning the read/write head assembly and tape hole sensor openings. The recommended frequency of cleaning is after every eight hours of actual tape motion. It is also recommended that the drive be cleaned after an initial pass of a new cartridge.

Recommended cleaning is with a clean lint-free swab and tape-head cleaning solution. A 95% isopropyl alcohol solution may also be used. The procedure for cleaning the heads is:

Ensure that the power is off.

Move a six inch or longer lintless cotton swab in and out to clean the heads.

Make sure that excess cleaner is not applied to adjacent parts, and that all residue is completely removed prior to insertion of media.

**Updates**

To the best of our knowledge this product is free from bugs, but if we do become aware of any problems, we will endeavor to fix them as quickly as possible and free-issue the revised software to our customers. Your assistance in making us aware of possible faults would be appreciated.

Improvements and extra facilities are being made constantly to our products and we will be sending you information on these as soon as they are released.

**Finally**

If you have any queries regarding the Digistore, please do not hesitate to contact us as we are always interested to hear your comments.

Similarly, if you have any specific requirements or suggestions for improvements that could be made please write to us at the address below.

Digital Services Limited      Tel. (0705) 324934  
159 Havant Road  
Drayton  
Portsmouth  
Hants  
PO6 2AA

Digistore Manual 1.00

**CONTENTS**

1. Introduction
2. Installation Instructions
4. Getting Started
5. Backup
6. Cat
7. Erase
8. Restore
9. Rewind
10. Verify
11. Additional Information

## Introduction

The Digital Services Digistore is the first professional tape streamer for Econet and ADFS, at last giving users of Acorn hard disks a fast and reliable method of taking backups.

Optimised software allows over 5Mb per minute to be copied, and the tapes are portable between different Digistores.

This User Guide has a description of each function available, together with the correct syntax for use.

## VERIFY

### Description

Like its DFS counterpart, Verify will make sure that the tape is readable by checking the entire volume for CRC and ERC errors.

If an error is found this is reported to the user.

### Syntax

\*STREAMER VERIFY OR  
\*STR.VERIFY OR  
\*STR.V.

### Using Verify

If following verification, an error is reported, the backup must be taken again.

Any tape producing regular errors should be discarded.

© Econet is a registered trademark of Acorn Computers Ltd.

Copyright Digital Services Limited 1987

Neither the whole or any part of the information contained in, or the product described within this manual may be adapted or reproduced in any material form except with the prior written approval of Digital Services Ltd.

**Description**

This command rewinds the tape from its current position to the start of the tape. This should not be necessary under normal circumstances because the tape always rewinds automatically.

However in cases where a tape has been accidentally ejected during a backup, or if a power cut is experienced, this command may then be used.

**Syntax**

\*STREAMER REWIND OR  
\*STR.REWIND OR  
\*STR.REW.

On opening the packaging, you should find the following items;

Mains lead  
Ribbon cable  
Tape streamer ROM  
DSL Tape Streamer

Firstly the ROM should be inserted into a spare sideways ROM socket in the computer controlling the Acorn Winchester. Precise installation of the ROM will vary depending on whether the computer is a BBC B, a BBC B Plus or a BBC Master 128. Instructions for each follow;

**BBC B**

Unscrew the four case screws, (which may be labelled 'FIX'), and remove the cover. Next undo the two screws holding the keyboard to the base, and move the keyboard to reveal the five 28-pin sockets on the bottom right hand side of the main circuit board.

The Tape Streamer ROM may be inserted into any of these sockets, with the exception of the leftmost socket as this is reserved for the operating system. Take care that the small notch at one end of the ROM is pointing towards the rear of the BBC.

**BBC B Plus**

As per BBC B, but the ROM sockets will be found on the left hand side of the main circuit board, next to the power supply.

Please note that IC 71 is reserved for OS/BASIC, and that the two sockets nearest the front of the circuit board, (IC's 37 and 29), are reserved for the speech upgrade. Any of the remaining sockets may be used.

**BBC Master 128**

The easiest way of installing the Tape Streamer ROM into a BBC Master is to insert the ROM into a Master cartridge, and plug this in turn into one of the two Master cartridge sockets.

Not only is this quick and easy, but it gives the added advantage of making the unit portable.

Alternatively, the user may fit the Tape Streamer ROM internally. This requires the removal of the four screws marked 'FIX'. Having achieved this, removing the lid of the Master will reveal four 28-pin sideways ROM sockets on the right hand side of the main circuit board, (just behind the cartridge sockets).

## RESTORE

If it is vacant, the second socket from the front (IC27) should be used, as this requires no further changes to be made. If this socket is not available, then the sockets either side of this may be used. If either of these sockets is chosen, then the associated link must be moved to its 'Easternmost' position. The relevant socket and link numbers are detailed below.

For IC37 move link LK19  
For IC47 move link LK12

### Physical Connection

The Digistore should now be connected to the Acorn Winchester using the 36 way flat ribbon cable provided. This cable has a 36 way 'D' connector at each end. Connect one end to the socket on the back of the Acorn Winchester marked '1Mhz bus out', and the other end to the single connector on the rear of the Digistore (marked 1Mhz bus).

The Digistore also requires a 240 volt mains input for which a standard IEEE type cable is provided.

### Switching On After Fitting

Having inserted the ROM, replace the cover and turn on the computer. The computer should power up normally. If it emits a continuous tone, turn off the computer and check that none of the pins on the chip have been bent or broken. If the fault persists, contact your nearest Acorn dealer. If the computer functions normally, typing \*HELP will list all the ROMS present in the machine. The tape streamer ROM should be one of those listed.

### Description

This command copies the currently loaded tape onto the Winchester disc.

### Syntax

\*STREAMER RESTORE or  
\*STR.RESTORE or  
\*STR.RES.

### Using Restore

On issuing the command, a 'CAT' of the tape is shown on screen. This is to ensure against the incorrect tape being restored.

Following this, the user is required to type [C] to initiate the process.

In the case of very large hard discs, (over 60Mb), the user will also be prompted to insert further tapes.

**Description**

Erases all data from a tape.

**Syntax**

\*STREAMER ERASE or  
\*STR.ERASE or  
\*STR.E.

**Using Erase**

Erase is not strictly necessary, but is convenient on occasions for 'tidying' collections of tapes.

Having successfully installed the Digistore, you are now ready to make the first backup. There follows a typical procedure for backing-up and restoring from a hard disc.

**Backing-Up Onto Tape**

Type \*ADFS : Changes to ADFS filing system  
\*MOUNT : Mounts the hard disc  
\*TITLE <Disc Name> : Titles the hard disc

Note that if your hard disc is already titled, the above will not be necessary.

Insert the tape

: The Digistore will automatically 'load' the tape and the LED on the front panel will turn red.

Type \*STREAMER BACKUP

: The Digistore will now backup the entire Winchester. On completion, the LED will turn green and the tape may be removed.

Make sure that your tapes are clearly labelled, and stored in a safe place.

**To Restore from a Tape to the Hard Disc**

Type \*STREAMER RESTORE : You will be prompted by to confirm that you want to restore.

Type [C]

: The restore process will now take place. The tape may be removed when the LED on the Digistore turns green.

Description

Issuing this command will copy the entire contents of the local Winchester onto a 1/4 inch tape.

Syntax

\*STREAMER BACKUP or  
\*STR.B.

Using Backup

The Digistore software will display the Winchester name, the Winchester size, and in certain conditions will prompt the user to enter the date. Under normal circumstances, though, the date is obtained from the fileserver clock, or from the fileserver BBC if it is a Master.

In the event of the Winchester size being greater than the tape capacity, the user will be prompted to enter subsequent tapes.

Backup should copy at approximately 5Mb per minute.

Description

Gives a description of the tape's contents, detailing;

Name of Winchester  
Time and date of backup  
Tape length  
Tape sequence number (for cases where multiple tapes have been used)

CAT is an abbreviation of catalogue.

Syntax

\*STREAMER CAT or  
\*STR.CAT or  
\*STR. .

Using CAT

The Winchester name is taken from the title of the \$ directory of the ADPS partition of the Winchester. This will apply whether or not the hard disc is used for Econet.